State of Alaska Epidemiology Bulletin

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HIV in Childbearing Women

In 1990, Alaska joined 44 other states, the District of Columbia, and Puerto Rico in a national survey of HIV prevalence in women giving birth to live infants. The survey is designed, coordinated, and funded by the National Centers for Disease Control.

Purpose. The study collects epidemiologic data on the extent of HIV infection in the population of all women giving birth. Study results may be compared to results in other periods of time to determine trends or to findings in other geographic areas. Because the study is blinded (anonymous), results cannot be used to identify and advise individual women of their HIV status. Data assist in predicting needs for certain kinds of health care services and for targeting educational efforts.

Methodology: The Survey in Childbearing Women does not require a special blood sample. Blood samples are routinely drawn shortly after birth on every baby born in the state. Samples are sent to a central laboratory for screening to detect certain metabolic disorders which can cause severe health problems if not treated. After the metabolic screening tests have been completed, the remaining blood sample is stripped of all identifiers and tested for antibodies to the Human Immunodeficiency Virus (HIV). There is no way HIV antibody test results may be linked to an individual mother or newborn because the testing is anonymous. Since all women delivering live births are included, selection bias is minimized.

The presence of HIV antibodies in the newborn indicates HIV infection in the mother. It does not indicate HIV infection in the infant, because the infant bears the mother's antibodies at birth. Approximately 30% of infants born to infected mothers are themselves HIV infected. A positive HIV antibody test in the newborn child reliably indicates HIV infection only after the child reaches 15 to 18 months of age when maternal antibodies are no longer present. (Alternative technologies are available to detect presence of the virus itself in newborns but are impractical for screening purposes.)

Results: Alaska survey results are available for the period February 1990 through May 1991. The survey is ongoing. A total of 14,261 newborns were screened for antibodies to HIV during this period with three (0.02%) testing positive for antibodies to HIV, indicating three mothers were infected (a rate of 0.21 per 1000 women giving birth). Each of the three births occurred in a different region of the state.

Discussion: The National Centers for Disease Control has reported results for HIV seroprevalence studies among childbearing women for 38 states and the District of Columbia for the period from 1988 to 1990 (JAMA, 1991, 265:1704-8). Nationwide, an estimated 1.5 per 1000 women giving birth during this period were infected with HIV, an estimated 6,079 births to HIV infected women from 1988-1990.

HIV infection among childbearing women, like HIV infection among men, is not evenly distributed across the country. The highest HIV seroprevalence rates were in New York (5.8 per 1000), the District of Columbia (5.5 per 1000), New Jersey (4.9 per 1000, and Florida (4.5 per 1000). Alaska's rate (0.21 per 1000) is similar to the 1989-90 rates in Iowa, Kentucky, Minnesota, Oklahoma, Utah, Washington, and Wisconsin.

Women and perinatally-infected children are now the fastest growing populations among AIDS cases in the U.S. Adult and adolescent women accounted for 11.5% of reported AIDS cases in 1990. The time between infection with HIV and development of symptoms (incubation period) averages 10 years in adults, so that many young adults now being diagnosed with AIDS were likely infected as teenagers. Of the 116 AIDS cases diagnosed in Alaska through June 30, 1991, six have been women (5.2% of the total), and 2 have been infants infected perinatally (1.7% of the total). Of the 13,781 women voluntarily tested for HIV at facilities using the state laboratory system, 42 (0.3% of women tested) were HIV positive. None of the 1,289 civilian women applying for military service in Alaska between May 1985 and March 1991 have been HIV positive.

HIV risk reduction education should be incorporated into all appropriate services reaching potentially at-risk women. Health care providers should carefully interview all HIV positive persons about their sexual and/or needle sharing partners, and assist with partner notification, as appropriate. AIDS/STD Program staff are available to provide staff training, consultation, and assistance with partner notification.

Women at risk of HIV infection should know their serostatus and, if infected, seek early medical care to preserve health. HIV serostatus is an important consideration in decisions about conception or childbearing and in the clinical management of mother and infant. **All prenatal women and women with identified risk factors should routinely be offered voluntary HIV counseling and testing**.

Serologic testing for HIV antibodies is available at no cost to all providers using the state laboratory system, and is offered free of charge in Public Health Centers in most hub cities in the state. Further information is available from the AIDS/STD Program (561-4406) or the AIDS Helpline (276-4880 within the Anchorage area or 800-478-AIDS outside of Anchorage).

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