HIV Infections Among Injection Drug Users in the U.S.\textsuperscript{1,2}

According to the Centers for Disease Control and Prevention (CDC), there were 39,513 new HIV diagnoses in the United States during 2015. Of those 39,513 new diagnoses, 2,392, or six percent, were attributed to the use of injection drugs. Males that have sex with males (MSM) and use injection drugs were 1,202 (three percent) of the 39,513 new diagnoses in 2015.

When comparing new HIV diagnoses attributed to IDU among sexes, males accounted for 59 percent of the total IDU cases and females accounted for 41 percent nationwide. Although, females accounted for only 19 percent, or 7,402, of the total new diagnoses in 2015.


New Reported Diagnoses of HIV Infection Among IDU in Ohio

During 2016, Ohio had 982 new diagnoses of HIV infection. Of these 982 diagnoses, 28 male patients reported IDU, 30 females reported IDU, and 31 males reported IDU and MSM. Therefore, nine percent or 89 out of 982 persons diagnosed with HIV in 2016 referenced IDU as a transmission category.

Comparing the amount of new diagnoses attributed to IDU from the last five years, there was an increase from 2012 to 2016. Figure 1 illustrates the five-year comparison among IDU transmission.

When examining the risks identified for transmission among adult females, more than half, 60 percent, of the HIV diagnoses were attributed to heterosexual contact while only 15 percent was attributed to IDU. Figure 2 shows the distribution for females with new HIV diagnoses in 2016.

![Figure 2: New HIV Diagnoses by Transmission Category, Females, Ohio, 2016 (n=200)](image)

Risks among males differed greatly when compared to females. The majority, 64 percent, of new HIV diagnoses among adult males were attributed to MSM while four percent was attributed to IDU and MSM, and four percent was attributed to IDU only. Figure 3 shows the distribution for males with new HIV diagnoses in 2016.

![Figure 3: New HIV Diagnoses by Transmission Category, Males, Ohio, 2016 (n=778)](image)

Figure 4 depicts the number of new HIV diagnoses among IDU transmission categories.
It is important to note that 30 females accounted for 33.7 percent of the IDU population, although females only accounted for 21 percent (202 persons) of the total new HIV diagnoses for 2016. This demonstrates a large IDU burden among females.

Transmission categories by sex differed greatly depending on race. IDU attributed to 28 new HIV diagnosis among white, non-Hispanic females but only one for black, non-Hispanic females. Figure 5 illustrates these findings. It is noteworthy to mention that white females accounted for 67 of the new female diagnoses, while black females accounted for 116 new diagnoses. Therefore, the IDU disparity is even higher in white females.

There is a similar shift when examining race among new HIV diagnoses with males. IDU attributed to 22 new HIV diagnoses among white, non-Hispanic males but only four among black, non-Hispanic males. Figure 6 shows these results. White males accounted for 318 of the diagnoses, while black males accounted for 389 new diagnoses. As with the females, there is a higher IDU disparity among white males.

It is noteworthy to mention that the prescription opioid epidemic has led to an increase in IDU, placing more people at risk for HIV infection. In addition, injection drug equipment, not only needles and syringes, can contribute to the spread of HIV infection and other bloodborne pathogens.

It is important to remember that risk factors contributing to transmission categories are self-reported by patients. Due to the stigma and sensitivity of IDU, cases related to IDU transmission are potentially underestimated.

**Explanation of Terms:**
- Diagnoses of HIV infection include persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and an AIDS diagnosis within 12 months (HIV & later AIDS), and concurrent diagnoses of HIV and AIDS (AIDS). The rate is the number of persons with a reported diagnosis of HIV infection per 100,000 population calculated using U.S. Census estimates for that year.
- Living with a diagnosis of HIV infection represents all persons ever diagnosed and reported with HIV or AIDS who have not been reported as having died as of December 31, 2016. Persons living with a diagnosis of HIV infection represent persons living in Ohio as of December 31, 2016, regardless of whether the person was a resident of Ohio at time of initial HIV and/or AIDS diagnosis. The rate is the number of persons living with a diagnosis of HIV infection per 100,000 population calculated using 2016 U.S. Census estimates.

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