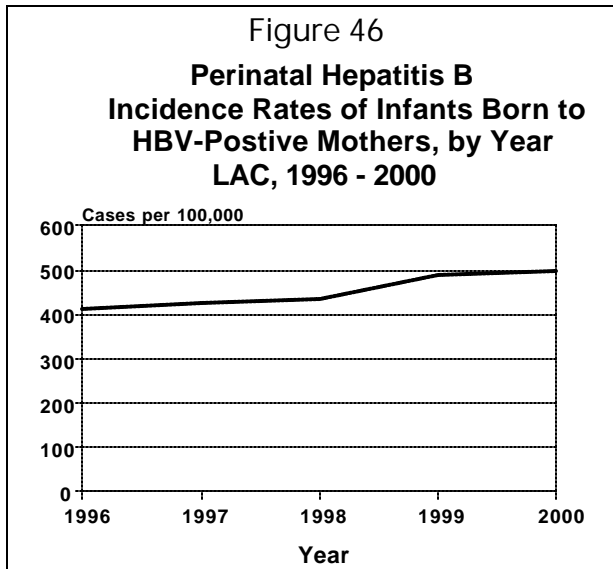


PERINATAL HEPATITIS B PREVENTION PROGRAM

CRUDE DATA	
Number of Infants Born to HBsAg-Positive Mothers	718
Annual Incidence ^a	
LA County	497
California	NA
United States	NA
Case Fatality	0.0%
LA County	N/A
United States	N/A



^a Incidence based on number of infants born to HBsAg-positive mothers per 100,000 live births.

ETIOLOGY

Hepatitis B is a vaccine-preventable disease transmitted through parenteral or mucous membrane exposure to the blood and other body fluids of individuals infected with the hepatitis B virus (HBV), a DNA-virus of the Hepadnaviridae family. It is also transmitted from mother to infant during birth. An estimated 90% of infants who become infected by perinatal transmission will have chronic HBV infection and up to 25% will die of chronic liver disease as adults. Hepatitis B vaccination and one dose of hepatitis B immune globulin (HBIG), administered within 24 hours after birth, are 85-95% effective in preventing both HBV infection and the chronic carrier state.

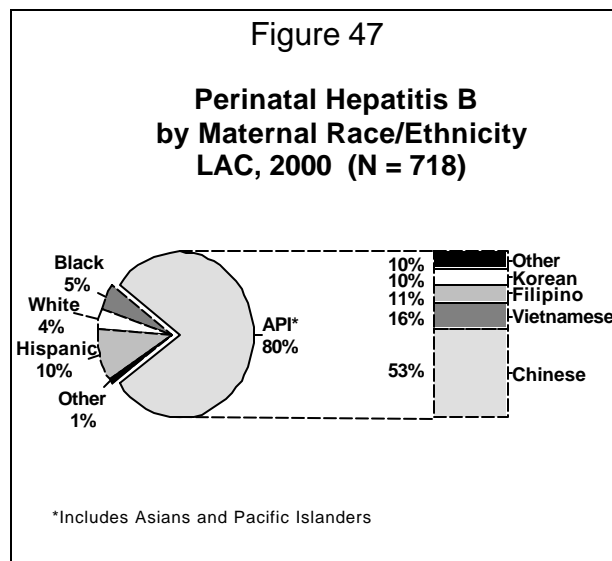
DISEASE ABSTRACT

- The Immunization Program's Perinatal Hepatitis B Prevention Program (PHBPP) conducts case management of chronic hepatitis B surface antigen (HBsAg)-positive pregnant women, their newborns, and household contacts.
- The vast majority of cases (80%) were among Asian/Pacific Islander women, in whom hepatitis B disease is endemic.
- Of infants born to HBsAg-positive mothers, 93% were immunized within 12 hours and 96% within 24 hours of birth.
- Of those responding to a survey 3 to 9 months after vaccination was completed, 93% were found to be protected against HBV, 5% were still susceptible, and 3% were found to have been infected with HBV.

STRATIFIED DATA

Trends: In 2000, 718 infants (including 6 sets of twins) were born to 712 HBsAg-positive women. The incidence of infants born to HBsAg-positive mothers was essentially unchanged from 1999 (Figure 46).

Race/Ethnicity: The majority of the cases were among Asian/Pacific Islanders (API), in whom hepatitis B disease is endemic. Five hundred seventy-one (80%) of the women were API, and 76 (10%) were Hispanic (Figure 47). Of API women, 303 (53%) were Chinese, 90 (16%) Vietnamese, 62 (11%) Filipino, 57 (10%) Korean, and 59 (10%) other API—including women from Samoa, Tonga, Japan, Laos, Burma, Mongolia and India.



CASES COMPLETED FOR FOLLOW-UP IN 2000

In 2000, follow-up was completed for 842 women, their newborns, and household contacts. Eighty-two mothers were excluded (27 mothers miscarried, 21 transferred/moved out of LAC prior to delivery, 12 were unable to locate before delivery and 22 were retested and found to be HBsAg negative). Numerous attempts are made by case managers to complete follow up of infants and household contacts; therefore, some of the cases completed in 2000 were reported in 1998 and 1999.

Case management protocol includes (1) educating pregnant HBsAg-positive women about HBV disease, transmission, and infant vaccinations, (2) identifying and referring household contacts for screening and vaccination, (3) notifying hospitals of the expected deliveries and requesting that the hospitals return documentation after the infant's birth with the dates and times of the administration of hepatitis B vaccine #1 and HBIG, (4) notifying the infant's health care provider about the need for hepatitis B vaccine #2 at 1-2 months and hepatitis B vaccine #3 at six months of age, (5) reminding parents about these needed vaccinations, and (6) sending postvaccination serology letters to pediatric health care providers.

Infant Immunoprophylaxis Completion Rates: Of a total of 852 infants (including 10 sets of twins), 93% received hepatitis B vaccine #1 and HBIG within 12 hours of birth, while 97% received hepatitis B vaccine #1 and 96% received HBIG within 24 hours of birth. Of these infants, 10 transferred to other states or counties before six months of age, leaving a total of 842 eligible to complete the hepatitis B vaccine series. Of those 842 remaining infants, 89% (750) received HBIG and a complete three-dose series of hepatitis B vaccine (Table 1).

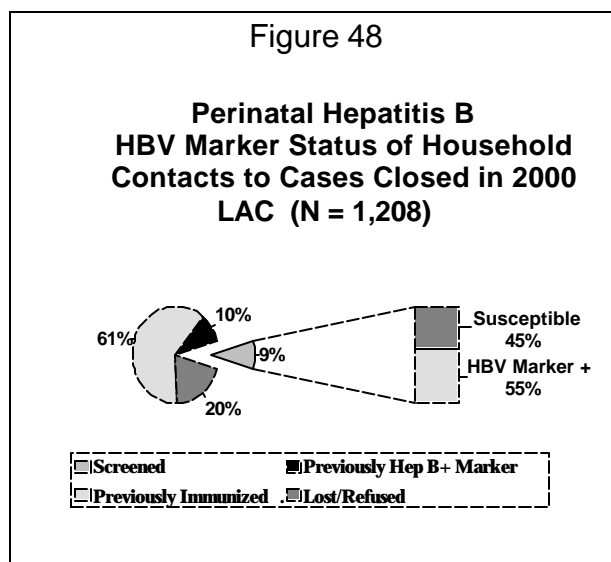
Table 1. Summary of Infant Hepatitis B Immunoprophylaxis, LAC, 2000

Hepatitis B Immunoprophylaxis	Number of Infants	Number of Eligible Infants	Percent
Infants who received hepatitis B vaccine #1 within 12 hours of birth	791	852	93%
Infants who received hepatitis B vaccine #1 within 24 hours of birth	823	852	97%
Infants who received HBIG within 12 hours of birth	789	852	93%
Infants who received HBIG within 24 hours of birth	819	852	96%
Infants who completed HBIG/3-dose hepatitis B vaccine series	750	842*	89%

* This includes 29 infants who moved out of the country before 6 months of age.

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). Of 1,188 household and sexual contacts identified, 712 (60%) had already been vaccinated against hepatitis B, and 118 (10%) were known to have serologic evidence of hepatitis B infection. Of the remaining 358 (30%) contacts, 110 were screened for serologic evidence of hepatitis B infection or immunity, while 240 (20%) refused screening or vaccination, were lost to follow-up, or moved; 8% were vaccinated without screening. Of the 110 household contacts who were serologically screened, 62 (56%) had positive markers for hepatitis B and therefore did not need vaccine. Forty-eight (44%) of the screened household contacts were seronegative—that is, susceptible to hepatitis B



infection (Figure 48). At the time of completion of case management for the HBsAg-positive mothers, 36 (75%) of the susceptible household contacts had completed all three doses of hepatitis B vaccine.

Post-vaccination serology results: Postvaccination serology testing of infants born to HBsAg-positive mothers is recommended 3 to 9 months after completing immunoprophylaxis to verify vaccine failure or success. Letters requesting postvaccination serology results were mailed to pediatric health care providers of infants tracked by the PHBPP. The postvaccination serology results of 214 infants whose follow-up was completed in 2000 were received. Of these, 198 (93%) had antibodies to hepatitis B surface antigen indicating protection against HBV, 6 (3%) were HBsAg positive and infected, and 10 (5%) were negative for both markers and revaccination was recommended.

ADDITIONAL RESOURCES

Epidemiology and Prevention of Viral Hepatitis slide set.

Available at:

http://www.cdc.gov/ncidod/diseases/hepatitis/slideset/hep_b/slide_1.htm

CDC Publications, Viral Hepatitis.

Available at

<http://www.cdc.gov/ncidod/diseases/hepatitis/resource/pubs.htm>

Viral Hepatitis B.

Available at:

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

Immunization Action Coalition. Available at:

www.immunize.org

Hepatitis B Foundation. Available at:

<http://www.hepb.org/>

Acute Communicable Disease Control website:

<http://lapublichealth.org/acd/procs/b73/b73index.htm>