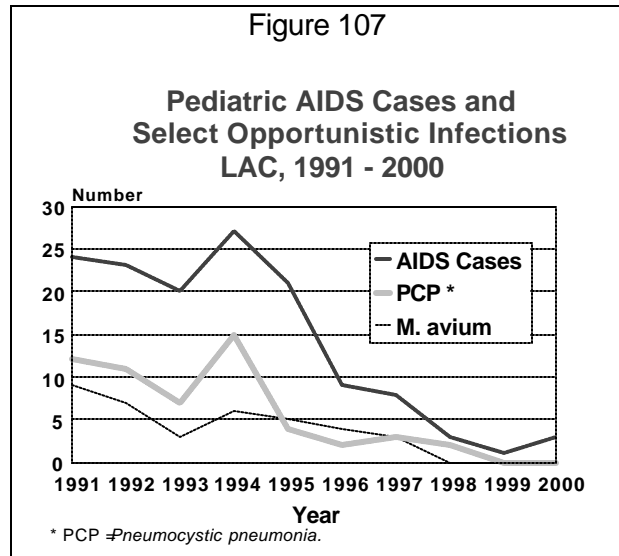


PEDIATRIC ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS)

CRUDE DATA	
Number of Cases	3
Annual Incidence ^a	
LA County	0.03
California	0.4
United States	0.4
Age at Onset	
Mean	7 years
Median	5 years
Range	2 - 12 years
Case Fatality	
LA County	0%
United States	N/A

^a Incidence rates unstable due to small number of observations.



ETIOLOGY

AIDS (acquired Immunodeficiency syndrome) is caused by the human immunodeficiency virus (HIV). HIV attacks the body's immune system until it is too weak to defend the body against diseases and tumors. Various infections called opportunistic infections develop. AIDS is the condition of the body being overwhelmed by opportunistic infections and/or tumors. A pediatric case of AIDS is defined as a child, aged less than 13 years, with a CDC surveillance case definition of AIDS. Children acquire HIV infection primarily via perinatal (mother-to-child) transmission; however, many were infected from transfusion of contaminated blood or blood products in the early 1980s before the HIV testing was available for these products. Children are diagnosed with HIV with a positive ELISA antibody test and confirmatory western blot. Since infants can passively carry maternal antibody until 18 months of age, infants are diagnosed only after the virus has been detected directly using polymerase chain reaction (PCR). Until the use of antiretroviral treatment during pregnancy, at labor and delivery, and for the newborn, mother-to-infant transmission was 20-25% for HIV-positive mothers. With treatment, transmission rates have been reduced to a little as 2-3%. Common symptoms of HIV disease are persistent fever, diarrhea, "failure to thrive," lymphadenopathy, hepatomegaly, progressive neurologic disease, and other infectious diseases--including oral candidiasis, herpes zoster, and persistent otitis media. Severe outcomes include all opportunistic infections and cancers indicative of AIDS, as well as death.

DISEASE ABSTRACT

- Only 3 children were diagnosed with AIDS in 2000.
- Because HIV-infected women are now identified during their pregnancy and treated with antiretroviral medications, mother-to-infant transmission of HIV has been reduced in LAC.
- Early detection and better treatment have prevented HIV-positive children from progressing to AIDS.

DATA

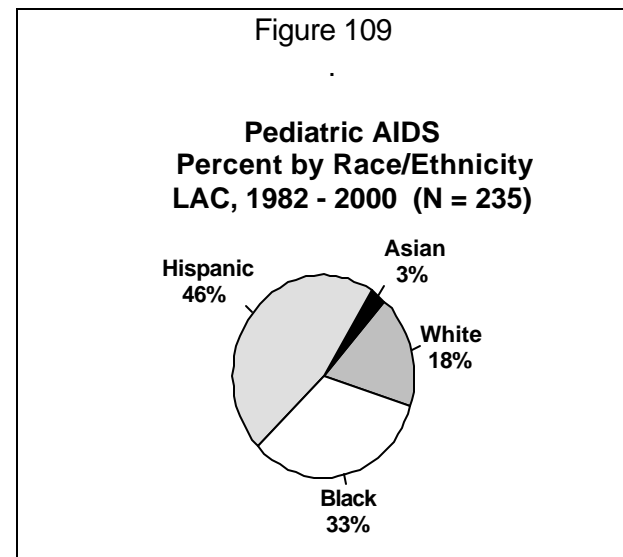
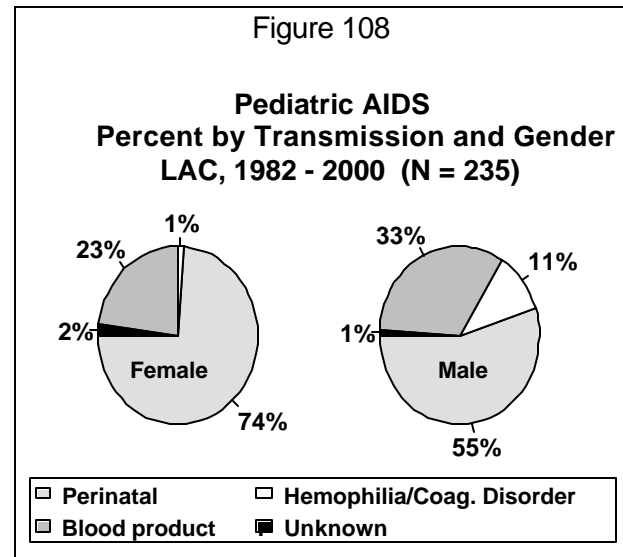
Three AIDS cases were reported in 2000. Two children (aged 6 and 12 years) were identified as HIV positive at onset of AIDS, one of whom had immigrated to the US after both parents had died. The third child was identified at birth and developed lymphoid interstitial pneumonia at age 3 years despite antiretroviral treatment for the mother during labor and delivery.

From 1982 to December 2000, 235 children aged less than 13 years have been reported with AIDS in LAC. Of these, 85 (36%) were alive with follow-up through 2000. The number of children diagnosed with AIDS in LAC has declined from a peak of 27 in 1994 to 3 children in 2000.

Trends in AIDS-defining illnesses show that between 1988 and 2000, 100 (43%) cases were diagnosed with *Pneumocystis carinii* pneumonia (PCP), and 50 (21%) were diagnosed with *Mycobacterium avium*. In 1994, 56% of AIDS cases were diagnosed with PCP; this proportion declined in 1995 to 19% and to 0% in 2000. The number of cases diagnosed with *M. avium* similarly declined between 1994 and 1997, from 19% in 1994 to 5% in 1995, and 0% in 1997 (Figure 107). Since the implementation of universal blood donor screening in 1985 and the treatment of blood products received by those with hemophilia and other blood clotting disorders, the majority of children reported with AIDS have been exposed to HIV via perinatal (mother-to-child) transmission (Figure 108). Of the 235 cumulative children diagnosed with AIDS under age 13, 69% acquired HIV from their mothers; 26% were infected through a blood transfusion; and 3% had hemophilia or a coagulation disorder. In 2%, no exposure category could be determined. The racial/ethnic distribution for children with AIDS is similar to that of adult female cases. Overall, 18% of the 235 children diagnosed with AIDS in LAC were White, 34% African-American, 46% Latino and 2% Asian (Figure 109).

COMMENTS

The decrease in the number of children with AIDS in recent years is no doubt due to the effectiveness of providing antiretroviral treatment to HIV-positive pregnant woman as well as providing treatment to infected children. The widespread use of antiretroviral therapy in HIV-infected mothers and their newborns has been a major factor in the decline in perinatal HIV infection and



AIDS among children in LAC. Providing pregnant women easy access to perinatal care early in pregnancy, routinely offering them testing and counseling for HIV infection and offering antiretroviral therapy can greatly reduce the risk of HIV transmission from an infected mother to her child. Primary prevention of HIV infection in women of childbearing age is the best way to prevent perinatal HIV transmission.

ADDITIONAL RESOURCES

Centers for Disease Control and Prevention. Public Health Service task force recommendations for the use of antiretroviral drugs in pregnant women infected with HIV-1 for maternal health and for reducing perinatal HIV-1 transmission in the United States. *MMWR* 1998;47 (RR-2):1-30. Update guideline available at <http://www.hivatis.org>

Mofenson LM and the Committee on Pediatric AIDS. Technical Report: Perinatal Human Immunodeficiency Virus testing and prevention of transmission. *Pediatrics* 2000;106:e88:1-12. Available at <http://www.pediatrics.org>

Centers for Disease Control and Prevention. CDC Guidelines for national human immunodeficiency virus case surveillance, including monitoring for human immunodeficiency virus infection and acquired immunodeficiency syndrome. *MMWR* 1999;48 (RR-13):1-27. Available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4813a1.htm>

CDC. Appendix: Revised Surveillance Case Definition for HIV Infection. *MMWR* 1999;48(RR13);29-31. Available at <http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/rr4813a2.htm>

Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report, 2000; 12 (1). Available at <http://www.cdc.gov/hiv/stats/hasrlink.htm>

Centers for Disease Control and Prevention. Success in implementing Public Health Service guidelines to reduce perinatal transmission of HIV – Louisiana, Michigan, New Jersey, and South Carolina, 1993, 1995, and 1996. *MMWR* 1998; 47:688-91. Available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/00054649.htm>

HIV/AIDS Reporting System.
http://www.cdc.gov/nchstp/hiv_aids/dhap.htm