



**Massachusetts HIV/AIDS Epidemiologic Profile:  
Data as of 2/1/2021  
Population Report: Persons Who Inject Drugs**

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**Slide sets for HIV/AIDS Epidemiologic Profile Reports**

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# PERSONS WHO INJECT DRUGS (PWID)

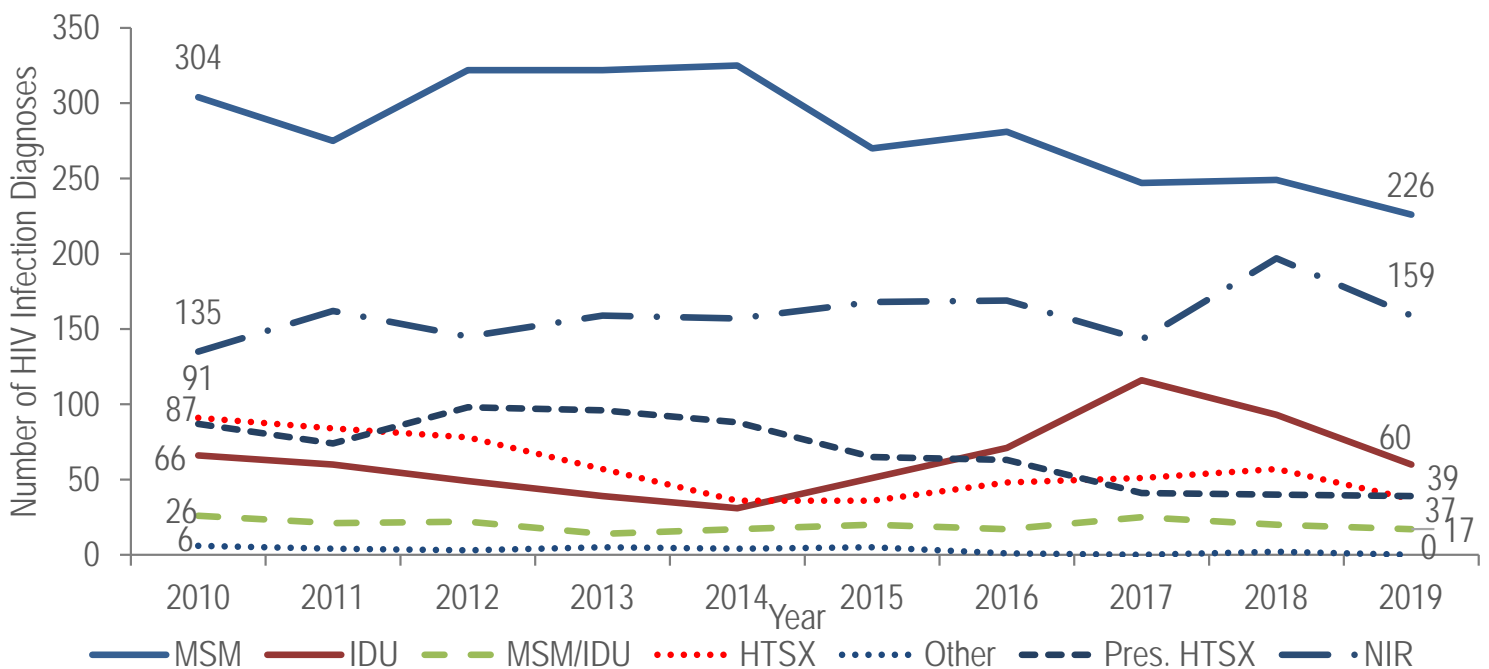
## OUTBREAK AMONG PWID

- An outbreak of HIV infection was identified in the northeastern cities of Lawrence and Lowell among persons who inject drugs (PWID), involving 129 individuals diagnosed with HIV infection during January 1, 2015–June 30, 2018. Ninety-four (73%) were diagnosed with HIV infection between 20 and 39 years, 55 (43%) were assigned female at birth (AFAB), and 87 (67%) were white (non-Hispanic). Close to 90% of these individuals also had evidence of hepatitis C exposure at some point.<sup>i</sup>
- Following an intensive and targeted public health response, the number of HIV infection diagnoses attributed to injection drug use (IDU) in the northeast decreased. However, in early 2019, a new cluster of HIV infection was identified in Boston among PWID who are experiencing or have experienced recent homelessness, renewing concerns about ongoing transmissions among PWID statewide. As of March 1, 2021, a total of 113 cases diagnosed since November 2018 have been investigated and identified as part of the Boston cluster. Emerging trends among those newly diagnosed in the Boston cluster (N=33 cases diagnosed in 2019) include an increase in polysubstance and methamphetamine use.<sup>ii</sup>

**N=269 15%** of new HIV diagnoses from 2017–2019 were among individuals who reported IDU as their primary exposure mode

**N=3,673 16%** of persons living with HIV infection in MA as of 12/31/2019 reported IDU as their primary exposure mode

**FIGURE 1.** Individuals diagnosed with HIV infection by exposure mode, Massachusetts 2010–2019



MSM=Male-to-Male Sex; IDU=Injection Drug Use; HTSX=Heterosexual Sex; Pres. HTSX=Presumed Heterosexual Sex; NIR=No Identified Risk

### KEY FACT

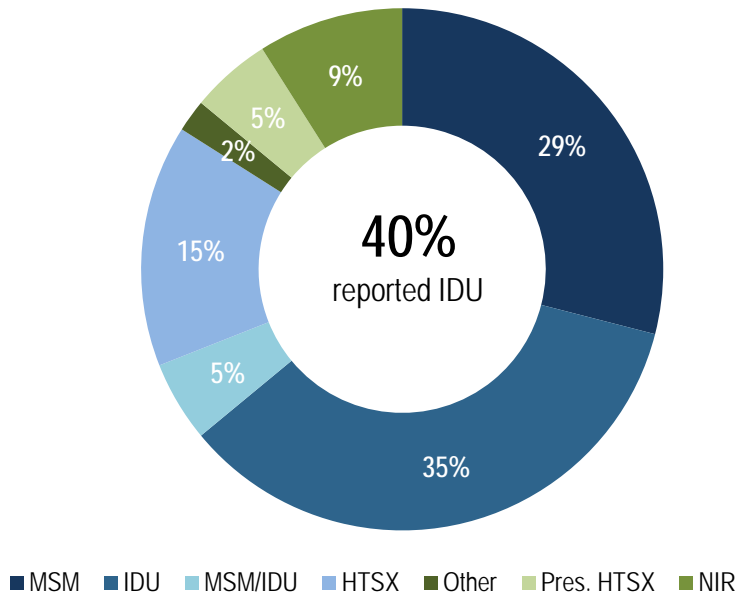
- After declining by 53% from 2010 (N=66) to 2014 (N=31), the number of reported cases with injection drug use as the primary exposure mode peaked at 116 in 2017 and then decreased to 60 in 2019.

<sup>i</sup> For more information, see: Charles Alpren et al. “Opioid Use Fueling HIV Transmission in an Urban Setting: An Outbreak of HIV Infection Among People Who Inject Drugs—Massachusetts, 2015–2018”, *American Journal of Public Health* 110, no. 1 (January 1, 2020): pp. 37-44. <https://doi.org/10.2105/AJPH.2019.305366>

<sup>ii</sup> Boston cluster data are as of 3/1/2021. For more information, see: Joint MDPH and BPHC Clinical Advisory: Increase in newly diagnosed HIV infections among persons who inject drugs in Boston, March 15, 2021, available at: <https://www.mass.gov/doc/joint-mdph-and-bphc-clinical-advisory-hiv-transmission-through-injection-drug-use-in-boston-march-15-2021/download>

# PERSONS WHO INJECT DRUGS

**FIGURE 2.** Deaths among individuals reported with HIV/AIDS by exposure mode, Massachusetts 2019 (N=298)



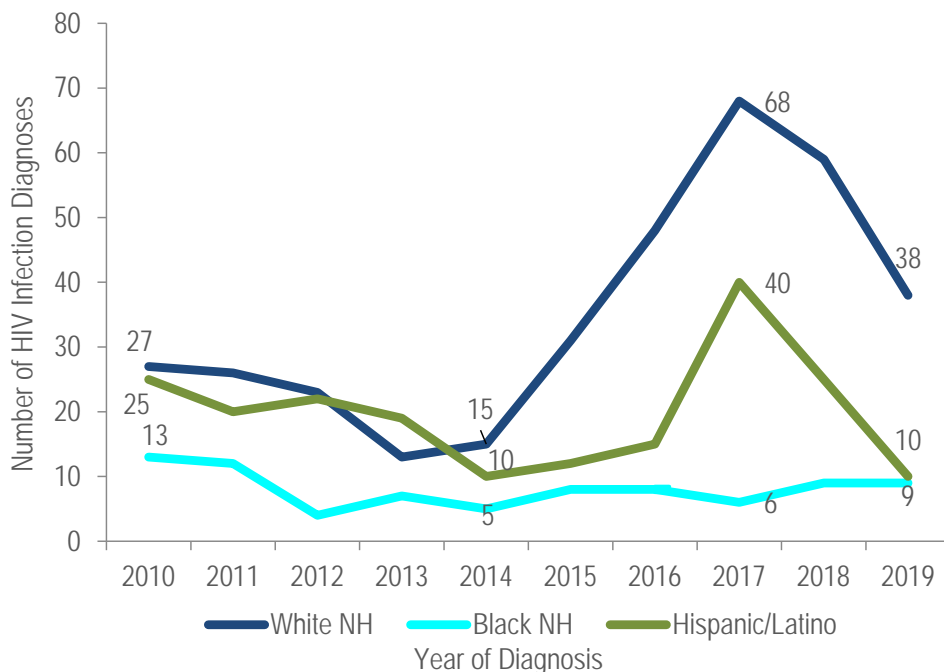
## KEY FACT

- Individuals with IDU exposure mode accounted for the largest proportion of deaths among individuals reported with HIV/AIDS. In 2019, 35% of deaths among individuals with HIV/AIDS were among individuals who reported IDU as their mode of exposure and an additional 5% who reported MSM/IDU as their mode of exposure, compared to 11% and 3%, respectively, of 2019 HIV infection diagnoses.

## RACE/ETHNICITY

- Sixty-one percent of 269 individuals diagnosed with HIV infection attributed to IDU during 2017–2019 were white (non-Hispanic), 28% were Hispanic/Latino, 9% were black (non-Hispanic), and 2% were of other or unknown race/ethnicity.
- Among 3,673 persons living with HIV infection on 12/31/19 that was attributed to IDU, 42% were Hispanic/Latino, 35% were white (non-Hispanic), 22% were black (non-Hispanic), and 2% were of other or unknown race/ethnicity.

**FIGURE 3.** Number of individuals diagnosed with HIV infection with IDU exposure mode by race/ethnicity and year of diagnosis, Massachusetts 2010–2019



## KEY FACT

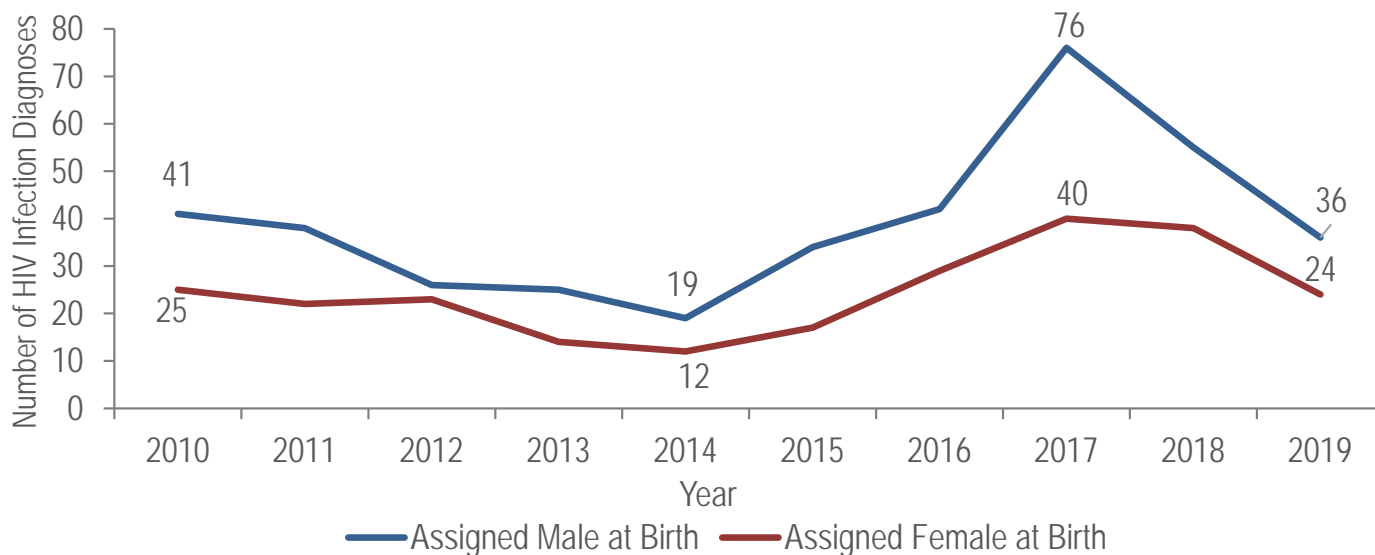
- From 2014 to 2017, the number of HIV infection diagnoses with IDU exposure mode among black (non-Hispanic) individuals remained fairly stable, while the number among white (non-Hispanic) and Hispanic/Latino individuals quadrupled. From 2017 to 2019, the number of HIV infection diagnoses with IDU exposure mode among black (non-Hispanic) individuals increased slightly, while the number decreased by 44% among white (non-Hispanic) individuals and by 75% among Hispanic/Latino individuals.

# PERSONS WHO INJECT DRUGS

## SEX ASSIGNED AT BIRTH

- Sixty-two percent of 269 individuals diagnosed with HIV infection attributed to IDU during 2017 to 2019 were assigned male at birth (AMAB) and 38% were assigned female at birth (AFAB).
- Similarly, 65% of 3,673 persons living with HIV infection on 12/31/19 that was attributed to IDU were AMAB and 35% were AFAB.

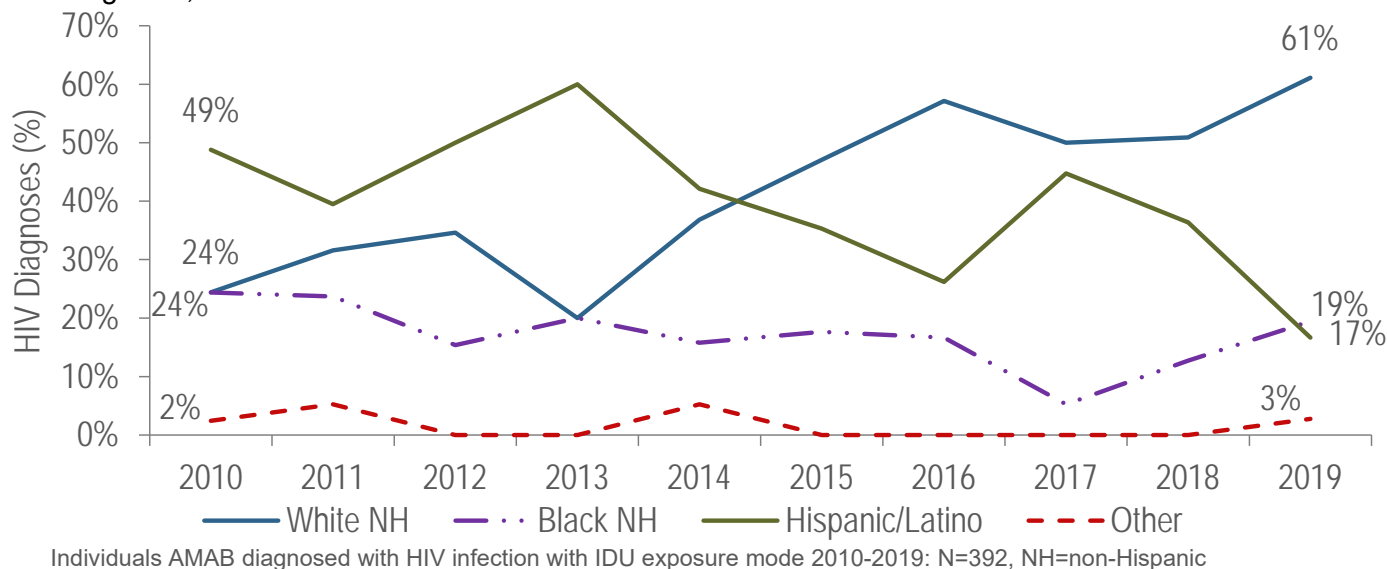
**FIGURE 4.** HIV diagnoses among individuals with IDU exposure mode by sex assigned at birth, Massachusetts 2010–2019



- The number of HIV infection diagnoses with IDU exposure mode among individuals AMAB quadrupled from 19 in 2014 to a peak of 76 in 2017 and then decreased by 53% to 36 in 2019. The number of diagnoses with IDU exposure mode among individuals AFAB more than tripled from 12 in 2014 to 40 in 2017, and then decreased by 40% to 24 in 2019.

## SEX ASSIGNED AT BIRTH BY RACE/ETHNICITY

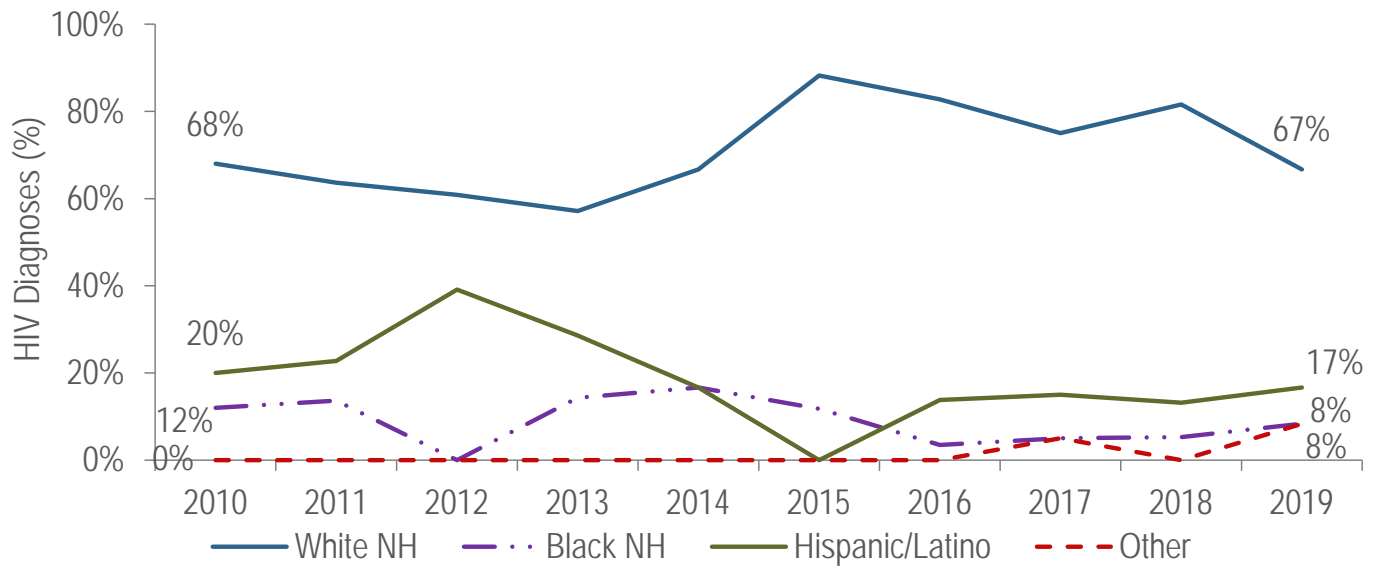
**FIGURE 5.** Individuals AMAB and diagnosed with HIV infection with IDU exposure mode by race/ethnicity and year of diagnosis, Massachusetts 2010–2019



- From 2010 to 2019, the proportion of individuals AMAB diagnosed with HIV infection with IDU exposure mode who identified as Hispanic/Latino decreased from 49% to 17%.
- During the same time period, the proportion of individuals AMAB diagnosed with HIV infection with IDU exposure mode who identified as white (non-Hispanic) increased from 24% to 61%.

# PERSONS WHO INJECT DRUGS

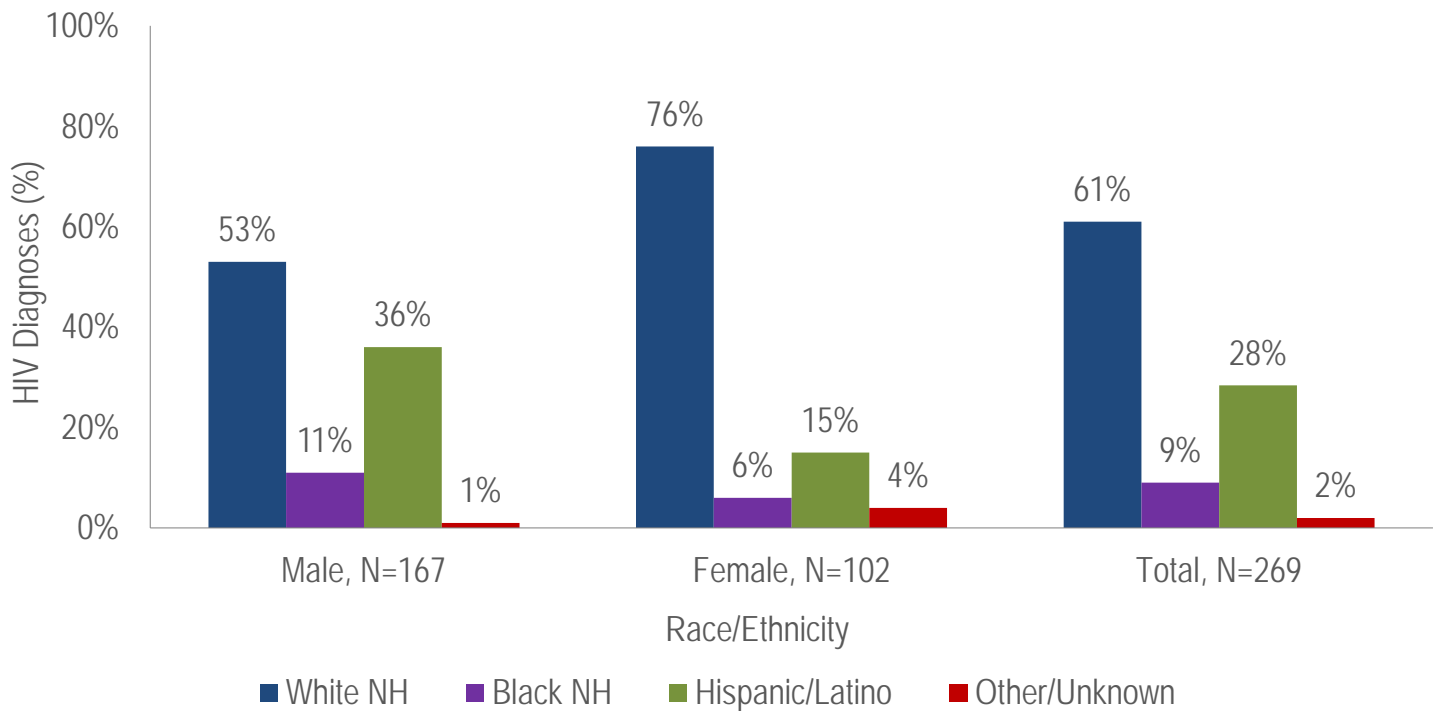
**FIGURE 6.** Individuals AFAB and diagnosed with HIV infection with IDU exposure mode by race/ethnicity and year of diagnosis, Massachusetts 2010–2019



Individuals AFAB diagnosed with HIV infection with IDU exposure mode 2010-2019: N=244, NH=non-Hispanic

- The distribution of individuals AFAB and diagnosed with HIV infection with injection drug use exposure mode remained relatively stable by race/ethnicity from 2010 to 2019.

**FIGURE 7.** Percentage distribution of individuals diagnosed with HIV infection with IDU exposure mode by sex assigned at birth and race/ethnicity, Massachusetts 2017–2019

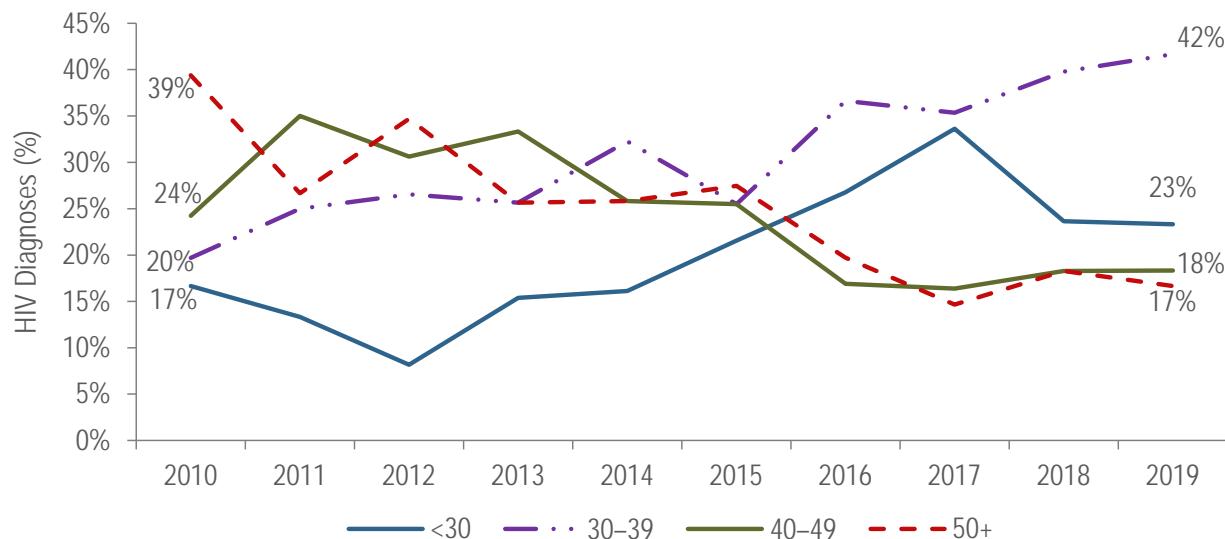


- Seventy-six percent of individuals AFAB diagnosed with HIV infection with IDU exposure mode during 2017 to 2019 were white (non-Hispanic), 15% were Hispanic/Latina, and 6% were black (non-Hispanic), compared to 53%, 36%, and 11% of individuals AMAB, respectively.

# PERSONS WHO INJECT DRUGS

## AGE

**FIGURE 8.** HIV diagnoses among individuals with IDU exposure mode by age at diagnosis, Massachusetts 2010–2019 (N=636)



- The percentage of HIV infection diagnoses with IDU exposure mode among individuals under 30 years of age increased from 17% in 2010 to 34% in 2017 and then decreased to 23% in 2019.
- The percentage of HIV infection diagnoses with IDU exposure mode among individuals 30-39 years of age increased from 20% in 2010 to 42% in 2019. It has been the largest percentage for the past four years (2016 to 2019).

## AREA OF RESIDENCE

**TABLE 1.** Massachusetts cities/towns<sup>i</sup> with the highest percentage of HIV diagnoses attributed to IDU, 2017–2019

	HIV diagnoses attributed to IDU (N)	HIV diagnoses attributed to IDU as percent of total HIV Diagnoses (%)
Massachusetts Total	269	15%
<b>Top Cities/Towns</b>		
Lawrence	28	45%
Lowell	40	43%
Lynn	7	15%
Springfield	9	11%
Boston	44	11%
Brockton	9	11%
<b>All Other Cities/Towns<sup>ii</sup></b>	<b>132</b>	<b>13%</b>

<sup>i</sup> City/town is based on residence at HIV infection diagnosis.

<sup>ii</sup> All Other Cities/Towns includes individuals diagnosed in a correctional facility

- Among areas with at least five individuals diagnosed with HIV infection attributed to IDU and at least 20 total HIV diagnoses during 2017 to 2019, Lawrence and Lowell had the highest percentages at 45% and 43%, respectively. Both cities were involved in an outbreak of HIV infection among PWID in the northeastern part of the state from 2015 through 2018.

## INFORMATION FROM ADDITIONAL DATA SOURCES

### Opioid Statistics

*Opioids include heroin, opioid-based prescription painkillers, and other unspecified opioids that may or may not be injected.*

### Opioid-Related Overdose Deaths

- After reaching a 20-year high of 2,102 in 2016, the number of confirmed and estimated opioid-related overdose deaths in Massachusetts remained relatively stable through 2020, when there were an estimated 2,104 deaths. The opioid-related overdose death rate also remained relatively stable during this time period and was 30.2 per 100,000 in 2020.

# PERSONS WHO INJECT DRUGS

- The percentage of confirmed opioid-related overdose deaths with fentanyl present increased from 42% in 2014 to 92% in 2020.

*Data Source: MDPH Registry of Vital Records and Statistics, Data Brief: Opioid-Related Overdose Deaths Among Massachusetts Residents, Posted: May 2021, available at <https://www.mass.gov/lists/current-opioid-statistics>*

## *Emergency Medical Services (EMS) Data:*

- The percentage of EMS incidents that were considered opioid-related increased on average 14% biannually from 2013 until mid-2016 and then began decreasing 2% bi-annually through the end of 2020. The number of all EMS incidents involving naloxone administration increased on average 17% biannually from 2013 until mid-2016 and then began decreasing 1% bi-annually through the end of 2020. In 2020, the greatest number of suspected opioid-related incidents treated by EMS continued to be among individuals AMAB aged 25-34 years, accounting for 22% of opioid-related incidents with a known age and sex.

*Data Source: MDPH Bureau of Health Care Safety and Quality, MA Opioid-Related EMS Incidents 2013-2020, Posted: May 2021, available at <https://www.mass.gov/lists/current-opioid-statistics>*

## **Injection Drug Use among Program Participants:**

### *Syringe Services Program (SSP) Participants*

- Among 936 clients who received HIV testing at state-funded SSPs in 2020:
  - 64% were men, 35% were women, and 1% were transgender or another gender;
  - 13% were aged 18–24 years, 33% were 25–34 years, 32% were 35–44 years, 17% were 45–54 years, 7% were 55–64 years, 3% were 65 years and older, and 1% were of unknown age;
  - 61% were white (non-Hispanic), 23% were Hispanic/Latino, 12% were black (non-Hispanic), 2% were other or more than one race/ethnicity, and 2% were of unknown race/ethnicity.

*Data Source: MDPH, BIDLS, Office of Health Care Planning; data as of 10/11/2021. Please note: the total number of clients is less than previous years due to impact of COVID-19.*

### *Substance Use Disorder Treatment Admissions*

- The percentage of clients admitted to state-licensed substance use disorder treatment programs reporting the use of a needle to inject drugs within a year of admission increased from 39% (N=39,372/101,346) in state fiscal year 2011 to 50% (N=48,521/98,033) in state fiscal year 2016, and then decreased to 41% (N=40,045/98,028) in state fiscal year 2020.
- The percentage of admissions to state-licensed substance use disorder treatment programs for heroin use treatment increased from 39% (N=39,611/101,330) of total admissions in state fiscal year 2011 to 54% (53,385/98,057) in state fiscal year 2016, and then decreased to 47% (N=46,122/98,672) in state fiscal year 2020.<sup>i</sup>
- Ninety-one percent of individuals admitted to state-funded substance use disorder treatment programs in fiscal year 2020 who reported needle use within the past year were unemployed (N=31,709/34,980), compared to 72% of those admitted who did not report needle use (N=33,539/46,486); 38% (N=15,124/39,513) were homeless, compared to 21% (N=11,792/57,410) of those who did not report needle use.

<sup>i</sup> Total number of admissions excludes missing/unknown values for each variable and therefore differs depending on the variable.

*Data Source: MDPH, Bureau of Substance Addiction Services, Office of Statistics and Evaluation, Data are current as of 10/22/2021 and may be subject to change; Based on EISM submissions through: 10/1/2021*