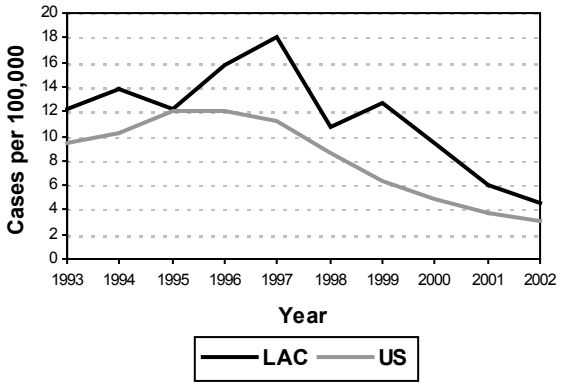
HEPATITIS A

CRUDE DATA	
Number of Cases	433
Annual Incidence[a]	
LA County	4.6
California	4.3
United States	3.1
Age at Diagnosis	
Mean	39
Median	38
Range	1–91 years
Case Fatality	
LA County	<1%
United States	N/A

Figure 1
Hepatitis A
Incidence Rates by Year
LAC and US, 1993–2002



[a] Cases per 100,000 population.

DESCRIPTION

Hepatitis A virus (HAV), a RNA-virus of the Picornaviridae family, is a vaccine-preventable disease transmitted fecal-orally, person-to-person, or through vehicles such as food. Signs and symptoms of acute hepatitis A 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. The average incubation period is 28 days (range 15–50 days).

For surveillance, a case of acute hepatitis A is defined as having a positive laboratory test for the IgM antibody to HAV, which can indicate recent infection. A case meets the clinical definition if it occurs in a person who has an epidemiologic link with a person who has laboratory-confirmed hepatitis A (i.e., in a household or sexual contact of an infected person during the 15–50 days before the onset of symptoms).

DISEASE ABSTRACT

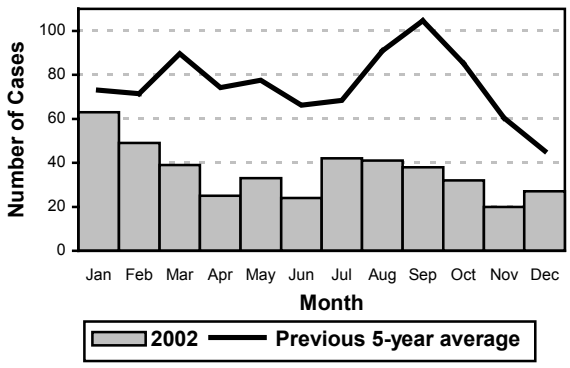
- The annual incidence rate of hepatitis A cases reported in LAC showed a steady decrease in 2002.
- With the exception of a decreased incidence in Latinos aged 5–14, and an increased incidence in persons aged 65+, the demographic characteristics of 2002 cases were similar to the last five years.
- An increase in incidence occurred during winter while fewer new cases occurred during summer.
- Hospitalization rates were highest among young adults.

STRATIFIED DATA

Trends: There has been a steady decrease of hepatitis A cases in LAC since 1995. From 1993–1997, the rate ranged between 10–16 cases per 100,000 (Figure 1). From 1997 to 2002, the rate decreased from 18 to 6 per 100,000. In 2002, 433 cases were reported, a rate of 4.6 cases per 100,000.

Seasonality: Historically, there is an increase of hepatitis A cases in the summer and decrease in the winter. This trend did not occur in 2002 (Figure 2).

Figure 2
Hepatitis A
Cases by Month of Onset
LAC, 2002



Age: During 2002, the overall mean age for hepatitis A cases in LAC was 39 years. The mean age differed significantly by race and ethnic groups. The mean age for Latinos was 24 years while, White, Asian and Black cases had mean ages of 43, 45, and 37 years, respectively. These mean ages among the various racial/ethnic groups were similar to the previous year. Historically, the age specific rate has been highest in children aged 5–14 years. However, in 2002, the rate was highest among those 65 and older (7.4 per 100,000, Figure 3).

Sex: The overall HAV male-to-female rate ratio was 1.2:1. The male-to-female ratio for those aged greater than 18 years was 1.4:1. Among Latino cases, the male-to-female rate ratio was 1.08:1, while among White, Asian, and Black cases, incidence rates ratios were higher among males, at 1.6:1, 1.03:1, and 2.5:1, respectively.

Race/Ethnicity: The overall hepatitis A crude rate decreased for all ethnic groups in 2002 (4.6 per 100,000). As shown in Figure 4, the highest rate in 2002 was among Whites (5.3 per 100,000), followed by Asians (4.9), Latinos (3.4) and Blacks (2.5).

Location: The following map shows district-specific HAV rates for 2002. The highest rate occurred in the Hollywood-Wilshire district (9.7 cases per 100,000) closely followed by Glendale (8.4), San Fernando, Central (5.9), Bellflower (5.6), and West Valley (5.4). Looking at distribution by Service Planning Area (SPA, Figure 5), SPAs 4 and 2 have the highest rates (6.6 and 5.7 per 100,000, respectively), while SPAs 5,6, and 8 have rates lower than the county average.

Severity of Illness: Among all HAV cases in 2002, there were two fatalities (case-fatality rate=0.5%) aged 27 and 56 years. More than 48% reported jaundice and 10% were hospitalized for their illness. Hospitalization was most prevalent among young adults; increased liver enzymes and jaundice were

Figure 3
Hepatitis A Incidence Rates
by Age Group LAC, 2002 (N=433)

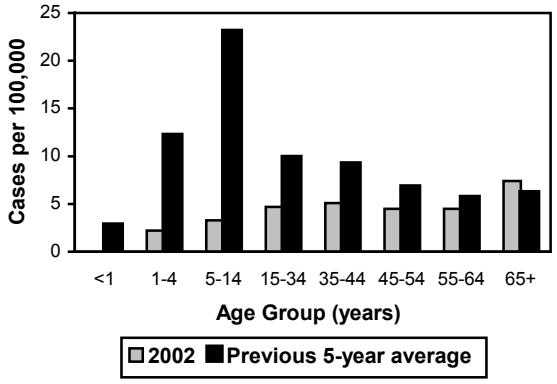
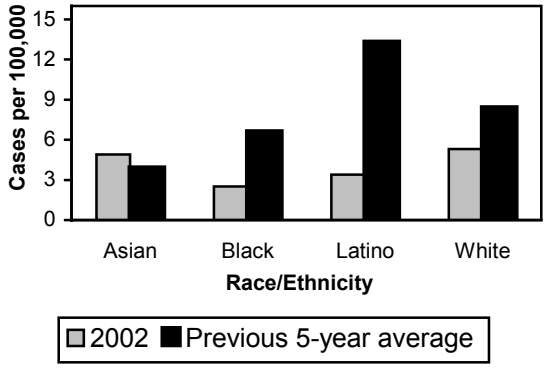


Figure 4
Hepatitis A Incidence Rates
by Race/Ethnicity
LAC, 2002



reported by over 70% of hospitalized cases.

Risk Factors: Recent travel outside of the US (n=90, 21%) was the most common risk factor reported in 2002. MSM are also at high risk for infection (9.4%). Other risk factors include eating raw shellfish (8%) and being a contact to another case (6%). For many cases (38%) risk factors were unknown or not reported. Among travelers, South and Central American destinations (62%) were most frequently cited.

Figure 5
Hepatitis A Rates
by Location
LAC, 2002

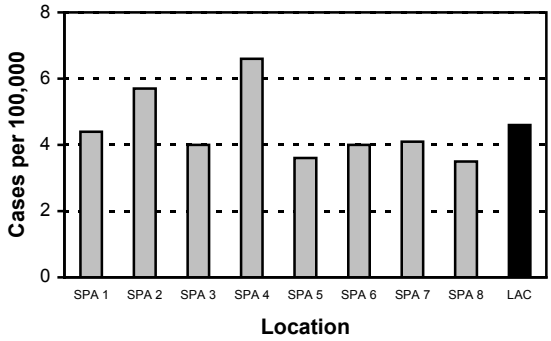
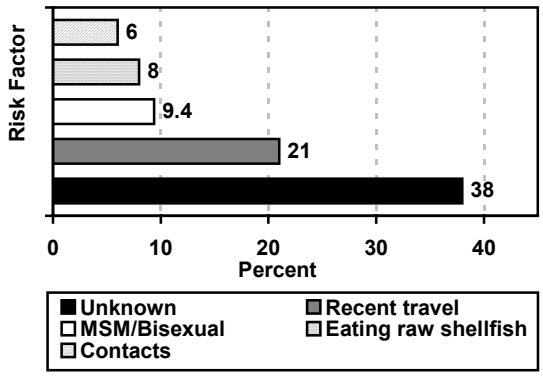


Figure 6
Hepatitis A Reported Risk Factors
LAC, 2002



*Includes cases identifying multiple risks.

PREVENTION

In LAC, most infections occur among international travelers, followed by MSM, those who eat raw shellfish, and those who report 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. Good personal hygiene and proper sanitation can prevent HAV. Immune globulin is recommended for certain short-term pre-exposure situations and post-exposure prophylaxis.

Since 1995, vaccines have been available for the permanent prevention of HAV infection in persons aged 2 years and older. In 1999, the ACIP recommended universal childhood vaccination in states 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 in August 1999.

Post-exposure prophylaxis with immune globulin is used to control outbreaks in Los Angeles County. Since HAV vaccination has become available and in more routine use, it has been recommended by Advisory Council on Immunization Practices (ACIP) that outbreaks of HAV could be effectively controlled through vaccine use (CDC, 1999), leading to a sustained reduction in disease incidence.

COMMENTS

There was a significant decrease in the number of cases of hepatitis A reported in LAC since 1997—though, this decrease may be due to the cyclical nature of hepatitis A and a future increase may be expected. Other potential reasons for the decrease may be the ACIP recommendation (CDC, 1999) to provide hepatitis A vaccine for children, greater public awareness or improved hygiene and food sanitation. Underreporting and underdiagnosis by physicians cannot be excluded as a reason for the decrease.

Hepatitis A is a mandated laboratory reportable disease in California. The 433 hepatitis A cases reported in 2002 were confirmed by IgM antibody to HAV, which may indicate recent infection. Studies have shown that many children who acquired HAV are asymptomatic and not tested for HAV-IgM. Even when these children's laboratory results are confirmed IgM positive, many private health care providers and

laboratories may not report HAV cases to county health officials. Therefore, support and encouragement for physician reporting and compliance with the ACIP recommendations should continue.

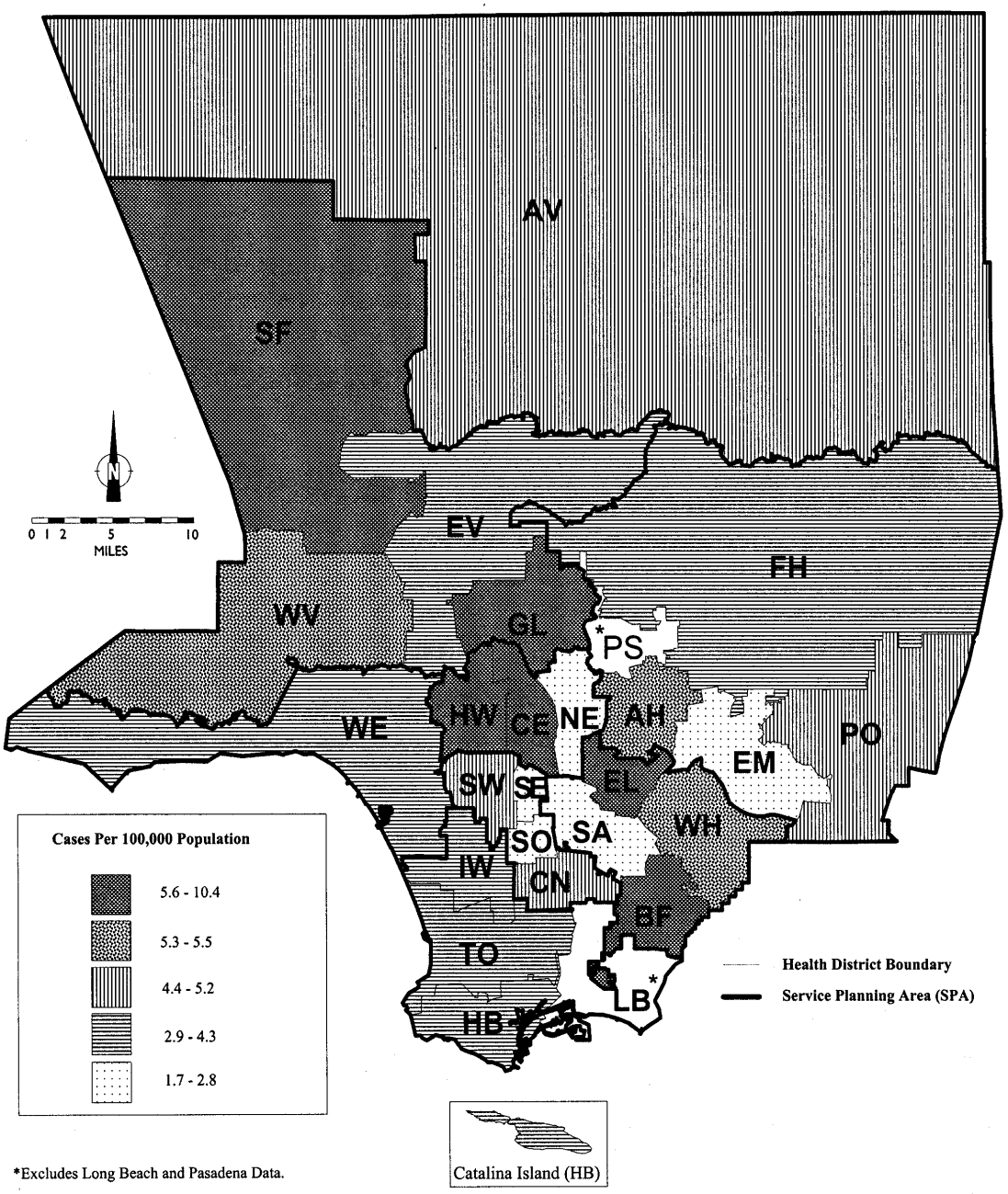
Most cases of hepatitis A result from person-to-person transmission in areas with high and intermediate rates of hepatitis A. In LAC, there were no outbreaks of hepatitis A reported in 2002.

ADDITIONAL RESOURCES

General information about hepatitis is available from the CDC at:

- www.cdc.gov/ncidod/diseases/hepatitis/slideset/bibliography.htm
- www.cdc.gov/ncidod/diseases/hepatitis/a/index.htm

MAP 7. Hepatitis A
Rates by Health District, Los Angeles County, 2002*



*Excludes Long Beach and Pasadena Data.