

# Outbreak Investigation of Suspected Cases of Measles in 2 Tea-Garden Areas of Dibrugarh District

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## Abstract

*Introduction:* Measles is a vaccine-preventable contagious disease. Tea garden workers are a special group of migrant population for carrying out mainly tea plucking activities in agroindustry facing the burden of both communicable and non-communicable diseases mainly due to compromised living conditions. The present study was done to investigate an outbreak of fever and rash in Sessa and Romai Tea estate of Dibrugarh District of Assam.

*Material and Methods:* A suspected case of measles is defined as an illness in a patient with fever and generalized maculopapular (non-vesicular) rash, or in a patient whom a healthcare worker suspects has measles. Following a case of fever with rash reported at Paediatric OPD of AMCH on 14/09/2023 from Romai Tea-estate and death of an 11-year girl with similar symptoms in Sessa Tea estate, an outbreak investigation was done in Sessa and Romai Tea estate. Cases were interviewed by house-to-house survey and line listing done using W.H.O developed standard outbreak investigation formats. Samples of blood and throat swabs collected and sent for analysis.

*Results:* Among 25 suspected cases (19 and 6 cases from Romai and Sessa Tea estates respectively), 68% were females, and 32% males. Under-five years old were mostly affected (92%) and 8 % were less than 9 months age. Of the 4 samples, 2(50%) confirmed IgM positive for measles in Romai, and all 5(100%) positive for chickenpox in Sessa Tea estate. Case fatality rate is 4%. All are vaccinated. Vitamin A and symptomatic treatment given to all suspects.

*Conclusion:* There is a need to address other determinants of communicable diseases like poor living conditions along with improved quality of vaccination services through better supportive supervision, cold chain maintenance, and strengthened surveillance system to prevent such morbidities and mortalities. Outbreak response immunization covering infants between 6th to 9th months can be made mandatory.