

Clin Infect Dis. 2009;48:v-vi

## In the Literature

### Subprime Lending and West Nile Virus (WNV) Infection

Reisen WK, Takahashi RM, Carroll BD, Quiring R. Delinquent mortgages, neglected swimming pools, and West Nile virus, California. *Emerg Infect Dis* 2008; 14:1747–9.

The largest outbreak of mosquito-borne viral encephalitis (since a 1952 epidemic of western equine encephalitis virus infection) occurred in 2007 in the area in and around Bakersfield, California, when 140 laboratory - confirmed human cases of WNV infection were identified. This was an unexpected event, because climatological and surveillance data had suggested the risk of an outbreak was low. Rainfall had only been 40% of the expected level during winter and spring, and as a consequence of this drought, the prevalence of the rural vector, *Culex tarsalis*, was low. The arid conditions, with the Kern river being dry, probably accounted for a greatly decreased abundance of other key bird species, and those that remained had a high level of herd immunity. It was, as a result, surprising that the incidence of positive traps yielding *Cx. P. pipiens quinquefasciatus* rapidly increased during June 2007, and at the same time, nonimmune house sparrow populations dramatically increased as a consequence of the lack of competition from depleted competitive bird populations. These events were quickly followed by reports of human cases of WNV infection.

Examination of service requests for mosquito control, together with aerial surveillance, identified a large number of green or neglected outdoor pools (i.e., swimming and ornamental pools and hot tubs). Aerial photography of a representative neighborhood in Bakersfield found that 17% of 42 pools appeared to be green and were likely producing mosquitoes.

Kern County, of which Bakersfield is the county seat, is one of the areas most highly impacted by the financial implosion associated with subprime mortgage lending. This resulted in a 300% increase in delinquency notices in the spring of 2007, compared with the same period in 2006. This, in turn, led to property abandonments and neglect of outdoor pools, with the ultimate consequence being this large outbreak of WNV infection.