

HEPATITIS A

CRUDE DATA	
Number of Cases	839
Annual Incidence ^a	
LA County	9.1
California	9.0
United States	4.9
Age at Onset	
Mean	27
Median	22
Range	5 months - 97 years
Case Fatality	
LA County	0.5%
United States	N/A

^a Cases per 100,000 population.

ETIOLOGY

Hepatitis A virus (HAV), a RNA-virus of the Picornaviridae family, is a vaccine-preventable disease usually transmitted by fecal-oral route, person-to-person, or through vehicles such as food.

Signs and symptoms of HAV include fever, malaise, dark urine, anorexia, nausea, and abdominal discomfort, followed by jaundice. Many cases, especially in children, are mild or asymptomatic. Sexual and household contacts of HAV-infected persons are at increased risk for getting the disease.

DISEASE ABSTRACT

- The annual incidence rate of HAV in LAC again decreased in 2000.
- There were more cases in summer to early autumn and fewer cases in winter.
- With few exceptions, age, race, and gender characteristics were similar to the last five years.
- Hospitalization rates were highest among children and young adults.

Figure 35

Hepatitis A Incidence Rates by Year LAC and US, 1991 - 2000

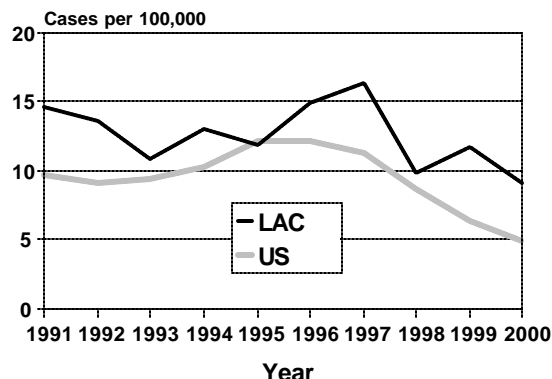
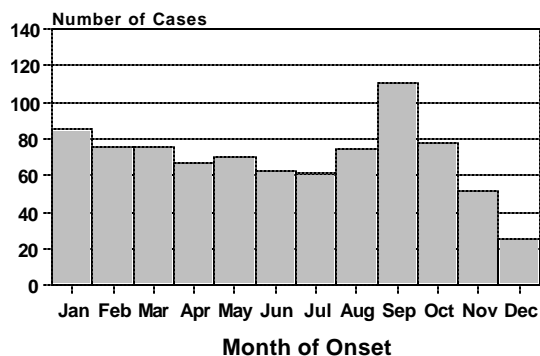


Figure 36

Hepatitis A Cases by Month of Onset LAC, 2000



STRATIFIED DATA

Trends: The rate of HAV in LAC has remained steady, around 9 per 100,000, since 1998. From 1993-1997, it had ranged from 10-15 per 100,000 (Figure 35).

Seasonality: The increase in HAV cases historically observed in summer to early autumn and decrease in winter was observed again in 2000 (Figure 36). A large portion of this seasonal increase was probably influenced by travel.

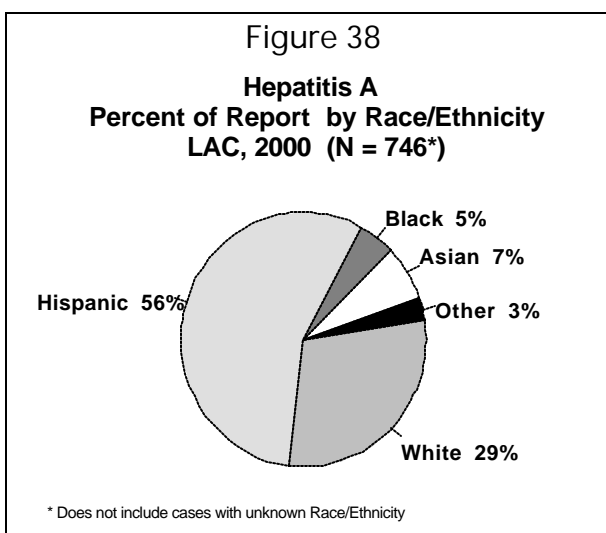
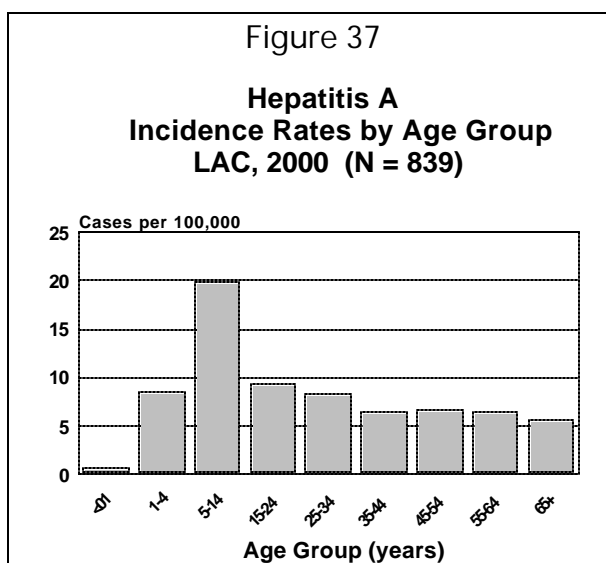
Age: The overall mean age for HAV cases in 2000 was 27 years. The mean age is reflective of the Hispanic group, as their mean age was 18 years, while Black, White, and Asian cases had means of 40, 35, and 41 years, respectively. Age-specific rate remained highest in children aged 5-14 years with a rate of 20 per 100,000 (Figure 37). The highest subgroup rate within that age group was among Hispanic cases (24 per 100,000).

Sex: The overall HAV male-to-female rate ratio was 1.3:1. Among Hispanic cases, the male-to-female rate ratio was 1:1, while among White, Asian, and Black cases, incident rates were higher among males, at 2:1, 1.5:1, and 2:1, respectively.

Race/Ethnicity: Overall crude rates decreased for all ethnic groups in 2000. The highest 2000 rate, as in prior years, was among Hispanics (9.6 per 100,000), followed by Whites (7.4). The rates for Asian (4.6) and Blacks (4.6) remained significantly lower, with the rate for Blacks down from 10.4 per 100,000 population in 1999 (Figure 38).

Location: Map 5 shows district-specific HAV rates for 2000. The highest rates were in Hollywood-Wilshire (13.1 cases per 100,000 population), closely followed by Alhambra (13.0), South (11.9), and Central (10.8). Looking at distribution by Service Planning Area (SPA, Figure 40), SPAs 4, 6, and 7 have the highest rates (9.9, 9.8, and 8.8 per 100,000, respectively), while SPAs 3, 5, and 8 have rates significantly lower than the county average.

Severity of Illness: Among all HAV cases in 2000, there were 4 fatalities (case-fatality rate = 0.5%) aged 39-82 years, with no risk factors identified. Hospitalization (7% overall) was most prevalent among children and young adults—with increased liver enzymes, jaundice, fever, nausea and vomiting reported by over 50% who were hospitalized.



Risk Factors: Recent travel (n = 209) outside of the U.S. was the most common risk factor reported in 2000 (25%), followed by eating raw shellfish (9.7%), while 40% did not report any risk factor. Among travelers, Latin-American destinations (80%) were the most frequently cited.

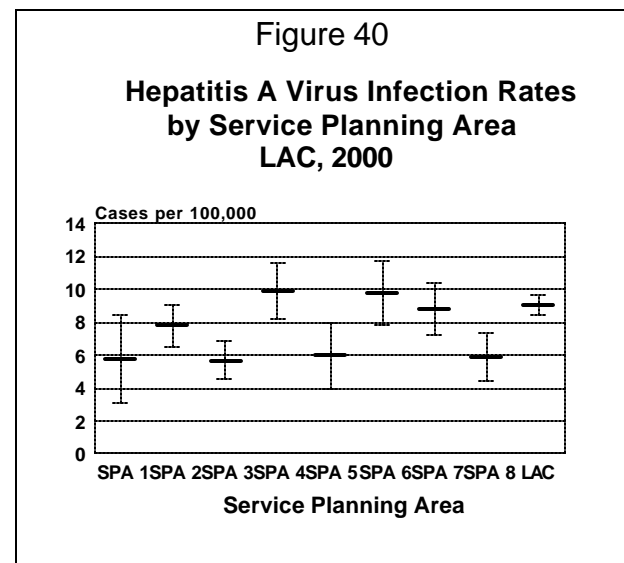
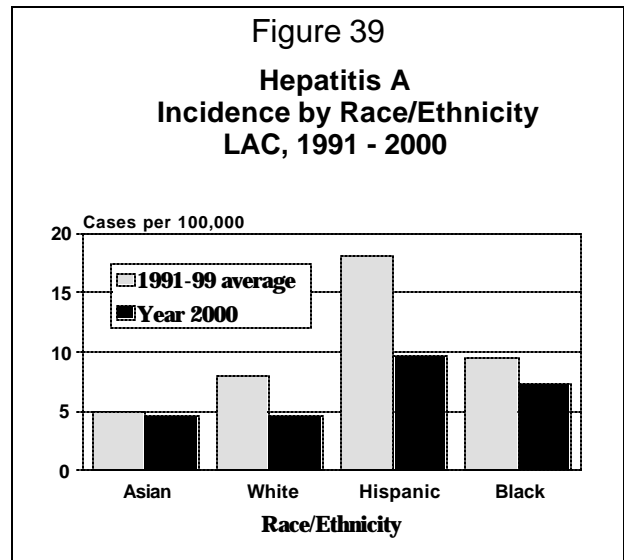
PREVENTION

Good personal hygiene and proper sanitation can prevent HAV. More importantly, since 1995, vaccines have been available for the permanent prevention of HAV infection in persons aged 2 years and older. Immune globulin is also available for short-term prevention of HAV infection and post-exposure prophylaxis in person of all ages. Most infections result from contact with a household member or sexual partner who has HAV. Casual contact, such as that in the office, factory, or school setting, does not spread the virus.

Over the past year, there was a legislative effort to require HAV immunization for children entering kindergarten and preschool in California. Although it was not successful, many people still believe that such a law will probably be enacted in the future.

In 1999, the Advisory Council on Immunization Practices (ACIP) recommended universal childhood vaccination in states, counties, and communities (including LAC) with rates equal to or greater than twice the national average (20 cases per 100,000) during 1987-1997. LAC began providing the vaccine to children, aged 2-18 since August 1999. Immune globulin is recommended for certain pre-exposure situations.

Widespread post-exposure prophylaxis with immunoglobulin are used to control outbreaks in Los Angeles County, but with questionable success. Since HAV vaccination has become available and in more routine use, it has been suggested that outbreaks of HAV should be effectively interrupted through vaccine use, leading to a sustained reduction in disease incidence.



COMMENTS

There was a significant decrease in the number of cases of HAV reported in LAC since 1997. This decrease may be the result of LAC Health Department following the ACIP recommendation of HAV vaccine and Vaccines for Children (VFC) Program. Other potential reasons for the decrease may be greater public awareness or improved hygienic and sanitary conditions—including improved water supplies, sewage disposal, food sanitation, and less crowded living conditions. Under-reporting and under-diagnosis by physicians cannot be excluded as a reason for the decrease.

The 839 HAV cases reported in 2000 were confirmed with a laboratory test for the IgM antibody to HAV, which indicates acute infection. Studies have shown that many children who acquired HAV were asymptomatic and not tested for HAV-IgM. Even when these children's lab results were confirmed IgM positive, many private health care providers and laboratories did not report HAV cases to county health officials. Therefore, support and encouragement for physician compliance with the ACIP recommendations should continue.

Most cases of HAV result from person-to-person transmission during community-wide outbreaks in areas with high and intermediate rates of HAV. In LAC, there was only one outbreak of HAV in 2000 in a health care facility involving 10 staff members. No suspect sources, such as symptomatic or asymptomatic patients in common to these staff members, were apparent.

ADDITIONAL RESOURCES:

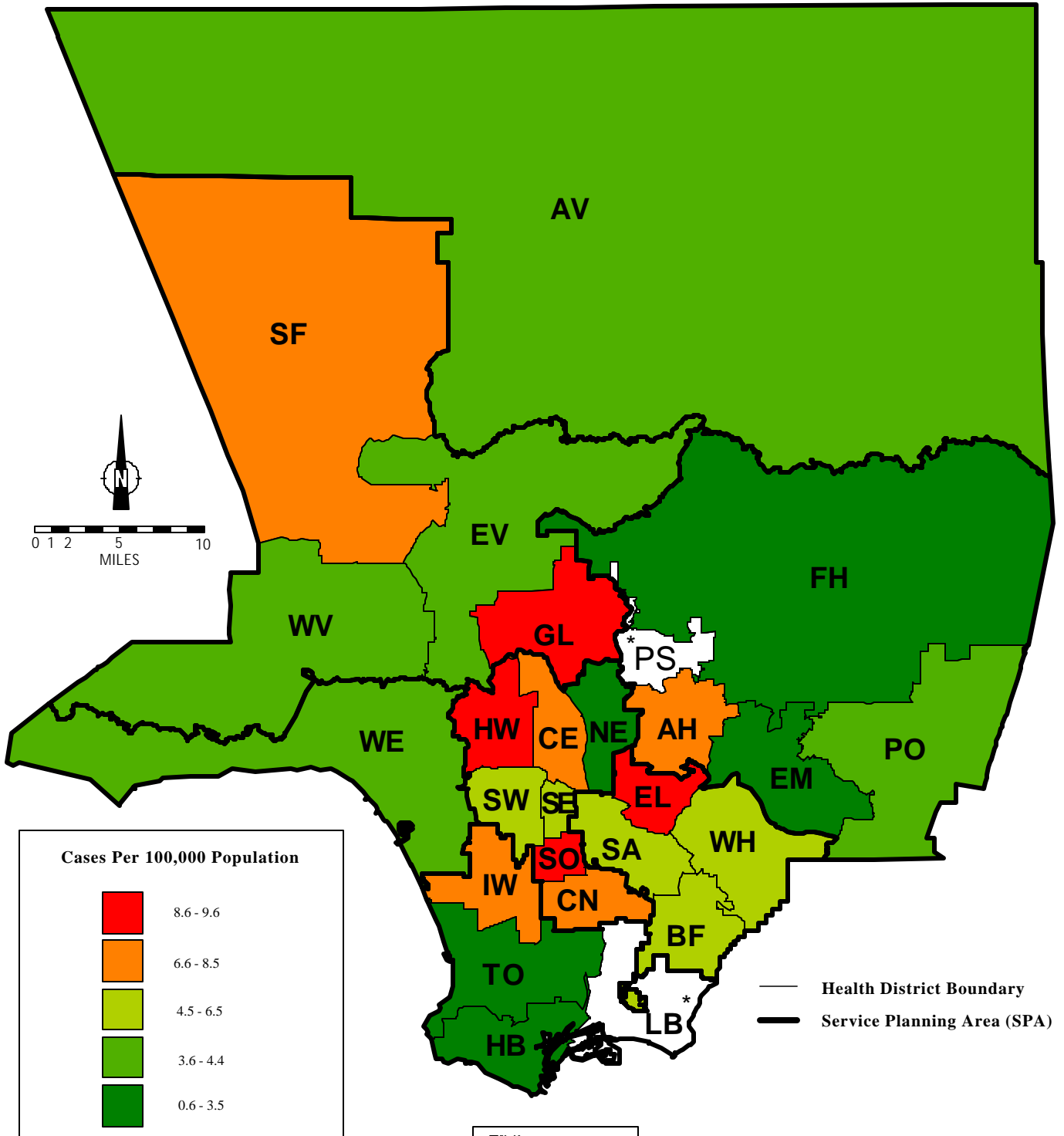
B-73 Communicable Diseases Control, A Manual of Departmental Rules, Regulations and Control Procedures at:

<http://lapublichealth.org/acd/procs/manual.htm>

<http://www.cdc.gov/ncidod/diseases/hepatitis/slideset/bibliography.htm>

<http://www.cdc.gov/ncidod/diseases/hepatitis/a/index.htm>

MAP 6. Hepatitis A Rates by Health District, Los Angeles County, 2000*



*Excludes Long Beach and Pasadena Data.

