

## Abstract

# Measles Outbreak in Village Manzoor Sawand District Ghotki, Province Sindh, Pakistan- 2016

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## Abstract

**Background:** On 3rd December 2016, District Health office Ghotki reported three suspected measles cases from Village Manzoor Sawand to DG Health Office Hyderabad. On 4th December 2016, two FELTP Fellows were deputed to initiate an outbreak investigation.

**Objective:** The objectives of the investigation were to assess the magnitude, evaluate risk factors, and suggest control measures.

**Methods:** A review of the reported cases was conducted. Active case finding was undertaken to identify more cases in the village. A case was defined as sudden onset of fever, maculopapular rash, and any of cough, coryza, conjunctivitis in a resident of village Manzoor Sawand, from 10th November to 10th December 2016. Data was collected using a structured questionnaire. Vaccination coverage survey was done by using 30 x 7 cluster sampling technique. Six blood samples were sent to NIH for lab confirmation.

**Results:** A total of 15 cases including 2 deaths (CFR13.3%) were identified; 12 through active case finding. Mean age was 24 Months (range 9-54 months). Overall attack rate was 1/1000 and the most affected age group was 12-48 months n=13 (AR 3.8/1000). Apart from fever and rash cough (100%), coryza (80%) and conjunctivitis (60%) were the most prominent symptoms. A total of 210 children were assessed for vaccination status. Attack rate in unvaccinated children was 2.1% and in vaccinated children was 4.3%; vaccine efficacy was 51%. Reasons for non-vaccination was unawareness (n=12, 80%) followed by vaccinator did not visit (n=7, 46.6%). Ice-lined-refrigerator (ILR) was found to be non-functional at the EPI Centre. All blood samples were positive for measles.

**Conclusions:** The most probable cause of the outbreak was low immunization status. Awareness sessions were conducted. Vaccinator was assigned to conduct outreach activities. A total of 713 eligible children were vaccinated against measles and Vitamin A was administered. On our recommendations ILR was made functional.

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