

## Rapid Containment of Ebola Using Contact Tracing Following an Imported Case of Ebola Virus Disease – Senegal, 2014

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**Summary:** Ebola might well have become a much larger problem in Senegal -- but a rapid intervention by Senegal, WHO, CDC and others helped avert a major epidemic in this country.

### Abstract:

**Background:** Ebola Virus Disease (EVD) is currently plaguing West Africa, where the majority of cases have been reported from Guinea, Liberia, and Sierra Leone. Neighboring countries are especially at risk for virus importation given the frequency and ease of cross-border travel. On August 29th Senegal was the fifth country to confirm an EVD case in a Guinean student (Patient X) who recently arrived in Senegal. The study objective was to assess effectiveness of contact tracing in disrupting EVD transmission.

**Methods:** At the request of the Senegalese Ministry of Health, 4 CDC personnel were rapidly deployed to assist with the containment of EVD including contact tracing.

**Results:** Sixty-seven contacts were initially identified (34 residents of the household where Patient X stayed and 33 healthcare workers); an additional 7 healthcare workers self-identified as contacts during an infection control training 13 days later totaling 74 contacts. Contacts were requested to submit to in-home voluntary quarantine, with twice daily temperature monitoring. On Day 1 of monitoring, 51% (34/67) of initially identified contacts were seen, which increased to 90% (60/67) by Day 5. Compliance was observed from household contacts at all visits. However, some physicians contacts resisted in-home voluntary isolation and temperature monitoring by non-medical volunteers. During monitoring, 4 contacts developed symptoms consistent with EVD; laboratory testing was negative for all. All 74 contacts completed the 21-day monitoring with no further cases of EVD.

**Conclusions:** Rapid implementation of contact tracing was successfully established and Senegal was declared Ebola-free on October 17. Neighboring countries are at high risk for virus importation and must be prepared to quickly identify imported cases and rapidly implement contact tracing to prevent EVD spread.