

How Ebola virus disease affected nutrition in Sierra Leone: a food value-chain framework to improve future response strategies

Research snapshot¹

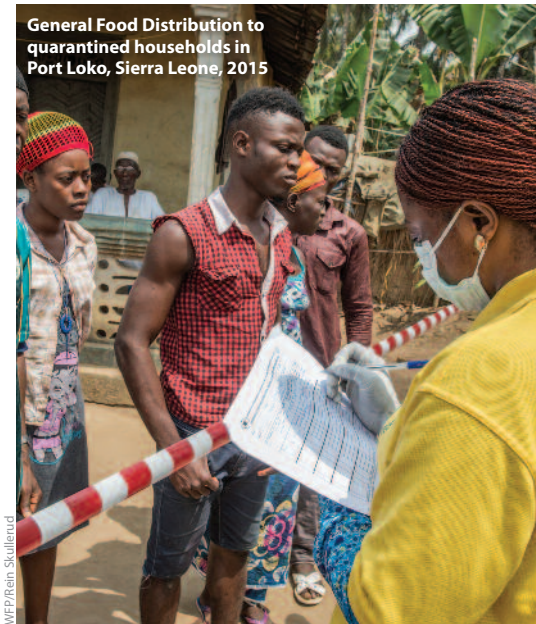
In 2014-2016 an outbreak of Ebola virus disease (EVD) in Sierra Leone resulted in 14,124 cases and 3,956 deaths. This qualitative study sought to understand how the outbreak impacted the nutrition sector in Sierra Leone and to consider a nutrition preparedness and response framework for planning for future outbreaks. In-depth interviews were conducted with key informants (n=21; government stakeholders, United Nations and non-governmental organisation staff) and community informants (n=21; EVD survivors, health workers and community leaders) and key themes identified.

Findings show that EVD outbreak effects and related response strategies contributed to disruptions across the multiple, interconnected systems comprising the food value chain for optimal nutrition in Sierra Leone, similar to disruptions seen in large-scale earthquakes. Direct and indirect effects were experienced on agricultural production and food storage and processing, as well as on distribution, transport, trade and retailing. Interviews described the aggregate negative effect of this outbreak on food security, infant and young child feeding practices and nutrition. In particular, 21-day quarantines to restrict population movement

placed additional economic and social burdens on people that contributed to individual and household diet-related challenges. Infants and young children were disproportionately affected through impacts on breastfeeding, complementary feeding and caregiving practices; both indirectly by EVD and indirectly through market disruption and disease-containment measures.

Food assistance during the response (treatment for acute malnutrition and food baskets to improve household food security) was highly accepted and sharing was reported. Nutrition-sensitive interventions were not central to the initial response, despite impact of EVD across the food value chain. Instead, EVD containment and survival took priority. Culturally appropriate social and behavior change communication was a critical response component for improving health, nutrition and hygiene-related behaviours through community engagement.

In preparation for future outbreaks of this magnitude, a food value-chain approach may prove useful for policy and planning, including developing improved guidelines for employing coordinated, nutrition-specific and nutrition-sensitive approaches to address immediate and underlying determinants of nutrition.



General Food Distribution to quarantined households in Port Loko, Sierra Leone, 2015

WFP/Rein Skallerud

¹ Kodish SR, Bio F, Oemcke R, Conteh J, Beauliere JM, Pyne-Bailey S, et al. (2019) A qualitative study to understand how Ebola Virus Disease affected nutrition in Sierra Leone – A food value-chain framework for improving future response strategies. *PLoS Negl Trop Dis* 13(9):e0007645. <https://doi.org/10.1371/journal.pntd.0007645>

Ebola virus disease and breastfeeding: time for attention

Research snapshot¹



Democratic Republic of the Congo (DRC), Tanganyika province, May 2018

WFP/Jacques David

Over 2,800 cases of Ebola virus disease (EVD) have been confirmed in the ongoing outbreak in the Democratic Republic of Congo (DRC); most cases are adults and 56% of cases are women. Ample information is available on the presence of EVD in bodily fluids such as blood, urine, and semen, and on the prevention of transmission from these fluids. However, information on EVD and breastmilk is limited. The current recommendation of testing breastmilk only in mothers who are known EVD survivors might be insufficient, because asymptomatic lactating mothers in households affected by EVD have also been shown to have Ebola virus-positive breastmilk. In DRC, current guidance on breastfeeding issued by the Ministry of Health and supported by the United Nations Children's Fund recommends that, in EVD-affected households, mothers and infants who have symptoms but are Ebola virus blood-negative should continue breastfeeding.

The authors of this correspondence are concerned about these guidelines, because

Ebola virus blood negativity does not necessarily equal safe breastmilk. Health practitioners and policy-makers are in desperate need of more information on EVD and breastmilk. Systematic research is needed on EVD appearance and duration in breastmilk; transmissibility through breastmilk, taking into account the effect of factors such as infant saliva on the virus; and the provision of evidence-based advice for asymptomatic lactating mothers in EVD-affected households. The repercussions of a lack of clarity on these questions are potentially enormous for DRC. If breastfeeding is wrongly discouraged, years of public health efforts to promote breastfeeding could be lost. Conversely, if breastfeeding is wrongly encouraged, many infants could be put at risk. The authors conclude that it is time to give as much attention to Ebola virus in breastmilk as we do in semen.

¹ Ververs, M. and Arya, A. (2019) Ebola virus disease and breastfeeding: time for attention. Correspondence. *The Lancet*, published online: August 27, 2019 [http://dx.doi.org/10.1016/S0140-6736\(19\)32005-7](http://dx.doi.org/10.1016/S0140-6736(19)32005-7)