

Human Immunodeficiency Virus (HIV) Disease and Acquired Immunodeficiency Syndrome (AIDS)

Agent: Human Immunodeficiency Virus (retrovirus)

Mode of Transmission: Person-to-person via unprotected intercourse, contact of cut or abraded skin with body secretions carrying the virus, use of contaminated needles, blood transfusions and transplants with organs from infected donors, or from mother to child before or during birth or through breastfeeding.

Signs/Symptoms: Initial infection with HIV can cause an acute illness of fever, muscle pain, and sore throat, after which the person can be asymptomatic for several years. Eventually the immune system is affected, causing AIDS.

Prevention: Preventive measures include safe sexual practices; screening of blood and plasma; and among infected mothers, antiretroviral prophylaxis, cesarean delivery before labor, and avoidance of breastfeeding.

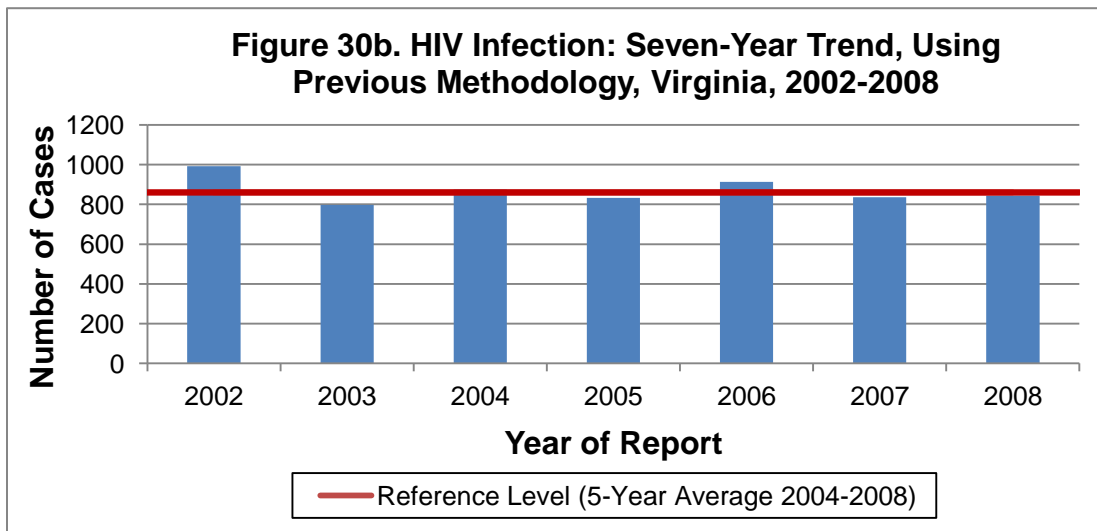
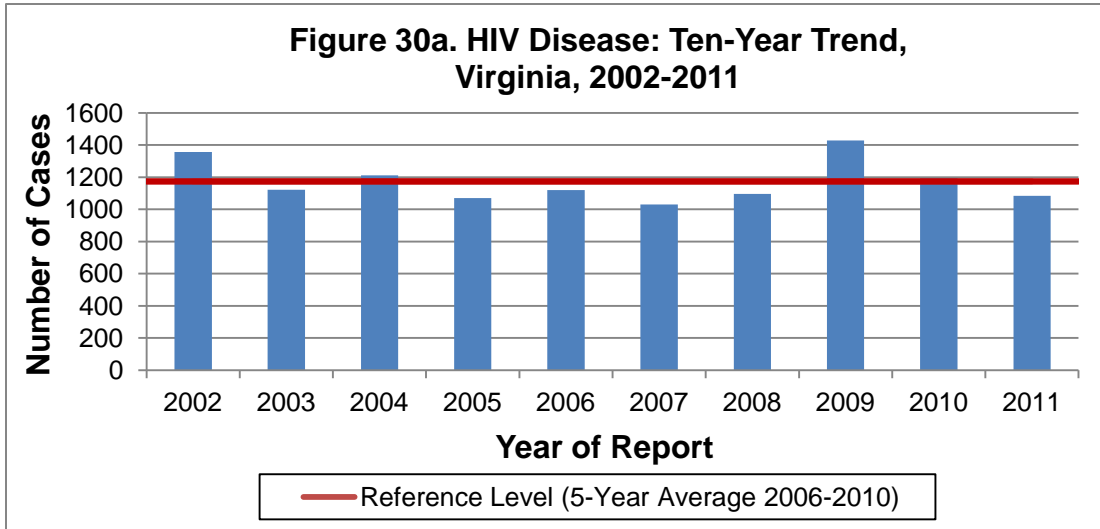
Other Important Information: Data analysis methods for HIV/AIDS were changed in 2009. Statistics are now presented for HIV disease instead of for HIV and AIDS, as explained below. Additional information regarding the changes in analytical methods is available at [http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/DAta/documents/Technical Notes and Glossary of Terms Revised 04-2010.pdf](http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/DAta/documents/Technical%20Notes%20and%20Glossary%20of%20Terms%20Revised%2004-2010.pdf). More detailed epidemiologic analyses of HIV/AIDS, as well as other STDs, is located at <http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/DAta/>. Rapid tests (which provide results within 30 minutes) are becoming more widely available and are used at various testing sites in Virginia. For more information, please visit <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5524a2.htm>, call your local health department, or contact the Virginia Department of Health HIV/STD/Viral Hepatitis Hotline at 1-800-533-4148.

Change in Epidemiologic Analyses of HIV Disease

Due to the evolving understanding of the HIV epidemic and current surveillance practices, VDH modified the way HIV and AIDS surveillance data were reported beginning in 2009 to better depict the epidemic in Virginia. HIV, unlike most communicable diseases, is chronic in nature. For epidemiologic and community planning purposes, it is often helpful to evaluate all cases of HIV and AIDS as one group: persons diagnosed with HIV disease. This is a change from previous practices where patients initially reported with an AIDS-defining condition were excluded from the count of new HIV infections. Because of this modification, calculations using the new method are not comparable to counts of reported HIV or AIDS cases from previous years using the older method. In general, a reported case of HIV disease now refers to anyone who is newly reported as HIV infected, regardless of disease progression. This includes persons who have an AIDS-defining condition at the first report of HIV infection.

Figure 30a shows the trend for HIV disease for the previous 10 years when the current methodology is applied to the entire 2002-2011 period. For comparison, Figure 30b uses the previous methodology to depict the trend for HIV infections from 2002 through 2008,

and is comparable to what was presented in earlier reports. Use of the older methodology will be phased out of this report as time progresses. For a more thorough discussion of the changes in the analysis of HIV and AIDS surveillance data, please refer to the web site address listed above in the Other Important Information section of this report.

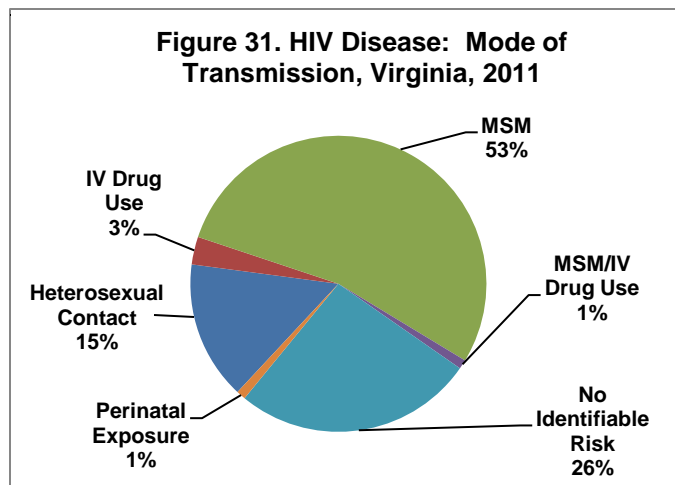


HIV Disease

As illustrated in Figure 30a, 1,085 cases of HIV disease were reported in Virginia during 2011. This represents a 9% decrease from the 1,194 cases in 2010. New diagnoses have remained relatively stable over the last several years. A substantial number of cases identified in 2009 had been diagnosed in previous years, but not yet reported for surveillance purposes. The increased case count was not indicative of an increase in disease burden but rather the result of enhanced surveillance activities. For 2011, statewide incidence of HIV disease was 13.6 cases per 100,000 population.

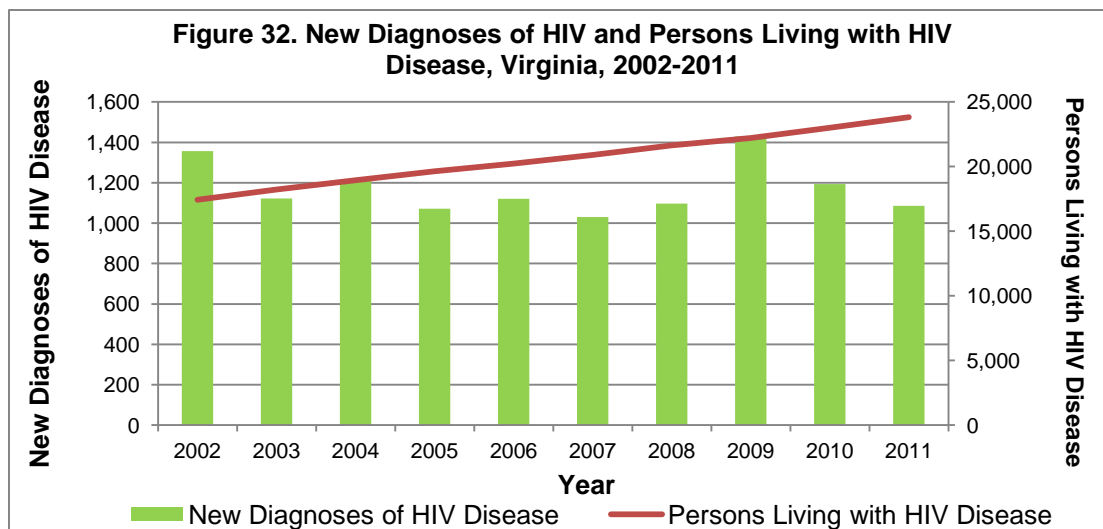
The highest HIV disease rates occurred in the 20-29 year age group (33.1 per 100,000), followed by the 30-39 and 40-49 year age groups (21.4 and 20.3 per 100,000, respectively). The incidence rate in the black population (42.2 per 100,000) was more than eight times the rate in the white population (5.1 per 100,000), and over twice the rate in the “other” race population (15.7 per 100,000). Incidence rates among males have been consistently higher than rates among females. In 2011, males were nearly four times as likely to be reported with HIV disease as females (21.7 and 5.7 per 100,000, respectively). In 2011, the eastern and central regions reported the highest incidence rates (19.7 and 19.2 per 100,000, respectively). Incidence among the other regions ranged from 14.1 to 5.4 per 100,000 with the northwest region reporting the lowest rate.

Men who have sex with men (MSM) was the most frequently reported transmission category for HIV disease and represented 53% of Virginia’s cases in 2011. Among cases attributed to MSM, 46% were 20-29 years of age, and 52% were black. Heterosexual contact was identified as the mode of transmission for 15% of all newly reported HIV disease cases, and 3% were attributed to intravenous (IV) drug use (Figure 31).

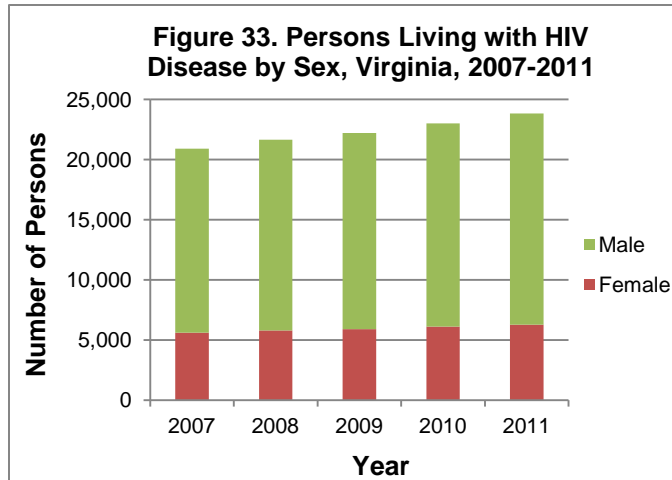


Persons Living with HIV Disease

While new diagnoses of HIV disease have remained relatively stable over the previous 10 years, the number of persons living with the disease continues to increase (Figure 32). Advances in medical therapies have resulted in people living longer with HIV disease. As



of December 31, 2011, 23,808 persons in Virginia, or one in 336 Virginians, were known to be living with HIV disease. Among those living with HIV disease, 74% are men (Figure 33), 50% have an AIDS-defining condition, 60% are black, 35% are from the 40-49 year age group, and 42% are associated with MSM transmission.



AIDS

Prior to 1996, approximately 50% of those infected with HIV developed AIDS within 10 years. However, the introduction of anti-retroviral medications significantly extended this interval. In 2011, 596 cases of AIDS were reported in Virginia.