

Comparing “insider” and “outsider” news coverage of the 2014 Ebola outbreak

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ABSTRACT

OBJECTIVES: Information provided by news media during an infectious disease outbreak can affect the actions taken to safeguard public health. There has been little evaluation of how the content of news published during an outbreak varies by location of the news outlet. This study analyzes coverage of the 2014 Ebola outbreak by one news outlet operating within a country affected by the outbreak and one country not directly affected.

METHODS: A qualitative content analysis was conducted of articles published in two national news outlets, *The Globe and Mail* (Canada) and the *Vanguard* (Nigeria), between January 1 and December 31, 2014. Articles available through LexisNexis Academic were sorted by date and sampled using a stratified sampling method (*The Globe and Mail* $n = 100$; *Vanguard* $n = 105$). A coding scheme was developed and modified to incorporate emerging themes until saturation was achieved.

RESULTS: There were substantial differences in outbreak coverage in terms of the topic and content of the articles, as well as the sources consulted. *The Globe and Mail* framed the outbreak in terms of national security and national interests, as well as presenting it as an international humanitarian crisis. In contrast, the *Vanguard* framed the outbreak almost exclusively in terms of public health.

CONCLUSION: Our findings highlight how different geographic contexts can shape reporting on the same event. Further research is required to investigate how the political, social or economic situations of a country shape its news media, potentially influencing actions taken to control disease outbreaks.

KEY WORDS: Ebola virus disease; qualitative research; mass media; Canada; Nigeria

La traduction du résumé se trouve à la fin de l'article.

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The recent Ebola outbreak in West Africa officially began in March 2014.¹ The Ebola virus is one of four subtypes of the virus family *Filoviridae*.² The Ebola virus is highly transmissible through direct contact with the blood or bodily fluids of an infected person, and Ebola virus disease has an average mortality rate of 50%.² There is no vaccine, meaning that health care workers can only treat symptoms, which include sore throat, headache, muscle pain, fatigue and fever, followed by rash, diarrhoea, vomiting, impaired kidney and liver function, and internal and external bleeding.² A total of 15 261 cases of Ebola were confirmed by laboratories in 10 countries. This outbreak,³ the largest since the Ebola virus was discovered in 1976,¹ attracted significant media attention.^{4,5}

Studies have explored coverage of the 2014 Ebola outbreak in media outlets such as Twitter,⁶ Google,⁴ YouTube⁷ and print news media.^{5,8} In a quantitative analysis of 301 articles published in three leading US newspapers, the most common topic was cases in the United States (39.0%), followed by the outbreak in West Africa (33.6%).⁵ In contrast, in a quantitative analysis of 1625 articles published in four leading newspapers in Nigeria, the most common topic was Ebola cases in Nigeria (17.5%), followed by discrimination due to Ebola (10.8%).⁸ These studies suggest a variation in representations of the Ebola outbreak based on the location of the news source; however, we have little information on the content of the articles they used as their data.

Several theoretical frameworks are relevant to analyze media coverage of a disease outbreak.⁹⁻¹¹ Among them is framing theory, which suggests that how media frame (or present) an issue can influence people's perceptions of this topic and subsequently their attitudes and behaviours.⁹ As evidenced by previous infectious disease outbreaks,^{12,13} information provided by media has the potential to affect actions taken (or not) by different societal actors to safeguard public health. For this reason, it is important to understand variation in media representations of disease outbreaks: if one dimension is emphasized at the expense of others, then key actions might be neglected.

A second salient theoretical approach emerges from scholarship on risk. In their coverage of an outbreak, news media both create and convey images that shape public perception of the infectious

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disease and its risks.¹⁴ This means that the risks associated with a disease cannot solely be construed as biological threats independent of social context, because what gets reported depends on the political, economic and social environment.^{12,15}

Our study analyzed how media coverage of the Ebola outbreak in 2014 varied by geographic location, examining articles from one news outlet operating in a country affected by the outbreak and one operating in a country not directly affected. To our knowledge, no similarly comparative study of reporting on Ebola has yet been conducted. Our results show that the “outsider” source primarily framed the outbreak in terms of national security and national interests, as well as presenting it as an international humanitarian crisis. In contrast, the “insider” source framed the outbreak almost exclusively in terms of public health.

METHODS

Research design

We conducted a qualitative content analysis of newspaper articles,¹⁶ an approach that has been used to study media reporting on cancer,¹⁷ sexual health,¹⁸ vaccination¹⁹ and infectious disease outbreaks.¹⁴ We chose this exploratory method in order to generate a broad description of news coverage of the Ebola outbreak.¹⁶

Article selection

Data were gathered from two print newspapers comparable in their place in the national media landscape. Printed newspapers were chosen because they are important sources of information at individual and institutional levels. Practically, however, the sources had to be available online with indexed archives. Meeting these requirements were *The Globe and Mail (GM)* (published in Canada) and the *Vanguard (VG)* (published in Nigeria). Both are privately funded English-language newspapers available in print and electronic formats.^{20,21} Both claim to have the largest newspaper readership in their respective countries.^{20,22} The *Vanguard* was selected over other West African sources because of its publication in English, the official language of Nigeria, and its availability on LexisNexis Academic, an online newspaper database (another indicator of the *Vanguard's* significance).

Articles were obtained from LexisNexis using the search term “Ebola” to filter articles published between January 1, 2014, and December 31, 2014, the first year of the outbreak and the period when media coverage was most intense.²³ All types of article were considered (news, opinion and editorials) because we were interested in all the information available to someone accessing these newspapers. This search produced 223 articles from the *GM* and 723 articles from the *Vanguard*.

Since this was an exploratory study, we constructed a sample of 100 articles from each source, which allowed us to compare them qualitatively. A sample of manageable size that reflected the volume of articles in each newspaper would have provided too few *GM* articles to achieve thematic saturation. We used a stratified sampling strategy, sorting articles by date and counting off every *n*th article from a starting point chosen at random within the first 10 articles.¹⁶ Any chronological bulge in reports was thus reflected in the sample: whether a week had 1 article or 40 needed to be

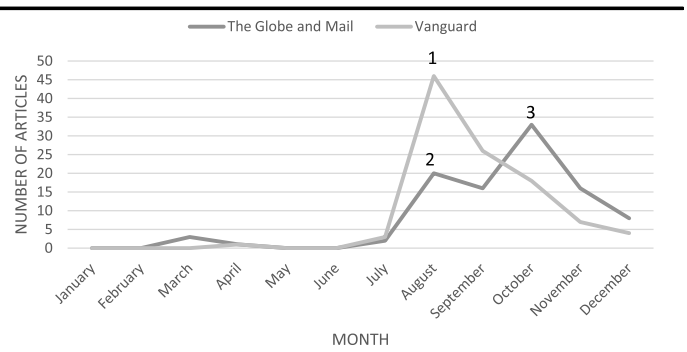


Figure 1. Frequency of articles published on Ebola during 2014

Note: 1. First case of Ebola is confirmed in Nigeria.

2. Two Americans become infected with Ebola.

3. Patient in Texas contracts Ebola.

represented. To reach our sample size, every second article was taken from the *GM* and every seventh from the *Vanguard*, which generated a sample of 100 articles from the *GM* and 105 from the *Vanguard* because of the random start points (see Figure 1).

Qualitative content analysis

Following methods in media studies¹⁶ and previous content analyses,²⁴ we developed a standardized data extraction grid (Figure 2) to record information about each article. Whenever possible, the information was taken from the first paragraph of the article. This corresponds to a foundational principle of journalism, in which the “lede” – the first few lines of an article – attracts readers’ attention and provides the most relevant information.

For each article, we noted what actors were featured, how they were portrayed and what style of language was used to discuss the outbreak. Based on a preliminary analysis of the full sample, we developed a coding scheme to identify relevant themes, which we revised and expanded until saturation was achieved (that is, no new themes arose during analysis).²⁵ Once the coding scheme had been deemed exhaustive, we reread and recoded all articles in our sample, recording the themes in a spreadsheet.

We also used situation reports provided by the World Health Organization (WHO), a global leader in disease response,

- 1) Identifier;
- 2) Title;
- 3) Date;
- 4) Headline;
- 5) Phrase capturing the event that initiated the story;
- 6) Subject of story;
- 7) Phrase capturing the portrayal of the subject;
- 8) Actor(s) in story;
- 9) Phrase capturing the portrayal of Ebola;
- 10) Source(s) of information;
- 11) Comments.

Figure 2. Data extraction grid

not as a source of primary data but rather as a way to contextualize the outbreak. WHO situation reports provided a timeline and acted as a global managerial benchmark, reporting on both the spread of disease and the actions undertaken to control it.

RESULTS

Outsider perspective: *The Globe and Mail*

The *GM*'s perspective in reporting on the 2014 Ebola outbreak highlighted security and humanitarianism. As a disease occurring in developing nations with limited health infrastructure, Ebola was depicted as the responsibility of the global community, and international aid was presented as the solution to outbreak control. However, this sense of responsibility was combined with a strong awareness of the risk that the disease posed and therefore an emphasis on the measures necessary to achieve regional and global stability. Only 17 of the 100 articles sampled from the *GM* directly focused on the Ebola situation in West Africa.

It is revealing that most articles published in the *GM* focused not on the Ebola situation in West Africa but on the North American response to it (Table 1). A major topic of articles published in the *GM* was that of North American governments and aid agencies fulfilling their humanitarian responsibilities. For example, Canada made available its world-class expertise in Ebola research (reference GM1 in Appendix). Four *GM* articles featured a Vancouver company developing an Ebola vaccine. They documented the company grappling with US Food and Drug Administration

roadblocks, time constraints and ethical issues in the wake of the outbreak. After the company's stocks rose to their highest point ever, the newspaper quoted one business analyst describing the situation as "truly an elegant scientific story and value proposition" (GM2). In these articles, it appeared as though humanitarian actions were not purely altruistic.

A second theme was the responsibility of the Canadian government to stop the spread of Ebola before it crossed borders into Western nations. Heightened anxiety surrounding globalization and a virus with no vaccine caused the metaphorical walls of the West to seem "very flimsy" (GM3). The *GM* quoted one professor as stating: "The epidemic will become a global security crisis unless huge resources are mobilized – and fast ... I don't think humanity has ever tried to do something this complex, to be quite honest" (GM4).

Although the WHO had confirmed cases of Ebola in West Africa as early as March 2014, coverage of the outbreak did not intensify in the *GM* until the end of July, when two American missionaries became infected. The *GM* was particularly vigilant toward instances of transmission of Ebola when they involved Westerners, highlighting public anxiety about the risk of the virus crossing borders (GM5-7). In addition to documenting quarantine, border closures and safety protocols, the news outlet scrutinized Canada's preparedness should Ebola arrive in North America. As the outbreak progressed, concerns over failing relief efforts took on a tone of securitization (GM8-9). The outbreak was dubbed a "battle" and its international response a "fight" (GM8).

Many articles in the *GM* presented Ebola as a grave risk when discussing humanitarian responsibilities or securitization. However, articles on the economic impact of Ebola explained

Table 1. Description of articles published in *The Globe and Mail*

Main topic of article	Number of articles on this topic (n = 100)	Indicative quotes from articles on this topic
Vaccine	17	"Investors in Tekmira Pharmaceuticals Corp. are benefiting from the advancement of its experimental Ebola therapy amid an outbreak in West Africa ... It's truly an elegant scientific story and value proposition." (GM2) "Only 40 people are needed for the clinical trial of BPSC1001, but about 300 have registered." (GM12)
Travel	10	"Visa restrictions criticized for being at odds with Ebola science." (GM13) "You can't stop Ebola at airports." (GM14)
Trade	4	"OraSure Technologies Inc. is in the process of developing an oral test for the Ebola virus, supporting the company's stock as a top pick." (GM15) "An emerging global health crisis of the first order. And, of course, a money-making opportunity." (GM16)
North America's role	38	"Humanitarian duties have become a bigger part of the mandate of the US military in recent years ... [US soldiers] thrilled to help a country in need." (GM17) "Prime Minister Stephen Harper is defending Ottawa's contribution to the battle against Ebola in West Africa, dismissing criticism from both opposition parties about the government's decision to auction off protective gear that was desperately needed in the region hardest hit by the Ebola outbreak." (GM8) "Ambulance staff [in Canada] lack training, equipment for Ebola." (GM18)
West Africa's role	17	"The scale of the calamity is breathtaking. The frustration of doctors is hard to watch. We see teams trying to locate the sick in order to isolate them. But we are told, too, that the protective clothing worn by doctors and nurses terrifies some locals, who run away at the sight or attack." (GM19) "West Africa's Ebola crisis is spiraling out of control, US President Barack Obama said Tuesday, and could lead to a 'potential threat to global security.'" (GM20)
Ebola information World Health Organization	0 6	– "World Health Organization is wrestling with a critical dilemma: how to boost the global sense of urgency over the crisis while also restraining the irrational 'fear factor' that has severely damaged the relief effort." (GM21) "If not the WHO, then who? ... The Ebola epidemic in West Africa is a stark reminder of the inability of some multilateral institutions to respond to global crises in accordance with their mandate." (GM22)
Social stigma Commentary	0 8	– "It [Ebola] has made us aware that other outbreaks, some of them resistant to known vaccines, could overwhelm our carefully constructed systems and exact a far deeper, and wider, toll. Our brick wall suddenly feels very flimsy." (GM3) "We must think of future generations. We need to call on high-income countries to invest more in global disaster surveillance long before new crises erupt. From Brampton to Lagos, we're all affected now." (GM23)

that the risk of Ebola to North Americans was actually low. For example, one article stated that the “biggest threat to Africa isn’t the health impact of Ebola, it’s this epidemic of fear that Ebola is sparking” (GM10). These articles presented North American anxieties as misplaced, detailing how millions of Africans would pay a heavy economic price for others’ alarmist myths about the outbreak (GM11). Often, the topic of these articles was trade or travel.

Insider perspective: Vanguard

In contrast to the GM, the Vanguard presented Nigeria itself as the solution to outbreak control. While some articles mentioned WHO regulations and international humanitarian initiatives, most focused on the nation, its people and the corresponding individual and collective responsibilities to prevent further spread of the disease (Table 2). The Vanguard documented government initiatives but also focused on the actions of individuals. For

instance, Patrick Sawyer, the Liberian man who brought Ebola into Nigeria, was widely condemned; his actions were described as “pure madness” (reference VG1 in Appendix) and he was likened to a terrorist (VG2). One in five articles sampled from the Vanguard contained a hostile reference to his name. In contrast, the doctor who treated him was described as having saved the country from a potential epidemic. Dr. Adadevoh restrained Mr. Sawyer when he tried to remove a drip administered to him in hospital. As a result, she contracted Ebola and died. Her actions were celebrated as heroic (VG3), as she came to embody the patriotism required to defeat the outbreak.

In the Vanguard, Ebola was primarily depicted as an issue of public health rather than national security. As in the GM, articles presented border integrity as a national responsibility. However, national borders were not a primary focus, since many Nigerians live in border communities such as Krake Seme and Ponji Seme, where crossings are an everyday reality (VG4). The Vanguard

Table 2. Description of articles published in the Vanguard

Main topic of article	Number of articles on this topic (n = 100)	Indicative quotes from articles on this topic
Vaccine	6	“Nigerians erupted with outrage on social media as they mostly express the need for their country to protect lives of its citizenry after US declined giving out its’ Zmapp [vaccine].” (VG9) “US Food and Drug Administration (FDA) suffers huge social media backlash from Nigerians yesterday, over its description of Nano Silver [Nigerian vaccine] as a pesticide.” (VG9)
Travel	3	“This decision [temporary suspension of flights] is a pre-cautionary measure aimed at safeguarding the precious lives of Nigerians. Arik Air is taking this important measure as a concerned corporate citizen bearing interest of Nigerians at heart.” (VG10)
Trade	6	“Commercial and transport disruptions that will probably last for at least the next month, along with increased health expenditure, may put pressure on budgets, jeopardizing the nations’ economic growth.” (VG11) “Online retailer, Jumia.com said it has recorded a tremendous increase in online shopping patronage since the incidence of EVD in Nigeria.” (VG12)
North America’s role	0	–
West Africa’s role	56	“Ameyo Stella Adadevoh, saved the country from potential epidemic of the Ebola Virus Disease, EVD, when she forcefully restricted Mr. Sawyer to his bed.” (VG3) “Ninety three days after the American Liberia Patrick Sawyer imported the Ebola Virus Disease, EVD into Nigeria, the nation is officially Ebola-free.” (VG13)
Ebola information	13	“Lagos State Government has alerted residents on the activities of some ‘unscrupulous’ people who are purportedly, hawking ‘Ebola Cassettes, Test Kits’.” (VG14) “Mr President has made funds available to the Ministry of Health to control further spread of the disease. Nigerians, on their part, should be conscious of their environment and keep the environment clean all the time.” (VG5) “The disease is difficult to manage and so I am advising you as leaders of market women to talk to your members to be wary of whom they shake or embrace because the disease causes serious sickness that can lead to death at short notice.” (VG15)
World Health Organization	2	“WHO flays trade and travel bans, as Ebola spreads.” (VG16) “WHO declares Nigeria Ebola-free.” (VG17)
Social stigma	9	“Nigerians on Wednesday took to social media to berate American billionaire/businessman, Donald Trump, over his comments calling on US government to stop all flights from West African countries.” (VG7) “The Federal Government has expressed reservation at the manner in which some countries have continued to selectively quarantine Nigerian travellers.” (VG18) “National Assembly to probe Egypt Air for dehumanising Nigerian student, tearing his passport.” (VG19) “President Jonathan particularly denounced discriminatory actions such as that which forced Nigeria’s team to the Youth Olympics in China to abandon its participation.” (VG8)
Commentary	10	“All the symptoms are normal for most Nigerians. We have regular bouts of fever from either malaria or typhoid or both. We sweat from our high humidity, whether during the rainy season or dry weather. Our eyes acquire features that could have resulted from malnutrition. We are Ebola suspects in many ways.” (VG20) “One of the things that gave the virus more global attention is the infection of two American charity workers Kent Brantly and Nancy Writebol. They are currently under treatment with experimental drugs that other countries are asking should be extended to them.” (VG20) “For the first time our government has acted in a very responsive manner. We are all aware that they were not proactive, but praises should be given to them for containing it.” (VG6) “The whole thing is tiring. We seem to be forever avoiding one thing or the other ... Very soon it would become mandatory for us to stop rearing children because we would need condoms to sleep with our wives. There is always an outbreak of one thing or the other and one can hardly live freely.” (VG21) “The headline of the story and its contents were clearly written with sensationalism in mind.” (VG22)

documented security measures taken by the government, such as screening procedures at entry points into Nigeria, but unlike the *GM* these measures were mostly praised rather than scrutinized for weaknesses (VG5).

Reflecting immediate concern for public health, the concept of risk was much more consistent in the *Vanguard* than in the *GM*. Articles in the *Vanguard* indicated that Ebola was perceived in Nigeria as dangerous and fatal without exception, and the newspaper took on the role of educating Nigerians. Articles sought to improve awareness and knowledge of Ebola, inform the public of preventive measures, debunk myths and reveal scams. While the *GM* tended to turn to experts (infectious disease specialist, economist, biodefence employee, etc.) in reaction to a WHO report or a politician's statement, the *Vanguard* quoted more diverse community members as part of its outreach (religious and political leaders, merchants, workers' unions, aid agencies, citizens, etc.)

Although the *Vanguard* was consistent in its portrayal of the Ebola outbreak, it surmised that sensationalized reporting by other news outlets had led to the stigmatization of Nigerians. The newspaper documented how Nigerians were excluded from international social and sporting events, harassed at airports and denounced on social media (VG6-7). The *Vanguard* detailed numerous instances of resistance from Nigerians, including President Goodluck Jonathan, who called on the WHO and other countries to stop discriminatory policies. As President Goodluck explained, "[T]here was no justification for such stigmatization of Nigerians since the Ebola Virus Disease had been effectively contained in the country and never attained epidemic levels" (VG8).

DISCUSSION

Our analysis reveals the particular readings taken of the 2014 Ebola outbreak by two news outlets, the "outsider" *GM* and the "insider" *Vanguard*. The "outsider" source framed the outbreak in terms of (Canadian) national security and national interests, as well as presenting it as an international humanitarian crisis. In contrast, the "insider" source framed the outbreak almost exclusively in terms of public health. There were substantial differences in terms of the topic of news articles (mainly the North American response to the outbreak vs. cases of Ebola in Nigeria), their content (changing portrayal of the risks of Ebola depending on the topic of the article vs. consistent portrayal of the risks of Ebola) and the sources consulted (predominantly experts vs. members of all levels of society).

Like other studies of Western news outlets,⁶ we found that articles in the *GM* provided unbalanced and somewhat sensationalist coverage of the 2014 Ebola outbreak and its risks. The *GM* highlighted matters of security, humanitarianism and economics. In terms of framing, the topic of an article affected how it communicated the risk associated with the disease. For example, articles about vaccines presented Ebola as a grave risk, which may have served to legitimize vaccine development over other priorities. Vaccines received a disproportionate amount of attention from the *GM* considering that they were not readily available in affected areas and that, in fact, simple rest and

hydration greatly improved mortality rates. Vaccines fit the biomedical ideal of a technological intervention controlled by the West.¹⁵ Reporting on vaccines therefore underscored anxiety about the securitization of borders (which a viable vaccine would resolve) and implicitly represented a heroic narrative of a Canadian intervention "saving" developing countries.

Articles in the *Vanguard* framed the Ebola outbreak primarily in terms of public health. The newspaper educated readers about the risks of Ebola while consulting members from all levels of society, an approach that may have helped generate national solidarity. More research is required to determine whether this media framing affected Nigerians' actions in response to Ebola. However, sensationalized media reporting on Ebola in areas outside the outbreak may have indirectly encouraged discrimination against Nigerians. In line with a previous quantitative analysis of Nigerian news articles,⁸ "discrimination due to Ebola" was a major topic of news articles published by the *Vanguard*.

Previous studies of the 2014 Ebola outbreak⁵⁻⁸ focus on information published from a single source. One strength of our study is its comparative design. By analyzing articles published on the same issue at the same time, we demonstrated how different geographic contexts can shape representations of the same event, reinforcing concepts of media framing and the social construction of risk. More research is required to understand how the different political, economic and social environments, as well as the ideological orientations of the newspapers, affected coverage of the outbreak.

This study also has limitations. First, its single "insider" perspective should not be understood as representing the whole region affected by the outbreak. Other West African countries, such as Guinea and Sierra Leone, were less successful in tackling Ebola than Nigeria, where quick interventions were crucial to controlling the outbreak.²⁶ Second, newspapers are just one form of popular media. Other important sources of information to which people turned during the outbreak included YouTube,⁷ Twitter⁶ and Google,⁴ which may have offered alternative representations of Ebola.

Infectious disease outbreaks are not only public health challenges. They also have deep political, economic and social impacts, "ripple effects" that are linked to how they are presented and their risks communicated.^{12,13} This study identified significant differences in how two news outlets – one inside and one outside the affected region – described the 2014 Ebola outbreak and presented solutions to control it. Comparing the content and framing of insider and outsider coverage reveals two potential social implications of newspaper coverage of the Ebola outbreak. First, sensationalized reporting on the risks of the disease can lead to stigmatization of citizens of the affected countries. Second, a focus on the North American humanitarian response, as opposed to local efforts, can help perpetuate a paternalistic narrative of a Western biomedical intervention solving a non-Western crisis. Our study points to the value of further research into how media framing could influence public perception of risk associated with a disease and, ultimately, strategies of outbreak control.

APPENDIX

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RÉSUMÉ

OBJECTIF : Les informations fournies par les médias lors d'une épidémie peuvent avoir un effet sur les mesures prises pour protéger la santé des populations. Très peu d'études ont analysé le contenu des articles de journaux portant sur des épidémies et la variation de ce contenu selon la région du journal. Cette étude analyse les articles portant sur l'épidémie d'Ébola publiés en 2014 dans deux journaux : un journal provenant d'un pays directement affecté par l'épidémie et un autre provenant d'un pays n'étant pas directement affecté.

MÉTHODES : Nous avons effectué une analyse qualitative du contenu des articles publiés entre le 1^{er} janvier et le 31 décembre 2014 par *The Globe and Mail* (Canada) et le *Vanguard* (Nigeria), disponibles sur LexisNexis Academic. Les articles ont été triés par date et échantillonnés en utilisant une méthode d'échantillonnage stratifié (*Globe and Mail* $n = 100$; *Vanguard* $n = 105$). Le schéma de codage initial et a été modifié en cours d'analyse afin d'intégrer les thèmes émergents jusqu'à l'atteinte de la saturation des thèmes.

RÉSULTATS : Les sujets abordés, le contenu des articles et les sources consultées variaient d'un journal à l'autre. *The Globe and Mail* a présenté l'épidémie sous l'angle de la sécurité nationale et des intérêts nationaux, ainsi qu'en tant que crise humanitaire internationale. Par contre, le *Vanguard* a présenté l'épidémie presque exclusivement en termes de santé publique.

CONCLUSION : Nos résultats indiquent que le contexte géographique peut façonner la manière dont sont rapportées les informations sur une épidémie. Les recherches futures pourraient explorer comment la situation politique, sociale ou économique d'un pays influence le contenu des médias, ce qui peut éventuellement orienter les mesures prises pour contrôler une épidémie.

MOTS CLÉS : maladie à virus Ebola; recherche qualitative; médias de masse; Canada; Nigéria