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Epidemiologic Overview

Dallas Eligible Metropolitan Area Integrated HIV Prevention and Care Plan

REGION	South
PLAN TYPE	EMA, Integrated city/county-only prevention and care plan
JURISDICTIONS	Dallas County
HIV PREVALENCE	High

The Dallas EMA epidemiologic profile provides a thorough description of the HIV burden in the EMA, both geographically and demographically. In addition, the section details indicators of risk from the National HIV Behavioral Surveillance (NHBS), data on comorbidities, and socioeconomic information (both exact and estimates from national/state datasets) for PLWH. As compared to other Part A submissions, Dallas’ plan is lengthy and the data provided are robust.

SELECTION CRITERIA: EPIDEMIOLOGIC OVERVIEW

Exemplary Epidemiologic Overview sections met the following criteria (based on the Integrated HIV Prevention and Care Plan Guidance):

- 5 year data trends used with most recent year between 2014 through 2016
- Use of clear and effective graphics
- Robust description of demographic data (race, age, sex, transmission category, gender identify) of persons newly diagnosed, PLWH, and persons at high risk for infection
- Description of SES (FPL, income, education, insurance status) of persons newly diagnosed, PLWH, and persons at high risk for infection
- Clear description of burden of HIV in service area
- Clear description of indicators of risk for HIV infection



Additional exemplary plan sections are available online:
www.targetHIV.org/exemplary-integrated-plans

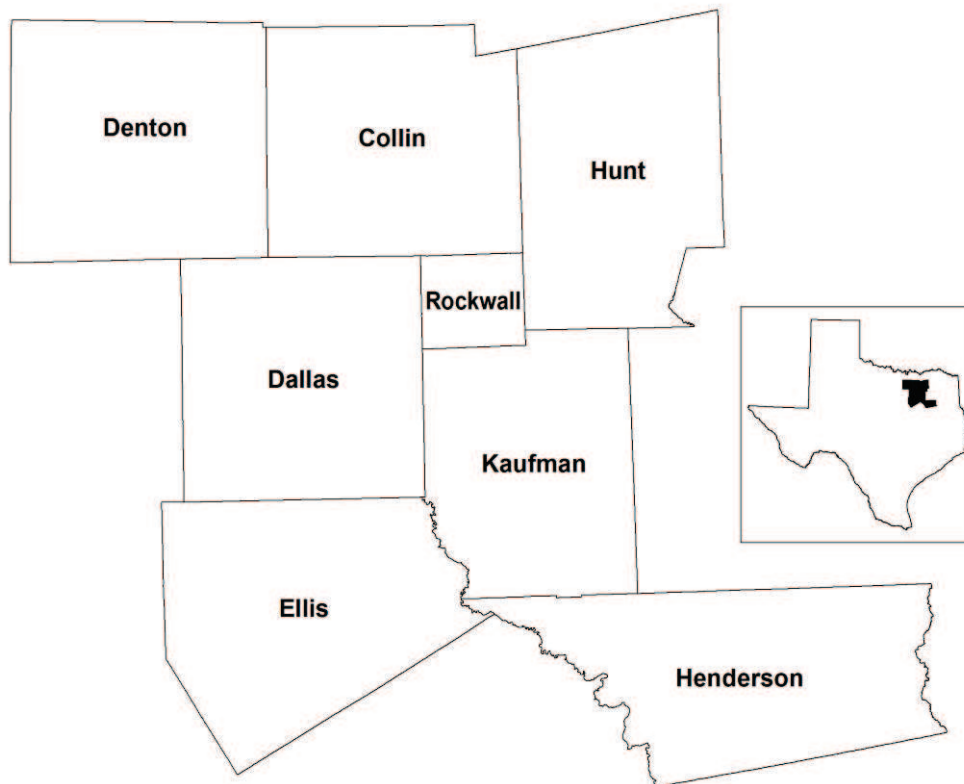
EPIDEMIOLOGIC OVERVIEW

a. Describe (map and/or narrative) the geographical region of the jurisdiction (i.e., Eligible Metropolitan Area) with regard to communities affected by HIV infection.

The information in this section is drawn from the National Center for Health Statistics and results from the Census Bureau's *American Community Survey* (information collected across 2010-2014) and *Supplement to the Current Population Survey* (2014).

The Dallas EMA covers eight counties in north east Texas, as shown in Figure 1. The city of Dallas sits in Dallas County, the largest in terms of general population and people living with a diagnosed HIV infection.

Figure 1: The Dallas EMA

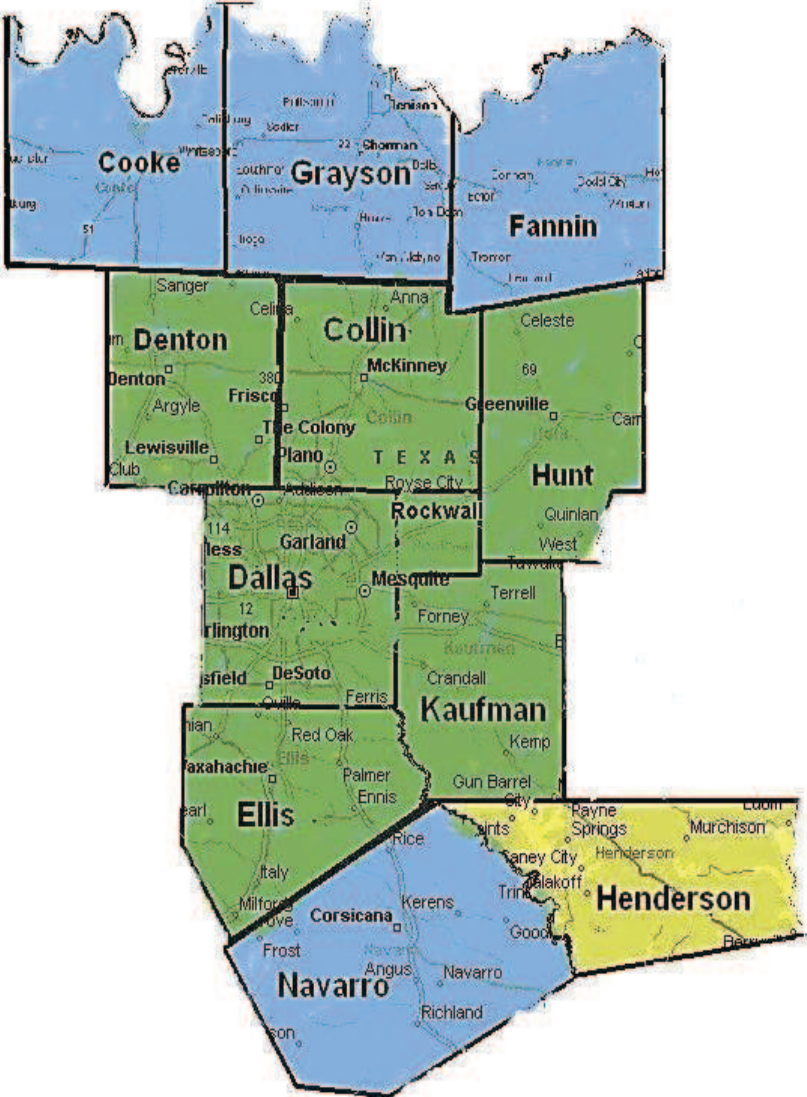


From 2010 to 2014 the Dallas EMA added about 375,000 residents, reaching 4.6 million and increasing the population by 9%. The breakdowns of the population by sex, race/ethnicity, and age group are shown below.

Overall, the Dallas Planning Area (DPA) for services, as shown in Figure 2, also includes the Dallas Health Services Delivery Area (HSDA) and the Sherman-Dennison HSDA. The Dallas HSDA has seven counties in common with the Dallas EMA, but also includes Navarro County. The Sherman-Dennison HSDA consists of Cook, Fannin, and

Grayson Counties. The data in this report provided by DSHS reflects numbers from the Dallas EMA only, which has the highest concentration of PLWH in the area.

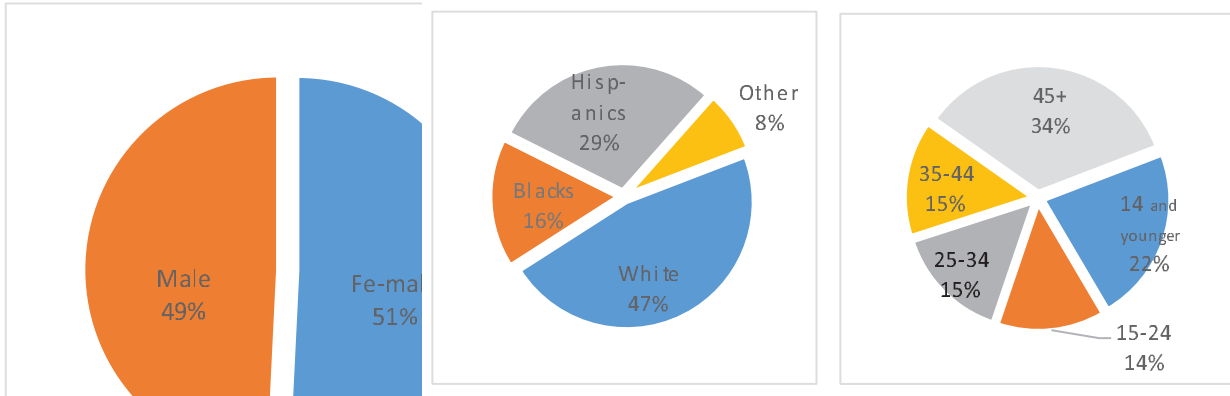
Figure 2: The Dallas Planning Area (Dallas EMA, Dallas HSDA, and Sherman-Dennison HSDA)



b. Describe (table, graph, and/or narrative) the socio-demographic characteristics of persons newly diagnosed, PLWH, and persons at higher risk for HIV infection in the service area, including the following, as available in the geographical region of the jurisdiction:

i. Demographic data (e.g., race, age, sex, transmission category, current gender identity)

Figure 3: Dallas EMA population in 2014 by sex, race/ethnicity and age



Race/Ethnicity

Blacks make up about 16% of the population of the EMA, but more than 40% of the PLWH in the area. Between 2010 and 2014, the number of Black PLWH in the EMA rose by about a quarter, and the 2014 prevalence rate indicates that more than 1% of Black residents of the EMA were living with diagnosed HIV infections (1,023.9 PLWH per 100,000 = 1.02 per 100 residents of the EMA). Prevalence rates for Blacks were consistently three times higher than the rates for Whites or Hispanics, and rose about 14% between 2010 and 2014.

Blacks also made up 45% of those newly diagnosed over the past five years, with the number of new diagnoses in Blacks being about 70% to 80% higher than diagnoses among Whites and Hispanics. The diagnosis rate for Blacks was consistently five times higher than the rate in Whites and three times higher than the diagnosis rates for Hispanics for 2010-2014.

The number of White PLWH and the prevalence rate were flat, as were the number of new diagnoses and the diagnosis rate for this group. By 2014 there were 12 Black PLWH for every 10 White PLWH.

The rate of growth for Hispanic PLWH was similar to the rate for Blacks, but there were 19 Black PLWH for every 10 Hispanic PLWH. The number and rate of new diagnoses in Hispanics shows a slow downward trend.

Figure 4: Dallas PLWH and new diagnoses by race/ethnicity

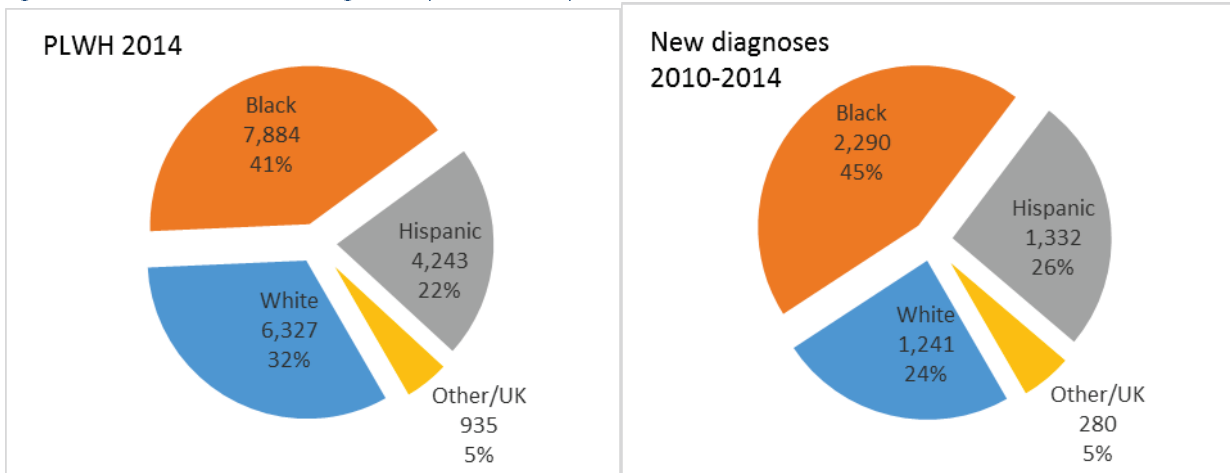


Figure 5: Changes in race/ethnicity of Dallas PLWH and new diagnoses, 2010-2014

PLWH

New Diagnoses

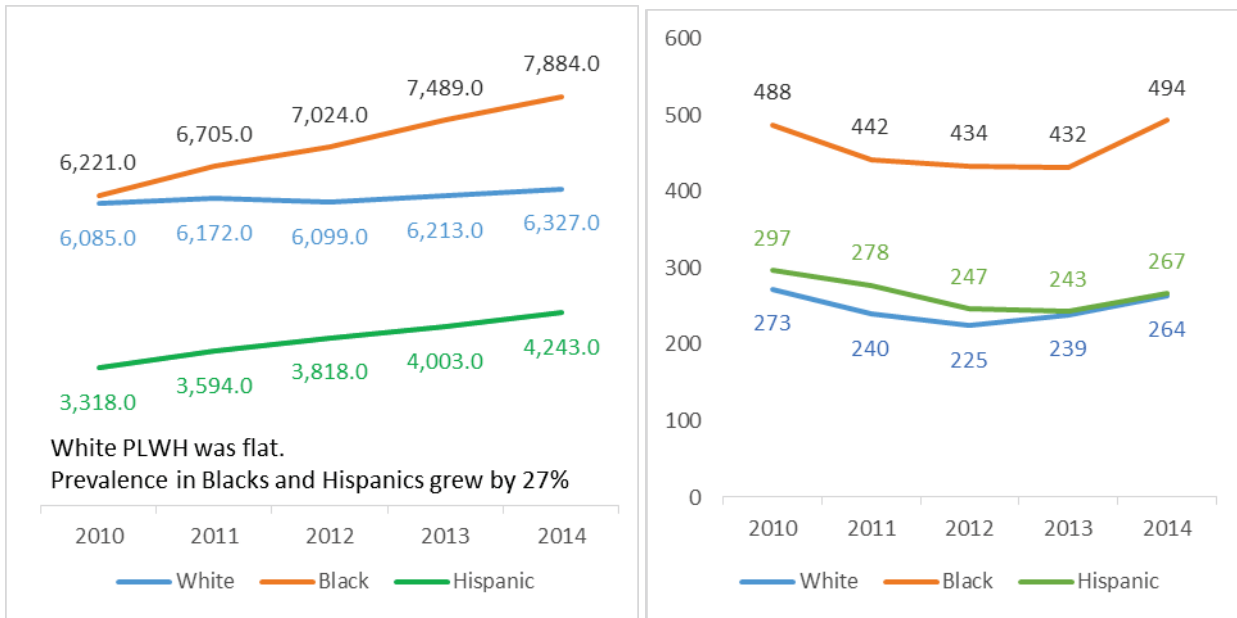
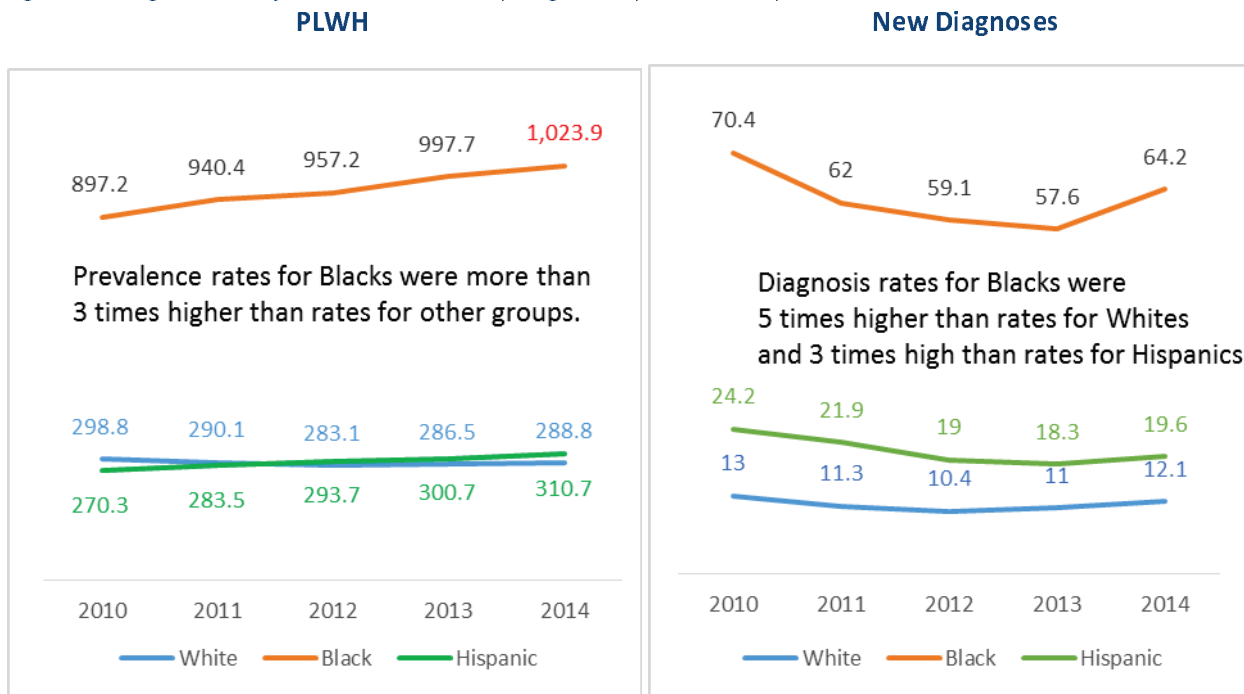


Figure 6: Changes in rates of PLWH and those newly diagnosed by race/ethnicity, Dallas 2010-2014



Age

About half the PLWH in the EMA are 45 or older, another quarter are 35-44 years old and a quarter are 34 and younger. Both the number of PLWH 25-34 and 45 or older increased, but other age groups were flat. It is difficult to discern trends in the age of EMA residents who were diagnosed between 2010-2014 due to individuals moving from one category to another in a given year.

Figure 7: Dallas PLWH and new diagnoses by age

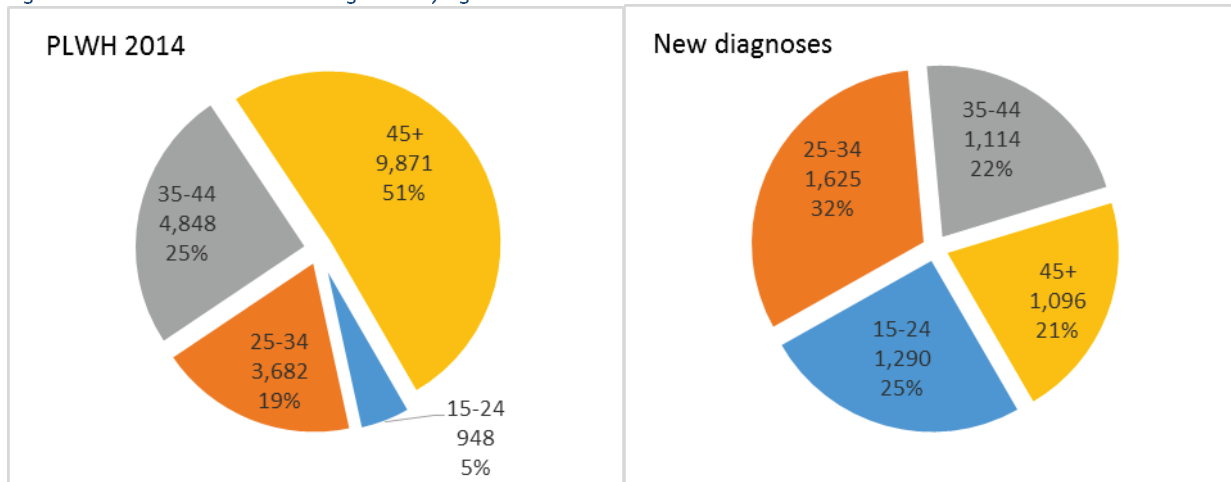
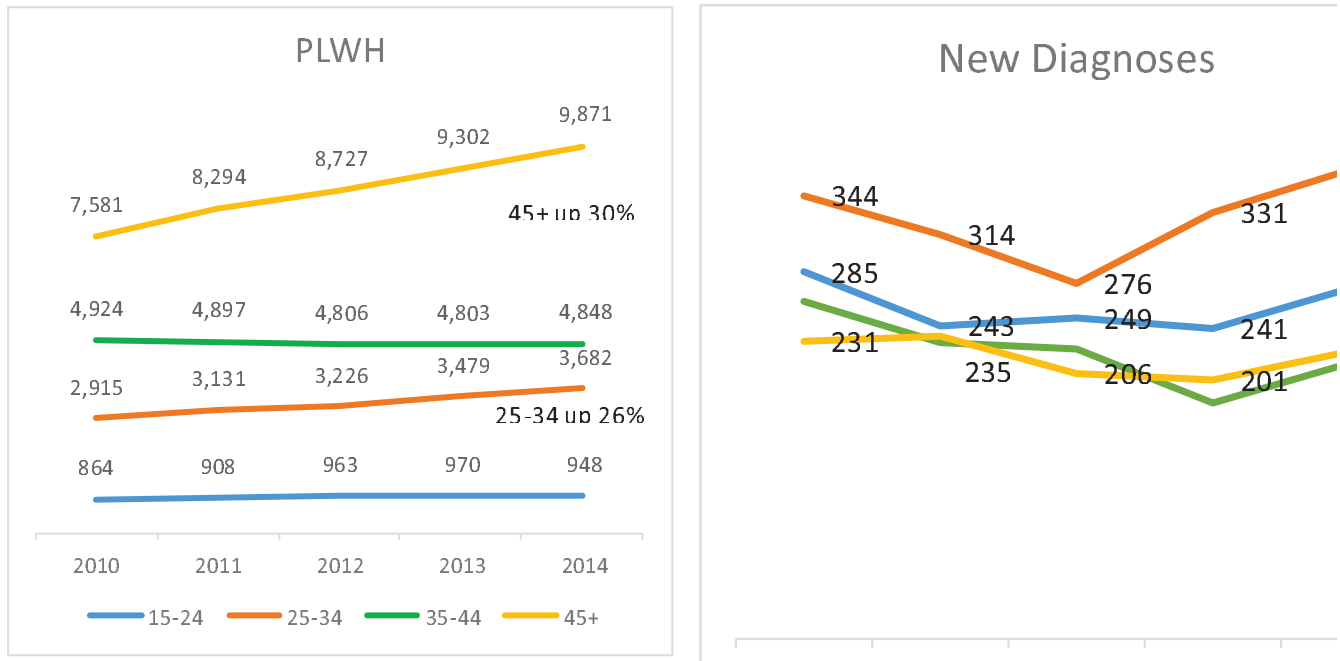


Figure 8: Changes in age of Dallas PLWH and new diagnoses, 2010-2014



Sex

About four out of five PLWH in the Dallas EMA in 2014 were men. The number of men and women grew at the same pace, so the prevalence rate of HIV for men was consistently four times higher than the rate for women.

Men also made up about four of five new diagnoses in the EMA. The decreasing numbers of infections seen in women is a continuation of a trend from 2005-2009; from 2010 – 2014 the number of new diagnoses in women fell by 14%. For men, numbers of new diagnoses fell from 2005 to 2009, but were flat from 2010-2014.

Figure 9: Dallas PLWH and new diagnoses by sex

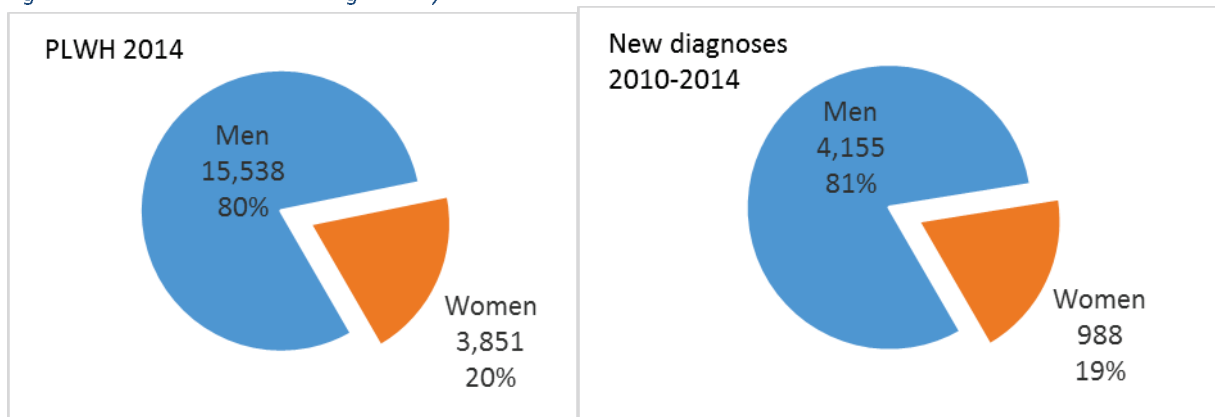


Figure 10: Changes in numbers of men and women in Dallas living with diagnosed HIV infections and with newly diagnosed infections. 2010-2014

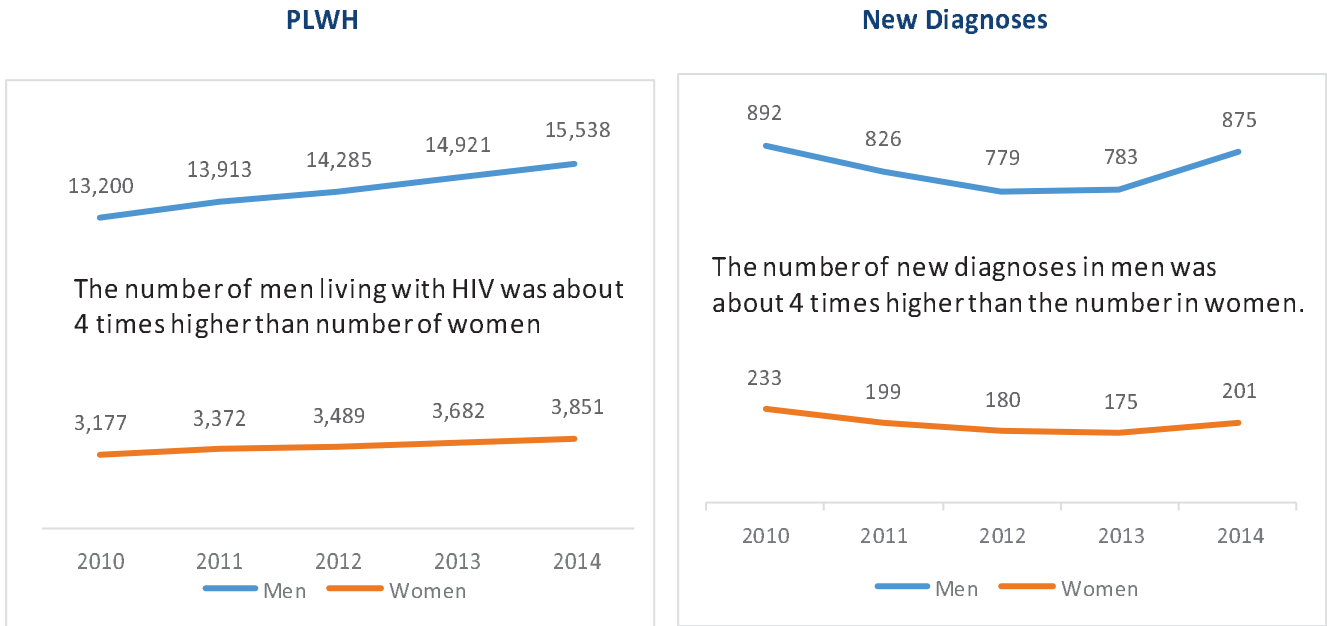
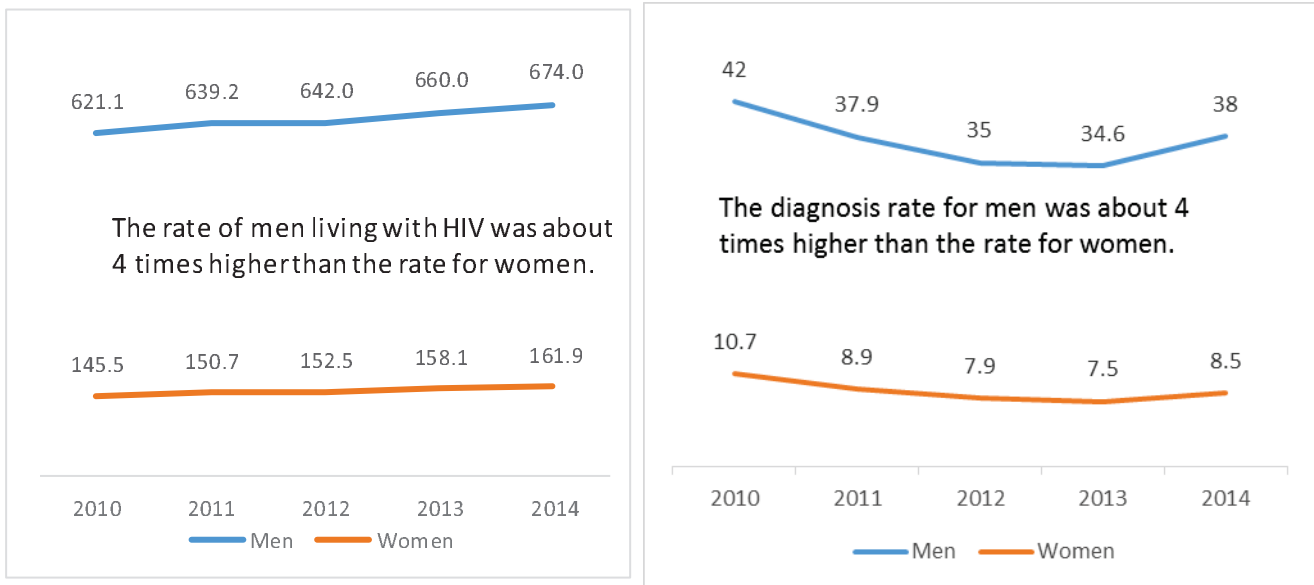


Figure 11: Changes in rates of men and women living with HIV and with newly diagnosed, Dallas 2010-2014



Mode of transmission

Public health surveillance uses the term *mode of transmission* to categorize information about people with HIV based on the most likely way they became infected. The most common modes of transmission groups are gay and bisexual men and other men who have sex with men (MSM), high risk heterosexuals (HRH), injection drug users (IDU), and MSM who also inject drugs (MSM/IDU). While locally, the planning body in Dallas believes it would be more appropriate for mode of transmission categories to better represent how each individual transmitted the disease with categories such as condomless anal sex, condomless vaginal sex, and/or sharing needles with someone who has HIV, the data received for this plan from the Texas Department of State Health Services (DSHS) used the more traditional mode of transmission categories. HIV can also be transmitted from mother to child or through blood transfusions or other medical exposures; these latter two categories account for very few PLWH.

In 2014, more than three in five PLWH and more than three in four of those newly diagnosed in Dallas were in MSM. There were three times as many PLWH and new diagnoses in MSM than in heterosexuals, the next largest group. Dallas residents with heterosexually acquired infections were about one in five PLWH or people with new diagnoses, and the number of new diagnoses in this group decreased by about 18% from 2010-2014.

Mode of transmission groups

Mode of transmission refers to the most likely way a person with HIV became infected. Major modes of transmission in Texas are

- MSM:** gay men, bisexual men, and other men who have sex with men
- HRH:** high-risk heterosexuals
- IDU:** heterosexual injection drug users
- MSM/IDU:** MSM who also inject drugs

Figure 12: Dallas PLWH and new diagnoses by mode of transmission

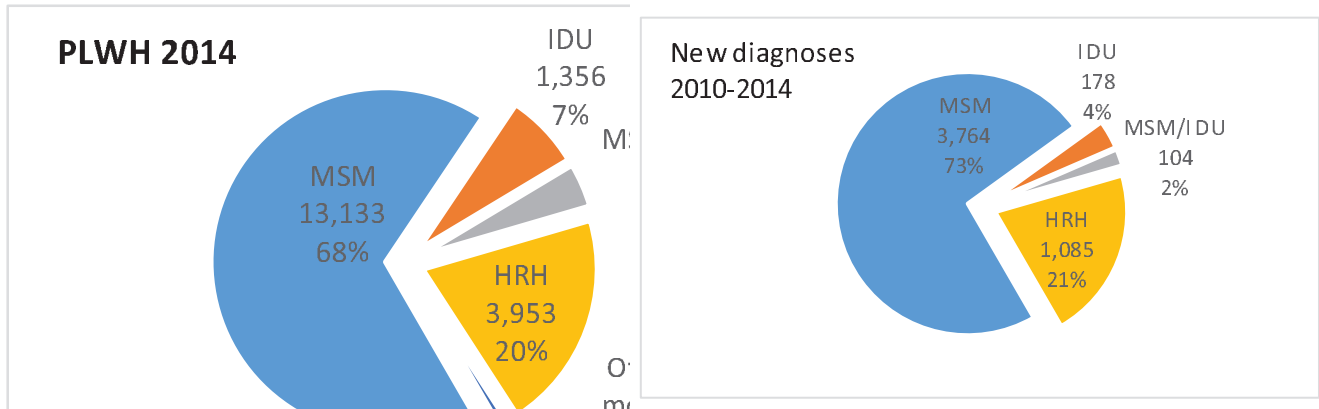
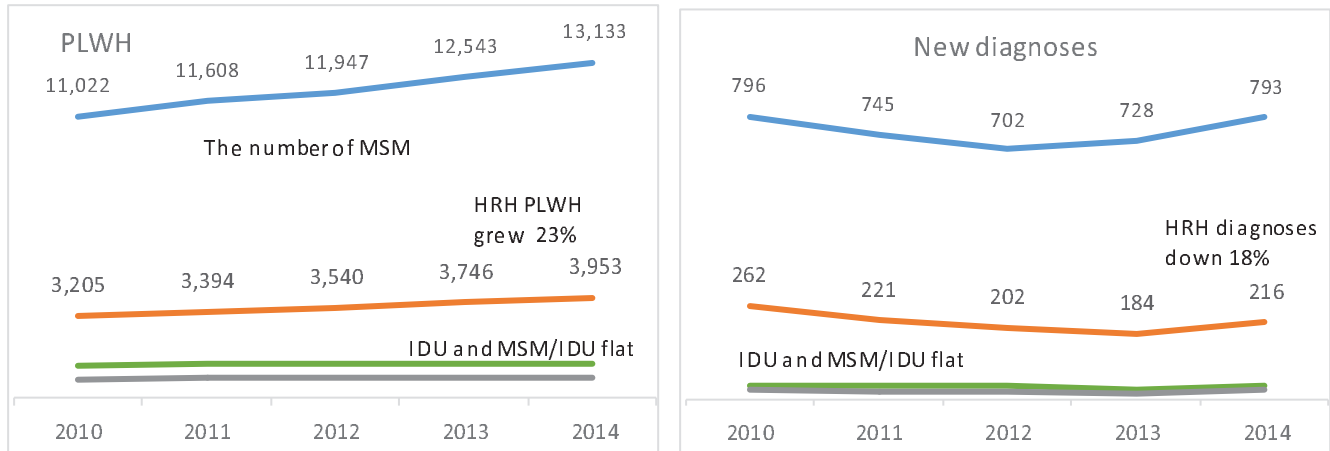


Figure 13: Changes in mode of transmission, Dallas 2010-2014



Gender identity

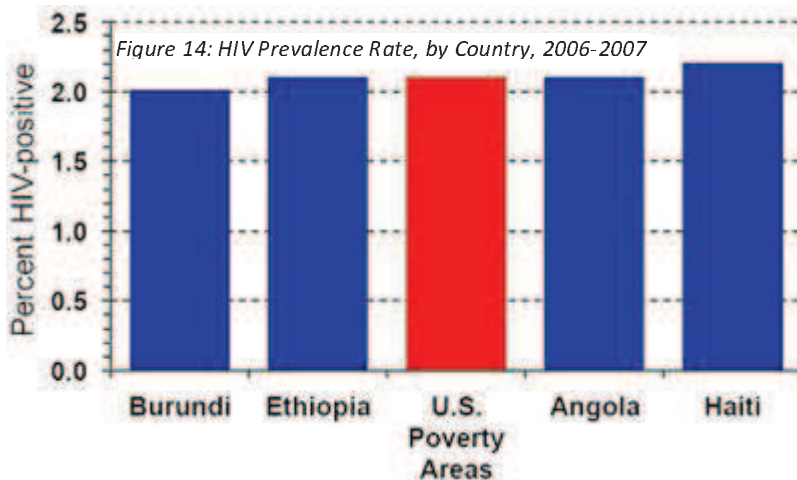
While most of the data in this section was provided by DSHS, gender identity data was not provided. Gender identity information related to HIV in the overall 12 county Dallas Planning Area for this section was obtained from the AIDS Regional Information and Evaluation System (ARIES) pertaining to clients receiving Ryan White funded services.

In 2014, 77% of Ryan White clients identified as male, whereas 22% identified as female and less than 1% identified as transgender. These numbers have been fairly consistent over the last five years (2010-2014). The percentage of Ryan White clients that identify as male has varied from 76% - 77%; the percentage of Ryan White clients that identify as female has varied from 22% - 24%; and the number of Ryan White clients that identify as transgender has varied from 0.49% - 0.65%.

ii. Socioeconomic data (e.g., percentage of federal poverty level, income, education, health insurance status, etc.)

Percentage of federal poverty level & Income

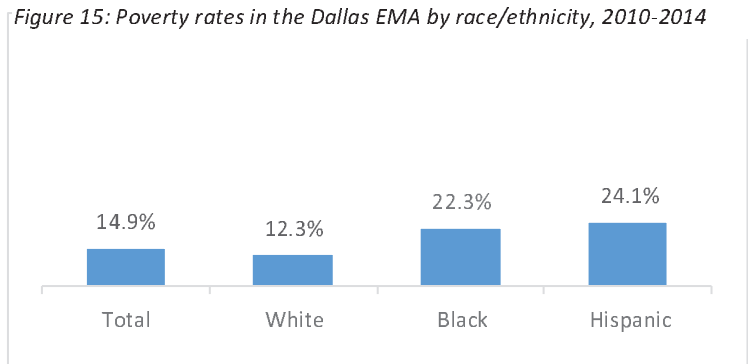
According to The Joint United Nations Programme on HIV/AIDS (UNAIDS), the United States has a concentrated



HIV epidemic, primarily among MSM and IDUs and has greatly affected the economically disadvantaged in many urban areas. The Centers for Disease Control and Prevention (CDC) defines a concentrated HIV epidemic as when the HIV prevalence rate is <1% in the general population, but >5% in at least one high-risk subpopulation, such as MSM. The CDC recently conducted

a study in 25 urban areas, including Dallas, which found the HIV prevalence rate to be so high in urban poverty areas, that the rate is more than 20 times greater than the rate among all heterosexuals in the U.S. HIV prevalence rates in urban poverty areas in the U.S. is similar to rates found in low-income countries such as Burundi, Ethiopia, Angola, and Haiti. HIV prevalence rates in Dallas and other U.S. urban areas are inversely related to annual household income as shown in Figure 14².

Poverty influences health directly and indirectly. Income directly affects the ability to pay for health care or health insurance. Low income is both a cause and effect for factors such as low educational attainment and housing and job instability that are associated with poor health.¹ In 2014, nearly 15% of EMA residents were living in poverty. Racial/ethnic minorities bore a higher burden of poverty – one in four Hispanic and one in five Black Dallas residents lived in poverty compared to less than one in seven Whites as shown in Figure 15.



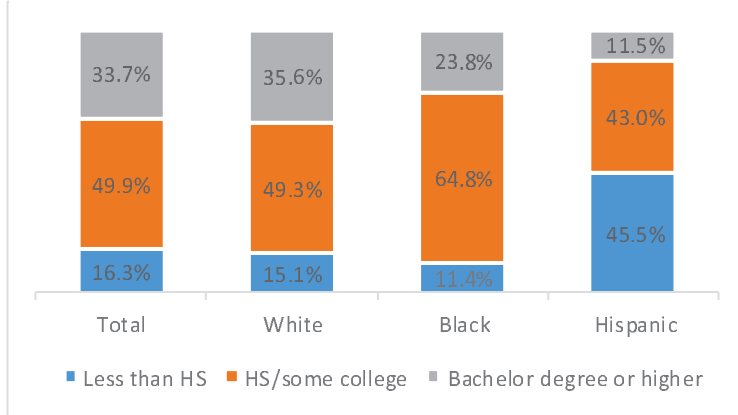
When analyzing the Federal Poverty Level (FPL) of consumers of Ryan White services in the 12 county Dallas Planning Area via the AIDS Regional Information and Evaluation System (ARIES) from 2010 – 2014, the percentage of users that were in the 0% - 100% FPL dropped dramatically in 2014 compared to the previous four calendar years. 60% of Ryan White consumers fell within this range in 2014, whereas in the previous four calendar years the percentage of Ryan White consumers that fell within this FPL was 68% in 2010 and 2011, 69% in 2012, and 70% in 2013.

²Data sources: NHBS-HET-1 2006-7 and UNAIDS HIV Estimates 2007. From: Denning P and DiNenno E. Communities in Crisis: Is There a Generalized HIV Epidemic in Impoverished Urban Areas of the United States? The Centers for Disease Control and Prevention. <http://www.cdc.gov/hiv/group/poverty.html>

Education

People with low levels of educational attainment (less than 12 years of formal schooling) have higher mortality rates from all causes than people with higher levels of educational attainment.² About 16% of Dallas EMA

Figure 16: Levels of educational attainment, Dallas EMA 2010-2014



residents aged 25 and older do not hold a high school diploma (or have earned a GED or equivalent). For Hispanic residents, the proportion is almost three times higher – more than two in five have not completed high school.

Trends in death rates due to HIV infection in the U.S. show that death rates for both whites and blacks individuals decreased substantially from 1993 to 2001 (Figure 17). However, both white and black men with an educational attainment of less than 12 years experienced a much lower decrease in death rates compared to those with an educational level above 16 years. Black females with an education of less than 12 years actually experienced an increase in rate of death due to HIV infection from 1993 to 2001³.

Black females with an education of less than 12 years actually experienced an increase in rate of death due to HIV infection from 1993 to 2001³.

Figure 17: Trends in age-standardized death rates (per 100,000) for HIV infection with decreasing trend in the general population among 25-64 year old U.S. adults by race, sex, and education, 1993-2001

Cause/Sex	Education in years	Whites			Blacks		
		Rate	Rate	Annual %*	Rate	Rate	Annual %*
HIV Infection							
Men	All	31.3	6.3	-23.0 [†]	111.3	56.1	-12.1 [†]
	<12 Yrs	28.7	15.4	-12.5 [†]	123.1	120.9	-3.1
	16+ Yrs	31.4	3.5	-28.4 [†]	118.2	28.9	-20.1 [†]
	Rate difference (<12 vs. 16+)	-2.7	12.0		4.9	92.0	
	Rate Ratio, 95% CI (<12 vs. 16+)	0.9 (0.8-1.0)	4.5 (3.9-5.1)		1.0 (0.9-1.2)	4.2 (3.5-5.0)	
Women	All	1.9	0.9	-11.9 [†]	23.1	21.7	-4.6
	<12 Yrs	5.7	5.4	-3.4	41.0	52.9	0.6
	16+ Yrs	0.8	0.1	-22.9 [†]	8.9	5.9	-10.7 [†]
	Rate difference (<12 vs. 16+)	4.9	5.2		32.2	47.1	
	Rate Ratio, 95% CI (<12 vs. 16+)	7.1 (5.2-9.5)	39.2 (22.4-68.6)		4.6 (3.2-6.8)	9.0 (6.3-12.9)	

²Hummer, RA & Hernandez, EM (2013). The Effect of Educational Attainment on Adult Mortality in the United States. *Population Bulletin* 68, no. 1.

³Jemal A, Ward E, Anderson R, et al. Widening of Socioeconomic Inequalities in U.S. Death Rates, 1993-2001. *PLoS One*. 2008; 3(5): 1-8.

Housing and Homelessness

A 2016 Point-In-Time (PIT) homeless count, conducted by the Metro Dallas Homeless Alliance found an increase of 21% in the homeless population in Dallas and Collin Counties over the 2015 PIT Count. Nearly one half of those defined as being unsheltered were homeless for greater than one year⁴. In addition to poor overall physical health being more pronounced among those without a home, rates of mental illness, substance abuse, tuberculosis, hypertension, diabetes, and asthma are all higher. The rate of those living with HIV infection in the U.S. homeless population is estimated to be as high as 3.5% compared to 0.006% in the overall U.S. population⁵. This rate is consistent with historical PIT Counts from 2011 to 2015 in Dallas and Collin Counties, which show the rate of those living with HIV in the homeless population at between 3% and 6% of the homeless population.

Health insurance status

Texas is one of the states that has yet to expand its Medicaid program under the Affordable Care Act (ACA), and is home to the largest number of uninsured individuals of any state in the country (Table 1). Studies have shown that uninsured persons are less likely to have a regular source of health care and to receive needed medical care, and are more likely to die from health-related problems. Chronically-ill uninsured adults delay or forgo checkups and therapies, including medications. Low rates of insurance coverage in a community can also hurt the health of people with insurance. Data show that privately insured, working-age adults in areas with lower insurance rates are less likely to report having a place to go for care when sick, getting routine preventive care, and seeing a specialist when needed.⁶ Uninsured PLWH are especially vulnerable to poor health outcomes, including an increased risk of death.⁷

Table 1: Texans without health insurance, 2010-2014

	Total	White	Black	Hispanic
Texas	21.9%	21.0%	19.6%	33.7%
Austin TGA	17.6%	16.7%	15.6%	29.6%
Dallas EMA	21.5%	19.8%	20.4%	39.0%
Fort Worth TGA	20.3%	18.7%	20.9%	36.4%
Houston EMA	23.5%	22.2%	20.0%	38.4%
San Antonio TGA	18.7%	17.9%	15.3%	23.9%
East Texas area	20.1%	19.4%	20.0%	36.5%
US-Mexico border	31.7%	31.6%	15.2%	34.3%

⁴ <http://www.mdhadallas.org/state-of-the-homeless-address-2016/>

⁵ Zlotnick C and Zerger S. Survey findings on characteristics and health status of clients treated by the federally funded (US) Health Care for the Homeless Programs. *Health and Social Care in the Community*. 2008; 17(1): 18-26.

Between 2010 and 2014, a little more than one in five Dallas residents did not have health insurance. The proportion of Blacks and Whites with health coverage was similar, but the proportion of Hispanics with health insurance was much lower – only about 61 percent had coverage.

Supplemental data from the Census Bureau shows that the proportion of non-elderly Texans with insurance increased from 2013 to 2014, although these increases were primarily in Texans with higher incomes. The number of uninsured Texans dropped by 17 percent, but the number of uninsured persons living in poverty dropped by only ten percent.

The Medical Monitoring Project is a special surveillance study that focuses on a representative sample of PLWH receiving HIV-related care in the U.S. In 2011, 25% of the respondents reported that they had no health insurance coverage; however, due to the sampling methods, only PLWH in medical care were assessed. Those living with HIV not in medical care may be more likely to have even higher rates of being uninsured.

Social Determinants

The World Health Organization defines social determinants of health as the conditions in which people are born, grow, live, work, and age. Examples of social determinants include:

- Availability of resources to meet daily needs (e.g., safe housing and local food markets)
- Access to educational, economic, and job opportunities
- Access to health care services
- Quality of education and job training
- Availability of community-based resources in support of community living and opportunities for recreational and leisure-time activities
- Transportation options
- Public safety
- Social support
- Social norms and attitudes (e.g., discrimination, racism, and distrust of government)
- Exposure to crime, violence, and social disorder (e.g., presence of trash and lack of cooperation in a community)
- Socioeconomic conditions (e.g., concentrated poverty and the stressful conditions that accompany it)
- Residential segregation
- Language/Literacy
- Access to mass media and emerging technologies (e.g., cell phones, the Internet, and social media)
- Culture

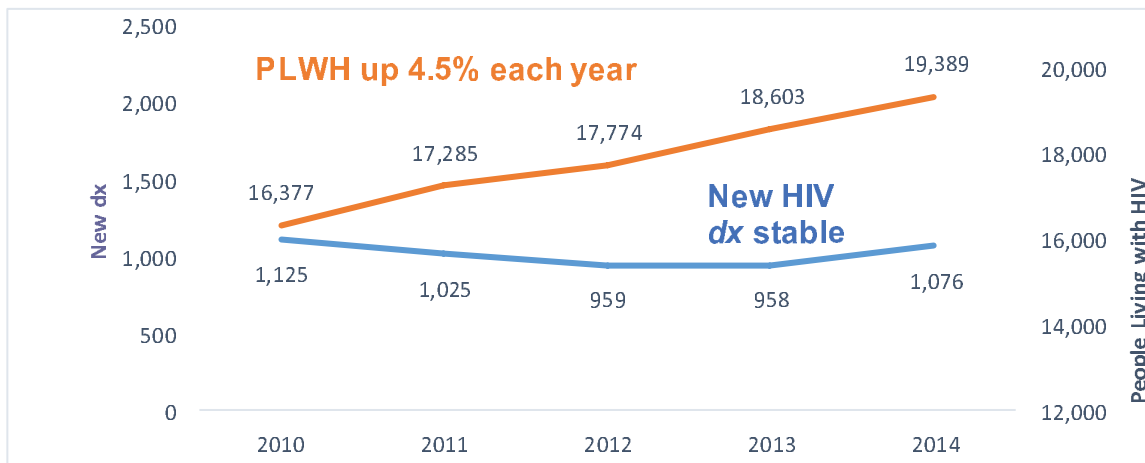
Many of these determinants increase vulnerability to illness and adversely affect health outcomes in Dallas.

- c. Describe (table, graph, and/or narrative) the burden of HIV in the service area using HIV surveillance data and the characteristics of the population living with HIV (i.e., number of PLWH, rates, trends, populations most affected, geographic concentrations, deaths, etc.).

Number of PLWH

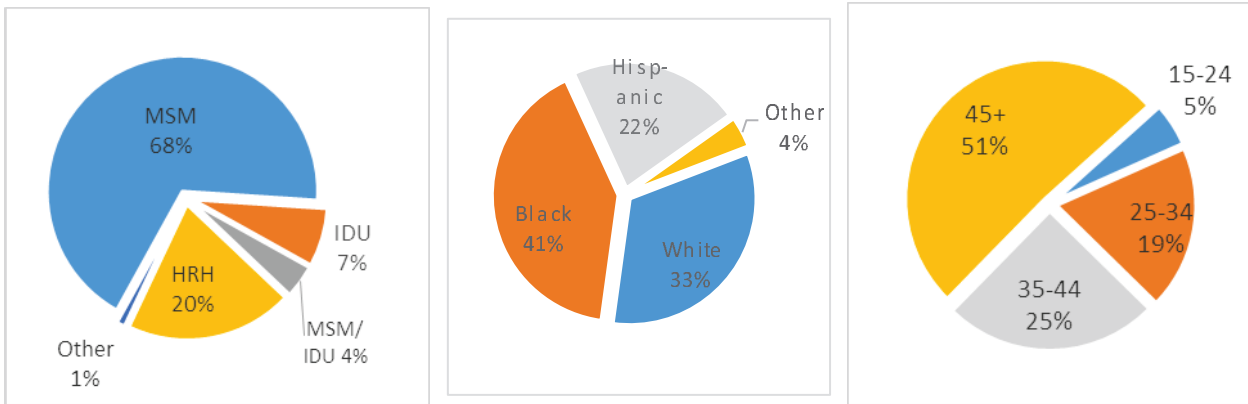
Over the past five years, the number of Dallas EMA residents living with diagnosed HIV infections has increased by about 4.5% a year, from about 16,000 in 2010 to more than 19,000 in 2014 (Figure 18). However, the number of new HIV diagnoses is not rising- the annual number of new diagnoses during this time period was stable as is shown by DSHS data which indicated that there were between 780 and 1,360 new infections in 2013. The number of people living with HIV (PLWH) has increased because highly effective treatment has lengthened their lives – people with HIV who get early treatment (and stay on treatment) have lifespans nearly comparable with people without HIV.

Figure 18: Dallas EMA residents living with diagnosed HIV infections and residents with new HIV diagnoses, 2010-2014



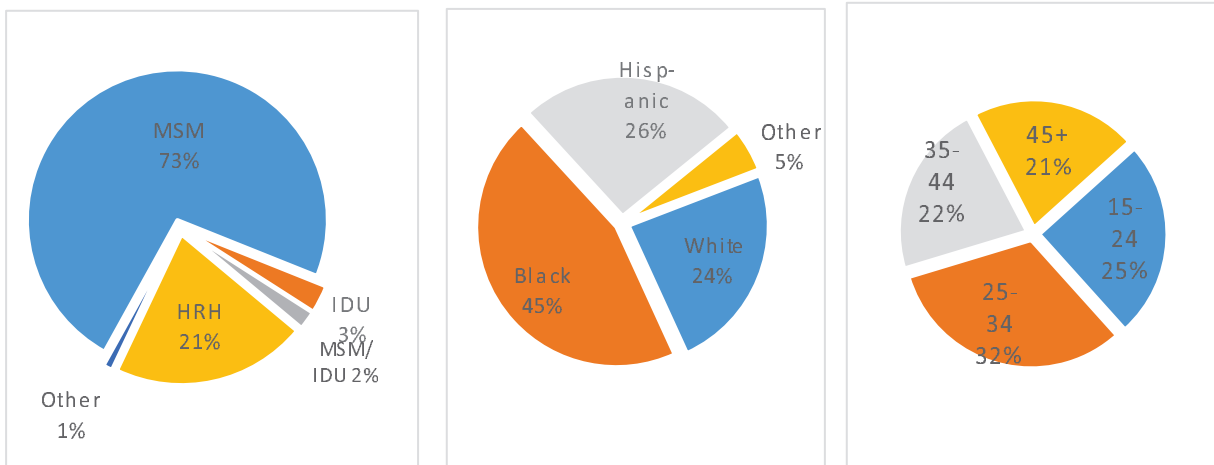
Gay and bisexual men and other men who have sex with men (MSM) made up about 68% of EMA residents living with diagnosed HIV infections in 2014. Heterosexuals made up about 20% of the EMA’s PLWH. Blacks made up the largest racial/ethnic group of PLWH – about two in five PLWH were Black. About half the PLWH were 45 or older.

Figure 19: 2014 PLWH in Dallas EMA by mode of transmission, race/ethnicity, and age



MSM have an even larger presence among those newly diagnosed, with MSM making up almost three out of four of those diagnosed between 2010-2014 (Figure 20). Heterosexuals made up about 20% of new diagnoses, which is similar to their representation in PLWH, but the count of High-Risk Heterosexuals (HRH) diagnoses fell by about 18% between 2010 and 2014. IDU diagnoses made up only about 3%, and were stable across the previous five years. Blacks made up almost half of the residents with new diagnoses, with White and Hispanic residents each accounting for about one quarter. Finally, the profile of Texans with new diagnoses is much younger than the profile of PLWH overall – more than three in five new diagnoses are in those younger than age 35, primarily young MSM.

Figure 20: Dallas EMA residents newly diagnosed with HIV from 2010-2014 by mode of transmission, race/ethnicity, age at diagnosis



Blacks make up about 16% of the population of the EMA, but more than 40% of the PLWH in the area. The 2014 prevalence rate indicates that more than 1% of Black residents of the EMA were living with diagnosed HIV infections. Prevalence rates for Blacks were consistently three times higher than rates for Whites or Hispanics, and rose about 14% between 2010 and 2014.

Reducing new HIV infections rests in: delivering targeted and effective prevention programs to local residents at very high risk; reducing the number of local residents living with undiagnosed HIV infections; and increasing access to effective and continuous treatment. The primary hallmark of good care is suppressed HIV viral load – a sustained reduction in the amount of virus in an infected person’s blood. Suppressed viral load not only benefits the person living with HIV, but also decreases the chance that HIV will be passed on to others.

In 2014, an estimated four in five EMA residents with diagnosed infections had at least one HIV-treatment visit, with one in five receiving no care. Almost three in five PLWH had viral suppression at the end of 2014. The remaining one in five EMA residents received some HIV-related care, but did not have suppressed viral load, as depicted in Figure 21 below.

PLWH stands for people living with HIV, which is also called *prevalence*. Annual prevalence is the number of people with diagnosed infections who were alive and residing in Texas as of the end of the year. It does not include people with undiagnosed infections.

New HIV diagnoses is shortened to new *dx*. An annual count of new diagnoses shows the number of people with first-time diagnoses of HIV infections in people who were residing in Texas at the time their diagnosis was made.

Rates allow direct comparison of HIV in groups of different sizes and show the intensity of HIV infection. Prevalence rates show the number of PLWH per 100,000, and diagnosis rates show the number of new HIV

Figure 21: Participation in HIV treatment and viral load suppression in the Dallas EMA, 2014

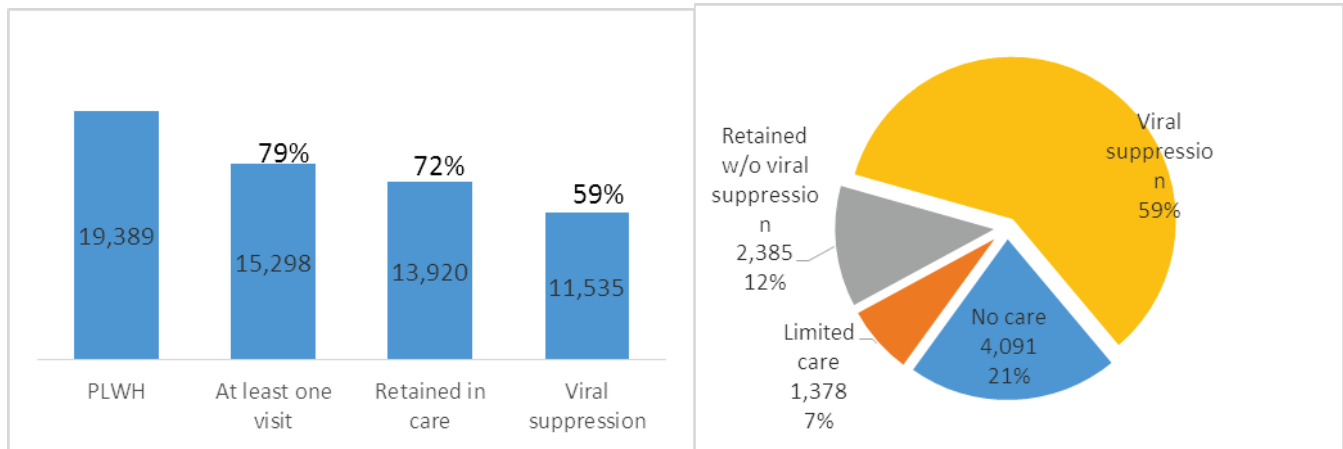


Figure 22 shows MSM as a proportion of HIV prevalence and new diagnoses within race/ethnic groups in the Dallas EMA in 2014. For instance, out of all white PLWH in the Dallas EMA in 2014, 5,282 of them were MSM and 1,045 were categorized as a different mode of transmission, meaning approximately 83% of white PLWH in the Dallas EMA in 2014 were MSM. Conversely, 4,052 black PLWH were MSM in the Dallas EMA in 2014 and 3,832 were categorized as a different mode of transmission, which means that 51% of black PLWH in the Dallas EMA in 2014 were MSM. Figure 23 shows the five year trends in PLWH and new diagnoses in the Dallas EMA from 2010-2014 for Hispanic MSM, Black MSM, and White MSM. New diagnoses has decreased slightly among Hispanic and White MSM groups, but has increased among Black MSM.

Figure 22: MSM as a proportion of all PLWH and new diagnoses in race/ethnic groups in the Dallas EMA, 2014

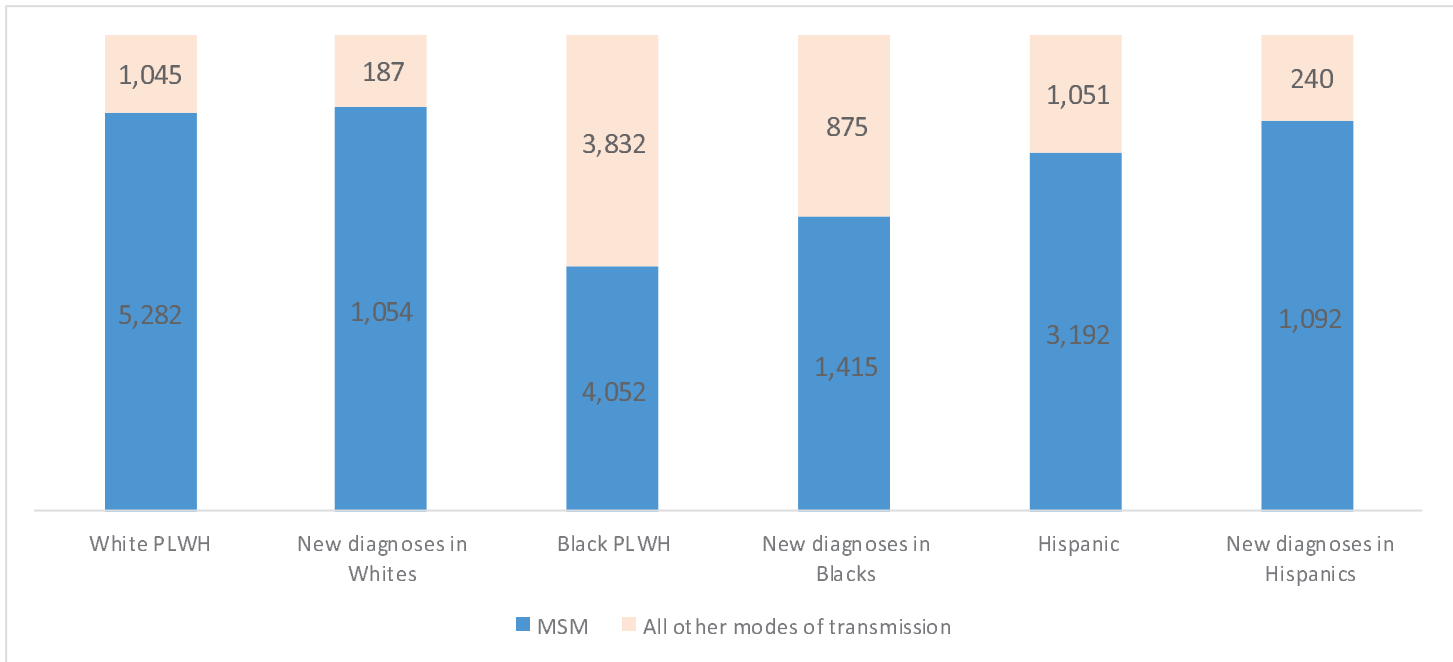
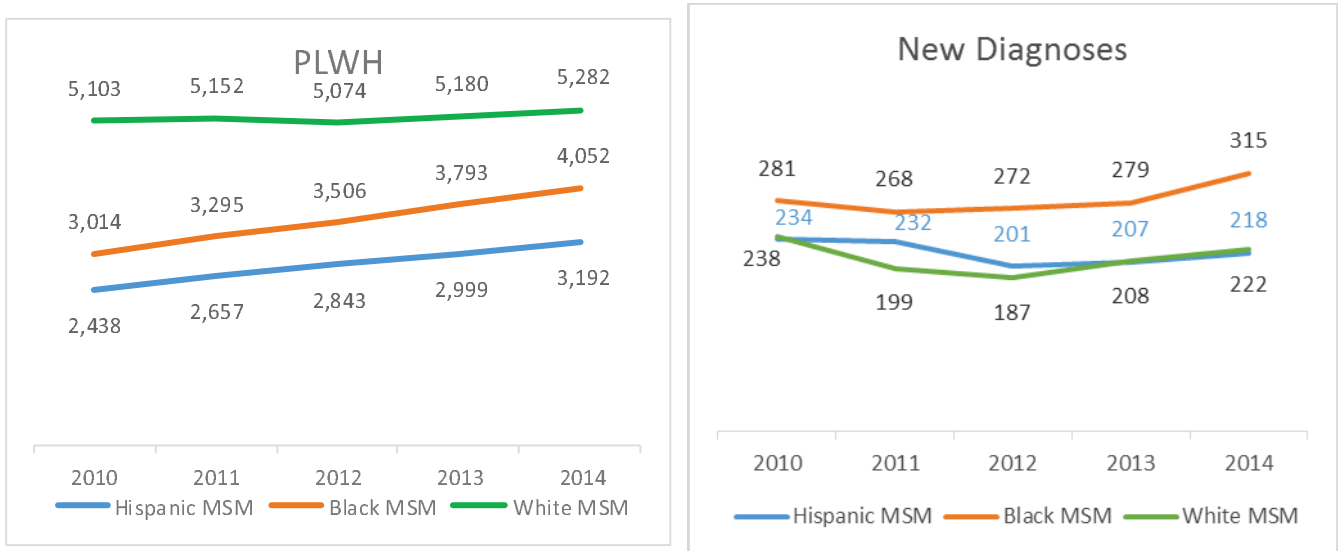


Figure 23: Changes in numbers of PLWH and new diagnoses in MSM, Dallas 2010-2014



Rates

This section provides information on the number of people living with diagnosed HIV infections as of the end of 2014 and on new HIV diagnoses from 2010 – 2014 (Figure 24). Cumulative counts of all new infections in that five-year period were used in addition to information tracking the annual number of new diagnoses. Using five

years of diagnoses provides a more reliable comparison point-to-prevalence than does a single year of new diagnoses.

The number of persons living with a diagnosed HIV infection in the Dallas EMA grew by 18% between 2010 and 2014. Over the same time period, new diagnoses fell from 2010 through 2013, and then slightly rebounded in 2014. Given the steady growth in population, the diagnosis rate in 2014 was 12% lower than in 2010 (Figure 25).

Figure 24: Dallas EMA residents living with HIV and prevalence rates, 2010-2014

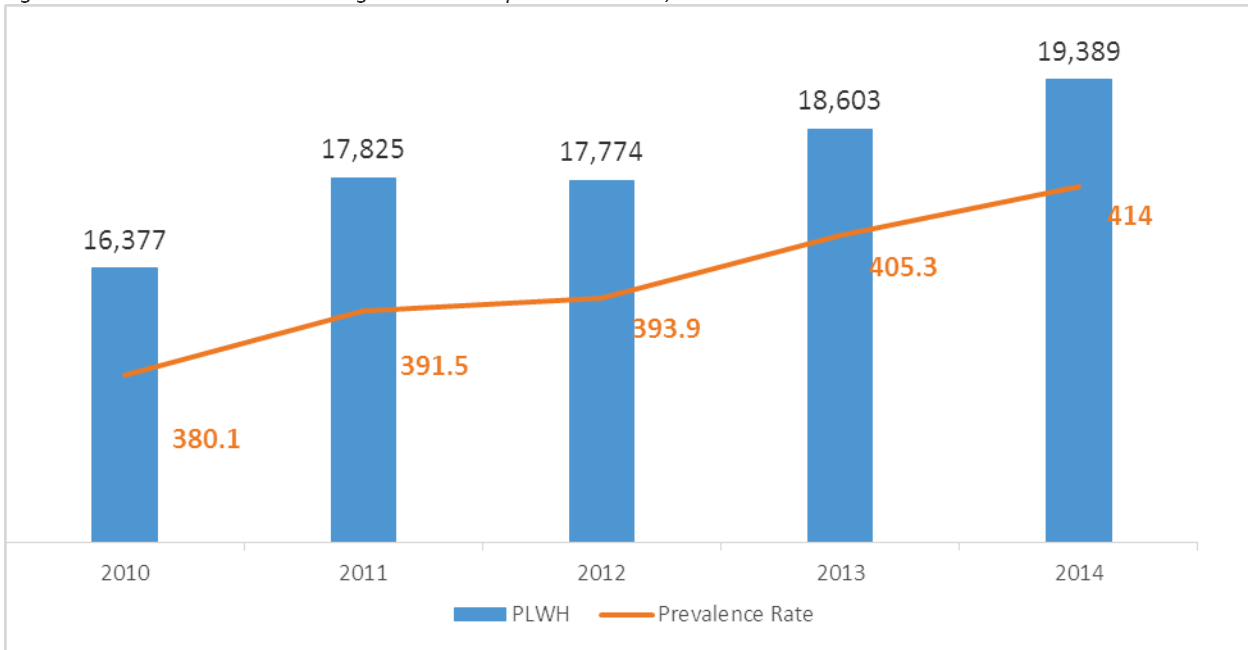
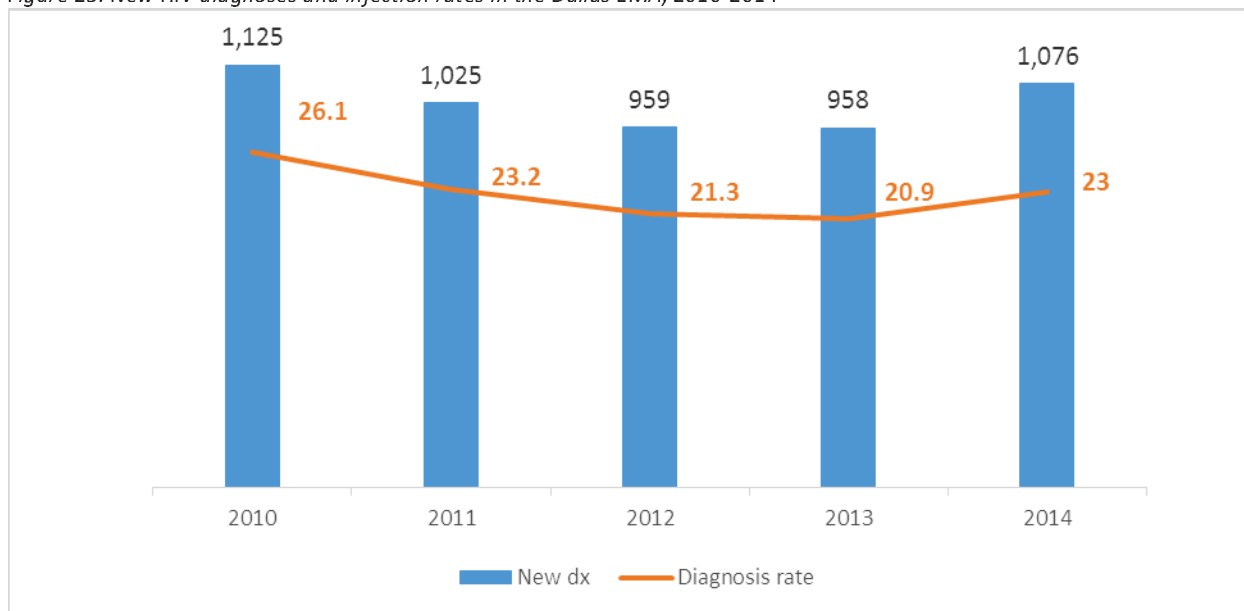


Figure 25: New HIV diagnoses and infection rates in the Dallas EMA, 2010-2014



Snapshot of PLWH and newly diagnosed Dallas EMA residents

As in years past, in 2014 about four out of five Dallas EMA residents living with HIV were men. Gay, bisexual, and other men who have sex with men (MSM) made up about 68% of the PLWH, with heterosexual men and women making up an additional 20%. Black Dallas EMA residents made up almost two in five PLWH, and more than half were 45 years old or older. Tables 2 - 4 at the end of this section provide more detail.

Table 2: PLWH in the Dallas EMA, 2010-2014

	2010			2011			2012			2013			2014			Change
	#	%	Rate	#	%	Rate	#	%	Rate	#	%	Rate	#	%	Rate	
Total	16,377		380.1	17,285		391.5	17,774		393.9	18,603		405.3	19,389		414.0	18%
Female	3,177	19%	145.5	3,372	20%	150.7	3,489	20%	152.5	3,682	20%	158.1	3,851	20%	161.9	21%
Male	13,200	81%	621.1	13,913	80%	639.2	14,285	80%	642.2	14,921	80%	660.1	15,538	80%	674.0	18%
White	6,085	37%	289.8	6,172	36%	290.1	6,099	34%	283.1	6,213	33%	286.5	6,327	33%	288.8	4%
Black	6,221	38%	897.2	6,705	39%	940.4	7,024	40%	957.2	7,489	40%	997.7	7,884	41%	1023.9	27%
Hispanic	3,318	20%	270.3	3,594	21%	283.5	3,818	22%	293.7	4,003	22%	300.7	4,243	22%	310.7	28%
Other	171	1%	59.4	185	1%	60.3	193	1%	59.7	202	1%	59.5	229	1%	64.1	34%
Unknown	582	4%		629	4%		640	4%		696	4%		706	4%		21%
MSM	11,022	67%		11,608	67%		11,947	67%		12,543	67%		13,133	68%		19%
IDU	1,270	8%		1,342	8%		1,334	8%		1,355	7%		1,356	7%		7%
MSM/IDU	734	5%		789	5%		796	5%		799	4%		791	4%		8%
HRH	3,205	20%		3,394	20%		3,540	20%		3,746	20%		3,953	20%		23%
Ped*	122	<1%		127	<1%		132	<1%		137	<1%		133	<1%		9%
Adult Other	25	<1%		25	<1%		25	<1%		23	<1%		23	<1%		-8%
0-14	57	<1%	5.7	55	<1%	5.4	52	<1%	5.1	49	<1%	4.7	40	<1%	3.8	
15-24	864	5%	145.0	908	5%	149.7	963	5%	155.6	970	5%	154.3	948	5%	148.1	10%
25-34	2,951	18%	451.2	3,131	18%	471.9	3,226	18%	478.2	3,479	19%	510.8	3,682	19%	530.4	25%
35-44	4,924	30%	751.6	4,897	28%	735.4	4,806	27%	709.7	4,803	26%	703.3	4,848	25%	702.1	-2%
45+	7,581	46%	542.1	8,294	48%	567.8	8,727	49%	576.6	9,302	50%	596.2	9,871	51%	612.6	30%

* Pediatric cases are those who acquired their HIV infection through mother to child transmission

The profile of Dallas residents newly diagnosed with HIV differs from that of PLWH. MSM have an even larger presence among those newly diagnosed, with MSM making up almost three out of four of those diagnosed between 2010-2014. Heterosexuals made up about 20% of new diagnoses, which is similar to their representation among PLWH, but the count of HRH diagnoses fell about 18% between 2010 and 2014. IDU diagnoses made up only about 3%, and were stable across the previous five years. Blacks made up almost half of the residents with new diagnoses, with White and Hispanic residents each accounting for about one quarter of the total. Finally, the profile of Dallas residents with new diagnoses is much more youthful than the profile of PLWH – more than three in five younger than 35, driven by increased diagnoses in young MSM.

Table 3: New HIV diagnoses in the Dallas EMA < 2010-2014

	2010			2011			2012			2013			2014			5 year totals			Change
	#	%	Rate	#	%	Rate	#	%	Rate	#	%	Rate	#	%	Rate	#	%	%	
Total	1,125	100	26.1	1,025	100	23.2	959	100	21.3	958	100	20.9	1,076	100	23	5,143			-4%
Female	233	21%	10.7	199	19%	8.9	180	19%	7.9	175	18%	7.5	201	19%	8.5	988	19%		-14%
Male	892	79%	42	826	81%	37.9	779	81%	35	783	82%	34.6	875	81%	38	4,155	81%		-2%
White	273	24%	13	240	23%	11.3	225	23%	10.4	239	25%	11	264	25%	12.1	1,241	24%		-3%
Black	488	43%	70.4	442	43%	62	434	45%	59.1	432	45%	57.6	494	46%	64.2	2,290	45%		1%
Hispanic	297	26%	24.2	278	27%	21.9	247	26%	19	243	25%	18.3	267	25%	19.6	1,332	26%		-10%
Other	23	2%	8	17	2%	5.5	12	1%	3.7	13	1%	3.8	27	3%	7.6	92	2%		17%
Unknown	44	4%		48	5%		41	4%		31	3%		24	2%		188	4%		-45%
MSM	796	71%		745	73%		702	73%		728	76%		793	74%		3,764	73%		0%
IDU	39	3%		38	4%		35	4%		27	3%		39	4%		178	3%		0%
MSM/IDU	26	2%		18	2%		18	2%		17	2%		25	2%		104	2%		-4%
HRH	262	23%		221	22%		202	21%		184	19%		216	20%		1,085	21%		-18%
Ped*	1	0%		3	0%		2	0%		2	0%		3	0%		11	0%		200%
0-14	3	0%	0.3	3	0%	0.3	3	0%	0.3	2	0%	0.2	3	0%	0.3	14	0%		0%
15-24	285	25%	47.8	243	24%	40.1	249	26%	40.2	241	25%	38.3	272	25%	42.5	1,290	25%		-5%
25-34	344	31%	52.6	314	31%	47.3	276	29%	40.9	331	35%	48.6	364	34%	52.4	1,629	32%		6%
35-44	262	23%	40	230	22%	34.5	225	23%	33.2	183	19%	26.8	214	20%	31	1,114	22%		-18%
45+	231	21%	16.5	235	23%	16.1	206	21%	13.6	201	21%	12.9	223	21%	13.8	1,096	21%		-3%

* Pediatric cases are those who acquired their HIV infection through mother to child transmission

Table 4: Prevalence rates for Texas MSM by area of residence and race/ethnicity, 2012

	All MSM	White MSM	Black MSM	Hispanic MSM
Texas	6,966.0	4,834.4	19,590.6	6,542.2
Austin TGA	4,692.4	4,000.3	10,022.1	5,063.5
Dallas EMA	7,575.0	5,765.3	17,997.7	6,462.5
Fort Worth TGA	3,865.2	2,596.7	11,638.9	3,579.0
Houston EMA	7,867.4	5,513.2	19,782.4	6,476.6
San Antonio TGA	6,976.4	4,220.7	12,790.3	8,195.5

Rates are per 100,000.

Trends

Estimated HIV incidence from 2009 to 2013

Incidence is the total number of new HIV infections in a given period. The estimates use the results from a laboratory test and information from newly-diagnosed persons about HIV testing and treatment history to characterize an infection as *recent* or *long-term*. *Recent* means that the HIV infection probably occurred in the last 12 months, and *long term* means that HIV infection happened more than a year ago. Information on the diagnoses categorized as recent infections is combined to estimate HIV incidence (new HIV infections).⁸

The estimates are reported as *point estimates* and *95% confidence intervals* for each year. The point estimate is the best estimate of the true number of new HIV infections in a given year. The *95%* confidence interval is the range of values with a 95% probability of containing the true number of incident HIV infections. Changes in point estimates are statistically significant only if a point estimate lies outside the confidence intervals for the other estimates. For example, suppose the estimate of new infections for 2004 shows a point estimate of 4,000 new infections and a confidence interval of 3,000 to 5,000 new infections. If the point estimate for 2005 is 4,500 new infections, then this is not a true increase in new infections because 4,500 falls within the 2004 confidence interval of 3,000 to 5,000.

Between 2009 and 2013, the annual number of new infections in adults and adolescents in the EMA was stable; in 2013, there were between 780 and 1,360 new infections (Figure 26). An incidence rate is the number of new HIV infections per 100,000 adults and adolescents. The estimated incidence rate during this time period was stable, as indicated in both Figure 27 and Table 5.

⁸ More information about the methods is found at <http://www.plosone.org/article/info:doi/10.1371/journal.pone.0017502>.

Figure 26: Estimated new HIV infections in adults and adolescents in the Dallas EMA, 2009-2013

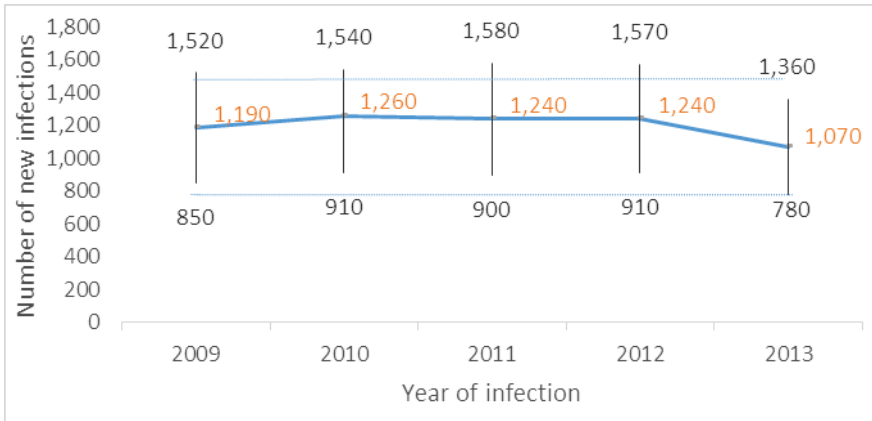


Figure 27: Estimated incidence rate for Dallas EMA adults and adolescents, 2009-2013

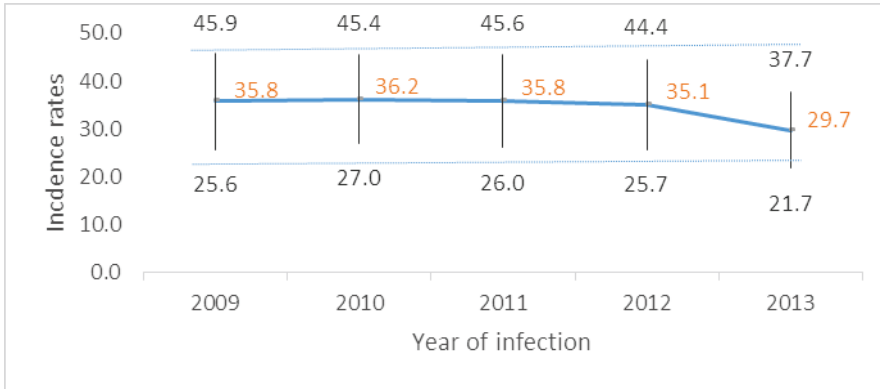


Table 5: Estimates of Texas HIV incidence by sex, race/ethnicity, and mode of transmission, 2009-2013

Men												
	MSM			IDU			MSM/IDU			HRH		
	Est #	95% CI		Est #	95% CI		Est #	95% CI		Est #	95% CI	
White	4,921	4,117	5,725	171	58	284	318	164	471	125	27	223
Black	5,379	4,530	6,229	298	141	454	128	25	231	748	497	999
Hispanic	6,532	5,575	7,489	177	54	301	210	88	331	330	170	490

Women						
	IDU			HRH		
	Est #	95% CI		Est #	95% CI	
White	274	126	421	455	263	647
Black	355	181	529	2,553	2,035	3,070
Hispanic	181	62	300	972	691	1,253

Estimates of undiagnosed HIV infections

DSHS has estimated the proportions of Texans with undiagnosed infections for 2009-2013; these estimates are not available for local areas. DSHS based these estimates on complex algorithms

developed by the CDC. As with estimates of incidence, the best way to look at the number and proportion of undiagnosed infections is by looking at the 95% CI for each group (Table 6). In 2013, an estimated 11% to 17% of Texas PLWH had undiagnosed infections.

The greatest number of estimated undiagnosed infections are in MSM- they make up two out of three Texans with undiagnosed infections; DSHS estimates that about 13% to 18% of Texas MSM living with HIV have not yet been diagnosed. Two groups are close to or have surpassed the 90% diagnosis rate goal: IDU and MSM/IDU.

Hispanics are the race/ethnic group that has the highest proportion of undiagnosed infections: about 17% to 23% of Hispanic PLWH have not yet been diagnosed. Hispanics made up two out of every five undiagnosed PLWH in 2013. Keep in mind that most new infections in Hispanics are in MSM.

Table 6: Estimates of proportion of Texans living with undiagnosed HIV infections, 2013

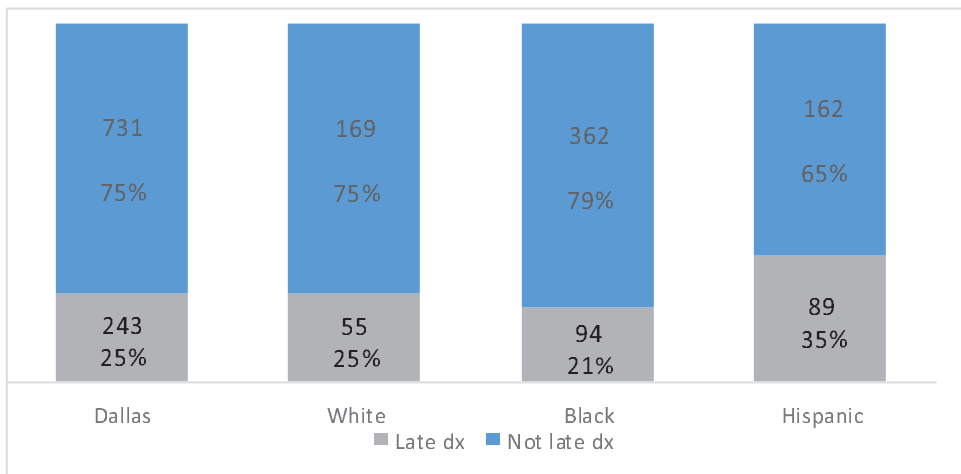
	Estimated proportion of undiagnosed infections		
	Est %	95% CI	
TOTAL	14.1%	11.2%	16.8%
Men	14.7%	12.9%	16.9%
Women	12.8%	8.3%	15.9%
White	9.7%	6.6%	13.0%
Hispanic	19.6%	16.6%	22.8%
Black	12.8%	10.4%	15.5%
MSM	15.9%	13.0%	18.0%
IDU	6.6%	2.5%	10.5%
MSM/IDU	4.2%	0.1%	9.6%
HRH	15.2%	11.6%	18.8%

Late diagnosis

To classify the effects of an HIV infection on immune functioning, people with HIV infections are grouped by stages; a Stage 3 classification indicates severe immune suppression, more commonly known as AIDS. Persons with a Stage 3 classification within three months of their diagnosis have a late diagnosis.

In 2014, about one in four of the diagnoses in the Dallas EMA were late. Late diagnosis was most common among Hispanics, where more than one in three had a late diagnosis. Rates of late diagnosis are about 1.4 times higher in Hispanics than in Whites and 1.7 times higher than in Blacks (Figure 28).

Figure 28: Late diagnoses of HIV infection in the Dallas EMA by race/ethnicity, 2014



Populations most affected

A closer look at how race and ethnicity and mode of transmission interact

Although MSM are the largest single group of PLWH and newly diagnosed persons in the EMA, the mode of transmission profiles differs by race/ethnicity. More than four out of five White PLWH are MSM as are three of every four Hispanic PLWH in the EMA. MSM are the largest group of Black PLWH – they make up about half of Black PLWH and almost two out of three newly diagnosed Blacks. Further, while White MSM are still the largest group of PLWH in the EMA, the gap between the number of White MSM and Black and Hispanic MSM PLWH is closing. Prevalence in White MSM was flat across the past five years, but the number of Black and Hispanic MSM rose by a third.

Priority Populations

Achieving the goals of the *National HIV/AIDS Strategy* and the *Texas HIV Plan* requires a common focus on the groups at highest risk of acquiring or transmitting HIV – the priority populations for the Texas Plan. These populations are also included in the outcomes of Goals 2 and 3 of the NHAS, as well as this plan, which include increasing access to care and eliminating health disparities. In the Dallas EMA, four groups made up three out of four PLWH, and four out of five of the new diagnoses over the last five years: Black MSM, Hispanic MSM, White MSM, and Black heterosexual women (*Figure 29*). All public health strategies for reducing new infections or improving outcomes must include actions for these groups.

Figure 30 shows the number of new diagnoses in Black MSM rising slightly (roughly 12%) while new diagnoses in Black women, Hispanic MSM, and White MSM dropping slightly (about 7% for Hispanic and White MSM, about 14% for Black HRH women). New diagnoses in all other groups fell about 13%.

Figure 29: Priority populations in Dallas PLWH and residents with new HIV diagnoses

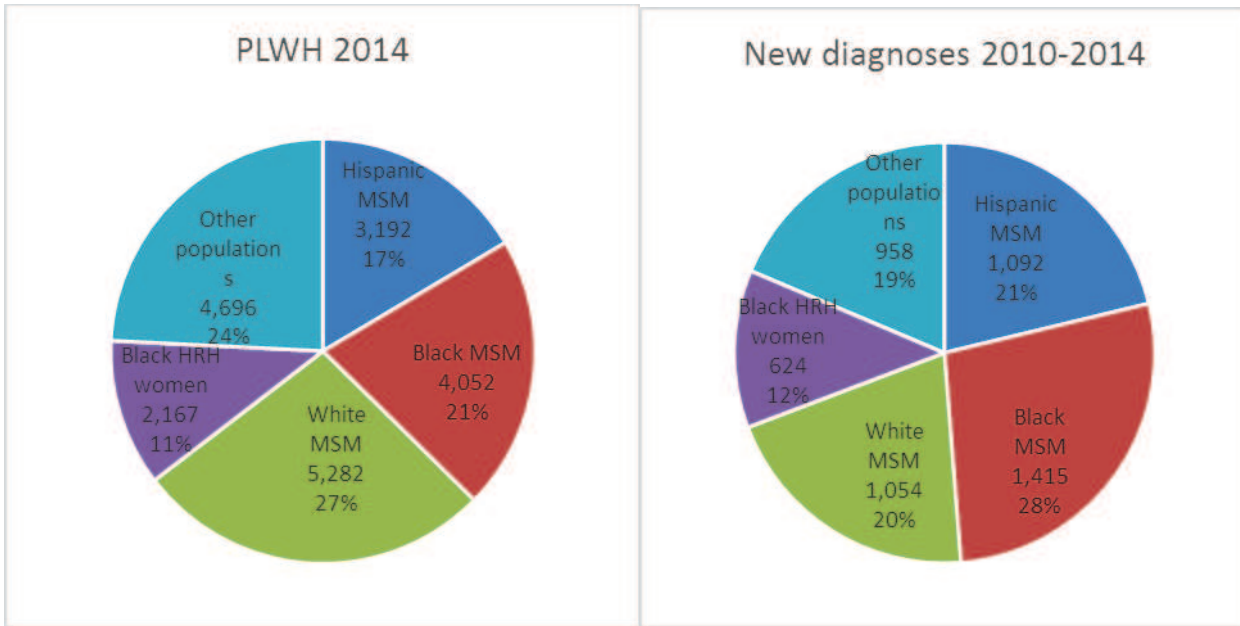
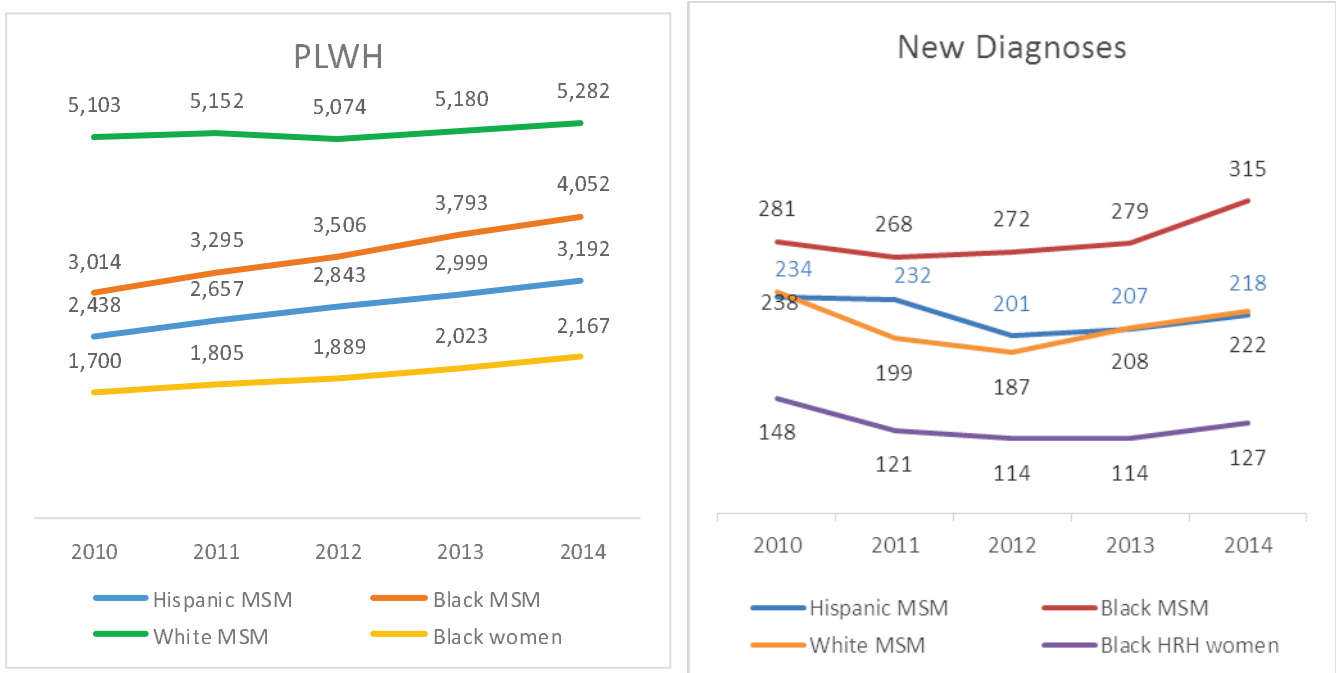


Figure 30: Changes in numbers of PLWH and new diagnoses in priority populations, Dallas 2010-2014



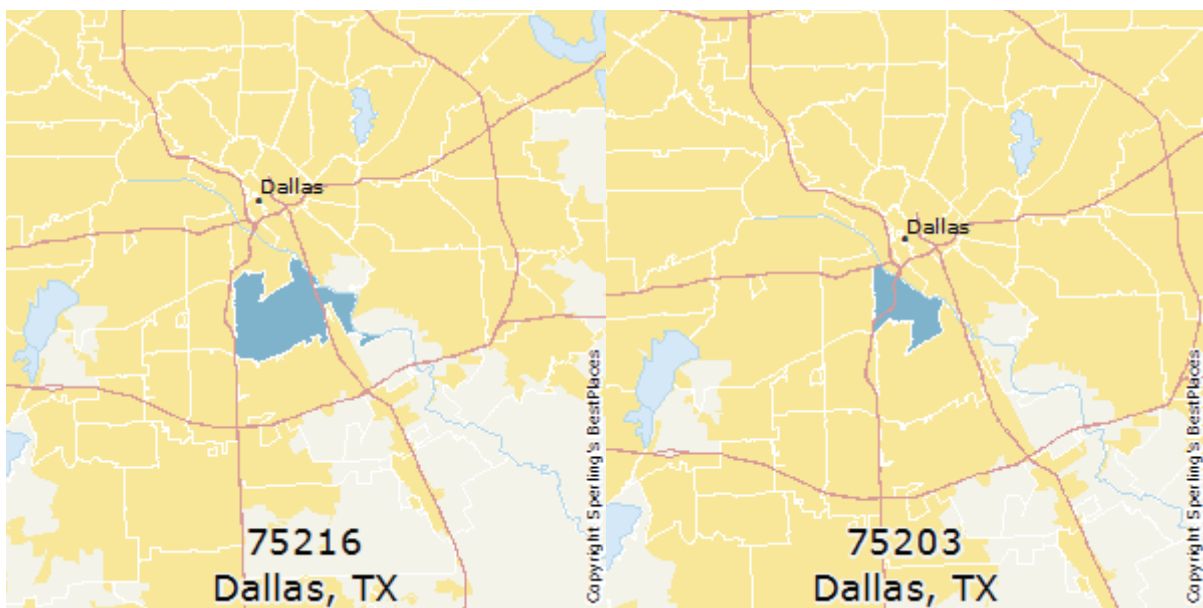
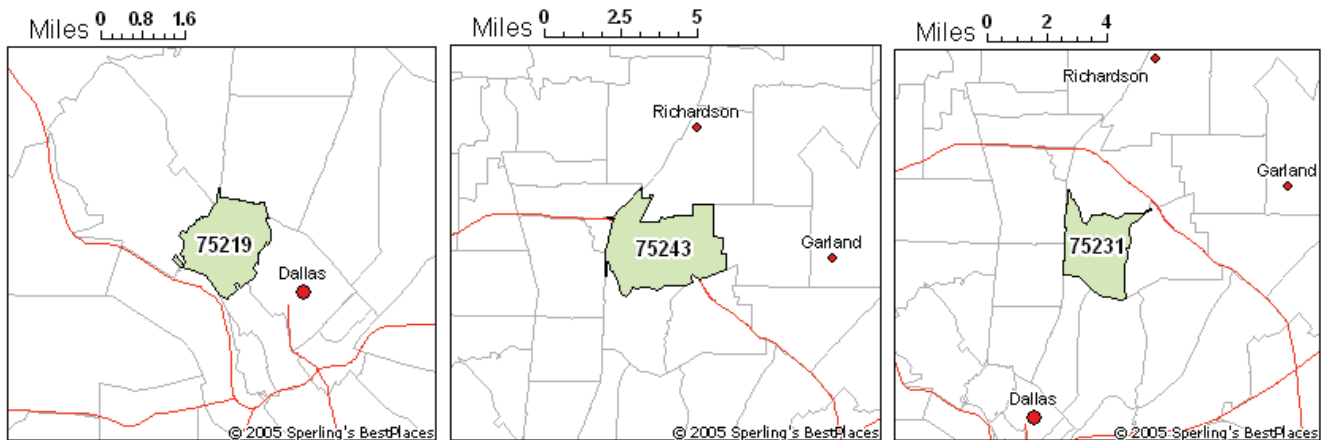
In addition to the four priority populations, this particular plan will target emerging populations of interest, such as transgender and injected (needle-sharing) drug users, in its interventions so that more robust data will be available locally in the future. Particular emphasis will also be placed on education, poverty, health insurance

status, and homelessness, as important social determinants of health, and will help to guide the developed public health strategies.

Geographic concentrations

Geographic concentration was measured by the concentration of Ryan White clients in the AIDS Regional Information and Evaluation System (ARIES) in the 12 county Dallas Planning Area. From January 1, 2015 to December 31, 2015, out of 10,025 Ryan White consumers, services were used by at least 300 individual consumers in the following five zip codes: 75219 (529 consumers), 75243 (387 consumers), 75216 (376 consumers), 75203 (312 consumers), and 75231 (300 consumers).

In the maps below, you see that 75219 is just northwest of downtown Dallas. 75243 and 75231 are adjacent and are on the northeast side of Dallas, near the cities of Richardson and Garland. 75216 and 75203 are adjacent as well and are on the south side of Dallas.



Deaths

The number of deaths in any one area of Texas is too limited for detailed analysis. Since HIV mortality rates are too low to allow for adequate analysis for a specific locality, mortality data presented below are for Texas as a whole.

Nearly half of the deaths due to HIV in 2013 occurred in Blacks and almost 30% occurred in Hispanics. Table 7 shows age-adjusted rate of death due to HIV in Texas PLWH. The rate of deaths due to HIV in Blacks is 5.8 times higher than the rate for Whites and 3.8 times the rate for Hispanics. The rate for Hispanics is 1.5 higher than the rate for Whites.

Table 8 shows the age-adjusted rate of death due to any cause in PLWH. PLWH deaths are more often due to factors other than their HIV, including diseases associated with older age, which become more common as PLWH live longer. In contrast to deaths attributed to HIV infections, the overall deaths in PLWH do not show the same race/ethnic differences. The highest rates of death in PLWH are in people who acquired their infections through injection drug use (including MSM/IDU).

Table 7: Age-adjusted rate of death due to HIV per 100,000 population, Texas 2012

Race/Ethnicity	Male Rate	Female Rate	Total Rate
Total	4.5	1.3	2.9
White	2.7	0.4	0.8
Black	13.2	5.5	4.6
Hispanic	4.0	1.0	1.2
Other Races	1.0	***	0.2

Age adjustments used 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 a death certificate (ICD Codes B20-B24)

No deaths in females of other races were reported in 2012

Table 8: Age-adjusted rate of death due to all causes in Texans living with a diagnosed HIV infection, Texas 2012

Race/Ethnicity & Risk Group	Male Rate	Female Rate	Total Rate
Total	19.3	25.5	20.5
White	26.5	27.2	25.4
Black	20.7	24.1	19.9
Hispanic	17.0	25.4	19.3
Other Races	9.6	**	7.8
MSM	16.2	N/A	16.2
IDU	25.3	25.3	25.0
MSM/IDU	30.9	N/A	30.9
Heterosexual	22.9	24.6	22.4
Pediatric	4.5	2.3	3.5

Age adjustments used the 2000 U.S. Standard Population (11 age groups, Distribution #1)

No deaths in females of other race or females with other risk were reported in 2012

Comorbidities: Hepatitis C, Sexually Transmitted Infections and Tuberculosis

When a person living with HIV has other health conditions or disease diagnoses, such as tuberculosis or mental health and/or substance use disorders, it is called a co-infection or a co-morbidity. Infection with HIV can increase the vulnerability of PLWH to co-infection with sexually transmitted infections (STI), tuberculosis (TB), and hepatitis C virus (HCV), among others. Co-infection can complicate treatment, reduce its effectiveness, and hamper treatment adherence. New STIs or HCV infections may be indicators of condomless sex, which can increase the chance of transmitting HIV, HCV, and other STIs.

To better understand co-infection in Texas PLWH, DSHS matched the routine disease surveillance databases for HIV, STI (chlamydia, gonorrhea, and syphilis), TB, and HCV infection which enabled reporting of the proportion of PLWH with reported comorbidities. These figures do not, however, represent the proportion of **all** PLWH with STIs, HCV infections, or latent TB. Unfortunately, HIV treatment guidelines that recommend screening for HCV, STI, and TB are not uniformly followed, and asymptomatic STIs and HCV infections may go undetected. Clinicians may not test for STI in the rectum or throat, which also allows infections to go undetected. Finally, the way public health disease reporting is carried out can also affect the statistics on co-infection. For example, in Texas only acute HCV infections are reported, not chronic infections. Without knowing how many infections are ongoing, it is not possible to get accurate data about the number of PLWH living with HCV infections.

Co-Infection with Hepatitis C Virus

Because of the limited information on HCV infections, this report includes data on only the number and proportion of co-infected persons in various geographic areas. The figures represent PLWH in 2014 who had a reported acute HCV infection in 2014 or earlier.

Table 9: Texas PLWH with reported HCV infections, 2014

	PLWH with reported HCV infections	Proportion of PLWH with reported HCV infections
Texas	7,396	9%
Austin	622	10%
Dallas	1,598	27%
Fort Worth	502	8%
Houston	1,754	29%
San Antonio	578	10%
East Texas	567	9%
US-Mexico border	398	7%

Co-Infection with Tuberculosis

Persons living with HIV who also have latent tuberculosis (TB) infection are more likely to develop TB disease because their immune systems are compromised. In Texas the rate of TB in PLWH is 16 times the rate in the general population. In 2014, almost 2% of Texas PLWH had received a TB diagnosis subsequent to their HIV diagnosis, and a little more than 2% of PLWH in the Dallas EMA had received such a diagnosis, Hispanics and Asians with HIV were more likely to have TB disease due to the endemic levels of TB in their countries of origin (data not shown).

Co-Infection with Sexually Transmitted Infections

In Texas, PLWH were considered to have an STI co-infection if their STI diagnosis occurred at least 30 days before their HIV diagnosis, was concurrent with their HIV diagnosis, or was made at any date after their HIV diagnosis. PLWH may have more than one diagnosis of any STI over the course of one year. To calculate the rate of diagnoses among PLWH, the total number of STI diagnoses in PLWH was used as the numerator and the total number of PLWH was used as the denominator.

Table 10 shows the number and rate of selected STI diagnoses in Texas PLWH in 2014. P&S syphilis refers to primary and secondary syphilis, and EL syphilis refers to early latent syphilis. The rates are per 100,000 PLWH. More than 1% of Texas PLWH had a reported STI infection in 2014. Gonorrhea and chlamydia were the most common STIs. However, syphilis infections are much more prevalent in PLWH compared to HIV-negative persons. In Texas, PLWH are 176.8 times more likely to be diagnosed with P&S Syphilis than HIV-negative persons. The disparity in chlamydia and gonorrhea case rates between PLWH and HIV-negative persons is not as large: PLWH are 3.6 times more likely to be diagnosed with chlamydia and 16.3 times more likely to be diagnosed with gonorrhea compared to HIV-negative persons. The demographic profile of PLWH diagnosed with STIs is similar to that of persons diagnosed with STIs in the general population. Young PLWH ages 15-34, Black and Hispanic PLWH, and MSM are more likely to have a diagnosed STI.

Table 11 shows the high burden of STI among MSM living with a diagnosed HIV infection. Rates are especially high for Black MSM; these men are less likely to have consistent HIV treatment and may not have the benefit of recommended routine screening for STI.

Figure 31 shows that in 2014, PLWH made up 1% - 5% of persons with chlamydia or gonorrhea infections, but they made up more than a third of P&S and EL syphilis cases. Ongoing syphilis transmission is increasingly limited to MSM in Texas.

Table 10: STI cases and incidence among Texans living with a diagnosed HIV infection, 2014

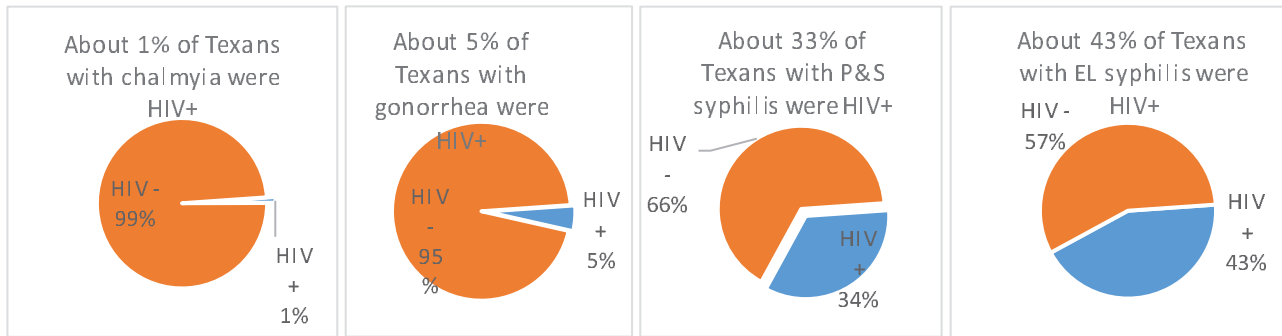
	PLWH	Chlamydia		Gonorrhea		P&S Syphilis		EL Syphilis	
		Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Total PLWH	80,073	1,362	1,700.9	1,596	1,993.2	538	671.9	803	1,002.8
Female	17,350	268	1,544.7	113	651.3	6	34.6	11	63.4
Male	62,723	1,094	1,744.2	1,483	2,364.4	532	848.2	792	1,262.7
15-24	3,983	282	7,081.1	323	8,109.5	100	2,510.7	122	3,063.0
25-34	14,914	568	3,807.7	683	4,578.7	215	1,441.3	292	1,957.5
35-44	19,763	302	1,528.1	330	1,669.8	110	556.6	201	1,017.1
45+	41,120	210	510.7	260	632.3	113	274.8	188	457.2
White	22,184	227	1,023.3	359	1,618.3	136	613.1	205	924.1
Black	29,895	590	1,973.6	688	2,301.4	193	645.6	258	863.0
Hispanic	24,607	474	1,926.3	459	1,865.3	181	735.6	305	1,239.5
Austin	5,304	140	2,639.5	198	3,733.0	66	1,244.3	89	1,678.0
Dallas	15,403	394	2,557.9	484	3,142.2	137	889.4	256	1,662.0
Houston	21,978	441	2,006.6	506	2,302.3	148	673.4	170	773.5
Fort Worth	4,635	70	1,510.2	86	1,855.4	56	1,208.2	75	1,618.1
San Antonio	4,248	113	2,660.1	133	3,130.9	58	1,365.3	98	2,307.0

Table 11: STI cases and incidence among Texas MSM living with a diagnosed HIV infection, 2014

	PLWH	Chlamydia		Gonorrhea		P&S Syphilis		EL Syphilis	
		Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
MSM	40,381	886	2,194.1	1,266	3,135.1	462	1,144.1	683	1,691.4
Black MSM	10,455	336	3,213.8	507	4,849.4	162	1,549.5	210	2,008.6
Hispanic MSM	13,751	331	2,407.1	394	2,865.2	156	1,134.5	268	1,948.9
White MSM	14,582	178	1,220.7	297	2,036.8	120	822.9	176	1,207.0

* The number of MSM PLWH differs from other reports because cases were not adjusted to assign mode of exposure to persons with no reported risk.

Figure 31: Proportions of Texans with diagnosed STI who are living with a HIV infection, 2014



- d. Describe (table, graph, and/or narrative) the indicators of risk for HIV infection in the population covered by your service area using the following, as available in the jurisdiction:

Indicators of HIV Risk

HIV risk behaviors in high risk, HIV negative Texans

Data in this section come from the Dallas data collection site of the National HIV Behavioral Survey (NHBS). This information may not reflect the state as a whole. For more information, please Appendix A.

In Texas, young Black MSM have the highest rates of new HIV diagnoses. However, NHBS data indicate that White and Hispanic MSM in Dallas are more likely to engage in high-risk behaviors. Though White and Hispanic MSM seem to be engaging in riskier behavior, they may have less exposure to HIV in their sexual networks consisting of other White and Hispanic MSM, among whom HIV prevalence is lower. Results are shown in Table 12.

Injecting substances increase risk of HIV transmission through needles and equipment and certain injectable drugs lower inhibition and increase the likelihood of engaging in high-risk sexual behavior. Among people who inject drugs in Dallas, a large proportion of respondents reported sharing needles or other injection equipment,

exchanging money or drugs for sex, and having condomless sexual intercourse. All of these activities are also risk factors for Hepatitis C and B infections, which can increase the chance of complications from HIV. Results are shown in Table 13.

A high proportion of high-risk heterosexuals reported having condomless sex with a partner of the opposite sex. Older respondents were more likely to report exchanging sex for money or drugs. (*This study collected data at sites in the city limits of Dallas, but did not specify the residence of the respondents

Table 14)

Table 12: HIV risk behaviors in HIV-negative MSM over the last 12 months, Dallas* 2014

	N	Ave. number of male sex partners	Condomless anal sex						Used injection or non-injection drugs		Self-reported syphilis infection		
			With a male partner		With a male partner of unknown HIV status		With an HIV-positive male partner		N	%	N	%	
		N	%	N	%	N	%	N	%	N	%		
Total	368	7	62%	227	62%	79	21%	19	5%	211	57%	129	35%
White	141	8	63%	89	63%	25	18%	13	9%	83	59%	52	37%
Black	111	5	54%	60	54%	25	23%	3	3%	59	53%	30	27%
Hispanic	86	6	63%	54	63%	21	24%	3	3%	47	55%	33	38%
15-24	65	8	63%	41	63%	13	20%	4	6%	41	63%	25	38%
25-34	116	8	71%	82	71%	34	29%	10	9%	65	56%	50	43%
35-44	89	5	60%	53	60%	18	20%	2	2%	50	56%	33	37%
45+	98	5	52%	51	52%	14	14%	3	3%	55	56%	21	21%

*This study collected data at sites in the city limits of Dallas, but did not specify the residence of the respondents

Table 13: HIV risk behaviors in HIV-negative IDU over the past 12 months, Dallas* 2012

	N	Ave. number of sex partners		Shared needles		Shared drug paraphernalia		Exchanged money or drugs for sex		Had condomless sex	
		N	%	N	%	N	%	N	%	N	%
Total	506	6	40%	202	40%	343	68%	198	39%	238	47%
White	52	22	54%	28	54%	35	67%	16	31%	13	25%
Black	426	4	38%	161	38%	288	68%	165	39%	212	50%
Hispanic	13	12	38%	5	38%	11	85%	11	85%	7	54%
15-24	4	6	75%	3	75%	3	75%	1	25%	2	50%
25-34	48	10	63%	24	63%	29	76%	22	58%	14	37%
35-44	54	24	48%	26	48%	39	72%	28	52%	24	44%
45+	410	3	36%	149	36%	272	66%	147	36%	198	48%

*This study collected data at sites in the city limits of Dallas, but did not specify the residence of the respondents

Table 14: HIV risk behavior in HIV-negative high-risk heterosexuals over the last 12 months, Dallas 2013

	N	Ave. number of opposite-sex partners	Had condomless sex with a partner of the opposite sex		Exchanged money or drugs for sex		Had condomless sex with an HIV+ partner	
		N	N	%	N	%	N	%
Total	545	3	233	43%	110	20%	211	57%
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%
15-24	65	8	41	63%	13	20%	0	0%
25-34	116	8	82	71%	34	29%	1	0%
35-44	89	5	53	60%	18	20%	0	0%
45+	98	5	51	52%	14	14%	0	0%

HIV risk behaviors in PLWH currently in care

Data in this section come from the Texas and Houston Medical Monitoring Project (MMP) sites. Data are representative of PLWH receiving care in Texas. For more information, please see Appendix A.

The average number of sex partners is higher among White MSM than among other race/ethnicity groups. A large proportion of sexually active MSM living with HIV report having condomless anal sex with a male partner over the past 12 months. However, the data shows that most of these reported acts were with another person living with HIV. This may be an indication of serosorting, a practice of selecting sexual partners of the same HIV status. Serosorting for condomless anal sex still leaves both PLWH and HIV- negative MSM open to STI infections. Self-reported syphilis infection among sexually active MSM is low; however, latent infections can be asymptomatic and may go unnoticed in the absence of regular screening. About a third of MSM respondents also reported drug use, including inject drug use, in the past 12 months. This is concerning, as drug use can lower inhibitions and contribute to high-risk sexual behavior. The proportion of MSM reporting high-risk behavior did not decrease with age. See the summarized results in Table 15.

Sexually active heterosexual persons living with HIV also reported high levels of risk behavior in the past 12 months (Table 16). While they reported fewer sexual partners on average, a higher proportion of heterosexual persons living with HIV reported sex with an HIV-negative or status unknown partner compared to MSM living with HIV. Unlike MSM living with HIV, the proportion of heterosexual persons living with HIV who engage in

high-risk behavior decreased with age. Drug use among heterosexuals living with HIV in the 18- 29 age group is much higher compared to other age groups in both heterosexuals and MSM living with HIV.

Table 15: Indicators of HIV risk in the last 12 months among MSM in care for their HIV infections, Texas 2013-2014

	Ave number of male sex partners		Condomless anal sex with male partner		Condomless anal sex with male partner whose HIV status was discordant or unknown		Self-reported syphilis infection		Used injection or non-injection drugs	
	N	N	N	%	N	%	N	%	N	%
Total	130	5	59	45%	17	14%	21	13%	38	30%
White	45	8	25	54%	7	17%	6	10%	13	30%
Black	42	2	20	45%	5	11%	7	13%	13	27%
Hispanic	40	3	13	34%	5	13%	7	14%	10	29%
18-29	26	7	12	51%	6	24%	3	12%	7	29%
30-39	36	3	20	52%	4	13%	8	16%	14	36%
40-49	39	4	11	29%	3	9%	5	8%	6	17%
50+	29	3	16	52%	4	11%	5	15%	11	38%

* Cell suppressed for numbers less than 3 ** Percentages are weighted

Table 16: Indicators of HIV risk in the last 12 months among sexually active heterosexuals in HIV care, Texas 2013-2014

	Ave number of opposite -sex partners		Condomless vaginal or anal sex with partner of the opposite sex		Condomless vaginal or anal sex with partner of discordant or unknown HIV status		Used injection or non-injection drugs	
	n		n	%	n	%	n	%
Total	122	2	43	36%	28	23%	28	24%
White	18	1	8	47%	4	23%	4	26%
Black	65	1	24	38%	19	30%	16	23%
Hispanic	37	3	11	29%	5	14%	6	20%
18-29	10	2	4	41%	4	41%	6	64%
30-39	26	1	12	44%	8	31%	6	25%
40-49	43	1	16	35%	11	24%	13	30%
50+	43	2	11	30%	5	13%	3	9%

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

B. HIV CARE CONTINUUM

The HIV Care Continuum for the Dallas EMA

The 2014 HIV Treatment Continuum for local areas has four indicators as depicted by the four bars. The first is the number of people living with diagnosed HIV infections as of the end of 2014. The second bar shows the number of PLWH who had at least one episode of HIV-related treatment. The third bar shows PLWH retained in care, meaning that there were at least two episodes of treatment at least 90 days apart or who had suppressed viral load regardless of the number or spacing of visits. The fourth bar shows the proportion of PLWH had suppressed viral load at the end of the year. This information is created by merging information from disease surveillance with several sources of information on treatment and care. They include program data from treatment providers in the Ryan White HIV/AIDS Program, information from Texas Medicaid and from some private health plans.

The corresponding pie charts with each cascade show each individual in an exclusive grouping as opposed to cumulative groupings, as is the case with the bar graphs (Figure 32). For example, for the Dallas EMA, both the bar and pie graphs show the status of the 19,389 PLWH along the treatment cascade. However, the bar graph is cumulative. Out of the 19,389 PLWH in 2014, there were 15,298 that had at least one episode of HIV-related treatment, and of that group, 13,920 were retained in care, and 11,535 of the individuals retained in care were virally suppressed. However, the pie graph to its right shows that out of the 19,389 PLWH in 2014: there were 4,091 that were not in care; there were 1,378 that had limited care; there were 2,385 that were retained in care, but without viral suppression; and, there were 11,535 that were virally suppressed (as also depicted in the bar graph). The pie graph counts each individual once, in one exclusive group and is used to describe the intensity of engagement with the care system: PLWH with no HIV-related care, with limited care (only one visit for PLWH with non-suppressed viral load), PLWH who are retained in treatment but who are not virally suppressed, and those who have suppressed viral load.

In 2014, almost four out of five of the Dallas PLWH had at least one HIV-related health visit, 72% were retained in care, and 59% were virally suppressed at the end of the year (Figure 32