2021 ANNUAL HIV SURVEILLANCE SUMMARY REPORT

Bureau of Epidemiology

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DEPARTMENT OF HEALTH

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The data provided in the tables, figures, and maps are based on HIV reports received through March 31, 2021. Expanded analysis of data presented in the Annual HIV Surveillance Summary and other HIV data may be requested by sending email to c-hivepi@state.pa.us or by telephone/fax to our office at 717-787-3350 (tel) or 717-772-6975 (fax).

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A Special Note for the Readers of Pennsylvania HIV Surveillance Report
Explanation for Changes in the Annual HIV Surveillance Summary Report

This note is intended to inform readers of changes that have been introduced in the Pennsylvania Annual Human Immunodeficiency Virus (HIV) Surveillance Summary Report since the 2021 report. These changes are intended to present HIV surveillance data in a format that reflects an evolving understanding of the HIV epidemic and efforts towards ending the HIV epidemic by 2030. Format changes have been made to reflect the way HIV is viewed and to make this report more understandable to a wider audience. This report provides additional information about the estimated number of people living with HIV disease and the characterisitcs of both people newly diagnosed with HIV and those living with HIV. We present the age at diagnosis and current ages in categories that are consistent with reports from the Centers for Disease Control and Prevention (CDC) and the US Health Resources & Services Administration (HRSA). We also use racial/ethnicity designations that are consistent with CDC and HRSA reports and we have added some information about concurrent diagnosis of HIV and AIDS.

In 2002, Pennsylvania promulgated public health regulations revising the reportability of adult and pediatric AIDS, adding HIV, CD4 count (<200 cells/uL or <14%), detectable viral load, and perinatal exposure to HIV. In addition, in October 2020, Pennsylvania's Disease Reporting Regulations were changed to mandate the reporting of all CD4 and HIV viral load laboratory results. Prior to this time, only CD4 test results less that 200 cells (14%) and detectable viral load results were required to be reported to the Pennsylvania Department of Health (PADOH).

The current CDC HIV disease recognizes HIV infection as a disease with varying degrees of severity. The case definition for adults and adolescents (i.e. persons aged ≥13 years) is slightly different for childen under the age of 13. These case definitions are intended for public health surveillance only and not as a guide for clinical diagnosis. The most recent revision to the HIV disease case definition was published by CDC in 2014.[1]

Consequently, any comparison of this report to previous years should take into account these differences.

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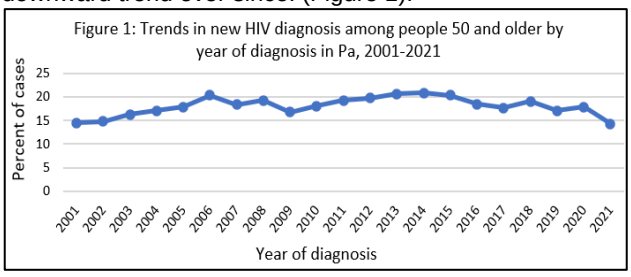
HIV Surveillance Spotlight

HIV Diagnosis among Individuals Aged 50 and Older in Pennsylvania, 2021-2021

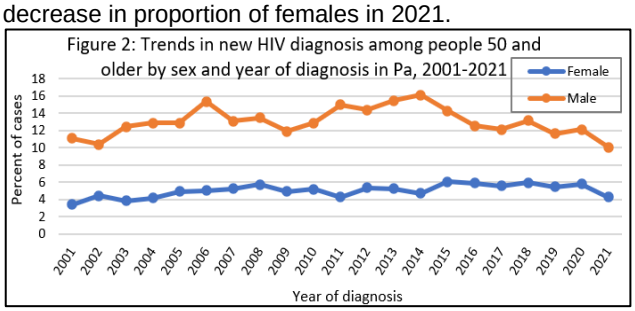
Background: HIV disease is caused by infection with the human immunodeficiency virus (HIV) that attacks the body's immune system and is spread by exposure to body fluids or tissues from people infected. At year-end 2021, more than 40,600 people were estimated to be living with HIV disease in Pennsylvania (PA) while nearly 900 new diagnoses of HIV disease were reported among PA residents. HIV disease can occur at any age, and it is a permanent and lifelong condition. Effective treatments are available to mitigate the symptoms of the disease and prevention efforts have greatly reduced the number of new diagnoses. This analysis examines trends among people aged 50 and older who were newly diagnosed with HIV disease as well as the characteristics of people aged 50 and older who are living with HIV disease in PA

Methods: We examined HIV cases aged 50 and older with diagnosis date beginning in 2001 through 2021.The number of people living with HIV in PA at the end of 2021 was estimated using a methodology developed by the US Centers for Disease Prevention and Control. The number of new diagnoses of HIV disease was calculated using a standard algorithm of HIV testing methods to identify a confirmed case of HIV disease.[2] Data were examined by year of diagnosis, sex, race/ethnicity, and age group.

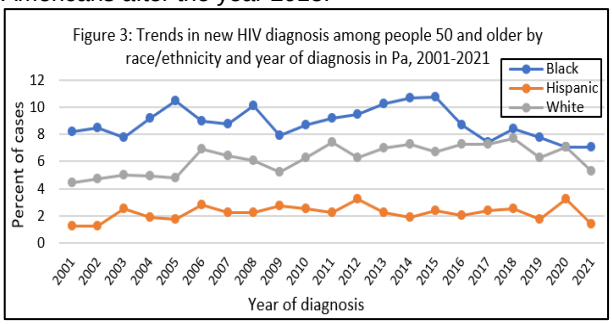
Results: Among the 886 people diagnosed with HIV disease in PA in 2021, 127 (14%) were aged 50 or older at the time of diagnosis. The proportion of people aged 50 and older diagnosed with HIV increased steadily in the early 2000s and peaked at 20.8% in 2014 and started a gradual downward trend ever since. (Figure 1).



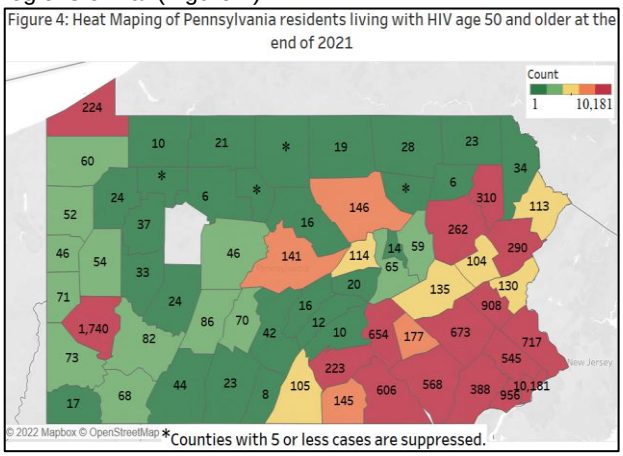
The number of males 50 and older diagnosed with HIV remain far higher than females (Figure 2). The proportion of females since 2001 has generally increased but there was a decrease in proportion of females in 2021.



There were decreases in the number of new diagnoses in whites, Blacks/African Americans and Hispanics/Latinx persons but the proportion of Blacks/African Americans aged 50 and older diagnosed with HIV infection has remained comparatively higher (Figure 3). There was significant decrease in proportion among Blacks/African Americans after the year 2015.



Approximately 57% of the estimated 38,115 PA residents living with HIV were age 50 and older at the end of 2021. The majority are located in the southeast and southcentral regions of Pa. (Figure 4).



Summary: The number of new diagnoses among people aged 50 and older over the past 10 years has been declining. Blacks/African Americans aged 50 and older are disproportionally observed more than other races among those newly diagnosed with HIV each year.

These findings suggest the need for increased public awareness of the risk for HIV disease among older adults and for health care providers to increase routine counseling and testing of individuals as they present for medical care. The number of older adults living with HIV disease indicates the need for more medical and other care services targeted at older adults with HIV may be needed in the coming years.

Executive Summary

HIV disease is caused by infection with the human immunodeficiency virus (HIV) and is typically spread by exposure to body fluids or tissue from an infected individual. Sex and injection drug use (IDU) are the most common ways of becoming infected.The first cases of Acquired Immune Deficiency Syndrome (AIDS) were described in 1981, and confirmed cases in Pennsylvania dating back to 1980 were identified through retrospective review.

Infection with HIV takes over cells in the immune system, the part of the body which usually works to fight off infection and disease. If left untreated, HIV infection usually progresses to AIDS, disability and death. Although no cure or vaccine are currently available, HIV is a treatable condition, and individuals living with HIV can live normal lives. Highly active antiretroviral treatments (HAART) first became available in the mid-1990s. These treatments are effective in preventing or slowing the progression of the disease and have the added benefit of reducing the likelihood of transmitting the virus to others.

In 2012 the U.S. Food and Drug Administration approved the use of selected antiretroviral medications for the prevention of HIV infections among people at higher risk for infection such as men who have sex with men, commercial sex workers and people who share injection equipment. The Pennsylvania Department of Health (PADOH) and community partners work to ensure that people who are newly diagnosed with HIV are offered services to engage with and maintain care services are also offered preventive services for those in their risk network. PADOH works with community partners to identify recent and rapidly growing clusters of HIV disease and intervenes to stop or slow the spead of HIV. PADOH uses HIV surveillance data to identify geographic areas and demographic groups that may be at elevated risk for HIV disease.

Since 1981, more than 63,000 residents of Pennsylvania have been diagnosed with HIV disease and nearly 28,000 of these persons have died. It is estimated that 40,600 people are currently living with the disease in Pennsylvania. The proportion of people with HIV disease who have died has declined steadily since the mid-1990s. The most common methods of transmission are sex between men, heterosexual sex and injection drug use (IDU). HIV disease has had a disproportionate impact on persons of color and is more common in larger population centers.

The number of newly diagnosed individuals peaked in the early to mid-1990s when almost 3,000 new diagnoses were reported annually but the numbers of new diagnoses has steadily decreased with the advent of effective treatments and preventive interventions. Since 1996, there has been an average of approximately 40 fewer new diagnoses per year. In 2020, Pennsylvania witnessed a 21% decrease in the number of new diagnoses of HIV disease (N=779 new diagnoses in 2020 and N=989 new diagnoses in 2019) which might be attributed to the shut down of social, school, employment and other venues, decreases in HIV testing activity and care seeking behaviors as well as decreased HIV surveillance activity as some

surveillance resources were diverted to deal with the worldwide COVID-19 pandemic. See the note on the impact of the COVID-19 pandemic on HIV suveillance in the next section.

In 2021, 886 new cases were reported, which represents an approximate 15% rebound (N=779 new diagnoses in 2020, N=886 new diagnoses in 2021) in the number of new diagnoses from 2020. Approximately, three times as many males have been diagnosed with HIV disease compared to females. Blacks/African Americans and Hispanics make up 12% and 6.6% of the population of Pennsylvania, respectively, but accounted for 47.0% and 18.3% of all new diagnoses among Pennsylvania residents in 2021. Although a person can be infected at any age, the majority of new diagnoses occurred in persons who are between the ages of 13 and 44. The majority of persons living with HIV disease are aged 50 and older.

The epidemic has evolved since the first cases were reported in 1980s. While men who have sex with men (MSM) has continued to be the predominant mode of transmission, heterosexual contact became an increasing risk factor since the 1990s. Perinatally acquired infections have declined sharply with very few reported cases, but medical providers need to remain vigilant by continuing to do HIV testing throughout all pregnancies and especially in the third trimester of the pregnancy. Epidemiologists, medical providers and other service managers need to remain continually alert to ensure all children born to pregnant individuals who are HIV positive and indeed all people of childbearing age are tested for HIV. PADOH maintains vigorous effort to continue to prevent new infections and provide adequate medical and support services for those living with the disease in Pennsylvania.

This report is based on data collected by the DOH for cases diagnosed in calendar year 2021 but reported through March 31, 2022. The report provides information on confirmed cases that are counted using specific criteria described in the methods section.

Note About Impact of COVID 19 Pandemic on Surveillance of HIV Disease

The COVID-19 pandemic in the United States led to disruptions in HIV testing services and access to clinical services throughout 2020 and 2021. This disruption resulted in a steep, single-year decline in HIV diagnoses in Pennsylvania in 2020 of approximately 21% fewer diagnoses in 2020 compared to 2019. In 2021, Pennsylvania witnessed approximately 11% fewer diagnoses of HIV disease compared to 2019. This decline in the number of confirmed cases of HIV disease is thought to be attributed to declines in testing caused by less frequent visits to health centers, reduced outreach services, and shifting of public health staff to COVID-19 response activities. Given these disruptions, data for 2020 and 2021 should be interpreted with caution. For these reasons, although data are presented for HIV diagnoses, trends that include 2020 and 2021 are not discussed in the commentary sections of this report. COVID-19 disruptions in HIV testing and care during 2020 have also made estimation of incidence, prevalence, and knowledge of HIV diagnostic status challenging.

Since the COVID-19 pandemic is still ongoing, more time and data are needed to accurately assess COVID-19's impact on HIV in the United States. Assessments of trends in HIV diagnoses that include the year 2020 are discouraged.

As we continue to navigate the COVID-19 pandemic, it is critical that we continue our work to expand and improve HIV prevention, care, and treatment for groups who could most benefit, including ~~persons~~ transgender persons; Black/African American women; and gay, bisexual, and other men who have sex with men. We continue our work to improve access to prevention services for persons who inject drugs, a population for whom progress continues to be threatened by the nation's opioid and stimulant epidemics. Getting back on track with with prevention, surveillance and care services will require scale-up of strategies to optimize health and close gaps in HIV prevention, care, and treatment.

Methods

Pennsylvania HIV regulations require that health care providers such as physicians, hospitals and clinical laboratories must report new diagnoses of HIV disease within 5 days to the DOH as well as infants who are exposed to HIV infection during pregnancy and the peri-natal period.[3] HIV infection without an AIDS diagnosis became reportable in Pennsylvania in 2002. HIV disease encompasses both AIDS and HIV infection without an AIDS diagnosis and cases are counted using standard criteria established by the CDC.[1] Typically, cases are first reported electronically by clinical laboratories, hospitals and medical providers whenever there is a preliminary or confirmatory event, such as a positive HIV laboratory test or the occurrence of an AIDS defining clinical condition. The cases are reported through the Pennsylvania National Electronic Disease Surveillance Systems (PA-NEDSS).[3] In addition, data are routinely transferred from PA-NEDSS to the Enhanced HIV/AIDS Reporting System (eHARS) for purposes of data management, analysis and reporting to the CDC.[4]

All reports are followed up by epidemiologists and disease intervention specialists to collect additional information about the case, such as risk factors, residence at diagnosis, race, etc. These data are continuously processed through electronic data systems that use standardized algorithms to calculate the date of confirmed diagnosis, age at diagnosis, the most likely way the person was infected (e.g. sex, IDU, etc.), clinical status and a variety of other characteristics. The surveillance of HIV is guided by standard procedures, policies and practices as established by the CDC.[5,6]

These data are used to (1) monitor trends in the epidemic, (2) identify communities, demographic groups or geographic areas for prevention and outreach efforts, (3) monitor potential outbreaks or clusters of cases,and (4) develop strategies and tools for preventing new infections and ensuring persons who are living with HIV disease are able to receive medical care and support services. The HIV surveillance section within the PADOH works closely with the Department's HIV prevention section as well as other sections of the Department that provide follow-up services, contact follow-up, and the Special Pharmaceutical Benefits Program to ensure that people living with HIV receive necessary medical care and other support services.

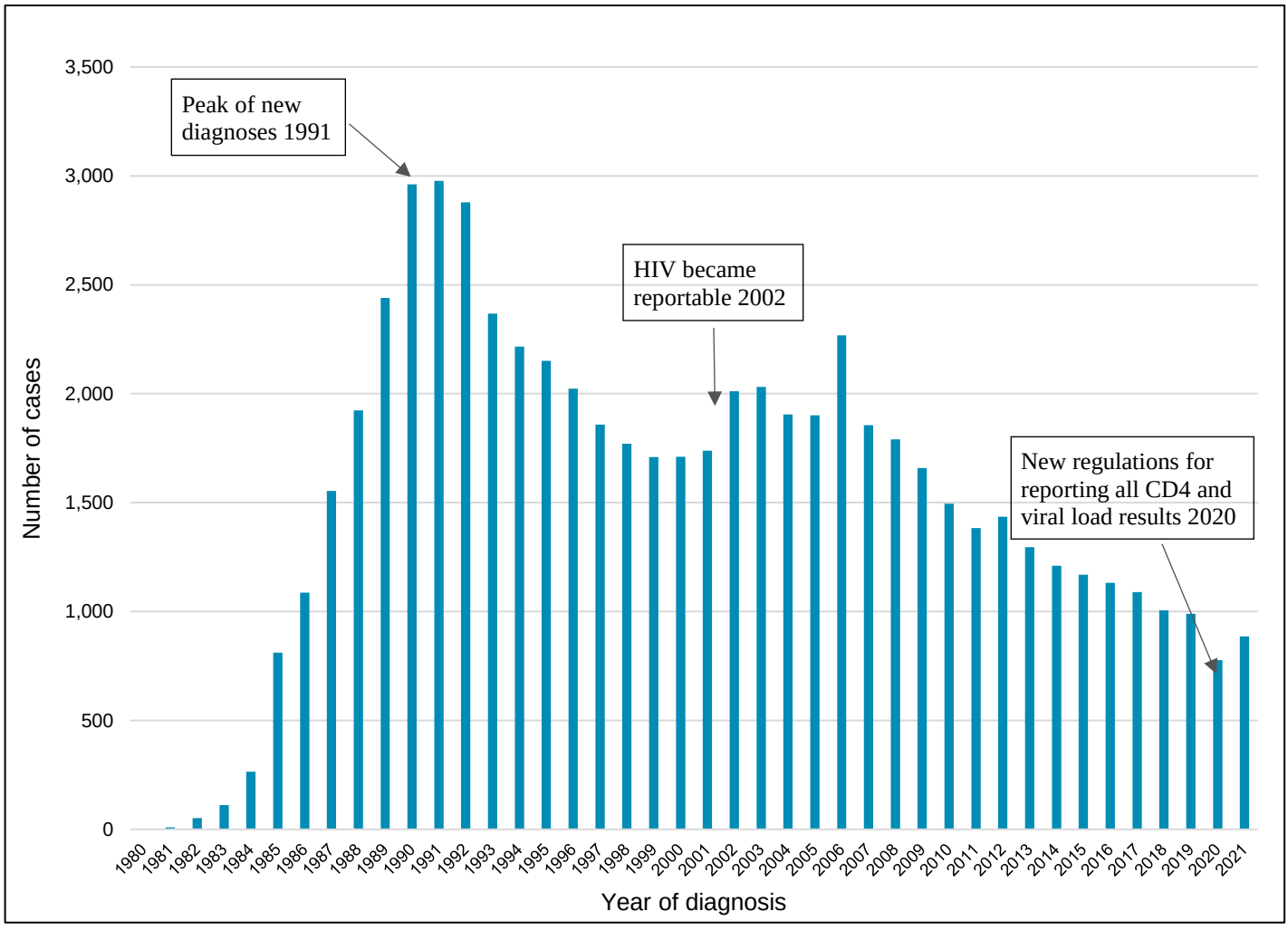
Data in this report are based on confirmed HIV cases among persons who were residents of Pennsylvania at the time of diagnosis for cases diagnosed in calendar year 2021 and reported to the DOH by March 31, 2022. Nationally a case must meet certain minimum requirements to be considered a "countable" case. These requirements are the same as those used by the CDC for publishing national estimates.[1] At a minimum, a case must have a confirmed diagnosis (either through a standard laboratory testing algorithm or confirmed by a physician) and the following characteristics must be known: the person's date of birth, sex at birth, county of residence at diagnosis, vital status (i.e. alive or deceased), race and last name. These data are regularly matched with other databases such as state vital records data to ascertain vital status of cases. In addition, Pennsylvania and all other states regularly exchange information to determine if a case is truly a new diagnosis or if the report of a case that has been previously diagnosed in another state.

Findings

The first case of AIDS in Pennsylvania was reported after the start of the epidemic in 1981, although subsequent epidemiological investigation identified cases that were diagnosed in 1980. The 1980s and first half of the 1990s saw a rapid increase in the number of new cases with a peak occcurring in 1991. In the mid-1990s, the number of new cases in Pennsylvania began to steadily decline. In 2021, 886 new diagnoses of HIV disease among residents of Pennsylvania were reported. This number may be incomplete due to lags in reporting. PADOH continously exchanges data with other states and jurisdictions to deduplicate data and ensure that all newly diagnosed cases truly are new diagnoses.

Figure 1 below depicts the number of new diagnoses of HIV disease among Pennsylvania residents by year of diagnosis. For each year, the bars represent new cases of HIV disease. The numbers show persistent decline in new diagnoses of HIV disease since the peak in 1991.

Figure 1: Annual Diagnoses of HIV Disease by Year of Diagnosis in Pennsylvania, 1980-2021



Note: HIV Infection without AIDS became reportable in Pennsylvania in October 2002.

Figure 2 below displays the vital status of people with HIV disease by diagnosis status and year of diagnosis. Mortality among individuals living with HIV disease has decreased over time in Pennsylvania, and this has been observed in every population group. HAART first became available in the mid-1990s, having a dramatic impact on the number of deaths among people living with HIV disease.The number of deaths among individuals with HIV disease has decreased each year, while the number of people living with this condition has continued to increase every year.

Figure 2: Cases of AIDS and HIV Infection without AIDS by Vital Status and Year of Diagnosis in Pennsylvania, 1996-5-2021

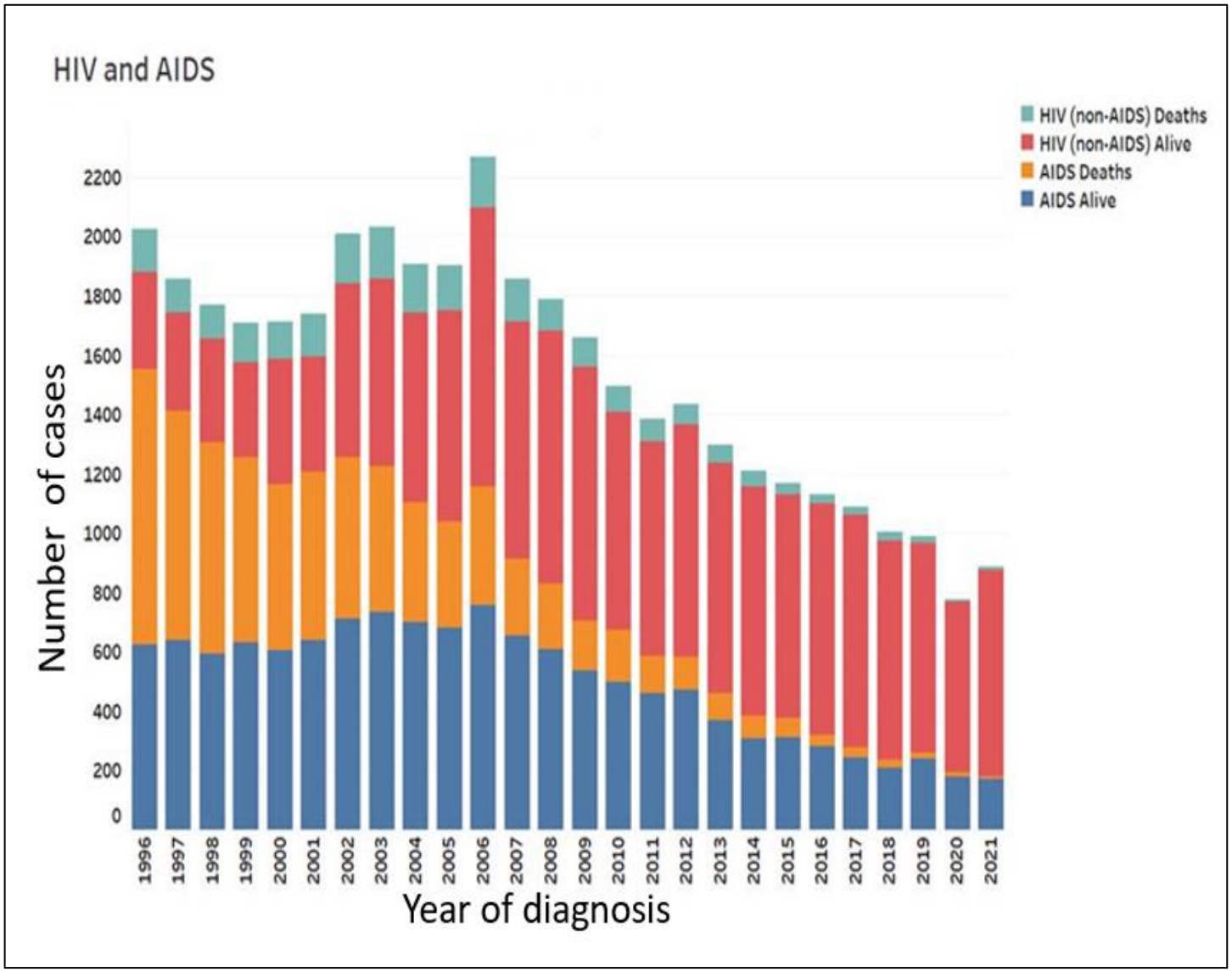


Table 1 provides the number of new HIV disease diagnoses among residents of Pennsylvania from 1980 through 2021. Pediatric diagnoses are those that were diagnosed with HIV infection before age 13. The number of children perinatally exposed to HIV disease, has declined sharply due mainly to prevention efforts among pregnant women.

Table 1: Annual Diagnoses of HIV Disease Among Residents of Pennsylvania, 1980-2021

Year of diagnosis	Adult/Adolescent	Pediatric	Total
1980	3	0	3
1981	8	1	9
1982	49	3	52
1983	107	5	112
1984	260	4	264
1985	784	27	811
1986	1,071	16	1,087
1987	1,536	18	1,554
1988	1,901	23	1,924
1989	2,417	23	2,440
1990	2,921	40	2,961
1991	2,939	38	2,977
1992	2,811	67	2,878
1993	2,298	70	2,368
1994	2,176	40	2,216
1995	2,108	43	2,151
1996	1,992	31	2,023
1997	1,833	25	1,858
1998	1,737	34	1,771
1999	1,679	30	1,709
2000	1,692	19	1,711
2001	1,714	24	1,738
2002	1,993	18	2,011
2003	2,007	24	2,031
2004	1,895	10	1,905
2005	1,888	13	1,901
2006	2,255	13	2,268
2007	1,845	11	1,856
2008	1,776	14	1,790
2009	1,653	6	1,659
2010	1,483	12	1,495
2011	1,378	6	1,384
2012	1,426	9	1,435
2013	1,292	4	1,296
2014	1,208	3	1,211
2015	1,163	6	1,169
2016	1,129	3	1,132
2017	1,089	1	1,090
2018	1,005	1	1,006
2019	989	0	989
2020	775	2	777
2021	884	2	886
TOTAL	**63,169**	**739**	**63,908**

Table 2 below depicts HIV disease by sex, race/ethnicity and year of diagnosis from 2016 to 2021 and cumulative data from 1980 to 2021. HIV disease has had a differential impact on various racial/ethnic groups with a disproportionate impact on blacks/African Americans for both males and females. In 2021, black/African American males account for 44% of all male individuals while black/African American females were 58% of all new HIV diagnoses among females. Overall, non-white individuals accounted for 67% of all persons diagnosed with HIV disease in 2021.

Table 2: Number of Cases of HIV Disease by Sex, Race/Ethnicity and Year of Diagnosis, Pennsylvania, 2016-2021

	2016		2017		2018		2019		2020*		2021*		TOTAL TO DATE 1980-2021	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
TOTAL MALE	880	100	852	100	783	100	761	100	613	100	696	100	48,272	100
White	283	32	262	31	246	31	241	32	192	31	230	33	17,734	37
Black/African American	390	44	419	49	344	44	334	44	285	46	305	44	22,216	46
Hispanic/Latinx	165	19	136	16	153	20	143	19	107	17	135	19	6,484	13
Asian & Native Hawaiian/Other Pacific Islander	16	2	12	1	17	2	14	2	7	1	7	1	337	1
American Indian/Alaska Native	3	0	2	0	1	0	1	0	4	1	2	0	49	0
Multiple races	23	3	21	2	22	3	28	4	18	3	17	2	1,452	3
TOTAL FEMALE	252	100	238	100	223	100	228	100	164	100	190	100	15,636	100
White	45	18	49	21	51	23	51	22	39	24	42	22	3,305	21
Black/African American	149	59	133	56	117	52	131	57	94	57	111	58	9,080	58
Hispanic/Latinx	44	17	49	21	46	21	41	18	24	15	27	14	2,499	16
Asian & Native Hawaiian/Other Pacific Islander	4	2	2	1	1	0	0	0	0	0	3	2	85	1
American Indian/Alaska Native	0	0	0	0	0	0	0	0	0	0	0	0	15	0
Multiple races**	10	4	5	2	8	4	5	2	7	4	7	4	652	4
TOTAL	1,132	100	1,090	100	1,006	100	989	100	777	100	886	100	63,908	100

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2020 and continued throughout 2021.
** Multiple race is a selection which encompasses individuals indicating one or more racial categories.
Note: Percentages may not add to 100% due to 'rounding.'

Table 3 below provides a tabulation of all HIV disease diagnoses among Pennsylvania residents from 2016-2021 and cumulative data from 1980 to 2021. A person may be diagnosed with HIV disease at any age, but many of the persons are diagnosed between ages 13 and 34. In the past five years, persons between the ages 25-34 years have accounted for the highest proportion of the new diagnoses each year.

Table 3: Number of Cases of HIV Disease by Age at Diagnosis and Year of Diagnosis in Pennsylvania, 2016-2021

Age group (years)	2016		2017		2018		2019		2020*		2021*		TOTAL TO DATE 1980-2021	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	1,132	100	1,090	100	1,006	100	989	100	777	100	886	100	63,908	100
<=12	3	0	1	0	1	0	0	0	2	0	2	0	739	1
13-24	258	23	257	24	230	23	216	22	164	21	177	20	8,818	14
25-34	373	33	349	32	346	34	364	37	283	36	341	38	20,690	32
35-44	205	18	215	20	170	17	172	17	134	17	185	21	19,126	30
45-54	182	16	155	14	146	15	128	13	110	14	103	12	10,119	16
55-64	89	8	80	7	92	9	86	9	68	9	65	7	3,469	5
>=65	22	2	33	3	21	2	23	2	16	2	13	1	947	1

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.
Note: Percentages may not add to 100% due to 'rounding.'

Table 4 below provides a summary of all reported cases of HIV disease among Pennsylvania residents from 2016-2021 and cumulative data from 1980 to 2021 by mode of transmission. The most common means of transmission are male-to-male sexual (MSM) contact, heterosexual sex, and Injection drug use (IDU). Most pediatric HIV disease cases occur through perinatal exposure. The predominant mode of transmission in the past 5 years was MSM, and it accounts for about 52% of new diagnoses while approximately 18% of transmission occurred through heterosexual sex. IDU (including those with combined MSM and IDU risk factors) accounted for approximately 11% of new diagnoses in 2021.

Table 4: Number of Cases of HIV Disease by Mode of Transmission and Year of Diagnosis in Pennsylvania, 2016-2021

	2016		2017		2018		2019		2020*		2021*		TOTAL TO DATE 1980-2021	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ALL MODES	1,132	100	1,090	100	1,006	100	989	100	777	100	886	100	63,908	100
Male-to-male sexual (MSM) contact	625	55	562	52	479	48	527	53	405	52	457	52	24,902	39
IDU male	38	3	51	5	65	6	64	6	38	5	41	5	10,556	17
IDU female	22	2	29	3	38	4	39	4	10	1	21	2	4,896	8
MSM and IDU	25	2	23	2	34	3	34	3	36	5	38	4	3,124	5
Heterosexual contact male	175	15	132	12	119	12	93	9	71	9	84	9	6,920	11
Heterosexual contact female	213	19	131	12	109	11	114	12	64	8	80	9	8,751	14
Pediatric mode**	4	0	2	0	3	0	0	0	2	0	3	0	759	1
Other risk***	0	0	0	0	0	0	0	0	0	0	0	0	479	1
Unknown risk	30	3	160	15	159	16	118	12	151	19	162	18	3,521	6

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.
** Includes adult cases that had pediatric modes of transmission (e.g., perinatal exposure)
*** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic
Note: Percentage may not add to 100% due to "rounding.'

Table 5.1 below provides a summary of all reported new diagnoses of HIV disease during the first two decades of the epidemic among Pennsylvania residents from 1980-1990 and from 1991 to 2000 by mode of transmission and race/ethnicity. This table shows that MSM was the most common mode of transmission and accounted for 52% of all reported cases and IDU accounted 27% during the first decade (1980-1990).

Table 5.1: Number of HIV Disease by Mode of Transmission, Race/Ethnicity, and Decades of Diagnosis in Pennsylvania, 1980-1990, 1991-2000

	White		Black/ African American		Hispanic/Latinx		Asian & Native Hawaiian/ Other Pacific Islander		American Indian/Alaska Native		Multiple races		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ALL CASES 1980-1990	5,471	100	4,260	100	1,306	100	24	100	4	100	152	100	11,217	100
Male-to-male sexual (MSM) contact	3,745	68	1,754	41	225	17	18	75	2	50	62	41	5,806	52
IDU	694	13	1,546	36	785	60	1	4	1	25	55	36	3,082	27
MSM and IDU	332	6	435	10	98	8	1	4	0	0	26	17	892	8
Heterosexual	234	4	325	8	141	11	2	8	0	0	7	5	709	6
Pediatric mode*	57	1	70	2	31	2	0	0	1	25	1	1	160	1
Other risk**	308	6	28	1	9	1	1	4	0	0	0	0	346	3
Unknown risk	101	2	102	2	17	1	1	4	0	0	1	1	222	2
ALL CASES 1991-2000	5,473	100	8,039	100	1,911	100	49	100	9	100	395	100	15,876	100
Male-to-male sexual (MSM) contact	3,603	66	2,758	34	389	20	29	59	6	67	158	40	6,943	44
IDU	934	17	3,292	41	1,041	54	2	4	1	11	133	34	5,403	34
MSM and IDU	335	6	690	9	147	8	1	2	0	0	52	13	1,225	8
Heterosexual	356	7	997	12	215	11	9	18	1	11	43	11	1,621	10
Pediatric mode*	34	1	118	1	50	3	1	2	0	0	2	1	205	1
Other risk**	64	1	11	0	3	0	3	6	0	0	1	0	82	1
Unknown risk	147	3	173	2	66	3	4	8	1	11	6	2	397	3

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.
** Includes adult cases that had pediatric modes of transmission (e.g., perinatal exposure)
*** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic
Note: Percentage may not add to 100% due to "rounding.'

Table 5.2 below provides a summary of all reported new diagnoses of HIV disease during 2001-2010 and 2011-2021 among Pennsylvania residents by mode of transmission and race/ethnicity. This table shows that heterosexual transmission was the most common mode of transmission in 2001-2010 with 37% while MSM accounted for 50% of all reported cases in 2011-2021. IDU and MSM/IDU transmission accounted for 23% during 2001-2010 and only accounted for 10% in the 2011-2021 period.

Table 5.2: Number of HIV Disease by Mode of Transmission, Race/Ethnicity, and Decades of Diagnosis in Pennsylvania, 2001-2010, 2011-2021

	White		Black/ African American		Hispanic/Latinx		Asian & Native Hawaiian/ Other Pacific Islander		American Indian/Alaska Native		Multiple races		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ALL CASES 2001-2010	5,372	100	9,318	100	2,818	100	146	100	22	100	978	100	18,654	100
Male-to-male sexual (MSM) contact	2,641	49	2,318	25	618	22	54	37	9	41	289	30	5,929	32
IDU	802	15	1,769	19	787	28	9	6	2	9	199	20	3,568	19
MSM and IDU	261	5	244	3	92	3	2	1	0	0	57	6	656	4
Heterosexual	1,190	22	4,333	47	1,015	36	64	44	11	50	349	36	6,962	37
Pediatric mode*	20	0	94	1	33	1	3	2	0	0	6	1	156	1
Other risk**	8	0	5	0	3	0	0	0	0	0	0	0	16	0
Unknown risk	450	8	555	6	270	10	14	10	0	0	78	8	1,367	7
ALL CASES 2011-2021	3,537	100	6,219	100	2,015	100	186	100	26	100	392	100	12,375	100
Male-to-male sexual (MSM) contact	2,039	58	2,908	47	967	48	97	52	13	50	200	51	6,224	50
IDU	413	12	271	4	202	10	4	2	1	4	22	6	913	7
MSM and IDU	182	5	89	1	62	3	3	2	1	4	14	4	351	3
Heterosexual	666	19	2,118	34	584	29	58	31	10	38	121	31	3,557	29
Pediatric mode*	4	0	29	0	7	0	2	1	0	0	4	1	46	0
Other risk**	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown risk	233	7	804	13	193	10	22	12	1	4	31	8	1,284	10

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.
** Includes adult cases that had pediatric modes of transmission (e.g., perinatal exposure)
*** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic
Note: Percentage may not add to 100% due to "rounding.'

Table 5A.1 provides the number of new diagnoses of HIV disease among **males** during the first two decades of the epidemic among Pennsylvania residents from 1980-1990 and from 1991-2000 by mode of transmission and race/ethnicity. While MSM had the highest proportion of cases of HIV disease for all decades, IDU became increasingly frequent during the first two decades (1980-2000).

Table 5A.1: Number of HIV Disease Among Males by Mode of Transmission, Race/Ethnicity, and Decades of Diagnosis in Pennsylvania, 1980-1990, 1991-2000

	White		Black/ African American		Hispanic/Latinx		Asian & Native Hawaiian/ Other Pacific Islander		American Indian/Alaska Native		Multiple races		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ALL MALES 1980-1990	4,988	100	3,545	100	1,009	100	21	100	2	100	126	100	9,691	100
Male-to-male sexual (MSM) contact	3,745	75	1,754	49	225	22	18	86	2	100	62	49	5,806	60
IDU	449	9	1,106	31	612	61	0	0	0	0	35	28	2,202	23
MSM and IDU	332	7	435	12	98	10	1	5	0	0	26	21	892	9
Heterosexual	83	2	113	3	32	3	1	5	0	0	1	1	230	2
Pediatric mode*	47	1	45	1	22	2	0	0	0	0	1	1	115	1
Other risk**	254	5	16	0	9	1	0	0	0	0	0	0	279	3
Unknown risk	78	2	76	2	11	1	1	5	0	0	1	1	167	2
ALL MALES 1991-2000	5,473	100	8,039	100	1,911	100	49	100	9	100	395	100	15,876	100
Male-to-male sexual (MSM) contact	3,603	66	2,758	34	389	20	29	59	6	67	158	40	6,943	44
IDU	934	17	3,292	41	1,041	54	2	4	1	11	133	34	5,403	34
MSM and IDU	335	6	690	9	147	8	1	2	0	0	52	13	1,225	8
Heterosexual	356	7	997	12	215	11	9	18	1	11	43	11	1,621	10
Pediatric mode*	34	1	118	1	50	3	1	2	0	0	2	1	205	1
Other risk**	64	1	11	0	3	0	3	6	0	0	1	0	82	1
Unknown risk	147	3	173	2	66	3	4	8	1	11	6	2	397	3

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.
** Includes adult cases that had pediatric modes of transmission (e.g., perinatal exposure)
*** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic
Note: Percentage may not add to 100% due to "rounding.'

Table 5A.2 below provides summary of all reported new diagnoses of HIV disease among **males** during the 2001-2010 and 2011-2021 among Pennsylvania residents by mode of transmission and race/ethnicity. This table shows that heterosexual transmission was increasingly common among males in 2001-2010 while MSM accounted for 65% of all reported cases in 2011-2021. IDU and MSM/IDU transmission accounted for 23% during 2001-2010 and only 10% in the 2011-2021 period.

Table 5A.2: Number of HIV Disease Among Males by Mode of Transmission, Race/Ethnicity, and Decades of Diagnosis in Pennsylvania, 2001-2010, 2011-2021

	White		Black/ African American		Hispanic/Latinx		Asian & Native Hawaiian/ Other Pacific Islander		American Indian/Alaska Native		Multiple races		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ALL MALES 2001-2010	4,297	100	6,053	100	1,967	100	118	100	13	100	629	100	13,077	100
Male-to-male sexual (MSM) contact	2,641	61	2,318	38	618	31	54	46	9	69	289	46	5,929	45
IDU	489	11	1,152	19	611	31	8	7	0	0	116	18	2,376	18
MSM and IDU	261	6	244	4	92	5	2	2	0	0	57	9	656	5
Heterosexual	613	14	1,981	33	460	23	43	36	4	31	133	21	3,234	25
Pediatric mode*	8	0	45	1	17	1	0	0	0	0	2	0	72	1
Other risk**	6	0	0	0	3	0	0	0	0	0	0	0	9	0
Unknown risk	279	6	313	5	166	8	11	9	0	0	32	5	801	6
ALL MALES 2011-2021	2,976	100	4,579	100	1,597	100	149	100	25	100	302	100	9,628	100
Male-to-male sexual (MSM) contact	2,039	69	2,908	64	967	61	97	65	13	52	200	66	6,224	65
IDU	236	8	169	4	151	9	4	3	1	4	14	5	575	6
MSM and IDU	182	6	89	2	62	4	3	2	1	4	14	5	351	4
Heterosexual	372	13	1,047	23	312	20	31	21	9	36	64	21	1,835	19
Pediatric mode*	1	0	16	0	4	0	0	0	0	0	2	1	23	0
Other risk**	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown risk	146	5	350	8	101	6	14	9	1	4	8	3	620	6

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.
** Includes adult cases that had pediatric modes of transmission (e.g., perinatal exposure)
*** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic
Note: Percentage may not add to 100% due to "rounding.'

Table 5B.1 provides the number of new diagnoses of HIV disease among **females** during the first two decades of the epidemic among Pennsylvania residents from 1980-1990 and from 1991-2000 by mode of transmission and race/ethnicity. While IDU had the highest proportion of cases of HIV disease for these two decades, heterosexual transmission became increasingly frequent during the first two decades (1980-2000).

Table 5B.1: Number of HIV Disease Among Females by Mode of Transmission, Race/Ethnicity, and Decades of Diagnosis in Pennsylvania, 1980-1990, 1991-2000

	White		Black/ African American		Hispanic/Latinx		Asian & Native Hawaiian/ Other Pacific Islander		American Indian/Alaska Native		Multiple races		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ALL FEMALES 1980-1990	483	100	715	100	297	100	3	100	2	100	26	100	1,526	100
IDU	245	51	440	62	173	58	1	33	1	50	20	77	880	58
Heterosexual	151	31	212	30	109	37	1	33	0	0	6	23	479	31
Pediatric mode*	10	2	25	3	9	3	0	0	1	50	0	0	45	3
Other risk**	54	11	12	2	0	0	1	33	0	0	0	0	67	4
Unknown risk	23	5	26	4	6	2	0	0	0	0	0	0	55	4
ALL FEMALES 1991-2000	1,186	100	3,460	100	933	100	17	100	3	100	187	100	5,786	100
IDU	551	46	1,503	43	340	36	2	12	1	33	89	48	2,486	43
Heterosexual	520	44	1,709	49	504	54	10	59	1	33	78	42	2,822	49
Pediatric mode*	20	2	133	4	29	3	1	6	0	0	9	5	192	3
Other risk**	19	2	12	0	1	0	2	12	0	0	1	1	35	1
Unknown risk	76	6	103	3	59	6	2	12	1	33	10	5	251	4

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.
** Includes adult cases that had pediatric modes of transmission (e.g., perinatal exposure)
*** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic
Note: Percentage may not add to 100% due to "rounding.'

Table 5B.2 below provides a summary of all reported new diagnoses of HIV disease among **females** during 2001-2010 and 2011-2021 among Pennsylvania residents by mode of transmission and race/ethnicity. The predominant mode of tranmission for females during this two decades was Heterosexual contact and followed by IDU.

Table 5B.2: Number of HIV Disease Among Females by Mode of Transmission, Race/Ethnicity, and Decades of Diagnosis in Pennsylvania, 2001-2010, 2011-2021

	White		Black/ African American		Hispanic/Latinx		Asian & Native Hawaiian/ Other Pacific Islander		American Indian/Alaska Native		Multiple races		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ALL FEMALES 2001-2010	1,075	100	3,265	100	851	100	28	100	9	100	349	100	5,577	100
IDU	313	29	617	19	176	21	1	4	2	22	83	24	1,192	21
Heterosexual	577	54	2,352	72	555	65	21	75	7	78	216	62	3,728	67
Pediatric mode*	12	1	49	2	16	2	3	11	0	0	4	1	84	2
Other risk**	2	0	5	0	0	0	0	0	0	0	0	0	7	0
Unknown risk	171	16	242	7	104	12	3	11	0	0	46	13	566	10
ALL FEMALES 2011-2021	561	100	1,640	100	418	100	37	100	1	100	90	100	2,747	100
IDU	177	32	102	6	51	12	0	0	0	0	8	9	338	12
Heterosexual	294	52	1,071	65	272	65	27	73	1	100	57	63	1,722	63
Pediatric mode*	3	1	13	1	3	1	2	5	0	0	2	2	23	1
Other risk**	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown risk	87	16	454	28	92	22	8	22	0	0	23	26	664	24

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.
** Includes adult cases that had pediatric modes of transmission (e.g., perinatal exposure)
*** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic
Note: Percentage may not add to 100% due to "rounding.'

Table 6 below provides a summary of all reported new diagnoses of HIV disease by vital status and county of residence at diagnosis.The majority of persons diagnosed with HIV disease in Pennsylvania were residents of large population centers, such as Philadelphia and Allegheny counties.

Table 6: Cumulative Cases of HIV Disease by Vital Status and County of Residence at Diagnosis, Pennsylvania, 1980-2021

COUNTY	PRESUMED ALIVE	REPORTED DEAD	CUMULATIVE CASES
Philadelphia	18,237	15,263	33,500
Allegheny	3,029	2,127	5,156
Delaware	1,826	1,377	3,203
Montgomery	1,215	839	2,054
Dauphin	1,116	782	1,898
Berks	1,025	718	1,743
Lehigh	1,064	583	1,647
Lancaster	876	623	1,499
Bucks	852	636	1,488
York	852	535	1,387
Chester	578	495	1,073
Northampton	425	294	719
Luzerne	440	276	716
Cumberland	383	253	636
Erie	363	225	588
Lackawanna	306	199	505
Monroe	284	199	483
Lycoming	206	203	409
Westmoreland	194	191	385
Lebanon	162	113	275
Centre	181	80	261
Beaver	130	124	254
Schuylkill	137	107	244
Franklin	146	96	242
Cambria	125	116	241
Washington	116	116	232
Union	106	63	169
Blair	81	86	167
Fayette	102	58	160
Adams	96	53	149
Northumberland	76	72	148
Butler	95	52	147
Mercer	82	61	143
Somerset	93	50	143
Pike	95	43	138
Carbon	78	51	129
Wayne	61	66	127
Crawford	73	47	120
Clearfield	72	47	119
Huntingdon	63	54	117
Lawrence	71	43	114
Columbia	62	34	96
Bradford	44	33	77
Indiana	39	34	73
Armstrong	37	33	70
McKean	28	26	54
Perry	28	26	54
Greene	23	28	51
Bedford	31	19	50
Venango	23	27	50
Mifflin	19	20	39
Susquehanna	21	18	39
Tioga	19	19	38
Wyoming	19	14	33
Montour	21	11	32
Warren	21	11	32
Clarion	21	10	31
Snyder	21	9	30
Clinton	16	9	25
Jefferson	14	10	24
Juniata	13	11	24
Forest	14	1	15
Elk	8	4	12
Fulton	10	2	12
Sullivan	8	2	10
Potter	3	6	9
Cameron	0	0	0
State total	**36,075**	**27,833**	**63,908**

Table 7 below provides a tabulation of all reported cases and rates of HIV disease by county of residence and year of diagnosis (2018 through 2021). In 2020, the rate of new HIV diagnoses for Pennsylvania was 6.1 per 100,000 population. Philadelphia County had the highest rate at 21.2 per 100,000 population in 2020. Note: The HIV rate data for 2020 uses Pennsylvania estimated population data for 2019.

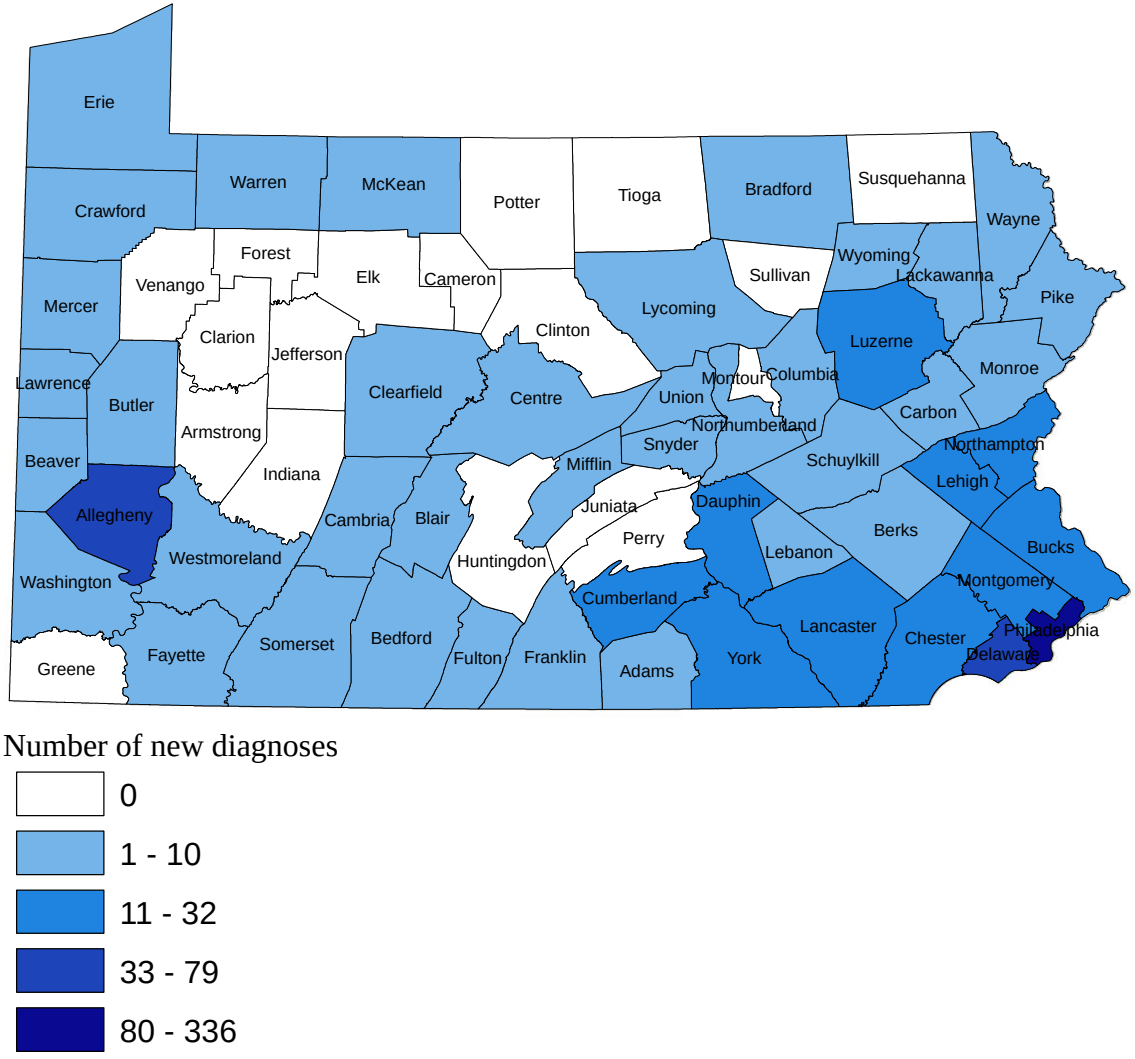
Table 7: Annual Diagnoses and Rate of HIV Disease by County of Residence in Pennsylvania, 2018-2021

COUNTY	2018	2019	2020*	2021*	2020 RATE PER 100,000**
Adams	2	5	1	3	1.0
Allegheny	75	76	79	89	6.5
Armstrong	0	0	0	1	0.0
Beaver	8	9	9	2	5.5
Bedford	4	0	1	0	2.1
Berks	29	27	9	31	2.1
Blair	1	3	1	2	0.8
Bradford	0	3	2	1	3.3
Bucks	36	27	24	21	3.8
Butler	2	7	3	1	1.6
Cambria	7	5	3	5	2.3
Cameron	0	0	0	0	0.0
Carbon	1	1	4	2	6.2
Centre	2	5	3	1	1.8
Chester	14	18	13	19	2.5
Clarion	1	0	0	2	0.0
Clearfield	1	4	1	0	1.3
Clinton	1	1	0	0	0.0
Columbia	1	0	1	2	1.5
Crawford	2	2	2	3	2.4
Cumberland	3	9	13	17	5.1
Dauphin	35	25	27	38	9.7
Delaware	65	67	48	58	8.5
Elk	0	1	0	0	0.0
Erie	16	13	5	16	1.9
Fayette	2	4	4	5	3.1
Forest	1	0	0	0	0.0
Franklin	1	2	3	9	1.9
Fulton	1	0	1	0	6.9
Greene	1	1	0	1	0.0
Huntingdon	0	0	0	2	0.0
Indiana	2	2	0	0	0.0
Jefferson	0	0	0	0	0.0
Juniata	0	0	0	0	0.0
Lackawanna	12	10	8	14	3.8
Lancaster	16	24	18	13	3.3
Lawrence	4	4	3	3	3.5
Lebanon	6	7	3	8	2.1
Lehigh	35	29	20	26	5.4
Luzerne	26	16	20	27	6.3
Lycoming	4	4	2	6	1.8
McKean	1	1	2	0	4.9
Mercer	6	4	3	1	2.7
Mifflin	0	1	2	0	4.3
Monroe	11	13	6	11	3.5
Montgomery	50	43	32	29	3.9
Montour	1	1	0	4	0.0
Northampton	16	24	13	15	4.3
Northumberland	1	0	2	2	2.2
Perry	2	0	0	0	0.0
Philadelphia	437	446	336	336	21.2
Pike	1	1	1	1	1.8
Potter	0	0	0	1	0.0
Schuylkill	5	2	5	5	3.5
Snyder	1	0	1	2	2.5
Somerset	1	2	2	4	2.7
Sullivan	0	0	0	0	0.0
Susquehanna	2	0	0	0	0.0
Tioga	0	0	0	0	0.0
Union	0	0	3	0	6.7
Venango	0	2	0	1	0.0
Warren	1	0	1	0	2.6
Washington	6	4	3	6	1.5
Wayne	0	0	3	1	5.8
Westmoreland	13	7	6	7	1.7
Wyoming	0	1	3	0	11.2
York	34	26	22	32	4.9
State total	1006	989	777	886	6.1

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.
**Rates based on 2019 estimated population.

Figure 3 below displays the number of new diagnoses of HIV disease in 2021 by county of residence at diagnosis. Most of the new cases were diagnosed in southeastern and southcentral counties, as well as Allegheny County in the southwest region of the state.

Figure 3: New Diagnoses of HIV Disease by County in Pennsylvania, 2021

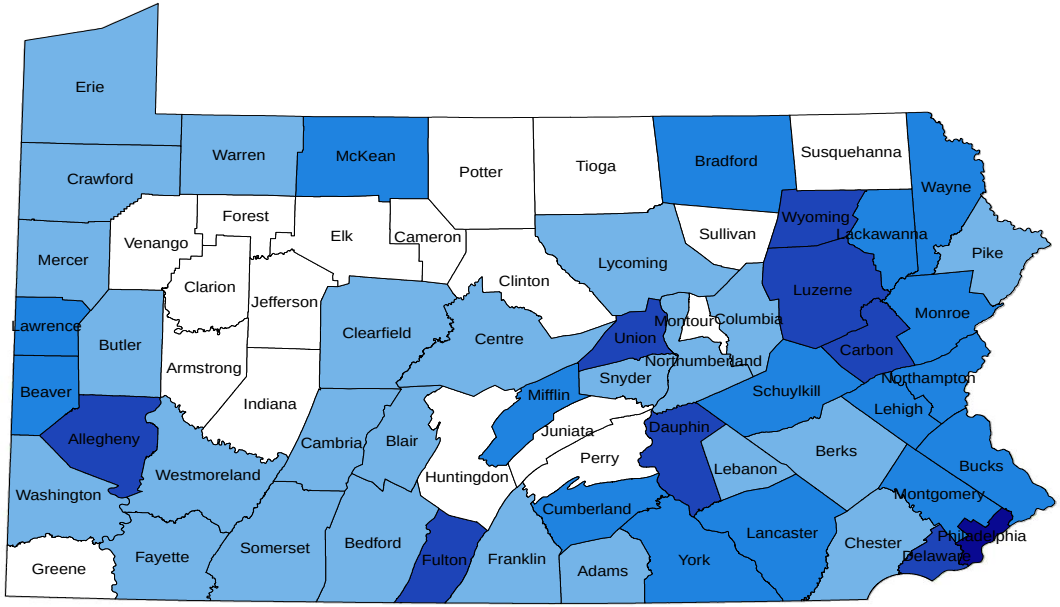


Number of new diagnoses

- 0
- 1 - 10
- 11 - 32
- 33 - 79
- 80 - 336

Figure 4 below depicts the rate of new diagnoses of HIV disease in 2020 by county of residence at diagnosis.The overall HIV rate in Pennsylvania in 2020 was 7.7 per 100,000 population. While only 2 out of 48 rural counties saw a rate higher than the state rate, four out of 19 urban counties experienced rates higher than the state.The highest rate was observed in Philadelphia County at 27.8 per 100,000 population.

Figure 4: Rate* (Per 100,000 County Residents) of New HIV Disease Diagnoses by County, Pennsylvania, 2020



Note: Urban counties - Allegheny, Beaver, Berks, Bucks, Chester, Cumberland, Dauphin, Delaware, Erie, Lackawanna, Lancaster, Lebanon, Lehigh, Luzerne, Montgomery, Northampton, Philadelphia, Westmoreland, and York Counties.

Rate per 100,000 population

- 0
- 0.1 - 3.1
- 3.2 - 5.8
- 5.9 - 11.2
- 11.3 - 21.2

Table 8 provides a summary of the number of new diagnoses of HIV disease by sex, race, age at diagnosis, mode of transmission and HIV planning area.

Table 8: Characteristics of HIV Disease by Time Interval of Diagnosis and HIV Planning Area in Pennsylvania, 2016-2021

		BEFORE 2016		2016		2017		2018		2019		*2020		*2021		TOTAL TO DEC 31, 2021	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	TOTAL CASES	58,028	100	1,132	100	1,090	100	1,006	100	989	100	777	100	886	100	63,908	100
SEX	Male	43,687	75	880	78	852	78	783	78	761	77	613	79	696	79	48,272	76
	Female	14,341	25	252	22	238	22	223	22	228	23	164	21	190	21	15,636	24
RACE/ETHNICITY	White	19,308	33	328	29	311	29	297	30	292	30	231	30	272	31	21,039	33
	Black/African American	28,484	49	539	48	552	51	461	46	465	47	379	49	416	47	31,296	49
	Hispanic/Latinx	7,913	14	209	18	185	17	199	20	184	19	131	17	162	18	8,983	14
	Asian & Native Hawaiian/Other Pacific Islander	339	1	20	2	14	1	18	2	14	1	7	1	10	1	422	1
	American Indian/Alaska Native	51	0	3	0	2	0	1	0	1	0	4	1	2	0	64	0
	Multiple races	1,933	3	33	3	26	2	30	3	33	3	25	3	24	3	2,104	3
AGE (YEARS)	<=12	730	1	3	0	1	0	1	0	0	0	2	0	2	0	739	1
	13-24	7,516	13	258	23	257	24	230	23	216	22	164	21	177	20	8,818	14
	25-34	18,634	32	373	33	349	32	346	34	364	37	283	36	341	38	20,690	32
	35-44	18,045	31	205	18	215	20	170	17	172	17	134	17	185	21	19,126	30
	45-54	9,295	16	182	16	155	14	146	15	128	13	110	14	103	12	10,119	16
	55-64	2,989	5	89	8	80	7	92	9	86	9	68	9	65	7	3,469	5
	>=65	819	1	22	2	33	3	21	2	23	2	16	2	13	1	947	1
MODE OF TRANSMISSION	Male-to-male sexual (MSM) contact	21,847	38	625	55	562	52	479	48	527	53	405	52	457	52	24,902	39
	Injection drug use (IDU)	14,996	26	60	5	80	7	103	10	103	10	48	6	62	7	15,452	24
	MSM and IDU	2,934	5	25	2	23	2	34	3	34	3	36	5	38	4	3,124	5
	Other**	479	1	0	0	0	0	0	0	0	0	0	0	0	0	479	1
	Heterosexual contact	14,286	25	388	34	263	24	228	23	207	21	135	17	164	19	15,671	25
	Pediatric mode***	745	1	4	0	2	0	3	0	0	0	2	0	3	0	759	1
	Unknown risk	2,741	5	30	3	160	15	159	16	118	12	151	19	162	18	3,521	6
REGIONAL SUBRECIPIENT	AIDS Activities Coordinating Office	37,908	65	639	56	652	60	602	60	601	61	453	58	463	52	41,318	65
	AIDSNET	4,428	8	101	9	96	9	97	10	96	10	57	7	90	10	4,965	8
	Northeast United Way of the Wyoming Valley	1,347	2	26	2	38	3	41	4	28	3	35	5	43	5	1,558	2
	Northcentral District AIDS Region	1,185	2	36	3	25	2	11	1	14	1	14	2	19	2	1,304	2
	Family Health Council of Southcentral Pennsylvania	5,835	10	169	15	122	11	105	10	102	10	92	12	124	14	6,549	10
	Southwest Pennsylvania - Jewish Healthcare Foundation	6,178	11	141	12	129	12	117	12	117	12	109	14	121	14	6,912	11
	Northwest Pennsylvania Rural AIDS Alliance	1,147	2	20	2	28	3	33	3	31	3	17	2	26	3	1,302	2

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.
** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic
*** Includes adult cases that had pediatric modes of transmission (e.g., perinatal exposure)
Note: Percentage may not add to 100% due to "rounding.'

Table 9 below provides a summary of the number of new diagnoses of HIV disease by sex, race, age at diagnosis, mode of transmission and county of residence for the AIDS Activity Office planning area.

Table 9: Characteristics of HIV Disease by Time Interval of Diagnosis for AIDS Activities Coordinating Office, 2016-2021

AIDS Activities Coordinating Office

Bucks, Delaware, Chester, Montgomery, and Philadelphia counties

		BEFORE 2016		2016		2017		2018		2019		*2020		*2021		TOTAL TO DEC 31, 2021	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	TOTAL CASES	37,908	100	639	100	652	100	602	100	601	100	453	100	463	100	41,318	100
SEX	Male	28,329	75	479	75	514	79	460	76	456	76	341	75	362	78	30,941	75
	Female	9,579	25	160	25	138	21	142	24	145	24	112	25	101	22	10,377	25
RACE/ETHNICITY	White	9,281	24	111	17	122	19	137	23	121	20	86	19	115	25	9,973	24
	Black/African American	23,018	61	392	61	413	63	327	54	362	60	275	61	274	59	25,061	61
	Hispanic/Latinx	4,357	11	112	18	95	15	114	19	92	15	79	17	59	13	4,908	12
	Asian & Native Hawaiian/Other Pacific Islander	246	1	12	2	8	1	14	2	9	1	4	1	7	2	300	1
	American Indian/Alaska Native	42	0	3	0	2	0	1	0	1	0	2	0	1	0	52	0
	Multiple races	964	3	9	1	12	2	9	1	16	3	7	2	7	2	1,024	2
AGE (YEARS)	<=12	477	1	0	0	0	0	0	0	0	0	1	0	2	0	480	1
	13-24	5,015	13	153	24	157	24	145	24	143	24	93	21	94	20	5,800	14
	25-34	12,028	32	218	34	233	36	202	34	211	35	172	38	181	39	13,245	32
	35-44	11,658	31	97	15	127	19	109	18	110	18	79	17	99	21	12,279	30
	45-54	6,148	16	104	16	77	12	79	13	74	12	61	13	44	10	6,587	16
	55-64	2,019	5	54	8	34	5	57	9	49	8	40	9	37	8	2,290	6
	>=65	563	1	13	2	24	4	10	2	14	2	7	2	6	1	637	2
MODE OF TRANSMISSION	Male-to-male sexual (MSM) contact	13,574	36	345	54	339	52	276	46	312	52	232	51	233	50	15,311	37
	Injection drug use (IDU)	10,376	27	36	6	50	8	73	12	81	13	32	7	51	11	10,699	26
	MSM and IDU	1,903	5	10	2	8	1	18	3	17	3	13	3	17	4	1,986	5
	Other**	164	0	0	0	0	0	0	0	0	0	0	0	0	0	164	0
	Heterosexual contact	10,403	27	225	35	106	16	89	15	78	13	56	12	51	11	11,008	27
	Pediatric mode***	479	1	1	0	1	0	2	0	0	0	1	0	3	1	487	1
	Unknown risk	1,009	3	22	3	148	23	144	24	113	19	119	26	108	23	1,663	4
COUNTY OF DIAGNOSIS	Bucks	1,328	4	27	4	25	4	36	6	27	4	24	5	21	5	1,488	4
	Chester	969	3	24	4	16	2	14	2	18	3	13	3	19	4	1,073	3
	Delaware	2,831	7	76	12	58	9	65	11	67	11	48	11	58	13	3,203	8
	Montgomery	1,818	5	34	5	48	7	50	8	43	7	32	7	29	6	2,054	5
	Philadelphia	30,962	82	478	75	505	77	437	73	446	74	336	74	336	73	33,500	81

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.

** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic

*** Includes adult cases that had pediatric modes of transmission (e.g., perinatal exposure)

Note: Percentage may not add to 100% due to “rounding.’

Table 10 below provides a summary of the number of new diagnoses of HIV disease by sex, race, age at diagnosis, mode of transmission and county of residence for the AIDSNET HIV planning area.

Table 10: Characteristics of HIV Disease by Time Interval of Diagnosis for AIDSNET in Pennsylvania, 2016-2021

AIDSNET

Berks, Carbon, Lehigh, Monroe, Northampton, and Schuylkill counties

		BEFORE 2016		2016		2017		2018		2019		*2020		*2021		TOTAL TO DEC 31, 2021	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	TOTAL CASES	4,428	100	101	100	96	100	97	100	96	100	57	100	90	100	4,965	100
SEX	Male	3,041	69	73	72	69	72	75	77	76	79	41	72	64	71	3,439	69
	Female	1,387	31	28	28	27	28	22	23	20	21	16	28	26	29	1,526	31
RACE/ETHNICITY	White	1,665	38	34	34	25	26	28	29	29	30	21	37	27	30	1,829	37
	Black/African American	781	18	30	30	27	28	26	27	18	19	12	21	24	27	918	18
	Hispanic/Latinx	1,764	40	32	32	42	44	41	42	47	49	20	35	35	39	1,981	40
	Asian & Native Hawaiian/Other Pacific Islander	12	0	1	1	1	1	0	0	1	1	1	2	1	1	17	0
	American Indian/Alaska Native	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	Multiple races	205	5	4	4	1	1	2	2	1	1	3	5	3	3	219	4
AGE (YEARS)	<=12	65	1	0	0	0	0	1	1	0	0	0	0	0	0	66	1
	13-24	511	12	14	14	15	16	13	13	20	21	17	30	17	19	607	12
	25-34	1,417	32	30	30	27	28	38	39	31	32	12	21	39	43	1,594	32
	35-44	1,447	33	27	27	21	22	13	13	14	15	13	23	12	13	1,547	31
	45-54	695	16	19	19	18	19	23	24	19	20	12	21	14	16	800	16
	55-64	224	5	9	9	11	11	6	6	9	9	2	4	7	8	268	5
	>=65	69	2	2	2	4	4	3	3	3	3	1	2	1	1	83	2
MODE OF TRANSMISSION	Male-to-male sexual (MSM) contact	1,184	27	44	44	45	47	39	40	51	53	27	47	45	50	1,435	29
	Injection drug use (IDU)	1,352	31	3	3	1	1	4	4	3	3	2	4	0	0	1,365	27
	MSM and IDU	181	4	1	1	1	1	1	1	2	2	1	2	2	2	189	4
	Other**	54	1	0	0	0	0	0	0	0	0	0	0	0	0	54	1
	Heterosexual contact	1,083	24	52	51	45	47	44	45	37	39	19	33	17	19	1,297	26
	Pediatric mode***	70	2	0	0	0	0	1	1	0	0	0	0	0	0	71	1
	Unknown risk	504	11	1	1	4	4	8	8	3	3	8	14	26	29	554	11
COUNTY OF DIAGNOSIS	Berks	1,573	36	38	38	36	38	29	30	27	28	9	16	31	34	1,743	35
	Carbon	114	3	5	5	2	2	1	1	1	1	4	7	2	2	129	3
	Lehigh	1,467	33	40	40	30	31	35	36	29	30	20	35	26	29	1,647	33
	Monroe	427	10	8	8	7	7	11	11	13	14	6	11	11	12	483	10
	Northampton	628	14	5	5	18	19	16	16	24	25	13	23	15	17	719	14
	Schuylkill	219	5	5	5	3	3	5	5	2	2	5	9	5	6	244	5

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.

** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic

*** Includes adult cases that had pediatric modes of transmission (e.g., perinatal exposure)

Table 11 provides a summary of the number of new diagnoses of HIV disease by sex, race, age at diagnosis, mode of transmission and county of residence for the Northeast United Way of the Wyoming Valley HIV planning area.

Table 11: Characteristics of HIV Disease by Time Interval of Diagnosis for Northeast United Way of the Wyoming Valley in Pennsylvania, 2016-2021

NORTHEAST UNITED WAY OF THE WYOMING VALLEY

Lackawanna, Luzerne, Pike, Susquehanna, Wayne, and Wyoming counties

		BEFORE 2016		2016		2017		2018		2019		*2020		*2021		TOTAL TO DEC 31, 2021	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	TOTAL CASES	1,347	100	26	100	38	100	41	100	28	100	35	100	43	100	1,558	100
SEX	Male	1,035	77	23	88	29	76	29	71	19	68	29	83	34	79	1,198	77
	Female	312	23	3	12	9	24	12	29	9	32	6	17	9	21	360	23
RACE/ETHNICITY	White	814	60	13	50	19	50	20	49	11	39	19	54	16	37	912	59
	Black/African American	262	19	3	12	10	26	8	20	8	29	9	26	10	23	310	20
	Hispanic/Latinx	201	15	8	31	9	24	10	24	8	29	2	6	17	40	255	16
	Asian & Native Hawaiian/Other Pacific Islander	3	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0
	American Indian/Alaska Native	3	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0
	Multiple races	64	5	2	8	0	0	3	7	1	4	3	9	0	0	73	5
AGE (YEARS)	<=12	22	2	0	0	0	0	0	0	0	0	0	0	0	0	22	1
	13-24	143	11	3	12	11	29	11	27	8	29	5	14	9	21	190	12
	25-34	393	29	7	27	9	24	15	37	16	57	20	57	18	42	478	31
	35-44	455	34	9	35	7	18	6	15	0	0	5	14	6	14	488	31
	45-54	240	18	4	15	8	21	4	10	4	14	3	9	5	12	268	17
	55-64	69	5	3	12	3	8	3	7	0	0	1	3	5	12	84	5
	>=65	25	2	0	0	0	0	2	5	0	0	1	3	0	0	28	2
MODE OF TRANSMISSION	Male-to-male sexual (MSM) contact	473	35	15	58	18	47	15	37	11	39	16	46	22	51	570	37
	Injection drug use (IDU)	350	26	2	8	2	5	2	5	1	4	3	9	1	2	361	23
	MSM and IDU	73	5	1	4	2	5	5	12	1	4	3	9	2	5	87	6
	Other**	17	1	0	0	0	0	0	0	0	0	0	0	0	0	17	1
	Heterosexual contact	280	21	8	31	14	37	19	46	15	54	10	29	9	21	355	23
	Pediatric mode***	24	2	0	0	0	0	0	0	0	0	0	0	0	0	24	2
	Unknown risk	130	10	0	0	2	5	0	0	0	0	3	9	9	21	144	9
COUNTY OF DIAGNOSIS	Lackawanna	443	33	11	42	7	18	12	29	10	36	8	23	14	33	505	32
	Luzerne	595	44	14	54	18	47	26	63	16	57	20	57	27	63	716	46
	Pike	127	9	1	4	6	16	1	2	1	4	1	3	1	2	138	9
	Susquehanna	35	3	0	0	2	5	2	5	0	0	0	0	0	0	39	3
	Wayne	122	9	0	0	1	3	0	0	0	0	3	9	1	2	127	8
	Wyoming	25	2	0	0	4	11	0	0	1	4	3	9	0	0	33	2

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.

** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic

*** Includes adult cases that had pediatric modes of transmission (e.g., perinatal exposure)

Note: Percentage may not add to 100% due to “rounding.’

Table 12 below provides a summary of the number of new diagnoses of HIV disease by sex, race, age at diagnosis, mode of transmission and county of residence for the North Central District AIDS Region HIV planning area.

Table 12: Characteristics of HIV Disease by Time Interval of Diagnosis for Northcentral District AIDS Region in Pennsylvania, 2016–2021

NORTH CENTRAL DISTRICT AIDS REGION

Bradford, Centre, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, and Union counties

		BEFORE 2016		2016		2017		2018		2019		*2020		*2021		TOTAL TO DEC 31, 2021	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	TOTAL CASES	1,185	100	36	100	25	100	11	100	14	100	14	100	19	100	1,304	100
	Male	906	76	33	92	20	80	7	64	13	93	14	100	15	79	1,008	77
SEX	Female	279	24	3	8	5	20	4	36	1	7	0	0	4	21	296	23
	White	596	50	23	64	16	64	7	64	11	79	9	64	11	58	673	52
	Black/African American	381	32	7	19	4	16	1	9	2	14	2	14	3	16	400	31
	Hispanic/Latinx	152	13	5	14	3	12	2	18	1	7	3	21	4	21	170	13
	Asian & Native Hawaiian/Other Pacific Islander	8	1	1	3	1	4	0	0	0	0	0	0	1	5	11	1
	American Indian/Alaska Native	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RACE/ETHNICITY	Multiple races	48	4	0	0	1	4	1	9	0	0	0	0	0	0	50	4
	<=12	16	1	0	0	0	0	0	0	0	0	0	0	0	0	16	1
	13-24	140	12	12	33	7	28	4	36	3	21	3	21	1	5	170	13
	25-34	390	33	12	33	3	12	4	36	8	57	6	43	7	37	430	33
	35-44	392	33	6	17	8	32	1	9	3	21	2	14	2	11	414	32
	45-54	176	15	2	6	2	8	0	0	0	0	2	14	5	26	187	14
	55-64	58	5	2	6	4	16	1	9	0	0	1	7	3	16	69	5
AGE (YEARS)	>=65	13	1	2	6	1	4	1	9	0	0	0	0	1	5	18	1
	Male-to-male sexual (MSM) contact	402	34	21	58	12	48	5	45	10	71	11	79	8	42	469	36
	Injection drug use (IDU)	372	31	3	8	1	4	3	27	0	0	1	7	1	5	381	29
	MSM and IDU	94	8	2	6	2	8	0	0	0	0	1	7	2	11	101	8
	Other**	22	2	0	0	0	0	0	0	0	0	0	0	0	0	22	2
	Heterosexual contact	182	15	9	25	10	40	3	27	4	29	1	7	7	37	216	17
MODE OF	Pediatric mode***	17	1	0	0	0	0	0	0	0	0	0	0	0	0	17	1
TRANSMISSION	Unknown risk	96	8	1	3	0	0	0	0	0	0	0	0	1	5	98	8
	Bradford	61	5	6	17	4	16	0	0	3	21	2	14	1	5	77	6
	Centre	234	20	11	31	5	20	2	18	5	36	3	21	1	5	261	20
	Clinton	22	2	1	3	0	0	1	9	1	7	0	0	0	0	25	2
	Columbia	85	7	5	14	2	8	1	9	0	0	1	7	2	11	96	7
	Lycoming	383	32	5	14	5	20	4	36	4	29	2	14	6	32	409	31
	Montour	24	2	1	3	1	4	1	9	1	7	0	0	4	21	32	2
	Northumberland	135	11	3	8	5	20	1	9	0	0	2	14	2	11	148	11
	Potter	8	1	0	0	0	0	0	0	0	0	0	0	1	5	9	1
	Snyder	23	2	2	6	1	4	1	9	0	0	1	7	2	11	30	2
	Sullivan	9	1	1	3	0	0	0	0	0	0	0	0	0	0	10	1
COUNTY OF	Tioga	38	3	0	0	0	0	0	0	0	0	0	0	0	0	38	3
DIAGNOSIS	Union	163	14	1	3	2	8	0	0	0	0	3	21	0	0	169	13

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.

** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic

*** Includes adult cases that had pediatric modes of transmission (e.g., perinatal exposure)

Table 13 below provides a summary of the number of new diagnoses of HIV disease in Pennsylvania by sex, race, age at diagnosis, mode of transmission and county of residence for the Family Health Council of South Central Pennsylvania HIV planning area.

Table 13: Characteristics of HIV Disease by Time Interval of Diagnosis Family Health Council of Southcentral Pennsylvania, 2016–2021

FAMILY HEALTH COUNCIL OF SOUTHCENTRAL PENNSYLVANIA

Adams, Bedford, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, and York counties

		BEFORE 2016		2016		2017		2018		2019		*2020		*2021		TOTAL TO DEC 31, 2021	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	TOTAL CASES	5,835	100	169	100	122	100	105	100	102	100	92	100	124	100	6,549	100
SEX	Male	4,300	74	133	79	90	74	85	81	79	77	78	85	102	82	4,867	74
	Female	1,535	26	36	21	32	26	20	19	23	23	14	15	22	18	1,682	26
RACE/ETHNICITY	White	2,867	49	79	47	52	43	38	36	51	50	38	41	39	31	3,164	48
	Black/African American	1,505	26	39	23	36	30	35	33	9	9	23	25	34	27	1,681	26
	Hispanic/Latinx	1,120	19	37	22	26	21	26	25	29	28	25	27	42	34	1,305	20
	Asian & Native Hawaiian/Other Pacific Islander	24	0	3	2	4	3	0	0	4	4	0	0	1	1	36	1
	American Indian/Alaska Native	3	0	0	0	0	0	0	0	0	0	1	1	0	0	4	0
	Multiple races	316	5	11	7	4	3	6	6	9	9	5	5	8	6	359	5
AGE (YEARS)	<=12	97	2	2	1	1	1	0	0	0	0	0	0	0	0	100	2
	13-24	718	12	31	18	24	20	27	26	13	13	16	17	31	25	860	13
	25-34	1,909	33	51	30	36	30	35	33	37	36	31	34	38	31	2,137	33
	35-44	1,849	32	39	23	28	23	19	18	18	18	17	18	31	25	2,001	31
	45-54	935	16	33	20	20	16	16	15	18	18	19	21	16	13	1,057	16
	55-64	261	4	10	6	12	10	6	6	14	14	9	10	6	5	318	5
	>=65	66	1	3	2	1	1	2	2	2	2	0	0	2	2	76	1
MODE OF TRANSMISSION	Male-to-male sexual (MSM) contact	2,143	37	89	53	58	48	59	56	57	56	46	50	67	54	2,519	38
	Injection drug use (IDU)	1,506	26	13	8	8	7	7	7	9	9	8	9	4	3	1,555	24
	MSM and IDU	294	5	4	2	2	2	2	2	1	1	6	7	7	6	316	5
	Other**	86	1	0	0	0	0	0	0	0	0	0	0	0	0	86	1
	Heterosexual contact	1,226	21	59	35	49	40	35	33	34	33	21	23	43	35	1,467	22
	Pediatric mode***	101	2	2	1	1	1	0	0	0	0	0	0	0	0	104	2
	Unknown risk	479	8	2	1	4	3	2	2	1	1	11	12	3	2	502	8
COUNTY OF DIAGNOSIS	Adams	127	2	7	4	4	3	2	2	5	5	1	1	3	2	149	2
	Bedford	43	1	2	1	0	0	4	4	0	0	1	1	0	0	50	1
	Blair	153	3	5	3	2	2	1	1	3	3	1	1	2	2	167	3
	Cumberland	575	10	11	7	8	7	3	3	9	9	13	14	17	14	636	10
	Dauphin	1,684	29	48	28	41	34	35	33	25	25	27	29	38	31	1,898	29
	Franklin	215	4	5	3	7	6	1	1	2	2	3	3	9	7	242	4
	Fulton	10	0	0	0	0	0	1	1	0	0	1	1	0	0	12	0
	Huntingdon	113	2	1	1	1	1	0	0	0	0	0	0	2	2	117	2
	Juniata	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
	Lancaster	1,368	23	37	22	23	19	16	15	24	24	18	20	13	10	1,499	23
	Lebanon	237	4	9	5	5	4	6	6	7	7	3	3	8	6	275	4
	Mifflin	36	1	0	0	0	0	0	0	1	1	2	2	0	0	39	1
	Perry	51	1	0	0	1	1	2	2	0	0	0	0	0	0	54	1
	York	1,199	21	44	26	30	25	34	32	26	25	22	24	32	26	1,387	21

* Count may be incomplete due to lag in reporting. ** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic

Table 14 below provides a summary of the number of new diagnoses of HIV disease in Pennsylvania by sex, race, age at diagnosis, mode of transmission and county of residence for the Southwest Pennsylvania Jewish Healthcare Foundation HIV planning area.

Table 14: Characteristics of HIV Disease by Time Interval of Diagnosis for Southwest Pennsylvania Jewish Healthcare Foundation, 2016–2021

SOUTHWEST PENNSYLVANIA – JEWISH HEALTHCARE FOUNDATION

Allegheny, Armstrong, Beaver, Butler, Cambria, Fayette, Greene, Indiana, Somerset, Washington, and Westmoreland counties

		BEFORE 2016		2016		2017		2018		2019		*2020		*2021		TOTAL TO DEC 31, 2021	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	TOTAL CASES	6,178	100	141	100	129	100	117	100	117	100	109	100	121	100	6,912	100
SEX	Male	5,163	84	123	87	105	81	103	88	97	83	94	86	102	84	5,787	84
	Female	1,015	16	18	13	24	19	14	12	20	17	15	14	19	16	1,125	16
RACE/ETHNICITY	White	3,382	55	56	40	64	50	51	44	55	47	47	43	50	41	3,705	54
	Black/African American	2,262	37	62	44	51	40	53	45	52	44	54	50	61	50	2,595	38
	Hispanic/Latinx	205	3	13	9	7	5	3	3	4	3	1	1	4	3	237	3
	Asian & Native Hawaiian/Other Pacific Islander	39	1	3	2	0	0	3	3	0	0	1	1	0	0	46	1
	American Indian/Alaska Native	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0
	Multiple races	289	5	7	5	7	5	7	6	6	5	6	6	5	4	327	5
AGE (YEARS)	<=12	37	1	0	0	0	0	0	0	0	0	1	1	0	0	38	1
	13-24	822	13	40	28	34	26	24	21	24	21	27	25	19	16	990	14
	25-34	2,122	34	51	36	31	24	46	39	46	39	35	32	51	42	2,382	34
	35-44	1,890	31	23	16	20	16	15	13	25	21	17	16	29	24	2,019	29
	45-54	933	15	16	11	26	20	18	15	12	10	10	9	14	12	1,029	15
	55-64	304	5	11	8	15	12	13	11	8	7	13	12	6	5	370	5
	>=65	70	1	0	0	3	2	1	1	2	2	6	6	2	2	84	1
MODE OF TRANSMISSION	Male-to-male sexual (MSM) contact	3,579	58	102	72	81	63	74	63	72	62	62	57	73	60	4,043	58
	Injection drug use (IDU)	812	13	3	2	12	9	8	7	6	5	2	2	3	2	846	12
	MSM and IDU	316	5	6	4	4	3	6	5	10	9	12	11	6	5	360	5
	Other**	112	2	0	0	0	0	0	0	0	0	0	0	0	0	112	2
	Heterosexual contact	887	14	27	19	31	24	25	21	29	25	25	23	33	27	1,057	15
	Pediatric mode***	38	1	0	0	0	0	0	0	0	0	1	1	0	0	39	1
	Unknown risk	434	7	3	2	1	1	4	3	0	0	7	6	6	5	455	7
COUNTY OF DIAGNOSIS	Allegheny	4,635	75	115	82	87	67	75	64	76	65	79	72	89	74	5,156	75
	Armstrong	64	1	3	2	2	2	0	0	0	0	0	0	1	1	70	1
	Beaver	214	3	2	1	10	8	8	7	9	8	9	8	2	2	254	4
	Butler	127	2	1	1	6	5	2	2	7	6	3	3	1	1	147	2
	Cambria	216	3	3	2	2	2	7	6	5	4	3	3	5	4	241	3
	Fayette	135	2	6	4	4	3	2	2	4	3	4	4	5	4	160	2
	Greene	48	1	0	0	0	0	1	1	1	1	0	0	1	1	51	1
	Indiana	64	1	1	1	4	3	2	2	2	2	0	0	0	0	73	1
	Somerset	130	2	3	2	1	1	1	1	2	2	2	2	4	3	143	2
	Washington	202	3	4	3	7	5	6	5	4	3	3	3	6	5	232	3
	Westmoreland	343	6	3	2	6	5	13	11	7	6	6	6	7	6	385	6

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.

** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic

*** Includes adult cases that had pediatric modes of transmission (e.g., perinatal exposure)

Table 15 below provides a summary of the number of new diagnoses of HIV disease in Pennsylvania by sex, race, age at diagnosis, mode of transmission and county of residence for the PA Thrive Partnership HIV planning area.

Table 15: Characteristics of HIV Disease by Time Interval of Diagnosis for Northwest PA Thrive Partnership, 2016–2021

Northwest PA Thrive Partnership

Cameron, Clarion, Clearfield, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, and Warren counties

		BEFORE 2016		2016		2017		2018		2019		*2020		*2021		TOTAL TO DEC 31, 2021	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	TOTAL CASES	1,147	100	20	100	28	100	33	100	31	100	17	100	26	100	1,302	100
SEX	Male	913	80	16	80	25	89	24	73	21	68	16	94	17	65	1,032	79
	Female	234	20	4	20	3	11	9	27	10	32	1	6	9	35	270	21
RACE/ETHNICITY	White	703	61	12	60	13	46	16	48	14	45	11	65	14	54	783	60
	Black/African American	275	24	6	30	11	39	11	33	14	45	4	24	10	38	331	25
	Hispanic/Latinx	114	10	2	10	3	11	3	9	3	10	1	6	1	4	127	10
	Asian & Native Hawaiian/Other Pacific Islander	7	1	0	0	0	0	1	3	0	0	0	0	0	0	8	1
	American Indian/Alaska Native	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	Multiple races	47	4	0	0	1	4	2	6	0	0	1	6	1	4	52	4
AGE (YEARS)	<=12	16	1	1	5	0	0	0	0	0	0	0	0	0	0	17	1
	13-24	167	15	5	25	9	32	6	18	5	16	3	18	6	23	201	15
	25-34	375	33	4	20	10	36	6	18	15	48	7	41	7	27	424	33
	35-44	354	31	4	20	4	14	7	21	2	6	1	6	6	23	378	29
	45-54	168	15	4	20	4	14	6	18	1	3	3	18	5	19	191	15
	55-64	54	5	0	0	1	4	6	18	6	19	2	12	1	4	70	5
	>=65	13	1	2	10	0	0	2	6	2	6	1	6	1	4	21	2
MODE OF TRANSMISSION	Male-to-male sexual (MSM) contact	492	43	9	45	9	32	11	33	14	45	11	65	9	35	555	43
	Injection drug use (IDU)	228	20	0	0	6	21	6	18	3	10	0	0	2	8	245	19
	MSM and IDU	73	6	1	5	4	14	2	6	3	10	0	0	2	8	85	7
	Other**	24	2	0	0	0	0	0	0	0	0	0	0	0	0	24	2
	Heterosexual contact	225	20	8	40	8	29	13	39	10	32	3	18	4	15	271	21
	Pediatric mode***	16	1	1	5	0	0	0	0	0	0	0	0	0	0	17	1
	Unknown risk	89	8	1	5	1	4	1	3	1	3	3	18	9	35	105	8
COUNTY OF DIAGNOSIS	Cameron	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clarion	28	2	0	0	0	0	1	3	0	0	0	0	2	8	31	2
	Clearfield	105	9	1	5	7	25	1	3	4	13	1	6	0	0	119	9
	Crawford	105	9	4	20	2	7	2	6	2	6	2	12	3	12	120	9
	Elk	10	1	0	0	1	4	0	0	1	3	0	0	0	0	12	1
	Erie	518	45	13	65	7	25	16	48	13	42	5	29	16	62	588	45
	Forest	13	1	0	0	1	4	1	3	0	0	0	0	0	0	15	1
	Jefferson	23	2	0	0	1	4	0	0	0	0	0	0	0	0	24	2
	Lawrence	96	8	0	0	4	14	4	12	4	13	3	18	3	12	114	9
	McKean	49	4	1	5	0	0	1	3	1	3	2	12	0	0	54	4
	Mercer	126	11	0	0	3	11	6	18	4	13	3	18	1	4	143	11
	Venango	44	4	1	5	2	7	0	0	2	6	0	0	1	4	50	4
	Warren	30	3	0	0	0	0	1	3	0	0	1	6	0	0	32	2

* Count may be incomplete due to lag in reporting as well as effects of COVID 19 pandemic which began in 2019 and continued throughout 2021.

** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic

*** Includes adult cases that had pediatric modes of transmission (e.g., perinatal exposure)

Note: Percentage may not add to 100% due to "rounding.'

Figure 5 below depicts the trend in confirmed cases of perinatal HIV disease and the number of children who were perinatally exposed to HIV from 2011 through 2021. Pediatric exposure includes children born to birth mothers who were confirmed to be HIV positive at the time the child was born. Pediatric HIV disease includes all children who are diagnosed with a HIV (non-HIV) and AIDS.

Figure 5: Confirmed Cases of Pediatric HIV Disease and Perinatal HIV Exposure by Year of Diagnosis in Pennsylvania

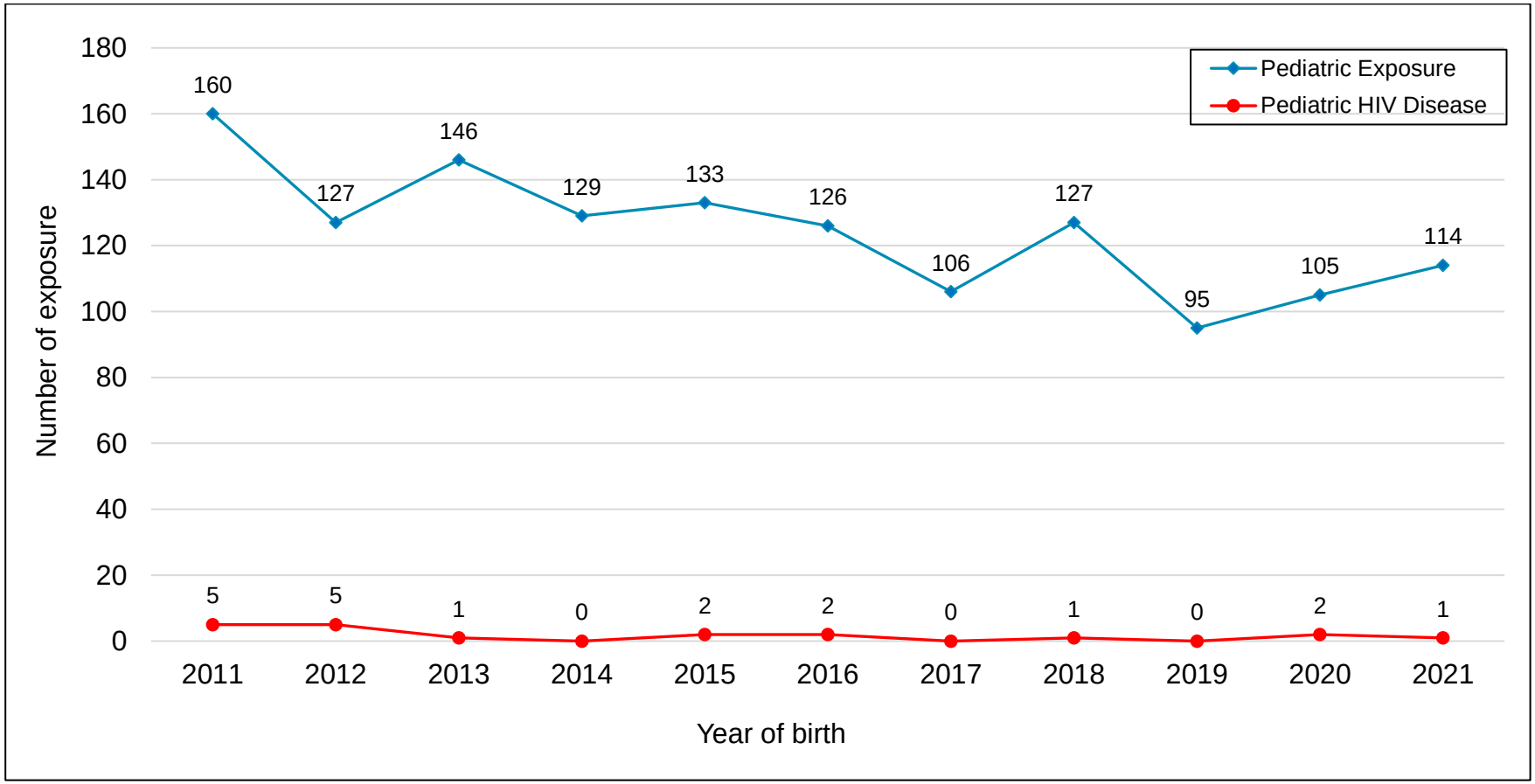


Figure 6 displays the number of people newly diagnosed with HIV disease in Pennsylvania in 2012 through 2021 and the number and percent of late diagnoses of HIV disease. A “late” diagnosis is defined as a person who is newly diagnosed with HIV and receives an AIDS diagnosis within 90 days of their first diagnosis with HIV infection. In most cases, people whose HIV infection is not under control will progress to an AIDS diagnosis in about eight to twelve years as the person’s immune system is damaged. It is important to monitor the proportion of new diagnoses that are late diagnoses to identify the effectiveness and accessibility of HIV testing and prevention services.

Figure 6 indicates that overall number of new HIV disease diagnoses has steadily declined.The proportion of late diagnoses has also been declining but in 2019 an increase was observed which appears to have plateaued.

Figure 6: Trend of Late Diagnoses in Pennsylvania 2012-2021

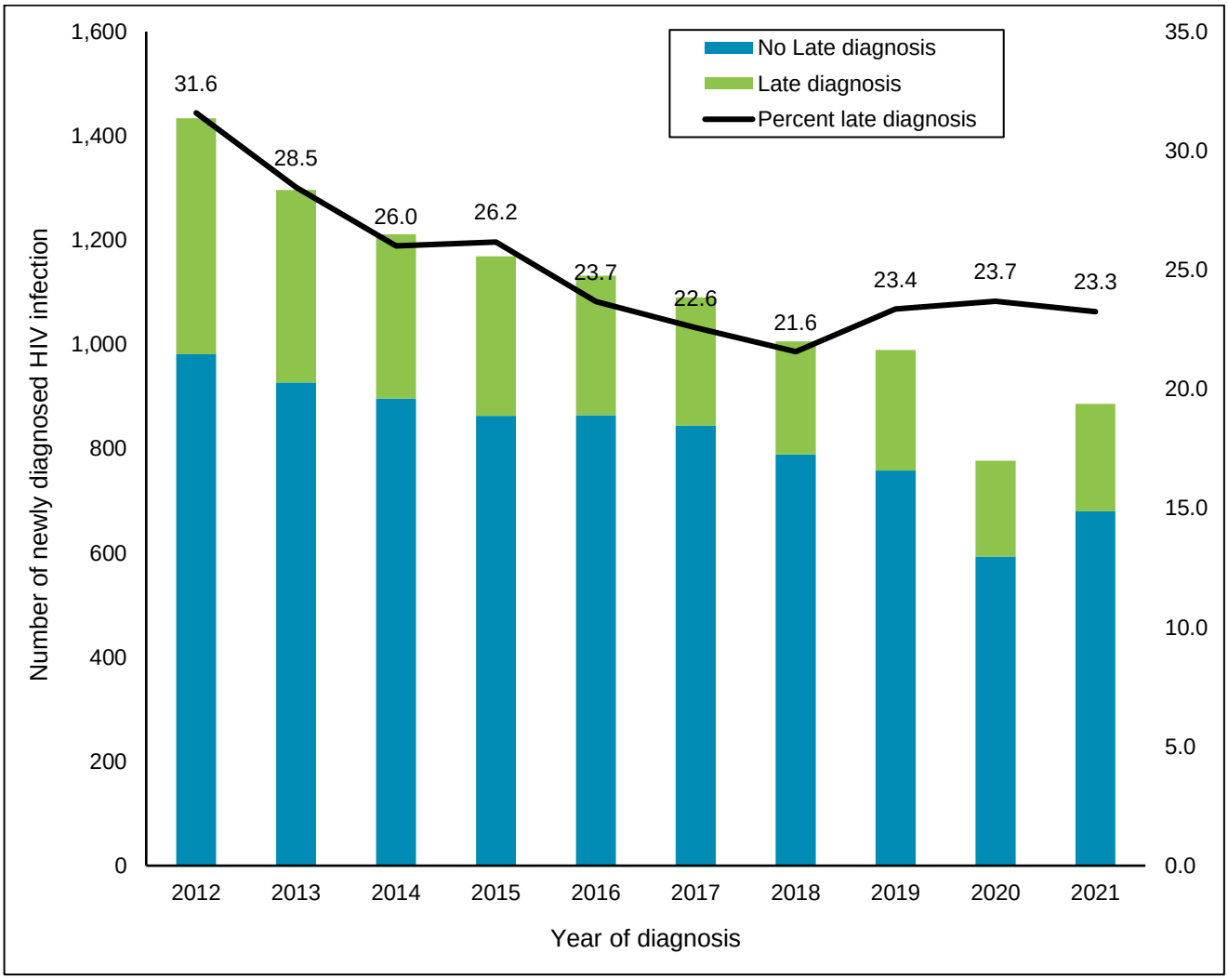


Table 16 below shows the number of people newly diagnosed with HIV disease in Pennsylvania in 2019 to 2021 by county. Each has the number and percent of late diagnoses of HIV disease. Late diagnosis is defined as any person newly diagnosed with HIV disease that receives an AIDS diagnosis within 90 days of their first diagnosis with HIV infection.

Table 16: New Diagnoses of HIV Disease and Percent of Late Diagnoses of HIV Disease by County, 2019 - 2021

Jurisdiction	Number of New Diagnoses 2019	Late Diagnoses 2019		Number of New Diagnoses 2020	Late Diagnoses 2020		Number of New Diagnoses 2021	Late Diagnoses 2021	
		Number	Percent		Number	Percent		Number	Percent
Pennsylvania	989	231	23	777	184	24	886	206	23
Adams	5	1	20	1	0	0	3	1	33
Allegheny	76	30	39	79	19	24	89	24	27
Armstrong	0	0	0	0	0	0	1	0	0
Beaver	9	2	22	9	5	56	2	2	100
Bedford	0	0	0	1	1	100	0	0	0
Berks	27	5	19	9	1	11	31	4	13
Blair	3	0	0	1	1	100	2	2	100
Bradford	3	2	67	2	1	50	1	1	100
Bucks	27	9	33	24	10	42	21	7	33
Butler	7	1	14	3	1	33	1	0	0
Cambria	5	1	20	3	2	67	5	1	20
Cameron	0	0	0	0	0	0	0	0	0
Carbon	1	0	0	4	0	0	2	0	0
Centre	5	0	0	3	1	33	1	0	0
Chester	18	9	50	13	5	38	19	5	26
Clarion	0	0	0	0	0	0	2	1	50
Clearfield	4	0	0	1	0	0	0	0	0
Clinton	1	0	0	0	0	0	0	0	0
Columbia	0	0	0	1	0	0	2	1	50
Crawford	2	1	50	2	1	50	3	1	33
Cumberland	9	2	22	13	5	38	17	5	29
Dauphin	25	9	36	27	4	15	38	4	11
Delaware	67	19	28	48	11	23	58	15	26
Elk	1	0	0	0	0	0	0	0	0
Erie	13	7	54	5	2	40	16	9	56
Fayette	4	2	50	4	1	25	5	1	20
Forest	0	0	0	0	0	0	0	0	0
Franklin	2	0	0	3	1	33	9	5	56
Fulton	0	0	0	1	1	100	0	0	0
Greene	1	0	0	0	0	0	1	0	0
Huntingdon	0	0	0	0	0	0	2	0	0
Indiana	2	0	0	0	0	0	0	0	0
Jefferson	0	0	0	0	0	0	0	0	0
Juniata	0	0	0	0	0	0	0	0	0
Lackawanna	10	5	50	8	2	25	14	5	36

Jurisdiction	Number of New Diagnoses 2019	Late Diagnoses 2019		Number of New Diagnoses 2020	Late Diagnoses 2020		Number of New Diagnoses 2021	Late Diagnoses 2021	
		Number	Percent		Number	Percent		Number	Percent
Lancaster	24	7	29	18	5	28	13	1	8
Lawrence	4	2	50	3	1	33	3	1	33
Lebanon	7	1	14	3	1	33	8	2	25
Lehigh	29	4	14	20	4	20	26	8	31
Luzerne	16	0	0	20	4	20	27	4	15
Lycoming	4	1	25	2	0	0	6	1	17
McKean	1	1	100	2	0	0	0	0	0
Mercer	4	2	50	3	0	0	1	0	0
Mifflin	1	0	0	2	1	50	0	0	0
Monroe	13	7	54	6	2	33	11	3	27
Montgomery	43	16	37	32	10	31	29	5	17
Montour	1	0	0	0	0	0	4	1	25
Northampton	24	8	33	13	5	38	15	4	27
Northumberland	0	0	0	2	0	0	2	1	50
Perry	0	0	0	0	0	0	0	0	0
Philadelphia	446	58	13	336	61	18	336	68	20
Pike	1	1	100	1	0	0	1	0	0
Potter	0	0	0	0	0	0	1	0	0
Schuylkill	2	1	50	5	2	40	5	2	40
Snyder	0	0	0	1	1	100	2	1	50
Somerset	2	0	0	2	0	0	4	2	50
Sullivan	0	0	0	0	0	0	0	0	0
Susquehanna	0	0	0	0	0	0	0	0	0
Tioga	0	0	0	0	0	0	0	0	0
Union	0	0	0	3	0	0	0	0	0
Venango	2	2	100	0	0	0	1	0	0
Warren	0	0	0	1	1	100	0	0	0
Washington	4	2	50	3	0	0	6	0	0
Wayne	0	0	0	3	1	33	1	1	100
Westmoreland	7	4	57	6	3	50	7	1	14
Wyoming	1	0	0	3	1	33	0	0	0
York	26	9	35	22	6	27	32	6	19

Tables 17 through 19 provide summaries of the number of persons living with HIV disease in Pennsylvania as determing by their last known current residence as of 12/31/2021 regardless of where the person may have been diagnosed, including persons diagnosed in Pennsylvania, persons diagnosed in other states or territories or in foreign countries. Current residence is identified by most recent laboratory reporting or residence at diagnosis or other information and is determined by a complex algorithm defined by the enhanced HIV AIDS Reporting System (eHARS). Some persons may have emmigrated out of Pennsylvania and other persons may have immigrated into Pennylvania from other places without the knowledge of the the Pennsylvania HIV surveillance system. As such all summaries presented in these tables should be considerd as estimates of the number of persons living with HIV disease and not be treated as a precise count of the number of people living with HIV disease in Pennsylvania at the end of 2021.

Table 17 provides an estimate of the number of people currently living in Pennsylvania at the end of 2021 by birth sex (male and female). At the end of 2021, approximately 72% of persons living with HIV disease at the end of 2021 were born with male birth sex. Approximately 1.4% of persons living with HIV disease at the end of 2021 self-identified as transgender.

Table 17: Estimate of the Characteristics of Persons Living with HIV Disease in Pennsylvania at the End of 2021 by Sex at Birth

County of Current Residence	Total	Males	Females
Pennsylvania	40,609	29,600	11,009
Adams	234	159	75
Allegheny	3,616	2,947	669
Armstrong	48	40	8
Beaver	169	139	30
Bedford	44	33	11
Berks	1,331	876	455
Blair	122	97	25
Bradford	53	41	12
Bucks	1,303	1,012	291
Butler	103	91	12
Cambria	181	145	36
Cameron	1	1	0
Carbon	178	109	69
Centre	255	230	25
Chester	753	568	185
Clarion	82	65	17
Clearfield	74	69	5
Clinton	31	24	7
Columbia	117	69	48
Crawford	98	67	31
Cumberland	426	329	97
Dauphin	1,227	863	364
Delaware	2,130	1,379	751
Elk	14	12	2
Erie	393	293	100
Fayette	148	125	23
Forest	11	7	4
Franklin	204	138	66
Fulton	14	13	1
Greene	35	33	2
Huntingdon	75	74	1
Indiana	53	42	11
Jefferson	3	1	2
Juniata	22	14	8
Lackawanna	570	415	155
Lancaster	949	624	325

County of Current Residence	Total	Males	Females
Lawrence	90	68	22
Lebanon	269	202	67
Lehigh	1,503	949	554
Luzerne	579	395	184
Lycoming	235	169	66
McKean	29	24	5
Mercer	97	73	24
Mifflin	31	21	10
Monroe	439	267	172
Montgomery	1,286	989	297
Montour	22	14	8
Northampton	224	163	61
Northumberland	122	97	25
Perry	22	18	4
Philadelphia	18,249	13,199	5,050
Pike	168	117	51
Potter	9	7	2
Schuylkill	255	217	38
Snyder	34	28	6
Somerset	76	74	2
Sullivan	3	2	1
Susquehanna	35	32	3
Tioga	27	23	4
Union	210	200	10
Venango	41	32	9
Warren	15	10	5
Washington	141	111	30
Wayne	48	37	11
Westmoreland	185	155	30
Wyoming	16	12	4
York	1,082	751	331

Table 18 provides an estimate of the number of people currently in Pennsylvania at the end of 2021 by race/ethnicity. All persons who identify as Hispanic are included in a single race/ethnicity category. At the end of 2021, approximately 71% of persons living with HIV disease were persons of color (e.g., all persons who identify as any race other than white).

Table 18: Estimate of the Characteristics of Persons Living with HIV Disease in Pennsylvania at the End of 2021 by Race/Ethnicity

Jurisdiction	Total by Race	White	Black / African American	Hispanic/ Latinx	Asian & Hawaiian or Pacific Islander	Native American	Multiple Races and Unknown Race
Pennsylvania	40,609	11,998	18,876	7,443	393	52	1,847
Adams	234	159	40	23	3	0	9
Allegheny	3,616	1,548	1,560	197	41	1	269
Armstrong	48	41	4	1	0	0	2
Beaver	169	105	49	9	0	0	6
Bedford	44	40	2	1	0	0	1
Berks	1,331	382	242	644	2	0	61
Blair	122	92	17	7	1	0	5
Bradford	53	37	8	5	0	0	3
Bucks	1,303	700	307	194	16	3	83
Butler	103	81	8	8	1	0	5
Cambria	181	95	61	17	1	0	7
Cameron	1	1	0	0	0	0	0
Carbon	178	78	20	74	1	0	5
Centre	255	95	72	67	6	0	15
Chester	753	300	284	103	12	0	54
Clarion	82	36	26	14	1	1	4
Clearfield	74	38	23	7	1	0	5
Clinton	31	20	0	8	1	0	2
Columbia	117	76	20	17	1	0	3
Crawford	98	78	8	8	0	0	4
Cumberland	426	231	92	77	5	0	21
Dauphin	1,227	428	492	215	10	2	80
Delaware	2,130	461	1,357	185	17	0	110
Elk	14	12	0	2	0	0	0
Erie	393	161	152	57	3	0	20
Fayette	148	95	37	10	0	0	6
Forest	11	8	1	1	0	0	1
Franklin	204	105	54	39	0	0	6
Fulton	14	11	2	1	0	0	0
Greene	35	16	10	7	0	0	2
Huntingdon	75	21	24	23	0	0	7
Indiana	53	36	12	4	0	0	1
Jefferson	3	2	0	0	0	0	1
Juniata	22	12	1	9	0	0	0

Jurisdiction	Total by Race	White	Black / African American	Hispanic/ Latinx	Asian & Hawaiian or Pacific Islander	Native American	Multiple Races and Unknown Race
Lackawanna	570	269	143	126	2	0	30
Lancaster	949	367	109	333	8	0	132
Lawrence	90	54	23	4	0	0	9
Lebanon	269	91	41	120	2	0	15
Lehigh	1,503	323	311	783	10	0	76
Luzerne	579	259	142	131	3	0	44
Lycoming	235	101	99	18	0	3	14
McKean	29	22	4	3	0	0	0
Mercer	97	49	35	6	0	0	7
Mifflin	31	21	4	5	0	0	1
Monroe	439	132	146	113	4	0	44
Montgomery	1,286	504	490	177	20	0	95
Montour	22	14	5	2	0	0	1
Northampton	224	107	39	65	3	0	10
Northumberland	122	51	24	37	0	0	10
Perry	22	17	0	4	0	0	1
Philadelphia	18,249	2,993	11,632	2,951	204	39	430
Pike	168	81	48	29	1	0	9
Potter	9	6	1	1	0	0	1
Schuylkill	255	91	83	66	0	1	14
Snyder	34	22	3	9	0	0	0
Somerset	76	37	21	13	0	0	5
Sullivan	3	2	1	0	0	0	0
Susquehanna	35	27	2	5	0	1	0
Tioga	27	26	1	0	0	0	0
Union	210	51	100	52	1	0	6
Venango	41	35	3	2	0	0	1
Warren	15	14	0	0	0	0	1
Washington	141	84	34	13	2	0	8
Wayne	48	24	11	10	1	0	2
Westmoreland	185	136	24	13	4	0	8
Wyoming	16	11	1	1	0	1	2
York	1,082	376	311	317	5	0	73

*Last known county of current residence includes all persons presumed to be alive on 12/31/2021 living in Pennsylvania including persons who may have been diagnosed outside of Pennsylvania.

Table 19 provides an estimate of the number of people currently living in Pennsylvania at the end of 2021 by current age. At the end of 2021, approximately 83% of persons living with HIV disease were adults age 25 to 64 while 14% were seniors age 65+.

Table 19: Estimate of the Characteristics of Persons Living with HIV Disease in Pennsylvania at the End of 2021 by Current Age at End of 2021

Jurisdiction	Total by Current Age	Age 0-12	Age 13-24	Age 25-44	Age 45-64	Age 65+
Pennsylvania	40,609	41	943	12,666	21,053	5,906
Adams	234	0	2	55	145	32
Allegheny	3,616	6	82	1,267	1,784	477
Armstrong	48	0	0	8	31	9
Beaver	169	0	6	60	80	23
Bedford	44	0	1	14	26	3
Berks	1,331	2	26	332	753	218
Blair	122	0	1	27	68	26
Bradford	53	0	1	18	29	5
Bucks	1,303	4	16	331	721	231
Butler	103	0	4	30	58	11
Cambria	181	0	0	58	101	22
Cameron	1	0	0	0	1	0
Carbon	178	0	5	51	100	22
Centre	255	0	3	84	144	24
Chester	753	2	20	184	386	161
Clarion	82	0	4	31	42	5
Clearfield	74	0	1	20	38	15
Clinton	31	0	2	8	16	5
Columbia	117	0	3	43	55	16
Crawford	98	0	6	21	57	14
Cumberland	426	0	8	135	231	52
Dauphin	1,227	1	33	374	632	187
Delaware	2,130	1	49	659	1,105	316
Elk	14	0	1	7	4	2
Erie	393	2	8	119	210	54
Fayette	148	0	2	58	76	12
Forest	11	0	2	1	7	1
Franklin	204	0	6	67	105	26
Fulton	14	1	0	3	8	2
Greene	35	0	0	12	18	5
Huntingdon	75	0	0	24	43	8
Indiana	53	0	0	19	30	4
Jefferson	3	0	0	2	1	0
Juniata	22	0	0	10	9	3
Lackawanna	570	0	6	188	302	74
Lancaster	949	3	32	237	525	152

Jurisdiction	Total by Current Age	Age 0-12	Age 13-24	Age 25-44	Age 45-64	Age 65+
Lawrence	90	0	4	29	44	13
Lebanon	269	0	8	60	146	55
Lehigh	1,503	2	32	396	832	241
Luzerne	579	1	21	222	266	69
Lycoming	235	0	1	56	146	32
McKean	29	0	0	5	19	5
Mercer	97	0	2	29	55	11
Mifflin	31	0	0	8	17	6
Monroe	439	0	9	101	234	95
Montgomery	1,286	1	31	391	664	199
Montour	22	0	1	4	14	3
Northampton	224	0	6	52	136	30
Northumberland	122	0	5	38	60	19
Perry	22	0	0	7	11	4
Philadelphia	18,249	12	448	6,065	9,133	2,591
Pike	168	0	3	37	97	31
Potter	9	0	1	1	7	0
Schuylkill	255	0	4	73	143	35
Snyder	34	0	1	7	22	4
Somerset	76	0	0	20	45	11
Sullivan	3	0	0	1	1	1
Susquehanna	35	0	0	8	21	6
Tioga	27	0	2	6	16	3
Union	210	0	2	48	131	29
Venango	41	0	2	8	26	5
Warren	15	0	1	3	11	0
Washington	141	0	2	42	80	17
Wayne	48	1	1	8	24	14
Westmoreland	185	0	1	59	100	25
Wyoming	16	0	0	7	6	3
York	1,082	2	25	318	605	132

*Last known county of current residence includes all persons presumed to be alive on 12/31/2021 living in Pennsylvania including persons who may have been diagnosed outside of Pennsylvania.

Citations

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