

2020

# HIV

## IN PHILADELPHIA

Cases reported through June 2020 | NOVEMBER 2021

James F. Kenney, Mayor

Cheryl Bettigole, MD, MPH, Health Commissioner

Frank Franklin, PhD, JD, MPH, Deputy Commissioner of Health

Kathleen A. Brady, MD, Acting Director,  
AIDS Activities Coordinating Office



Department of  
**Public Health**

CITY OF PHILADELPHIA

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## SECURITY AND CONFIDENTIALITY

All information about individuals diagnosed and/or living with Human Immunodeficiency Virus (HIV) is strictly confidential and is collected for legitimate public health purposes. Confidentiality of HIV case reports is of critical importance to maintaining effective public health data. Federal, state, and local health departments have implemented procedures and policies to assure the confidentiality and security of HIV data. Prior to submitting data to the CDC, all information is de-identified and encrypted using computer encryption software. In addition, strict guidelines govern the release of reports similar to this one, which ensure that HIV data are not presented in such a way as to possibly identify any individual with HIV. Maintenance of confidentiality and security safeguards are critical for federal funding and are a top priority within the Philadelphia HIV Surveillance Unit.

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# Introduction

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The Philadelphia Department of Public Health (PDPH), AIDS Activities Coordinating Office (AACO) Surveillance Report is the annual report presenting data on human immunodeficiency virus (HIV) diagnoses in the City of Philadelphia. Data in this report include persons diagnosed through December 31, 2020 and reported through June 30, 2021. Although the number of newly diagnosed HIV cases has been on a steady decline since the mid-2000s (Figure 7), the number of newly diagnosed HIV cases has remained relatively stable over the last few years until 2020, when COVID-19 severely impacted the HIV testing and care infrastructure in Philadelphia. Today, there are 18,621 people living with diagnosed HIV (PLWDH) in Philadelphia, of which 332 were newly diagnosed in 2020. The largest burden of HIV disease continues to impact men who have sex with men (MSM) and, despite extensive outbreak efforts, an increase persists in the proportion of new HIV diagnoses among persons who inject drugs (PWID) (Table 2). Overall, both prevalent disease and new diagnoses continue to disproportionately affect communities of color.

Philadelphia was 1 of 48 counties in the United States selected to receive federal funding in 2019 to combat the HIV epidemic under the Ending the HIV Epidemic: A Plan for America (EHE) initiative.

The plan's overall goal is a 75% reduction in new HIV diagnoses by 2025 and a 90% reduction in new HIV diagnoses by 2030. Through this initiative, PDPH aims to reach these goals by focusing efforts on 5 Key Pillars: Diagnosis, Treatment, Prevention, Response, and an added pillar for an overarching approach based in health equity and radical customer service.

More specifically, PDPH will expand on existing strategies while adapting novel techniques to **1)** diagnose all persons with HIV as early as possible, **2)** treat persons living with HIV quickly and effectively, **3)** prevent new HIV transmissions by promoting pre-exposure prophylaxis (PrEP) and syringe services, and **4)** identify and respond quickly to HIV outbreaks.

Additionally, PDPH and our partners have begun implementing EHE initiatives, including the development of health equity plans, the distribution of HIV self test kits, awarding funds to agencies for increased re-engagement activities and delivery of low threshold sexual health services, and establishing the Philadelphia regional EHE collaborative. For more information about the national EHE initiative please visit: <https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview>.

## Report Updates

The authors would like to highlight new additions and report changes in the 2020 HIV Surveillance Report.

### Additional Tables/Graphs:

- Impact of COVID-19 on HIV in Philadelphia
- Ending the HIV Epidemic Dashboard

### Report Changes:

In this report, PDPH has included an additional indicator along the HIV Care Continuum — 'Receipt of Care'. This indicator serves as a supplemental data point to understanding the HIV landscape in Philadelphia, particularly during COVID-19.

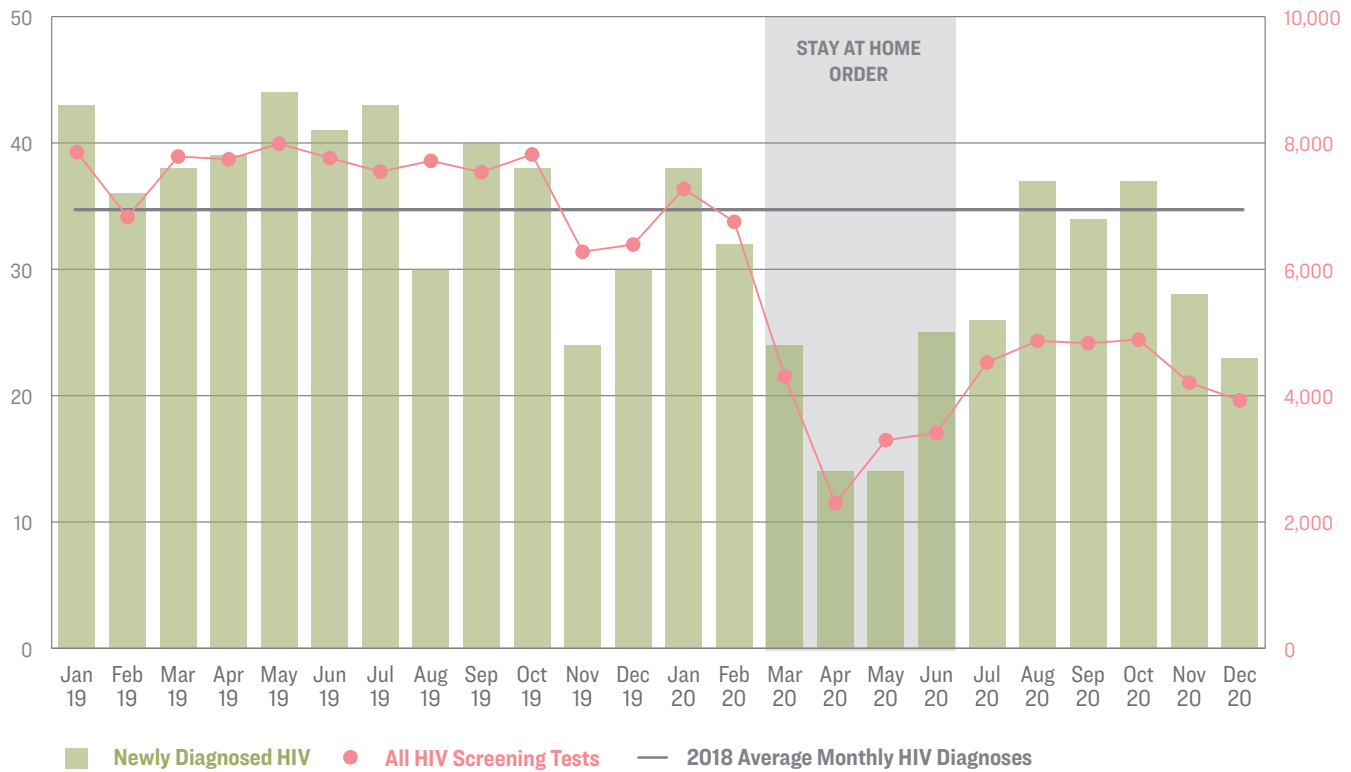
All rates presented in this report are per 100,000 population. Rates for the general population and by race/ethnicity, sex, and age group are calculated from the 2010 decennial census data, while rates by transmission risk (MSM, PWID, at-risk heterosexuals) are based on the most recent population estimates available. In previous years, the rate of newly diagnosed HIV disease among MSM was calculated using a denominator of 33,549 – which represents an estimate of MSM over the last 5 years. This year, the rate of newly diagnosed HIV disease among MSM was calculated using the denominator of 20,570, or a one year estimate of the MSM population to align with CDC-generated estimates.

Information regarding PrEP Indications as well as the PrEP Continuum developed for the 2019 Annual Report are included once again in this report. However, PDPH would like to note that the planned 2020 NHBS cycle among MSM was postponed until 2021 due to COVID-19 limitations. The data presented here are the most up-to-date available. At time of publication, the MSM cycle is in progress and data will be available in the 2021 Annual Surveillance Report.

## Impact of COVID-19 on HIV Surveillance Data

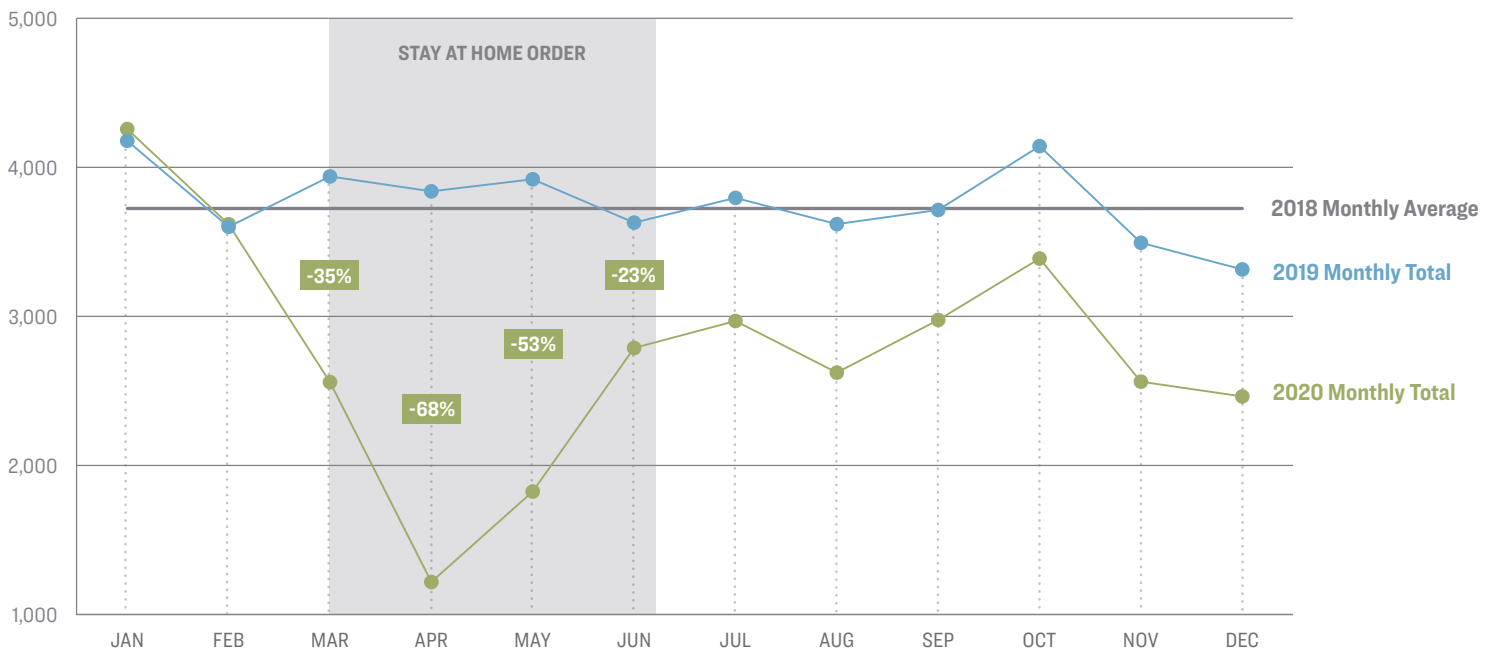
- COVID-19 had a substantial impact on the HIV prevention and care infrastructure in Philadelphia during 2020. The stay at home order went into effect on March 23, 2020, causing a large disruption of services locally.
- During 2020, the number of newly diagnosed cases declined and mirrored declines in HIV screening tests performed across the city (Figure 1).
- In addition to decreased HIV screening overall, there was a significant decrease in the volume of viral load testing, which serves as a surveillance proxy for evidence of HIV care (Figure 2).
- There was a notable increase in the proportion of persons newly diagnosed with HIV who were concurrently diagnosed with AIDS from 13.0% in 2019 to 17.8% in 2020. Concurrent diagnoses of HIV/AIDS infection represent missed opportunities for early HIV diagnosis and may have been related to reduced access to HIV testing (Table 5).
- The impact of COVID-19 can also be seen across HIV Care Continuum measures (Figure 5A).
  - » The proportion of PLWH retained in care decreased from 45.1% in 2019 to 32.2% in 2020. It is important to note that 2020 saw a dramatic shift to telehealth or virtual medical visits, which are not captured by the current HIV surveillance system and therefore would not be reflected in the retention measure presented in this report.
  - » Due to the difficulty in accessing care across the city during 2020, a 'Receipt of Care' measure was added as an indicator along the HIV Care Continuum to assess the proportion of individuals who were able to access any HIV care during the calendar year as evidenced by one viral load or CD4 test result.
  - » The change in viral suppression for PLWH across the city was less severe than retention, with a decrease from 51.6% in 2019 to 47.1% in 2020. Stability in citywide viral suppression rates may be due, in part, to the addition of the telehealth model for routine HIV care, a greater focus on ART adherence, and a shift to multi-month prescriptions of ART.
- PDPH has identified and implemented a number of activities to direct resources to mitigate the impact of COVID among PLWH and those at-risk for new infection including the creation of low threshold sexual health sites and the nPEP Center of Excellence, the implementation of AACO's Field Services Program, and the expansion of the HIV self-test kit program.
- Efforts to quantify the true impact of COVID-19 on HIV prevention, testing, and care services in Philadelphia are currently underway. However, data published in this report should be interpreted with caution. Please read all table titles and footnotes carefully to ensure a complete understanding of the displayed data.

FIGURE 1 Overall HIV Screening Volume and Newly Diagnosed HIV, Philadelphia, 2019 – 2020



**Note** HIV screening tests include positive and negative HIV screening results from AACO-funded community and mobile-based testing, available clinical testing, and prison-based testing.

FIGURE 2 HIV Viral Load Testing Volume, Philadelphia, 2019 – 2020



## HIV Continuum of Care

The HIV Continuum of Care is a data driven tool focusing on the diagnosis and care of individuals living with HIV. Engaging HIV patients in care is critical to slowing the spread of HIV transmission. This prevalence-based Continuum depicts the percentage of both diagnosed and undiagnosed PLWH residing in Philadelphia at various levels of engagement in care and compares to the most recently published national outcomes. The Continuum (Figure 5A) includes the percentage of people with new diagnoses who were linked to care in a timely manner, defined as a CD4 or viral load collected within 1 month of initial HIV diagnosis; the percentage of people who received care, evidenced by at least one CD4 or viral load result in the calendar year; the percentage of people who were retained in care, defined as two or more laboratory results at least 91 days apart in the calendar year; and the percentage of people who were virally suppressed, defined as a viral load of <200 copies/mL at last measure in 2020. Among persons newly diagnosed with HIV disease in 2020, 82.5% were linked to HIV medical care within 1 month of their diagnosis. Among all PLWH, 54.4% received care during 2020. However, retention in HIV medical care decreased to 32.2% during 2020 from 45.1% in 2019. Viral suppression at most recent viral load (regardless of receipt of or retention in care status) decreased less than retention from 51.6% in 2019 to 47.1% in 2020.

While the comparison to national data is an important reference, it is necessary to note that the most recent data released from the CDC from 2019 was prior to COVID's impact in the US.

Figure 5B is a modified HIV Continuum of Care assessing outcomes among PLWDH with evidence of recent HIV care in Philadelphia in the last 5 years. HIV case reporting data is typically used to determine HIV care outcomes. However, this methodology can overestimate the number of PLWDH due to duplicate case reporting, migration, and missed deaths. We hope that by excluding individuals without evidence of recent care that we can more precisely evaluate HIV care outcomes and better identify individuals for intervention and re-linkage services. Receipt of care, retention in HIV care, and viral suppression outcomes are 78.2%, 46.0%, and 67.3%, respectively, among those with evidence of recent care (Figure 5B). Identifying new opportunities to improve outcomes along the continuum of care is vital to improving the health of persons living with HIV and reducing the rate of HIV transmission.



## Diagnoses of HIV Infection and Diagnoses of Infection Classified as Stage 3 (AIDS)

In 2020, the largest proportions of newly diagnosed HIV were among those assigned male sex at birth (75.6%), aged 30-39 (28.6%), and those identified as MSM (56.6%) (Table 2). Among the three major risk groups, the highest rates of newly diagnosed HIV continue to be seen among MSM (1412.3 per 100,000), followed by PWID (125.5), and at-risk heterosexuals, defined as individuals over the age of 18 who are living in poverty (30.6) (Figure 6). Racial/ethnic health disparities in Philadelphia persist and mirror disparities observed across the nation.

## Estimates of HIV Incidence

Incidence of disease is defined as the number of new infections in a given time period, typically one year, regardless of when those infections were diagnosed. Conversely, HIV diagnoses indicate when a person was diagnosed with HIV, regardless of when the person was infected. Due to the nature of HIV infection, true incidence is difficult to measure. Recent infection is rarely accompanied with persistent symptoms, and persons are often unaware of their exposure.

## Prevalence of HIV Infection among Philadelphia Residents

Among PLWH diagnosed through 2020, males (72.1%), non-Hispanic Blacks (63.7%), persons aged 50 and older (54.8%), and MSM (38.9%) accounted for the largest proportions by sex at birth, race/ethnicity, age group, and transmission risk, respectively (Table 8). For both males and females, HIV prevalence rates disproportionately affect racial and ethnic minorities. HIV prevalence rates were highest among non-Hispanic Blacks (1,841.3 per 100,000), followed by Hispanic/Latinx (1,600.7) (Table 12).

Non-Hispanic Blacks have the highest burden of HIV compared to any other race/ethnicity group. In 2020, the highest rates of new HIV diagnoses were among non-Hispanic Blacks (35.1 per 100,000), followed by Hispanics/Latinx (29.3) and non-Hispanic Whites (8.4) (Table 3). New AIDS diagnoses in Philadelphia during 2020 were primarily among persons assigned male sex at birth (69.3%), aged 30-39 (31.2%), and those identified as MSM (38.1%) (Table 7). The proportion of concurrent AIDS diagnoses has steadily declined since 2015, however the proportion of concurrent diagnoses increased during 2020 to 17.8% from 13.0% in 2019 (Table 5).

HIV incidence estimates presented in this report are based on the CDC-derived CD4 depletion model. These estimates provide valuable information on where additional education and prevention efforts are needed. Due to the methodology used to generate the estimates, the most recent year of data available is 2019. There were an estimated 440 new HIV transmissions in Philadelphia in 2019. The highest rates of HIV infection occurred among those assigned male sex at birth (46.7 per 100,000), non-Hispanic Blacks (42.7), persons aged 25-34 (70.0), and MSM (1,878.0) (Table 6).

Disparities in prevalence by race/ethnicity and transmission risk remain, with non-Hispanic Black MSM having the highest prevalence rates of HIV (29,986.5 per 100,000 population) (Figure 8).

# Topics of Continued Focus

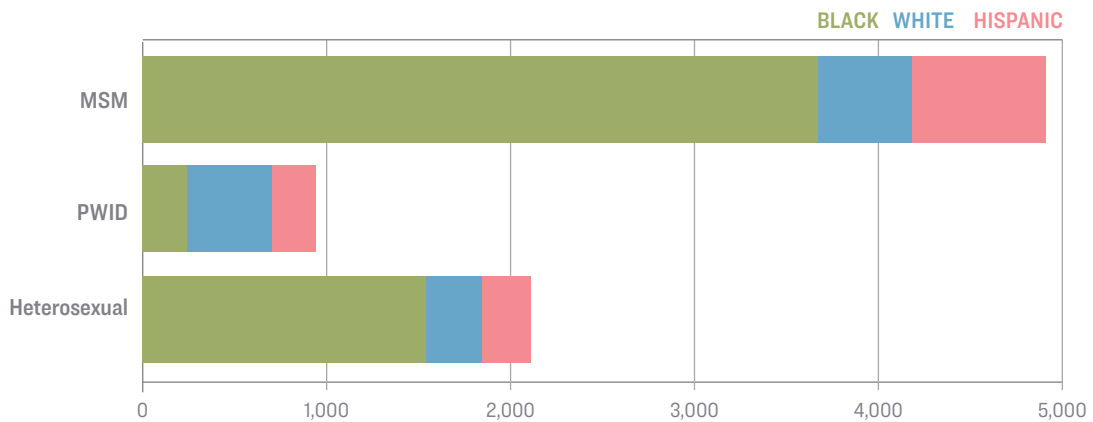
## Pre-Exposure Prophylaxis (PrEP) Indications

Pre-Exposure Prophylaxis, or PrEP, is a daily medication taken by individuals at high risk for HIV infection to lower their chances of getting infected. In May of 2018, CDC published estimates of adults with indications for PrEP by transmission risk group and race/ethnicity. Based on this methodology, PDPH estimates that there were 8,200 HIV negative persons in Philadelphia during 2020 with a PrEP indication, with HIV-negative, non-Hispanic Black MSM having the greatest proportion of PrEP indications (76.8%) (Table 14).

PDPH continues to use the PrEP Monitoring and Evaluation plan, developed in 2019 through collaborations with other health departments and academic institutions, to track the progress of PrEP usage in the City of Philadelphia. While PrEP can reduce an individual's chances of acquiring HIV, it is only effective when taken as directed.

**Adherence to PrEP must be stressed by providers and condom usage must still be encouraged to prevent other sexually transmitted infections.**

FIGURE 3 PrEP Indication by Transmission Category and Race/Ethnicity



## PrEP Continuum

The PrEP continuum is similar to the HIV continuum of care but was developed using data from the CDC-funded National HIV Behavioral Surveillance (NHBS) project and is used to help monitor efforts to increase PrEP awareness, use, and adherence among HIV negative individuals at risk for HIV. There are four metrics along the PrEP continuum: 1) Awareness of PrEP, 2) discussing PrEP with a medical provider in the past year, 3) using PrEP in the past year, and 4) PrEP adherence in the past year. The PrEP continuum is presented for HIV negative individuals in four at-risk populations, including MSM, at-risk heterosexuals, PWID, and transwomen.

Due to the impact of COVID-19 on the ability to conduct routine NHBS activities, the scheduled 2020 MSM NHBS cycle was postponed to 2021 and is being conducted virtually at the time of this publication. Therefore, data presented in this report (Figure 9) are unchanged from last year. PrEP awareness, discussions about PrEP, and PrEP usage were highest among transwomen, while PrEP adherence was highest among MSM. Both at-risk heterosexuals and PWID reported the lowest levels of awareness, discussions about, and usage of PrEP. Less than half of all MSM, PWID, and heterosexuals interviewed had discussed PrEP with their provider in the past year.

**Identifying and removing barriers to PrEP for underserved populations is necessary to improve the PrEP continuum among all groups.**



# Topics of Continued Focus

## Transgender Persons

The quality of data on transgender individuals has not improved at the same pace as surveillance data on the overall population. Some of these differences are attributed to the lack of a gender identity variable in the surveillance system and most medical records prior to 2009, making it difficult to determine gender identity for individuals diagnosed prior to the addition of these variables to the current data system. Furthermore, many transgender persons are misclassified as MSM. Table 11 presents demographic information based on available gender identity and reclassifies transmission risk reported as MSM and heterosexual contact into one category termed sexual contact. Efforts to improve surveillance data on transgender individuals—including internal and external trainings on standardized collection of gender identity data and medical chart review—have made a significant impact on identifying transgender PLWH and are ongoing.

Notably, Philadelphia was one of seven sites that was funded for the National HIV Behavioral Surveillance (NHBS) pilot cycle among transgender women. The cycle began in 2019, with data collection completed in February 2020. NHBS provided data on the utilization of HIV prevention services by transgender women as well as sexual and drug-use behaviors that place transgender women at risk for HIV infection. These data were used to establish the PrEP continuum in Transgender Women (Figure 9) and will continue to provide valuable information for monitoring and evaluating national and local EHE goals and for guiding prevention efforts. A factsheet detailing findings from the 2019-2020 NHBS cycle among transgender women, and a companion implications document, will be released in the near future.

## HIV Outbreak Among People Who Inject Drugs

PDPH identified an increase in the number of new HIV infections among PWID in September 2018 after years of declines attributed to the implementation of the local syringe exchange program in 1992. Since identification, the number of new HIV diagnoses among PWID, including men who inject and have sex with men (MSM/PWID) has steadily risen to a peak in 2019, during which there were 90 newly diagnosed cases of HIV among PWID. This represented a 181% increase from 32 cases reported in 2016, or the last year that a decrease was observed.

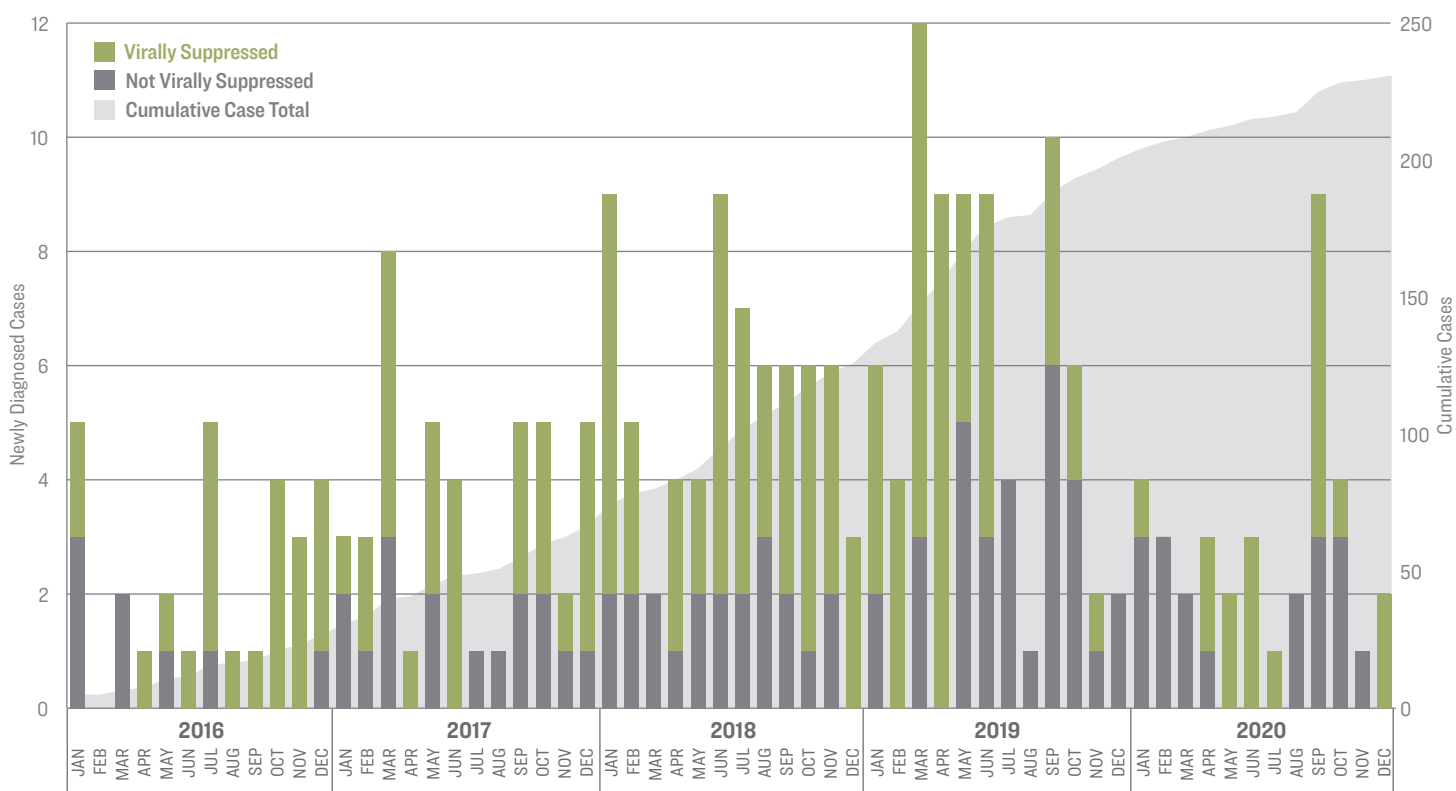
During 2020, there were 36 new HIV diagnoses among PWID. While analyses into this decline are ongoing, the impact of COVID-19 on ability to access HIV testing has undoubtedly played a role. Despite the recent decrease, this outbreak continues to highlight the risk for HIV infection among PWID and their sexual and syringe sharing partners. Viral suppression in previously diagnosed PWID remains a challenge while HIV transmission continues (Figure 4).

# Topics of Continued Focus

PDPH utilizes data-driven approaches to assess and intervene within this outbreak as part of the 'Respond' pillar in the EHE framework. Existing programs and increased funding have been leveraged to support enhanced Partner Services, targeted testing in key areas, increased linkage to care activities, and new prevention initiatives.

PDPH has prioritized the expansion of harm reduction services through increased funding for syringe service programs, resulting in increased service delivery hours, improved syringe access, and implementation of low threshold HIV prevention and care services. During 2020, PDPH also finalized a formal outbreak response plan as well as a communication plan to inform community members, stakeholders, and clinic partners on the status of the outbreak.

FIGURE 4 Newly Diagnosed HIV by Month Among Persons Who Inject Drugs, Philadelphia, 2016 –2020

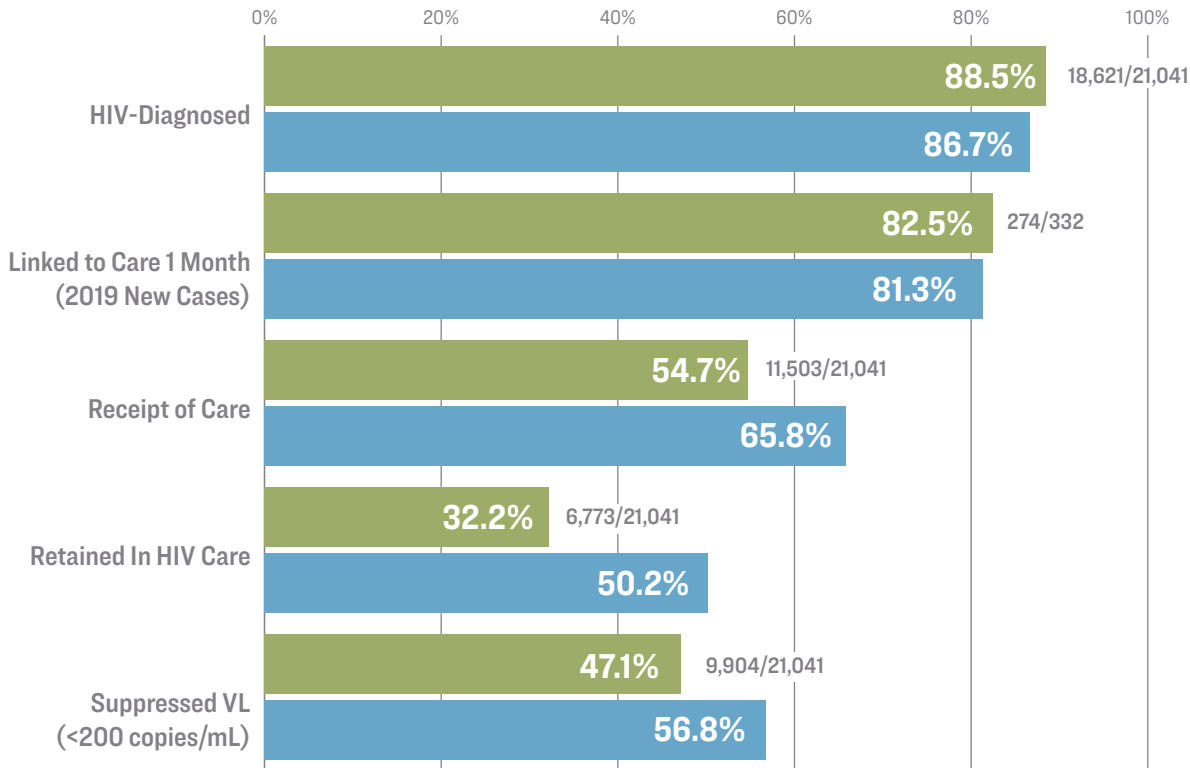


**Notes** PWID includes people who inject drugs (PWID) and men who inject drugs and have sex with men (MSM/PWID)  
 Viral suppression is defined as a viral load <200 copies/mL at last measure in the 2020 calendar year



# HIV Care Continuum

FIGURE 5A **Philadelphia 2020 vs the United States 2019**



### Linked to Care

Persons diagnosed with HIV in a given calendar year who had one or more documented viral load or CD4 tests within one month of diagnosis.

### Receipt of HIV Care

Persons who have at least one CD4 or viral load during the calendar year.

### Retained in HIV Care

Persons who have 2 or more CD4 or viral loads during the calendar year, at least 91 days apart.

### Suppressed Viral Load (VL)

Last reported viral load of the calendar year being <200 copies/mL. Individuals with no evidence of a viral load in the calendar year are considered not suppressed.

FIGURE 5B **HIV Care Continuum (Recent Care)**

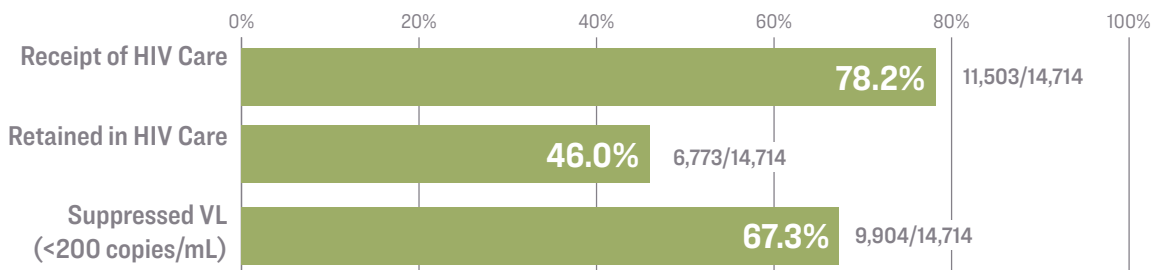


Figure 5A

**Source** Philadelphia Data: Philadelphia Department of Public Health, AIDS Activities Coordinating Office

**Source** United States Data: Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2019. HIV Surveillance Supplemental Report 2021;26(No.2). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2021. Accessed August 2021.

**Source** United States Data: Centers for Disease Control and Prevention. Estimated HIV incidence and prevalence in the United States, 2015–2019. HIV Surveillance Supplemental Report 2021;26(No. 1). <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published May 2021. Accessed August 2021.

Figure 5B

**Note** Care Continuum Outcomes are Among PLWDH with a reported CD4 or Viral Load in the last 5 years (Jan 1, 2016 - Dec 31, 2020)

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office

# Newly Diagnosed Cases

TABLE 2 **By Year and Selected Characteristics** (regardless of AIDS status) | 2016 – 2020

Bar graphs indicate 2020 percentages

	YEAR OF DIAGNOSIS									
	2016		2017		2018		2019		2020	
	N	%	N	%	N	%	N	%	N	%
<b>Total</b>	476	100.0%	509	100.0%	435	100.0%	446	100.0%	332	100.0%
<b>Sex at Birth</b>										
Female	114	23.9%	105	20.6%	107	24.5%	109	24.4%	81	24.3%
Male	362	76.0%	404	79.3%	328	75.4%	337	75.5%	251	75.6%
<b>Race/Ethnicity</b>										
Black	312	65.5%	343	67.3%	255	58.6%	282	63.2%	222	66.8%
Hispanic	91	19.1%	83	16.3%	87	20.0%	80	17.9%	54	16.2%
White	57	11.9%	69	13.5%	78	17.9%	74	16.5%	47	14.1%
Multi-race	*	*	6	1.1%	6	1.3%	7	1.5%	*	*
Asian	10	2.1%	6	1.1%	7	1.6%	*	*	*	*
Other/Unknown	*	*	*	*	*	*	*	*	*	*
<b>Age Category</b>										
0-12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	*	*
13-19	30	6.3%	43	8.4%	22	5.0%	32	7.1%	19	5.7%
20-24	89	18.6%	96	18.8%	91	20.9%	75	16.8%	51	15.3%
25-29	93	19.5%	103	20.2%	81	18.6%	99	22.1%	75	22.5%
30-39	111	23.3%	138	27.1%	119	27.3%	117	26.2%	95	28.6%
40-49	67	14.0%	60	11.7%	49	11.2%	60	13.4%	44	13.2%
50+	86	18.0%	69	13.5%	73	16.7%	63	14.1%	47	14.1%
<b>Transmission Risk</b>										
MSM	272	57.1%	278	54.6%	210	48.2%	233	52.2%	188	56.6%
PWID	27	5.6%	42	8.2%	60	13.7%	75	16.8%	27	8.1%
MSM/PWID	*	*	6	1.1%	11	2.5%	15	3.3%	9	2.7%
Heterosexual	163	34.2%	110	21.6%	86	19.7%	90	20.1%	80	24.0%
Pediatric	0	0.0%	0	0.0%	0	0.0%	0	0.0%	*	*
No Reported Risk	9	1.8%	73	14.3%	68	15.6%	33	7.3%	27	8.1%
<b>Co-Infections</b>										
Hepatitis B	30	6.3%	18	3.5%	35	8.1%	27	6.1%	15	4.5%
Hepatitis C	43	9.0%	52	10.2%	65	14.9%	73	16.4%	37	11.1%
<b>Total Cases</b>	<b>476</b>		<b>509</b>		<b>435</b>		<b>446</b>		<b>332</b>	

**Notes** \*Cell sizes <6 are suppressed.

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office; Philadelphia Department of Public Health, Division of Disease Control, Viral Hepatitis Program

# Newly Diagnosed HIV

TABLE 3 **By Race/Ethnicity and Selected Characteristics**  
(regardless of AIDS status) | 2020

	BLACK		HISPANIC		WHITE	
	N	%	N	%	N	%
<b>Total</b>	<b>222</b>	<b>100.0%</b>	<b>54</b>	<b>100.0%</b>	<b>47</b>	<b>100.0%</b>
<b>Sex at Birth</b>						
Female	54	24.3%	12	22.2%	13	27.6%
Male	168	75.6%	42	77.7%	34	72.3%
<b>Age Category</b>						
0-12	0	0.0%	*	*	0	0.0%
13-19	15	6.7%	*	*	*	*
20-24	40	18.0%	8	14.8%	*	*
25-29	56	25.2%	10	18.5%	8	17.0%
30-39	62	27.9%	13	24.0%	16	34.0%
40-49	23	10.3%	8	14.8%	11	23.4%
50+	26	11.7%	12	22.2%	9	19.1%
<b>Transmission Risk</b>						
MSM	136	61.2%	27	50.0%	19	40.4%
PWID	*	*	7	12.9%	14	29.7%
MSM/PWID	*	*	*	*	*	*
Heterosexual	57	25.6%	10	18.5%	11	23.4%
Pediatric	0	0.0%	*	*	0	0.0%
No Reported Risk	20	9.0%	7	12.9%	0	0.0%
<b>Total N</b>	222		54		47	
<b>Rate</b>	35.1		29.3		8.4	

**Notes** \*Cell sizes <6 are suppressed. Rates were calculated using the 2010 decennial census data.

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office



# Newly Diagnosed HIV

TABLE 4 **By Sex at Birth and Selected Characteristics | 2020**

Males comprised the majority of all new HIV diagnoses (75.6%), with the highest rates among MSM. Females comprised 24.4% of new diagnoses, with highest rates among Black and heterosexual women.

	FEMALE			MALE		
	N	%	Rate †	N	%	Rate †
<b>Total</b>	81	100.0%	10.1	251	100.0%	35.5
<b>Race/Ethnicity</b>						
Black	54	66.6%	15.4	168	66.9%	59.4
Hispanic	12	14.8%	12.8	42	16.7%	46.2
White	13	16.0%	4.5	34	13.5%	12.6
Multi-race	*	*	*	*	*	*
Asian	0	0.0%	0.0	*	*	*
Other/Unknown	0	0.0%	0.0	*	*	*
<b>Age Category</b>						
0-12	*	*	*	0	0.0%	0
13-19	*	*	*	16	6.3%	20.8
20-24	10	12.3%	13.3	41	16.3%	57.9
25-29	15	18.5%	21.2	60	23.9%	94.2
30-39	23	28.3%	21.9	72	28.6%	75.2
40-49	13	16.0%	13.1	31	12.3%	34.5
50+	16	19.7%	6.4	31	12.3%	16.8
<b>Transmission Risk</b>						
MSM	0	0.0%	-	188	74.9%	1,412.3
PWID	*	*	N/A	22	8.7%	N/A
MSM/PWID	0	0.0%	-	9	3.5%	N/A
Heterosexual	74	91.3%	60.4	6	2.3%	4.3
Pediatric	*	*	*	0	0.0%	0.0
No Reported Risk	*	*	*	26	10.3%	N/A
<b>Total N</b>	81			251		

**Notes** \*Cell sizes <6 are suppressed.

**Notes** † Rates for age and race/ethnicity by sex at birth were calculated using the 2010 decennial census. **MSM** rates were calculated using estimates of MSM activity among males 13 and older in the last year. **Heterosexual** rates were calculated using the number of individuals 18 and older living below the federal poverty level from the 2010 American Community Survey.

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office

# Newly Diagnosed HIV

MAP1 **By Census Tract | 2020**

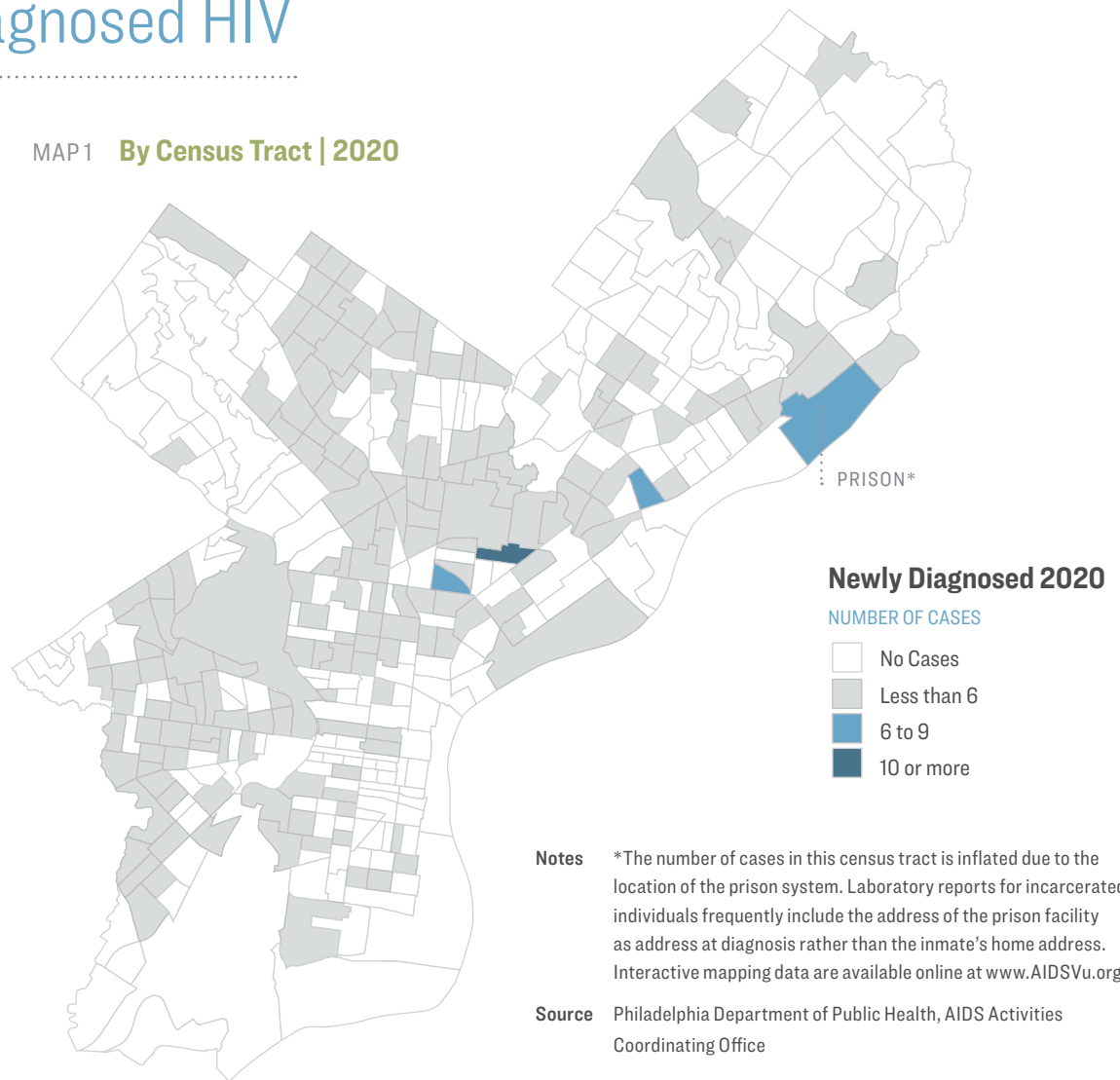
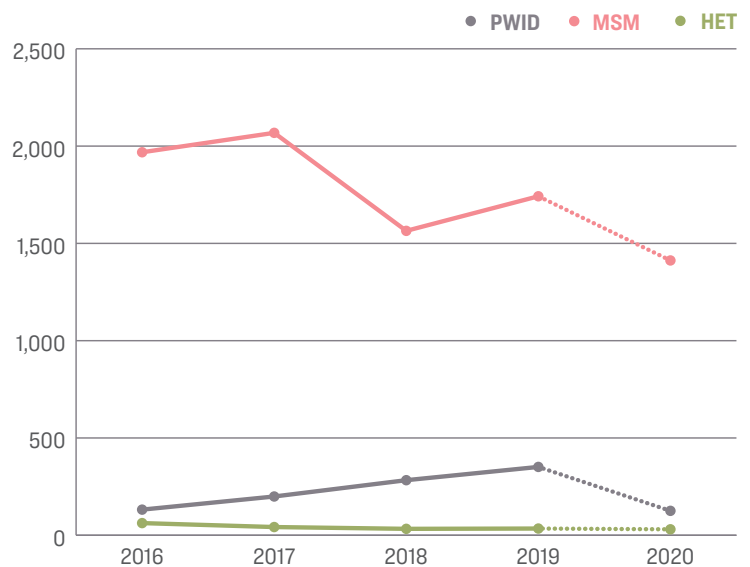


FIGURE 6  
**Rates of Newly Diagnosed HIV disease per 100,000 People by Year of Diagnosis and Risk Group 2016 – 2020**

MSM population size based on estimates of MSM activity among males 13 and older in the last year. Active PWID population size estimated as 25,000 citywide. Individuals 18 and older living below the poverty level was used as a proxy for at-risk heterosexuals.



# Newly Diagnosed HIV

TABLE 5

Concurrent HIV/AIDS, Demographics and Transmission Risk | 2016 – 2020

	2016			2017			2018			2019			2020							
	Non-concurrent		Concurrent HIV/AIDS	Non-concurrent		Concurrent HIV/AIDS	Non-concurrent		Concurrent HIV/AIDS	Non-concurrent		Concurrent HIV/AIDS	Non-concurrent		Concurrent HIV/AIDS					
	N	Row%	N	Row%	N	Row%	N	Row%	N	Row%	N	Row%	N	Row%	N	Row%				
<b>Total</b>	397	83.4%	79	16.6%	424	83.3%	85	16.7%	373	85.7%	62	14.3%	388	87.0%	58	13.0%	273	82.2%	59	17.8%
<b>Sex at Birth</b>																				
Female	99	86.8%	15	13.2%	87	82.9%	18	17.1%	93	87.0%	14	13.1%	99	90.8%	10	9.1%	63	77.8%	18	22.2%
Male	298	82.3%	64	17.7%	337	83.4%	67	16.6%	280	85.4%	48	14.6%	289	85.8%	48	14.2%	210	83.7%	41	16.3%
<b>Race/Ethnicity</b>																				
Black	259	83.0%	53	17.0%	286	83.4%	57	16.6%	216	84.7%	39	15.3%	248	87.9%	34	12.1%	187	84.2%	35	15.8%
Hispanic	78	85.7%	13	14.3%	71	85.5%	12	14.5%	73	83.9%	14	16.1%	63	78.8%	17	21.2%	47	87.0%	7	13.0%
White	47	82.5%	10	17.5%	56	81.2%	13	18.8%	69	88.5%	9	11.5%	68	91.9%	6	8.1%	34	72.3%	13	27.7%
Multi-race	*	*	0	0.0%	*	*	*	*	6	100.0%	0	0.0%	6	*	*	*	*	*	*	*
Asian	7	*	*	*	*	*	*	*	7	100.0%	0	0.0%	*	*	0	0	*	*	*	*
Other/Unknown	*	*	0	0.0%	*	*	*	*	*	*	0	0.0%	*	*	0	0	*	*	*	*
<b>Age at HIV Dx</b>																				
0-12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	*	*	0	0.0%
13-19	28	*	*	*	42	*	*	*	21	*	*	*	31	*	*	*	18	*	*	*
20-24	81	91.0%	8	9.0%	89	92.7%	7	7.3%	82	90.1%	9	9.9%	69	92.0%	6	8.0%	47	*	*	*
25-29	80	86.0%	13	14.0%	94	91.3%	9	8.7%	75	92.6%	6	7.4%	87	87.9%	12	12.1%	67	89.3%	8	10.7%
30-39	97	87.4%	14	12.6%	116	84.1%	22	15.9%	97	81.5%	22	18.5%	96	82.1%	21	17.9%	77	81.1%	18	18.9%
40-49	48	71.6%	19	28.4%	39	65.0%	21	35.0%	38	77.6%	11	22.4%	51	85.0%	9	15.0%	29	65.9%	15	34.1%
50+	63	73.3%	23	26.7%	44	63.8%	25	36.2%	60	82.2%	13	17.8%	54	85.7%	9	14.3%	34	72.3%	13	27.7%
<b>Transmission Risk</b>																				
MSM	233	85.7%	39	14.3%	244	87.8%	34	12.2%	182	86.7%	28	13.3%	198	85.0%	35	15.0%	162	86.2%	26	13.8%
PWID	24	*	*	*	33	78.6%	9	21.4%	53	88.3%	7	11.7%	69	92.0%	6	8.0%	24	*	*	*
MSM/PWID	*	*	*	*	6	100.0%	0	0.0%	10	*	*	*	15	100.0%	0	0.0%	6	*	*	*
Heterosexual	129	79.1%	34	20.9%	90	81.8%	20	18.2%	73	84.9%	13	15.1%	78	86.7%	12	13.3%	60	75.0%	20	25.0%
No Reported Risk	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	*	*	0	0.0%
Pediatric	7	*	*	*	51	69.9%	22	30.1%	55	80.9%	13	1.9%	28	*	*	*	20	74.1%	7	25.9%

**Notes** \*Cells size < 6 are suppressed. Concurrent HIV/AIDS is defined as diagnosis of AIDS within 90 days of initial diagnosis of HIV.

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office

# HIV Incidence Estimates

TABLE 6 Incidence Estimates by Year and Selected Characteristics | 2017 – 2019

	2017			2018			2019		
	N	95%CI	Rate†	N	95%CI	Rate†	N	95%CI	Rate†
Total*	470	270-660	31.2	440	240-650	29.2	440	210-670	29.2
<b>Sex at Birth</b>									
Male	350	180-510	49.5	340	150-520	48.1	330	120-530	46.7
Female	120	20-210	15.0	110	10-200	13.7	110	10-210	13.7
<b>Race/Ethnicity</b>									
Black	300	140-450	47.4	240	80-410	37.9	270	80-460	42.7
Hispanic	80	0-160	43.3	90	10-180	48.8	70	0-160	37.9
White	70	0-150	12.5	90	0-180	16.1	80	0-170	14.3
Multiple races	10	0-20	36.4	10	0-30	36.4	10	0-40	36.4
Asian	10	0-40	10.5	0	0-20	0.0	10	0-30	10.5
American Indian/ Alaska Native	0	0-20	0.0	0	0-20	0.0	0	0	0.0
Native Hawaiian/ Other Pacific Islander	0	0-10	0.0	0	0-10	0.0	0	0	0.0
<b>Age at Infection</b>									
13-24	110	20-200	36.6	120	10-220	39.9	100	0-210	33.2
25-34	210	80-340	86.4	150	30-270	61.7	170	30-310	70.0
35-44	80	0-170	43.2	90	0-170	48.6	80	0-180	43.2
45-54	30	0-70	15.5	40	0-110	20.7	40	0-110	20.7
>=55	30	0-90	8.9	50	0-120	14.8	50	0-130	14.8
<b>Transmission Risk</b>									
MSM	280	140-430	2,103.4	260	100-420	1,953.1	250	70-430	1,878.0
PWID	50	10-100	232.5	80	20-130	372.0	80	10-160	372.0
MSM/PWID	10	0-40	-	10	0-40	-	10	0-30	-
Heterosexual Contact	120	10-240	46.0	90	0-200	34.5	90	0-210	34.5

**Notes** Incidence of disease is defined as the number of new infections in a given time period, typically one year. The estimates presented here utilize diagnostic testing algorithms designed to detect recent infection, along with testing and treatment history data available for newly diagnosed persons in Philadelphia. These estimates provide the best available indicator of the true number of new HIV infections in Philadelphia. While the rate of incident cases is stable or declining among many groups, new HIV transmissions are still affecting certain subpopulations disproportionately. Black and Hispanic individuals, those aged 25-34, and the MSM population are all experiencing the highest rates of new HIV infections. Additionally, the rate of HIV infection among PWID remains high in the most recent year of data presented.

\*Estimates derived by using HIV surveillance and CD4 data for persons aged >=13 years at diagnosis. Estimates rounded to the nearest 100 for estimates of >1,000 and to the nearest 10 for estimates of <=1,000 to reflect model uncertainty. Subgroups may not add to the column total due to rounding.

† Rate of incident cases are per 100,000 people and based on 2010 decennial census for sex at birth, race/ethnicity, and age at infection. MSM rates were calculated using estimates of MSM activity among males 13 and older in the last year. PWID rates were calculated using an estimated population size of 25,000. Heterosexual rates were calculated using the number of individuals 18 and older living below the federal poverty level from the 2010 American Community Survey.

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office

# AIDS Diagnoses

TABLE 7  
By Year and Selected Characteristics | 2016 – 2020

Bar graphs indicate 2020 percentages

	YEAR OF DIAGNOSIS									
	2016		2017		2018		2019		2020	
	N	%	N	%	N	%	N	%	N	%
<b>Total</b>	209	100.0%	244	100.0%	170	100.0%	173	100.0%	160	100.0%
<b>Sex at Birth</b>										
Female	68	32.5%	70	28.6%	51	30.0%	44	25.4%	49	30.6%
Male	141	67.4%	174	71.3%	119	70.0%	129	74.5%	111	69.3%
<b>Race/Ethnicity</b>										
Black	149	71.2%	152	62.2%	115	67.6%	106	61.2%	111	69.3%
Hispanic	32	15.3%	42	17.2%	32	18.8%	38	21.9%	23	14.3%
White	22	10.5%	38	15.5%	22	12.9%	25	14.4%	22	13.7%
Multi-race	*	*	10	4.0%	*	*	*	*	*	*
Asian	*	*	*	*	0	0.0%	*	*	*	*
Other/Unk	0	0.0%	*	*	0	0.0%	0	0.0%	*	*
<b>Age Category</b>										
13-19	*	*	*	*	*	*	*	*	*	*
20-24	16	7.6%	13	5.3%	15	8.8%	13	7.5%	*	*
25-29	34	16.2%	31	12.7%	18	10.5%	35	20.2%	21	13.1%
30-39	48	22.9%	62	25.4%	53	31.1%	51	29.4%	50	31.2%
40-49	43	20.5%	53	21.7%	31	18.2%	26	15.0%	35	21.8%
50+	63	30.1%	82	33.6%	52	30.5%	45	26.0%	48	30.0%
<b>Transmission Risk</b>										
MSM	80	38.2%	90	36.8%	64	37.6%	73	42.1%	61	38.1%
PWID	17	8.1%	32	13.1%	32	18.8%	30	17.3%	18	11.2%
MSM/PWID	*	*	9	3.6%	*	*	*	*	8	5.0%
Heterosexual	100	47.8%	87	35.6%	50	29.4%	54	31.2%	57	35.6%
Pediatric	*	*	*	*	*	*	*	*	*	*
No Reported Risk	6	2.8%	25	10.2%	17	10.0%	11	6.3%	13	8.1%
<b>Total Cases</b>	209		244		170		173		160	

**Notes** \*Cells size < 6 are suppressed.

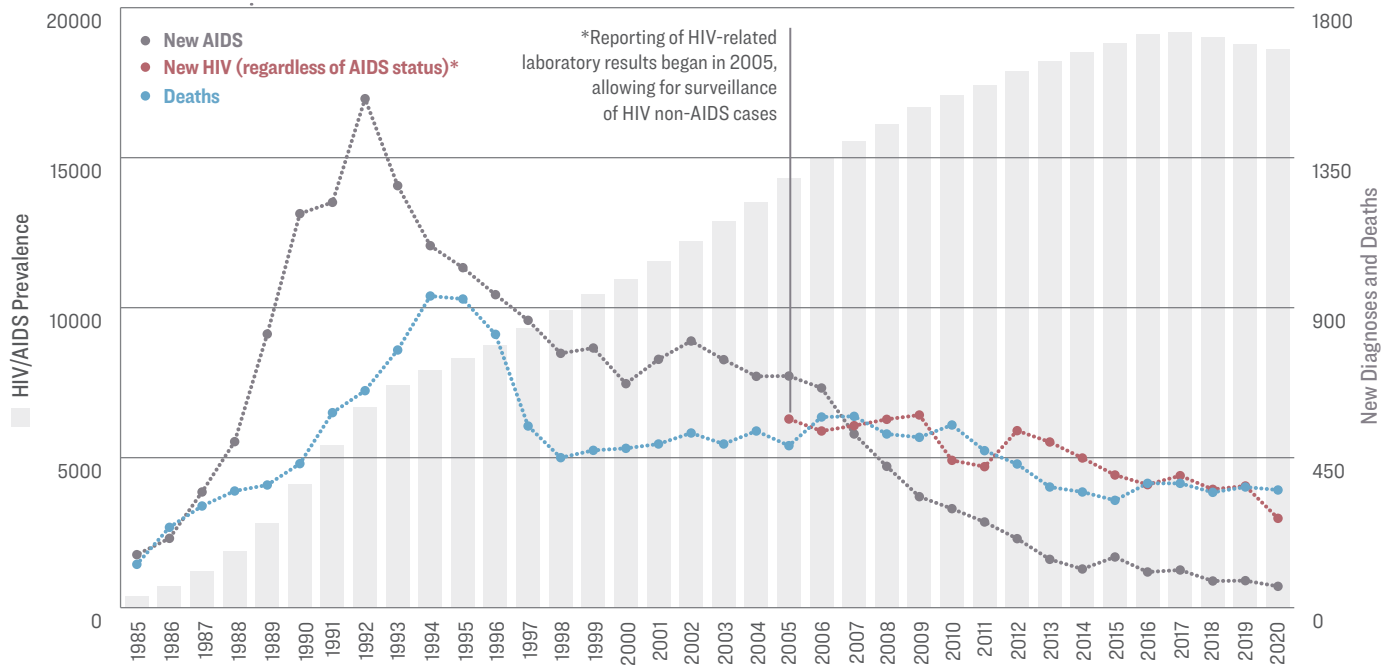
A proportion of AIDS diagnoses in each year were diagnosed with HIV in a previous year and later progressed to AIDS.

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office

# Persons Living with Diagnosed HIV

FIGURE 7

**Philadelphia HIV and AIDS Diagnoses, Deaths, and Prevalence by Year | 1985 – 2020**





# Persons Living with Diagnosed HIV

TABLE 8

## HIV (non-AIDS) and AIDS Cases by Selected Characteristics | 2020

	HIV (NON-AIDS)		AIDS		HIV/AIDS	
	N	%	N	%	N	%
<b>Total</b>	<b>8,619</b>	<b>100.0%</b>	<b>10,002</b>	<b>100.0%</b>	<b>18,621</b>	<b>100.0%</b>
<b>Sex at Birth</b>						
Female	2,417	28.0%	2,776	27.7%	5,193	27.9%
Male	6,202	71.9%	7,226	72.2%	13,428	72.1%
<b>Race/Ethnicity</b>						
Black	5,441	63.1%	6,422	64.2%	11,863	63.7%
Hispanic	1,424	16.5%	1,579	15.7%	3,003	16.1%
White	1,430	16.5%	1,639	16.3%	3,069	16.4%
Multi-race	194	2.2%	250	2.4%	444	2.3%
Asian	102	1.1%	93	0.9%	195	1.0%
Other/Unknown	28	0.3%	19	0.1%	47	0.2%
<b>Age Category<sup>†</sup></b>						
<13	12	0.1%	0	0.0%	12	0.0%
13-19	62	0.7%	6	0.0%	68	0.3%
20-24	348	4.0%	71	0.7%	419	2.2%
25-29	831	9.6%	252	2.5%	1,083	5.8%
30-39	2,288	26.5%	1,169	11.6%	3,457	18.5%
40-49	1,674	19.4%	1,692	16.9%	3,366	18.0%
50+	3,404	39.4%	6,812	68.1%	10,216	54.8%
<b>Transmission Risk</b>						
MSM	3,800	44.0%	3,458	34.5%	7,258	38.9%
PWID	1,170	13.5%	2,323	23.2%	3,493	18.7%
MSM/PWID	265	3.0%	518	5.1%	783	4.2%
Heterosexual	2,995	34.7%	3,352	33.5%	6,347	34.0%
Pediatric	108	1.2%	142	1.4%	250	1.3%
Other	*	*	10	0.0%	12	0.0%
No Reported Risk	279	3.2%	199	1.9%	478	2.5%
<b>Total N</b>	<b>8,619</b>		<b>10,002</b>		<b>18,621</b>	

● FEMALE  
● MALE

**Notes** \*Cell sizes <6 are suppressed.

† Age as of December 31, 2020

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office

# Persons Living with Diagnosed HIV

**TABLE 9**  
**By Race/Ethnicity and Selected Characteristics | 2020**

	BLACK		HISPANIC		WHITE	
	N	%	N	%	N	%
<b>Total</b>	<b>11,863</b>	<b>100.0 %</b>	<b>3,003</b>	<b>100.0 %</b>	<b>3,069</b>	<b>100.0 %</b>
<b>Sex at Birth</b>						
Female	3,741	31.5 %	812	27.0 %	469	15.2 %
Male	8,122	68.4 %	2,191	72.9 %	2,600	84.7 %
<b>Age Category†</b>						
<13	7	0.0 %	*	*	0	0.0%
13-19	51	0.4 %	13	0.4 %	*	*
20-24	320	2.6%	72	2.3 %	14	0.4 %
25-29	780	6.5 %	160	5.3%	97	3.1 %
30-39	2,299	19.3 %	535	17.8%	472	15.3%
40-49	2,096	17.6 %	600	19.9 %	512	16.6%
50+	6,310	53.1 %	1,621	53.9 %	1,970	64.1 %
<b>Transmission Risk</b>						
MSM	4,205	35.4 %	938	31.2 %	1,820	59.3 %
PWID	2,075	17.4 %	781	26.0 %	546	17.7 %
MSM/PWID	412	3.4 %	159	5.2 %	169	5.5 %
Heterosexual	4,654	39.2 %	983	32.7 %	472	15.3 %
Pediatric	181	1.5 %	48	1.5 %	16	0.5 %
Other	6	0.0 %	*	*	*	*
No Reported Risk	330	2.7 %	93	3.0 %	42	1.3 %
<b>Total N</b>						
	<b>11,863</b>		<b>3,003</b>		<b>3,069</b>	
	<b>BLACK</b>		<b>HISPANIC</b>		<b>WHITE</b>	

**Notes** \*Cell sizes <6 are suppressed.

† Age as of December 31, 2020

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office

# Persons Living with Diagnosed HIV

TABLE 10

## By Sex at Birth and Selected Characteristics | 2020

	FEMALE				MALE			
	N	%			N	%		
<b>Total</b>	<b>5,193</b>	<b>100.0%</b>			<b>13,428</b>	<b>100.0%</b>		
<b>Race/Ethnicity</b>								
Black	3,741	72.0%			8,122	60.4%		
Hispanic	812	15.6%			2,191	16.3%		
White	469	9.0%			2,600	19.3%		
Multi-race	122	2.3%			322	2.3%		
Asian	36	0.6%			159	1.1%		
Other/Unknown	13	0.2%			34	0.2%		
<b>Age Category†</b>								
<13	9	0.1%			*	*		
13-19	21	0.4%			47	0.3%		
20-24	76	1.4%			343	2.5%		
25-29	201	3.8%			882	6.5%		
30-39	750	14.4%			2,707	20.1%		
40-49	1,104	21.2%			2,262	16.8%		
50+	3,032	58.3%			7,184	53.5%		
<b>Transmission Risk</b>								
MSM	0	0.0%			7,258	54.0%		
PWID	1,255	24.1%			2,238	16.6%		
MSM/PWID	0	0.0%			783	5.8%		
Heterosexual	3,761	72.4%			2,586	19.2%		
Pediatric	130	2.5%			120	0.8%		
Other	*	*			9	0.0%		
No Reported Risk	44	0.8%			434	3.2%		
<b>Total N</b>								
	5,193				13,428			
	FEMALE				MALE			

**Notes** \*Cell sizes <6 are suppressed.

† Age as of December 31, 2020

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office

# Persons Living with Diagnosed HIV

TABLE 11  
By Gender Identity and Selected Characteristics | 2020

	GENDER IDENTITY							
	(M) Cisgender Men		(F) Cisgender Women		(MF) Transgender Women		(FM) Transgender Men	
	N	%	N	%	N	%	N	%
<b>Total</b>	<b>13,061</b>	<b>100.0%</b>	<b>5,153</b>	<b>100.0%</b>	<b>378</b>	<b>100.0%</b>	<b>18</b>	<b>100.0%</b>
<b>Race/Ethnicity</b>								
Black	7,856	60.1%	3,716	72.1%	273	72.2%	12	66.6%
Hispanic	2,137	16.3%	805	15.6%	56	14.8%	*	*
White	2,574	19.7%	462	8.9%	28	7.4%	*	*
Multi-race	309	2.3%	121	2.3%	13	3.4%	*	*
Asian	154	1.1%	36	0.6%	*	*	0	0.0%
Other/Unknown	31	0.2%	13	0.2%	*	*	0	0.0%
<b>Age Category†</b>								
<13	*	*	9	0.1%	0	0.0%	0	0.0%
13-19	46	0.3%	21	0.4%	*	*	0	0.0%
20-24	323	2.4%	74	1.4%	18	4.7%	*	*
25-29	829	6.3%	197	3.8%	52	13.7%	*	*
30-39	2,558	19.5%	737	14.3%	147	38.8%	11	61.1%
40-49	2,197	16.8%	1,095	21.2%	71	18.7%	*	*
50+	7,105	54.3%	3,020	58.6%	89	23.5%	*	*
<b>Transmission Risk</b>								
Sexual Contact	9,549	73.1%	3,732	72.4%	302	79.8%	14	77.7%
PWID	2,953	22.6%	1,246	24.1%	71	18.7%	*	*
Other	9	0.0%	*	*	0	0.0%	0	0.0%
Pediatric	120	0.9%	128	2.4%	*	*	*	*
No Reported Risk	430	3.2%	44	0.8%	*	*	0	0.0%
<b>Total N</b>								
	13,061		5,153		378		18	
	Cisgender Men		Cisgender Women		Transgender Women		Transgender Men	

**Notes** \*Cell sizes <6 are suppressed.  
†Age as of December 31, 2020

Gender identity is often not recorded in medical records. Birth sex was used to determine gender identity where no additional information was present. The prevalence among transgender women, transgender men, and those cases with additional gender identities is assumed to be higher. Individuals identifying as non-binary (n=11) were excluded from the table due to small cell sizes.

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office

# Persons Living with Diagnosed HIV

TABLE 12  
Prevalence by Sex and Race/Ethnicity | 2020

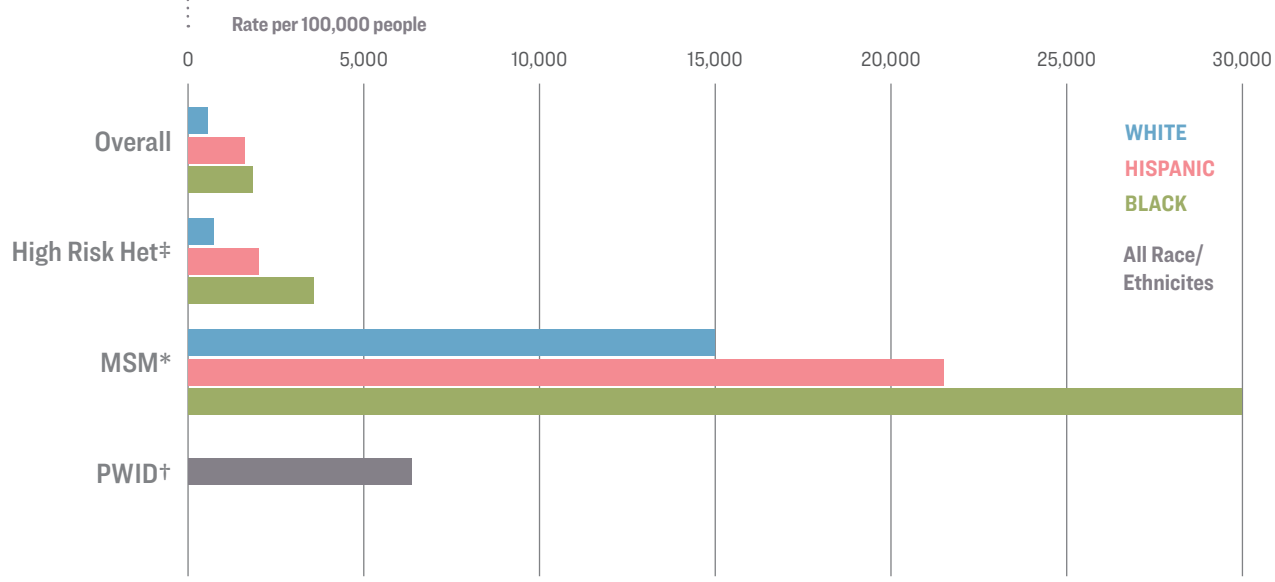
	POPULATION	PLWHA	RATE PER 100,000				
<b>Sex</b>							
Female	806,193	5,193	644.1				
Male	719,813	13,428	1,865.5				
<b>Race/Ethnicity</b>							
Black	644,287	11,863	1,841.3				
Hispanic	187,611	3,003	1,600.7				
White	562,585	3,069	545.5				
Multi-racial	27,942	444	1,589.0				
Asian	95,521	195	204.1				
AIAN	3,498	38	1,086.3				
NHPI	457	*	*				
Other Race	4,105	*	*				
<b>Sex and Race/Ethnicity</b>							
Black Female	353,319	3,741	1,058.8				
Hispanic Female	94,484	812	859.4				
White Female	290,025	469	161.7				
Multi-racial Female	15,095	122	808.2				
Asian Female	49,137	36	73.3				
AIAN Female	1,882	9	478.2				
NHPI Female	237	*	*				
Other race Female	2,014	0	0.0				
Black Male	290,968	8,122	2,791.4				
Hispanic Male	93,127	2,191	2,352.7				
White Male	272,560	2,600	953.9				
Multi-racial Male	12,847	322	2,506.4				
Asian Male	46,384	159	342.8				
AIAN Male	1,616	29	1,794.6				
NHPI Male	220	*	*				
Other race Male	2,091	*	*				
<b>Total</b>	<b>1,526,006</b>	<b>18,621</b>	<b>1,220.2</b>				

**Notes** \*Cell sizes <6 are suppressed. Rates and case counts in categories with <500 population are also suppressed. Rates were calculated using the 2010 decennial census data.

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office

# Persons Living with Diagnosed HIV

FIGURE 8  
**Prevalence by Race/Ethnicity and Transmission Category | 2020**



**Note** ‡The population of individuals 18 and older living below poverty level is used as a proxy for heterosexuals at increased risk for HIV infection.

\*MSM total population based on estimated number of active MSM in the past 5 years.

† The total number of Philadelphia residents who have ever injected drugs is estimated to be 55,000. Estimation methods based on Lansky A, Finlayson T, Johnson C, Holtzman D, Wejnert C, Mitsch A, et al. (2014) Estimating the Number of Persons Who Inject Drugs in the United States by Meta-Analysis to Calculate National Rates of HIV and Hepatitis C Virus Infections. PLoS ONE 9(5): e97596. For HIV prevalence, ever PWID is used instead of active PWID since many people who acquired HIV through injection drug use no longer inject drugs. This is roughly 4.5% of Philadelphia residents 18 and older. Since the demographic composition of PWID has shifted overtime, estimates of ever PWID by race/ethnicity are not reliable.

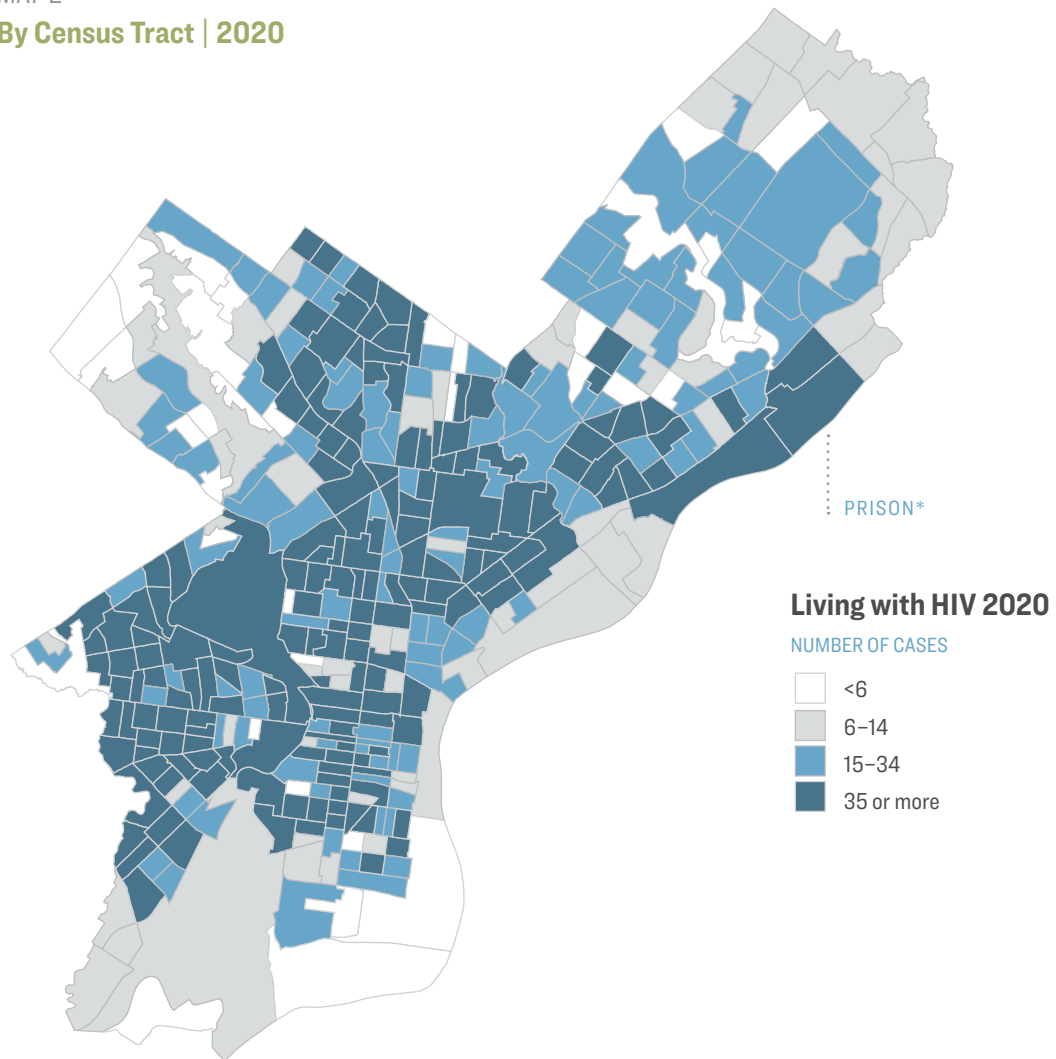
**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office



# Persons Living with Diagnosed HIV

MAP 2

By Census Tract | 2020



**Notes** \*The number of cases in this census tract is inflated due to the location of the prison system. Laboratory reports for incarcerated individuals frequently include the address of the prison facility as address at diagnosis rather than the inmate's home address. Interactive mapping data are available online at [www.AIDSVu.org](http://www.AIDSVu.org).

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office

# Persons Living with Diagnosed HIV

TABLE 13 **By Hepatitis B or C Co-Infection and Selected Characteristics# | 2020**

Data for this table is not available at the time of publication. Please check back for updates or contact [AACOPEI@PHILA.GOV](mailto:AACOPEI@PHILA.GOV) for information on Hepatitis B or C Co-Infection.



# PrEP Indications

TABLE 14

**Estimates of Adults with Indications for HIV Pre-exposure Prophylaxis by Race/Ethnicity and Transmission Category, Philadelphia 2020<sup>1</sup>**

	NEGATIVE AT RISK			PrEP INDICATION			% NEGATIVE POPULATION		
	MSM	PWID	Heterosexual	MSM	PWID	Heterosexual	MSM	PWID	Heterosexual
Black	4,777	6,012	125,911	3,670	240	1,540	76.8%	4.0%	1.2%
Hispanic	2,104	3,754	48,244	730	240	270	34.7%	6.4%	0.6%
White	5,475	12,849	64,378	510	460	300	9.3%	3.6%	0.5%
<b>TOTAL*</b>	12,897	23,428	261,015	5,080	970	2,150	39.4%	4.1%	0.8%

<sup>1</sup> Methods based on Smith, D.K., Handel, M.V., & Grey, J. (2018). Estimates of adults with indications for HIV pre-exposure prophylaxis by jurisdiction, transmission risk group, and race/ethnicity, United States 2015. *Annals of Epidemiology*.

\* Totals presented represent data for all racial/ethnic groups of a given population, and therefore will be greater than the sum of the three racial/ethnic groups presented.

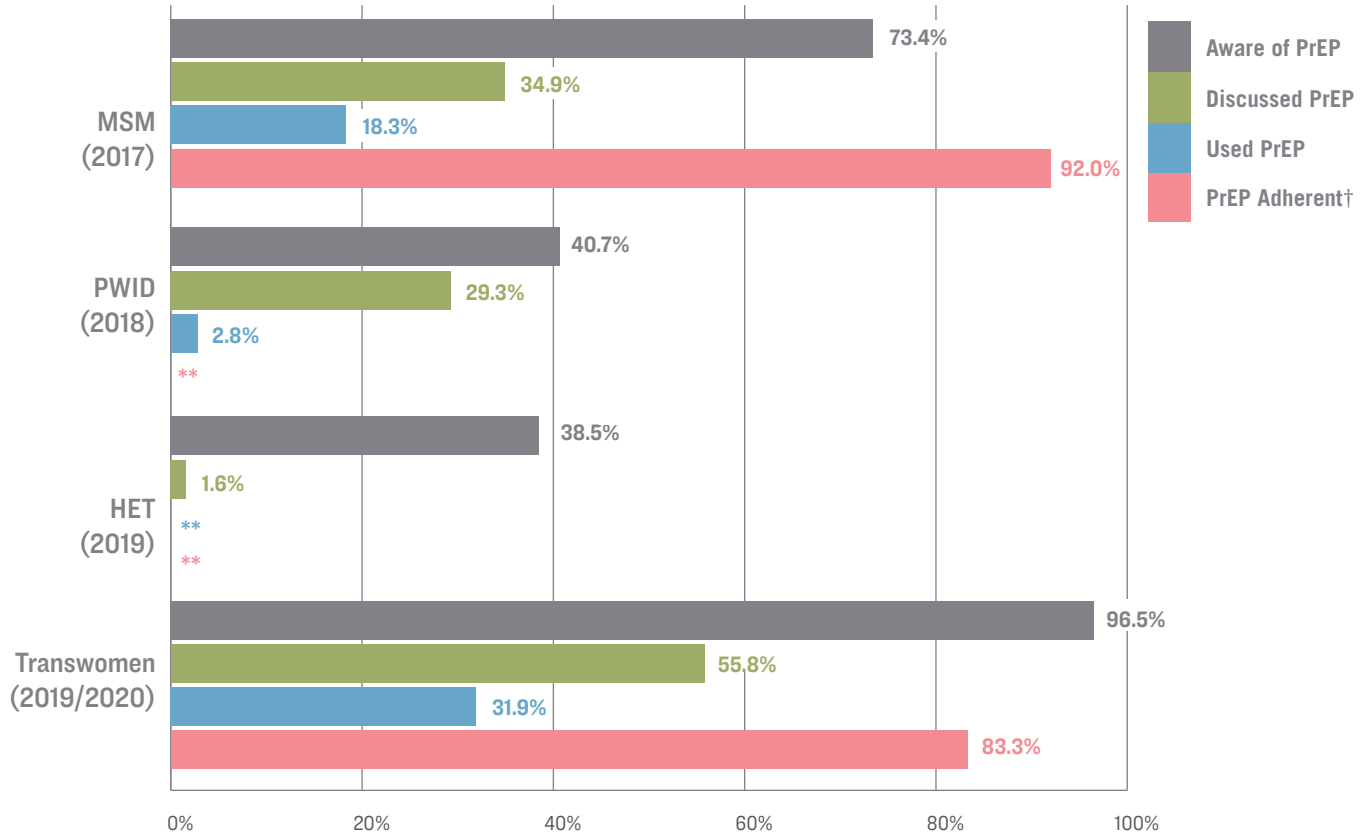
**Notes:** The population of individuals 18 and older living below poverty level is used as a proxy for the at risk heterosexual population estimate. The MSM population estimate is based on number of active MSM in the past year. Racial/ethnic population estimates for HIV negative MSM are based on the proportion of MSM who were HIV negative by race/ethnicity in the National HIV Behavioral Surveillance (NHBS) data in 2017. Racial/ethnic population composition for all active PWID is based on race/ethnicity data for individuals with a primary diagnosis of opioid use disorder who participated in any Medicaid-funded outpatient services in Philadelphia in 2019. Racial/ethnic population estimates for HIV negative PWID are based on the proportion of PWID who were HIV negative by race/ethnicity in the National HIV Behavioral Surveillance (NHBS) data for Philadelphia in 2018.

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office



# PrEP Continuum

FIGURE 9  
Continuum of PrEP Awareness and Usage



**Notes** These numbers are presented as percentages, with the denominator being all HIV negative persons interviewed (with the exception of PrEP Adherent). The data reported here remain unchanged from last report. The 2020 MSM NHBS cycle was postponed to 2021 due to limitations resulting from COVID-19. At time of this report, the MSM cycle is in progress and being conducted virtually.

†Among those who reported PrEP use in the past year; Adherent is defined as taking PrEP every day or almost every day.

\*\*Numbers become too small to present stable population estimate

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office, National HIV Behavioral Surveillance Project (NHBS)

# Perinatal Exposures

TABLE 15 **By Selected Demographics | 2015 – 2019**

Perinatal exposures represent instances where HIV transmission might have occurred from mother to child during pregnancy, labor and delivery (L&D), or breastfeeding. Incidence of HIV infection among perinatally exposed children in Philadelphia has remained low in the past five years due to local perinatal prevention efforts. Case definitions for infant HIV status are based on recommended clinical and/or laboratory diagnostic algorithms. HIV negative definitive, HIV negative presumptive, and HIV indeterminate are detailed classifications of perinatal exposures, while confirmed HIV infection reflects a true pediatric mother-to-child transmission of HIV to an infant. For more information on HIV case definitions, please visit: <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6303a1.htm>

This table shows both demographic and clinical characteristics for the mother and child before, during, and after birth. Maternal viral load represents the most recent viral load before birth; prenatal care was defined as at least 1 medical visit during pregnancy.

	YEAR OF EXPOSURE									
	2015		2016		2017		2018		2019	
	N	%	N	%	N	%	N	%	N	%
<b>Total</b>	<b>72</b>	<b>100.0%</b>	<b>91</b>	<b>100.0%</b>	<b>88</b>	<b>100.0%</b>	<b>92</b>	<b>100.0%</b>	<b>67</b>	<b>100.0%</b>
<b>Child's Sex at Birth</b>										
Female	33	45.8%	46	50.5%	45	51.1%	52	56.5%	30	44.7%
Male	39	54.2%	45	49.5%	43	48.9%	40	43.5%	37	55.2%
<b>Mother's Age at Delivery</b>										
13 - 19	*	*	*	*	*	*	*	*	*	*
20 - 24	13	18.0%	18	19.8%	13	14.8%	12	13.0%	7	10.4%
25 - 34	46	63.9%	44	48.4%	51	58.0%	55	59.8%	38	56.7%
35+	12	16.7%	24	26.4%	23	26.1%	24	26.1%	19	28.3%
<b>Mother's Race/Ethnicity</b>										
Black	60	83.3%	69	76.6%	64	72.7%	64	69.6%	48	71.6%
Hispanic	*	*	8	8.8%	13	14.8%	7	7.6%	6	8.9%
White	*	*	8	8.8%	*	*	15	16.3%	9	13.4%
Multi-race	0	0.0%	*	*	*	*	*	*	*	*
Asian	0	0.0%	*	*	*	*	0	0.0%	0	0.0%
Other/Unknown	*	*	*	*	*	*	*	*	0	0.0%
<b>Mother's Transmission Risk</b>										
PWID	12	16.7%	8	8.8%	12	13.6%	12	13.0%	7	10.4%
Heterosexual	53	73.6%	71	78.0%	64	72.7%	69	75.0%	51	76.1%
Pediatric	*	*	10	11.0%	10	11.4%	7	7.6%	6	8.9%
NRR/Unknown	*	*	*	*	*	*	*	*	*	*

**Notes** \*Cell sizes <6 are suppressed.

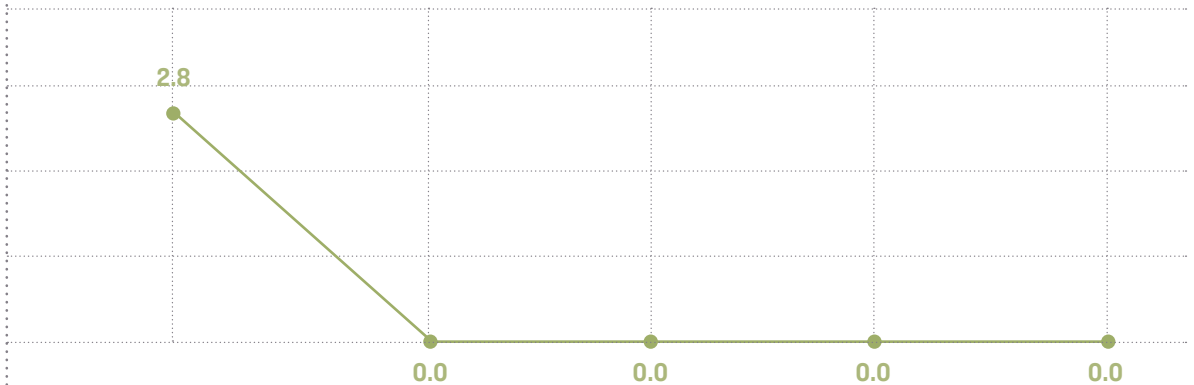
**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office

# Perinatal Exposures

TABLE 16 **By Selected Clinical Characteristics | 2015 – 2019**

	YEAR OF EXPOSURE									
	2015		2016		2017		2018		2019	
	N	%	N	%	N	%	N	%	N	%
<b>Total</b>	<b>72</b>	<b>100.0%</b>	<b>91</b>	<b>100.0%</b>	<b>88</b>	<b>100.0%</b>	<b>92</b>	<b>100.0%</b>	<b>67</b>	<b>100.0%</b>
HIV negative- definitive	36	50.0%	57	62.6%	65	73.9%	55	59.8%	41	61.1%
HIV negative- presumptive	24	33.3%	27	29.7%	22	25.0%	34	37.0%	24	35.8%
HIV indeterminant	10	13.9%	7	7.7%	1	1.1%	3	3.30%	2	2.9%
Confirmed HIV	2	2.8%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
<b>Maternal Viral Load</b>										
>=1000	11	15.3%	11	12.1%	7	8.0%	8	8.7%	6	8.9%
<1000	55	76.4%	73	80.2%	77	87.5%	79	85.9%	56	83.5%
Unknown	6	8.3%	7	7.7%	4	4.5%	5	5.4%	5	7.4%
<b>Maternal Prenatal Care</b>										
No	23	31.9%	17	18.7%	11	12.5%	13	14.1%	5	7.4%
Yes	49	68.1%	74	81.3%	77	87.5%	79	85.9%	62	92.5%
<b>ARV Use in Pregnancy</b>										
No	3	4.2%	3	3.3%	1	1.1%	4	4.30%	3	4.4%
Yes	59	81.9%	83	91.2%	82	93.2%	81	88.0%	64	95.5%
Unknown	10	13.9%	5	5.5%	5	5.7%	7	7.6%	0	0.0%
<b>Neonatal ARV</b>										
Yes	69	95.8%	84	92.3%	86	97.7%	90	97.8%	65	97.0%
Unknown	3	4.2%	7	7.7%	2	2.3%	2	2.2%	2	2.9%

**Rate of HIV per Exposed Birth**



**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office



# HIV-Related Deaths

TABLE 17

## HIV-Related Death by Year and Select Characteristics, Philadelphia | 2017 – 2019

It is important to monitor the proportion of deaths among PLWH for which HIV is noted as an underlying cause of death. Delays in death ascertainment activities may contribute to a higher proportion of cases with unknown cause of death in more recent years.

	2017						2018						2019					
	No		Unknown		Yes		No		Unknown		Yes		No		Unknown		Yes	
	N	Col%	N	Col%	N	Col%	N	Col%	N	Col%	N	Col%	N	Col%	N	Col%	N	Col%
Total	295	100.0%	8	100.0%	70	100.0%	282	100.0%	7	100.0%	57	100.0%	309	100.0%	*	*	50	100.0%
<b>Sex at Birth</b>																		
Female	81	13.7%	*	*	24	4.0%	65	11.0%	*	*	15	2.5%	78	13.2%	0	0.0%	16	2.7%
Male	214	13.8%	6	0.3%	46	2.9%	217	14.0%	*	*	42	2.7%	231	15.0%	*	*	34	2.2%
<b>Race/Ethnicity</b>																		
Black	182	13.5%	7	0.5%	45	3.3%	167	12.4%	*	*	36	2.6%	189	14.0%	*	*	32	2.3%
Hispanic	40	14.2%	*	*	9	3.2%	34	12.1%	*	*	9	3.2%	38	13.5%	0	0.0%	6	2.1%
White	61	14.6%	0	0.0%	14	3.3%	69	16.6%	0	0.0%	10	2.4%	66	15.9%	*	*	9	2.1%
Multi-race	9	11.6%	0	0.0%	*	*	11	14.2%	0	0.0%	*	*	12	15.5%	0	0.0%	*	*
Asian	*	*	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	*	*	0	0.0%	0	0.0%
Other/Unknown	0	0.0%	0	0.0%	0	0.0%	*	*	0	0.0%	0	0.0%	*	*	0	0.0%	*	*
<b>Age at HIV Dx</b>																		
Unknown	*	*	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
0 - 12	*	*	0	0.0%	*	*	*	*	0	0.0%	0	0.0%	0	0.0%	0	0.0%	*	*
13 - 19	6	16.2%	0	0.0%	*	*	*	*	0	0.0%	*	*	*	*	0	0.0%	*	*
20 - 24	19	11.5%	0	0.0%	7	4.2%	21	12.8%	*	*	*	*	24	14.6%	0	0.0%	*	*
25 - 29	26	10.1%	*	*	12	4.6%	28	10.8%	*	*	10	3.8%	40	15.5%	0	0.0%	*	*
30 - 39	81	12.6%	*	*	18	2.8%	96	14.9%	*	*	17	2.6%	107	16.6%	*	*	14	2.1%
40 - 49	83	14.7%	*	*	16	2.8%	64	11.4%	*	*	18	3.2%	71	12.6%	*	*	13	2.3%
50+	76	16.8%	0	0.0%	13	2.8%	68	15.1%	*	*	7	1.5%	62	13.7%	0	0.0%	12	2.6%
<b>Transmission Risk</b>																		
MSM	69	13.4%	*	*	18	3.5%	55	10.7%	*	*	22	4.2%	82	15.9%	0	0.0%	12	2.3%
PWID	95	12.9%	*	*	15	2.0%	106	14.5%	*	*	14	1.9%	121	16.5%	*	*	16	2.1%
MSM/PWID	15	12.2%	0	0.0%	*	*	21	17.2%	0	0.0%	0	0.0%	11	9.0%	0	0.0%	*	*
Heterosexual	105	14.9%	*	*	29	4.1%	87	12.3%	*	*	19	2.6%	91	12.9%	*	*	18	2.5%
Pediatric	*	*	0	0.0%	*	*	*	*	0	0.0%	0	0.0%	0	0.0%	0	0.0%	*	*
Other	*	*	0	0.0%	0	0.0%	*	*	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
No Reported Risk	9	21.9%	0	0.0%	*	*	10	24.3%	0	0.0%	*	*	*	*	0	0.0%	*	*

**Notes** \*Cell sizes <6 are suppressed.

2020 data not shown due to delays in reporting cause of death.

Row percentages are based on the total number of deaths in a calendar year among people living with HIV.

**Source** Philadelphia Department of Public Health, AIDS Activities Coordinating Office

# Reporting Information

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## Who Must Report?

All HIV Testing Providers, Health Care Providers & Laboratories

## What Test Results Must Be Reported?

- **All results**, including: Positive, Negative & Indeterminate will be reported to the PDPH including if the patient is determined to have either:
  - a confirmed HIV infection
  - a probable or possible HIV infection (including cases where additional testing is needed to confirm the diagnosis)
- **Preliminary Positive Results** — including instances where no supplemental/confirmatory testing was performed or when supplemental/confirmatory testing was negative
- **Negative and indeterminate Results** — including test results for HIV infection within 180 days of (before, after, or on the same date as) the HIV diagnosis. The negative/indeterminate test results are needed to recognize infections as early or acute when transmission to others is more likely and intervention is more urgent.
- **Results of all CD4 counts and HIV viral loads** including undetectable results
- **HIV genotype sequence data** (FASTA or FASTQ format)

## What Cases Need to be Reported?

- All individuals who are Philadelphia residents AND
- All individuals who are tested in Philadelphia or receive care at a Philadelphia based facility or provider.
- Pregnancy in an HIV-infected woman
- New HIV-positive result in a pregnant woman
- Birth of an infant to an HIV-infected woman

## When Do I Need to Report?

The following tests results or events need to be reported by telephone to the PDPH within 1 business day of the result or the confirmation of the event:

1. Confirmed or suspected acute HIV infection (Call 215-685-4781 to report a case)
2. Pregnancy in an HIV-infected pregnant woman (Call 215-685-4786 to report a case)
3. New HIV-positive result in a pregnant woman (Call 215-685-4786 to report a case)
4. Birth of an infant to an HIV-infected woman (Call 215-685-4786 to report a case)

All other test results and HIV case reports must be reported to the PDPH within 5 business days of the receipt.

## How Do I Submit a Report?

Drop off or mail the completed HIV Case Report Forms to the Philadelphia Health Department. To drop off the forms, put them in a sealed envelope and bring them to:

PDPH HIV Surveillance Unit  
1101 Market Street, 8th floor, behind elevator C.

Call to drop off forms or for reporting questions:  
Melissa Miller (215-685-4781)

Do not leave forms with the receptionist.

If you would like to mail the forms please use these steps:

1. Place the forms in a sealed envelope that states:  
Confidential, to be opened by addressee only
2. Place the first envelope into another sealed envelope addressed to:  
Philadelphia Health Department  
Attention: Melissa Miller  
P.O. Box 58909  
Philadelphia, PA 19102-8909

# Definitions

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**AACO (AIDS Activities Coordinating Office):** The office within the Philadelphia Department of Public Health responsible for administering the City's HIV Programs.

**Acute HIV Infection:** Acute HIV infection typically describes the interval between the first possible detection of virus by virologic assay and development of a mature antibody response. Signs and symptoms of acute HIV infection can include fever, headache, sore throat, adenopathy, anorexia, and rash and often develop about 2 weeks after the start of the infection.

**AIDS (Acquired Immune Deficiency Syndrome):** A result of Human Immunodeficiency Virus (HIV) infection, which disables the immune system from effectively fighting numerous opportunistic infections and cancers.

**AIAN (American Indian/Alaska Native):** A racial/ethnic group.

**CDC (Centers for Disease Control and Prevention):** A federal disease prevention agency, which is part of the U.S. Department of Health and Human Services that provides national laboratory and health and safety guidelines and recommendations; tracks diseases throughout the world; and performs basic research involving laboratory, behavioral science, epidemiology and other studies of disease.

**Confidentiality:** Keeping medical information confidential or private.

**Diagnosis:** Determination of the nature of a case of a disease based on signs, symptoms, and laboratory findings during life. A diagnosis of AIDS for an adult is being HIV antibody-positive in addition to having one opportunistic infection, condition, or disease (e.g. wasting syndrome, PCP, Kaposi's sarcoma, CD4 T-lymphocyte count below 200 or 14%).

**Epidemiology:** The branch of medical science that deals with the study of incidence, distribution and control of a disease in a population.

**Gender Identity:** One's innermost concept of self as male or female or both or neither—how individuals perceive themselves and what they call themselves. One's gender identity can be the same or different than the sex assigned at birth.

**HBV Co-Infection:** Hepatitis B Virus Co-infection. Refers to a person living with HIV who has current or past HBV infection evidenced by a positive HBV surface antigen, HBV DNA or HBV e-antigen.

**HCV Co-Infection:** Hepatitis C Virus Co-Infection. Refers to a person living with HIV who has current or past HCV infection evidenced by a positive HCV antibody, HCV RNA, or HCV genotype test.

**Heterosexuals at Increased Risk for HIV Infection:** As defined by National HIV Behavioral Surveillance, the population of individuals 18 and older living below poverty level.

**HIV (Human Immunodeficiency Virus):** The retrovirus that causes AIDS by infecting the T-helper cells.

**Incidence:** The number or rate of new cases of a disease over defined period of time.

**MSM (Men who have sex with men):** An HIV transmission category.

**MSM/PWID (Men who have sex with men who are also people who inject drugs):** An HIV transmission category.

**NHPI (Native Hawaiian/ Pacific Islander):** A racial/ethnic group.

**NRR (No Reported Risk):** Indicates when documentation is insufficient to assign an HIV transmission category based on CDC guidelines.

**Outbreak:** An increase in diagnoses above what is normally expected in a geographic area or population during a particular period

**Perinatal Transmission of HIV:** Term used to describe the spread of HIV from a mother to her baby that can occur during pregnancy, labor, delivery or breastfeeding; also known as vertical transmission.

**PLWDH:** People living with diagnosed HIV.

**PLWH:** People living with HIV, both diagnosed and undiagnosed.

**PrEP:** Pre-exposure prophylaxis. Antiretroviral medication taken daily by individuals at increased risk for HIV infection to lower their chances of getting infected.

**Prevalence:** Total number of cases of a disease in a population over a period of time.

**PWID (Person/People Who Inject Drugs):** An HIV transmission category.

**Risk Behavior:** Used here to describe behaviors that put people at risk of contracting HIV.

**Sexual Orientation:** The sexual attraction people feel for others, whether of their own sex, the opposite sex, or both sexes.

**Transmission Category:** A system that classifies cases by possible HIV transmission risk factors or mode(s) of infection; e.g. PWID, MSM/PWID, perinatal transmission, heterosexual contact.

## PRIMARY AUTHORS

**Melissa Miller Kim, MPH**  
Epidemiologist

**Antonios Mashas, MPH**  
Epidemiologist

**Tanner Nassau, MPH**  
Epidemiologist

**Erika Y. Solomon, M.Ed**  
HIV Surveillance Program Manager

**Kathleen A. Brady, MD**  
Acting Director, Medical Director/  
Medical Epidemiologist

## CONTRIBUTORS AND EDITORS FOR THIS ISSUE

### HIV Surveillance Staff

Barbara Allen  
Aliyaah Bazemore  
Juanita Johnson  
Violet Lippincott  
Erika Solomon  
Niya Spells  
Ruth Trino  
LaTonya Williams

### Data Management Staff

Samantha Crowe  
Briana Gibson  
Dana Higgins  
Melissa Miller Kim  
Natalie Kratz  
Antonios Mashas  
Tanner Nassau  
Mars Potros  
Radhika Sinha  
Champagne Smith

## TO OUR READERS:

The AACO Surveillance Unit of the Philadelphia Department of Public Health, which conducts HIV surveillance for the City of Philadelphia, produces this report. The data in this report reflects cases diagnosed through December 2020 and reported through June 2021.

HIV surveillance is the ongoing and systematic collection, analysis, and dissemination of population-based information on HIV. There are two basic types of surveillance; active and passive. Passive surveillance is submission of HIV case reports from physicians, laboratories, and other individuals or institutions without having to regularly contact the reporting sources. Active surveillance employs strategies intended to identify unreported cases, and depends on secondary information sources for leads e.g., hospitals, clinics, physician offices, laboratories. Review of medical charts at provider sites or via telephone with facility staff are completed to establish cases of HIV infection and to obtain information critical to completing HIV case reports.

The HIV case count in Philadelphia results from a combination of active and passive surveillance. Physicians began reporting AIDS cases to the Department of Health in 1983. Name-based HIV reporting began in October, 2005.

New HIV reporting regulations were approved by the City of Philadelphia's Board of Health in November 2016 and went into effect in January of 2017.

Any questions about this report and/or requests for data can be directed to:

Melissa Miller, MPH [AACOEPI@PHILA.GOV](mailto:AACOEPI@PHILA.GOV)

Please allow at least 10 business days for all data requests.