

DISEASE BURDEN

Burden of disease, quality of life and patients' out of pocket expenses associated with Chikungunya outbreak in Gowripet, Avadi municipality, Chennai, Tamilnadu, India

Introduction: Chikungunya is a relatively rare but debilitating viral infection caused by a single stranded RNA virus of the Togaviridae family and genus alphavirus .The virus is transmitted by the bite of an infected aedes aegypti mosquito. In India, the disease was first reported and isolated in Calcutta in 1963. Thereafter several outbreaks were reported with the last one in 1971. Since then it seemed that the virus had disappeared until late 2005 when it reappeared with large outbreaks being reported from Andhra Pradesh, Maharashtra, Orissa, Karnataka, Tamilnadu, Madhya Pradesh and Gujarat. In Tamilnadu, since June 2006, over a lakh of cases were reported from 31 districts, with Chennai, the capital city, being the worst affected. During the third week of June, 2006, 604 cases (population 2649) of fever with joint pain were reported from the Avadi municipality. Although no deaths were reported, joint pain among those affected seemed to persist for between 15 days to over 30 months resulting thus in prolonged periods of disability, treatment and sickness absenteeism. Therefore there is a need to document the magnitude of the disability, quality of life and cost of illness associated with such an illness. The present study is one such effort.

Objectives: To estimate:

1. Disability associated with Chikungunya outbreak
2. Quality Adjusted Life Years (QALYs) associated with Chikungunya outbreak
3. Cost of Illness (COI) attributable to Chikungunya outbreak

Methods: The present study was conducted in the Gowripet area of Avadi Municipality. A survey method was adopted. For estimating DALYs and COI all

604 cases identified during **the outbreak investigation** and who were willing to participate were recruited into the study. To estimate QALYs, the 604 cases, and 604 age and sex matched non cases from the local neighbourhood were compared. An interview method using an interview schedule consisting of semi structured questions was used to collect data from cases and non cases. The WHO SF-36 version 2 QOL instruments as well as the EQ 5D questionnaire were used. Both direct and indirect costs were ascertained to estimate the patients' out of pocket expenditure associated with Chikungunya

Project Achievements: All field investigators, supervisors and Research Assistants were trained. The data collection instruments were pilot tested and modified. Data collection was completed. Data entry has been ongoing simultaneously and will be completed by the early January 2009. Data will then be analysed to provide details on disease burden, Quality of Life and Cost of illness due to Chikungunya outbreak. Results and report will be ready by June 2009.

