

Pivoting From Preparedness to Response: Containment of the First Outbreak of Ebola Virus Disease in a Previously Unaffected Country – Mali, 2014

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Summary: Why hasn't Ebola spread to vulnerable nations like Mali? Preparedness and, when Ebola popped up, a rapid response. CDC's Mali team reports.

Abstract:

Background: On October 25, 2014, an acutely ill person arrived at a private clinic in Bamako, Mali from Kourémalé, Guinea. The patient had symptoms consistent with Ebola virus disease (Ebola) and died on October 27. Public health authorities were notified on November 10 after the patient's son tested positive for Ebola and a cluster of contacts with Ebola symptoms was subsequently identified. We immediately initiated an outbreak investigation and implemented strategies to contain transmission.

Methods: Strategies included case investigations using a standard case report form and contact monitoring. Contacts lived in the same house as or had direct physical contact with case-patients or their body fluids. Case status was probable in persons with known contact prior to symptom onset with a probable or confirmed Ebola case, and confirmed when Ebola virus was detected in a specimen by reverse transcription-polymerase chain reaction.

Results: Case investigation and contact monitoring began November 10 and 11, respectively. Eight Ebola cases (6 confirmed, 2 probable), 6 deaths (case fatality rate 75.0%), and 332 contacts were identified. Among contacts of the imported case, the primary attack rate was 20.0% (5/25). The secondary attack rate among 33 contacts with known exposure to bodily fluids was 3.0% (1/33). On December 16, the remaining contacts exited 21 days of monitoring; no additional cases were identified.

Conclusions: This Ebola outbreak in Mali was the result of an imported case from a highly affected country. Once public health authorities were notified, transmission was interrupted within 2 weeks. The successful implementation of containment strategies in Mali serves as a model for unaffected country preparedness. Maintaining this preparedness is critical until the epidemic in West Africa is controlled.