

MENINGITIS, VIRAL

CRUDE DATA	
Number of Cases	438
Annual Incidence ^a	
LA County	4.8
United States	N/A
Age at Onset	
Mean	19
Median	14
Range	0-86 yrs
Case Fatality	
LA County	0.7%
United States	N/A

^aCases per 100,000 population.

ETIOLOGY

Viral (aseptic) meningitis is a clinical syndrome with multiple viral etiologies. A specific etiology is determined in a minority of cases. Of those with laboratory confirmation, enteroviruses are most often implicated.

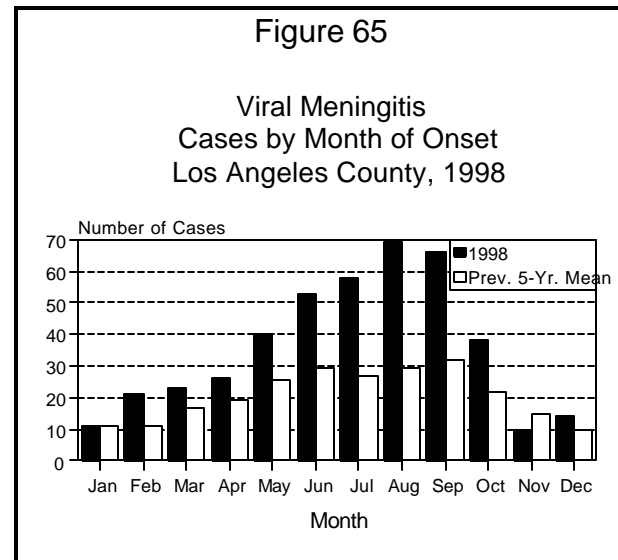
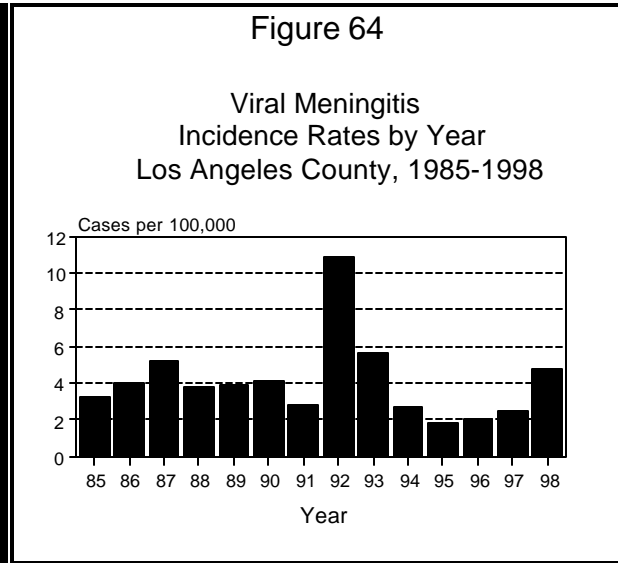
DISEASE ABSTRACT

The incidence rate of viral meningitis in 1998 was nearly twice the rate observed the previous year (Figure 64); the increase was greatest among children five to fourteen years of age (Figure 66).

STRATIFIED DATA

Trends: Since 1989, incidence rates of viral meningitis have ranged between 10.9 cases per 100,000 (a record high) to 1.8 per 100,000 in 1995. The incidence rate in 1998 (4.8 cases per 100,000) increased 92% over that observed in 1997 (2.5 cases per 100,000) (Figure 64).

Seasonality: Cases were distributed throughout the year, with the characteristic summer seasonality more apparent in 1998, compared with the previous five-year monthly averages (Figure 65).

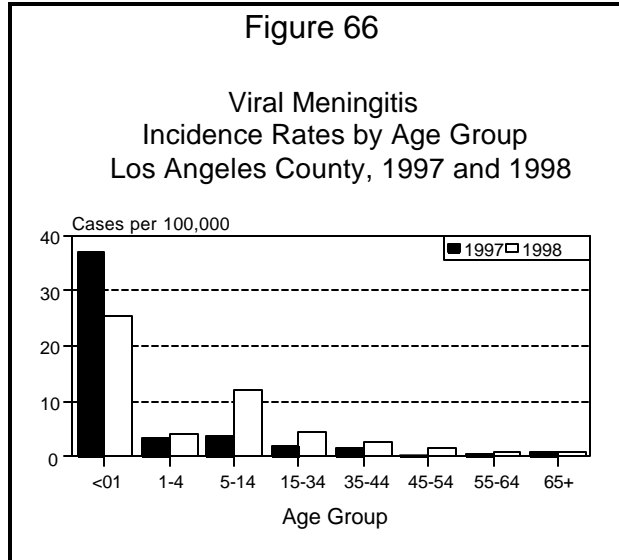


Age: The highest age-specific incidence rate occurred in infants less than one year of age (25.3 cases per 100,000). A decrease in incidence in the 1- to 4-year-old age group was offset by an increase among 5- to 14-year-olds in 1998 (Figure 66).

Sex: The male-to-female rate ratio was 1.1:1.

Race/Ethnicity: The age-adjusted incidence rate was highest among Whites and Hispanics (4.7 cases per 100,000 population), followed by Blacks (4.4 per 100,000), and Asians (2.1 per 100,000) (data not shown).

Location: Six health districts experienced rates higher than the overall LAC rate of 4.8 cases per 100,000 population. The highest rates of viral meningitis in 1998 were in Whittier (12.3 per 100,000) and San Antonio (9.0 per 100,000) Health Districts.



COMMENTS

The majority of cases reported as viral meningitis are not laboratory confirmed. The diagnosis is typically one of exclusion, based on a clinical description consisting of acute onset of meningeal symptoms, fever, white blood cells in the cerebrospinal fluid, with bacteriologically sterile cultures. Viral cultures are usually not performed due to cost, requirement for a laboratory with virologic capability, extended time needed for viral growth and identification, and lack of specific therapy.

Preventive measures depend on the specific etiologic agent. Vaccination provides primary prevention against meningitis due to those viral diseases for which a vaccine is available, such as measles, mumps, and rubella. Although the etiologic agent for over 90% of cases is unidentified, epidemiologic evidence suggests that most cases of viral meningitis are enteroviral in origin. The seasonal increase in incidence in LAC during the warmer summer months coincides with observed increases in enterovirus activity. Since enteroviral transmission is primarily through the fecal-oral route, prevention is directed at proper personal hygiene with emphasis on good handwashing. Explanations for the disproportionately high rates found consistently among infants may include lack of acquired immunity and the ease of fecal-oral transmission of enteroviruses in this age group. There were no outbreaks of viral meningitis reported in 1998. The increase in rates among 5- to 14-year-olds in 1998 was unexplained.

MAP 8. Viral Meningitis

Rates by Health District, Los Angeles County, 1998*

