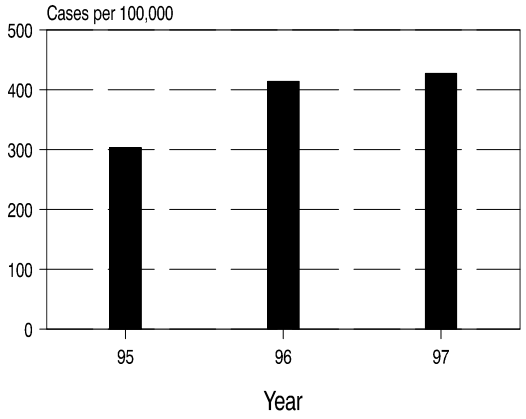
PERINATAL HEPATITIS B PREVENTION PROGRAM

CRUDE DATA	
Number of Infants Born to HBsAg-Positive Mothers	680
Annual Incidence[a]	
LA County	427
California	NA
United States	NA
Age of Mother at Time of Infant's Birth	
Mean	30
Median	30
Range	15-47 yrs
Case Fatality	
LA County	0.0%
United States	NA

[a]Incidence based on number of infants born to HbsAg-positive mothers per 100,000 live births.

Figure 112
Infants Born to HBsAg-Postive Mothers
Incidence Rates By Year
LAC, 1995-1997



In 1995, case management services were expanded. Data prior to this is not shown.

ETIOLOGY

Hepatitis B virus (HBV).

DISEASE ABSTRACT

The Immunization Program's Perinatal Hepatitis B Prevention Program (PHBPP) conducts case management of prenatal HBsAg-positive pregnant women, their newborns and household contacts. Hepatitis B immunoprophylaxis of infants and hepatitis B serologic screening and vaccinations of household contacts are tracked by the Program. The incidence in LAC of infants born to HBsAg-positive mothers increased slightly in 1997. Infant hepatitis B immunoprophylaxis completion rate also increased slightly. Being born in an area of the world with high or intermediate levels of hepatitis B disease remained the biggest risk factor for HBsAg-positive pregnant women.

STRATIFIED DATA

Trends: The incidence of infants born to HBsAg-positive mothers increased 3% from 414 per 100,000 infants born in 1996 to 427 per 100,000 infants born in 1997 (Figure 112). Immunoprophylaxis (hepatitis B immunoglobulin [HBIG] and the three-dose hepatitis B vaccine [HBVac] series) completion rates increased from 90% in 1996 to 91% in 1997.

CASES REPORTED IN 1997

In 1997, 766 HBsAg-positive prenatal women were reported to the PHBPP for case management.

Countries of Origin: Six hundred eighty-four (89%) of the 766 HBsAg-positive pregnant women were born outside of the United States; of these women, 593 (87%) were born in areas of the world

with high or intermediate levels of endemic hepatitis B disease. Endemic areas of origin included Asia, Middle East, Ethiopia, Liberia, Nigeria, Honduras, Guatemala, Pakistan, Iran, Armenia, and the Ukraine. The remaining 87 (13%) were from countries where hepatitis B is of low endemicity, such as Mexico, El Salvador, Columbia, Nicaragua and France.

Race/Ethnicity: In 1997, 551 (72%) of the HBsAg-positive pregnant women were Asian/ Pacific Islander (API), 16% were Hispanic, 5% were White, 5% were Black, and 2% were Other. Of the 551 API women, 51% were Chinese, 16% Vietnamese, 13% Filipino, 12% Korean, 3% Cambodian, and 5% other API. The majority of the HBsAg-positive women reported (62%, n=471) had a primary language other than English.

Age: The mean age of HBsAg-positive mothers at the time of infant's birth was 30 years of age. Range was 15-47.

CASES COMPLETED FOR FOLLOW-UP IN 1997

In 1997, case management was completed for 713 women, their newborns, and household contacts. Average time for completion of case management was 10 months. Follow-up is complete only when numerous attempts have been made by the case manager to ensure that the newborn has completed the hepatitis B vaccine series by six months of age and all of the household contacts are serologically screened and vaccinated, if susceptible.

Infant Immunoprophylaxis Completion Rates: A total of 702 infants (including three sets of twins) were born to 713 women of which 92% received HBVac#1 within 24 hours of birth and 91% received HBIG within 24 hours of birth. (Eleven infants were excluded because mother miscarried/aborted or moved out of LAC before delivery.) Five hundred ninety-one (91%) infants of a total 647 eligible infants received HBIG and a complete three-dose series of hepatitis B vaccine. Fifty-five infants moved out of LAC prior to infants being eligible to complete the vaccine series (Table 16).

Table 16. Summary of Infant Hepatitis B Immunoprophylaxis
Los Angeles County, 1997

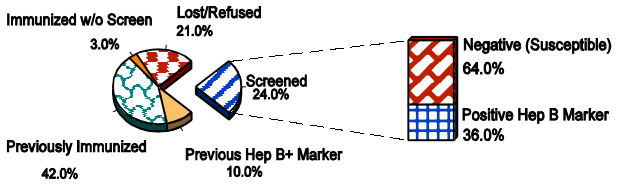
Hepatitis B Immunoprophylaxis	Number of Infants	Number of Eligible Infants	Percent
Infants who received HBVac#1 within 24 hours of birth	642	702	92%
Infants who received HBIG within 24 hours of birth	636	702	91%
Infants who completed HBIG/3-dose HBVac series	591	647	91%

Household and Sexual Contacts Completion Rates: A household contact was defined as an individual with anticipated continuous household exposure for greater than one year (often limited to nuclear family only). Of 1,231 household and sexual contacts identified, 512 (42%) had already been vaccinated against hepatitis B. The majority (81%) of the previously immunized were ≤18 (81%). One hundred twenty-eight (10%) were known to have serologic evidence of hepatitis B infection of which 81 (63%) had been previously identified by prior case management. Of the remaining 591 (48%) contacts, 298 were screened for serologic evidence of hepatitis B infection or immunity, 35 (3%) were immunized without screening, and 258 (21%) refused screening or vaccination or were lost to follow-up. Of the 298 (24%) household contacts serologically screened, 107 (36%) had positive markers for hepatitis B and therefore did not need vaccine (Figure 113). One hundred ninety-one (64%) of the screened household contacts were seronegative, i.e., susceptible to hepatitis B infection. At the time of completion of case management for the HBsAg-positive mother, 164 (86%) of the susceptible household contacts had completed all three doses of hepatitis B vaccine.

Figure 113

Household Contacts of Perinatal Hepatitis B Cases

Los Angeles County, Cases closed 1997 (N=1,231)



COMMENTS

The mission of the PHBPP is to prevent perinatally transmitted hepatitis B within LAC. Vaccination and one dose of HBIG, administered within 24 hours after birth, are 85%-95% effective in preventing both hepatitis B virus infection and the chronic carrier state. By preventing the chronic carrier state, the vaccine also protects against long-term complications such as cirrhosis or liver cancer.

To enhance case reporting of HBsAg-positive women, a letter reviewing laboratory reporting requirements was sent to clinical laboratories in LAC in 1997.