

# HIV

**Definition:** Case definitions for human immunodeficiency virus (HIV) infection are age-dependent and include people with and without acquired immunodeficiency syndrome (AIDS). Because HIV infection often occurs without symptoms for many years, the U.S. Centers for Disease Control and Prevention (CDC) requires that a diagnosis of HIV infection be supported by laboratory evidence, such as a positive HIV antigen/antibody or HIV virologic test result. CDC defines AIDS as severe immunodeficiency caused by HIV infection. An AIDS diagnosis must be preceded or accompanied by an HIV diagnosis, and requires either laboratory evidence (CD4 lymphocyte count <200 cells/ $\mu$ l) or documentation of at least one of 26 AIDS-defining conditions such as *Pneumocystis carinii* pneumonia, Kaposi's sarcoma, or wasting syndrome.<sup>1</sup>

This is a data update of the *Health of Washington State* chapter on [HIV](#) published in 2013.

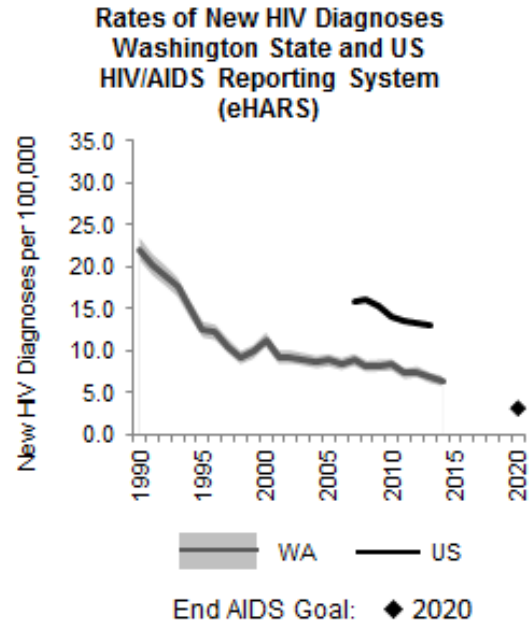
## Time Trends

In the United States, the epidemic caused by the human immunodeficiency virus (HIV) has lasted more than 30 years. Acquired immunodeficiency syndrome, or AIDS, is an advanced stage of HIV infection. When the HIV epidemic began in the early 1980s, HIV screening tests did not exist and HIV surveillance depended on counting AIDS cases. The first AIDS case in Washington was reported in 1982. Consistent with national trends, the number of AIDS cases increased rapidly in the 1980s, peaking in 1993. AIDS incidence then dropped in the mid-1990s and stabilized toward the end of the decade.

Widespread access to effective drug treatment has slowed the progression of HIV disease for many people, often preventing or delaying the onset of AIDS. In addition, HIV infection is characterized by a latent period which often lasts years, during which disease symptoms are not present. In combination, these factors have caused large variation in the timing of HIV diagnosis and treatment initiation among infected individuals, and have weakened the association between HIV incidence and AIDS diagnosis. Thus, AIDS data alone no longer accurately describe the scale or direction of the HIV epidemic.<sup>2</sup>

In 1999, Washington made HIV infection a reportable condition, with or without the presence of AIDS. Most experts now rely on new diagnoses of HIV infection to monitor the course of the HIV epidemic and characterize people who are at risk. In 2014, the rate of new

HIV diagnoses among all Washington residents was 6.4 cases per 100,000 residents, or about half the national rate of 13.1 cases per 100,000.



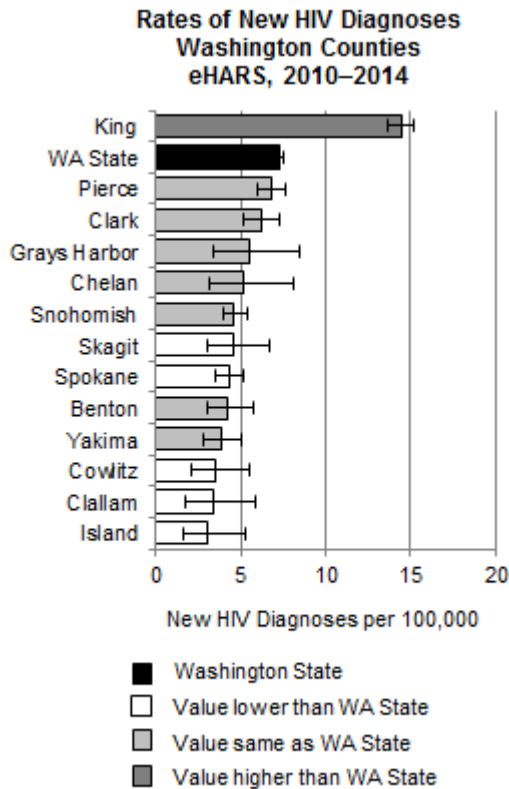
Despite steady population growth, increasing HIV prevalence, and improved HIV screening efforts, the rate of new HIV diagnoses has been decreasing over the past decade.<sup>3,4</sup> This suggests that HIV incidence, or the number of people who are **infected** by HIV each year, could be slowly decreasing. Washington is making progress towards achieving the End AIDS 2020 goal of 3.2 new HIV diagnoses per 100,000.

## Geographic Variation

During 2010–2014, the average annual rate of new HIV diagnoses in Washington was 7.3 cases per 100,000 people. King County, which contains the city of Seattle, had a significantly higher rate of 14.4

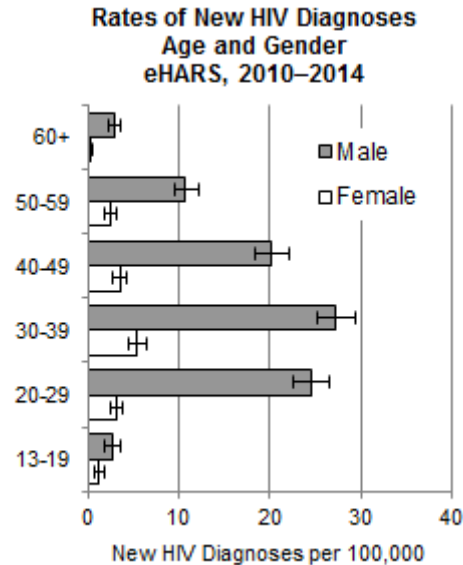
new diagnoses per 100,000. During the same time period, 57% of all new diagnoses resided in King County. Pierce County, which contains the city of Tacoma, had the second highest rate at 6.8 new cases per 100,000, and accounted for 11% of all new diagnoses in Washington.

The HIV epidemic in Washington is heavily concentrated in the state's largest cities and urban areas, most of which are in the Puget Sound region. For example, according to the U.S. Census Bureau, Washington contains seven cities with populations of more than 100,000 people: Seattle, Tacoma, Everett, Bellevue, Kent, Spokane, and Vancouver.<sup>5</sup> Collectively, these cities comprise about 1.5 million people, or 22% of all people living in Washington. Yet, the same seven cities accounted for 59% of all new HIV cases reported between 2010 and 2014. The strong association between HIV and urban residence is somewhat difficult to explain. However, evidence suggests that gay and bisexual men in the United States have historically migrated towards larger cities which offer more tolerant, gay-friendly environments.<sup>6,7</sup>



## Age and Gender

The overall decrease in rates of new HIV diagnoses in Washington since 2010 has been more pronounced among men, who carry a higher disease burden, compared to women. During 2010–2014 combined, the rate of new HIV diagnosis among males was 12.4 cases per 100,000, more than five times higher than the female rate of 2.2 cases per 100,000. In recent years, males have accounted for about 85% of all people newly diagnosed with HIV.



Most new HIV cases are diagnosed among adults in their twenties or thirties, but more than a quarter are diagnosed among adults ages 45 and older. HIV is extremely rare among children in Washington. Over the past decade in Washington, there have been six confirmed cases of perinatal HIV transmission, in which the virus was passed from an infected mother to her baby.

## Economic Factors

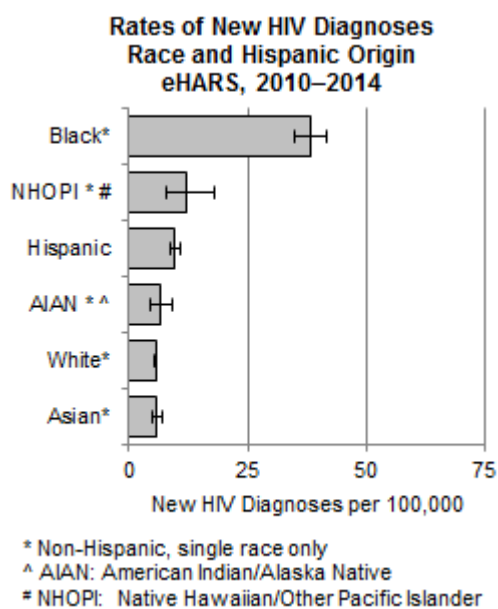
There are no data available in Washington by poverty or education.

## Race and Hispanic Origin

During 2010–2014 combined, 55% of all people newly diagnosed with HIV in Washington were white, excluding those of Hispanic origin. Black people make up only 3% of the state's general population, yet nearly one in five new HIV cases (18%) were black. During 2010–2014, HIV rates were nearly seven times higher among black residents versus white residents. HIV rates among both the Hispanic and Native Hawaiian and Other

Pacific Islander (NHOPI) populations were roughly twice those of whites.

These differences in HIV rates continue to be studied closely, and their causes have long been the subject of intense debate. Emerging evidence indicates that differences in HIV risk are likely caused by contextual or social factors. For example, racial and ethnic differences in how sexual networks are formed, including partner availability and partner preferences, likely play an important role in racial and ethnic disparities for HIV.<sup>8,9</sup> Also, racial and ethnic differences in levels of “sexual concurrency”, or maintaining a sexual relationship with more than one partner during the same time period, has been shown to influence HIV disparities.<sup>10,11</sup>



Although they comprise less than 14% of Washington’s entire black population, foreign-born black people have become an increasingly larger part of Washington’s HIV epidemic in recent years. During 2010–2014, black residents born outside the United States made up about half (51%) of all new HIV cases among blacks diagnosed in Washington. Nationally, HIV rates among the foreign-born black population are several times higher than the HIV rates of the black population born in the United States. Compared to U.S.-born blacks, foreign-born black residents represent a more diverse mixture of languages, cultures and social norms.<sup>12</sup> In Washington, most U.S.-born black residents living with HIV are gay or bisexual men. Yet, the vast majority of foreign-born HIV-

infected black residents are heterosexual, and most were probably infected outside the United States. These factors must be taken into account when developing culturally appropriate and relevant HIV prevention services for each population.

**Data Sources** (For additional detail, see [Appendix B](#))

State HIV Data: Washington State Department of Health Infectious Disease Assessment Unit

National HIV Data: U.S. Centers for Disease Control and Prevention, Divisions of HIV/AIDS Prevention

**For More Information**

Washington State Department of Health, Office of Infectious Disease Assessment Unit, (360) 236-3455

**Technical Notes**

Year of HIV diagnosis and year of report: Year of HIV diagnosis indicates the time at which an individual is diagnosed with HIV infection.

Time frame: Analyses in this chapter rely on HIV surveillance data reported through 2014.

**Acknowledgments**

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**Endnotes**

- <sup>1</sup> Centers for Disease Control and Prevention. Revised Case Definition for HIV Infection – United States, 2014. *MMWR Morb Mortal Wkly Rep.* 2014;63(RR-03):1-10.
- <sup>2</sup> Centers for Disease Control and Prevention. Twenty-five years of HIV/AIDS---United States, 1981-2006. *MMWR Morb Mortal Wkly Rep.* 2006;55(21):585-589.
- <sup>3</sup> Centers for Disease Control and Prevention. *HIV testing trends in the United States, 2000-2011.* Atlanta, GA: U.S. Department of Health and Human Services; January 2013. [http://www.cdc.gov/hiv/topics/testing/resources/reports/pdf/Testing%20Trends\\_cleared\\_01282013.pdf](http://www.cdc.gov/hiv/topics/testing/resources/reports/pdf/Testing%20Trends_cleared_01282013.pdf).
- <sup>4</sup> Washington State Office of Financial Management, Forecasting Division. *Forecast of the State Population.* Olympia, WA: Washington State Office of Financial Management; November 2012. [http://www.ofm.wa.gov/pop/stfc/stfc2012/stfc\\_2012.pdf](http://www.ofm.wa.gov/pop/stfc/stfc2012/stfc_2012.pdf).
- <sup>5</sup> U.S. Census Bureau. *State and County QuickFacts.* Last Revised: Thursday, 10-Jan-2013 10:49:58 EST.
- <sup>6</sup> Cooke TJ, Rapino M. The Migration of Partnered Gays and Lesbians between 1995 and 2000. *Prof Geogr.* 2007;59(3):285-297.
- <sup>7</sup> Catania JA, Canchola J, Pollack L, Chang J. Understanding demographic characteristics of urban men who have sex with men. *J Homosex.* 2008;51(3):33-51.
- <sup>8</sup> Newman LM, Berman SM. Epidemiology of STI disparities in African American communities. *Sex Transm Dis.* 2008;35(12 Suppl):S4-S12.

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<sup>9</sup> Sharpe TT, Voute CV, Rose MA, Cleveland J, Dean HD, Fenton K. Social determinants of HIV/AIDS and sexually transmitted diseases among black women: implications for health equity. *J Womens Health*. 2012;21(3):249-254.

<sup>10</sup> Rosenberg ES, Khosropour CM, Sullivan PS. High prevalence of sexual concurrency and concurrent unprotected anal intercourse across racial/ethnic groups among a national, Web-based study of men who have sex with men in the United States. *Sex Transm Dis*. 2012;39(10):741-746.

<sup>11</sup> Andrasik MP, Chapman CH, Clad R, et al. Developing concurrency messages for the black community in Seattle, Washington. *AIDS Educ Prev*. 2012;24(6):527-548.

<sup>12</sup> Prosser AT, Tang T, Hall H. HIV in persons born outside the United States, 2007-2010. *JAMA*. 2012;308(6):601-607.