

## HAEMOPHILUS INFLUENZAE INVASIVE DISEASE

CRUDE DATA	
Number of Cases	76
Annual Incidence <sup>a</sup>	
LA County	0.83
California	0.36 <sup>b</sup>
United States	0.48
Age at Onset	
Mean	52 yrs
Median	62 yrs
Range	birth-96 yrs
Case Fatality	
LA County	4%
United States	N/A

<sup>a</sup> Cases per 100,000 population.

<sup>b</sup> Cases per 100,000 persons < 30 years of age. In California, *H. influenzae* among persons > 29 years of age is not reportable.

### ETIOLOGY

*Haemophilus influenzae* is a gram-negative coccobacillus. There are six encapsulated, typable strains (a-f) and unencapsulated, nontypable strains of *H. influenzae*. Most invasive disease is caused by *H. influenzae* type b (Hib). There is an effective vaccine against Hib.

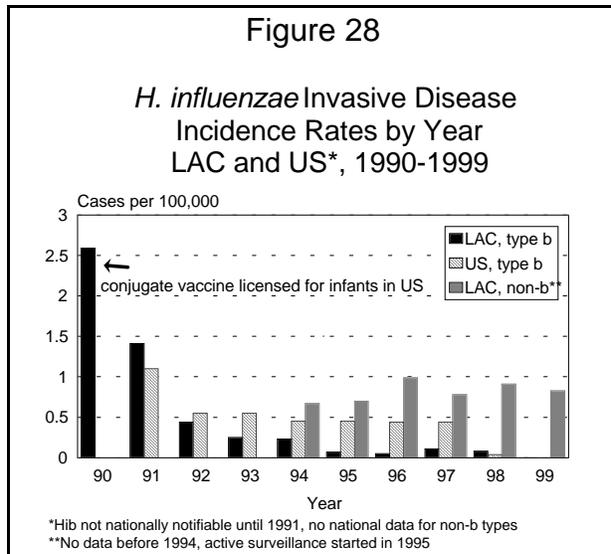
### DISEASE ABSTRACT

Before the introduction of effective vaccines, Hib was the leading cause of bacterial meningitis and other invasive bacterial disease including epiglottitis, pneumonia, arthritis, and cellulitis among children less than five years of age. In 1999, 76 cases of *H. influenzae* invasive disease were reported; all were either non-b or unknown serotypes.

### STRATIFIED DATA

**Trends:** No cases of Hib invasive disease were reported in 1999. This illustrates the dramatic impact of the introduction of the Hib conjugate vaccine in 1990. In one decade, Hib invasive disease has decreased from an incidence of 2.6 cases per 100,000 population to zero. Incidence rates for other types of *H. influenzae* have remained relatively steady over time (Figure 28).

**Age:** The incidence of *H. influenzae* invasive disease peaks in infants and the elderly. Most of the cases in 1999 were in those 65 years of age or older (Figure 29). The median age at onset for invasive non-b *H. influenzae* disease was 69 years.



**COMMENTS**

Contacts of reported cases of Hib are investigated and chemoprophylaxis is administered when appropriate. There is no evidence that these measures are effective in controlling non-b serotypes. Hib vaccine offers no protection against non-b serotypes of *H. influenzae*.

Non-invasive disease caused by *H. influenzae*, such as conjunctivitis and respiratory infections, is not investigated or reported regardless of the serotype.

***H. influenzae* type b**

No cases of Hib were detected in 1999.

***H. influenzae*, non-b serotypes**

Forty percent of *H. influenzae* isolates in 1999 were non-typable (Figure 30) and 21% were *H. aegyptius/H. influenzae* biotype III. Sixteen percent of the isolates were type f and the same percentage were not typed.

Most cases (92%) had sepsis. Other infections included pneumonia (n=6), meningitis (n=4), and arthritis (n=1). Two perinatal infections (sepsis) occurred where the mother was not confirmed with infection. Three cases were known to have died of sepsis (two non-typable, one unknown type). Their ages were two years, 38 years, and 71 years.

