

Case study



Imported outbreak of poliomyelitis in Sudan 2004-2005: a teaching case-study

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Abstract

Sudan initiated poliomyelitis eradication activities at 1994 in its northern part and followed through in 1998 in the southern part. As a result, there was significant progress in implementing poliomyelitis eradication strategies, with no cases reported from May 2001 until April 2004. Nonetheless, a case of wild poliomyelitis was detected in Sudan in May 2004 and it was found to be imported from Nigeria through Chad. This initiated an outbreak that spread in 18 states out of the 26 states back then. A total of 128 cases were reported in 2004 and 27 additional cases in 2005. Factors affecting the pace and scale of the outbreak included low routine immunization, population movement, and insecurity in the Darfur region. A rapid plan for immunization of children with OPV, strengthening of routine immunization, and cross border coordination meetings were held with neighboring countries to synchronize the National Immunization Days (NIDs) and exchange of information effectively. Efforts were undertaken to improve the routine Expanded Program of Immunization (EPI) using international funds. This teaching case study simulates an outbreak/epidemic investigation that includes laboratory confirmation, active case finding, descriptive epidemiology and implementation of control measures. It is designed for the training of advanced level field epidemiology trainees or any other health care workers working in public health-related fields. It can be administered in 4-6 hours. Used as adjunct training material, the case study provides the

trainees with competencies in investigating an outbreak preparing them for actual real-life experiences of investigating unusual outbreaks with special consideration to assessing risk factors related to importation of diseases and diseases under elimination/ eradication.

How to use this case study

General instructions: this case study should be used as adjunct training material for field epidemiology trainees to reinforce the concepts taught in prior lectures. The case study is ideally taught by two facilitators for a group of about 20 participants. Participants are to take turns reading the case study, usually a paragraph per student. The facilitator guides the discussion on possible responses to questions. The facilitator may make use of flip charts to illustrate certain points. Additional instructor's notes for facilitation are coupled with each question in the instructor's guide to aid facilitation.

Audience: this case study was developed for advanced field epidemiology students. These participants are commonly health care workers working in the country departments of health whose background may be as medical doctors, nurses, environmental health officers or laboratory scientists who work in public health-related fields.

Prerequisites: before using this case study, participants should have received lectures on disease surveillance and outbreak investigation.

Materials needed: Flash drive, flip charts, markers, computers with MS Excel

Level of training and associated public health activity: Advanced FETP – Surveillance & Outbreak control

Time required: two sessions of 2-3 hours, that is a total of 4-6 hours.

Language: English

References

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Case study material

- Download the case study student guide
- Request the case study facilitator guide

Competing interest

The authors declare no competing interests.

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