Summary of the Wisconsin HIV Surveillance Annual Review: New Diagnoses, Prevalent Cases, and Deaths Reported through December 31, 2017

The annual Wisconsin HIV surveillance review presents data on people newly diagnosed with HIV during 2017; people living with HIV (PLWH) in Wisconsin as of December 31, 2017; and deaths among PLWH through 2017. 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 new diagnoses among Wisconsin residents—those individuals for whom HIV might have been prevented or identified earlier within the state. When planning care and treatment services, the focus should be on PLWH irrespective of where they were first diagnosed.

NEW DIAGNOSES
Trend: During 2017, 259 people were newly diagnosed with HIV in Wisconsin. Between 2008 and 2017, both the number and rate of new diagnoses declined. The number of new diagnoses over the last decade ranged from a low of 221 (2014) to a high of 282 (2009), with an average of 242 new diagnoses per year. The HIV diagnosis rate in Wisconsin was the 8th lowest among the 50 states in 2016.

Sex: Five times more males than females were diagnosed with HIV (214 males and 42 females). Between 2008 and 2017, the HIV diagnosis rate increased among younger (ages 13-29) males and fluctuated among older (ages 30-59) males. The diagnosis rate fluctuated for younger females and declined among older females.
**Gender:** Since 1985, 56 transgender individuals have been diagnosed with HIV in Wisconsin. During 2008–2017, there were 40 new HIV diagnoses in transgender persons, of which 20 were Black, 12 were Hispanic, and 27 were under age 30 at the time of diagnosis.

**Racial/ethnic groups:** HIV disproportionately affects racial/ethnic minorities in Wisconsin. During 2017, 61% of new diagnoses were among racial/ethnic minorities, despite minorities making up just 17% of Wisconsin’s population. During 2013-2017, the HIV diagnosis rate for males was thirteenfold higher among Blacks, fivefold higher among Hispanics, and almost twofold higher among Asians and American Indians compared to Whites. For females, the HIV diagnosis rate was twenty-onefold higher among Blacks and fivefold higher among Hispanics compared to Whites.

**Age:** The median age at HIV diagnosis was 31 years but varied considerably by transmission category. The median age at diagnosis was 28 years for males with diagnosed HIV attributed to male-male sexual contact, 44 years for males and females with HIV attributed to heterosexual contact, and 35 years for males and females with HIV attributed to injection drug use.

**Transmission category:** After adjusting for unknown transmission category, 75% of new diagnoses were attributed to male-male sexual contact, including 3% attributed to both male-male sexual contact and injection drug use; 15% were attributed to heterosexual contact; and 9% were attributed to injection drug use. From 2008-2017, the number of HIV diagnoses attributed to male-male sexual contact was stable and the number attributed to heterosexual contact declined. Due to the larger number of diagnoses attributed to injection drug use during 2017 compared to 2016, there is no longer a statistical decline over the past 10 years.

**Geography:** During 2017, residents in 36 of Wisconsin’s 72 counties were diagnosed with HIV. However, the distribution was uneven: Milwaukee County accounted for 51% of new diagnoses, Dane County for 10%, Kenosha and Racine counties for 4% each, and Outagamie and Winnebago for 3% each. The Department of Corrections accounted for 4%. All other counties each accounted for fewer than 3% of diagnoses.

**HIV stage at diagnosis:** One in seven people diagnosed with HIV during 2017 were identified within six months after acquiring HIV, which allows for early initiation of antiretroviral medications, and potentially less opportunity for transmission. On the other hand, one in six people were diagnosed long after acquiring HIV, and had already progressed to Stage 3 HIV (AIDS) by the time of diagnosis or within 12 months after diagnosis. However, the proportion of individuals with late diagnosis declined from 2012 (39%) to 2017 (21%).

**Diagnosed outside of Wisconsin:** In addition to the 259 Wisconsin residents diagnosed with HIV during 2017, 231 individuals previously diagnosed with HIV moved into Wisconsin from another state or country. The number of people living with HIV who migrate into Wisconsin continues to grow each year. This is important in that all states receive federal funding, based in part on the
number of people diagnosed with HIV in the state, to support HIV care services for low income people living with HIV. People who receive care in Wisconsin but were not diagnosed in Wisconsin are not considered when determining the amount of federal funding Wisconsin receives to provide HIV care services.

PEOPLE LIVING WITH HIV
As of the end of 2017, 7,123 individuals reported with HIV were presumed to be alive and living in Wisconsin. Almost three-quarters (72%) of these were first diagnosed in Wisconsin; the others were initially diagnosed elsewhere. The Centers for Disease Control and Prevention (CDC) estimates that 15% of people living with HIV (PLWH) in the U.S. are unaware of their HIV status. An estimated 1,200 individuals in the state are living with undiagnosed HIV, so the total number of PLWH in Wisconsin is estimated to be about 8,300.

HIV prevalence varies by demographic group. One in three (35%) gay or bisexual Black men is estimated to be living with HIV in Wisconsin, compared to 10% of Hispanic and 4% of White gay and bisexual men (right). Fewer than 1 in 1,000 females and heterosexual males in Wisconsin is HIV-positive.

Nearly half (47%) of all PLWH reside in Milwaukee County. Dane County has the second highest proportion (12%), followed by Racine, Kenosha, and Brown counties, with 4% each.

Deaths
Deaths occurring in Wisconsin among people living with HIV have declined markedly since the early 1990s. In 2016, the most recent year with complete data, 79 deaths among people living with HIV are known to have occurred in Wisconsin. HIV as the underlying cause of death is also on the decline—50 of the 79 reported deaths were attributed to causes other than HIV, while 29 had HIV indicated as the underlying cause of death. The median age at death rose from age 37 in 1990 to age 55 in 2016, indicating that people are living longer with HIV.

HIV Care Continuum
Eighty-eight percent of people diagnosed with HIV during 2017 were linked to care within three months of diagnosis. Of people diagnosed and living with HIV in Wisconsin, 72% received some care during 2017, 53% had two or more visits, and 65% were virally suppressed.
IMPLICATIONS

HIV diagnoses
Trends in people first diagnosed in Wisconsin should guide planning for HIV prevention. The number of new diagnoses among men who have sex with men (MSM) is stable overall, but young MSM, especially young Black MSM, continue to be disproportionately impacted. HIV rates should also be closely monitored for young Hispanic MSM. These results suggest that men who have sex with men, and especially young men of color, should continue to be the top priority for HIV prevention efforts in Wisconsin.

Maintaining efforts to prevent HIV attributed to heterosexual contact and injection drug use is also important. The number of new HIV diagnoses attributed to injection drug use stopped declining in 2017 and hepatitis C virus diagnoses and heroin overdoses have been on the rise among young adults in rural parts of Wisconsin over the past few years. These trends underscore the risk that HIV diagnoses could increase among people who inject drugs. Thus it is important to support overall health among people who use drugs to prevent both HIV and hepatitis C virus.

HIV prevalence
HIV prevalence data should guide planning for HIV care and treatment services. The fact that 49% of PLWH 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.

On the HIV care continuum, viral suppression continues to be an important focus. Data now show that people living with HIV whose viral loads are undetectable do not transmit HIV sexually to partners. Care providers should share this message with their patients to decrease the stigma associated with HIV and motivate them to stay in care.