

Case Study



From one to the other: responding to Ebola cases on either side of the line

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Abstract

This case study is adapted from events that occurred along the Sierra Leone and Guinea land border during the 2014-2016 Ebola epidemic in West Africa. The response activities involved Sierra Leone and Guinea officials, along with assistance from U.S. Centers for Disease Control and Prevention (CDC) and the World Health Organisation (WHO). This case study builds upon an understanding of basic surveillance systems and outbreak response activities. Through this exercise, students will understand how to incorporate communication and coordination into surveillance and response efforts with counterparts across the border in neighbouring countries. This integration is important to reduce the spread of communicable diseases between neighbouring countries. The time required to complete this case study is 2-3 hours.

How to use this case study

General instructions: this case study in applied epidemiology allows students to practise skills in the classroom setting to address real-world public health problems. It is suited to reinforcing principles and skills already covered in a lecture or background reading. Ideally, one or two instructors facilitate the case study in a classroom or conference room for up to 20 students. Traditionally, the instructor directs a participant to read aloud a paragraph or two, going around the room and giving each participant a chance to read. When a participant reads a question, the instructor guides all participants' responses by engaging in a discussion and using diagrams, when relevant. Sometimes, the instructor will split the class into groups to complete activities or to assume different sides of the discussion when answering a question. Through these teaching methods, participants learn from each other, not just from the instructors.

Audience: residents in Field Epidemiology Training Programs (FETPs), Field Epidemiology and Laboratory Training Programs (FELTPs), and other health professionals who are interested in this topic.

Prerequisites: participants should have received lectures or other instructions in general public health surveillance and outbreak response.

Materials needed: flip chart or whiteboard, markers

Level of training and associated public health activity: novice - surveillance, public health preparedness and response

Time required: 2-3 hours

Language: English

Case study material

- [Download the case study student guide \(PDF - 1.38 MB\)](#)
- [Request the case study facilitator guide](#)

Competing interests

The authors declare no competing interest.

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References

1. WHO. Origins of the 2014 Ebola epidemic. Accessed 14 July 2016.
2. WHO. 2014 West African Ebola Outbreak: Feature Map. Accessed 14 July 2016.
3. Deen GF, Knust B, Broutet N, Sesay FR, Formenty P, Ross C et al. Ebola RNA Persistence in Semen of Ebola Virus Disease Survivors - Preliminary Report. *N Engl J Med*. 2015 Oct 14.
4. Thorson A, Formenty P, Lofthouse C, Broutet N. Systematic review of the literature on viral persistence and sexual transmission from recovered Ebola survivors: evidence and recommendations. *BMJ Open*. 2016; 6(1): e008859.
5. WHO. Statement on the 1st meeting of the IHR Emergency Committee on the 2014 Ebola outbreak in West Africa. Accessed 14 July 2016.
6. WHO. International Health Regulations (2005). 2nd ed. 2008. Geneva. World Health Organization.

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