

Abstract

We established a health and demographic surveillance system in a rural area of western Kenya to measure the burden of infectious diseases and evaluate public health interventions. After a baseline census, all 33,990 households were visited every four months. We collected data on educational attainment, socioeconomic status, pediatric outpatient visits, causes of death in children, and malaria transmission. The life expectancy at birth was 38 years, the infant mortality rate was 125 per 1000 live births, and the under-five mortality rate was 227 per 1,000 live births. The increased mortality rate in younger men and women suggests high human immunodeficiency virus/acquired immunodeficiency syndrome-related mortality in the population. Of 5,879 sick child visits, the most frequent diagnosis was malaria (71.5%). Verbal autopsy results for 661 child deaths (1 month to <12 years) implicated malaria (28.9%) and anemia (19.8%) as the most common causes of death in children. These data will provide a basis for generating further research questions, developing targeted interventions, and evaluating their impact.