Summary of the Wisconsin HIV/AIDS Surveillance Annual Review:
New Diagnoses, Prevalent Cases and Deaths Reported through December 31, 2014

The annual Wisconsin HIV/AIDS surveillance review presents cases of HIV newly diagnosed during 2014, prevalent cases as of December 31, 2014, and deaths through 2012 among Wisconsin residents. Reporting annually on HIV surveillance data is important for policy makers, program planners, HIV service providers and the public to enable effective planning of HIV prevention and care services and ensure efficient use of resources. For planning HIV prevention, testing and linkage strategies, it is important to focus on cases newly diagnosed in Wisconsin—those infections that might have been prevented or identified earlier within the state. When planning care and treatment services, the focus should be on prevalent cases—those currently living with HIV in Wisconsin—irrespective of where they were first diagnosed.

NEW DIAGNOSES

**Trend:** During 2014, 226 new cases of HIV infection were diagnosed in Wisconsin. Between 2005 and 2014 both the number and the rate of new infections remained stable. The number of new diagnoses over the last decade ranged from a low of 224 in 2012 to a high of 285 in 2009, with an average of 250 new diagnoses per year. The HIV diagnosis rate in Wisconsin is 11th lowest among the 50 states.

**Sex:** Five times as many males as females were diagnosed with HIV during 2014 (192 males and 34 females). Between 2005 and 2014, the HIV diagnosis rate was stable among older males (ages 30-59) and younger females (ages 13-29). Over the same time period, the HIV diagnosis rate increased among younger males and declined among older females.

**Gender:** Since 1983, 31 known transgender individuals have been diagnosed with HIV in Wisconsin. During 2005–2014, there were 25 new HIV diagnoses in this population. Twelve of the 25 were Black, and 17 of the 25 were under age 30 at the time of diagnosis.

**Racial/ethnic groups:** HIV infection disproportionately affects racial/ethnic minorities. During 2014, 67% of new diagnoses were among racial/ethnic minorities, despite minorities making up just 17% of Wisconsin’s population. For males, the 2014 HIV diagnosis rate was more than 16-fold higher among Blacks and 7-fold higher among Hispanics compared to Whites. For females, the HIV diagnosis rate was 34-fold higher among Blacks and more than 9-fold higher among Hispanics compared to Whites.

**Age:** The median age at HIV diagnosis was 32 years in 2014 but varied considerably by risk exposure group. The median age at diagnosis was 29 years for men who have sex with men (MSM) overall, 43 years for those with high-risk heterosexual contact, and 53 years for those with a history of injection drug use. Among MSM, the median age was 25 years for Blacks and Hispanics and 36 years for Whites.
Risk: After adjusting for unknown risk, MSM accounted for 78% of new diagnoses in 2014, including the 3% of diagnoses among men who MSM who also injected drugs. High-risk heterosexual contact and injection drug use (not including MSM/PWID) accounted for the other 15% and 7% of new diagnoses, respectively. HIV diagnoses more than doubled in young Black MSM between 2005 and 2014. The number of diagnoses attributed to high-risk heterosexual contact and injection drug use was stable.

Geography: During 2014, HIV cases were diagnosed in 26 of the 72 counties in Wisconsin. However, the distribution was uneven: Milwaukee County cases accounted for 58% of new diagnoses, Dane County for 11%, Racine for 5%, and Outagamie for 4%. The Department of Corrections and all other counties each accounted for fewer than 4% of diagnoses.

Disease status at diagnosis: Between 25% and 30% of all cases first diagnosed with HIV infection in Wisconsin during 2011-2014 had already progressed to AIDS by the time of diagnosis. An additional 4% to 8% of cases diagnosed during 2011-2013 progressed to AIDS within 12 months of being diagnosed with HIV infection. These cases represent individuals living for several years with undiagnosed HIV infection, which may lead to poorer health outcomes and increasing opportunities for disease transmission.

Diagnosed outside of Wisconsin: In addition to the 226 cases diagnosed in Wisconsin in 2014, 173 individuals previously diagnosed with HIV infection moved to Wisconsin from another state.

PEOPLE LIVING WITH HIV INFECTION
As of the end of 2014, 6,899 individuals reported with HIV or AIDS were presumed to be alive and living in Wisconsin. Three-quarters (75%) of these were first diagnosed in Wisconsin; the others were initially diagnosed elsewhere. The Centers for Disease Control and Prevention (CDC) estimates that 14% of people living with HIV (PLHIV) are unaware of their HIV status. Thus, an estimated 1,125 in the state are unaware of their HIV infection, so the total number of PLHIV in Wisconsin is estimated to be 8,024.
HIV prevalence varies by demographic group. Nearly one in three (30%) Black MSM is estimated to be living with HIV, compared to 9% of Hispanic and 2% of White MSM. Less than 1 in 1,000 females and non-MSM males in Wisconsin is HIV-positive. Within the non-MSM groups, the rate is highest among Blacks—about 10 in 1,000.

Nearly half (49%) of all PLHIV reside in Milwaukee County. Dane County has the second highest proportion (12%), followed by Brown County (4%). Kenosha, Racine, and Waukesha counties each have 3% of the state's prevalent cases. The Wisconsin Department of Corrections, Rock, La Crosse, and Outagamie counties each have 2%. All other counties have 1% or fewer cases.

Deaths
Deaths due to any cause among people reported with HIV infection have declined markedly since the early 1990s. Deaths peaked in 1993 (373 deaths). In 2012, the most recent year with complete data, 127 deaths among people with HIV are known to have occurred in Wisconsin, consistent with the average of 127 deaths each year between 2004 and 2011. HIV as the underlying cause of death is also on the decline—75 of the 127 reported deaths in 2012 were due to non-HIV-related causes, while 52 had HIV indicated as the underlying cause of death. The median age of death rose from age 37 in 1990 to age 42 in 2002 to age 51 in 2012, indicating that people are living longer with HIV.

IMPLICATIONS

HIV diagnoses
Trends in recent cases first diagnosed in Wisconsin should guide planning for HIV prevention. The steep rise in diagnoses in young black MSM and the young median age at diagnosis suggest that young Black MSM should be the top priority for HIV prevention efforts in Wisconsin. The young median age at diagnosis may reflect both acquisition of HIV at a younger age and diagnosis closer to the time of infection, suggesting that recent efforts to better target HIV testing in young MSM have met with some success.

Maintaining prevention efforts in those with high-risk heterosexual behaviors and those who inject drugs is also important. While the number of new cases of HIV in PWID continues to decline, increases in cases of hepatitis C and heroin overdoses in young adult PWIDs in rural parts of Wisconsin underscore the risk that HIV cases could increase in PWIDs. Thus it is important to provide effective prevention services to PWID to prevent both HIV and hepatitis C.
HIV prevalence
HIV prevalence data should guide HIV care and treatment services. At the end of 2014, 6,899 people were reported with HIV and presumed to be living in Wisconsin. The fact that 44% of the PLHIV in Wisconsin are age 50 or older indicates that HIV care providers must attend to patients' health conditions related to aging as well as their HIV disease.

For additional information
The AIDS/HIV Program website (http://www.dhs.wisconsin.gov/aids-hiv/Stats/index.htm) includes annotated PowerPoint slides and county-level summary reports. Other reports regarding HIV are also available on this site.


General information about HIV prevention and care services in Wisconsin:
http://www.dhs.wisconsin.gov/aids-hiv/

Information about hepatitis C:
https://www.dhs.wisconsin.gov/viral-hepatitis/hcv-program.htm