

Technical Notes

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Reporting requirements in Virginia

Chancroid, chlamydia, gonorrhea, granuloma inguinale, lymphogranuloma venereum, syphilis, HIV infection and AIDS are all reportable diseases/infections in Virginia. Health care providers and facilities, laboratories and local health departments are required by law to report these conditions to the Virginia Department of Health. Few cases of chancroid, granuloma inguinale, lymphogranuloma venereum are reported each year. Hence, these reportable diseases/infections are excluded from most data reports. State and federal funding for surveillance, education, prevention and care of infected persons is based on case numbers, which are dependent upon complete, accurate and timely reporting.

Counting and geographic assignment of cases

For federal funding purposes, all states and territories count cases in the same manner. For example, an individual gets counted as an HIV case in the city/county in which he/she resides at the time of his/her initial HIV diagnosis. Once that person progresses to AIDS, he/she will be indicated as an AIDS case in the city/county of residence at the time of AIDS diagnosis. States are continually working with each other to ensure that individuals are counted in only one state, so the case count for any individual city/county in Virginia could decline if surveillance information from another state/territory indicates an individual had an earlier diagnosis in that state/territory.

For epidemiologic and community planning purposes, it is often helpful to evaluate all cases of HIV and AIDS as being part of one combined group: persons diagnosed with HIV disease. Hence, for most reporting, the assignment of newly diagnosed (or incident) HIV cases (including concurrent diagnoses of HIV and AIDS) to a specific geographic area is based on city/county of residence of the patient at the time of initial HIV diagnosis. The assignment of prevalent cases to a specific geographic area is based on the most recent reported city/county of residence of the patient, whether HIV diagnosis, AIDS diagnosis or a subsequent report received that provides more current residential address information.

HIV disease and AIDS surveillance data

HIV disease case reports represent persons who have a confirmed diagnosis with human immunodeficiency virus (HIV). This category represents all new diagnoses with HIV infection regardless of the stage of the disease. Cases are counted by the date of diagnosis or by the date of report for the initial diagnosis. **AIDS** (acquired immunodeficiency syndrome) **case reports**, by contrast, represent only persons with HIV infection who have progressed to this later, more life threatening, stage of disease. AIDS cases are counted by the date of AIDS diagnosis or the date of AIDS report. Once a person meets the AIDS case definition, this person is always included as an AIDS case, even if his/her health improves. Most AIDS case reports represent persons who were diagnosed with HIV infection in earlier years. However, persons may be diagnosed with HIV infection and AIDS at the same time (concurrent). Therefore, HIV disease reports and AIDS case reports should be considered separately during data reviews, evaluations, etc. The two categories should *never* be combined to estimate an infected population, since the category of HIV disease also includes AIDS cases initially diagnosed with an AIDS defining condition.

Year of report versus year of diagnosis

HIV disease is unlike most communicable diseases in that it is chronic in nature. Failure of providers to initially report cases and changes in city/county of residence after initial diagnosis can complicate case counting. Therefore, enhanced surveillance activities may artificially fluctuate the number of case reports counted by date entered into the eHARS database (referred to as date of report). Counting cases by the date of initial diagnosis improves the analysis of the epidemic. Tabulating case totals by date of diagnosis inherently delays the reporting of disease information. Tables by date of diagnosis typically lag by one year.

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HIV/AIDS transmission categories

A hierarchy of transmission categories developed by the Centers for Disease Control and Prevention is used for surveillance purposes. Persons with more than one reported mode of exposure are classified in the category listed first in the hierarchy, except for men who have sex with men and inject drugs who comprise a separate category. In addition, “undetermined” risk represents persons for whom transmission history is incomplete. Over time, a case with an undetermined risk category may be reassigned to another category if additional information is received.

MSM (Men who have sex with men): Males who have a history of sexual contact with other men or with both men and women.

IDU (Injection Drug Use): Persons who have a history of injecting drugs

MSM & IDU: MSM who also have a history of injecting drugs.

High-Risk Heterosexual contact (HRH): Males and females whose sexual partners are known to be HIV-infected or at high risk for HIV. The partners meet one of the following criteria: a history of sexual contact with bisexual males (for females), IDU, hemophiliacs, HIV+ transfusion/transplant recipients, or other HIV+ persons of unknown risk.

Blood Recipient: HIV transmission via transfusing blood or blood products or transplanting tissue or organs

Perinatal exposure: HIV transmission from mother to child during birth or through breastfeeding.

Undetermined: Persons with no identified risk (NIR) or no reported risk (NRR).

Chlamydia surveillance data

Chlamydia case reports represent persons who have a laboratory-confirmed Chlamydial infection. It is important to note that Chlamydial infection is often asymptomatic in both males and females and most cases are detected through screening. The infection can cause serious complications in females and screening activities associated with the Infertility Prevention Project target infections primarily in young women. There are no comparable screening programs for young men. For this reason, Chlamydia case reports are highly biased with respect to gender. In 2007 Virginia implemented improved data management protocols, whereby increasing case reports and improving reporting completeness. Reports are summarized by the date entered into the STD database (referred to as date of report) rather than by date of diagnosis, unless otherwise noted.

Gonorrhea surveillance data

Gonorrhea case reports represent persons who have a laboratory-confirmed gonorrhea infection. Gonorrhea is often symptomatic in males and slightly less so in females. Many cases are detected when patients seek medical care while others are detected through screening. Gonorrhea can cause serious complications for females and screening tests are frequently performed as a Chlamydia/gonorrhea combination test. There is less screening of males but since they are more likely to have symptoms that would cause them to seek care, gender bias in gonorrhea reporting is not likely to be large. In 2007 Virginia implemented improved data management protocols, whereby increasing case reports and improving reporting completeness. Reports are summarized by the date entered into the STD database (referred to as date of report) rather than by date of diagnosis, unless otherwise noted.

Syphilis surveillance data

Syphilis cases are reported by stage of infection, which is determined through a combination of laboratory testing and patient interviews. Primary and secondary syphilis have very specific symptoms, so misclassification of these stages is highly unlikely. Early latent syphilis is asymptomatic but can be staged with confirmation that the infection is less than a year old. Together these three stages that occur within the first year of infection are called ‘early syphilis’. Reports include only early syphilis cases (referred to as Total Early Syphilis), though other later stages are reported to the Virginia Department of Health. Because Virginia performs patient interviews, partner notification and contact tracing on all early syphilis cases, the quality of the early latent case data is also quite good. Reports are summarized by the date entered into the STD database (referred to as data of report) rather than by date of diagnosis, unless otherwise noted.

Glossary of Terms

AIDS: Diagnosis with any one of 26 different opportunistic illnesses which are indicative of a severe immune deficiency or a laboratory test demonstrating severe immune deficiency (i.e. CD4 count <200 or CD4 percent <14%).

Cumulative HIV disease diagnoses: The number of cases of a disease reported or diagnosed in a specified time, regardless of current vital status. Cumulative cases include those who have already died. AIDS and HIV disease totals are cumulative since 1982 and July 1989, respectively.

HIV and AIDS concurrently: Refers to anyone who is diagnosed with AIDS within 30 days of their initial HIV diagnosis.

HIV diagnosis date: The earliest date associated with a verifiable report of HIV infection. Verifiable reports include positive antibody tests, detectable viral loads, positive antigens or cultures, or physician diagnosis, but not self-reported diagnosis dates, positive lab results from anonymous testing, or diagnosis dates from other states that remain unverified.

Late HIV diagnosis: Refers to anyone who is diagnosed with AIDS within 12 months of their initial HIV diagnosis.

New diagnoses: Number of cases newly diagnosed over a given period of time, usually a year. In HIV surveillance, new diagnoses do not necessarily represent new infections as newly diagnosed cases may have been infected for many years. Thus, only some newly diagnosed cases are also incident cases.

New HIV disease diagnosis: Refers to anyone who is diagnosed with HIV in a given time period, regardless of disease status (whether HIV only or HIV and AIDS concurrently).

Pediatric cases: Children <13 years at the time of diagnosis.

Case: A reported instance of HIV infection or AIDS in which the individual who received a confidential HIV or AIDS diagnosis resided in Virginia at the time of diagnosis. HIV cases do not include individuals with a current HIV diagnosis who were originally reported with HIV in another U.S. state or territory. AIDS cases include all individuals who resided in Virginia at the time of AIDS diagnosis, regardless of where an earlier HIV diagnosis might have occurred.

For gonorrhea and Chlamydia cases, if the same infection occurs within 30 days of the original case report date, the infection is deemed a repeat infection, an inadequately treated infection or duplicate report and is not counted.

eHARS: The enhanced HIV/AIDS Reporting System contains names of HIV positive individuals reported in Virginia. The purpose of this surveillance system is to help Virginia monitor and respond to changes in the epidemic. This is a 2007 update of the previous HARS system. The data contains names, demographic information, risk behaviors, opportunistic infections and laboratory data related to HIV disease status.

Disease rate: A standardized proportion often used to represent risk for disease within a given population. A rate is usually calculated by dividing the number of cases (disease frequency) by the number of persons at risk for the disease (population estimate). Usually the general population, rather than the population potentially exposed to HIV infection by various high-risk behaviors is used as the denominator since the latter is unknown. In this report, all rates are reported as cases per 100,000 Virginia residents.

Epidemiology: The study of the distribution, determinants and frequency of disease in humans.

GIS (Geographic Information System): The display and analysis of geographic data in map format.

Incidence: The number of new cases of a disease that occur in a population during a certain time period, usually a year.

Prevalence: The total number of persons living with a specific disease or condition at a given time. HIV prevalence data are generally presented as “persons living with HIV disease.”

Glossary of Terms, cont.

Public health surveillance: The ongoing systematic collection, analysis, interpretation, dissemination and evaluation of population-based information about persons with a condition or risk factor of public health concern.

Reporting delay: The time interval between the date a case is diagnosed and the date the case is reported to the health department. Reporting delays can result in a recent data being incomplete.

Year to date: The time period starting January 1 and ending the last day of the specified reporting period.

Statistical reports are available online at...

<http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/data/>

Virginia Department of Health
Division of Disease Prevention
109 Governor Street, Room 326 (P.O. Box 2448)
Richmond, VA 23218-2448
Phone: 804-864-7964

