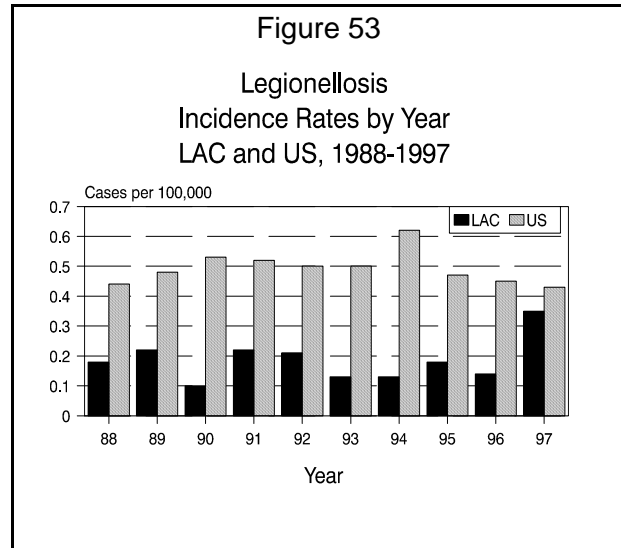


LEGIONELLOSIS

CRUDE DATA	
Number of Cases	32
Annual Incidence ^a	
LA County	0.35
California	0.19
United States	0.43
Age at Onset	
Mean	61
Median	63
Range	32-90 yrs
Case Fatality	
LA County	23%
United States	

^aCases per 100,000 population.

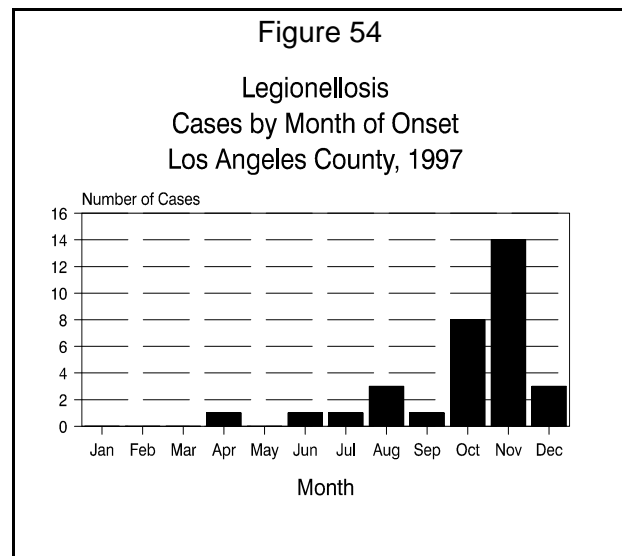


ETIOLOGY

Eleven species of *Legionella* have been implicated in human disease, but most infections are caused by *Legionella pneumophila* serogroup 1 (Lp1) and less frequently serogroup 6.

DISEASE ABSTRACT

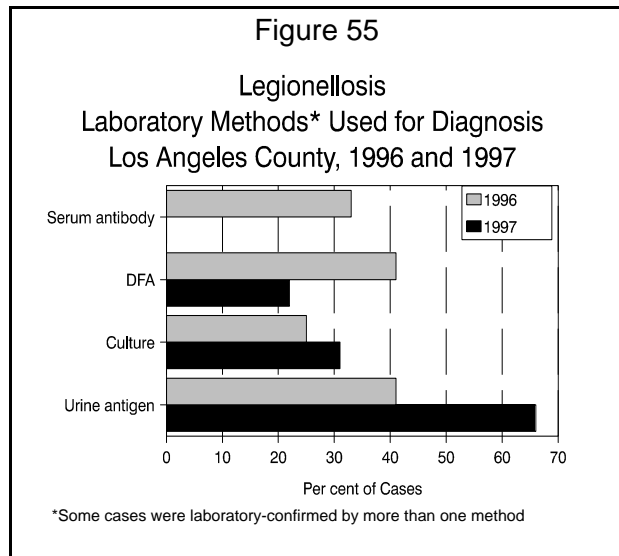
All reported cases of legionellosis in 1997 were legionella pneumonia (legionnaires' disease); there were no cases of Pontiac Fever. Reported cases increased 167% from 1996 to 1997, reaching an all-time high since surveillance began in 1988 (Figure 53). Both a small community outbreak of legionnaires' disease in November-December 1997 and increased utilization of the *Legionella* urinary antigen test may have contributed to this apparent increase. The CDC surveillance case definition was revised in September 1996 to include demonstration of Lp1 antigens in urine laboratory confirmation of legionellosis. The category of "probable case" based on a single convalescent immunofluorescence serum antibody titer is no longer accepted.



SUMMARY OF EPIDEMIOLOGIC DATA

The average age of reported cases was 61 years (range 32-90 years); 20 were males and 12 were females. The distribution of cases by race/ethnicity was 5 Black, 6 Hispanic, and 21 White; there were no reported cases among Asians. In 1997, 22 (69%) of the cases occurred during October and November (Figure 54). Of eight outbreak-related cases, seven occurred in November and one in December.

Laboratory confirmation of legionnaires' disease included isolation of *Legionella* from respiratory secretions for 10 (31%) cases, detection of *Legionella* in respiratory secretions by direct fluorescent antibody testing for 7 (22%) cases, and demonstration of Lp1 antigens in urine for 21 (66%) cases (six cases were laboratory-confirmed by more than one method, Figure 55). All cases were due to Lp1.



Twenty-eight case patients (88%) had one or more recognized risk factors for legionnaires' disease, including heavy cigarette use, chronic pulmonary disease, malignancy, diabetes, or immunodeficiency syndromes.

COMMENTS

The reported incidence of legionellosis in LAC remains lower than the national rate of 0.43 cases per 100,000 population. In the past, empiric antibiotic therapy for community-acquired pneumonia without appropriate diagnostic testing may have contributed to lower than anticipated rates. Urinary antigen testing is a sensitive, specific alternative to culture for identification of Lp1. Lp1 antigens are often detected in urine for several weeks following illness onset, even after antibiotic therapy. Cultures, however, are essential in outbreak investigations; without appropriate subtyping of patient and environmental isolates, it may be extremely difficult to distinguish between sporadic and outbreak-related cases, and to identify an environmental source of transmission.

The majority (75%) of reported cases in 1997 were sporadic community-acquired cases. Eight cases (25%) were related to an outbreak that occurred in the Culver City area in late 1997, which may have also stimulated increased surveillance during that time period (a complete summary of this outbreak will be available in the 1997 Acute Communicable Disease Control Special Studies Report). Several cases that appeared to cluster in the South Bay area during September and October were determined to be unrelated on the basis of molecular typing of available Lp1 isolates in the Public Health Laboratory.