

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

Agent: Human Immunodeficiency Virus (retrovirus)

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

Signs/Symptoms: Initial infection with HIV can cause an acute illness or fever, muscle pain, enlarged lymph nodes, and/or a rash which occurs approximately 2-4 weeks post-exposure; however, a person can be asymptomatic for several years. When the immune system is affected, the infection develops into 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 rather than HIV and AIDS as separate conditions, as explained below. Additional information regarding the changes in analytical methods is available on the following web address: [http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/DAta/documents/Technical%20Notes%20and%20Glossary%20of%20Terms\\_Revised\\_04-2010.pdf](http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/DAta/documents/Technical%20Notes%20and%20Glossary%20of%20Terms_Revised_04-2010.pdf). More detailed epidemiologic analyses of HIV/AIDS, as well as other sexually transmitted infections, 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, call your local health department, or contact the Virginia Department of Health HIV/STD/Viral Hepatitis Hotline at 1-800-533-4148.

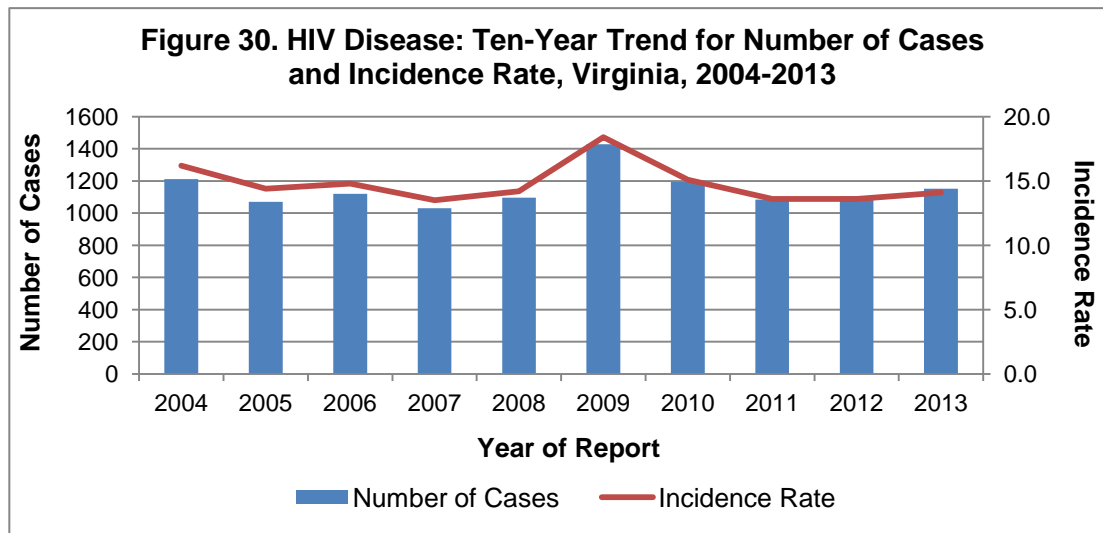
<b>HIV Disease: 2013 Data Summary</b>	
Number of Cases:	1,151
5-Year Average Number of Cases:	1,192.8
% Change from 5-Year Average:	-4%
Incidence Rate per 100,000:	14.1

### **Change in Epidemiologic Analyses of HIV Disease**

Beginning in 2009, VDH reassessed the way HIV and AIDS surveillance data were reported in order to better illustrate the epidemic in Virginia. Instead of approaching HIV and AIDS as two separate conditions of the same disease, it was found to be more helpful for epidemiologic and community planning purposes to evaluate all HIV and AIDS cases as one encompassing group: persons diagnosed or living with **HIV disease**. Before 2009, cases that were reported as having an AIDS-defining condition were excluded from the count of newly diagnosed HIV infections. Due to this change in methodology from previous years, those calculations pre-2009 are not comparable to calculations from 2009 and later, where HIV and AIDS are treated as one disease without considering disease

progression. Currently, any case that presents as having HIV or an AIDS-defining condition at the time of diagnosis is considered a newly diagnosed HIV disease case. It is not considered an incident case, however, as the person may have had HIV for a significant time prior to diagnosis. HIV incidence is measured through a separate surveillance process, which provides estimates for the state. The Serologic Testing Algorithm for Recent HIV Seroconversion (STARHS) method in combination with HIV testing and antiretroviral use history data are used to estimate HIV incidence. The STARHS method uses a laboratory test to classify newly diagnosed HIV cases as either recent (occurring approximately within the last five months) or long-standing HIV cases.

Figure 30 displays the trend in new HIV diagnoses for the previous 10 years when the current methodology is applied to the entire 2004-2013 period. 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 in the “Other Important Information” section above.



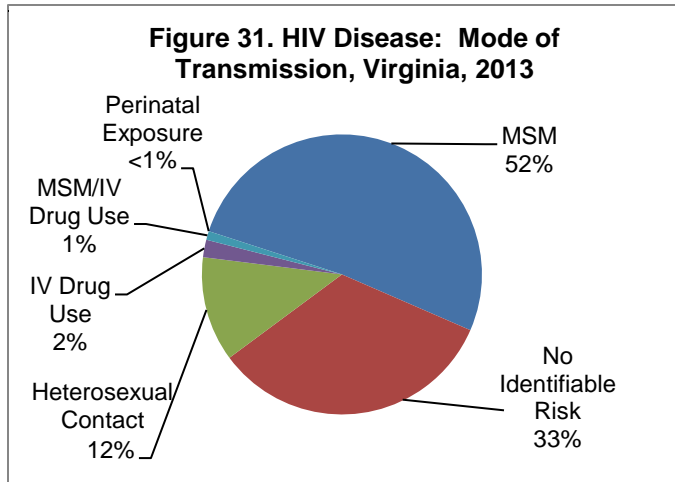
## HIV Disease

In 2013, 1,151 cases of HIV disease were reported in Virginia, as illustrated in Figure 30. Although this is a slight increase (4%) from the 1,105 reported cases in 2012, the number of cases reflects the stability of new HIV disease diagnoses over the last several years. The statewide rate of new HIV diagnoses was 14.1 per 100,000 in 2013.

The highest HIV diagnosis rates in 2013 occurred in the 20-29 year age group (35.6 per 100,000), followed by the 30-39 and 40-49 year age groups (21.8 and 20.5 per 100,000, respectively). The 20-29 year age group has consistently experienced the highest rate of new diagnoses since 2007. The HIV diagnosis rate for the black population was 40.1 per 100,000, approximately seven times the rate of the white population (5.7 per 100,000) and almost twice the rate of those in the “other” race category (21.5 per 100,000). The “other” race category includes Asian/Hawaiian/Pacific Islanders, American Indian/Alaska Natives, and those cases categorized as multi-racial. Rates by race and ethnicity have remained relatively stable over the past few years. Males have

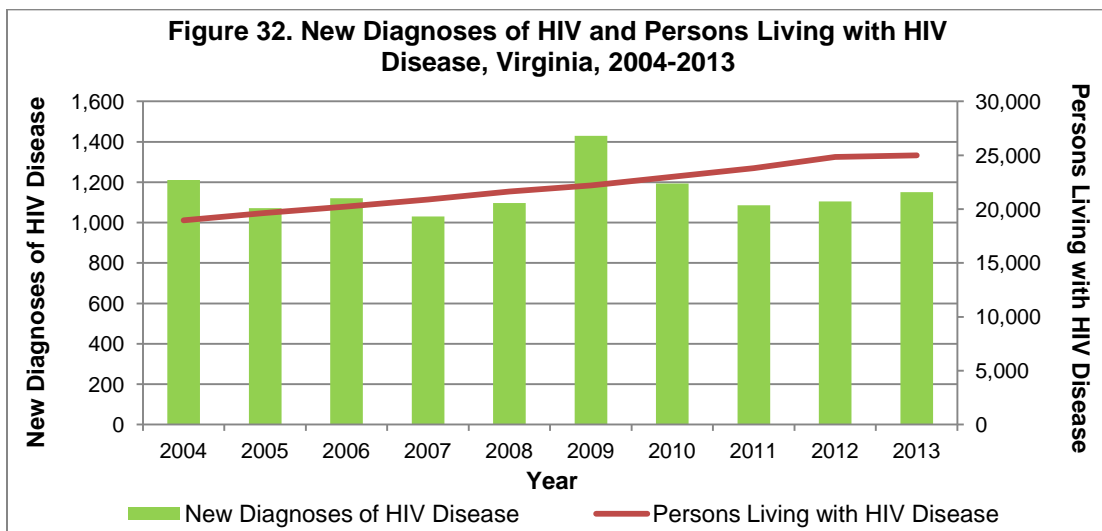
consistently shown higher diagnosis rates of HIV disease than females across time, and were over four times as likely than females to be diagnosed with HIV disease in 2013 (23.2 and 5.3 per 100,000, respectively). Among the five health regions in Virginia, the highest incidence rate of new HIV diagnosis was observed in the eastern region, with 22.8 per 100,000, followed by the central region, at 16.2 per 100,000. The lowest rate among newly diagnosed cases in 2013 occurred in the northwest region (6.9 per 100,000). The localities that reported the five highest diagnosis rates in 2013 were all located within the eastern or central regions of the state, as displayed in the map below of HIV diagnosis rates by locality in Virginia.

In 2013, the most frequently reported transmission category for HIV disease was men who have sex with men (MSM), which represented over half (51%) of the cases in Virginia. Among identified MSM cases, 47% were 20-29 years of age, a 7% increase from 2012 (44%), and 52% were black. Twelve percent of the newly diagnosed cases for 2013 were attributed to heterosexual contact, and 2% to intravenous (IV) drug use. No specific risk factors for transmission were identified for 33% of new HIV disease diagnoses (Figure 31).

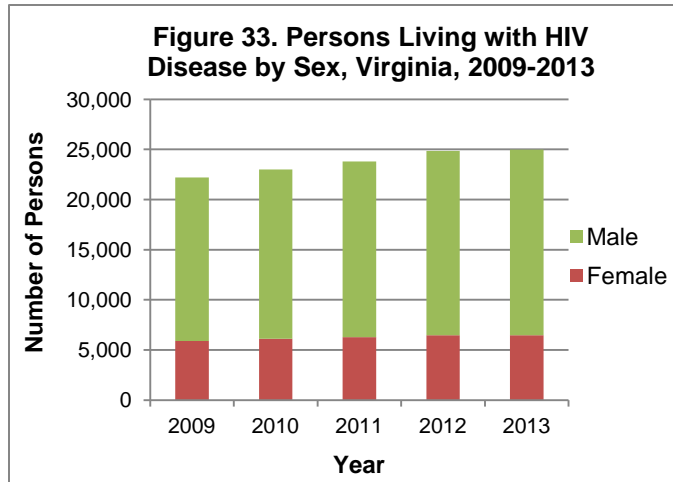


### Persons Living with HIV Disease

Due to advances in medical therapies and care strategies, the number of persons living with HIV disease (PLWHA) has continued to increase. As of the end of 2013, 24,977 persons were known to be living with HIV disease in Virginia (Figure 32).



Approximately three-quarters of PLWHA are male (Figure 33), 61% are between 40-59 years of age, 60% are black, 46% are attributed to male-to-male sexual contact, and approximately 60% are living with HIV disease in the eastern and northern regions of the state. Half of those living with HIV disease have also been diagnosed with an AIDS-defining condition.



### HIV Disease Incidence Rate by Locality Virginia, 2013

