

Limitations: Because of the long and variable period from infection to development of AIDS, trends in AIDS case data do not represent recent HIV infections or all HIV-infected persons. AIDS surveillance data do not represent persons whose HIV infection is not recognized or diagnosed.

With the 1993 expansion of the AIDS surveillance case definition, reporting may be less complete because of incomplete HIV and CD4+ T-lymphocyte testing among infected persons. The expansion of the surveillance definition will temporarily disrupt interpretation of trends in the number of AIDS cases. An evaluation of surveillance activities will be necessary to assess the effects of these factors on disease reporting.

Current mathematical techniques for estimating HIV prevalence and incidence using AIDS data are imprecise and can only be applied nationally or in large areas with the highest AIDS incidence. These techniques are complex and require sophisticated statistical expertise.

4.2.1.2 Vital Statistics. All states maintain registries of deaths. Assessing the number and rate of HIV-related deaths provides a simple measure of the impact of HIV in a community, particularly when death rates are examined by age group.

Stated Objectives and Overview: The primary objectives are to enumerate and characterize mortality attributed to HIV infection using vital statistics. These data are coded from death certificates collected by state vital registrars. These data have been used to characterize the impact of HIV infection on mortality, to assess the completeness of AIDS case reporting, and to compare trends in HIV infection mortality with trends for other leading causes of death. These data have also been useful in increasing awareness of the problem of HIV infection.

Target Population: All deaths occurring within the 50 States, the District of Columbia, and U.S. territories.

Strengths: These are state-wide databases representing all deaths occurring among state residents. Based on a legal document (i.e., the death certificate), filing is nearly 100% complete.

Limitations: Data on causes of death are based on information recorded by the certifying physician. Recorded information may be inaccurate or incomplete. Because of underreporting of certain causes of death, the number of HIV-related deaths and the spectrum of related conditions will be underestimated to some extent. Vital statistics data are not as timely as AIDS case reports.

4.2.1.3 National HIV Survey of Childbearing Women. The Survey of Childbearing Women is part of a broad system of monitoring the prevalence of infection among selected populations using "unlinked testing." This means that left-over blood specimens routinely collected for other purposes are anonymously tested for HIV infection after all personally identifying information is removed.

Stated Objectives and Overview: This survey estimates the prevalence of HIV infection among childbearing women. The survey is based on unlinked testing for HIV antibody using specimens that are left-over after routine newborn metabolic screening. A positive test reflects HIV infection in the mother, although not necessarily in the infant because maternal antibodies cross the placenta during pregnancy.

Target Population: This survey is conducted in 44 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. Between 1988-1992, more than 8 million dried blood spot specimens were tested for maternal HIV antibody in state public health laboratories, representing about one-third of all live births during that period.

Strengths: HIV seroprevalence rates, unbiased by patient self-selection, are obtained in this population based survey of national scope. "Population-based" means that the survey is representative of all women who deliver live-born infants and it is not limited to women delivering at selected facilities. The survey also indirectly measures incidence of HIV infection in newborns.

Limitations: This system does not collect HIV risk behavior data on childbearing women. It does not represent women who do not deliver live-born infants.