Texas HIV Epidemiologic Profile

2016

Table of Contents

Epi Profile Section 1 - Executive Summary

This epidemiologic profile was created to assist planners, public health professionals, policy makers and other stakeholders at the local and state level. It is a snapshot of the Human Immunodeficiency Virus (HIV) epidemic in Texas at the end of 2016. The data are drawn primarily from routine disease and vital statistics surveillance systems, and supplemented by studies on special populations at disproportionately impacted for HIV and persons living with HIV who are currently in HIV medical care. More detailed information on data sources can be found in *Data Sources Used for this Profile*.

Over 86,000 Texans are known to be living with HIV. This does not include the nearly 14,315 persons (17.3% of all persons living with HIV) the CDC estimates to be living with HIV and unaware of their infection.[1] As HIV treatment improves, persons living with HIV (PLWH) are living longer with the disease. The increase in life expectancy for PLWH, in addition to a stable number of new diagnoses and deaths, has resulted in a steadily increasing number of persons living with HIV.

The annual number of new HIV diagnoses in Texas has been stable for the past decade, with 4,493 new diagnoses in 2016. Gay and bisexual men and other men who have sex with men (MSM) comprise the largest proportion of both people living with HIV and those newly diagnosed, and they are the only group that had an increase in new diagnosis over past 10 years. Rates of new diagnosis was especially high among young MSM and Black MSM and Hispanic MSM. The increase in new diagnosis among young MSM may be driven by increases in new infections and increased HIV testing among young MSM.

Racial and ethnic disparities permeate the HIV epidemic in Texas. Black and Hispanic Texans have higher rates of HIV diagnoses than White Texans. Black Texans living with HIV experience higher rates of STD co-infections (see section *Co-Morbidities*), which has a negative impact on their health and increases the risk of onward HIV transmission. Once Black and Hispanic Texans are diagnosed with HIV, they face challenges in accessing regular medical care and achieving viral suppression (see section *The HIV Care Continuum in Texas*).

It's important to note that the overall rate of new diagnosis in Black Texans has decreased. This is due in large part to a sizable decline in new diagnoses in Black women. Despite this decrease, rates of new HIV diagnosis and HIV prevalence remain highest among Black Texans. We estimate that over 3% of young Black MSM age 18-24 in Texas were diagnosed with HIV in 2016 (see section *Men who have sex with Men*).

In order to reduce new HIV infections, we must 1) reduce the number of people living with HIV who are unaware of their infections and 2) increase the number of people with HIV infections who are on treatment that suppresses the amount of HIV circulating in their system (known as having a suppressed HIV viral load (VL)). Transmission of HIV is most likely when someone is unaware of their HIV status. This is because many people who know they are HIV-positive will take actions to protect the health of their partners. Also, those who are unaware of their status may not be receiving the treatment they need to suppress their viral load levels. Viral load suppression not only improves the health of persons with HIV infection, but also eliminates HIV transmission to others.

The longer people with HIV live, the longer they need to practice HIV prevention methods that reduce the risk of HIV transmission. In the past, HIV prevention methods focused on reducing high-risk behaviors, with a focus on condomless sex. However, these behavioral risk reduction programs are resource-intensive to implement and difficult to scale to a population level. Additionally, permanent behavior change at the individual level can be difficult to achieve and sustain over time (see section *Indicators of HIV-Risk in Persons Living with HIV Currently in Care*).

A variety of methods to prevent HIV are now available in addition to behavioral risk reduction and barrier methods (i.e. condoms). A once-daily pill, called Pre-Exposure Prophylaxis (or PrEP) can be used by HIV-negative persons to greatly reduce their risk of acquiring HIV through any mode of transmission, including injection drug use and sexual contact. New evidence also shows that PLWH who have achieved viral suppression have effectively no risk of transmitting HIV to others. Our current

challenge is to ensure that all PLWH and persons disproportionately impacted by HIV can access and afford the prevention methods most appropriate for them.

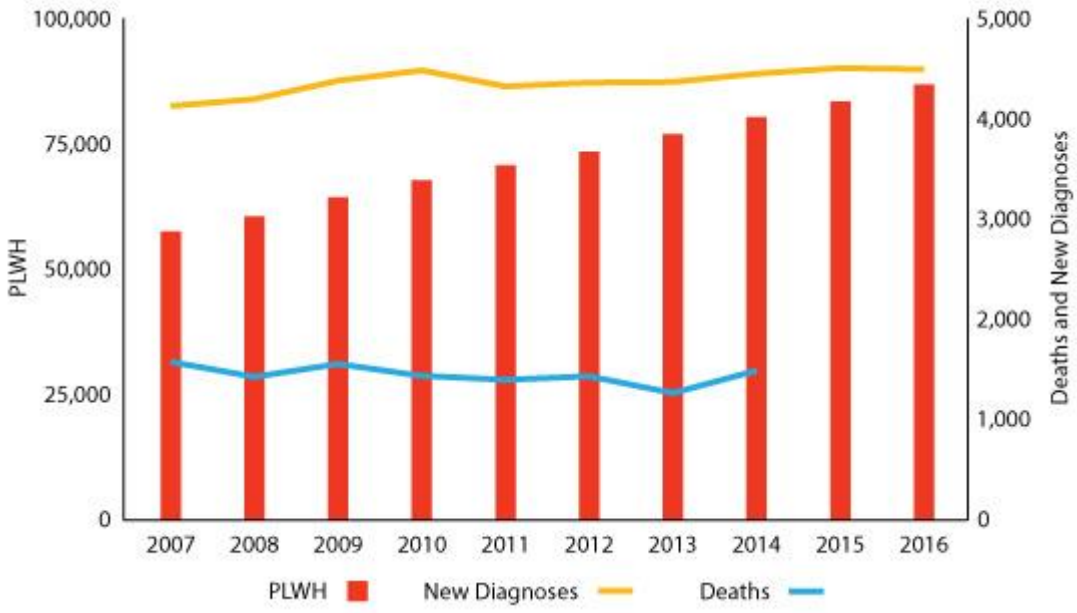
This report does not describe all aspects of the HIV epidemic in Texas; rather, our goal is to provide a broad overview and basic understanding of where we are today. A detailed exploration of factors which contribute to racial and ethnic disparities in the HIV epidemic is outside the scope of this report. More information can be found at CDC's National Center for HIV/AIDS, Viral Hepatitis, STDs and TB Prevention's website. Persons interested in more detailed analysis or data on specific populations are welcome to send their data requests to the HIV/STD/TB Epidemiology team at TBHIVSTDdata@dshs.texas.gov. You can also produce custom tables at the Center for Health Statistics' Texas Health Data Site:

New HIV Diagnoses in Texas
People Living with HIV in Texas

Note 1. Satcher Johnson A, Song R, Hall HI. Estimated HIV Incidence, Prevalence, and Undiagnosed Infections in US States and Washington, DC, 2010-2014. J Acquir Immune Defic Syn. 2017 Oct 1;76(2):116-122.

Epi Profile Section 2 - New HIV Diagnoses

Figure 2-1. HIV in Texas; People Living with HIV, New HIV Diagnoses, and Deaths Due to HIV, 2006 - 2015



Data on deaths is only available through 2014 due to a 2-year lag in complete death reporting from the National Social Security Index
Data for Figure 2-1

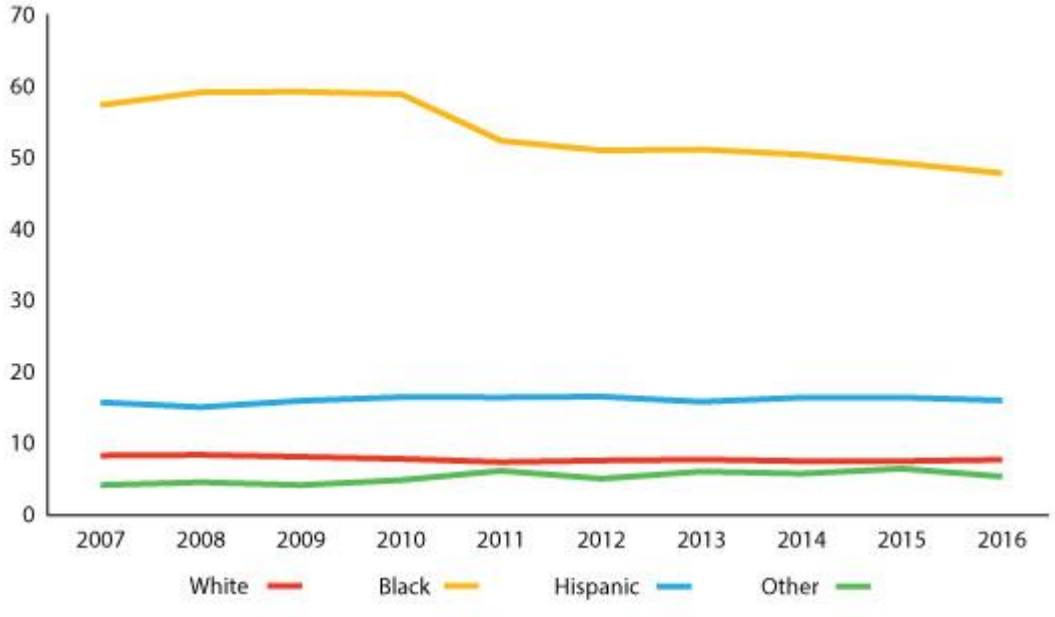
- In 2016, 4,493 Texans where newly diagnosed with HIV infection. The annual number of newly diagnosed HIV infections has remained constant for the last 10 years. However, the annual growth of persons living with HIV slowed from 5.2% in 2008 to 4.1% in 2016.

- Effective treatment has extended the lifespans of people living with HIV (PLWH). As fewer persons living with HIV die from HIV-related causes, the number of PLWH continues to increase as additional persons are diagnosed. The number of deaths in PLWH has remained between 1200 and 1500 people per year within the past 9 years.

- As of the end of 2016, over 86,000 persons in Texas were known to be living with HIV. The CDC estimates that an additional ~14,000 persons in Texas are living with HIV and are unaware of their infection.*

** Satcher Johnson A, Song R, Hall HI. Estimated HIV Incidence, Prevalence, and Undiagnosed Infections in US States and Washington, DC, 2010-2014. J Acquir Immune Defic Syn. 2017 Oct 1;76(2):116-122.*

Figure 2-2. Rate of New HIV Diagnoses in Texas by Race/Ethnicity, 2007 - 2016



Data for Figure 2-2

- Racial disparities in the rate of new HIV diagnoses persist despite the noteworthy decline in the rate of new HIV diagnoses among Black Texans.

- The rates of new HIV diagnoses have decreased over the past 10 years for Whites and Blacks. These trends are affected by population growth in Texas during this time period. The Black population in Texas increased by 21% since 2007, while the number of new HIV diagnoses in Blacks only increased by 8% - in other words, population growth outpaced new diagnoses. Furthermore, the number of new HIV diagnoses in Hispanics increased by 28%, while the population of Hispanics grew by 26%, resulting in stable rates of new diagnoses.

Table 2-1. New HIV Diagnoses and Rates among Texans by Race/Ethnicity and Sex, 2016

	Males			Females			Total		
Race/Ethnicity	**Number**	**%**	**Rate**	**Number**	**%**	**Rate**	**Number**	**%**	**Rate**
White	817	22%	13.6	120	16%	2.0	937	21%	7.8
Black	1,199	32%	73.0	424	55%	24.2	1,623	36%	49.8
Hispanic	1,544	42%	28.2	201	26%	3.7	1,745	39%	16.0

Table 2-1. New HIV Diagnoses and Rates among Texans by Race/Ethnicity and Sex, 2016									
	Males			Females			Total		
Race/Ethnicity	**Number**	**%**	**Rate**	**Number**	**%**	**Rate**	**Number**	**%**	**Rate**
Other	70	2%	9.6	10	1%	0.2	80	2%	6.5
Unknown	90	2%	-	18	2%	-	108	2%	-
TOTAL	**3,720**	**83%**	**26.7**	**773**	**17%**	**6.1**	**4,493**	**100%**	**16.3**

- Although Blacks comprise only 12% of the Texas population, over one-third of all new HIV diagnoses among in Texas were among Blacks.

- The vast difference in rate of new diagnoses per 100,000 population between Hispanics and Blacks, despite nearly equal numbers of new diagnoses, are a result of the much larger population of Hispanics in Texas. Hispanic persons newly diagnosed with HIV make up a smaller proportion of the Hispanic population compared to Blacks.

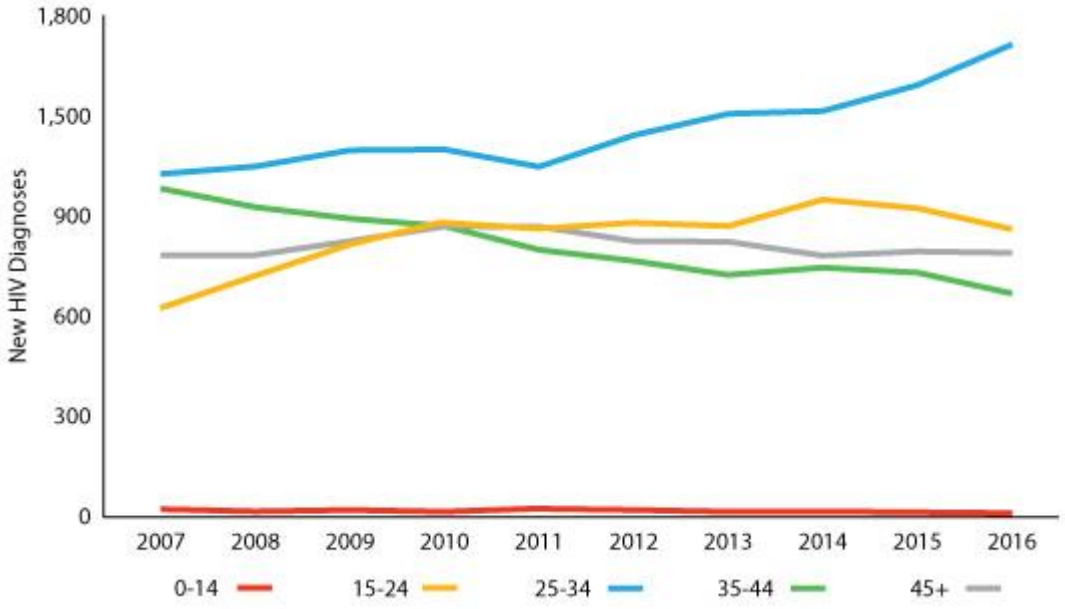
- The racial/ethnic disparity in new HIV diagnoses is most stark among females. Black females have 5.4 times the rate of new diagnoses compared to Hispanic females, the racial/ethnic group with the next highest rate.

Table 2-2. New HIV Diagnoses in Texas by Age Group and Sex, 2016									
	Males			Females			Total		
Age (years)	**Number**	**%**	**Rate**	**Number**	**%**	**Rate**	**Number**	**%**	**Rate**
0-14	8	0.2%	0.3	6	0.8%	0.2	14	0.3%	0.3
15-24	940	25.3%	46.0	93	12.0%	4.8	1,033	23.0%	27.7
25-34	1,458	39.2%	70.3	238	30.8%	11.8	1,696	37.7%	38.4
34-44	610	16.4%	32.8	192	24.8%	10.3	802	17.8%	23.5
45+	704	18.9%	14.8	244	31.6%	4.7	948	21.1%	9.8
TOTAL	**3,720**	**81.3%**	**26.7**	**773**	**18.7%**	**6.1**	**4,493**	**100%**	**16.3**

- The majority of persons newly diagnosed with HIV are between the ages of 15-34.

- However, the age profile for persons newly diagnosed varies by sex. This is likely explained by the increase in new diagnoses among young men who have sex with men (MSM) (see Section: Men who have Sex with Men). While a higher proportion of newly diagnosed females are over the age of 25 compared to males. The overall age profile of new HIV diagnoses remains largely young persons because over 80% of new HIV diagnoses in Texas are among men.

Figure 2-3. New HIV Diagnoses in Texas by Age Group, 2007 - 2016

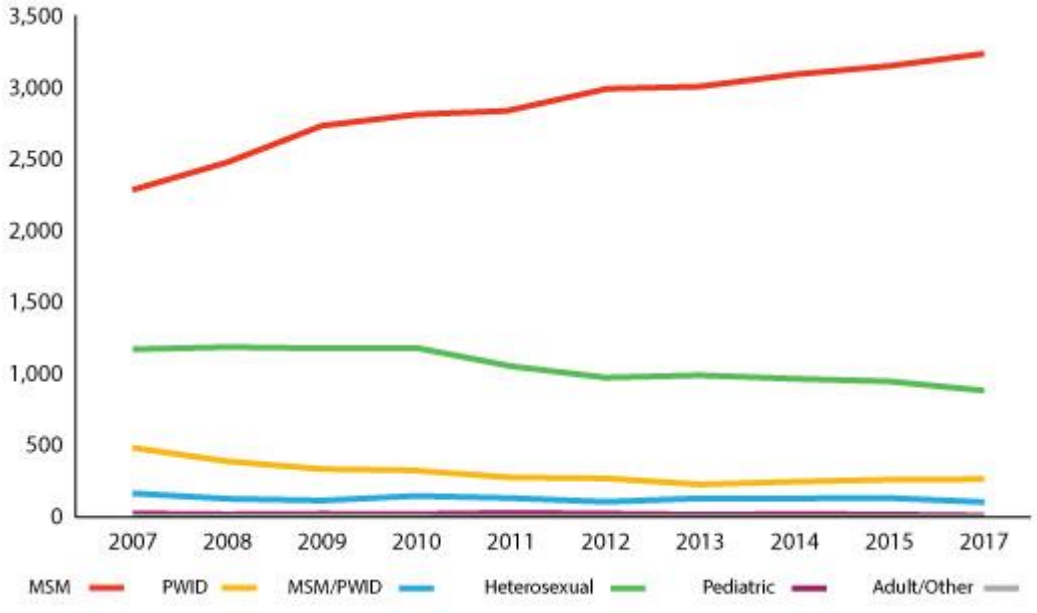


Data for Figure 2-3

- The number of new diagnoses in young persons age 15-24 has increased by 30% over the last 10 years, while the number of new diagnoses in persons 25-34 has also increased.

- An increased availability of HIV testing, both through focused testing and routine screenings, may be contributing to a decline in new diagnoses among persons over age 35, as persons are diagnosed sooner after HIV transmission has occurred.

Figure 2-4. New HIV Diagnoses in Texas by Mode of Exposure, 2007 - 2016



Data for Figure 2-4

- The majority of new HIV diagnoses in Texas are among men who have sex with men (MSM). The proportions of new diagnoses attributable to male-male sexual contact has increased by 30% since 2007. Therefore, the HIV epidemic is now largely driven by MSM transmission in Texas.

- The declining number and proportion of new diagnoses in Persons who Inject Drugs (PWID) and persons whose primary risk is heterosexual sexual contact indicates that prevention efforts with these groups have been effective.

Table 2-3. HIV Diagnoses in Texas by Mode of Exposure and Sex, 2016

	Males		Females		Total	
Exposure Category	**N**	**%**	**N**	**%**	**N**	**%**
MSM	3,233	86.9%	0	0.0%	3,233	72.0%
IDU	138	3.7%	126	16.3%	264	5.9%
MSM/IDU	104	2.8%	0	0.0%	104	2.3%
Heterosexual	240	6.5%	642	83.1%	882	19.6%
Pediatric	5	0.1%	5	0.6%	10	0.2%
Adult Other	0	0%	0	0%	0	0%
Total	3,720	82.8%	773	17.2%	4,493	100.0%

- The majority of new HIV diagnoses in Texas males are attributable to male-male sexual contact.

- In females, the majority of new diagnoses are attributable to heterosexual sexual contact. Females have a higher biological risk of acquiring HIV from heterosexual contact compared to males. This may partially explain the disproportionately lower number of diagnoses in heterosexual males attributable to heterosexual contact compared to females.

Table 2-4. New HIV Diagnoses in Texas by Mode of Exposure and Race/Ethnicity, 2016

	White		Black		Hispanic		Other		Unknown	
Exposure Category	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
MSM	716	76.3%	1,006	62.0%	1,369	78.5%	61	76.3%	81	75.0%
IDU	74	7.9%	102	6.3%	76	4.4%	3	3.8%	9	8.3%
MSM/IDU	37	3.9%	20	1.2%	42	2.4%	1	1.3%	4	3.7%
Heterosexual	111	11.8%	485	29.9%	257	14.7%	15	18.8%	14	13.0%
Pediatric	0	0.0%	9	0.6%	1	0.1%	0	0.0%	0	0.0%
Total	938	20.9%	1,622	36.1%	1,745	38.8%	80	1.8%	108	2.4%

- In all race/ethnic groups, MSM comprised the majority of new diagnoses.

- The largest number and proportion of new diagnoses attributable to heterosexual infection occur in Blacks and Hispanics.

- It is important to note that about 1/3 of newly diagnosed HIV cases are reported with no identified risk. DSHS assigns these persons to risk groups based on their most likely mode of exposure based on a CDC-developed algorithm. While these assignments are based on past years of data on persons for whom risk was reported, it is possible that a certain percentage of newly diagnosed cases may be categorized incorrectly.

Table 2-5. Five Year Trends in HIV Diagnoses, Texas, 2016

	Cumulative Through 2011		2012		2013		2014		2015		2016		5-year Cumulative 2012-2016	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
TOTAL	130,445	100%	4,360	100%	4,367	100%	4,449	100%	4,505	100%	4,493	100%	22,174	100%

Table 2-5. Five Year Trends in HIV Diagnoses, Texas, 2016

	Cumulative Through 2011		2012		2013		2014		2015		2016		5-year Cumulative 2012-2016	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Sex														
Male	106,521	82%	3,526	81%	3,551	81%	3,621	81%	3,676	82%	3,720	83%	18,094	82%
Female	23,924	18%	834	19%	816	19%	828	19%	829	18%	773	17%	4,080	18%
Race														
White	49,223	38%	900	21%	921	21%	902	20%	909	20%	937	21%	4,569	21%
Black	45,046	35%	1,583	36%	1,620	37%	1,633	37%	1,632	36%	1,623	36%	8,091	36%
Hispanic	31,942	24%	1,649	38%	1,612	37%	1,710	38%	1,752	39%	1,745	39%	8,468	38%
Other	973	1%	63	1%	78	2%	79	2%	92	2%	80	2%	392	2%
Unknown Race	3,261	2%	165	4%	136	3%	125	3%	120	3%	108	2%	654	3%
Age Group														
0-14	1,356	1%	25	1%	19	0%	20	0%	17	0%	14	0%	95	0%
15-24	19,646	15%	1,056	24%	1,044	24%	1,139	26%	1,108	25%	1,033	23%	5,380	24%
25-34	49,102	38%	1,370	31%	1,447	33%	1,457	33%	1,550	34%	1,696	38%	7,520	34%
35-44	38,989	30%	919	21%	869	20%	895	20%	877	19%	802	18%	4,362	20%
45+	21,350	16%	990	23%	988	23%	938	21%	953	21%	948	21%	4,817	22%
Exposure														
MSM	75,790	58%	2,988	69%	3,004	69%	3,088	69%	3,148	70%	3,233	72%	15,461	70%
IDU	17,966	14%	269	6%	227	5%	256	6%	261	6%	264	6%	1,268	6%
MSM/IDU	10,153	8%	106	2%	130	3%	130	3%	133	3%	104	2%	603	3%

Table 2-5. Five Year Trends in HIV Diagnoses, Texas, 2016

	Cumulative Through 2011		2012		2013		2014		2015		2016		5-year Cumulative 2012-2016	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Heterosexual	24,578	19%	973	22%	989	23%	965	22%	947	21%	882	20%	4,755	21%
Pediatric	1,178	1%	23	<1%	16	0%	20	0%	17	0%	10	<1%	86	<1%
Adult Other	778	<1%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

- The demographic profile of the HIV epidemic in Texas has changed since the beginning of the epidemic.

- In the first 30 years of the epidemic, persons diagnosed with HIV were mainly White MSM over the age of 25. By 2014, a person newly diagnosed with HIV was more likely to be young Black or Hispanic MSM under the age of 34.

Epi Profile Section 3 - Persons Living with HIV

Table 3-1. Persons Living with HIV in Texas by Select Characteristics, 2016

	Cases	%	Rates per 100,000 population
Sex			
Male	68,182	79%	492.9
Female	18,487	21%	131.8
Race			
White	22,697	26%	187.6
Black	32,371	37%	953.5
Hispanic	27,739	32%	254.9
Other	987	1%	66.3
Unknown	2,875	3%	-
Age (as of 12/31/2016)			
0-14	252	0%	4.1
15-24	3,980	5%	100.1
25-34	16,898	19%	413.6
35-44	20,133	23%	540.3
45+	45,406	52%	454.6
Total	86,669		311.1

- In Texas, almost 8 in 10 are men, and nearly 7 in 10 are Black or Hisipanic. Just over half of PLWH are over the age of 45. Treatments for HIV infections have improved the life spans of people with HIV, and if started early, treatment can result in life spans that are comparable to people without HIV infections.

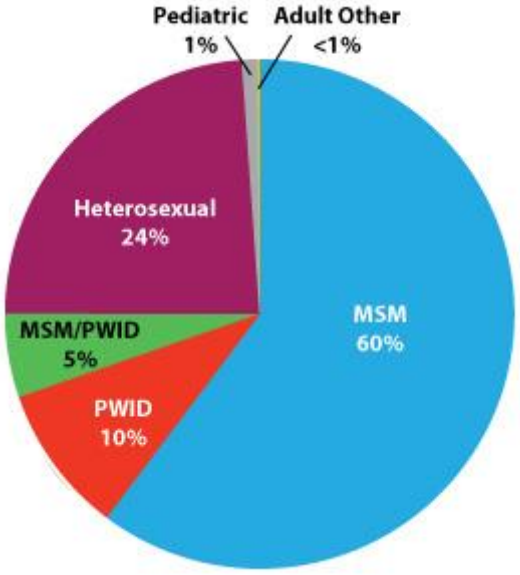
Table 3-2. HIV Prevalence in Texans by Race/Ethnicity and Sex, 2007-2016

	Males			Females			Total		
	Cases	%	Rates per 100,000 population	Cases	%	Rates per 100,000 population	Cases	%	Rates per 100,000 population
Race/Ethnicity									
White	20,018	23%	334.1	2,679	3%	43.8	22,697	26%	187.6
Black	21,795	25%	1,326.2	10,576	12%	603.8	32,371	37%	953.5
Hispanic	23,443	27%	428.6	4,296	5%	79.4	27,739	32%	254.9
Other	795	1%	109.5	192	<1%	25.2	987	1%	66.3
Unknown	2,131	3%	-	744	1%	-	2,875	3%	-

- Texas' HIV Prevalence rates are highest in Black males and females. Over 1.3% of Black males and 0.6% of Black Females in Texas are living with HIV.

- Together, White MSM, Black MSM, and Hispanic MSM comprise over 58% of all Texans living with HIV. Black heterosexual women comprise an additional 10% of Texans living with HIV. These four groups have been designated as priority populations in Texas' HIV Plan. Focused HIV test, prevention and care efforts with these groups will have the largest impact on HIV in Texas.

Figure 3-1. Percent of PLWH in Texas by Mode of Exposure



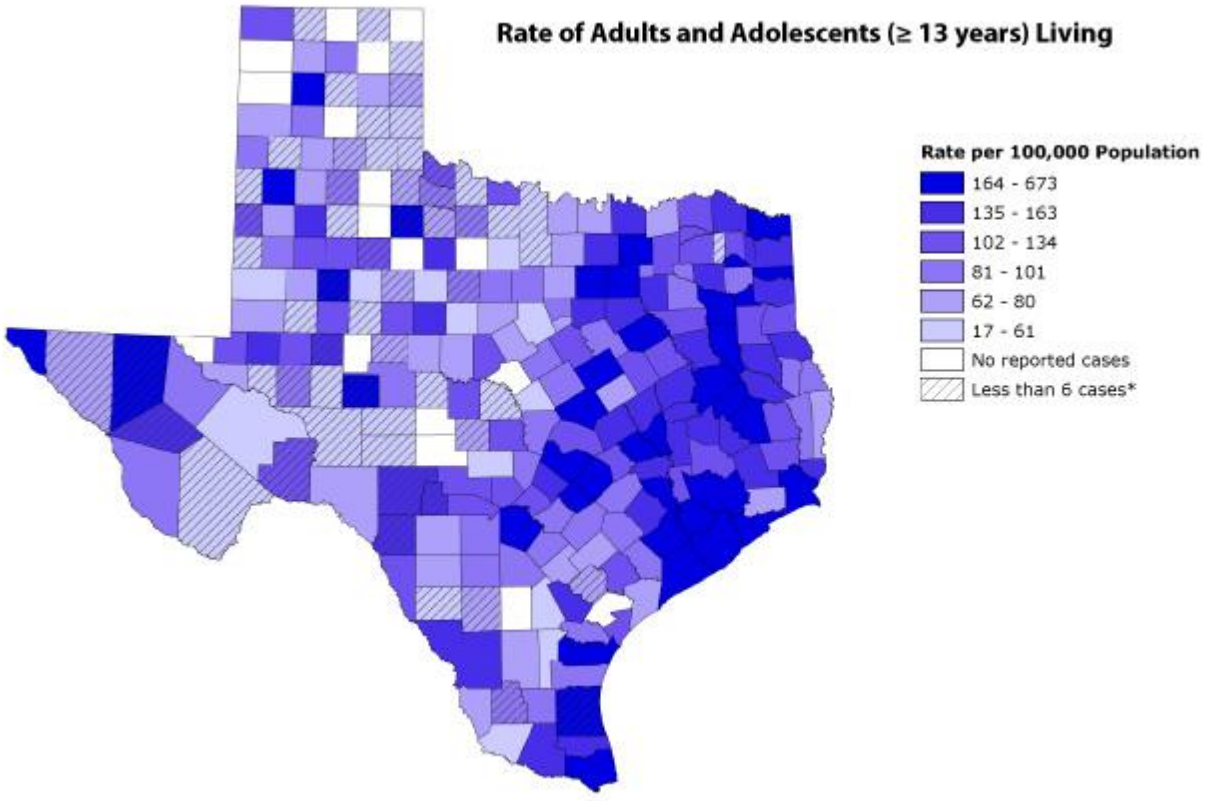
Adult Other includes received clotting factor, transfusion/transplant, other and unknown.
Source: Texas eHARS, 2016

- In Texas, 6 in 10 people living with HIV were gay and bisexual men or other men who have sex with men (MSM); more information can be found in the MSM section "here." A little more than 2 in 10 aquired their HIV infections through heterosexual sex, and about 1.5 in 10 PLWH aquired their infections through injecting drugs.

- PLWH can greatly reduce their risk of transmitting the virus through any mode of transmission by keeping their viral loads (the amount of HIV in their bodies) to a very low level, also called viral suppression. Persons living with HIV can acheive viral suppression through consistent adherance to anti-retoviral medications.

- People living with HIV infections can live long and healthy lives by seeking medical care and taking HIV medications to keep their HIV viral loads at a very low level - also call having a suppressed viral load. In addition to improving the health of the person with HIV, when treatment results in viral suppression it prevents sexual HIV transmission. Finding ways to help people with HIV find and stay in treatment will lead to reductions in new HIV infections.

Map 3-1. Rates of PLWH by County, Texas, 2016



PLWH data by county

- The rate of persons living with HIV varies greatly by county. In Texas, counties with high HIV prevalence rates tend to be urban (Dallas county, Harris county [Houston], Travis county [Austin], Bexar county [San Antonio]).

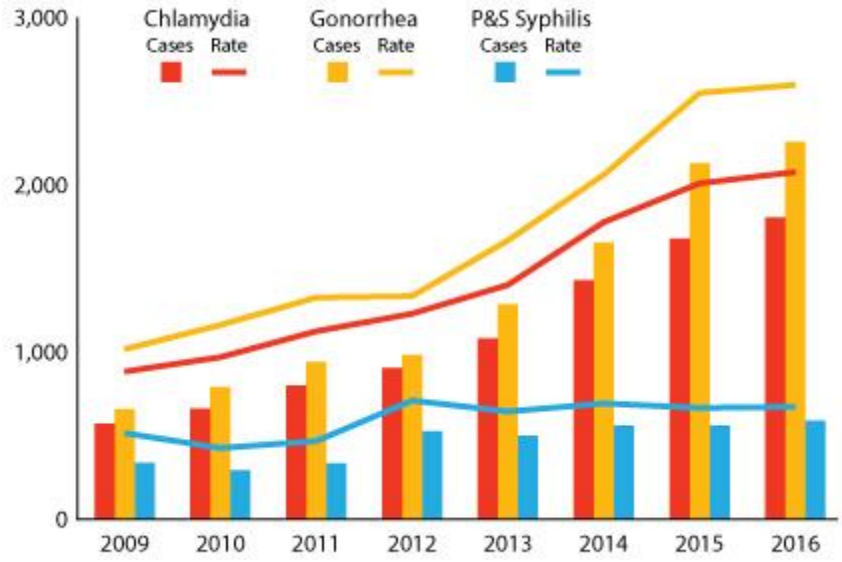
Table 3-3. PLWH in Texas by Metropolitan Area, 2016

	N	%
Austin TGA	5,916	7%
Dallas EMA	21,062	24%
Fort Worth TGA	5,745	7%
Houston EMA	27,023	31%
San Antonio TGA	6,343	7%
Other Texas	16,383	19%
TDCJ/ICE/Federal Prison	4,197	5%
Total	86,669	100%

- Dallas and Houston have the highest numbers of PLWH, which reflects the fact that about half of the Texas population lives in these two urban areas. About 1 in 5 people living with HIV infections live in the Austin, Fort Worth, and San Antonio areas. Almost 1 in 5 PLWH live in less urban areas of Texas. These are areas where medical care options may be limited, compared to urban areas.

Epi Profile Section 4 - Co-Morbidities

Figure 4-1. Chlamydia, Gonorrhea, and Primary & Secondary Syphilis Cases and Incidence Rates among PLWH in Texas, 2009-2016



Data for Figure 4-1

- DSHS performs a cross-registry match between Texas' STD Surveillance data and Texas' enhanced HIV/AIDS Reporting System (eHARS) to determine how many STDs were diagnosed in Persons Living with HIV (PLWH).

- Persons living with HIV were considered to have an STD coinfection if their STD diagnosis occurred ≤ 30 days of their HIV diagnosis. Persons living with HIV may have >1 diagnosis of any STD. To calculate the rate of diagnoses among PLWH, we used the total number of STD diagnoses in HIV positive persons as the numerator and the total number of PLWH as the denominator.

- Because chlamydia and gonorrhea infections are often asymptomatic, increases in the annual number and rate of chlamydia and gonorrhea diagnoses may reflect increases in STD screening among PLWH.

- The number and rate of P&S Syphilis cases in PLWH are lower compared to chlamydia and gonorrohea; however, syphilis infections are much more prevalent in PLWH compared to the general population . In Texas, the rate of P&S syphilis is 100 times than the rate in the general population.

- The disparity in chlamydia and gonorrhea case rates between PLWH and HIV-negative persons is not as large. PLWH are 4 times more likely to be diagnosed with chlamydia and 18 times more likely to be diagnosed with gonorrhea compared to HIV-negative persons.

Table 4-1. STD Cases and Incidence Rates among PLWH in Texas, 2016

		Chlamydia		Gonorrhea		P&S Syphilis		EL Syphilis	
	Total Cases	Cases in PLWH	Rate	Cases in PLWH	Rate	Cases in PLWH	Rate	Cases in PLWH	Rate
Total PLWH	86,669	1,799	2,075.7	2,329	2,687.2	590	680.8	1,122	1,294.6
Age Group									
0-14	252	0	0.0	0	0.0	0	0.0	0	0.0
15-24	3,980	309	7,763.8	436	10,954.8	91	2,286.4	147	3,693.5
25-34	16,898	815	4,823.1	1,111	6,574.7	243	1,438.0	450	2,663.0
35-44	20,133	359	1,783.1	432	2,145.7	132	655.6	251	1,246.7
45+	45,406	316	695.9	350	770.8	124	273.1	274	603.4
Race/Ethnicity									
White	22,697	333	1,467.2	473	2,084.0	145	368.9	290	1,277.7
Black	32,371	710	2,193.3	1,023	3,160.2	193	596.2	337	1,041.1
Hispanic	27,739	674	2,429.8	720	2,595.6	212	764.3	454	1,636.7
Other	987	12	1,215.8	24	2,431.6	8	810.5	15	1,519.8
Unknown	2,875	70	-	89	-	32	-	26	-
Sex									
Female	18,487	227	1,227.9	127	687.0	0	0.0	11	59.5
Male	68,182	1,572	2,305.6	2,202	3,229.6	590	865.3	1,111	1,629.5
Current Residence									
Austin	5,916	232	3,921.6	306	5,172.4	103	1,741.0	115	1,943.9
Dallas	21,062	491	2,331.2	704	3,342.5	131	622.0	311	1,476.6
Houston	27,023	598	2,212.9	734	2,716.2	153	566.2	277	1,025.1
Fort Worth	5,745	90	1,566.6	132	2,297.7	35	609.2	101	1,758.1

Table 4-1. STD Cases and Incidence Rates among PLWH in Texas, 2016

		Chlamydia		Gonorrhea		P&S Syphilis		EL Syphilis	
	Total Cases	Cases in PLWH	Rate	Cases in PLWH	Rate	Cases in PLWH	Rate	Cases in PLWH	Rate
San Antonio	6,343	160	2,522.5	203	3,200.4	64	1,009.0	152	2,396.3
Risk Group*									
MSM	44,594	1,314	2,946.6	1,871	4,195.6	512	1,148.1	970	2,175.2
Black MSM	11,966	448	3,743.9	787	6,577.0	169	1,412.3	289	2,415.2
Hispanic MSM	15,805	528	3,340.7	602	3,808.9	186	1,176.8	406	2,568.8
White MSM	14,955	279	1,865.6	390	2,607.8	123	822.5	239	1,598.1

* The number of MSM LWH in this table differs from other DSHS reports because we did not use multiple imputation to assign mode of exposure to persons with no reported risk.

- The demographic profile of PLWH diagnosed with STDs is similar to that of persons diagnosed with STDs in the general population.
- Young PLWH age 15-34, Black and Hispanic PLWH, and MSM are more likely be diagnosed with an STD.
- STD diagnoses in PLWH may be indicators of condomless sex. PLWH who have achieved viral suppression but continue to practice condomless sex are still vulnerable to bacterial STIs.

Table 4-2. HIV+ Persons among Diagnosed STD Cases, Texas, 2016

	Chlamydia			Gonorrhea			P&S Syphilis			EL Syphilis		
	Cases	Cases in PLWH	%	Cases	Cases in PLWH	%	Cases	Cases in PLWH	%	Cases	Cases in PLWH	%
	128,036	1,799	1.4%	40,971	2,329	5.7%	1,874	590	31.5%	1,860	1,122	60.3%
Age Group												
0-14	998	0	0.0%	262	1	0.4%	1	0	0.0%	3	0	0.0%
15-24	89,050	355	0.4%	21,643	508	2.3%	569	107	18.8%	739	174	23.5%

Table 4-2. HIV+ Persons among Diagnosed STD Cases, Texas, 2016

	Chlamydia			Gonorrhea			P&S Syphilis			EL Syphilis		
	Cases	Cases in PLWH	%	Cases	Cases in PLWH	%	Cases	Cases in PLWH	%	Cases	Cases in PLWH	%
25-34	36,145	789	2.2%	12,941	1,074	8.3%	721	238	33.0%	1,046	441	42.2%
35-44	8,220	356	4.3%	3,902	417	10.7%	304	132	43.4%	441	245	55.6%
45+	3,214	299	9.3%	2,168	329	15.2%	279	1113	40.5%	463	262	56.6%
Race/Ethnicity												
White	28,306	378	1.3%	9,003	536	6.0%	514	166	32.3%	707	331	46.8%
Black	30,827	748	2.4%	14,320	1,042	7.3%	564	210	37.2%	863	316	41.8%
Hispanic	45,097	573	1.3%	9,857	617	6.3%	735	198	26.9%	1,049	408	38.9%
Other	3,027	32	1.1%	884	51	5.8%	52	15	28.8%	63	20	31.7%
Unknown	30,500	68	-	6,907	83	-	9	1	-	10	2	-
Sex												
Female	97,695	227	0.2%	17,962	127	0.7%	221	0	0.0%	468	11	2.4%
Male	39,715	1,572	4.0%	22,940	2,202	9.6%	1.653	590	35.7%	2,224	1,111	50.0%
Current Residence												
Austin	12,002	232	1.9%	3,574	306	8.6%	305	103	33.8%	275	115	41.8%
Dallas	21,877	491	2.2%	7,532	704	9.3%	391	31	33.5%	648	311	48.0%
Houston	31,620	598	1.9%	9,369	734	7.8%	379	153	40.4%	517	277	53.6%

Table 4-2. HIV+ Persons among Diagnosed STD Cases, Texas, 2016

	Chlamydia			Gonorrhea			P&S Syphilis			EL Syphilis		
	Cases	Cases in PLWH	%	Cases	Cases in PLWH	%	Cases	Cases in PLWH	%	Cases	Cases in PLWH	%
Fort Worth	9,764	90	0.9 %	3,215	132	4.1%	127	35	27.6 %	317	101	31.9 %
San Antonio	14,236	160	1.1 %	4,565	209	4.6%	232	64	27.6 %	300	152	50.7 %
Risk Group*												
MSM	*	1,314	N/A	*	1,871	N/A	972	512	52.7 %	1,800	970	53.9 %
Black MSM	*	482	N/A	*	798	N/A	329	182	55.3 %	415	310	74.7 %
Hispanic MSM	*	453	N/A	*	524	N/A	508	175	34.4 %	604	273	45.2 %
White MSM	*	308	N/A	*	440	N/A	366	142	38.8 %	440	273	62.0 %

* Sexual risk information is not routinely collected for chlamydia and gonorrhea cases

- Ongoing syphilis transmission is increasingly limited to MSM in Texas. MSM living with HIV comprise nearly 1/3 of Texas' Primary & Secondary (P&S) and over half of Texas' Early Latent (EL) syphilis diagnoses.

- This disparity may be due to higher biological risk of syphilis infection in PLWH or serosorting among MSM.

Table 4-3. Number and % of PLWH in 2016 with Tuberculosis Co-morbidity, by Sex

	TB Diagnoses Ever (1993-2016)			In 2016		
	PLWH	Number of PLWH with TB Diagnosis after HIV Diagnosis	%	Number of PLWH with TB Diagnosis in 2016	%	Rate per 100,000 population
Total PLWH	86,669	482	0.6%	35	100.0%	40.4
Age Group						

Table 4-3. Number and % of PLWH in 2016 with Tuberculosis Co-morbidity, by Sex

	TB Diagnoses Ever (1993-2016)			In 2016		
	PLWH	Number of PLWH with TB Diagnosis after HIV Diagnosis	%	Number of PLWH with TB Diagnosis in 2016	%	Rate per 100,000 population
0-14	252	0	0.0%	0	0.0%	0.0
15-24	3,980	5	0.1%	2	5.7%	50.3
25-34	16,898	73	0.4%	9	25.7%	53.3
35-44	20,133	154	0.8%	10	28.6%	49.7
45+	45,406	250	0.6%	14	40.0%	30.8
Race/Ethnicity						
White	22,697	31	0.1%	2	5.7%	8.8
Black	32,371	188	0.6%	16	45.7%	49.4
Hispanic	27,739	217	0.8%	15	42.9%	54.1
Other	987	22	2.2%	0	0.0%	0.0
Unknown	2,875	24	0.8%	2	5.7%	69.6
Sex						
Female	18,487	100	0.5%	8	22.9%	43.3
Male	68,182	382	0.6%	27	77.1%	39.6
Current Residence						
Austin	5,916	25	0.4%	2	5.7%	33.8
Dallas	21,062	121	0.6%	12	34.4%	57.0
Houston	27,023	161	0.6%	9	25.7%	33.3
Fort Worth	5,745	37	0.6%	3	8.6%	52.2
San Antonio	6,343	38	0.6%	3	8.6%	47.3

- Persons living with HIV who also have latent tuberculosis (TB) infection are more likely to develop TB disease because the immune system is weakened.

- The rate of TB in PLWH is 9 times the rate of TB in the general population (4.5/100,000).

- Hispanics and persons of Asian descent living with HIV are more likely to develop TB disease, mainly due to a higher prevalence of latent TB infection in these populations.

Epi Profile Section 5 - HIV-AIDS Deaths

Table 5-1. Age-Adjusted Rate of Death due to Any Cause in the General Population per 100,000 in Texas by Race/Ethnicity, 2014

Race/Ethnicity	Male Rate	Female Rate	Total Rate
White, non-Hispanic	936.1	688.7	803.2
Black, non-Hispanic	1,103.1	789.9	922.5
Hispanic, all Races	752.8	531.1	631.0
Other Race	510.7	371.0	434.4
Total	886.5	646.1	755.7

- In Texas, Black males have the highest age-adjusted rate of death, regardless of cause of death. This higher mortality rate among Black males is due to their higher rates of heart disease, diabetes, kidney failure, among other conditions.

Table 5-2. Cause of Death Rankings Among Adults Age 25-44 in Texas, 2014

Cause of Death	All Races		White		Black		Hispanic		Other Race	
	Rank	Number	Rank	Number	Race	Number	Race	Number	Race	Number
Accidents	1	2,589	1	1,363	2	309	1	851	1	75
Diseases of the Heart	2	1,285	3	568	1	328	3	350	4	39
Malignant Neoplasms (Cancer)	3	1,260	4	540	4	168	2	479	2	73
Intentional Self-Harm (Suicide)	4	1,095	2	695	5	102	4	258	3	40
Assault (Homicide)	5	605	5	149	3	196	5	244	5	16

Table 5-2. Cause of Death Rankings Among Adults Age 25-44 in Texas, 2014

Cause of Death	All Races		White		Black		Hispanic		Other Race	
	Rank	Number	Rank	Number	Race	Number	Race	Number	Race	Number
Chronic Liver Disease and Cirrhosis	6	300	6	139	14	18	6	143	19	*
Cerebrovascular Diseases	7	228	7	75	7	53	7	100	18	*
Diabetes Mellitus	8	206	9	74	8	43	8	89	23	*
Human Immunodeficiency Virus (HIV) Disease	**9**	**202**	**11**	**54**	**6**	**100**	**11**	**48**	**25**	*****
Influenza and Pneumonia	10	165	8	75	13	21	9	69	27	*

* Number of deaths masked due to low numbers

- HIV is the 9th leading cause of death in Texans age 25-44; however, it is the 6th leading cause of death for Black Texans in this age group. Nearly half of deaths due to HIV in Texans age 25-44 in 2014 occurred in Blacks, over 25% occurred in Whites, and almost 25% occurred in Hispanics.

Table 5-3. Age-Adjusted* Rate of Death Due to HIV per 100,000 Population, Texas, 2014**

Race/Ethnicity	Male Rate	Female Rate	Total Rate
White, non-Hispanic	2.3	0.5	0.7
Black, non-Hispanic	13.0	6.1	4.6
Hispanic, all Races	4.0	0.9	1.2
Other Race	0.1	***	<0.05
Total	4.2	1.4	2.8

* Rates are adjusted by age using the 2000 U.S. Standard Population (11 age groups, Distribution #1)
** Deaths due to HIV are those where HIV is listed as the underlying cause on an accompanying death certificate (ICD Codes B20-B24)
*** No deaths in Females of Other Race were reported in 2014

- Table 5-3 shows the age-adjusted rate of death due to HIV in persons living with HIV. The rate of HIV-associated mortality declined for all race and sex groups in 2014 compared to 2013, with the exception of Hispanic males (increase of 13%). The development of effective anti-HIV medications has allowed persons living with HIV to live longer and deaths are less frequently attributable to HIV. Racial disparities in deaths attributable to HIV could indicate disparities in access to effective medical care for HIV.

Table 5-4. Age-Adjusted* Rate of Death Due to Any Cause in People Living with HIV (PLWH) per 1,000 PLWH in Texas by Race/Ethnicity, 2014

Race/Ethnicity & Risk Group	Male Rate	Female Rate	Total Rate
White, non-Hispanic	18.1	38.7	20.2
Black, non-Hispanic	20.2	18.9	19.8
Hispanic, all Races	13.6	19.7	14.8
Other Race	2.7	**	2.2
Men who have Sex with Men (MSM)	15.9	N/A	15.9
Persons who Inject Drugs (PWID)	24.1	27.8	25.8
MSM/PWID	15.4	N/A	15.4
Heterosexual	17.5	20.1	19.0
Pediatric	2.9	54.2	12.2
Adult Other	36.6	**	22.7
Total	17.4	22.2	18.3

* Rates are adjusted by age using the 2000 U.S. Standard Population (11 age groups, Distribution #1)
** No deaths in Females of Other Race or Adult Other Risk Group were reported in 2014

- Table 5-3 shows the age-adjusted rate of death due to any cause in persons living with HIV. Cause of death in persons living with HIV can be attributed to other causes, including diseases associated with aging, as PLWH live longer. The highest rate of death in PLWH is found in Persons who Inject Drugs. This may be due to comorbidities associated with injection drug use, such as Hepatitis B and C.

Epi Profile Section 6 - HIV Incidence

- **Table 6-1.** Estimated HIV Incidence (New Acquired Infections), 2015, by Sex, Race, Age, and Mode of Transmission

Table 6-1. Estimated HIV Incidence (New Acquired Infections), 2015, by Sex, Race, Age, and Mode of Transmission

		95% C.I.		
	Estimate	Lower Bound	Upper Bound	Estimated Rate of New Infections per 100,000 population
Total	4,901	4,198	5,605	17.9
Sex				
Male	4,075	3,470	4,681	29.9
Female	826	615	1,037	6.0
Race/Ethnicity				
White	1,227	964	1,489	10.2
Black	1,599	1,295	1,903	48.2
Hispanic	1,860	1,529	2,191	17.5
Other	215	121	310	15.1
Age at Infection				
13-24	1,614	1,310	1,919	34.0
25-34	1,849	1,518	2,179	46.1
35-44	774	588	961	21.0
45-54	459	319	600	13.2
55+	205	113	297	3.3
Mode of Transmission				
Male-Male Sexual Contact	3,349	3,092	4,207	584.5

Table 6-1. Estimated HIV Incidence (New Acquired Infections), 2015, by Sex, Race, Age, and Mode of Transmission

		95% C.I.		
	Estimate	Lower Bound	Upper Bound	Estimated Rate of New Infections per 100,000 population
Injection Drug Use	403	255	551	*
Heterosexual Transmission/Other	849	621	1,078	*

95% CI = 95% confidence interval

***** Population estimate not available

- Table 6-1 shows the estimate of total HIV incidence (i.e. new transmissions) that occurred in Texas in 2015. HIV Incidence differs from new diagnoses in that it is meant to estimate all new transmissions in a given time period, including those not yet diagnosed. The 95% confidence interval presented next to the count estimate represents the most likely range of values where the true number of incident transmissions lies.

- The largest number of incident transmissions are estimated to have occurred in MSM. The high number of new transmissions (40%) in Hispanic persons likely reflects the growing proportion of Texas' Hispanic population.

Epi Profile Section 7 - Focused and Routine HIV Testing

- **Table 7-1.** DSHS Funded Focused and Routine Testing in Texas, 2016

Table 7-1a. DSHS Funded Focused Testing in Texas, 2016

	Focused Testing					
	Tests	**%**	**Positive**	**% Positive**	**True New**	**% True New**
	48,487	100%	764	1.6%	550	1.1%
Sex						
Male	32,678	67%	684	2.1%	504	1.5%
Female	15,788	33%	80	0.5%	46	0.3%
Unknown	21	0%	0	0%	0	0%
Race						
White	11,273	23%	140	1.2%	106	0.9%
Black	15,597	32%	314	2.0%	196	1.3%
Hispanic	18,619	38%	271	1.5%	216	1.2%
Other	1,906	4%	29	1.5%	25	1.3%
Unknown	1,092	2%	10	0.9%	7	0.6%
Age Group						
0-14 years	53	<1%	1	1.9%	0	0%
15-24 years	14,248	29%	206	1.4%	161	1.1%
25-34 years	17,737	37%	336	1.9%	250	1.4%
35-44 years	8,268	17%	103	1.3%	68	0.8%
45 + years	8,173	17%	103	1.3%	68	0.8%
Unknown	8	0%	0	0%	0	0%

Table 7-1a. DSHS Funded Focused Testing in Texas, 2016

	Focused Testing					
	Tests	**%**	**Positive**	**% Positive**	**True New**	**% True New**
Geography						
Austin TGA	4,289	9%	41	1.0%	35	0.8%
Dallas EMA	12,485	26%	287	2.3%	197	1.6%
Fort Worth TGA	4,896	10%	110	2.2%	70	1.4%
Houston EMA	4,543	9%	76	1.7%	58	1.3%
San Antonio TGA	8,833	18%	105	1.2%	72	0.8%
Rest of Texas	13,441	28%	145	1.1%	118	0.9%
Reported Risk						
MSM/PWID	509	1%	24	4.7%	15	2.9%
MSM	17,808	37%	567	3.2%	437	2.5%
PWID	2,543	5%	14	0.6%	10	0.4%
Hetero	26,321	54%	153	0.6%	87	0.3%
Non-targeted	1,215	3%	5	0.4%	1	0.1%
Unknown	91	<1%	1	1.1%	0	0%

Table 7-1b. DSHS Funded Routine Testing in Texas, 2016

	Routine Testing					
	Tests	**%**	**Positive**	**% Positive**	**True New**	**% True New**
	170,659	100%	1,354	0.8%	296	0.2%
Sex						
Male	74,706	44%	1,082	1.4%	219	0.3%
Female	95,945	56%	272	0.3%	77	0.1%
Unknown	8	0%	0	0%	0	0%

Table 7-1b. DSHS Funded Routine Testing in Texas, 2016

	Routine Testing					
	Tests	**%**	**Positive**	**% Positive**	**True New**	**% True New**
Race						
White	44,320	26%	305	0.7%	55	0.1%
Black	48,672	29%	749	1.5%	139	0.3%
Hispanic	66,660	39%	253	0.4%	93	0.1%
Other	7,300	4%	22	0.3%	4	0.1%
Unknown	3,440	2%	25	0.7%	5	0.1%
Age Group						
0-14 years	959	<1%	1	0.1%	0	0%
15-24 years	34,347	20%	146	0.4%	59	0.2%
25-34 years	37,441	22%	396	1.1%	97	0.3%
35-44 years	32,236	19%	324	1.0%	56	0.2%
45 + years	65,665	39%	487	0.7%	84	0.1%
Unknown	11	0%	0	0%	0	0%
Geography						
Austin TGA	39,604	23%	176	0.4%	40	0.1%
Dallas EMA	33,255	20%	295	0.9%	90	0.3%
Fort Worth TGA	47,149	28%	247	0.5%	86	0.2%
Houston EMA	27,324	16%	514	1.9%	62	0.2%
San Antonio TGA	14,193	8%	112	0.8%	14	0.1%
Rest of Texas	9,134	5%	10	0.1%	4	<0.1%
Reported Risk						

Table 7-1b. DSHS Funded Routine Testing in Texas, 2016

	Routine Testing					
	Tests	**%**	**Positive**	**% Positive**	**True New**	**% True New**
MSM/PWID	10	0%	4	40%	1	10%
MSM	472	<1%	65	13.8%	26	5.5%
PWID	131	<1%	9	6.9%	3	2.3%
Hetero	35,298	21%	570	1.6%	83	0.2%
Non-targeted	488	<1%	18	3.7%	1	0.2%
Unknown	134,260	79%	688	0.5%	182	0.1%

Table 7-1c. DSHS Funded Testing in Texas, 2016

	Total Testing					
	Tests	**%**	**Positive**	**% Positive**	**True New**	**% True New**
	219,146	100%	2,118	1.0%	846	0.4%
Sex						
Male	107,384	49%	1,766	1.6%	726	0.7%
Female	111,733	51%	352	0.3%	123	0.1%
Unknown	29	0%	0	0%	0	0%
Race						
White	55,593	25%	445	0.8%	161	0.3%
Black	64,536	29%	1,063	1.6%	335	0.5%
Hispanic	85,279	39%	524	0.6%	29	0.3%
Other	9,206	4%	51	0.6%	29	0.3%
Unknown	4,532	2%	35	0.8%	12	0.3%
Age Group						
0-14 years	1,012	1%	2	0.2%	0	0%

Table 7-1c. DSHS Funded Testing in Texas, 2016

	Total Testing					
	Tests	**%**	**Positive**	**% Positive**	**True New**	**% True New**
15-24 years	48,595	22%	352	0.7%	220	0.5%
25-34 years	55,178	25%	732	1.3%	347	0.6%
35-44 years	40,504	19%	442	1.1%	127	0.3%
45 + years	73,838	34%	590	0.8%	152	0.2%
Unknown	19	0%	0	0%	0	0%
Geography						
Austin TGA	43,893	20%	217	0.5%	75	0.2%
Dallas EMA	45,740	21%	582	1.3%	287	0.6%
Fort Worth TGA	52,045	24%	357	0.7%	156	0.3%
Houston EMA	31,867	15%	590	1.9%	120	0.4%
San Antonio TGA	23,026	11%	217	0.9%	86	0.4%
Rest of Texas	22,575	10%	155	0.7%	122	0.5%
Reported Risk						
MSM/PWID	519	<1%	28	5.4%	16	3.1%
MSM	18,280	8%	632	3.5%	463	2.5%
PWID	2,674	1%	23	0.9	13	0.5%
Hetero	61,619	28%	723	1.2%	170	0.3%
Non-targeted	1,703	1%	23	1.4%	2	0.1%
Unknown	134,351	61%	689	0.5%	182	0.1%

- DSHS funds two types of HIV testing efforts. Focused testing sites offer HIV testing to persons at highest risk for HIV, such as MSM. Routine testing is offered as part of other medical care, such as during an emergency room visit for an unrelated health event.

- Risk information is not typically collected on persons who receive routine HIV testing.

- The highest HIV positivity rates were found in populations with the highest prevalence rates of HIV, including Blacks, MSM, and MSM/PWID.

- Persons who tested positive through the focused and routine programs were matched to HIV Surveillance data to determine if they are true new diagnoses or previous positives. A true new positive was an individual whose focused or routine testing event was within 14 days of their official HIV diagnosis date.

- Overall, the highest diagnosis (true new positive) rates were found among Blacks, MSM and MSM/PWID.

Epi Profile Section 8 - Indicators of HIV Risk in HIV-negative Persons at High Risk for HIV

The National HIV Behavioral Surveillance Survey (NHBS) is funded by a grant from the Centers for Disease Control and Prevention (CDC). Its purpose is to conduct behavioral surveillance among those at high risk of HIV infection. The data collection is completed in rotating, annual cycles in three different populations at elevated risk for HIV: men who have sex with men (MSM), people who inject drugs (PWID), and heterosexual women at an increased risk of HIV (HET).

Data in this section comes from the Dallas data collection site of the NHBS. This information may not reflect the state as a whole. For more information, please see the section Data Sources and Notes.

Table 8-1. HIV Risk Behaviors in HIV-Negative MSM, Dallas, 2014, Unweighted

MSM		Average number of male sex partners in past 12 months	Had condomless anal sex with a male partner in the past 12 months		Had condomless anal sex with a male partner whose HIV status was unknown in the past 12 months		Used injection or non-injection drugs in the past 12 months		Had condomless anal sex with an HIV-positive partner in the past 12 months		Self-reported syphilis infection in the past 12 months	
	N	N	N	%	N	%	N	%	N	%	N	%
Race/Ethnicity												
White	141	8	89	63%	25	18%	83	59%	13	9%	52	37%
Black	111	5	60	54%	25	23%	59	53%	3	3%	30	27%
Hispanic	86	6	54	63%	21	24%	47	55%	3	3%	33	38%
Other	26	6	20	77%	8	31%	20	77%	0	0%	11	42%
Total*	368	7	227	62%	79	21%	211	57%	19	5%	129	35%
Age												
0-14	0	-	-	-	-	-	-	-	-	-	-	-
15-24	65	8	41	63%	13	20%	41	63%	4	6%	25	38%
25-34	116	8	82	71%	34	29%	65	56%	10	9%	50	43%

Table 8-1. HIV Risk Behaviors in HIV-Negative MSM, Dallas, 2014, Unweighted

MSM		Average number of male sex partners in past 12 months	Had condomless anal sex with a male partner in the past 12 months		Had condomless anal sex with a male partner whose HIV status was unknown in the past 12 months		Used injection or non-injection drugs in the past 12 months		Had condomless anal sex with an HIV-positive partner in the past 12 months		Self-reported syphilis infection in the past 12 months	
	N	N	N	%	N	%	N	%	N	%	N	%
35-44	89	5	53	60%	18	20%	50	56%	2	2%	33	37%
45+	98	5	51	52%	14	14%	55	56%	3	3%	21	21%
Total	368	7	227	62%	79	21%	211	57%	19	5%	129	35%

* Four participants whose race/ethnicity was missing were included in the total

- Among the 368 HIV-negative MSM surveyed in 2014, 62% had condomless anal sex with a male partner, 57% used injection or non-injection drugs, and 21% had condomless anal sex with a male partner whose HIV status was unknown within the past 12 months. Only 5% reported having condomless anal sex with a partner living with HIV in the past 12 months. Thirty-five percent reported having syphilis in the past 12 months.

- In Texas, young black MSM experience the highest rates of new HIV diagnoses (see Section 10 *Men who have Sex with Men*). However, NHBS data indicates White MSM and Hispanic MSM in Dallas are more likely to engage in behaviors that increase the opportunities for acquiring HIV compared to Black MSM. Results show that 63% of White MSM and 63% of Hispanic MSM had condomless anal sex compared to 54% of Black MSM. Furthermore, 9% of White MSM had condomless anal sex with a partner living with HIV compared to 3% of Black MSM and 3% of Hispanic MSM.

- In general, risk behavior among MSM decreases with age. A lower proportion of respondents 45 years of age or older had condomless anal sex (52%), had condomless anal sex with a male partner whose HIV status was unknown (14%), or had condomless anal sex with a partner living with HIV (3%) compared to those in the younger age groups.

Table 8-2. HIV Risk Behaviors in HIV-Negative Persons who Inject Drugs, Dallas, 2015, Unweighted

People who Inject Drugs		Average number of sex partners in the past 12 months*	Shared needle in past 12 months		Sharing of drug paraphernalia in past 12 months		Exchanged money or drugs for sex in past 12 months		Had condomless sex in the past 12 months	
	N	N	N	%	N	%	N	%	N	%
Race/Ethnicity										
White	86	4	46	53%	51	59%	13	15%	66	77%
Black	390	3	81	21%	203	52%	79	20%	253	65%
Hispanic	20	3	9	45%	13	65%	3	15%	16	80%
Other	13	3	6	46%	8	62%	2	15%	7	54%
Total	509	3	142	28%	275	54%	97	19%	342	67%
Age										
15-24	12	6	6	50%	8	67%	4	33%	11	92%
25-34	60	5	27	45%	32	53%	8	13%	54	90%
35-44	71	7	24	34%	40	56%	14	20%	56	79%
45+	366	2	85	23%	195	53%	71	19%	221	60%
Total	509	3	142	28%	275	54%	97	19%	342	67%

* This analysis excludes females who inject drugs who reported sex exclusively with other females

- Although persons who inject drugs (PWID) comprise only 6% of new HIV diagnoses in Texas, HIV-negative PWID remain at an elevated risk of HIV. Over 70% of HIV-negative PWID recruited for this survey were over the age of 45 and 77% were Black. This is in stark contrast to the race/ethnic and age breakdown of those newly diagnosed. Among those newly diagnosed in 2016, only 36% were Black and 21% were over the age of 45.

- Injecting substances increase the risk of HIV transmission through the transfer of blood and body fluids through needles and injection equipment. Additionally, certain injectable drugs lower inhibition and can increase the likelihood of engaging in behaviors that increase the opportunities for acquiring HIV. Among people who inject drugs in Dallas, respondents reported (within the last 12 months) sharing needles (28%) or other injection equipment (54%), exchanging money or drugs for sex (19%), and having condomless sex

(67%). These activities are also risk factors for contracting Hepatitis B and C infections. Both Hepatitis B and C can increase the chance of complications from HIV.

- As mentioned previously, Blacks were the largest race/ethnic group sampled. Whites more frequently reported sharing needles compared to Hispanics (45%) and Blacks (21%). In addition, 65% of Hispanics shared drug paraphernalia compared to 59% of Whites and 52% of Blacks. Slightly more Blacks (20%) exchanged money or drugs for sex compared to all other race/ethnic groups (15% for each).

- In general, risk behavior among PWID decreases with age. A lower proportion of respondents 45 years of age or older shared needles (23%) or drug paraphernalia (53%) compared to their 18 to 24-year-old counterparts (50% and 67%). Fewer older respondents exchanged money or drugs for sex (19%) compared to those 18 to 24-years-old (33%). Finally, fewer older respondents had condomless sex (60%) compared to those 18 to 24-years-old (92%).

Table 8-3. HIV Risk Behaviors in HIV-Negative in High Risk Heterosexuals, Dallas, 2013, Unweighted

High Risk Heterosexuals*		Average number of sex partners of the opposite sex in the past 12 months	Had condomless sex with a partner of the opposite sex in the past 12 months		Exchanged money or drugs for sex in past 12 months		Had condomless sex with an HIV-positive partner in the past 12 months	
	N	N	N	%	N	%	N	%
Race/Ethnicity								
White	22	5	12	55%	3	14%	83	59%
Black	467	4	195	42%	103	22%	59	53%
Hispanic	49	2	22	45%	3	6%	47	55%
Other	7	6	4	57%	1	14%	20	77%
Total	545	3	233	43%	110	20%	211	57%
Age								
0-14	0	-	-	-	-	-	-	-
15-24	107	3	49	46%	11	10%	0	0%

Table 8-3. HIV Risk Behaviors in HIV-Negative in High Risk Heterosexuals, Dallas, 2013, Unweighted

High Risk Heterosexuals*		Average number of sex partners of the opposite sex in the past 12 months	Had condomless sex with a partner of the opposite sex in the past 12 months		Exchanged money or drugs for sex in past 12 months		Had condomless sex with an HIV-positive partner in the past 12 months	
	N	N	N	%	N	%	N	%
25-34	164	3	57	35%	25	15%	0	0%
35-44	93	4	43	46%	27	29%	0	0%
45+	181	3	84	46%	47	26%	1	1%
Total	545	3	233	43%	110	20%	1	0%

* For HIV surveillance purposes, a high risk heterosexual is a male or female whose sexual partners are known to be HIV-infected or at high risk for HIV (partner has a history of sexual contact with bi-sexual male for females, exchanging money or drugs for sex, IDU, hemophiliacs, HIV+ transfusion recipients, or other HIV+ persons of unknown risk).

- Persons who acquired HIV through heterosexual contact comprise 22% of new HIV diagnoses in Texas. Forty-three percent heterosexual study participants reported having condomless sex with a partner of the opposite sex. Twenty percent exchanged money or drugs for sex in the past 12 months. Only one respondent reported having condomless sex with a person living with HIV within the last 12 months.

- In the HRH cycle of data collection, 85% percent of survey respondents were Black, compared to 56% of heterosexuals newly diagnosed with HIV in Texas. Given the high proportion of Black persons in the study population, these data may not be reflective of all risk behaviors among heterosexuals in Texas.

- Age appears unrelated to patterns in condomless sex as it was reported by 46% of those 18-24 years of age and by 46% of those 45 years of age or older. Furthermore, older respondents were more likely to report exchanging sex for money or drugs.

Epi Profile Section 9 - Indicators of HIV Risk in PLWH Currently in Care

- **Table 9-1.** Sexual Activity, Risk Reduction, and Risk Behavior in HIV-positive MSM by Race and Age, 2014-2015 Texas
- **Table 9-2.** Sexual Activity, Risk Reduction, and Risk Behavior in HIV-positive Heterosexuals by Race and Age, 2014-2015 Texas

A note on risk reduction for persons at risk of or living with HIV: Serosorting and Viral Suppression.

Serosorting is the risk-reduction practice of choosing sexual partners with the same HIV status. In order to be effective, serosorting requires accurate knowledge of one's own HIV status and the status of all potential partners. Serosorting by HIV status is not protective against bacterial sexually transmitted infections. Findings from this survey, detailed below, indicate that persons living with HIV in Texas may be serosorting as a risk reduction strategy.

Persons living with HIV are said to have achieved viral suppression once the level of HIV circulating in the body is very low (undetectable, <200 copies/ml). This is accomplished with the use of anti-retroviral therapy (ART) prescribed by a clinician. Rigorous research has shown that in addition to improving the health of persons living with HIV, viral suppression prevents transmission of HIV. In 2017, the CDC formally announced that they support the science that shows that Undetectable = Untransmittable. In other words, persons living with HIV who are virally suppressed cannot transmit HIV to anyone else through sexual contact.

Results from the Medical Monitoring Project, a survey of persons living with HIV, show that many persons living with HIV who are sexually active are virally suppressed and unlikely to transmit HIV.

Table 9-1. Sexual Activity, Risk Reduction, and Risk Behavior in HIV-positive MSM by Race and Age, 2014-2015 Texas

Sexually Active Men Who Have Sex With Men		Average number of male sex partners in past 12 months	Had condomless anal sex with a male partner in the past 12 months		Had condomless anal sex with a male partner whose HIV status was discordant or unknown in the past 12 months		Primary, secondary, or syphilis infection of unknown duration in the past 12 months		Used injection or non-injection drugs in the past 12 months	
	N	**N**	**N**	**%****	**N**	**%****	**N**	**%****	**N**	**%****
Race/Ethnicity										
White	36	3	23	56%	*9*	27%	*3*	10%	12	29%
Black	51	4	21	35%	10	16%	17	26%	19	33%
Hispanic	54	5	25	45%	11	17%	*9*	18%	16	30%
Total	141	4	69	45%	30	19%	29	18%	47	30%
Age										
18-29	35	5	19	54%	*9*	24%	*9*	21%	13	38%

Table 9-1. Sexual Activity, Risk Reduction, and Risk Behavior in HIV-positive MSM by Race and Age, 2014-2015 Texas

Sexually Active Men Who Have Sex With Men		Average number of male sex partners in past 12 months	Had condomless anal sex with a male partner in the past 12 months		Had condomless anal sex with a male partner whose HIV status was discordant or unknown in the past 12 months		Primary, secondary, or syphilis infection of unknown duration in the past 12 months		Used injection or non-injection drugs in the past 12 months	
	N	N	N	%**	N	%**	N	%**	N	%**
30-39	35	5	20	59%	12	13%	13	33%	16	51%
40-49	44	4	18	35%	*4*	9%	*6*	14%	13	24%
50+	27	2	12	38%	*5*	11%	*	*	5	12%
Total	141	4	69	45%	30	19%	28	18%	47	30%

** Cell suppressed for numbers less than 3*
*** Percentages are weighted*
Cell sizes lass than 10 may produce unstable estimates

- According to results from Texas' Medical Monitoring Project (MMP) Survey, nearly half (45%) of the 141 sampled MSM living with HIV reported having condomless anal sex with a male partner in the past 12 months, and 30 (19%) MSM LWH had condomless anal sex with someone who was not known to be living with HIV. This means that 81% of MSM LWH who reported condomless anal sex only did so with a partner who was also living with HIV, a potential indicator of serosorting.

- Serosorting for condomless anal sex leaves persons vulnerable to bacterial sexually transmitted infections. Eighteen (18%) percent of MSM living with HIV were diagnosed with syphilis diagnosis in the past 12 months. A larger proportion of Black MSM living with HIV (26%) had evidence of a syphilis infection compared to White MSM (10%) and Hispanic MSM (18%). About a third of MSM living with HIV reported non-injection or injection drug use in the past 12 months. This is concerning as drug use can lower inhibitions and contribute to high-risk sexual behavior.

- Sexual risk behavior and drug use among MSM living with HIV decreases with age. Of those 50 years of age and older, 38% reported condomless anal sex with a male partner compared to 54% of those 18-29. Only 12% of MSM living with HIV over the age of 50 reporting using injection or non-injection drugs compared to 38% of those 29 years of age or younger.

- It is important to note that 86% of the MSM living with HIV who reported condomless anal sex with a male partner in the last 12 months were virally suppressed. Of the 30 MSM living with HIV who reported condomless anal sex with a partner of discordant status, 88% were virally suppressed. This means that the vast majority of MSM living with HIV sampled in this survey are not at risk of transmitting HIV to their sexual partners. However, high rates of new HIV diagnosis among MSM in Texas demonstrate that new transmissions from persons who have not achieved viral suppression are still occurring.

Table 9-2. Sexual Activity, Risk Reduction, and Risk Behavior in HIV-positive Heterosexuals by Race and Age, 2014-2015 Texas

Sexually Active Heterosexuals		Average number of sex partners of the opposite sex in the past 12 months	Had condomless vaginal or anal sex with a partner of the opposite sex in the past 12 months		Had condomless vaginal or anal sex with a partner whose HIV status was discordant or unknown in past 12 months		Used injection or non-injection drugs in the past 12 months	
	N	**N**	**N**	**%**	**N**	**%**	**N**	**%**
Race/Ethnicity								
White	18	1	12	73%	*9*	62%	*7*	37%
Black	71	2	24	31%	16	21%	15	20%
Hispanic	45	2	14	32%	10	19%	*	*
Total	134	2	50	37%	35	25%	22	15%
Age								
18-29	11	1	*7*	57%	*7*	57%	*	*
30-39	27	3	14	50%	10	33%	*6*	14%
40-49	49	1	16	35%	*9*	23%	*7*	11%
50+	47	1	13	27%	*9*	17%	*9*	20%
Total	134	2	50	37%	35	25%	22	15%

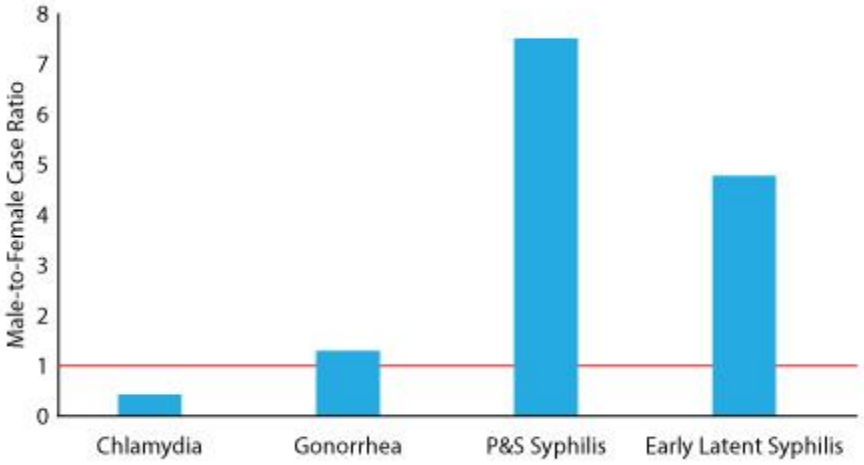
** Cell suppressed for numbers less than 3*
*** Percentages are weighted*
Cell sizes lass than 10 may produce unstable estimates

- Seventy-three percent (73%) of white heterosexual persons living with HIV reported condomless sex with a partner of the opposite sex in the past 12 months. This is noticeably higher than Black persons living with HIV (31%) and Hispanic persons living with HIV (32%) who reported condomless sex with a partner of the opposite sex. Similarly, 62% of white heterosexual persons living with HIV had condomless sex with a partner whose HIV status was discordant or unknown in past 12 months, compared to 21% of Black persons living with HIV and 19% of Hispanic persons living with HIV. Similar to MSM living with HIV, 77% of the 50 heterosexuals who reported condomless anal sex in the last 12 months were virally suppressed. Furthermore, 83% of the 35 heterosexual PLWH who reported condomless anal sex with a partner who did not have HIV or whose HIV serostatus was unknown were virally suppressed.

- Similar to MSM, the proportion of heterosexual persons living with HIV who engaged in high-risk sexual behaviors decreased with age. Half of heterosexual persons aged 18-29 (57%) and fifty percent of those 30 to 39 years of age reported condomless sex in the past 12 months. A higher proportion of White heterosexuals and older heterosexuals reported drug use in the last 12 months.

Epi Profile Section 10 - Men who have Sex with Men (MSM)

Figure 10-1. Ratio of Male to Female STD Diagnoses, Texas, 2016



Data for Figure 10-1

- A ratio of 1 indicates that approximately equal numbers of males and females were diagnosed with a particular STD.

- In 2016, gonorrhea, and Primary, Secondary and Early Latent syphilis were diagnosed more frequently in males compared to females. 2016 is the second year that gonorrhea diagnoses in males has exceeded the number of diagnoses in females. This is most likely due to an increase in screening rates among MSM, and potentially increased transmission among MSM.

- Chlamydia is diagnosed more frequently in females due to targeted screening in young females age 15-24 and lower chlamydia screening rates in males.

Table 10-1. Five Year Cumulative Trends in New HIV Diagnoses in Texas among MSM by Race/Ethnicity and Age Group

	Cumulative Through 2011		2012		2013		2014		2015		2016		Total 1980-2016	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
All MSM	66,899	100%	2,988	100%	3,004	100%	3,088	100%	3,148	100%	3,233	100%	82,361	100%
Race														
White MSM	31,997	47.8%	700	23.4%	711	23.7%	702	22.7%	682	21.7%	716	22.1%	35,507	43.1%
Black MSM	15,030	22.5%	890	29.8%	950	31.6%	970	31.4%	1,001	31.8%	1,006	31.1%	19,847	24.1%
Hispanic MSM	18,126	27.1%	1,251	41.9%	1,199	39.9%	1,283	41.5%	1,321	42.0%	1,369	42.3%	24,549	29.8%
Other MSM	491	0.7%	42	1.4%	55	1.8%	56	1.8%	64	2.0%	61	1.9%	768	0.9%
Unknown Race MSM	1,255	1.9%	106	3.6%	90	3.0%	78	2.5%	79	2.5%	81	2.5%	1,690	2.1%
Age Group														
0-14 MSM	22	<0.1%	2	<0.1%	3	0.1%	1	<0.1%	0	0%	3	0.1%	31	<0.1%
15-24 MSM	8,691	13.0%	844	28.2%	855	28.5%	938	30.4%	918	29.1%	876	27.1%	13,121	15.9%
25-34 MSM	26,529	39.7%	989	33.1%	1,044	34.8%	1,090	35.3%	1,159	36.8%	1,327	41.1%	32,139	39.0%
35-44 MSM	21,222	31.7%	603	20.2%	546	18.2%	529	17.1%	546	17.4%	507	15.7%	23,952	29.1%
45+ MSM	10,436	15.6%	551	18.4%	557	18.5%	530	17.2%	525	16.7%	520	16.1%	13,118	15.9%

- For the first 30 years of the HIV epidemic, over half of HIV cases in MSM were diagnosed among White MSM; MSM of color now account for a majority of new HIV diagnoses in MSM.

- A greater proportion of HIV transmissions in MSM are diagnosed in 15-24 year olds in recent years (2012-2016) compared to past years. For the first 30 years of the epidemic, youth (15-24 year olds) made up a little more than 1 in every 10 new diagnoses in MSM. In more recent years, youth make up about 3 in every 10 of new diagnoses in MSM. Also, in 2012, 33.1% of new diagnoses were between 25 and 34 years of age. In 2016, the proportion of new diagnoses among this age group increased to 41.1%. This may reflect increased availability and frequency of testing compared to past years or younger age at infection for this group.

Table 10-2. New HIV Diagnoses in MSM by Age Group Within Race/Ethnicity, 2016

	White		Black		Hispanic		Other		Unk	Total	
	N	Rate	N	Rate	N	Rate	N	Rate	N	N	Rate
18-24	115	363.0	363	3,220.1	324	833.5	9	220.2	25	838	971.5
25-34	251	501.3	409	3,207.5	605	1,200.2	25	311.8	34	1,327	1,094.4
35-44	132	301.3	110	949.9	241	550.8	15	205.8	6	507	474.1
45+	214	139.8	100	362.4	181	237.4	9	29.2	13	520	566.8
Total	712	255.6	982	1,551.0	1,350	645.1	58	174.5	78	3,192	544.6

- Estimates of the MSM population by race/ethnicity and age group in Texas has allowed for calculation of the rate of new HIV diagnoses in MSM not known to be living with HIV (as seen in Table 10-2).

- Among Black MSM age 18 to 34, 3.2% were diagnosed with HIV in 2016. Because diagnoses do not reflect all infections within a population, the rate of new infections in this group is likely higher.

Table 10-3. Proportion of MSM Diagnosed with HIV by Race and Age, 2016

	White	Black	Hispanic	Total
	1 in	1 in	1 in	1 in
18-24	275	31	120	103
25-34	199	31	83	91
35-44	332	105	182	211
45+	715	276	421	176

Table 10-3. Proportion of MSM Diagnosed with HIV by Race and Age, 2016

	White	Black	Hispanic	Total
	1 in	1 in	1 in	1 in
Total	391	64	155	184

- Rates can also be displayed as the proportion of persons in a population that are diagnosed with HIV in a particular year..

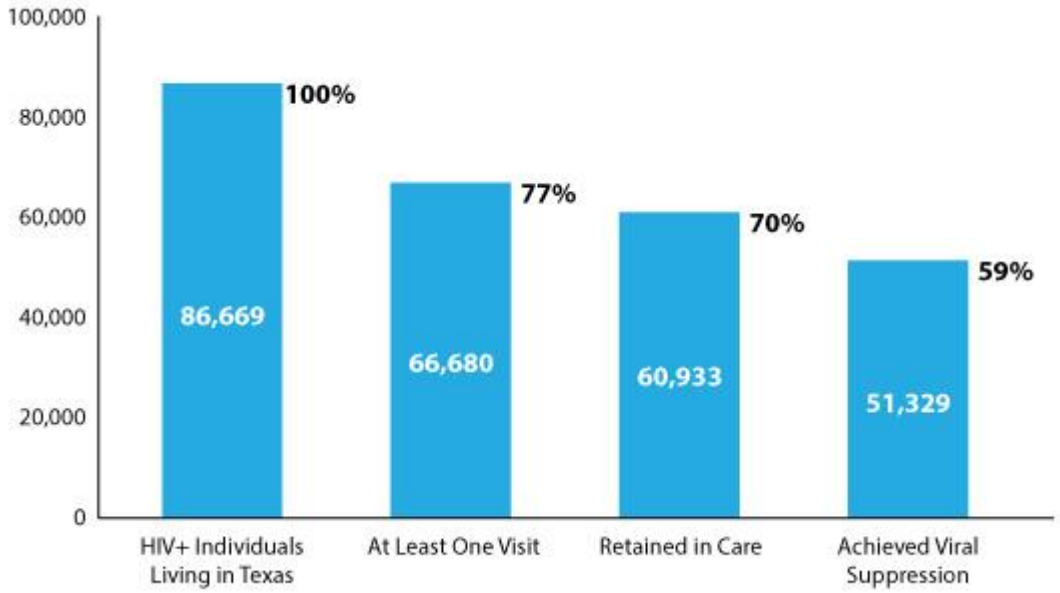
- For example, in 2016, 1 in 391 White MSM were diagnosed with HIV - compared to 1 in 64 Black MSM and 1 in 155 Hispanic MSM.

- These numbers can also be translated to percentages, For example, in 2016
    - 1.5% of all Black MSM in Texas were newly diagnosed with HIV infection
    - 3.2% of Black MSM between ages of 18 and 34 were newly diagnosed with HIV infection
    - 1% of all Texas MSM between ages of 25-34 were newly diagnosed with HIV infection

Epi Profile Section 11 - HIV Treatment Cascade

- **Figure 11-1.** Texas HIV Treatment Cascade, 2016

Figure 11-1. Texas HIV Treatment Cascade, 2016



HIV+ Individuals Living in Texas - Number of HIV+ individuals (alive) at the end of 2016

At Least One Visit - Number of PLWH with a met need (at least one: medical visit, ART prescription, VL test, or CD4 test) in 2016

Retained in Care - Number of PLWH with at least 2 visits or labs, at least 3 months apart or suppressed at end of 2016

Achieved Viral Suppression - Number of PLWH whose last viral load test value of 2016 was <= 200 copies/mL

- The HIV Treatment Cascade is a visual representation of the HIV continuum of care among Texans living with HIV. Each successive bar demonstrates the steps between HIV diagnosis and achieving viral suppression. A suppressed viral load is associated with improved health outcomes for PLWH and lowered risk of transmission. The estimated 14,000 PLWH who are unaware of their status are not included in this cascade.

- In 2016 in Texas, 77% of PLWH were in care (by evidence of a medical visits, lab/CD4 or prescription for ART and 70% of PLWH were retained in care (i.e. two visits or labs at least

3 months apart in 2016). At the end of 2016, there were 51,329 people who were virally suppressed, comprising 59% of all PLWH. Lowering the viral load of persons living with HIV lowers the overall amount of HIV circulating in communities, and this in turn reduces the chances of transmissions and new infections. This has been demonstrated in Texas as the number of new diagnoses remains steady despite increases in the overall number of persons living with HIV (PLWH). This pattern shows the effectiveness of prevention and treatment efforts. Further reducing the annual number of new infections will require new and additional strategies.

- The HIV Treatment Cascade can help identify gaps in the care continuum where patients fall out of care or are not achieving viral suppression. DSHS creates Treatment Cascades for demographic groups and geographic areas to highlight the state of HIV care for PLWH across the state. These cascades are available upon request from TBHIVSTDdata@dshs.texas.gov.