

Epidemic meningococcal disease in Nairobi, Kenya, 1989. The Kenya/Centers for Disease Control (CDC) Meningitis Study Group

Abstract:

An epidemic of meningococcal disease occurred in Nairobi, Kenya, during 1989, outside the "meningitis belt" of sub-Saharan Africa. About 3800 cases occurred between April and November (250/100,000 population). The case-fatality rate was 9.4% among hospitalized patients. Areas that included Nairobi's largest slums had particularly high attack rates. The epidemic displayed an unusual age distribution, with high attack rates among those 20-29 years old. A vaccination campaign was conducted. By early January, the weekly case count had fallen to 25 from a high of 272 (in September). A case-control study estimated the vaccine efficacy to be 87% (95% confidence interval, 67%-95%). A model estimated that the vaccination campaign reduced the number of cases by at least 20%. Multilocus enzyme electrophoretic typing demonstrated that the strain responsible for this large epidemic is closely related to strains that caused other recent epidemics, documenting further spread of what may be a particularly virulent clonal complex of group A *Neisseria meningitidis*.