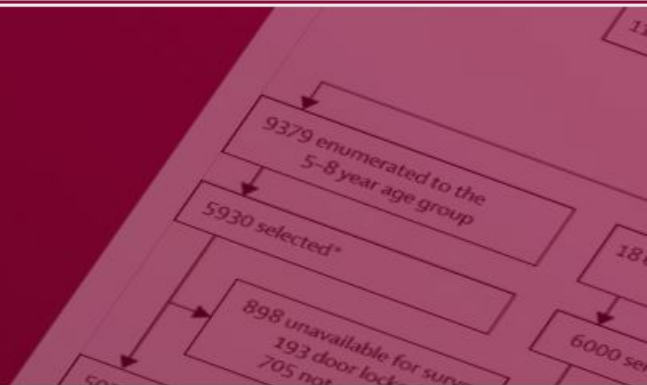# population based serosurvey

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Summary

Background

The burden of dengue virus (DENV) infection across geographical regions of India is poorly quantified. We estimated the age-specific seroprevalence, force of infection, and number of infections in India.

Methods

We did a community-based survey in 240 clusters (118 rural, 122 urban), selected from 60 districts of 15 Indian states from five geographical regions. We enumerated each cluster, randomly selected (with an Andriod application developed specifically for the survey) 25 individuals from age groups of 5–8 years, 9–17 years, and 18–45 years, and sampled a minimum of 11 individuals from each age group (all the 25 randomly selected individuals in each age group were visited in their houses and individuals who consented for the survey were included in the study). Age was the only inclusion criterion; for the purpose of enumeration, individuals residing in the household for more than 6 months were included. Sera were tested centrally by a laboratory team of scientific and technical staff for IgG antibodies against the DENV with the use of indirect ELISA. We calculated age group specific seroprevalence and constructed catalytic models to estimate force of infection.