One Health 16 (2023) 100488

Contents lists available at ScienceDirect

One Health

journal homepage: www.elsevier.com/locate/onehlt

Migrant health during public health emergencies: The Ebola crisis in Uganda

Saverio Bellizzi [a,*], Giuseppe Pichierri [b], Christian Popescu [c]

[a] University of Sassari, Sassari, Italy
[b] Microbiology, Torbay and South Devon NHS Foundation Trust, Torquay, United Kingdom
[c] University Medical Center Goettingen, Goettingen, Germany

ARTICLE INFO

Keywords:
Ebola
Uganda
Migrants

ABSTRACT

The Ebola virus diseases (EVD) declared in Uganda in September 22, 2022, has spread to seven districts by early November, with a total of 131 confirmed cases and 48 deaths. Public health emergency response in Uganda deserves a specific and tailored approach due to the current population composition, which accounts to around 1.4 million refugees and asylum seekers. Indeed, Uganda is a potential example of how increased international connectivity has resulted in forced migration with profound impacts on global health. In consideration of the vulnerability of refugees and migrants due to poor living, housing, and working conditions, inclusive policies are even more critical during public health emergencies. Inclusivity lessons learned from COVID-19 in several settings, such as access to treatment and vaccination for all individuals regardless of nationality, residence, and legal status, would be critical to ensure wellbeing of migrants, refugees and host communities.

On 19 September 2022, Uganda confirmed an outbreak of Ebola caused by Sudan ebolavirus [1]. By the time the outbreak was declared over on 11 January 2023, the outbreak had spread to nine districts, accounting for a total of 164 cases (142 confirmed, 22 probable) and 55 confirmed deaths [2–4].

The Ugandan government activated the Incident Management System (IMS) in order to control the outbreak. In parallel, the Ministry of Health and partners in Uganda, including the World Health Organization (WHO), launched the country's Ebola response plan on 1st October 2022, highlighting planned activities, priority needs and gaps [5].

In support of the Ministry of Health-led efforts, CEPI, Gavi and WHO have outlined a plan to accelerate research during the outbreak, to ensure access to investigational doses, and to facilitate scaling up and access to any subsequently licensed vaccine [3].

Public health emergency response in Uganda deserves a specific and tailored approach due to the current population composition. In 2019, Uganda had approximately 1,395,100 refugees and asylum seekers, amounting to 2.7% of Uganda's total population. In 2020, there were 1.4 million refugees in Uganda; most were from South Sudan and the Democratic Republic of the Congo [6]. Migration to Uganda is driven by conflict and poverty, porosity of international borders, and a mismatch between population growth and resources as well as opportunities. Specifically, the migration corridor between South Sudan and Uganda is ranked third of the top 20 migration corridors, mainly due to large-scale displacement driven by conflict [6].

The experience of migration is a key determinant of health and wellbeing. Refugees and migrants remain among the most vulnerable members of society faced often with discrimination as well as poor living, housing, and working conditions [7]. Inadequate access to health services represents a critical detrimental factor that exacerbates the frequently occurring physical and mental health problems [6].

Uganda is possibly an example of how increased international connectivity has resulted in forced migration with profound impacts on global health [8]. From a One Health perspective, these impacts are caused by increased stress at the human-animal-environmental interface due to exposure to new endemic diseases, insufficient access to health services and WASH, and limited coping mechanisms of the local environment, including natural resources like flora and fauna. All these factors are, under the One Health approach, associated with the emergence and spread of infectious diseases [9,10].

As highlighted in the 2021 WHO Global School for Refugee and Migrant Health in Jordan, which showcased experiences from countries like Uganda, one of the main challenges is the fact that migrants often migrate to countries where resources, including health systems, are

* Corresponding author.
E-mail address: Saverio.bellizzi@gmail.com (S. Bellizzi).

https://doi.org/10.1016/j.onehlt.2023.100488
Received 11 November 2022; Received in revised form 11 January 2023; Accepted 11 January 2023
Available online 13 January 2023
2352-7714/© 2023 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

already overstretched and where health coverage for the host population is often suboptimal [11]. Inclusive policies are even more critical during public health emergencies, where resources are always stretched. Such policies would help refugees and migrants stay healthy, including mental health, and engagement with healthcare actors and host communities while also protecting host communities from an increased risk of infectious disease [9]. In light of the above, outbreak response plans such as the Uganda Ebola response plan needs to keep inclusion at the core of their strategy [5]. A best practice here was Jordan's approach towards COVID-19, where migrants and refugees were specifically included in access to COVID-19 testing, treatment, and vaccines, free of charge.

Additionally, in line with the 2005 International Health Regulations, public health preparedness and response has to take into account analysis and tailored interventions at points of entry, along transit corridors and in congregation spaces, all areas particularly important for migrants and refugees. The aim would be timely detection of cases, to prevent transmission as well as timely access to adequate prevention and treatment. Such an approach would address aspects like infection prevention and control, for example through access to clean water and through distributing hygiene kits, one key aspect of effective EVD infection prevention [12]. Following the One Health approach to limit stress at the human-animal-environmental interface through e.g. deforestation, poaching, overfishing should also include the provision of adequate food, housing, heating material, and financial support.

Such an approach would ensure that refugees and migrants, particularly at risk of One Health related hazards remain in good health to protect both themselves and host populations. The human right to health of both migrants and host populations would be better protected if host countries and the global community provided refugees and migrants with comprehensive health services and took into account the One Health approach [7]. The same One Health approach could and should streamlined within the Emergency Cycle Management, from preparedness to response and recovery, under the principle of inclusivity learned from COVID-19, such as access to treatment and vaccination for all individuals regardless of nationality, residence, and legal status [13–15].

To do so, it is crucial to ensure consistent and continuous technical and financial support by partners, including international institutions, under a no-regrets policy.

CRediT authorship contribution statement

Saverio Bellizzi: Conceptualization, Methodology, Writing – original draft, Writing – review & editing. **Giuseppe Pichierri:** Conceptualization, Methodology, Writing – original draft, Writing – review & editing. **Christian Popescu:** Conceptualization, Methodology, Writing – original draft, Writing – review & editing.

Declaration of Competing Interest

None.

Data availability

No data was used for the research described in the article.

References

[1] Reliefweb, Uganda: Ebola Outbreak – Sep 2022. https://reliefweb.int/disaster/ep-2022-000315-uga (accessed 10 November 2022).

[2] World Health Organization, Uganda declares end of the Ebola disease outbreak. https://www.afro.who.int/countries/uganda/news/uganda-declares-end-ebola-disease-outbreak (accessed 11 January 2023).

[3] World Health Organization, Global health agencies outline plan to support Ugandan government-led response to outbreak of ebola virus disease. https://www.who.int/news/item/03-11-2022-global-health-agencies-outline-plan-to-support-ugandan-government-led-response-to-outbreak-of-ebola-virus-disease (accessed 10 November 2022).

[4] European Centre for Disease Prevention and Control, Ebola oubreak in Uganda, as of 7 November 2022. https://www.ecdc.europa.eu/en/news-events/ebola-outbreak-uganda (accessed 10 November 2022).

[5] World Health Organization, Uganda Defines Priorities and Needs in Its Ebola Response Plan. https://www.afro.who.int/countries/uganda/news/uganda-defines-priorities-and-needs-its-ebola-response-plan (accessed 10 November 2022).

[6] MIGRANTS REFUGEES, Country Profiles: Uganda. https://migrants-refugees.va/country-profile/uganda/ (accessed 10 November 2022).

[7] World Health Organization, Refugee and migrant health. https://www.who.int/health-topics/refugee-and-migrant-health#tab=tab_1 (accessed 10 November 2022).

[8] M.M. Huynen, P. Martens, H.B. Hilderink, The health impacts of globalization: a conceptual framework, Glob. Health 1 (2005) 14, https://doi.org/10.1186/1744-8603-1-14.

[9] A. Tasker, D. Braam, Positioning zoonotic disease research in forced migration: a systematic literature review of theoretical frameworks and approaches, PLoS One 16 (7) (2021), e0254746, https://doi.org/10.1371/journal.pone.0254746.

[10] I. Sutradhar, M.H. Zaman, One health approaches to improve refugee health, Lancet Glob. Health 9 (12) (2021) e1646–e1647, https://doi.org/10.1016/S2214-109X(21)00416-2.

[11] S. Bellizzi, M. Orcutt, G.D. Annunziata, A.C. Sedas, S. Severoni, Sharing country experiences: the WHO global school on refugee and migrant health in Jordan, Front. Public Health 22 (10) (2022), 998920, https://doi.org/10.3389/fpubh.2022.998920.

[12] E. Ali, G. Benedetti, R. Van den Bergh, A. Halford, L. Bawo, M. Massaquoi, S. Bellizzi, P. Maes, Distribution of household disinfection kits during the 2014-2015 Ebola virus outbreak in Monrovia, Liberia: the MSF experience, PLoS Negl. Trop. Dis. 14 (9) (2020), e0008539, https://doi.org/10.1371/journal.pntd.0008539.

[13] S. Bellizzi, C. Aidyralieva, L. Alsawhala, A. Al-Shaikh, A. Santoro, M.C. Profili, Vaccination for SARS-CoV-2 of migrants and refugees, Jordan, Bull. World Health Organ. 99 (9) (2021) 611, https://doi.org/10.2471/BLT.21.285591.

[14] S. Bellizzi, C. Aidyralieva, A. Al-Shaikh, N. Muthu, A. Al-Sadder, J. Al-Raiby, Inclusiveness of prisons in COVID-19 vaccination deployment: evidence from Jordan, Vaccine. 40 (1) (2021) 1–2, https://doi.org/10.1016/j.vaccine.2021.11.022.

[15] A. Al-Shaikh, N. Muthu, C. Aidyralieva, M.C. Profili, S. Bellizzi, COVID-19 vaccine roll-out in middle-income countries: lessons learned from the Jordan experience, Vaccine. 39 (34) (2021) 4769–4771, https://doi.org/10.1016/j.vaccine.2021.06.078.