Disaster Medicine and Public Health Preparedness

www.cambridge.org/dmp

Concepts in Disaster Medicine

Cite this article: Ottley A, Stone C, Henry M, Weber B, Jackson T, Ondieki M. Virtual aunting and public health emergencies: A novel approach to sharing public health guidance. Disaster Med Public Health Prep. 17(e338), 1–3. doi: https://doi.org/10.1017/dmp.2022.241.

Kevwords

Aunting; COVID-19; public health; emergency communication

Corresponding author:

Amanda Ottley, Email: amanda@pamojainstitute.org.

Virtual Aunting and Public Health Emergencies: A Novel Approach to Sharing Public Health Guidance

Amanda Ottley MN¹, Courtney Stone MED², Marlyn Henry BSC², Bridget Weber², Tamaraleah Jackson² and Michael Ondieki EMBA³

¹The Pamoja Institute for Community Engagement and Action, Scarborough, ON, Canada; ²School of Life Sciences, Arizona State University, Tempe, AZ, USA and ³Nelion Strategy Incorporated, Scarborough, ON, Canada

Abstract

Effective communication with the public is essential during health emergencies. As evident during the coronavirus disease 2019 (COVID-19) pandemic, the lack of effective public health communication with equity-deserving groups has contributed to higher morbidity and mortality than the non-racialized community. This concept paper will describe a grassroots community effort to provide culturally safe public health information to the East African community in Toronto at the beginning of the pandemic. Community members collaborated with The LAM Sisterhood to create a virtual aunt, Auntie Betty, and record voice notes with essential public health guidance in Swahili and Kinyarwanda. This manner of communicating with the East African community was well-received and has shown great potential as a tool to support effective communication efforts during public health emergencies that disproportionately impact Black and equity-deserving communities.

Coronavirus disease 2019 (COVID-19) was declared a public health emergency of international concern (PHEIC) in January 2020. From a social medicine lens, COVID-19 has proven to be a formidable opportunistic infection as it seeks out and ravages equity-deserving communities. Opportunistic infections are known for their ability to cause disproportionate morbidity and mortality if presented with a host who has weakened immunity. COVID-19 behaves similarly as it takes advantage of generations of structural racism and inequity related to social determinants of health. This results in higher rates of morbidity and mortality in equity-deserving communities, which is further compounded by vaccine hesitancy and vaccine access. This is not only occurring in low- to middle-income countries but instead is happening on a global scale. No country has been exempt, not even Canada. This study will describe a grassroots effort to provide the East African community within Toronto with credible public health information during this most recent public health emergency.

Communicating Public Health Measures at the Onset of Pandemic

There are approximately 106,000 East African immigrants living in Ontario, Canada. "47% live in the lowest-income neighborhoods, and 66% live in the most ethnically diverse neighborhoods." East African immigrants have some of the highest rates of COVID-19 compared with the nonracialized population. In Toronto, vaccine hesitancy is highest in people who identify as Black from Africa and the Caribbean. Efforts to reach the East African community have focused on outreach, traditional advertising, and Internet-based social media. Most of these campaigns involve either language translation, e.g., English to Somali, or using photos of Black and People of Color when sharing public health messages (Ondieki, 2021).

In Toronto, members of the East African community identified that public health messaging from Canadian sources was not accessible. As a result, many turned to WhatsApp for health guidance from friends and family. This led to widespread misinformation and the inability to follow public health advice. This was further compounded by the fact that many of these community members did not have home Internet. A recent study found that 2% of households in Toronto have no Internet and high concentrations of Black people live in areas of the city with the lowest Internet rates. These are also some of the areas that are hardest hit by COVID-19. Lack of Internet access impacts people's ability to access information critical to making informed decisions and accessing services, particularly during emergencies. It was clear that a practical approach to disseminating COVID-19 information was required to lessen the impact of COVID-19 on the East African communities within Toronto.

© The Author(s), 2023. Published by Cambridge University Press on behalf of Society for Disaster Medicine and Public Health, Inc. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution and reproduction, provided the original article is properly cited.



2 A Ottley *et al.*

Community-Led Solution to Communicating Emergency Health Measures

The community used a PDSA (Plan-Do-Study-Act) model to "allow for a structured approach to rapid testing of the idea on a small scale". This model was appropriate as funding was limited, and there was an urgent need to support the East African community in Toronto during this emergency. During the planning stage, WhatsApp was identified as a promising way to reach the East African community in Toronto. The World Health Organization (WHO) was already using WhatsApp to share COVID-19-related information in "Arabic, English, French, Hindi, Italian, Spanish, and Portuguese". 10 Many in the community were not aware of WHO's Health Alert application. The most critical feedback from the community was that they needed the intervention to be accessible in their language, feel grounded in their lived experiences, and in voice note format to allow for easy forwarding in WhatsApp. WhatsApp forwards are very popular across the continent and are shared even across diasporas, with family and community. WhatsApp groups are an essential tool for sharing health information among the East African Community in Toronto. This platform was also chosen because many community members without Internet access continued to use WhatsApp by means of mobile data.⁷

A preliminary environmental scan identified that in low- and middle-income countries, WhatsApp was already being used as a tool for providing health education.¹¹ Of particular note was The Contagious Misinformation Trial which was conducted in Sierra Leonne in 2019 and used audio dramas shared by means of WhatsApp to combat typhoid misinformation.¹² This use of storytelling by means of WhatsApp was found to be effective at substantially reducing belief in misinformation and increasing intentions to engage in health supporting behaviours.¹² Another promising intervention that was identified was the use of WhatsApp to counteract COVID-19 misinformation in Zimbabwe. 13 The researchers found that even short WhatsApp messages have the power to counter misinformation when delivered by a trusted source.¹³ This scan bolstered the belief that a culturally-safe WhatsApp based interventions could be effective not just in Africa but also across the diaspora in Toronto.

Another challenge with communicating early into the pandemic was that emergency measures were impacting the ability of the East African community to access public health information. Stay-at-home orders and social distancing requirements meant that people could not access the free Internet available at libraries and fast food chains. Furthermore, community members were not able to meet with their Aunts. In the East African community, the kinkeeper is usually the Aunt who takes on the social role of "helping family members keep in touch with one another, providing or coordinating family support, and serving as an informational gatekeeper."14 Her work is both gendered and relational.15 Research suggests that Black communities consider aunts to be an extension of the mother, learned from earlier generations of Black women.¹⁵ Connections and access to Black Aunts are essential for the Black community, especially in emergencies where guidance is rapidly evolving, complicating decision-making.

This unique confluence of emergency health measures and community characteristics resulted in the virtual Aunting initiative by means of WhatsApp. As described in the grant application:

"Auntie wa Harrier is the Aunt who always knows what she is saying and is doing the actual most. She is the character that will hold the message. We will create tonally & culturally appropriate messaging in Africanised English/Swanglish in the form of screenshots that can be shared on WhatsApp. We will share voice notes from Auntie wa Harrier talking about the vaccine and public health measures in a funny conversational tone. The immediate recognition of a familiar voice and accent, rooted in a character that sounds like home, would make this a hit and it is more accessible. Whatsapp users will be able to talk to Auntie wa Harrier, ask questions and will receive evidence based answers. Auntie wa Harrier will help facilitate referrals to community agencies and even assist with vaccine bookings if needed. Auntie wa Harrier cares about you. Auntie wa Harrier sees you. Auntie wa Harrier is looking out for you!" (Ondieki, 2021)

The community used funding from the Public Health Agency of Canada to collaborate with the international award-winning LAM Sisterhood to develop the Auntie wa Harrier character, who was eventually named Auntie Betty. As described in the concept note created by The LAM Sisterhood:

"She is an 'Aunty wa Harrier', successful through working hard, middleaged Black woman who cares deeply for her family and siblings and is a trusted, empathetic and firm voice in her community. She has a community of friends - other Aunties - that she can call on. Kenyan, she isn't afraid to ask tough questions, and will do anything to keep her nieces and nephews safe. She is vaccinated but has people in her life who are caught between a rock and a hard place (the contemplative/vaccine-hesitant)."

Who is she speaking to? (Tone)

"In the voice notes, she is sharing with (not speaking at/to) the people in her life: her siblings (the parents to her nieces and nephews), parents, cousins, friends, and other members of the community. She is familiar with them and can work as the access point to more technical information; she has enough knowledge to 'translate' complex concepts but is rooted in her people." (The Lam Sisterhood, 2021)

Community members were invited to listen to Auntie Betty's first voice note and provide feedback.

In addition to this voice note, community members were asked to record a voice note advising the East African community that they could print their vaccine passports at the Toronto Public Library for free. This voice note was developed by Joel Begg, Eliza Butcher, Darcy Morden, Nida Naeem, and Darshan Valji as part of the Interdisciplinary Communication Project, RMIT University, taught by Dr. Jan Brueggemeier. Victor Ndjemua of FCJ Refugee Centre facilitated the translation and recording of the voice note. The Swahili and Kinyarwanda voice notes were made by Hellen Nomugisha, President of African Youth and Adolescent Network on Population and Development (AfriYAN- Rwanda), and Grace Z Uwimana (Zena), community ambassador for Adam House. The voice notes were uploaded to a website, and community partners were emailed that they were available for download.

Discussion

One of the predictions in the planning stage was that voice notes would be a valuable tool for communicating with the East African community in Toronto during the initial phase of the pandemic. A review of the voice note downloads supported this prediction. The voice notes in Swahili and Kinyarwanda were downloaded by service providers 18 times in 24 hours. Since being posted, the page with the voice notes has received 320 unique views and has a conversion rate of 5.9%. The conversion rate calculation is "(Converted unique views ÷ unique views) × 100". It shows how many views result in someone taking a particular action, whether buying a TV or downloading a voice note. In comparison, consumer electronic websites have the lowest conversion rate at

1.4%, health and pharmacy websites have a conversion rate of 4.6%, and gifts have the highest conversion rate at 4.9%. ¹⁷ The conversion rate of 5.9% demonstrates that voice notes are a familiar and effective way to communicate with the East African community in Toronto during public health emergencies.

Concerning Auntie Betty's voice note, feedback from community members was overwhelmingly positive. The prediction was that collaborating with professional storytellers to bring life to Auntie Betty would develop a character who feels authentic and grounded in their lived experience. Feedback from non-East African service providers was also positive. They liked the concept, but there were concerns that Canadian sources should provide health advice.

Virtual aunting by means of WhatsApp and voice notes has the potential to support Black communities in Toronto and across the diaspora by providing vital information during public health emergencies. Auntie Betty will be able to reach a community overlooked by traditional advertising and Internet-based social media. These traditional outreach efforts tend to lack an understanding of the communication needs of Black communities and how emergency measures may impact informal information channels used by these communities.

Conclusions

Social innovations such as virtual Aunting and voice notes have tremendous potential to improve communication with Black communities during public health emergencies. Appropriate funding is necessary to thoroughly examine such strategies. Funders should work collaboratively with communities to explore other communication methods with equity-deserving groups during public health emergencies. The cultural relevance of Aunting may not apply to other equity-deserving communities. Future initiatives should adequately research the targeted communities and should not assume homogeneity regarding what is culturally meaningful in equity-deserving communities. Iterations of personas such as Auntie Betty for other communities who have strong connections to Aunting have the potential to improve communication of health guidance during public health emergencies.

Acknowledgments. We thank Jeanie Argiropoulos, Lynn Muir-Wheeler, and Debra McGonegal of Scarborough Centre for Health Communities for their allyship and exceptional support throughout this project. We also thank Victor Ndjemua, Hellen Nomugisha, Salem Yohannes, and Zena Uwimana for their invaluable assistance in recording the voice notes. Their commitment to the community is unmatched. This project also owes a debt of gratitude to Jessica Rayne, Melanie Blackman, Mina Ganguli, and Kimberley Tull of the University of Toronto Scarborough Community Partnerships and Engagement Office. They have walked alongside us on this journey and helped shoulder the heavy load inherent in social justice work.

Author Contributions. All authors contributed equally to this manuscript.

Funding. Funding for the project was provided by the Public Health Agency of Canada.

Conflicts of Interest. None declared.

Patient Consent for Publication. Not required.

Ethics Approval. Not required.

Reference

- Wilder-Smith A, Osman S. Public health emergencies of international concern: a historic overview. J Travel Med. 2020;27(8):taaa227. doi: 10. 1093/jtm/taaa227
- Riccardi N, Rotulo GA, Castagnola E. Definition of opportunistic infections in immunocompromised children on the basis of etiologies and clinical features: a summary for practical purposes. *Curr Pediatr Rev.* 2019;15(4):197-206. doi: 10.2174/1573396315666190617151745
- Paremoer L, Nandi S, Serag H, et al. Covid-19 pandemic and the social determinants of health. BMJ. 2021;372:n129. doi: 10.1136/bmj.n129
- Tuyisenge G, Goldenberg SM. COVID-19, structural racism, and migrant health in Canada. *Lancet*. 2021;397(10275):650-652. doi: 10.1016/S0140-6736(21)00215-4
- Gutmann A, Ghandi S, Wanigaratne S, et al. COVID-19 in immigrants, refugees and other newcomers in Ontario: characteristics of those tested and those confirmed positive, as of June 13, 2020. Accessed November 2, 2021. https://www.ices.on.ca/Publications/Atlases-and-Reports/2020/ COVID-19-in-Immigrants-Refugees-and-Other-Newcomers-in-Ontario
- City of Toronto. City of Toronto unveils the Black Community COVID-19
 Response Plan. City of Toronto. Published February 3, 2021. Accessed
 November 2, 2021. https://www.toronto.ca/news/city-of-toronto-unveils-the-black-community-covid-19-response-plan/
- Andrey S, Masoodi M, Malli N, et al. Mapping Toronto's Digital Divide. Published online 2021:34. Accessed November 18, 2022. https://www.toronto.ca/wp-content/uploads/2021/07/95dc-Mapping-Torontos-Digital-Divide.pdf
- City of Toronto. COVID-19: Neighbourhood Maps. City of Toronto. Published June 1, 2021. Accessed November 2, 2021. https://www.toronto.ca/home/covid-19/covid-19-pandemic-data/covid-19-neighbourhood-maps-data/
- Health Quality Ontario. PDSA Cycles (Plan-Do-Study-Act). Accessed November 18, 2022. https://www.hqontario.ca/portals/0/Documents/qi/ rf-document-pdsa-cycles1-en.pdf
- World Health Organization. WHO Health Alert brings COVID-19 facts to billions via WhatsApp. Accessed November 2, 2021. https://www.who. int/news-room/feature-stories/detail/who-health-alert-brings-covid-19-facts-to-billions-via-whatsapp
- Manji K, Hanefeld J, Vearey J, et al. Using WhatsApp messenger for health systems research: a scoping review of available literature. Health Policy Plan. 2021;36(5):774-789. doi: 10.1093/heapol/czab024
- Winters M, Oppenheim B, Sengeh P, et al. Debunking highly prevalent health misinformation using audio dramas delivered by WhatsApp: evidence from a randomised controlled trial in Sierra Leone. BMJ Glob Health. 2021;6(11):e006954. doi: 10.1136/bmjgh-2021-006954
- Bowles J, Larreguy H, Liu S. Countering misinformation via WhatsApp: preliminary evidence from the COVID-19 pandemic in Zimbabwe. Thet Wai K, ed. *PLoS One.* 2020;15(10):e0240005. doi: 10.1371/journal.pone. 0240005
- Braithwaite DO, Marsh JS, Tschampl-Diesing CL, et al. "Love Needs to Be Exchanged": a diary study of interaction and enactment of the family kinkeeper role. West J Commun. 2017;81(5):601-618. doi: 10.1080/ 10570314.2017.1299881
- Davis-Sowers R. "It Just Kind of Like Falls in Your Hands": factors that influence Black Aunts' decisions to parent their nieces and nephews. *J Black Stud.* 2012;43(3):231-250. doi: 10.1177/0021934711415243
- Squarespace. Form & button conversion analytics. Squarespace Help. Accessed November 3, 2021. https://support.squarespace.com/hc/en-us/articles/115015424067-Form-button-conversion-analytics
- Adobe. ADI Consumer Electronics Report 2020. Presented at: 21:03:31
 UTC. Accessed November 3, 2021. https://www.slideshare.net/adobe/adi-consumer-electronics-report-2020