

HIV/AIDS in the Houston Area

A red ribbon symbol, commonly used to represent HIV/AIDS awareness, is positioned behind the title text. It is a stylized ribbon forming a loop, with a slight shadow effect.

The 2013 Houston Area Integrated Epidemiologic Profile
for HIV/AIDS Prevention and Care Services Planning

Disclaimer:

This document is the most current HIV/AIDS epidemiologic profile for the jurisdictions of Houston/Harris County, the Houston Eligible Metropolitan Area (EMA), and the Houston Health Services Delivery Area (HSDA). Data were compiled in December 2012 and January 2013 for the period of January 1 to December 31, 2011 or the most current complete reporting period of data available as noted. Its contents reflect the epidemiologic and service utilization data available at the time of data collection. More recent data may have become available since the time of publication.

Funding acknowledgment:

The development of this document was made possible by funding from the Ryan White HIV/AIDS Treatment Extension Act of 2009 and by Cooperative Agreement Numbers 1U62PS003672.01 and PS08-802 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Health Resources and Services Administration or the Centers for Disease Control and Prevention.

Suggested citation:

The 2013 Houston Area Integrated Epidemiologic Profile for HIV/AIDS Prevention and Care Services Planning. Reporting period: January 1 to December 31, 2011.

Approved May 9, 2013

Updated May 21, 2013

For more information, contact:

Houston Area Ryan White Planning Council

2223 West Loop South #240

Houston, TX 77027

Tel: (713) 572-3724

Fax: (713) 572-3740

Web: www.rwpchouston.org

Houston Area HIV Prevention Community Planning Group

8000 N. Stadium Drive, 5th Floor

Houston, TX 77054

Tel: (832) 393-4696

Fax: (832) 393-5236

Web: www.CPGHou.org



Contributors

The 2013 Houston Area Integrated Epidemiologic Profile for HIV/AIDS Prevention and Care Services Planning

This document was developed by the 2013 Joint Epidemiologic Profile Workgroup of the Ryan White Planning Council and HIV Prevention Community Planning Group:

Herman L. Finley, III, Workgroup Chair (2013); Member, Ryan White Planning Council

Michael Bass, Workgroup Chair (2012); Member, Ryan White Planning Council

Nike Blue, Director of Prevention Services, AIDS Foundation Houston; Member, Community Planning Group

Camden J. Hallmark, MPH, Data Analyst, Houston Department of Health and Human Services, Bureau of HIV/STD and Viral Hepatitis Prevention; Member, Community Planning Group

Anna Henry, Planner, Houston Regional HIV/AIDS Resource Group, Inc.; Member, Community Planning Group

Judy Hung, MPH, Epidemiologist, Harris County Public Health Services, Ryan White Grant Administration

Jeffrey Meyer, MD, MPH, Epidemiologist Supervisor, HIV/STD Surveillance, Houston Department of Health and Human Services, Bureau of Epidemiology

Nicholas Sloop, Public Health Advisor, Houston Department of Health and Human Services, Bureau of HIV/STD and Viral Hepatitis Prevention

Biru Yang, MPH, PhD, Biostatistician, Houston Department of Health and Human Services, Bureau of Epidemiology; Member, Community Planning Group

Additional data and consultation were provided by:

Steven Dang, MS, Senior Staff Analyst, Houston Department of Health and Human Services, Tuberculosis Control

Marlene McNeese-Ward, Bureau Chief, Houston Department of Health and Human Services, Bureau of HIV/STD and Viral Hepatitis Prevention

Dawn Meade, MSPH, Program Coordinator/CPCDMS, Harris County Public Health Services, Ryan White Grant Administration

Monica Slentz, Senior GIS Analyst, Houston Department of Health and Human Services, Office of Health Planning, Evaluation & Program Development

Lupita Thornton, BS, STD Program Manager, Houston Department of Health and Human Services, Bureau of HIV/STD and Viral Hepatitis Prevention

Holli Tietjen, MS, Epidemiologist, Houston Department of Health and Human Services, Bureau of Epidemiology

Marcia Wolverton, MPH, Epidemiologist Manager, Houston Department of Health and Human Services, Bureau of Epidemiology

This document was reviewed by the Overall Responsible Parties (ORP) for HIV/AIDS surveillance and prevention in Houston/Harris County: **Raouf R. Arafat MD, MPH;** **Risha L. Jones, RN, MBA;** and **Juanetta Mercier, MD.**

Staff to the project were:

Tori Williams, MSW, Manager, Ryan White Planning Council Office of Support

Jennifer M. Hadayia, MPA, Health Planner, Ryan White Planning Council Office of Support



Table of Contents

The 2013 Houston Area Integrated Epidemiologic Profile for HIV/AIDS Prevention and Care Services Planning

Introduction.....	7
Geographic Area.....	8
Executive Summary.....	10
Chapter 1: The Houston Area Population.....	12
Distribution of Total Population By County.....	12
Population Change.....	12
Demographics By Total Population and County.....	13
Comparison of Total Population to the Population Living with HIV Disease.....	15
Socioeconomic Characteristics.....	17
Employment.....	17
Household Income.....	17
Poverty.....	19
Educational Attainment	21
Health Insurance.....	21
Foreign-Born and Linguistic Isolation	22
Community Health Indicators.....	23
Fertility and Mortality Rates.....	24
Selected Causes of Death	24
Disability.....	25
Additional Selected Community Health Indicators.....	26
Chapter 2: HIV/AIDS in the Houston Area.....	27
Houston/Harris County.....	27
HIV Incidence.....	27
New Diagnoses of HIV Disease.....	28
AIDS Progression and Late Diagnoses.....	29
Persons Living with HIV Disease	30
Mapping of New Diagnoses and Persons Living with HIV/AIDS by Zip Code.....	32

Deaths of Persons with HIV/AIDS.....	33
New Diagnoses, Prevalence, and Mortality, Five-Year Trend.....	34
Houston Eligible Metropolitan Area (EMA)	35
New Diagnoses of HIV Disease.....	35
Persons Living with HIV Disease	36
Deaths of Persons with HIV/AIDS.....	38
Summary of HIV Epidemiology by Jurisdiction and the U.S.	39
Chapter 3: Risk for HIV/AIDS in the Houston Area.....	40
Summary of Risk Behaviors.....	40
HIV Testing and Awareness of Status.....	42
Houston/Harris County.....	43
Houston Eligible Metropolitan Area (EMA)	44
STD Trends.....	45
Chlamydia.....	46
Gonorrhea.....	48
Infectious Syphilis.....	50
Chapter 4: HIV Service Utilization in the Houston Area.....	53
Initial Linkage to Care.....	53
Total Population in HIV Care, or Met Need.....	55
Total Population in the Ryan White HIV/AIDS Program	57
Detail of Selected Ryan White HIV/AIDS Program Service Categories.....	60
Primary Care.....	60
AIDS Drug Assistance Program (ADAP)	62
Case Management.....	63
Oral Health.....	65
Health Insurance Assistance.....	67
Mental Health.....	69
The Houston EMA Treatment Cascade.....	71
Chapter 5: Profile of the Out-of-Care in the Houston Area.....	73

Chapter 6: Special Topics in HIV/AIDS Epidemiology in the Houston Area.... 77

Priority Populations

African Americans 79

Hispanic/Latinos 82

Homeless..... 85

Incarcerated..... 87

Injection Drug Users (IDU) 91

Men Who Have Sex with Men (MSM), including MSM of Color (MSMOC) and Young
MSM (MSM age 13 to 24) (YMSM) 93

Rural..... 98

Seniors (age 55+)..... 107

Transgender..... 110

Women of Childbearing Age (age 13 to 44) 111

Youth (age 13 to 24), including Adolescents (age 13 to 17) 114

Co-Infection

HIV and Active TB Disease..... 119

HIV and Infectious Syphilis..... 122

HIV and Hepatitis B and C..... 125

Explanation of Data Sources..... 127



Introduction

What is an integrated epidemiologic profile for HIV/AIDS prevention and care services planning?

“Information about who is infected, their background and risk factors, lay the foundation for local and regional prevention and care planning.”

↻ Houston Area Ryan White Planning Council
April 14, 2011

An HIV/AIDS epidemiologic profile is a document that describes HIV/AIDS in a specific geographic area. Its purpose is to provide a thorough accounting of HIV/AIDS cases among the various populations in the geographic area and to present the sociodemographic, behavioral, and clinical characteristics that can influence risk for infection and access to care.

Epidemiologic profiles are used by those who make recommendations about HIV prevention and care services in a local area to better understand who is infected and what their needs may be in regard to services. Jurisdictions that receive federal funding for HIV prevention and care are required to know the HIV/AIDS epidemic in their local areas and to use this information when making decisions about service priorities, allocations, and quality. The profile is also used when designing jurisdictional needs assessments and comprehensive HIV plans.

In the Houston Area, the development of epidemiologic profiles has been a joint effort of the Ryan White Planning Council for HIV services and the HIV Prevention Community Planning Group. Both planning bodies and their administrative agents collaborate on the design and content of the profile and then use the finished document as a tool for year round decision making on HIV prevention and care services.

Federal guidelines for epidemiologic profiles require that five specific questions be addressed.¹ They include core epidemiologic questions about HIV/AIDS and questions about patterns of HIV care service utilization by those who are HIV-positive:

1. What are the sociodemographic characteristics of the general population?
2. What is the scope of the HIV/AIDS epidemic in the service area?
3. What are the indicators of risk for HIV/AIDS infection in the population?
4. What are the patterns of service utilization among HIV-infected persons?
5. What are the characteristics of persons who are HIV-positive but not in care?

The 2013 epidemiologic profile for the Houston Area is organized according to these required questions. It contains five chapters, one for each of the five questions above, and a sixth chapter focused on special populations and co-morbidities of interest to the Houston Area HIV prevention and care community.

¹Centers for Disease Control and Prevention and Health Resources and Services Administration. *Integrated Guidelines for Developing Epidemiologic Profiles: HIV Prevention and Ryan White CARE Act Community Planning*. 2004. The guidelines are available at <http://www.cdc.gov/hiv/topics/surveillance/resources/guidelines/epi-guideline/index.htm>.



Geographic Area

What is the geographic area for 2013 Houston Area integrated epidemiologic HIV/AIDS profile?

“[Some areas in Texas] have been designated Eligible Metropolitan Areas (EMA)... because they have emergent populations of people with HIV and therefore a pressing need for funding to provide HIV-specific medical care.”

≈ 2010 Texas Integrated Epidemiologic Profile for HIV/AIDS
January 31, 2012

Three specific geographic areas are included in the 2013 epidemiologic profile for the Houston Area. These three areas represent the federal and state defined geographic service areas for HIV prevention and care planning in the region (**Figure 1**). Together, they cover 9,415 square miles of southeast Texas or 3.5 percent of the state:

- **Houston/Harris County** is the geographic service area for HIV prevention. It is also a stand-alone reporting jurisdiction for HIV surveillance, meaning that all laboratory evidence related to HIV and AIDS conducted in Houston or Harris County must, by law, be reported to the local health authority, which is the Houston Department of Health and Human Services. The Houston Area HIV Prevention Community Planning Group helps design HIV prevention activities for Houston/Harris County.
- **The Houston Eligible Metropolitan Area (EMA)** is the geographic service area defined by the Health Resources and Services Administration (HRSA) (a division of the U.S. Department of Health and Human Services) for the Ryan White HIV/AIDS Program Part A and Minority AIDS Initiative (MAI). EMAs are geographic regions with a population of at least 500,000 people and at least 2,000 total reported AIDS cases over the most recent five year period.

The Houston EMA includes six counties: Chambers, Fort Bend, Harris (including the City of Houston), Liberty, Montgomery, and Waller.

The total population of the Houston EMA is over five million people, and there were 2,793 newly reported AIDS cases in the Houston EMA in the most recent *three* year period (2009 to 2011) alone.

The Ryan White HIV/AIDS Program Part A and MAI provide HIV core medical care and support services for HIV-positive residents of the EMA. These funds are administered by the Ryan White Grant Administration of Harris County Public Health Services. The Houston Area Ryan White Planning Council designs Part A and MAI funded services for the Houston EMA.

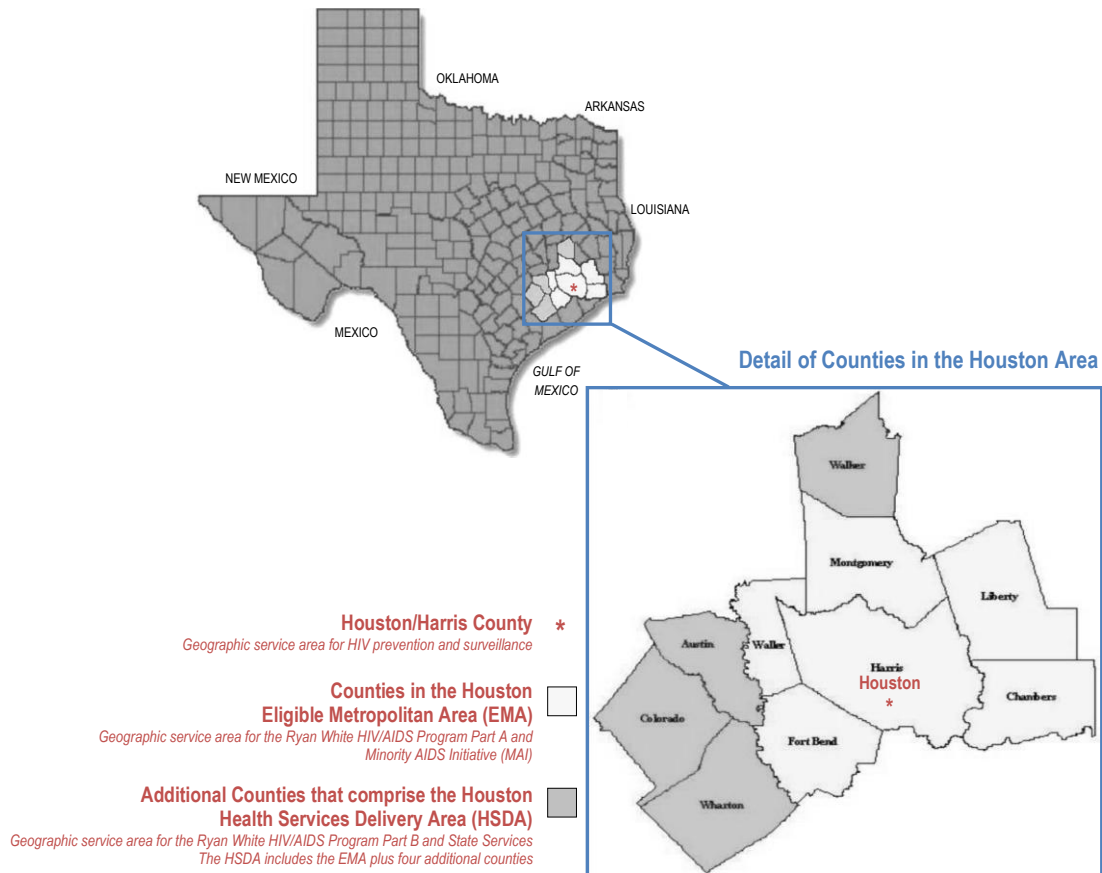
- **The Houston Health Services Delivery Area (HSDA)** is the geographic service area defined by the Texas Department of State Health Services (DSHS) for the Ryan White HIV/AIDS Program Part B and the Houston Area’s HIV-related funds from the State of Texas, or State Services.

The Houston HSDA includes the six counties of the Houston EMA listed above plus four additional counties: Austin, Colorado, Walker, and Wharton.

The Ryan White HIV/AIDS Program Part B and State Services provide HIV core medical care and support services for HIV-positive residents of the HSDA. These funds are administered by the Houston Regional HIV/AIDS Resource Group, Inc. The Houston Area Ryan White Planning Council also designs Part B and State Services funding for the Houston HSDA.

Care was taken to present the data in this profile in the most meaningful way possible. In some cases, presenting the same data points for each of the three geographic areas above would have been duplicative, providing minimal new information due to the residential patterns of the majority of the area’s population. Data on some topics were not available for each of the three geographies. As a result, each chapter of this epidemiologic profile varies in its geographic focus.

Figure 1: Houston Area Geographic Service Designations for HIV Prevention and Care Services Planning





Executive Summary

What are the key findings from the 2013 Houston Area integrated epidemiologic HIV/AIDS profile?

The *2013 Houston Area HIV/AIDS Epidemiologic Profile* provides a detailed accounting of HIV/AIDS in the Houston Area. It includes a summary of the socio-demographic, behavioral, and clinical characteristics that can influence risk for HIV infection and access to care. It also describes current utilization of the Ryan White HIV/AIDS Program in the Houston Eligible Metropolitan Area (EMA) and provides a profile of the out-of-care. Lastly, it includes a section on HIV/AIDS in special populations and co-infection. Key findings from the document are listed below.

Overall Population

- The Houston EMA includes Chambers, Fort Bend, Harris (including the City of Houston), Liberty, Montgomery, and Waller Counties. The total population is 5,287,524, or 21% of the Texas population. Houston/Harris County remains the EMA's population center with 77% of the population. The EMA's population has grown 27% since 2000.
- The Houston EMA is 50.4% male and 49.6% female. It is 40% Hispanic/Latino, 35% White (non-Hispanic), 17% African American, and 8% all other races. Together, Hispanic/Latinos, African Americans, and all other minority races comprise 65% of the total EMA population.

New HIV Diagnoses

- *Houston/Harris County*. In 2011, there were 1,249 new diagnoses of HIV (a rate of 30 new HIV diagnoses per 100,000 population).
- *Houston EMA*. In 2011, there were 1,334 new diagnoses of HIV (a rate of 25 new HIV diagnoses per 100,000 population).
- In general, newly diagnosed cases in the Houston Area are male, African American, age 25 to 34, and MSM (male-to-male sexual activity).

Persons Living with HIV Disease

- *Houston/Harris County*. There were 20,022 people living with HIV disease at the end of 2010 (a prevalence rate of 489 per 100,000 population).
- *Houston EMA*. There were 21,664 people living with HIV disease at the end of 2011 (a prevalence rate of 398 per 100,000 population).
- In general, living cases in the Houston Area are male, African American, age 45 to 54, and MSM.

Deaths of Person with HIV

- *Houston/Harris County*. 453 people with HIV disease died in 2010 either from HIV or another cause (a mortality rate of 11 deaths per 100,000 population).
- *Houston EMA*. 398 people with HIV disease died in 2011 either from HIV or another cause (a mortality rate of 7 deaths per 100,000 population).

- In general, deaths among people with HIV in the Houston Area occurred most often among males, African Americans, people age 45 to 54, and MSM.

Overall HIV Trends

- *Houston/Harris County.* Between 2006 and 2010, HIV-related mortality decreased by 14%, and the number of persons living with HIV increased by 20%. New HIV diagnoses also increased but appear to be stabilizing.
- Both Houston/Harris County and the Houston EMA have higher rates of new HIV diagnoses, prevalence, and HIV-related mortality than Texas and the U.S. Between the two local jurisdictions, Houston/Harris County rates exceed the EMA's.
- According to the local Treatment Cascade, there are 26,424 people living with HIV in the Houston EMA. Of those, 82% are aware of their HIV infection, and, of those aware, 51% are engaged in HIV care. In addition, 45% of diagnosed persons (or 37% of all people infected with HIV) have a suppressed viral load.
- Some specific populations in the Houston EMA have been hardest-hit by HIV. MSM, African Americans, and Hispanic/Latinos had the largest numbers of new HIV diagnoses in the EMA in 2011. At the subpopulation level, African American MSM, Hispanic MSM, African American heterosexuals, and young MSM (age 13 – 24) of color (YMSMOC) were also hardest-hit.

Ryan White Program Utilization

- In 2011, the Ryan White HIV/AIDS Program Part A, Minority AIDS Initiative (MAI), Part B, and State Services (State of Texas matching funds for HIV care) served 11,184 clients (or 52% of all persons living with HIV in the Houston EMA). Slightly more females, African Americans, and Hispanic/Latinos were served by Ryan White than are represented in the HIV-infected population as a whole.
- The five Ryan White services with the largest volume of clients in 2011 were: (1) primary medical care, (2) service linkage for the newly diagnosed, (3) medical case management, (4) local pharmaceutical assistance, and (5) oral health care.
- From 2008 to 2011, the total number and percent of persons living with HIV that meet the federal definition of out-of-care have decreased in the Houston EMA, from 36% to 28%. At the same time, the total number of persons diagnosed increased 14%.

Data for this profile were supplied by the U.S. Census Bureau, Texas Department of State Health Services, Houston Department of Health and Human Services, and Harris County Public Health Services Ryan White Grant Administration. Data were generated from the Enhanced HIV/AIDS Reporting System (EHARS), Sexually Transmitted Disease Management Information System (STD*MIS), and Centralized Patient Care Data Management System (CPCDMS).

The information presented in this document will be used by the Houston Area Planning Bodies, by the Administrative Agents for federal and state HIV prevention and care services funds, and by others in the community who make recommendations about HIV prevention and care services in the Houston Area. By better understanding who is infected and what their needs may be in regard to services, these decision-makers, planners, service-providers, and consumers can make more informed recommendations about services priorities, funding allocations, and quality of care.



Chapter 1: The Houston Area Population

What are the sociodemographic characteristics of the general population in the Houston Area?

“[The] Houston metropolitan area is the most racially/ethnically diverse large metropolitan area in the nation[.]”

⇒ Kinder Institute for Urban Research & the Hobby Center for the Study of Texas
March 2012

Distribution of Total Population By County

(Table 1) The Houston Eligible Metropolitan Area (EMA) includes the six counties of Chambers, Fort Bend, Harris (including the City of Houston), Liberty, Montgomery, and Waller. In 2010, the total population of the EMA was 5,287,524, or 21% of the Texas population. Harris County remains the population center of the EMA with 77.4% of the population. However, Harris County’s proportion of the total EMA population has declined in the last 10 year period, while other EMA counties’ shares have increased. As a whole, the Houston EMA represents a larger proportion of the total Texas population today than it did in 2000.

County	Total Population-2000 ^a	Total Population-2010 ^b	County Percent of EMA-2000 ^a	County Percent of EMA-2010 ^b
Chambers	26,031	35,096	0.6%	0.7%
Fort Bend	354,355	585,375	8.5%	11.1%
Harris (incl. Houston)	3,399,186	4,092,459	81.4%	77.4%
Liberty	70,136	75,643	1.7%	1.4%
Montgomery	293,688	455,746	7.0%	8.6%
Waller	32,660	43,205	0.8%	0.8%
EMA Total	4,176,056	5,287,524	100.0%	100.0%
			EMA Percent of State-2000 ^a	EMA Percent of State-2010 ^b
Texas Total	20,851,820	25,145,561	20.0%	21.0%

^aSource: U.S. Census Bureau (2000). Retrieved on 3/25/04

^bSource: U.S. Census (2010). Profile of General Population and Housing Characteristics. 2010 Census Summary File 1. Retrieved on 1/31/13

Population Change

(Table 2) In the last 10 year period, the population of the Houston EMA has grown more than the state of Texas as a whole. Over 1.1 million more people live in the EMA today than in 2000. The largest percent change in population occurred in Fort Bend and Montgomery Counties, with 65.2% and 55.2% more people in 2010 than in 2000, respectively. Liberty County grew the least with a 7.9% increase over 10 years.

TABLE 2-Total Population Change in the Houston EMA by County, 2000 and 2010

County	Total-2000 ^a	Total-2010 ^b	Change in Population	
			#	%
Chambers	26,031	35,096	9,065	+34.8%
Fort Bend	354,355	585,375	231,020	+65.2%
Harris (incl. Houston)	3,399,186	4,092,459	693,273	+20.4%
Liberty	70,136	75,643	5,507	+7.9%
Montgomery	293,688	455,746	162,058	+55.2%
Waller	32,660	43,205	10,545	+32.3%
EMA	4,176,056	5,287,524	1,111,468	+26.6%
Texas	20,851,820	25,145,561	4,293,741	+20.6%

^aSource: U.S. Census Bureau (2000). Retrieved on 3/25/04

^bSource: U.S. Census (2010). Profile of General Population and Housing Characteristics. 2010 Census Summary File 1. Retrieved on 1/31/13

Demographics By Total Population and County

(Table 3) In 2011, the population of the Houston EMA was 39.9% Hispanic, 35.4% White (non-Hispanic), 16.9% African American, and 7.8% all other races. This makes the Houston EMA a “minority majority” area, where racial/ethnic minorities comprise the majority of the population. In the Houston EMA, Hispanics, African Americans, and other minority races together account for 64.6% of the total population.

TABLE 3-Distribution of Total Population in the Houston EMA by Sex, Race/Ethnicity, and Age, 2011

	Number	Percent
Total EMA Population	5,443,094	100.0%
Sex		
Male	2,743,168	50.4%
Female	2,699,926	49.6%
Race/Ethnicity		
White	1,925,694	35.4%
African American	920,562	16.9%
Hispanic/Latino	2,170,747	39.9%
Other	426,091	7.8%
Age		
Under 2	173,541	3.2%
2 - 12	867,995	15.9%
13 - 24	906,660	16.7%
25 - 34	882,821	16.2%
35 - 44	881,678	16.2%
45 - 54	747,171	13.7%
55+	983,228	18.1%

Source: DSHS Center for Health Statistics 2011 Population Projection:
<http://www.dshs.state.tx.us/chs/popdat/detailX.shtml>

(Table 4) When analyzed by county, several in the Houston EMA are also “minority majority” areas. Racial/ethnic minorities comprise the majority of the population in Fort Bend, Harris, and Waller Counties. In fact, Hispanics are the largest single population group in Harris County today. The Houston EMA is also more ethnically diverse than Texas as a whole. A smaller proportion of the EMA’s population is White (non-Hispanic) than Texas, and a larger proportion is African American and Asian/Pacific Islander. Within counties in the EMA, the largest proportion of African Americans is in Waller, and the largest proportion of Asian/Pacific Islanders is in Fort Bend.

County	Total Population	Percent of Total Population by Race/Ethnicity				
		White	African American	Hispanic/Latino	Asian/Pacific Islander	Other Race
Chambers	35,096	70.6%	8.0%	18.9%	1.0%	1.5%
Fort Bend	585,375	36.2%	21.1%	23.7%	16.9%	2.1%
Harris (incl. Houston)	4,092,459	33.0%	18.4%	40.8%	6.2%	1.6%
Liberty	75,643	69.2%	10.7%	18.0%	0.5%	1.7%
Montgomery	455,746	71.2%	4.1%	20.8%	2.1%	1.8%
Waller	43,205	44.6%	24.4%	29.0%	0.5%	1.5%
EMA	5,287,524	37.5%	17.4%	36.7%	6.8%	1.7%
Texas	25,145,561	45.3%	11.5%	37.6%	3.8%	1.7%

Source: U.S. Census (2010). Profile of General Population and Housing Characteristics. 2010 Census Summary File 1. Retrieved on 1/31/13

(Table 5) Differences between the Houston EMA and the state also occur in regards to age. Overall, the Houston EMA is younger than Texas, with a larger proportion of residents under age 55. Waller County has the largest proportion of people under 25 in the EMA, and Liberty County has the largest proportion of people aged 55 and over.

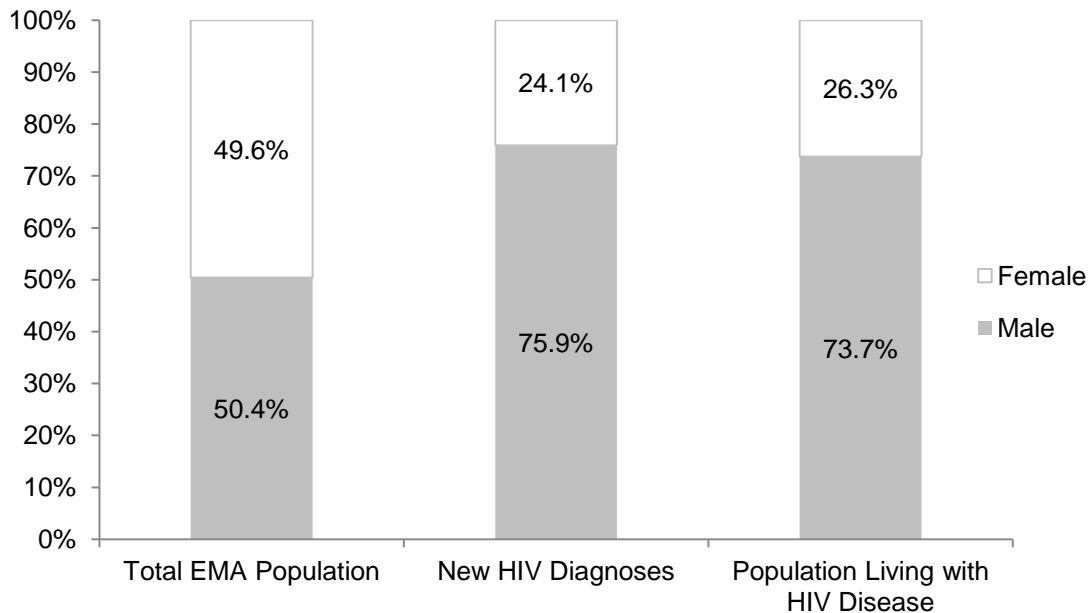
County	Total Population	Percent of Total Population by Age		
		Under 25	25 - 54	55+
Chambers	35,096	36.4%	42.2%	21.3%
Fort Bend	585,375	37.6%	44.1%	18.3%
Harris (incl. Houston)	4,092,459	38.2%	43.9%	17.9%
Liberty	75,643	34.9%	42.0%	23.1%
Montgomery	455,746	35.6%	42.4%	22.0%
Waller	43,205	42.5%	36.1%	21.4%
EMA	5,287,524	38.2%	44.1%	18.6%
Texas	25,145,561	37.5%	41.8%	20.7%

Source: U.S. Census (2010). Profile of General Population and Housing Characteristics. 2010 Census Summary File 1. Retrieved on 1/31/13

Comparison of Total Population to the Population Living with HIV Disease

(Graph 1) The Houston EMA population is fairly evenly divided between males and females at 50.4% and 49.6%, respectively. However, more males than females were newly-diagnosed with HIV in 2011 (75.9% vs. 24.1%) and more males than females are currently living with HIV (73.7% vs. 26.3%).

GRAPH 1-Comparison of Total Population^a in the Houston EMA to the HIV-Infected Population^b by Sex, 2011



^aSource: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

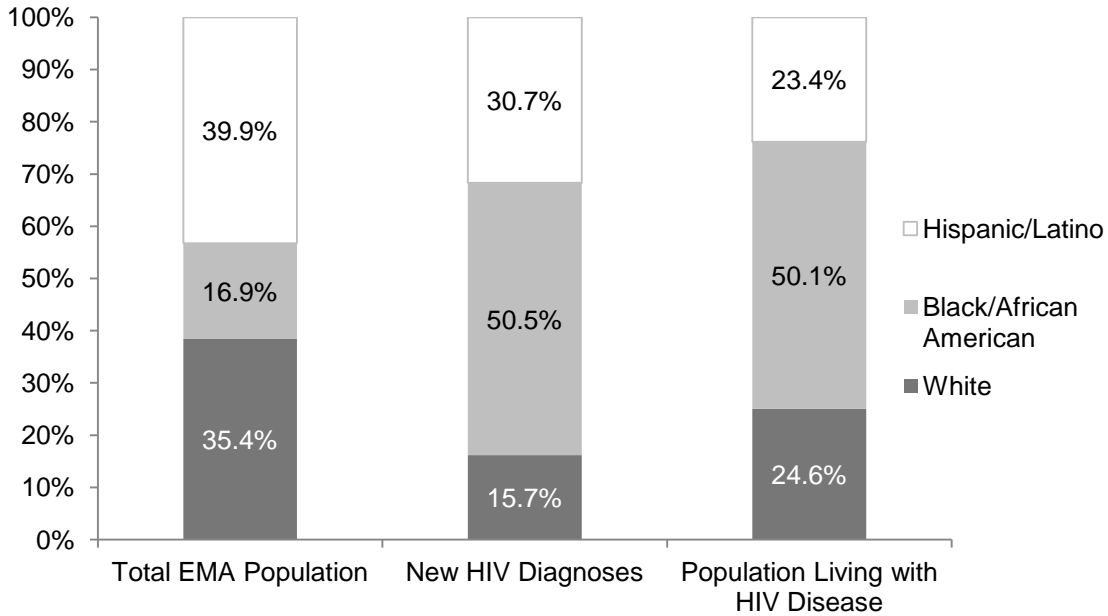
^bSource: Texas eHARS. Living HIV cases as of 12/31/11

(Graph 2) The populations in the Houston EMA that are newly-diagnosed with HIV and living with HIV are also more racially diverse than the general population. While African Americans and Hispanics account for 56.8% of the total Houston EMA population, they are 81.2% of all new HIV diagnoses and 73.5% of all people living with HIV. Notably, African Americans account for only 16.9% of the total Houston EMA population, but they are over half of all new HIV diagnoses (50.5%) and over half of all people living with HIV (50.1%) in the region.

These trends mirror what is occurring statewide. According to the Texas Department of State Health Services, HIV disease in Texas is predominantly male and African American.¹

¹Texas Department of State Health Services. *2010 Texas Integrated Epidemiologic Profile for HIV/AIDS Prevention and Services Planning*. Reporting Period: January 1 to December 31, 2010. Publication Number E13-11937 (Revised January 31, 2012). The profile is available at <http://www.dshs.state.tx.us/hivstd/reports/default.shtm>

GRAPH 2- Comparison of Total Population^a in the Houston EMA to the HIV-Infected Population^b by Race/Ethnicity, 2011

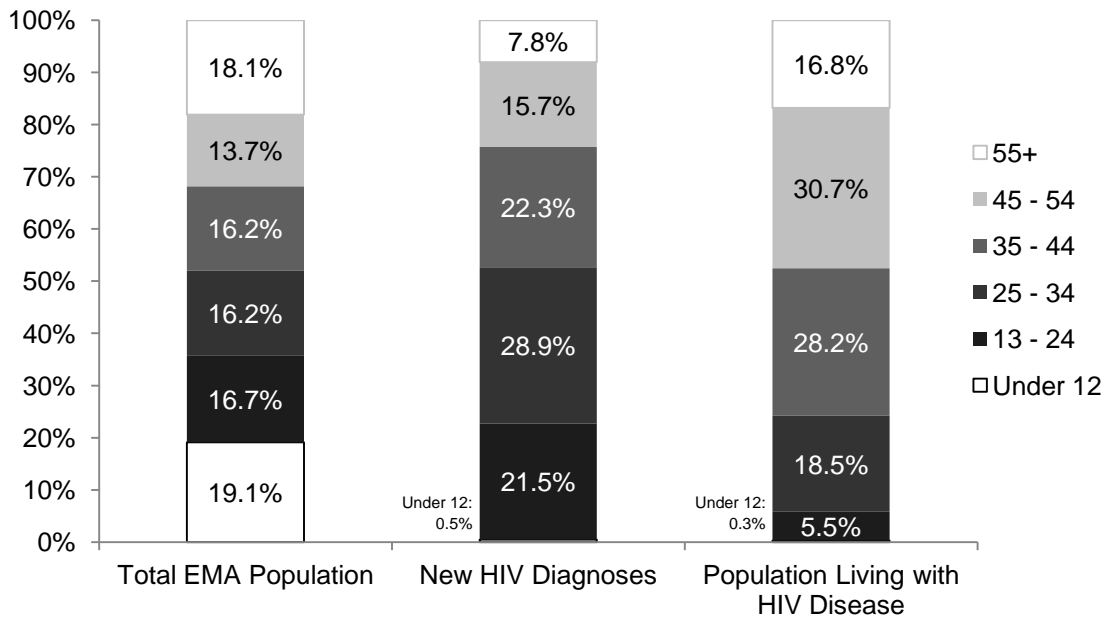


^aSource: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

^bSource: Texas eHARS. Living HIV cases as of 12/31/11

(Graph 3) When analyzed by age, people aged 25 to 34 account for a larger proportion of new HIV diagnoses (28.9%) than their share of the general population in the Houston EMA (16.2%). Similarly, people aged 45 to 54 account for a larger proportion of those living with HIV (30.7%) than their share of the population (13.7%).

GRAPH 3- Comparison of Total Population^a in the Houston EMA to the HIV-Infected Population^b by Age (Descending), 2011



^aSource: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

^bSource: Texas eHARS. Living HIV cases as of 12/31/11

Socioeconomic Characteristics

Socioeconomic conditions such as access to resources and educational attainment can impact health, functioning, and quality of life outcomes,² including risk for HIV infection and access to services. Therefore, a thorough understanding of the socioeconomic characteristics of the Houston Area population is an essential tool for HIV planning.

Employment

(Table 6) In 2011, the percent of the eligible population unemployed in Texas was 8.5%, compared to an average of 8.3% for the counties in the Houston EMA. Overall, unemployment has increased slightly in the EMA over a 10 year period. Within the EMA's counties, Liberty has the highest percentage of people unemployed at 13.7% (followed by Harris at 8.8%), while Fort Bend has the lowest unemployment rate at 5.5%.

County	Percent of Eligible ^b Population <i>Employed-2011</i>	Percent of Eligible ^b Population <i>Unemployed-2011</i>	Change in Percent <i>Unemployed-2000^c</i>
Chambers	59.4%	7.2%	-2.2%
Fort Bend	64.6%	5.5%	-1.7%
Harris (incl. Houston)	62.4%	8.8%	+1.2%
Liberty	48.4%	13.7%	+3.4%
Montgomery	62.0%	7.5%	+0.5%
Waller	56.7%	7.2%	-1.0%
EMA Average	58.9%	8.3%	+0.8%
Texas	58.9%	8.5%	+0.9%

^aSource: U.S. Census. 2009-2011 American Community Survey 3-Year Estimates. S2301: EMPLOYMENT STATUS. Retrieved on 1/31/13

^bPopulation over the age of 16 and in the labor force

^cComparison to data presented in 2011 Houston EMA/HSDA Integrated Epidemiological Profile for HIV/AIDS Prevention and Care Planning. Published 4/14/11

Household Income

(Table 7) The average median household income in the Houston EMA continues to be higher than in Texas as a whole. On average, households in the EMA earn \$10,600 more per year than households statewide. Fort Bend County has the highest median household income at \$80,691, while Liberty County has the lowest at \$46,675 followed by Waller County at \$50,154.

The Houston EMA also has a lower percentage of households receiving supplemental income, such as social security, cash public assistance, and food stamps. With that noted, however, Liberty County, which has the lowest median household income in the EMA, also has a larger percentage of households receiving supplemental income than in the EMA as a whole. Currently, 30.7% of Liberty County households receive Social Security, 5.8% receive Supplemental Security Income (SSI), and 19.1% receive food

²U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. *Healthy People 2020: Determinants of Health*. Located at: <http://www.healthypeople.gov/2020/about/DOHAbout.aspx>

stamps, compared to 22.6%, 3.6%, and 10.1% for the EMA as a whole, respectively. Over 10% of households in Harris and Waller Counties also receive food stamps, and, in Waller, 3.0% of households receive cash public assistance compared to 1.7% receiving cash public assistance in the EMA as a whole.

County	Median Household Income-2011 ^a	Change in Median Income-2000 ^b	Percent of Households Receiving Each Type of Supplemental Income-2011			
			Social Security	Supplemental Security Income (SSI)	Cash Public Assistance	Food Stamps
Chambers	\$71,243	48.5%	21.6%	1.9%	1.7%	4.8%
Fort Bend	\$80,691	26.4%	16.7%	2.8%	1.0%	6.1%
Harris (incl. Houston)	\$51,617	21.2%	18.9%	3.7%	1.7%	11.5%
Liberty	\$46,675	21.7%	30.7%	5.8%	1.5%	19.1%
Montgomery	\$65,178	28.1%	24.1%	3.6%	1.2%	7.9%
Waller	\$50,154	31.5%	23.3%	3.7%	3.0%	11.1%
EMA Average	\$60,926	29.7%	22.6%	3.6%	1.7%	10.1%
Texas	\$50,266	25.9%	24.0%	4.3%	1.9%	12.6%

^aSource: U.S. Census. 2009-2011 American Community Survey 3-Year Estimates. DP03: SELECTED ECONOMIC CHARACTERISTICS. Retrieved on 1/31/13

^bComparison to data presented in 2011 Houston EMA/HSDA Integrated Epidemiological Profile for HIV/AIDS Prevention and Care Planning. Published 4/14/11

(Table 8) Also of note is the percentage of households earning less than \$15,000 per year, a commonly used indicator of low socioeconomic status. In the Houston EMA, 11.5% of households meet this threshold compared to 13.4% of households statewide. Within the EMA’s counties, both Liberty and Waller exceed the EMA and state averages at 14.9% and 14.7% of households earning less than \$15,000 per year, respectively.

County	Percent of Households
Chambers	9.1%
Fort Bend	6.0%
Harris (incl. Houston)	12.5%
Liberty	14.9%
Montgomery	9.0%
Waller	14.7%
EMA	11.5%
Texas	13.4%

Source: U.S. Census. 2009-2011 American Community Survey 3-Year Estimates. S2301: EMPLOYMENT STATUS. Retrieved on 1/31/13

Poverty

(Table 9) In 2011, the Houston EMA had a lower percentage of its population living below the federal poverty level than did the state as a whole. However, all of the counties in the Houston EMA except one (Chambers) saw an increase in the percentage of its population living in poverty over a 10 year period, and the overall increase for the EMA exceeds that of the state. Waller County has the highest level of poverty in the EMA at 18.8% (followed closely by Harris at 18.5%), while Fort Bend has the lowest level of poverty at 8.3%. Currently, 15.4% of males in the EMA and 18.3% of females in the EMA live below the federal poverty level.

County	Percent Below Federal Poverty Level-2011 ^a	Change in Percent in Poverty-2000 ^b	Percent Below Poverty Level by Sex-2011 ^c	
			Male	Female
Chambers	10.7%	-0.3%	8.7%	12.7%
Fort Bend	8.3%	+1.2%	7.6%	9.1%
Harris (incl. Houston)	18.5%	+3.5%	17.0%	20.1%
Liberty	18.4%	+4.1%	18.5%	18.3%
Montgomery	12.7%	+3.3%	11.6%	13.9%
Waller	18.8%	+2.8%	17.4%	20.3%
EMA	16.9%	+3.0%	15.4%	18.3%
Texas	17.8%	+2.4%	16.3%	19.2%

^aSource: U.S. Census. 2009-2011 American Community Survey 3-Year Estimates. S1701: POVERTY STATUS IN THE PAST 12 MONTHS. Retrieved on 1/31/13

^bComparison to data presented in 2011 Houston EMA/HSDA Integrated Epidemiological Profile for HIV/AIDS Prevention and Care Planning. Published 4/14/11

^cRepresents the percent of males/females in the geographic area that is living in poverty; and not the male/female distribution of people living in poverty in the geographic region.

(Table 10) Analyzing poverty by race/ethnicity reveals that, in general, more racial/ethnic minority groups are living below the federal poverty level in the Houston EMA than are Whites. Currently, 22.4% of African Americans and 24.1% of Hispanics are living in poverty compared to 14.8% of Whites. A larger proportion of African Americans in Harris, Liberty, and Waller Counties are living in poverty than are all African Americans in the EMA and the state. The same is true for Hispanics in Liberty.

County	White	African American	Hispanic ^b
Chambers	9.1%	20.3%	13.6%
Fort Bend	7.9%	9.1%	15.2%
Harris (incl. Houston)	16.2%	24.4%	24.8%
Liberty	14.8%	38.3%	28.5%
Montgomery	11.9%	18.9%	26.1%
Waller	14.2%	30.7%	25.2%
EMA	14.8%	22.4%	24.1%
Texas	16.0%	24.2%	26.9%

Source: U.S. Census. 2009-2011 American Community Survey 3-Year Estimates. S1701: POVERTY STATUS IN THE PAST 12 MONTHS. Retrieved on 1/31/13

^aRepresents the percent of each race/ethnicity in the geographic area that is living in poverty; and not the racial distribution of people living in poverty in the geographic region.

^bHispanic and other races presented are not mutually exclusive. Other races are not included because the sample case size by County is too small.

(Table 11) Analyzing poverty by age reveals that, in general, more minors (individuals under 18 years old) are living below the federal poverty level in the Houston EMA than are adults (individuals over age 18). Currently, 24.7% of people under age 18 are living in poverty compared to 14.2% of people age 18 to 64 and 11.0% of people age 65 and older. A larger proportion of minors in Harris and Waller Counties as well as seniors in Liberty County are living in poverty than are all minors and all seniors in the EMA and the state.

County	Under 18 years	18 to 64 years	65 years and older
Chambers	13.0%	10.0%	8.3%
Fort Bend	11.4%	7.0%	8.2%
Harris (incl. Houston)	27.6%	15.4%	11.9%
Liberty	23.3%	17.1%	13.1%
Montgomery	18.4%	11.2%	7.3%
Waller	27.0%	17.0%	10.3%
EMA	24.7%	14.2%	11.0%
Texas	25.5%	15.4%	11.3%

Source: U.S. Census. 2009-2011 American Community Survey 3-Year Estimates. S1701: POVERTY STATUS IN THE PAST 12 MONTHS. Retrieved on 1/31/13

^aRepresents the percent of each age group in the geographic area that is living in poverty; and not the age distribution of people living in poverty in the geographic region.

Educational Attainment

(Table 12) Educational attainment in the Houston EMA is fairly evenly distributed across the educational spectrum. About 1/4 of EMA residents have a high school diploma or equivalency, about 1/4 some college, and about 1/4 a bachelor's degree or higher. The county with the most educational attainment is Fort Bend, where 40.8% of residents have a bachelor's degree or higher. The county with the least educational attainment is Liberty, where 22.6% of residents have less than a high school diploma or equivalency, followed closely by Harris at 21.3%. Overall, the Houston EMA has a larger proportion of residents at both ends of the educational spectrum than does Texas as a whole. Currently, 19.2% of EMA residents have less than a high school diploma or equivalency (compared to 17.5% for the state), and 29.3% have a bachelor's degree or higher (compared to 27.4% of the state).

County	Percent of Total Population ^a			
	Less than high school	High school diploma or GED	Some college	Bachelor's degree or higher
Chambers	11.0%	31.2%	42.6%	15.1%
Fort Bend	9.8%	18.4%	31.0%	40.8%
Harris (incl. Houston)	21.3%	23.3%	27.4%	28.0%
Liberty	22.6%	36.8%	32.9%	7.8%
Montgomery	13.4%	23.5%	32.0%	31.1%
Waller	17.4%	40.5%	20.2%	21.8%
EMA	19.2%	23.2%	28.3%	29.3%
Texas	17.5%	24.9%	30.2%	27.4%

Source: U.S. Census. 2009-2011 American Community Survey 3-Year Estimates. S2301: EMPLOYMENT STATUS. Retrieved on 1/31/13

^aPopulation aged 25 to 64 in the geographic region

Health Insurance Coverage

(Table 13) In the Houston EMA, a slightly lower percentage of the population has health insurance than do residents statewide. Therefore, a slightly higher percentage of the EMA is uninsured. The difference in both cases is about 2%. Currently, over 1.3 million people in the Houston EMA are without health insurance. Waller County has the largest proportion of uninsured at 28.2% (higher than both the EMA and state), while Chambers has the lowest proportion of uninsured at 16.6%. All counties, the EMA, and Texas saw decreases in the percent of the population uninsured over a 10 year period. Of the total Houston EMA population, more have private insurance than public. The county with the largest proportion of privately insured is Fort Bend, while the county with the largest proportion of publicly insured is Liberty followed by Harris.

TABLE 13-Health Insurance Coverage in the Total Population in the Houston EMA by County, 2011^a

County	Percent with Health Insurance	Type of Health Insurance		Number Without Insurance	Percent Without Insurance	Change in Percent Uninsured- 2000 ^b
		Private Insurance	Public Insurance			
Chambers	83.4%	71.9%	19.4%	5,772	16.6%	-6.2%
Fort Bend	82.2%	72.4%	14.9%	103,556	17.8%	-5.0%
Harris (incl. Houston)	72.9%	53.3%	25.3%	1,108,842	27.1%	-4.2%
Liberty	75.1%	53.7%	30.9%	17,474	24.9%	-0.8%
Montgomery	80.6%	66.8%	21.8%	88,754	19.4%	-5.7%
Waller	71.8%	55.9%	23.3%	12,109	28.2%	-2.8%
EMA	74.7%	56.7%	23.9%	1,336,507	25.3%	-4.4%
Texas	76.6%	58.1%	26.7%	5,795,809	23.4%	-3.4%

^aSource: U.S. Census. 2009-2011 American Community Survey 3-Year Estimates. DP03: SELECTED ECONOMIC CHARACTERISTICS. Retrieved on 1/31/13

^bComparison to data presented in 2011 Houston EMA/HSDA Integrated Epidemiological Profile for HIV/AIDS Prevention and Care Planning. Published 4/14/11

Foreign Born and Linguistic Isolation

(Table 14) In 2011, a larger proportion of the Houston EMA population was foreign-born than for Texas as a whole. For Fort Bend and Harris Counties, over 1/4 of the population was born in another country. Of those foreign-born in the EMA, the majority come from Latin America. However, a larger proportion in the EMA was born in Asia than for Texas overall. The majority of foreign-born residents in the EMA are not naturalized citizens, though this percent is slightly lower than for the state as a whole.

TABLE 14-Percent of Population that is Foreign-Born in the Houston EMA by County, Citizenship, and Place of Birth, 2011^a

County	Percent Foreign-Born	Citizenship		Birth Place Among Foreign-Born			
		Percent Yes	Percent No	Europe	Asia	Africa	Latin America
Chambers	6.3%	39.9%	60.1%	--	--	--	--
Fort Bend	25.3%	50.8%	49.2%	4.7%	51.0%	7.8%	34.7%
Harris (incl. Houston)	25.1%	31.8%	68.2%	3.9%	20.4%	3.6%	71.1%
Liberty	6.9%	25.2%	74.8%	--	--	--	--
Montgomery	12.6%	30.5%	69.5%	9.2%	13.4%	1.5%	72.9%
Waller	13.3%	20.5%	79.5%	--	--	--	--
EMA	23.6%	34.0%	66.0%	4.2%	23.7%	4.0%	66.8%
Texas	16.3%	32.6%	67.4%	4.3%	18.6%	3.3%	72.5%

^aSource: U.S. Census. 2009-2011 American Community Survey 3-Year Estimates. DP02: SELECTED SOCIAL CHARACTERISTICS IN THE UNITED STATES. Retrieved on 1/31/13. Dashes indicate where data cannot be reported because the sample size is too small.

^bComparison to data presented in 2011 Houston EMA/HSDA Integrated Epidemiological Profile for HIV/AIDS Prevention and Care Planning. Published 4/14/11

(Table 15) According to available data, a larger proportion of the population in the Houston EMA is both non-English speaking and linguistically isolated than statewide.

TABLE 15-Percent of the Non-English Speaking Population Linguistically Isolated (LI) in the Houston EMA by County, 2011

County	Percent non-English Speaking	Percent Linguistically Isolated (LI) ^a
Chambers	--	--
Fort Bend	37.3%	13.2%
Harris (incl. Houston)	42.6%	20.9%
Liberty	--	--
Montgomery	18.9%	8.3%
Waller	--	--
EMA	39.9%	18.9%
Texas	34.7%	14.4%

Source: U.S. Census. 2009-2011 American Community Survey 3-Year Estimates. DP02: SELECTED SOCIAL CHARACTERISTICS IN THE UNITED STATES. Retrieved on 1/31/13. Dashes indicate where data cannot be reported because the sample size is too small.

^aLinguistically isolated is defined as someone who reports speaking English less than "very well."

(Table 16) According to available data, 30.7% of the population in the Houston EMA speaks Spanish, 3.3% speak another non-English/Indo-European language, and 4.7% speak an Asian/Pacific Islander language. Of these, 15.4%, 0.9%, and 2.3% are also linguistically isolated. All of which are higher than the percentages statewide.

TABLE 16-Percent of the Non-English Speaking Population Linguistically Isolated (LI)^a in the Houston EMA by Language and County, 2011

County	Spanish Language		Other Indo-European Language		Asian or Pacific Islander Language	
	Percent Speaking Language	Percent LI	Percent Speaking Language	Percent LI	Percent Speaking Language	Percent LI
Chambers	--	--	--	--	--	--
Fort Bend	18.0%	6.6%	6.8%	1.9%	10.4%	4.2%
Harris (incl. Houston)	34.2%	17.5%	3.0%	0.8%	4.3%	2.3%
Liberty	--	--	--	--	--	--
Montgomery	16.1%	7.6%	1.4%	0.3%	1.2%	0.4%
Waller	--	--	--	--	--	--
EMA	30.7%	15.4%	3.3%	0.9%	4.7%	2.3%
Texas	29.5%	12.6%	2.0%	0.5%	2.5%	1.2%

Source: U.S. Census. 2009-2011 American Community Survey 3-Year Estimates. DP02: SELECTED SOCIAL CHARACTERISTICS IN THE UNITED STATES. Retrieved on 1/31/13. Dashes indicate where data cannot be reported because the sample size is too small.

^aLinguistically isolated is defined as someone who reports speaking English less than "very well."

Community Health Indicators

Data related to preventable diseases, disabilities, and deaths have traditionally been used as measures of population health in a specific geographic area. The ranking of a specific community on each of these types of measures can provide valuable information about the population's overall health status, which can negatively or positively influence specific health conditions such as HIV/AIDS. Taken together, these types of measures can help "tell a story" about each community's overall health.³

³U.S. Department of Health and Human Services. Community Health Status Indicators Project. Located at : <http://www.communityhealth.hhs.gov>.

Fertility and Mortality Rates

(Table 17) Tracking fertility and mortality in a specific geographic area provides information about potential population growth. When comparing rates between areas, they can also reveal information about quality of life and life expectancy. In the Houston EMA, all but one county (Harris) have fertility rates that are lower than the state rate. The rate in Harris County is 77.7 births per 1,000 women of childbearing age, compared to 75.1 statewide. Conversely, all but one county in the EMA (Fort Bend) have mortality rates that are higher than the state rate. Taken together, these rates suggest that the EMA has fewer births and more deaths than the state overall.

County	Fertility Rate ^a	Mortality Rate ^b
Chambers	71.4	866.2
Fort Bend	68.2	676.2
Harris (incl. Houston)	77.7	788.5
Liberty	65.9	1007.6
Montgomery	71.2	822.8
Waller	67.4	944.5
Texas	75.1	781.2

Source: Texas Department of State Health Services. Center for Health Statistics. Health Facts Profiles 2009

^aFertility rates are per 1,000 women ages 15 - 44.

^bReflects deaths from all causes. Rates are age adjusted to the 2000 standard per 100,000 population. No age-adjusted rates were calculated if based on 20 or fewer deaths.

Selected Causes of Death

(Table 18) Tracking the leading causes of death in a defined geographic area provides information about the specific health conditions facing the population and where preventative or acute health care interventions may be needed. In the Houston EMA, the highest rates of death occur from cardiovascular disease (heart disease), cerebrovascular disease (stroke), and cancer. In all but one county (Fort Bend), the rates of death from both heart disease and stroke exceed the state rate. Three counties (Liberty, Montgomery, and Waller) have rates of cancer mortality that exceed the state.

County	Heart		Cancer	Lung		Accidents	Diabetes	Suicide	Liver Disease
	Disease	Stroke		Disease	Accidents				
Chambers	188.0	--	157.4	--	74.4	--	--	--	--
Fort Bend	171.6	43.6	138.9	28.5	32.2	20.0	6.9	8.0	8.0
Harris (incl. Houston)	188.8	49.3	167.7	35.4	38.9	23.0	11.6	10.9	10.9
Liberty	255.1	60.0	213.6	71.9	71.8	--	--	--	--
Montgomery	201.8	45.2	189.7	43.1	52.4	14.1	16.3	7.2	7.2
Waller	270.1	--	199.0	--	--	--	--	--	--
Texas	186.7	45.8	167.6	43.4	40.0	23.1	11.4	11.6	11.6

Source: Texas Department of State Health Services. Center for Health Statistics. Health Facts Profiles 2009. Dashes indicate no data available.

^aRates are age adjusted to the 2000 standard per 100,000 population. No age-adjusted rates were calculated if based on 20 or fewer deaths.

Disability

(Table 19) Tracking the level of disability in a specific geographic area provides information about the population's vulnerability to severe mental or physical illness, limited mobility, or hearing/sight impairment, which, in turn, affects access to resources and the need for service assistance. In the Houston EMA, a smaller proportion of the adult population is disabled than in the population of Texas as whole. Fort Bend County has the lowest percentage of adults who are disabled at 5.6%, while Liberty County has the highest percentage at 18.3%. The percent of adults who are disabled in Liberty County exceeds the state's disability level by over 8%.

County	Percent Disabled
Chambers	9.6%
Fort Bend	5.6%
Harris (incl. Houston)	7.8%
Liberty	18.3%
Montgomery	9.2%
Waller	7.6%
EMA	7.8%
Texas	10.0%

Source: U.S. Census. 2009-2011 American Community Survey 3-Year Estimates. S1810: DISABILITY CHARACTERISTICS. Retrieved on 1/31/13.

Additional Selected Community Health Indicators

(Table 20) The remaining indicators presented here are a selection of some of the most commonly-used measures of risk for poor health outcomes. They provide information about the behaviors of the population that may lead to disease over time as well as reveal areas where preventative or acute health care interventions may be needed in order to reverse risk and improve long term health outcomes for the population. In the Houston EMA, most counties are experiencing levels of risk that are comparable to the state of Texas as a whole. Of note, however, is that Harris County slightly exceeds the state in the percentage of babies born at low birth weight; Liberty and Waller Counties exceed the state in the percentage of the population that is obese; and Harris and Montgomery Counties exceed the state in their level of excessive alcohol use. In addition, 1/4 of the population in Harris County lacks adequate social support for daily living, and 1/4 of the population in Liberty County reports being in only poor or fair health.

TABLE 20-Status of Selected Community Health Indicators in the Houston EMA by County, 2012^a

County	In Poor or Fair Health	Low Birth Weight	Smoking	Obesity	Physical Inactivity	Lacks Access to Healthy Foods	Excessive Alcohol Use	Lacks Social Support
Chambers	--	6.8%	--	29.0%	30.0%	25.0%	--	--
Fort Bend	16.0%	8.3%	11.0%	26.0%	21.0%	10.0%	13.0%	21.0%
Harris (incl. Houston)	19.0%	8.4%	17.0%	29.0%	23.0%	8.0%	17.0%	25.0%
Liberty	25.0%	7.7%	--	31.0%	32.0%	26.0%	--	--
Montgomery	17.0%	7.7%	16.0%	27.0%	23.0%	17.0%	17.0%	24.0%
Waller	--	6.9%	11.0%	32.0%	30.0%	25.0%	3.0%	--
Texas	19.0%	8.2%	19.0%	29.0%	25.0%	12.0%	16.0%	23.0%

Source: County Health Rankings & Roadmaps. A project of the Robert Wood Johnson Foundation (RWJF) and the University of Wisconsin Population Health Institute. 2012. Retrieved on 2/3/13. Dashes indicate no data available

^aPercentage of the total population in each geographic region reporting the selected condition.



Chapter 2: HIV/AIDS in the Houston Area

What is the scope of the HIV/AIDS epidemic in the Houston Area?

“[The] National HIV/AIDS Strategy released by the White House designated the Houston-Baytown-Sugarland, Texas area as the eighth most HIV/AIDS-impacted local jurisdiction in the country.”

≈ Houston Area Comprehensive HIV Prevention and Care Services Plan
May 2012

The data presented in this chapter are organized according to two geographic service jurisdictions in the Houston Area: (1) Houston/Harris County and (2) the Houston Eligible Metropolitan Area (EMA), which includes Houston/Harris County. The separation of jurisdictions in the data presentation is intended to enhance the utility of this document as a tool for planning both HIV prevention and HIV care services. Data for the third geographic service jurisdiction in the Houston Area, the Houston Health Services Delivery Area (HSDA), are presented in Chapter 6: Special Topics in HIV/AIDS Epidemiology in the Houston Area. These data are not presented here due to the overlap of data and data sources with the EMA, which makes the data virtually identical.

Houston/Harris County

HIV Incidence

Incidence is an epidemiological term used to refer to the total number of new infections of a disease (both diagnosed and undiagnosed) in a population during a specific time period. In most geographic areas, newly-reported diagnoses of HIV based on test results is used interchangeably with HIV incidence. This is because new testing technology has only recently become available that can more directly estimate HIV incidence in a jurisdiction. Houston/Harris County is unique in that it operates the HIV Incidence Surveillance Program, which creates estimates of HIV incidence. This allows us to describe true new cases of HIV for the Houston/Harris County jurisdiction as well as newly-reported diagnoses of HIV.

(Table 1) According to the Houston/Harris County HIV Incidence Surveillance Project, there were 1,235 estimated new cases of HIV in Houston/Harris County in 2010. This is a rate of 30 new HIV cases for every 100,000 people in Houston/Harris County. Of new cases, 76.3% were male, and 23.7% were female. Over half (54.5%) were among African Americans, 26.9% were Hispanic/Latino, and 18.6% were White. African Americans had the highest rate of new HIV disease at 87 new HIV cases for every 100,000 African Americans in Houston/Harris County. People aged 25 to 34 also had a high rate of new cases with 56 new HIV cases for every 100,000 people aged 25 to 34 in Houston/Harris County. In addition, male-to-male sexual activity or MSM was reported in 61.1% of all new HIV cases in 2010, followed by heterosexual contact at 30.1%.

TABLE 1-Estimate of HIV Incidence in Houston/Harris County by Sex, Race/Ethnicity, Age, and Risk, 2010^a

	Number of New Cases	Percent of New Cases	Rate of New Cases ^b
Total	1,235	100.0%	30.2
Sex			
Male	942	76.3%	46.2
Female	293	23.7%	14.3
Race/Ethnicity			
Other, including White	230	18.6%	14.0
Black/African American	673	54.5%	87.1
Hispanic/Latino	332	26.9%	19.9
Age at Diagnosis			
13 - 24	383	31.0%	53.3
25 - 34	370	30.0%	55.9
35 - 44	228	18.5%	38.8
45+	254	20.6%	19.8
Transmission Risk			
Male-to-male sexual activity (MSM)	754	61.1%	*
Injection drug use (IDU)	109	8.8%	*
Heterosexual contact/other	372	30.1%	*

^aSource: Houston/Harris County eHARS

^bRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

*Population data are not available for risk groups; therefore, it is not possible to calculate an incidence rate by risk.

New Diagnoses of HIV Disease

AIDS has been a reportable disease in Texas since March 1983, and HIV since January 1999. This means that physicians, dentists, hospitals, clinical laboratories, and certain school officials are required by state law to report the results of all diagnostic HIV and AIDS tests to the health authority in their reporting jurisdiction. For epidemiological purposes, disease reporting laws allow us to summarize and analyze trends in all new diagnoses of HIV or AIDS made and reported during a specific time period. It is important to note that the year in which a positive HIV/AIDS test is reported is not necessarily the year the individual was infected. However, new reported diagnoses of HIV and AIDS provide the most complete representation of trends in HIV infection.

(Table 2) In 2011, 1,249 new diagnoses of HIV (regardless of AIDS status) and 775 new diagnoses of AIDS were reported in Houston/Harris County. This is a rate of 30 new HIV diagnoses for every 100,000 people in Houston/Harris County, and 19 new AIDS diagnoses for every 100,000 people. About 75% of all new diagnoses for both HIV and AIDS were among men. African Americans had the highest rate of new HIV and AIDS diagnoses in Houston/Harris County with 88 new HIV diagnoses per 100,000 African Americans and 55 new AIDS diagnoses per 100,000 African Americans in the jurisdiction. This is roughly six times the rate of new HIV/AIDS diagnoses among Whites and four times the rate of new HIV/AIDS diagnoses among Hispanic/Latinos. In addition, male-to-male sexual activity or MSM was reported most often in 2011 for both new HIV and new AIDS diagnoses, followed by heterosexual contact.

	New HIV Disease ^b			New AIDS ^c		
	Cases	%	Rate ^d	Cases	%	Rate ^d
Total	1,249	100.0%	29.9	775	100.0%	18.6
Sex						
Male	955	76.5%	45.3	563	72.6%	26.7
Female	294	23.5%	14.2	212	27.4%	10.3
Race/Ethnicity						
White	178	14.3%	14.7	107	13.8%	8.8
Black/African American	651	52.1%	88.1	409	52.8%	55.4
Hispanic/Latino	387	31.0%	20.3	234	30.2%	12.3
Other/Multiple Races	33	2.6%	10.2	25	3.2%	7.7
Age at Diagnosis						
0 - 12	8	0.6%	0.9	0	0.0%	0.0
13 - 24	286	22.9%	43.6	68	8.8%	10.4
25 - 34	364	29.1%	49.5	220	28.4%	29.9
35 - 44	298	23.9%	41.9	247	31.9%	34.8
45 - 54	187	15.0%	36.2	166	21.4%	32.2
55+	106	8.5%	14.9	74	9.5%	10.4
Transmission Risk^e						
Male-to-male sexual activity (MSM)	759	60.8%	*	396	51.1%	*
Injection drug use (IDU)	66	5.3%	*	79	10.2%	*
MSM/IDU	24	2.0%	*	30 [¶]	3.8% ^N	*
Heterosexual contact	389	31.2%	*	270	34.8%	*
Pediatric risk	10	0.8%	*	¶	¶	*

^aSource: Houston/Harris County eHARS

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in Houston/Harris County in 2011

^cAIDS = People diagnosed with AIDS with residence at diagnosis in Houston/Harris County in 2011

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtml>

^ePatients with no risk reported were recategorized into standard categories using the multiple imputation or risk program of the Centers for Disease Control and Prevention (CDC)

*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

[¶]New AIDS for MSM/IDU, perinatal, and other were combined since the perinatal category had less than 5 cases and had to be suppressed to protect the confidentiality of cases and the reliability of data.

AIDS Progression and Late Diagnoses

(Table 3) The time that elapses between when a person is newly reported to have HIV and if and when they progress to AIDS is a commonly used marker for late diagnosis, meaning that the individual was first tested and diagnosed with HIV at a later stage of disease. This is important data to understand since the earlier an individual with HIV is tested in the course of their disease, the sooner they can begin HIV treatment and potentially prevent the onset of AIDS and other health concerns. In Houston/Harris County, 35.6% of cases that progressed to AIDS in 2010 did so within one year or less after being first diagnosed with HIV. Higher percentages were seen among Hispanic/Latinos (with 42.5% of those who progress to AIDS doing so in one year or

less), people aged 55+ (at 53.4% progressing to AIDS in one year or less), and male-to-male sexual contact (MSM) combined with injection drug use (IDU) (at 41.0% progressing to AIDS in one year or less). It could be surmised that these same demographic groups are those for whom testing for HIV is frequently delayed.

	HIV to AIDS ≤ 1 year		HIV to AIDS > 1 year	
	Cases	%	Cases	%
Total	452	35.6%	878	66.0%
Sex				
Male	363	35.6%	657	64.4%
Female	90	29.0%	220	71.0%
Race/Ethnicity				
White	61	29.6%	145	70.4%
Black/African American	220	30.9%	493	69.1%
Hispanic/Latino	162	42.5%	219	57.5%
Other/Multiple Races	10	33.3%	20	66.7%
Age at Diagnosis				
0 - 12	0	0.0%	5	100.0%
13 - 24	67	21.3%	248	78.7%
25 - 34	124	31%	276	69.0%
35 - 44	127	40.8%	184	59.2%
45 - 54	87	41.2%	124	58.8%
55+	47	53.4%	41	46.6%
Transmission Risk^a				
Male-to-male sexual activity (MSM)	271	33.6%	535	66.4%
Injection drug use (IDU)	26	34.2%	50	65.8%
MSM/IDU	10	41.0%	14	59.0%
Heterosexual contact	145	34.8%	272	65.2%
Perinatal transmission	0	0.0%	6	100.0%

Source: Houston/Harris County eHARS

^aPatients with no risk reported were recategorized into standard categories using the multiple imputation or risk program of the Centers for Disease Control and Prevention (CDC)

Persons Living with HIV Disease

Prevalence is an epidemiological term used to refer to the total number of cases of a disease in persons who are still living with the disease during a specific time period. Prevalence does not indicate how long a person has had a disease, but it can provide an estimate of risk for a disease at a specific time. For HIV/AIDS surveillance, prevalence refers to living persons with HIV disease, regardless of time of infection or date of diagnosis. In the data presented here, HIV/AIDS prevalence refers to all people living with HIV disease, regardless of AIDS status, at the end of calendar year 2010 in Houston/Harris County.

(Table 4) At the end of calendar year 2010, there were 20,022 people living with HIV or AIDS in Houston/Harris County. This means that, for every 100,000 people residing in Houston/Harris County, 489 are HIV positive. Almost 75% of all people living with HIV in the jurisdiction are men. African Americans also had the highest rate of living HIV cases in Houston/Harris County with 1,294 HIV positive African Americans for every 100,000 African Americans in the jurisdiction. This is roughly four times the rate among both Whites and Hispanic/Latinos. In terms of age, people aged 45 to 54 had the highest HIV prevalence rate with 1,119 HIV positive persons for every 100,000 people in this age group. In addition, male-to-male sexual activity or MSM was reported most often among all people living with HIV in Houston/Harris County, followed by heterosexual contact.

	Cases ^b	%	Rate ^c
Total	20,022	100.0%	489.2
Sex			
Male	14,879	74.3%	730.3
Female	5,143	25.7%	250.3
Race/Ethnicity			
White	5,054	25.2%	368.2
Black/African American	10,000	49.9%	1294.2
Hispanic/Latino	4,585	22.9%	274.3
Other/Multiple Races	383	1.9%	139.1
Age at Diagnosis			
0 - 12	79	0.4%	9.4
13 - 24	1,045	5.2%	145.4
25 - 34	3,785	18.9%	572.1
35 - 44	5,877	29.4%	999.0
45 - 54	6,140	30.7%	1119.3
55+	3,096	15.5%	422.6
Transmission Risk^d			
Male-to-male sexual activity (MSM)	10,381	51.8%	*
Injection drug use (IDU)	2,233	11.2%	*
MSM/IDU	1,057	5.3%	*
Heterosexual contact	6,084	30.4%	*
Perinatal transmission	267	1.3%	*

^aSource: Houston/Harris County eHARS

^bPLWH at end of 2010 = People living with HIV disease, regardless of AIDS status, in Houston/Harris County at the end of 2010

^cRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

^dPatients with no risk reported were recategorized into standard categories using the multiple imputation or risk program of the Centers for Disease Control and Prevention (CDC)

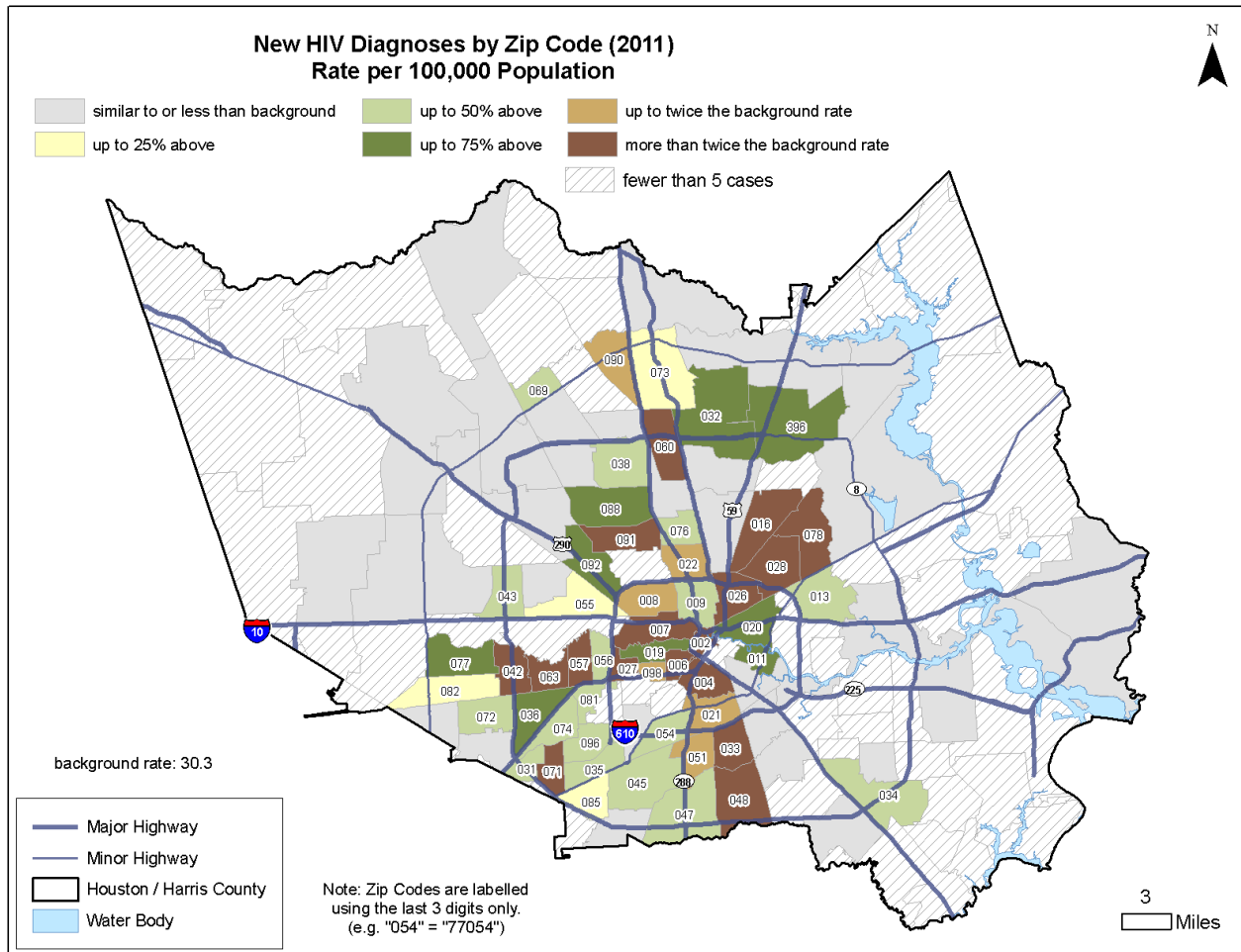
*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

Mapping of New Diagnoses and Persons Living with HIV/AIDS by Zip Code

Using Geographic Information System (GIS) software, it is possible to map new diagnoses of HIV/AIDS and HIV/AIDS prevalence against zip code in Houston/Harris County. As a result, patterns in the burden of HIV disease become clear at the neighborhood level. It is also possible to identify similarities and differences in residential patterns between prevalence and the newly diagnosed.

(**Figure 1 and Figure 2**) Figure 1 below shows rates of new reported HIV diagnoses by zip code in Houston/Harris County, while Figure 2 below shows rates of persons living with HIV by zip code in Houston/Harris County, for calendar years 2011 and 2010, respectively. Comparing the two maps, there is a noticeably greater dispersion of new HIV diagnoses across zip codes than what is seen in rates of living HIV cases, which appear to be concentrated in the jurisdictional health services region of Central West.¹ Both maps show a concentration of HIV cases in the health services regions of Central West, Northeast, and South Houston.

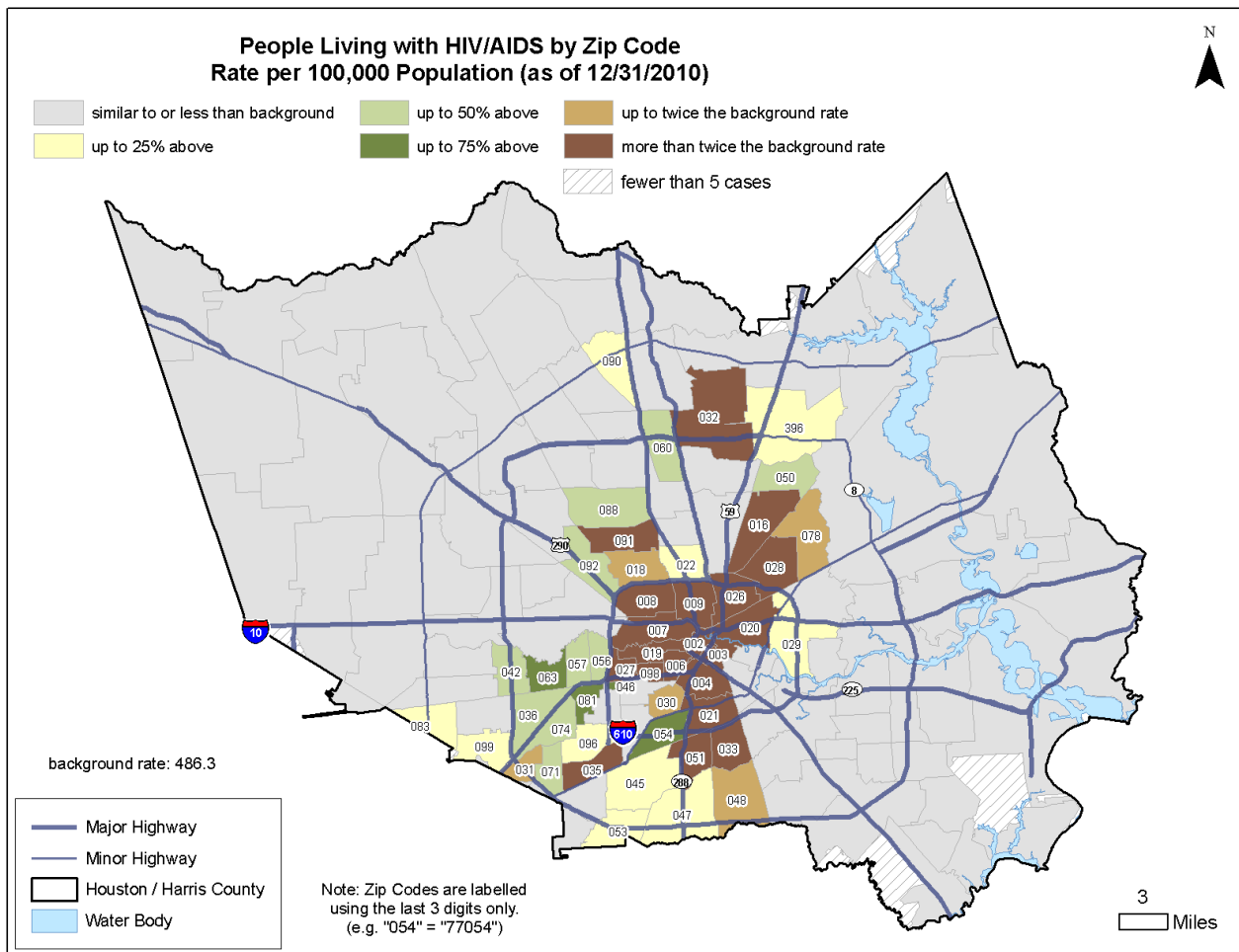
FIGURE 1



Source: Houston/Harris County eHARS. Background rate is rate of new HIV diagnoses for Houston/Harris County in 2011 at the time of data run.

¹A complete mapping of the City of Houston Health Service Regions is located at: <http://www.houstontx.gov/health/chs/geographicprofiles.html>

FIGURE 2



Source: Houston/Harris County eHARS. Background rate is rate of people living with HIV in Houston/Harris County in 2010 at the time of data run.

Deaths of Persons with HIV/AIDS

Mortality is an epidemiological marker used to measure the effect of a disease on the population as a whole. HIV/AIDS mortality refers to the number of people with HIV who have died in a specified time period either from HIV disease or from another cause.

(Table 5) In Houston/Harris County, 453 people with HIV (regardless of AIDS status) died in 2010 either from HIV disease or from another cause. This is a mortality rate of 11 deaths of persons with HIV for every 100,000 people residing in Houston/Harris County as a whole. The majority of deaths occurred among men with HIV and among African Americans with HIV. The mortality rate among African Americans with HIV was 34 deaths for every 100,000 African Americans in Houston/Harris County, which is roughly six times the HIV mortality rate among both Whites and Hispanic/Latinos. HIV mortality rates also show a positive correlation with increasing age. In addition, male-to-male sexual activity or MSM was reported most often among those with HIV who died in 2010 in Houston/Harris County, followed by heterosexual contact.

TABLE 5-Deaths of Persons with HIV in Houston/Harris County by Sex, Race/Ethnicity, Age, and Risk, 2010^a			
	Cases ^b	%	Rate ^c
Total	453	100.0%	11.1
Sex			
Male	322	71.1%	15.8
Female	131	28.9%	6.4
Race/Ethnicity			
White	88	19.4%	6.4
Black/African American	266	58.7%	34.4
Hispanic/Latino	82	18.1%	4.9
Other/Multiple Races	17	3.8%	6.2
Age at Diagnosis			
0 - 12	0	0.4%	0.0
13 - 34 [‡]	56 [‡]	12.4%	4.1
35 - 44	111	24.5%	18.9
45 - 54	162	35.8%	29.5
55+	124	27.4%	16.9
Transmission Risk^d			
Male-to-male sexual activity (MSM)	174	38.3%	*
Injection drug use (IDU)	91	20.0%	*
MSM/IDU	34	7.4%	*
Heterosexual contact	155	34.2%	*
Perinatal transmission	0	0.0%	*

^aSource: Houston/Harris County eHARS

^bDeaths in 2010 = Number of people reported with HIV disease in Houston/Harris County who died in 2010 regardless of location of death. Deaths determined from provider report, chart review, and matching to the Texas Death Certificate Database and national death databases.

^cRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtml>

^dPatients with no risk reported were recategorized into standard categories using the multiple imputation or risk program of the Centers for Disease Control and Prevention (CDC)

[‡]The age groups of 13-24 and 25-34 were combined to meet the cell size minimum of 5 cases. This ensures confidentiality of cases and reliability of data.

*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

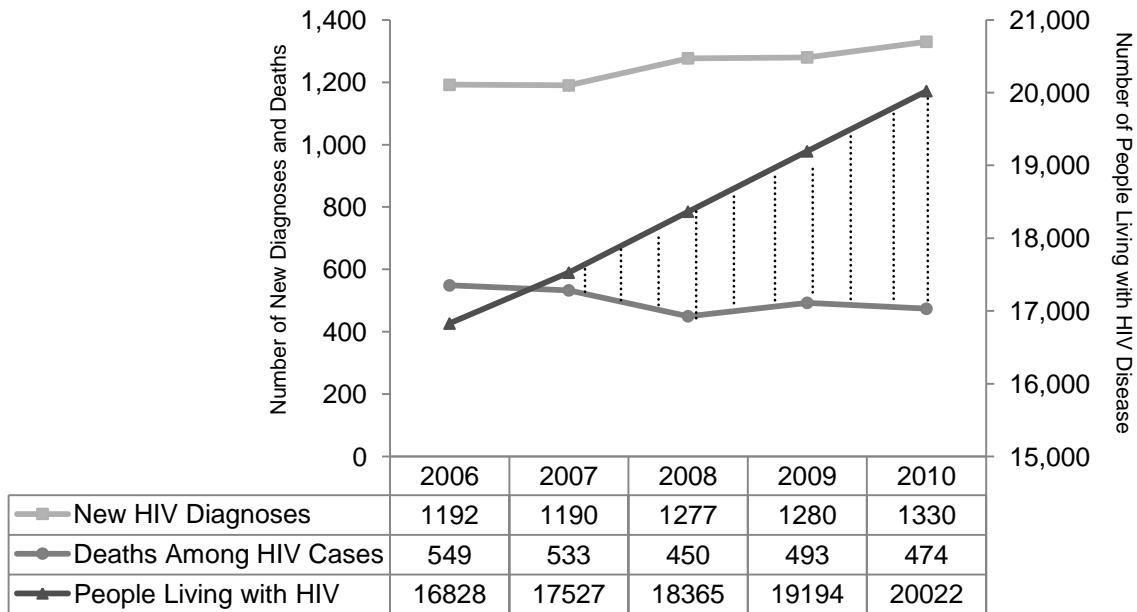
New Diagnoses, Prevalence, and Mortality, Five-Year Trend

HIV epidemiology in states and counties across the U.S. show a similar trend over time. Due to medical advances in HIV treatment, HIV-related mortality has steadily declined while the number of people living with HIV has steadily increased. Concurrently, the number of newly reported HIV diagnoses has stabilized in response to scaled-up prevention and treatment efforts.

(Graph 1) A similar trend can be seen in Houston/Harris County. Between 2006 and 2010, HIV-related mortality in Houston/Harris County decreased by 14% with an average of 500 deaths per year. The number of persons living with HIV in Houston/Harris County increased by 20% with an average of 18,387 total living HIV positive persons each year. Newly reported HIV diagnoses in Houston/Harris County increased by 12% during this period with an average of 1,254 new HIV diagnoses reported each year.

These trends illuminate the growing gap between the number of HIV-related deaths and the number of persons living with HIV that has been attributed to HIV treatment. They also suggest that new HIV diagnoses may be stabilizing. Over the five year period, the average change in the number of new diagnoses per year was 35 cases.

GRAPH 1-Numbers of New HIV Diagnoses, Persons Living with HIV, and Deaths among HIV Positive Individuals in Houston/Harris County, 2006 through 2010^a



^aSource: Houston/Harris County eHARS

The Houston Eligible Metropolitan Area (EMA)

The Houston Eligible Metropolitan Area (EMA) includes the six counties of Chambers, Fort Bend, Harris (including the City of Houston), Liberty, Montgomery, and Waller. The data presented below are for the Houston EMA as a whole and are not county-specific.

Diagnoses of HIV Disease

See Houston/Harris County for an explanation of this data point

(Table 6) In 2011, 1,334 new diagnoses of HIV (regardless of AIDS status) and 821 new diagnoses of AIDS were reported in the Houston EMA. This is a rate of 25 new HIV diagnoses for every 100,000 people in the EMA, and 15 new AIDS diagnoses for every 100,000 people. About 75% of new diagnoses for both HIV and AIDS were among men. African Americans had the highest rate of both new HIV and AIDS diagnoses with 73 new HIV diagnoses per 100,000 African Americans in the EMA and 47 new AIDS diagnoses per 100,000 African Americans in the EMA. This is roughly six times the rate among Whites and four times the rate among Hispanic/Latinos. In total, African Americans account for over half of all new diagnoses of both HIV and AIDS in the EMA.

The age distribution of new diagnoses mirrors a bell curve that peaks with 25 to 34 year olds for HIV (28.9% of new diagnoses) and with 35 to 44 year olds for AIDS (30.9% of new diagnoses). Male-to-male sexual activity or MSM was reported most often in 2011 for both new HIV and new AIDS diagnoses, followed by heterosexual contact.

TABLE 6-New Diagnoses of HIV and AIDS in the Houston EMA by Sex, Race/Ethnicity, Age, and Risk Category, 2011^a						
	New HIV Disease ^b			New AIDS ^c		
	Cases	%	Rate ^d	Cases	%	Rate ^d
Total	1,334	100.0%	24.5	821	100.0%	15.1
Sex						
Male	1,012	75.9%	36.9	596	72.6%	21.7
Female	322	24.1%	11.9	225	27.4%	8.3
Race/Ethnicity						
White	210	15.7%	10.9	124	15.1%	6.4
Black/African American	674	50.5%	73.2	431	52.5%	46.8
Hispanic/Latino	410	30.7%	18.9	241	29.4%	11.1
Other/Multiple Races	40	3.0%	9.4	25	3.0%	5.9
Age at Diagnosis						
0 - 12	7	0.5%	0.7	0	0.0%	0.0
13 - 24	287	21.5%	31.7	71	8.6%	7.8
25 - 34	385	28.9%	43.6	210	25.6%	23.8
35 - 44	298	22.3%	33.8	254	30.9%	28.8
45 - 54	210	15.7%	28.1	170	20.7%	22.8
55+	104	7.8%	10.6	71	8.6%	7.2
Transmission Risk^e						
Male-to-male sexual activity (MSM)	809	60.6%	*	419	51.0%	*
Injection drug use (IDU)	76	5.7%	*	82	10.0%	*
MSM/IDU	27	2.0%	*	30	3.7%	*
Heterosexual contact	414	31.0%	*	287	35.0%	*
Perinatal transmission	8	0.6%	*	¶	¶	*
Adult other risk	0	0.0%	*	¶	¶	*

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in the Houston EMA

^cAIDS = People diagnosed with AIDS with residence at diagnosis in the Houston EMA

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection:

<http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

^eCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

¶Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

Persons Living with HIV Disease

See Houston/Harris County for an explanation of this data point

(Table 7) At the end of 2011, there were 21,664 people living with HIV or AIDS in the Houston EMA. This means that, for every 100,000 people residing in the EMA, 398 are HIV positive. Almost 75% of all people living with HIV in the EMA are men. African Americans had the highest rate of living HIV cases in the EMA with 1,178 HIV positive

African Americans for every 100,000 African Americans in the jurisdiction. This is roughly four times the rate among Whites and five times the rate among Hispanic/Latinos. People aged 45 to 54 had the highest HIV prevalence rate of all age groups and accounted for 30.7% of all living HIV cases. Male-to-male sexual activity or MSM was reported by over half of all people living with HIV, followed by heterosexual contact at about 30%.

TABLE 7-People Living with HIV and AIDS in the Houston EMA by Sex, Race/Ethnicity, Age, and Risk Category, 2011^a							
	Living with HIV Disease ^b			Living with AIDS ^c			
	Cases	%	Rate ^d	Cases	%	Rate ^d	
Total	21,664	100.0%	397.6	12,268	100.0%	225.4	
Sex							
Male	15,953	73.7%	581.6	9,239	75.3%	336.8	
Female	5,691	26.3%	210.8	3,029	24.7%	112.2	
Race/Ethnicity							
White	5,329	24.6%	276.7	3,145	25.6%	163.3	
Black/African American	10,842	50.1%	1177.8	5,858	47.8%	636.4	
Hispanic/Latino	5,061	23.4%	233.1	3,044	24.8%	140.2	
Other/Multiple Races	412	1.9%	96.7	221	1.8%	51.9	
Age at Diagnosis							
0 - 1	6	0.0%	3.5	†	†	†	
2 - 12	71	0.3%	8.2	†	†	†	
13 - 24	1,185	5.5%	130.7	†	†	†	
25 - 34	4,001	18.5%	453.2	1,610	13.1%	182.4	
35 - 44	6,094	28.2%	691.2	3,449	28.1%	391.2	
45 - 54	6,646	30.7%	889.5	4,392	35.8%	587.8	
55+	3,641	16.8%	370.3	2,513	20.5%	255.6	
Transmission Risk^e							
Male-to-male sexual activity (MSM)	11,142	51.5%	*	6,191	50.5%	*	
Injection drug use (IDU)	2,402	11.1%	*	1,502	12.2%	*	
MSM/IDU	1,062	4.9%	*	725	5.9%	*	
Heterosexual contact	6,737	31.1%	*	3,741	30.5%	*	
Perinatal transmission	280	1.3%	*	93	0.8%	*	
Adult other risk	21	0.1%	*	16	0.1%	*	

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bHIV Disease = People living with HIV disease, regardless of AIDS status, in the Houston EMA

^cAIDS = People living with AIDS in the Houston EMA

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection:

<http://www.dshs.state.tx.us/chs/popdat/detailX.shtml>

^eCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

†Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

Deaths of Persons with HIV/AIDS

See *Houston/Harris County* for an explanation of this data point

(Table 8) In the Houston EMA, 398 people with HIV (regardless of AIDS status) died in 2011 either from HIV disease or from another cause. This is a mortality rate of 7 deaths of persons with HIV for every 100,000 people residing in the EMA. The majority of deaths occurred among men and African Americans. The mortality rate among African Americans with HIV was 22 deaths for every 100,000 African Americans in the EMA, which is roughly five times the rate for both Whites and Hispanic/Latinos. HIV mortality rates also show a positive correlation with increasing age. Male-to-male sexual activity or MSM was reported most often, followed by heterosexual contact.

	Persons with HIV Disease ^b			Persons with AIDS ^c		
	Cases	%	Rate ^d	Cases	%	Rate ^d
Total	398	100.0%	7.3	335	100.0%	6.2
Sex						
Male	275	69.1%	10.0	224	66.9%	8.2
Female	123	30.9%	4.6	111	33.1%	4.1
Race/Ethnicity						
White	90	22.6%	4.7	75	22.4%	3.9
Black/African American	198	49.7%	21.5	171	51.0%	18.6
Hispanic/Latino	96	24.1%	4.4	77	23.0%	3.5
Other/Multiple Races	14	3.5%	3.3	12	3.6%	2.8
Age at Diagnosis						
0 - 1	0	0.0%	0.0	0	0.0%	0.0
2 - 12	0	0.0%	0.0	0	0.0%	0.0
13 – 34 [‡]	43	10.8%	2.4	38	11.3%	2.1
35 - 44	92	23.1%	10.4	81	24.2%	9.2
45 - 54	140	35.2%	18.7	118	35.2%	15.8
55+	123	30.9%	12.5	98	29.3%	10.0
Transmission Risk^e						
Male-to-male sexual activity (MSM)	157	39.4%	*	126	37.6%	*
Injection drug use (IDU)	88	22.1%	*	76	22.7%	*
MSM/IDU	26	6.5%	*	24	7.2%	*
Heterosexual contact	126	31.7%	*	108	32.2%	*
Perinatal transmission	¶	¶	*	¶	¶	*
Adult other risk	¶	¶	*	¶	¶	*

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bHIV Disease = Persons with HIV in the Houston EMA who died in 2011

^cAIDS = Persons with AIDS in the Houston EMA who died in 2011

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection:

<http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

^eCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

[‡]The age groups of 13-24 and 25-34 were combined in order to suppress categories with less than 5 cases

*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

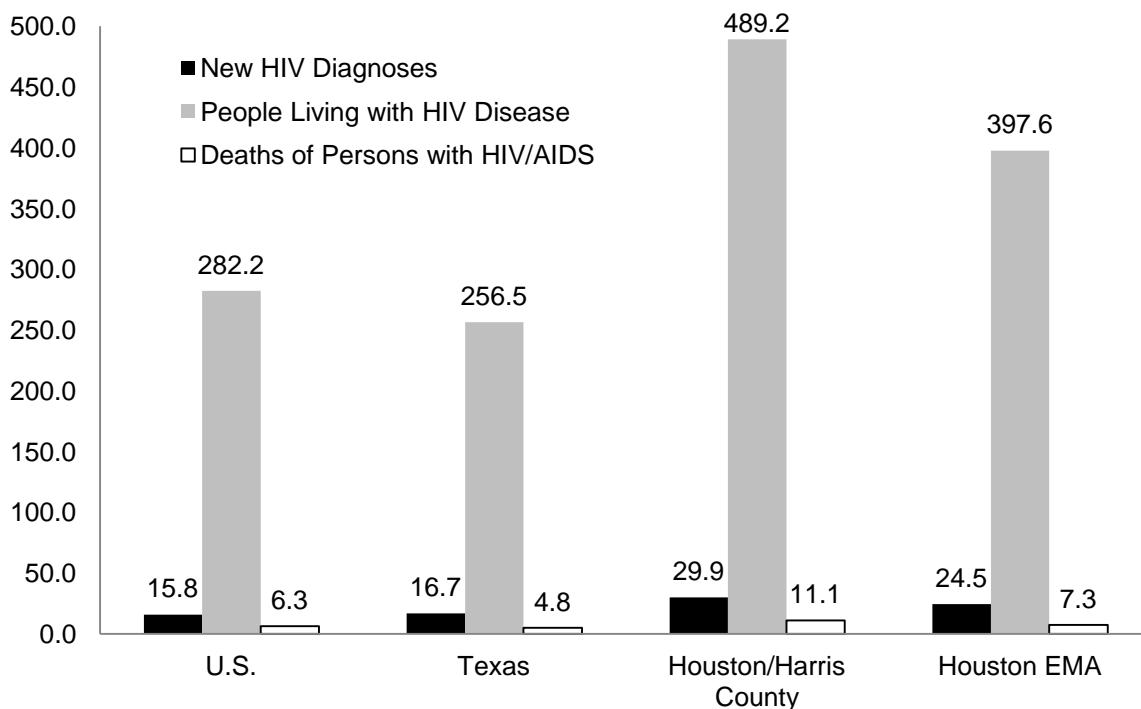
¶Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data.

Summary of HIV Epidemiology by Jurisdiction and the U.S.

A comparison of core HIV epidemiological indicators between the two Houston Area jurisdictions, Texas, and the U.S. provides context for the local HIV burden data presented in this Chapter.

(Graph 2) Overall, Texas tends to have lower rates of core HIV indicators than the U.S. while both Houston/Harris County and the Houston EMA have higher rates. For example, the rates of new HIV diagnoses and of people living with HIV in Houston/Harris County are approximately 1.8 times higher than Texas and the U.S., and both rates are approximately 1.5 times higher in the Houston EMA than Texas and the U.S. Both Houston/Harris County and the Houston EMA also exceed the state and the nation in rate of death among people with HIV. However, between the two local jurisdictions, Houston/Harris County rates exceed the EMA's. Where trends shift slightly is in new HIV diagnoses, for which Texas has a slightly higher rate than the U.S.

GRAPH 2-Rates of New HIV Diagnoses, Persons Living with HIV, and Deaths among HIV Positive Individuals by Local, State, and National Jurisdiction



Sources:

U.S.: Centers for Disease Control and Prevention. *HIV Surveillance Report 2011*; vol. 23. Published February 2013. Diagnoses, 2011; Mortality, 2010; Prevalence, 2010

Texas: Texas Department of State Health Services. 2010 Texas Integrated Epidemiologic Profile for HIV/AIDS Prevention and Services Planning. Reporting Period: January 1 to December 31, 2010. Publication Number E13-11937 (Revised January 31, 2012). All data, 2010. Note: mortality data are provisional and may not reflect most current rate.

Houston/Harris County: Houston/Harris County eHARS. Diagnoses, 2011; Prevalence, 2010; Mortality, 2010

Houston EMA: Texas eHARS. All data, 2011



Chapter 3: Risk for HIV/AIDS in the Houston Area

What are the indicators of risk for HIV/AIDS infection in the population?

“Research has led to a growing number of proven, cost-effective approaches to reduce the risk of HIV infection...[such as] HIV testing, interventions for people to reduce risk behavior, and screening and treatment for other sexually transmitted infections.”

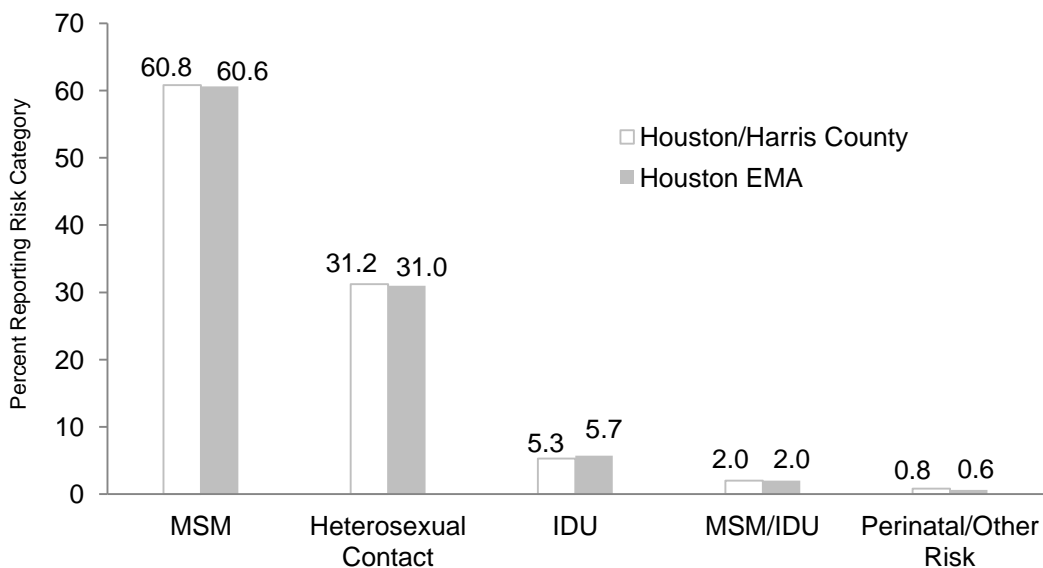
Centers for Disease Control and Prevention, High-Impact HIV Prevention August 2011

Chapter 2 of this document described the populations of people living with HIV in the Houston Area today. The purpose of this chapter is to describe the factors that may place individuals at risk for HIV infection in the Houston Area. It will present data on factors that affect the risk of HIV-negative persons to acquire HIV such as risk behaviors and other sexually transmitted diseases (STDs). It will also describe factors that affect the probability that HIV-positive persons will transmit HIV such as awareness of status.

Summary of HIV Risk Behaviors

(Graph 1) Assessing the primary risk factor reported by new HIV diagnoses provides insight on the behaviors that may increase one’s susceptibility to HIV infection in a local community. In the Houston Area, male-to-male sexual activity or MSM was reported by 61% of the newly diagnosed in 2011, followed by heterosexual contact at 31% and injection drug use (IDU) at about 5%.

GRAPH 1- Transmission Risk of New HIV Diagnoses in Houston/Harris County and the Houston Eligible Metropolitan Area (EMA), 2011



Source: Houston/Harris County and Texas eHARS

(Table 1) When a person is newly diagnosed with HIV, they are interviewed by a disease intervention specialist. One of the goals of the interview is to identify all of the HIV-related risk activities in which the individual has engaged. No single reported activity may have lead to the person’s HIV infection. However, assessing reported activities of interviewed cases as a whole provides insight on the behaviors that may increase one’s susceptibility to HIV infection in a local community. In Houston/Harris County, the five most common risk activities reported by interviewed cases are (1) oral sex, (2) intermittent condom use, (3) male-to-male-sexual practices (MSM), (4) sex with an anonymous sex partner, and (5) rectal intercourse. The five least common risk activities are (1) injection drug use (IDU), (2) being a commercial sex worker, (3) working in the health care field, (4) sex with someone who is an IDU, and (5) sex in foreign country.

Risk Activity	Number Reporting	Percent Reporting
Oral sex	679	71.0%
Condom use - intermittent	566	59.1%
Male-to-male-sexual practices (MSM)	475	49.6%
Anonymous sex partner	474	49.5%
Rectal intercourse	445	46.5%
Males having sex with females (MSF)	323	33.8%
Any drug use (including alcohol)	309	32.3%
No condom use	258	27.0%
More than 1 sex partner in last 90 days	243	25.4%
Females having sex with males (FSM)	226	23.6%
Sex while intoxicated or high	214	22.4%
Partners met via Internet	174	18.2%
New sex partner in last 90 days	155	16.2%
Been incarcerated	154	16.1%
Marijuana use	128	13.4%
Alcohol use	107	11.2%
Exchanged drugs or money for sex	75	7.8%
Crack cocaine use	37	3.9%
Always use condoms	37	3.9%
Methamphetamine use	31	3.2%
Sex with a crack cocaine user	29	3.0%
Sex in a foreign country	28	2.9%
Sex with a person who injects drugs	24	2.5%
Health care worker	22	2.3%
Commercial sex worker	22	2.3%
Injection drug use (IDU)	17	1.8%

Source: 900/950 Risks for Interviewed Cases (New HIV and New AIDS Diagnoses)
Houston/Harris County STD*MIS

(Table 2) Reviewing reported risk among the newly diagnosed provides insight into the behaviors that may lead to HIV infection. Reviewing reported risk among persons living with HIV can provide insight into the behaviors that may lead to secondary HIV transmission and/or infection with a different strain of HIV. In the Houston Eligible Metropolitan Area (EMA), persons living with HIV are surveyed every three years in order to ascertain the level of risk behaviors among the population. According to the last needs assessment, persons living with HIV in the Houston EMA are engaging in some known risk activities for secondary HIV transmission and/or re-infection. For example, over 40% reported intermittent condom use during sexual activity, and over 30% reported no condom use during their last sexual activity. However, very few respondents share needles to inject substances or are injection drug users (IDU) at all.

TABLE 2-Selected Risk Behaviors among Persons Living with HIV in the Houston EMA, 2011

Risk Activity	Number Reporting	Percent Reporting
Condom use - intermittent	363	40.4%
No condom at last sexual activity	272	30.2%
Sex with someone with unknown HIV status	128	17.9%
Anonymous sex partner	103	15.6%
Never use condoms	90	10.0%
Sex for money or drugs	40	5.5%
Last sexual partner met at bar	48	5.4%
Injection drug use (IDU)	53	5.8%
Last sexual partner met via Internet	21	2.3%
Shared needles to inject substances	11	1.2%

Source: 2011 Houston Area HIV/AIDS Needs Assessment. Denominators for each risk activity vary; therefore, percent is of those answering each question and not of the total respondent pool (N=924). Risks listed here were pre-selected for query in the survey instrument; questions about risks were not open-ended. Results do not reflect all possible risk-related activities among the respondent pool.

HIV Testing and Awareness of Status

It is currently estimated that 1 in 5 persons in the U.S. who are HIV positive do not know they are infected.¹ Research shows that HIV-infected persons who are unaware of their infection tend to not reduce risk behaviors;¹ therefore, an examination of how aware people are of their HIV positive status provides insight into the factors that may increase risk for HIV infection in a local community. To do so, two sources of data can be reviewed: the volume of HIV testing and notification of status in a local jurisdiction, and mathematical estimations of people who are HIV positive and unaware of their status based on national methodologies. Both are below for their respective jurisdictions.

¹Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Divisions of HIV/AIDS Prevention, "HIV Testing," Last Modified: December 8, 2012. Located at <http://www.cdc.gov/hiv/topics/testing/index.htm>

Houston/Harris County

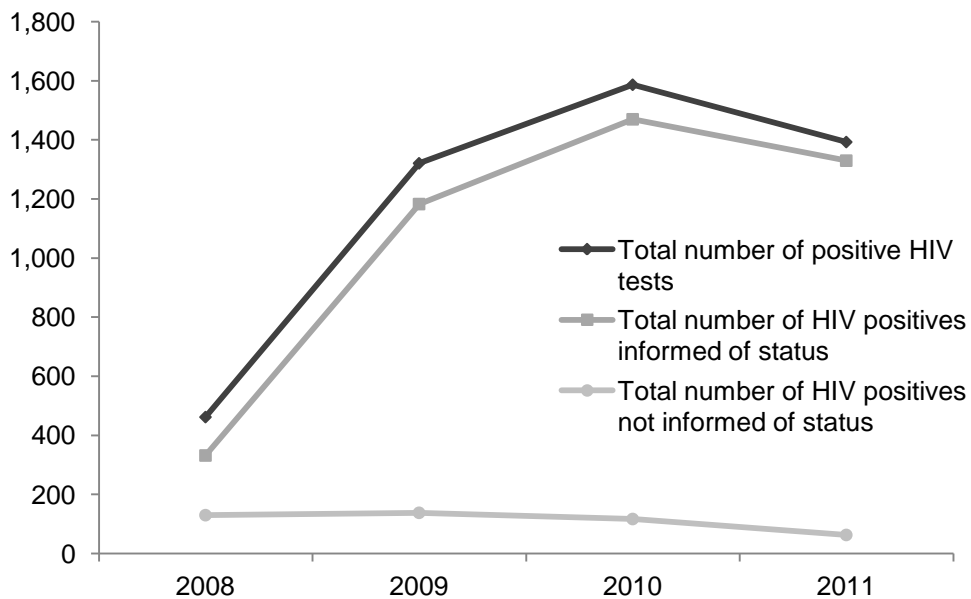
(Table 3) In 2011, there were 113,142 publicly-funded HIV tests conducted in Houston/Harris County in both routine and non-routine (targeted) settings. Of these, 1.2% was positive. Of positives identified in the jurisdiction, 95.5% were informed of their positive status, leaving 4.5% not informed. This equates to at least 63 individuals in Houston/Harris County who were tested for HIV but who remained unaware of their positive status at the end of 2011.

	2008	2009	2010	2011
Total number of HIV tests conducted	20,152	79,939	104,415	113,142
Total number of positive tests	462	1,321	1,587	1,393
<i>Percent of positive tests</i>	2.3%	1.7%	1.5%	1.2%
Total number of HIV positives informed of status	332	1,183	1,470	1,330
<i>Percent of positives informed of status</i>	71.9%	89.6%	92.6%	95.5%
Total number of HIV positives not informed of status	130	138	117	63
<i>Percent of positives not informed of status</i>	28.1%	10.4%	7.4%	4.5%

Source: Houston Department of Health and Human Services and CDC-Directly funded CBOs in Houston, HIV Testing 2008-2011. Data reflect both routine (non-targeted) and traditional (targeted) HIV tests conducted in the jurisdiction.

(Graph 2) In Houston/Harris County, both the numbers of publicly-funded HIV positive tests and HIV positive individuals unaware of their positive status declined between 2010 and 2011.

GRAPH 2- Total Number of Positive HIV Tests and of People Informed of their HIV Positive Status in Houston/Harris County, 2008 to 2011



Source: Houston Department of Health and Human Services and CDC-Directly funded CBOs in Houston, HIV Testing 2008-2011. Data reflect both routine (non-targeted) and traditional (targeted) HIV tests conducted in the jurisdiction.

Houston EMA

(Table 4) In 2011, 201,860 publicly-funded HIV tests were conducted in the Houston EMA in both routine and non-routine (targeted) settings. Of these, 0.9% was positive. Of positives identified in the jurisdiction in 2011, 85.0% were informed of their positive status, 4.6% were not informed, and, for 10.4%, it remains unknown if they were informed due to limitations in data collection.

Total number of HIV tests conducted	201,860
Total number of positive tests	1,846
<i>Percent of positive tests</i>	<i>0.9%</i>
Total number of HIV positives informed of status	1,569
<i>Percent of positives informed of status</i>	<i>85.0%</i>
Total number of HIV positives not informed of status	85
<i>Percent of positives not informed of status</i>	<i>4.6%</i>
Total number of HIV positives for whom it is unknown if they were informed of status ^b	192
<i>Percent of positives for whom it is unknown if they were informed of status^b</i>	<i>10.4%</i>

^aSource: Texas Department of State Health Services.

^bData reflect both routine (non-targeted) and traditional (targeted) HIV tests conducted in the jurisdiction. Non-targeted testing includes systems that do not collect data on results notification; therefore, there will be positive cases for whom it is unknown if they were notified of their status.

(Table 5) In addition to those who have tested for HIV but were not informed of their positive status, there are others who are HIV positive who have not yet tested for HIV and, therefore, also remain unaware. Federal agencies have developed a mathematical model to estimate the total number of people who are unaware of their positive status from both groups. This model currently estimates the national proportion of undiagnosed HIV infection to be 21%. Using this national proportion, it is possible to estimate the total number of status unaware people living with HIV in the Houston EMA and to describe their demographic characteristics.

For 2011, an estimated 5,549 people were unaware of their HIV positive status in the EMA. Of these, 42.9% were estimated to have HIV (not progressed to AIDS), and 57.1% to have AIDS. About 75% were estimated to be men, about 50% African American, and over half (51.1%) in the category of male-to-male sexual activity or MSM, followed by heterosexual contact at 31%. By age, 45 to 54 year olds had the largest proportion of those unaware of their status. When compared to estimates for Texas as a whole, the EMA's status unaware population for 2011 was 4% less male, 11% more African American, and 7% more heterosexual.

TABLE 5-Estimates of Persons Unaware of their HIV Positive Status in the Houston EMA by Disease Stage, Sex, Race/Ethnicity, Age, and Risk, 2011^a

	Number Aware of Status	Number Unaware of Status ^b	Percent of Totals
Total	20,875	5,549	100.0%
Disease Stage			
HIV (not AIDS)	8,965	2,383	42.9%
AIDS Diagnosis	11,910	3,166	57.1%
Sex			
Male	15,413	4,097	73.8%
Female	5,462	1,452	26.2%
Race/Ethnicity			
White	5,605	1,490	26.9%
Black/African American	10,225	2,718	49.0%
Hispanic/Latino	4,712	1,253	22.6%
Other/Multiple Races	256	68	1.2%
Age at Diagnosis			
Under 2	7	2	0.0%
2 - 12	72	19	0.3%
13 - 24	1,061	282	5.1%
25 - 34	3,856	1,025	18.5%
35 - 44	6,084	1,617	29.1%
45 - 54	6,509	1,730	31.2%
55+	3,286	873	15.7%
Transmission Risk^c			
Male-to-male sexual activity (MSM)	10,673	2,837	51.1%
Injection drug use (IDU)	2,293	610	11.0%
MSM/IDU	1,088	289	5.2%
Heterosexual contact	6,532	1,736	31.3%
Perinatal transmission	262	70	1.3%
Other	27	7	0.1%

^aSource: Texas eHARS data as of July, 2011

^bCalculated using the Estimated Back Calculation developed by the Centers for Disease Control and Prevention based on a national proportion of undiagnosed HIV of 21% (p) and total local prevalence (N): $p/(1-p) * N$

^cCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

STD Trends

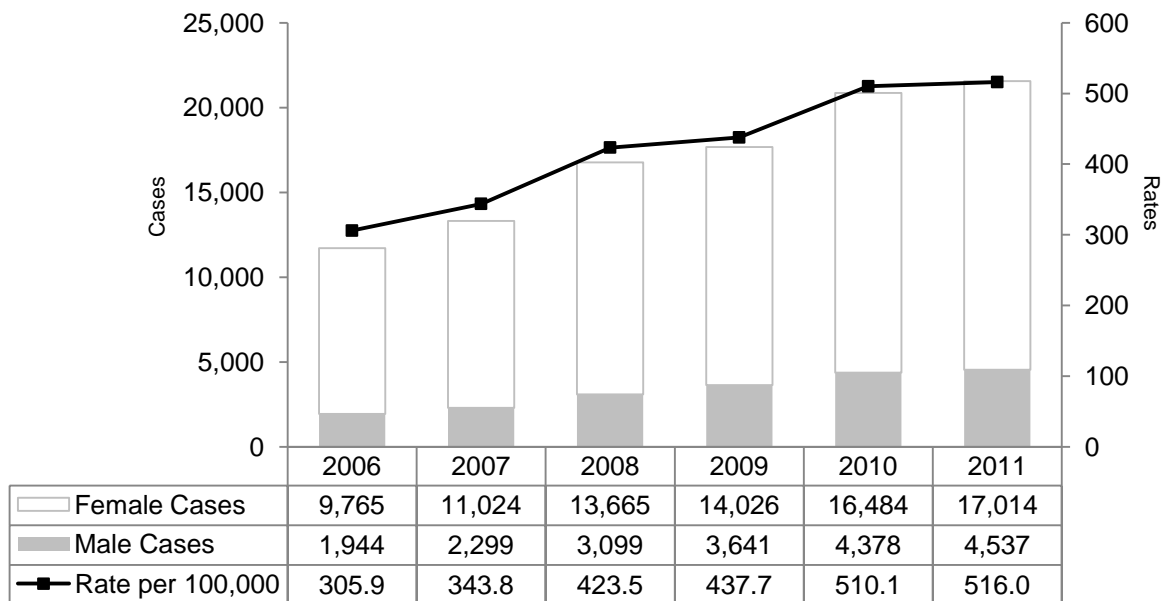
Persons who are infected with a sexually transmitted disease (STD) are more likely than uninfected persons to acquire HIV if they are exposed through sexual contact.² Also, if an HIV-infected individual is co-infected with another STD, that person is more likely to transmit HIV.² These facts make it important to examine trends in other STDs in order to describe a community's overall risk for HIV infection. Data on the three notifiable diseases for which there are federally funded control programs are presented here: Chlamydia, gonorrhea, and syphilis.

²Centers for Disease Control and Prevention, "The Role of STD Detection and Treatment in HIV Prevention - CDC Fact Sheet." Last Modified: September 1, 2010. Located at <http://www.cdc.gov/std/hiv/STDFact-STD-HIV.htm>

Chlamydia

(Graph 3) Chlamydia is the most commonly reported notifiable STD in the Houston Area. In 2011, there were 21,553 cases of Chlamydia reported in Houston/Harris County, which is a 3.2% increase from the prior reporting year. This equates to a rate of 516 cases of Chlamydia for every 100,000 people in Houston/Harris County, the highest rate of the disease in the jurisdiction in the five years of data examined for this report. In 2011, 78.9% of Chlamydia cases occurred among females, and 21.1% of cases occurred among males. This equates to a case ratio of 3.8:1; meaning that, for every 1 case of Chlamydia in a male, there are nearly 4 cases of Chlamydia in females.

GRAPH 3- Chlamydia Cases and Rates in Houston/Harris County by Sex, 2006 to 2011



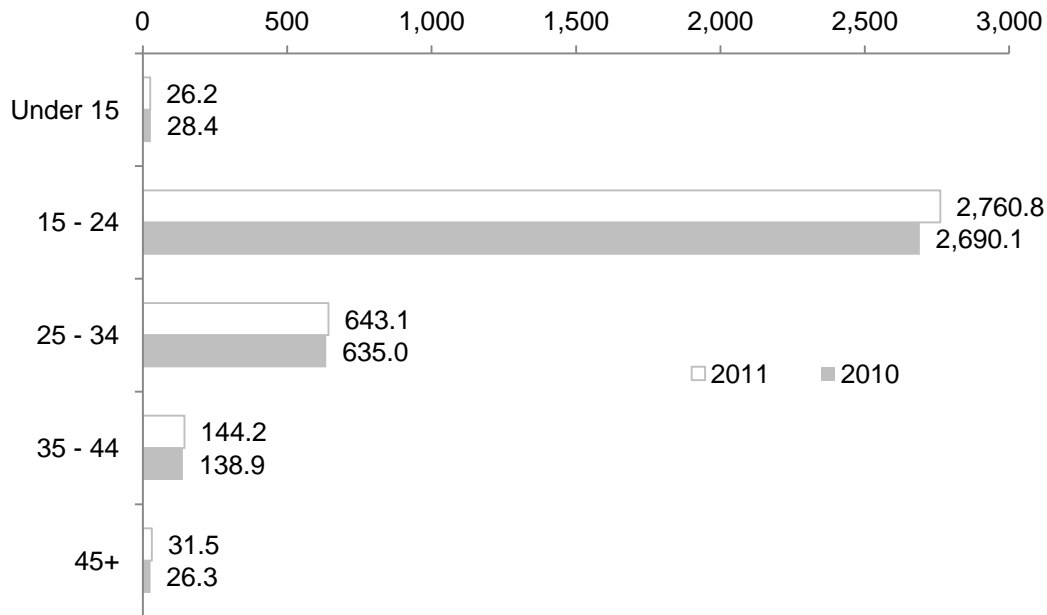
Source: Houston/Harris County STD*MIS as of November 2012. Rate per 100,000 population.

Population Source: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtml>

(Graph 4) When analyzed by age, Chlamydia is diagnosed most among adolescents and young adults. In 2011, the rate of Chlamydia among people age 15 to 24 was 2,761 for every 100,000 people in this age range in Houston/Harris County. This is over four times the rate of the age group with the next highest rate (which is 25 to 34 year olds at 643 per 100,000). All age groups experienced a percent increase in their Chlamydia rates between 2010 and 2011 except those under age 15, whose rate decreased by 7.7%. The age group with the largest one year increase was persons aged 45 and older. The Chlamydia rate in this age group increased by 19.8% between 2010 and 2011.

When analyzed by both sex and age, Chlamydia rates are even higher among adolescent and young adult *females*. In 2011, the rate of Chlamydia among females age 15 to 19 was 4,720 cases for every 100,000 females in this age group in Houston/Harris County, and the rate for females age 20 to 24 was 4,679 cases for every 100,000.

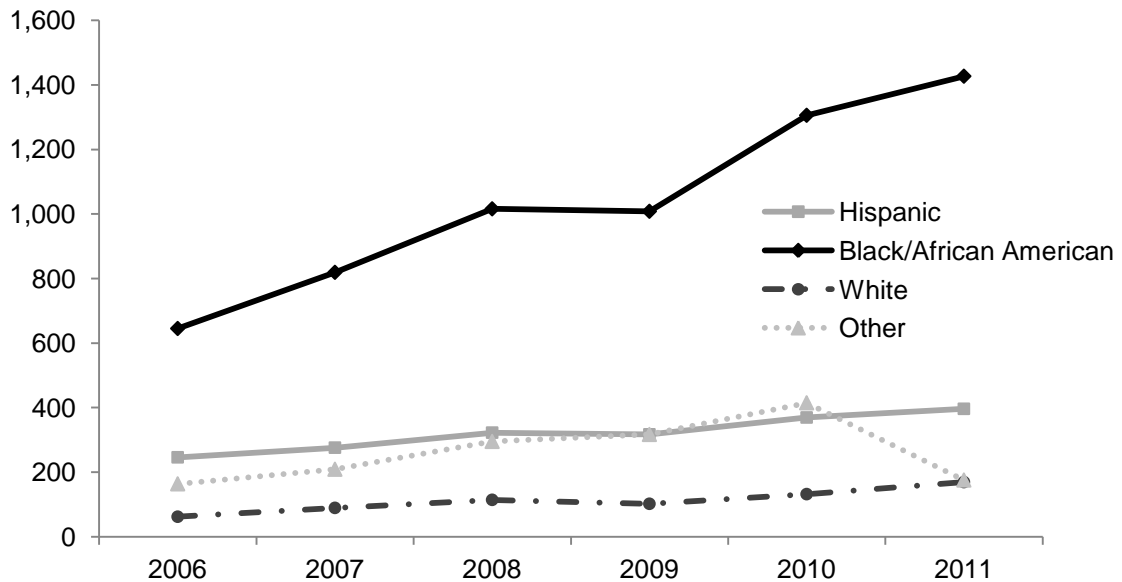
GRAPH 4- Chlamydia Rates in Houston/Harris County by Age, 2010 and 2011



Source: Houston/Harris County STD*MIS as of November 2012. Rate per 100,000 population.
 Population Source: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtml>

(Graph 5) When analyzed by race/ethnicity, Chlamydia rates in Houston/Harris County are highest among African Americans. In 2011, the rate of Chlamydia in African Americans was 1,427 cases for every 100,000 African Americans in the jurisdiction. This is 8.4 times higher than the rate for Whites (169.1 per 100,000) and 2.3 times higher than the rate for Hispanic/Latinos (396.1 per 100,000). All three groups saw an increase in their Chlamydia rates between 2010 and 2011; for Whites, the rate increased by 28.4%, for African Americans by 9.3%, and for Hispanic/Latinos by 7.3%.

GRAPH 5- Chlamydia Rates in Houston/Harris County by Race/Ethnicity, 2006 to 2011

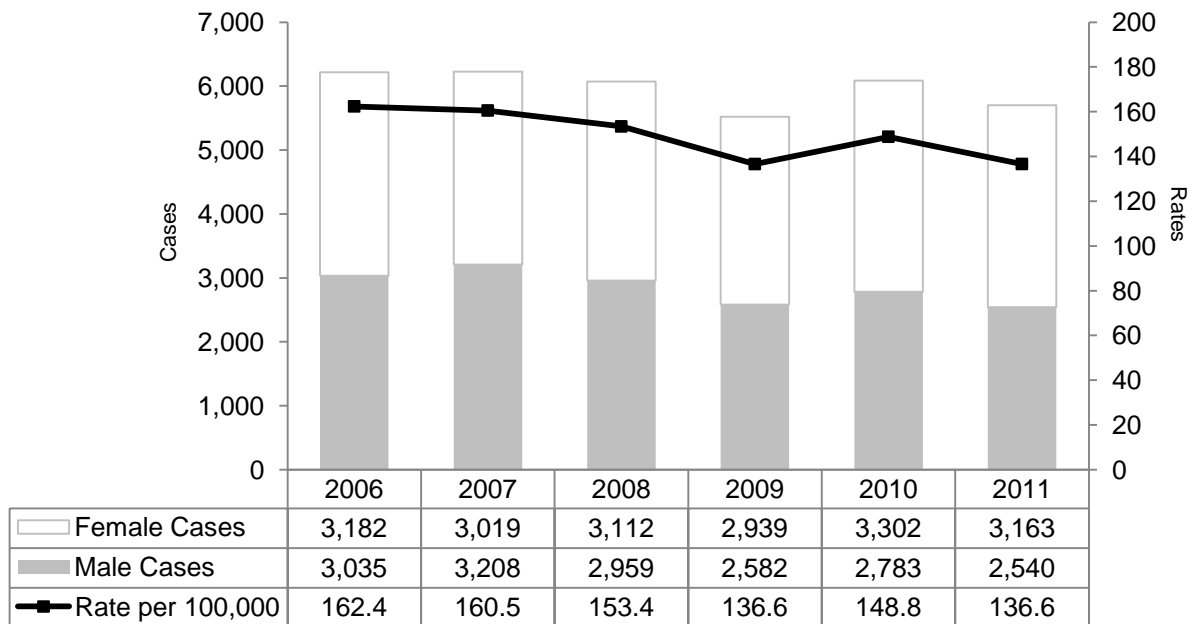


Source: Houston/Harris County STD*MIS as of November 2012. Rate per 100,000 population.
 Population Source: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtml>

Gonorrhea

(Graph 6) Approximately 5,500 to 6,200 cases of gonorrhea are reported in the Houston Area each year. In 2011, there were 5,706 cases of gonorrhea reported in Houston/Harris County, which is a 6.4% decrease from the prior reporting year. Currently, the rate of gonorrhea in Houston/Harris County is 137 cases for every 100,000 people in the jurisdiction. Unlike Chlamydia, which occurs primarily in females, gonorrhea cases in 2011 were 55.4% female and 44.5% male.

GRAPH 6- Gonorrhea Cases and Rates in Houston/Harris County by Sex, 2006 to 2011



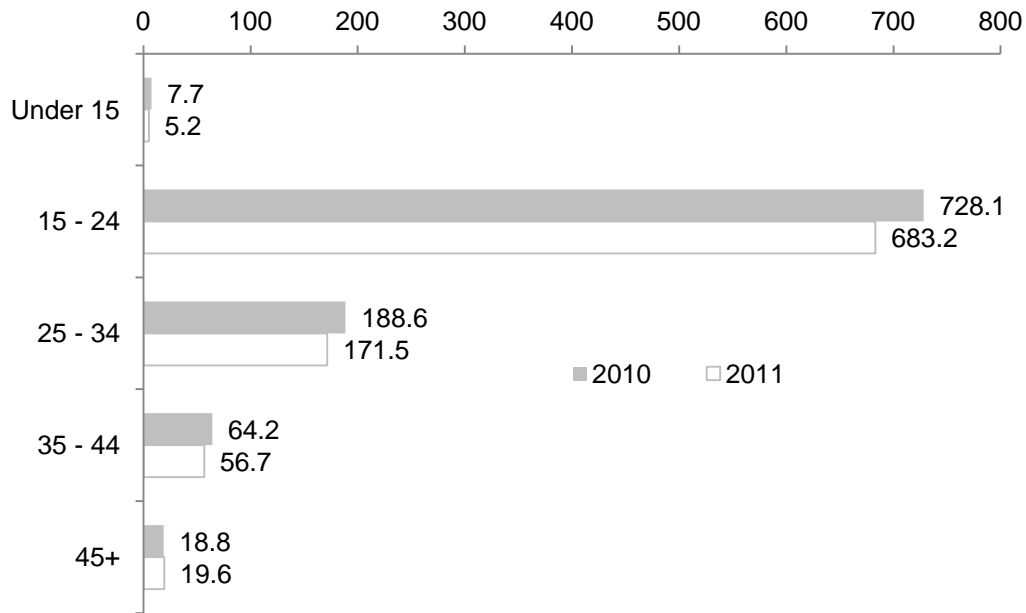
Source: Houston/Harris County STD*MIS as of November 2012. Rate per 100,000 population.

Population Source: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

(Graph 7) When analyzed by age, gonorrhea is also diagnosed most among adolescents and young adults. In 2011, the rate of gonorrhea among people age 15 to 24 was 683 for every 100,000 people in this age range in Houston/Harris County. This is almost four times the rate of the age group with the next highest rate (which is 25 to 34 year olds at 172 per 100,000). However, all age groups experienced a percent decrease in their gonorrhea rates between 2010 and 2011 except those age 45 and older, whose rate increased by 4.1%. The age group with the largest one year decrease was persons under age 15 whose gonorrhea rate decreased by 31.6% between 2010 and 2011.

When analyzed by both sex and age, gonorrhea rates are even higher among adolescent and young adult *females*. In 2011, the rate of gonorrhea among females age 15 to 19 was 956 cases for every 100,000 females in this age group in Houston/Harris County, and the rate for females age 20 to 24 was 843 cases for every 100,000.

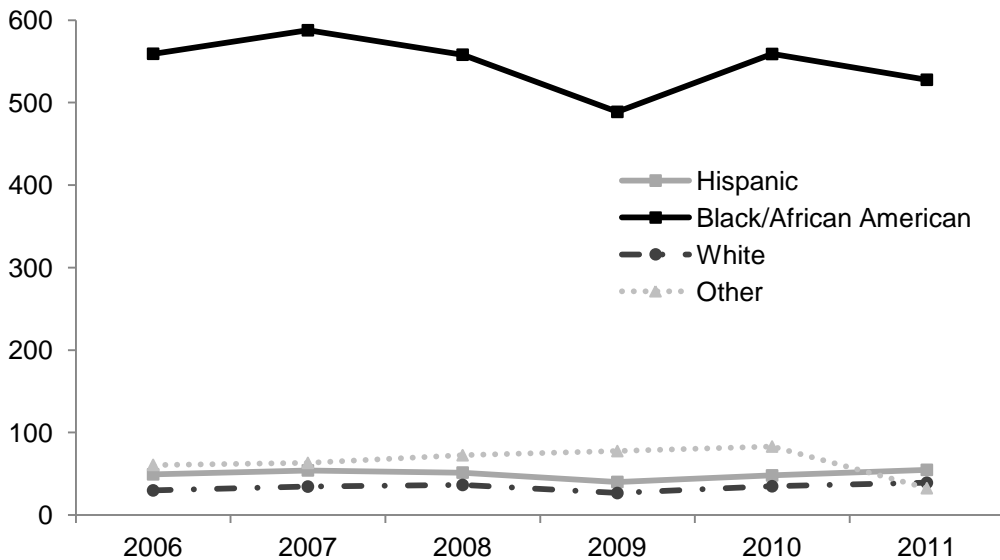
GRAPH 7- Gonorrhea Rates in Houston/Harris County by Age, 2010 and 2011



Source: Houston/Harris County STD*MIS as of November 2012. Rate per 100,000 population.
 Population Source: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

(Graph 8) When analyzed by race/ethnicity, gonorrhea rates in Houston/Harris County are also highest among African Americans. In 2011, the rate of gonorrhea in African Americans was 528 cases for every 100,000 African Americans in the jurisdiction. This is 13.5 times higher than the rate for Whites (39.2 per 100,000) and 9.6 times higher than the rate for Hispanic/Latinos (54.8 per 100,000). African Americans did see a decrease in their gonorrhea rate between 2010 and 2011 of 5.6%, whereas the rates for Whites and Hispanic/Latinos both increased, by 12.1% and 13.9%, respectively.

GRAPH 8- Gonorrhea Rates in Houston/Harris County by Race/Ethnicity, 2006 to 2011



Source: Houston/Harris County STD*MIS as of November 2012. Rate per 100,000 population.
 Population Source: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

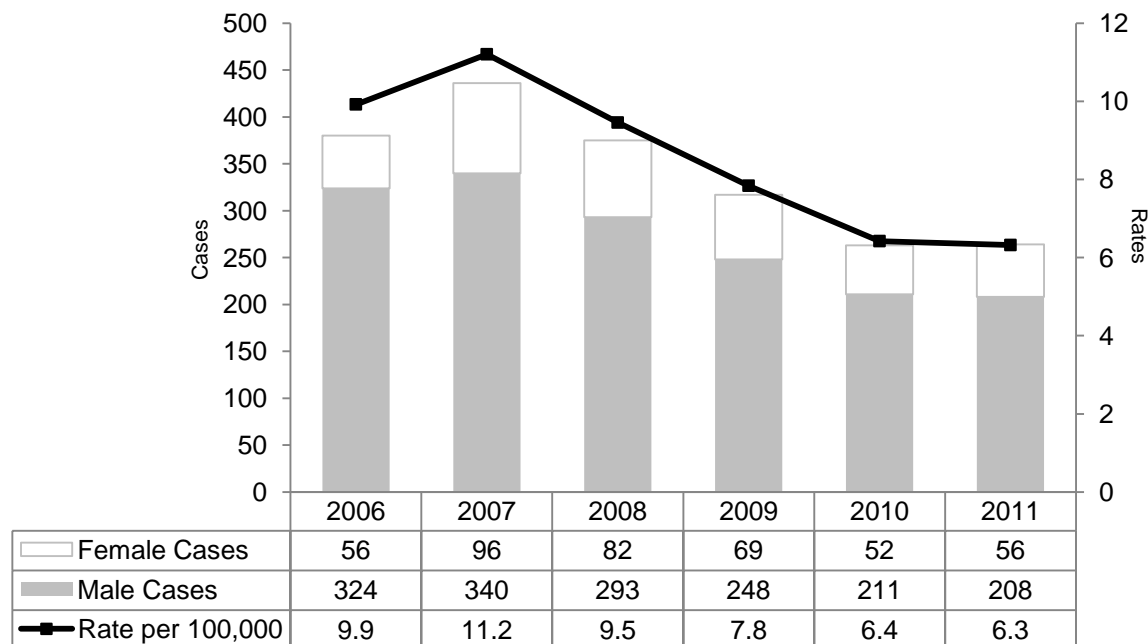
Infectious Syphilis

There are four general stages of syphilis: (1) primary, (2) secondary, (3) latent, and (4) tertiary. The primary and secondary stages of syphilis are of most concern epidemiologically as this is when syphilis is communicable, or infectious, to others. Therefore, primary and secondary syphilis, taken together, are commonly referred to as infectious syphilis. Combined data on these two stages of syphilis are described here.

(Graph 9) Compared to other notifiable STDs, there are relatively few cases of infectious syphilis in the Houston Area (an average of about 339 cases are reported each year). However, Houston/Harris County has experienced outbreaks of this STD, during which the real-time case number and rate exceed predicted thresholds. One such outbreak occurred in 2006 when the number of syphilis cases increased by 48% from the prior year. Then, in 2007, the rate of syphilis reached a peak of 11 cases per 100,000 population. Since 2007, cases and rates of syphilis have been on the decline. In 2011, the rate of syphilis was 6 cases for every 100,000 people in Houston/Harris County.

Unlike Chlamydia and gonorrhea, syphilis occurs most often in males. In 2011, 78.8% of reported syphilis cases were in males, and 21.2% were in females. This equates to a case ratio of 3.7:1; meaning that, for every 1 case of syphilis reported in a female, there are nearly 4 cases of syphilis reported in males. Currently, the rate of syphilis in males (9.9 per 100,000 males in the Houston/Harris County population) is 3.6 times higher than in females (2.7 per 100,000 females in the Houston/Harris County population).

GRAPH 9- Infectious Syphilis Cases and Rates in Houston/Harris County by Sex, 2006 to 2011



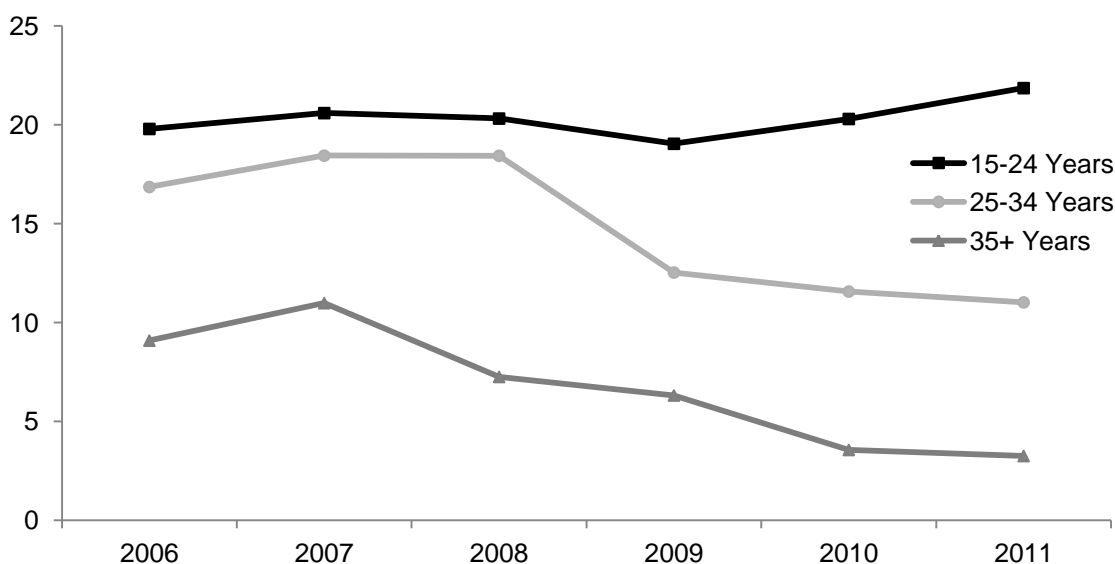
Source: Houston/Harris County STD*MIS as of November 2012. Rate per 100,000 population.

Population Source: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtml>

(Graph 10) When analyzed by age, the syphilis rate is highest among adolescents and young adults as is the case with other notifiable STDs. Since 2009, the syphilis rate among 15 to 24 year olds in Houston/Harris County has been on the increase, whereas older age groups have seen declines. In 2011, the rate of syphilis among people age 15 to 24 was 22 for every 100,000 people in this age range in Houston/Harris County. This is compared to a rate of 11 for every 100,000 persons age 25 to 34 and 3 for every 100,000 persons aged 35 and older.

When analyzed by both sex and age, syphilis rates are highest among young adult *males*. In 2011, the rate of syphilis among males age 20 to 24 was 43 cases for every 100,000 males in this age group in Houston/Harris County compared to 10 cases for every 100,000 females age 20 to 24.

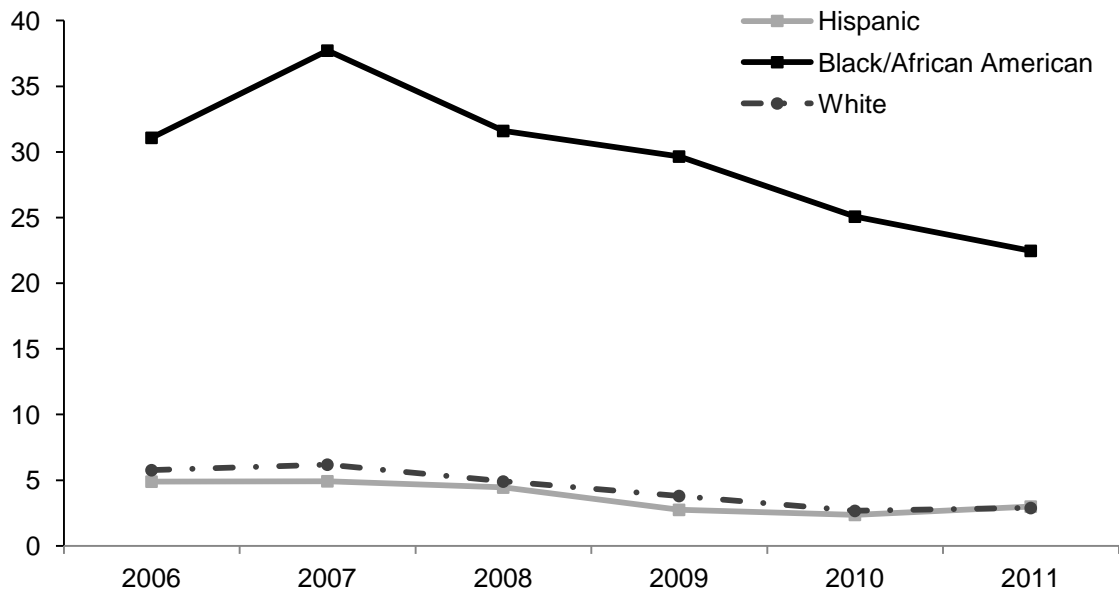
GRAPH 10- Infectious Syphilis Rates in Houston/Harris County by Age, 2006 to 2011



Source: Houston/Harris County STD*MIS as of November 2012. Rate per 100,000 population.
 Population Source: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtml>

(Graph 11) When analyzed by race/ethnicity, syphilis rates in Houston/Harris County are also highest among African Americans. In 2011, the rate of syphilis in African Americans was 23 cases for every 100,000 African Americans in the jurisdiction. This is over 7 times higher than the rate for Whites and for Hispanic/Latinos, which have comparable rates at about 3 cases of syphilis per 100,000 population. In 2007, the rate among African Americans was at its peak at 38 cases for every 100,000 African Americans in Houston/Harris County. Since 2007, the rate of syphilis was on the decline for all three groups until 2011. Between 2010 and 2011, the rate of syphilis in African Americans continued to decline by falling 10.4%; however, the rates for Whites and Hispanic/Latinos increased, by 8.2% and 26.8%, respectively.

GRAPH 11- Syphilis Rates in Houston/Harris County by Race/Ethnicity, 2006 to 2011



Source: Houston/Harris County STD*MIS as of November 2012. Rate per 100,000 population.
Population Source: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>



Chapter 4: HIV Service Utilization in the Houston Area

What are the patterns of service utilization among HIV-infected persons?

“Improving survival of persons with HIV and reducing transmission involve a continuum of services that includes diagnosis, linkage to and retention in HIV medical care, and ongoing HIV prevention interventions, including appropriately timed antiretroviral therapy.”

≈ MMWR, Vital Signs: HIV Prevention through Care and Treatment -- United States
November 2011

Chapter 2 of this document described the populations of people living with HIV in the Houston Area. Chapter 3 described the factors that may place individuals at risk for HIV infection in the Houston Area, including lack of awareness of HIV positive status. The purpose of this chapter is to describe the extent to which status aware individuals are linked to and utilizing HIV medical care, treatment, and supportive services in the Houston Area. It will include a focus on the use of specific HIV services provided through the Ryan White HIV/AIDS Program as well as the status of the Houston Area on a new community indicator for HIV related to the continuum of services called The HIV Engagement in Care Cascade, or the Treatment Cascade.

Initial Linkage to Care

After receiving an HIV diagnosis, initial linkage to an HIV primary medical care and treatment provider is the first stage in a continuum of services for persons living with HIV.¹ Having linkage occur within three months of diagnosis is considered the national standard, and the goal is for 85% of the newly diagnosed to be linked to HIV primary medical care within three months.²

(Table 1) In 2011, 78.1% of people newly diagnosed with HIV in the state of Texas were linked to HIV primary medical care within three months of their diagnoses. In the Houston Eligible Metropolitan Area (EMA), 77.4% of the newly diagnosed in 2011 were linked to care within three months. An additional 4.0% were linked in more than three months, and 18.6% remained unlinked by the end of 2011. Some specific demographic groups in the Houston EMA had proportions linked to care within three months of diagnoses that were lower than the EMA as a whole. Overall, linkage to care rates were lower in men (75.6%), African Americans (74.5%), Hispanic/Latinos (76.3%), adolescents and young adults (age 13 to 24) (68.0%), men reporting male-to-male sexual practices or MSM (75.4%), injection drug users (IDU) (76.9%), and those reporting both MSM and IDU activity (75.9%). Of all groups, newly diagnosed adolescents and young adults (age 13 to 24) had the lowest proportion linked to HIV primary medical care within three months, followed by African Americans.

¹Gardner, EM et al. The Spectrum of Engagement in HIV Care and its Relevance to Test-and-Treat Strategies for Prevention of HIV Infection. *HIV/AIDS*, November 21, 2011.

²National HIV/AIDS Strategy for the United States, July 2010.

TABLE 1-Percent of New HIV Diagnoses Linked to HIV Care in Texas and in the Houston EMA by Sex, Race/Ethnicity, Age, Risk, and Timeframe, 2011^a

	Texas			Houston EMA		
	Linked ≤ 3 Months	Linked at 4+ Months	Not Linked to Care	Linked ≤ 3 Months	Linked at 4+ Months	Not Linked to Care
Total	78.1%	4.6%	17.3%	77.4%	4.0%	18.6%
Sex						
Male	77.3%	4.7%	18.1%	75.6%	4.1%	20.3%
Female	81.1%	4.4%	14.6%	82.6%	3.7%	13.6%
Race/Ethnicity						
White	83.5%	4.5%	12.0%	85.6%	3.9%	10.5%
Black/African American	73.3%	4.7%	22.0%	74.5%	4.3%	21.2%
Hispanic/Latino	79.3%	4.6%	16.2%	76.3%	3.8%	19.9%
Other/Multiple Races	88.5%	3.3%	8.2%	92.0%	0.0%	8.0%
Age at Diagnosis						
Under 2	91.7%	8.3%	0.0%	100.0%	0.0%	0.0%
2 - 12	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
13 - 24	69.5%	6.6%	23.9%	68.0%	5.0%	26.9%
25 - 34	78.0%	4.9%	17.1%	77.2%	3.6%	19.2%
35 - 44	79.3%	3.7%	17.0%	81.2%	3.7%	15.1%
45 - 54	85.9%	3.2%	10.9%	78.0%	5.3%	16.7%
55+	82.9%	2.9%	14.1%	90.1%	1.2%	8.6%
Transmission Risk^b						
Male-to-male sexual activity (MSM)	77.9%	4.6%	17.5%	75.4%	4.6%	20.0%
Injection drug use (IDU)	77.1%	4.9%	18.1%	76.9%	3.9%	19.2%
MSM/IDU	73.9%	8.3%	17.8%	75.9%	5.5%	18.6%
Heterosexual contact	79.0%	4.1%	16.9%	80.7%	2.9%	16.4%
Perinatal transmission	94.4%	5.6%	0.0%	100.0%	0.0%	0.0%

^aSource: Texas Department of State Health Services, 2011 New Dx Cases with Met Need But No Linkage to Care Dates. Released 8/17/12

^bCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

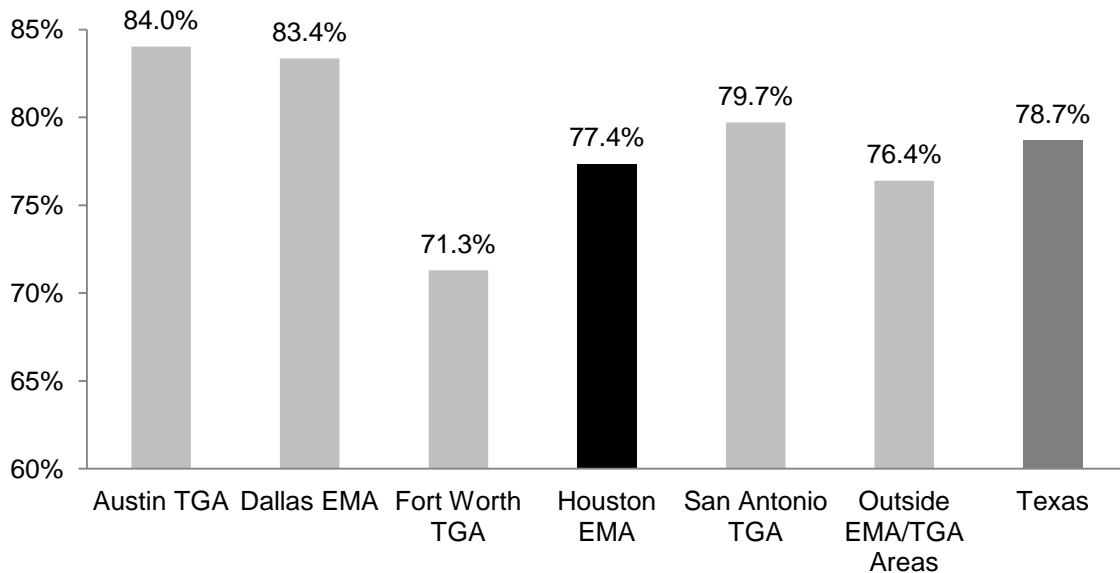
Within demographic groups with lower linkage to care rates than the Houston EMA as a whole (Table 1), there were additional *sub-groups* whose linkage to care levels were further disproportional, meaning that the proportion of the sub-group that was linked to care within the federal standard of three months post-diagnosis fell below the proportion for the demographic group as a whole. For example, fewer males were linked to care within three months post-diagnosis than were females (75.6% vs. 82.6%). Within the larger group of males, a lower proportion of *African American* males were linked to care within three months (70.9% vs. 75.6%). Therefore, African American males would be considered to have a disproportionately lower linkage to care rate. Other groups in the EMA with disproportional linkage to care rates according to this analysis are:

- African American men reporting male-to-male sexual activity (MSM) (70.9% linked within 3 months) and Hispanic/Latino MSM (73.3% linked within 3 months)

- African American injection drug users (IDU) (68.6% linked within 3 months), particularly African American *male* IDU (65.6% linked within 3 months)
- African American heterosexual men (72.5% linked within 3 months)
- Among all females, African American female IDU (74.0% linked within 3 months)

(Graph 1) Though the Houston EMA’s linkage to care rate is lower than for the state of Texas as a whole, it is not the lowest of all federally-designated geographic service areas (i.e., other EMAs or Transitional Grant Areas/TGA) in the state.

GRAPH 1- Percent of Persons Newly Diagnosed with HIV Who Are Linked to Care Within Three Months of Diagnosis by HRSA Geographic Service Area in Texas, 2011



Source: Texas Department of State Health Services, 2011 New Dx Cases with Met Need But No Linkage to Care Dates. Released 8/17/12

Total Population in HIV Care, or Met Need

The Health Resources and Services Administration (HRSA) has developed a uniform definition for being in care for HIV. According to HRSA, a person with diagnosed HIV with evidence of any of the following in a 12 month period is considered to be in care: (1) an HIV primary medical care visit, (2) a blood test to monitor HIV (either a CD4 count or a viral load test), or (3) a prescription for HIV medication. Oftentimes, the term “met need” is used interchangeably with being in care. This is because someone who is in care is considered to have their medical needs for HIV *met*.

In the HRSA definition, services can be received from any health care system or payer source. Therefore, to be in care according to this definition, a person does not have to receive services from a HRSA-funded program, such as the Ryan White HIV/AIDS Program. Analyses of HIV service utilization strive to include as many different health care systems and payer sources as possible in order to produce the most thorough understanding of met need in a geographic area.

(Table 2) In the Houston EMA, 72.9% of people living with HIV in 2011 were in HIV care according to the HRSA definition. The proportions of each demographic group that comprised the total in-care population were also comparable (within up to 2 ± percentage points difference) to total diagnosed population. When analyzed by demographic group, an average of 73.4% of people in each group was in care. Lower than average in-care rates occurred in Hispanic/Latinos (with 69.1% of those diagnosed also in care), adolescents and young adults (age 13 to 24) (with 68.9% of those diagnosed also in care), and injection drug users (IDU) (with 69.4% of those diagnosed also in care).

TABLE 2-People Living with HIV^a and In HIV Care^b in the Houston EMA by Sex, Race/Ethnicity, Age, and Risk, 2011					
	Living with HIV Disease ^c			In HIV Care ^d	
		Cases	%	Cases	%
Total		21,664	100%	15,780	72.9%
Sex					
	Male	15,953	73.7%	11,525	73.0%
	Female	5,691	26.3%	4,255	27.0%
Race/Ethnicity					
	White	5,329	24.6%	4,161	26.4%
	Black/African American	10,842	50.1%	7,804	49.5%
	Hispanic/Latino	5,061	23.4%	3,499	22.2%
	Other/Multiple Races	412	1.9%	316	2.0%
Age at Diagnosis					
	0 - 1	6	0.0%	5	0.0%
	2 - 12	71	0.3%	56	0.4%
	13 - 24	1,185	5.5%	817	5.2%
	25 - 34	4,001	18.5%	2,763	17.5%
	35 - 44	6,094	28.2%	4,356	27.6%
	45 - 54	6,646	30.7%	5,088	32.2%
	55+	3,641	16.8%	2,695	17.1%
Transmission Risk^e					
	Male-to-male sexual activity (MSM)	11,142	51.5%	8,214	52.1%
	Injection drug use (IDU)	2,402	11.1%	1,666	10.6%
	MSM/IDU	1,062	4.9%	789	5.0%
	Heterosexual contact	6,737	31.1%	4,881	30.9%
	Perinatal transmission	280	1.3%	217	1.4%
	Adult other risk	21	0.1%	13	0.1%

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bSource: Texas Department of State Health Services, Number & Proportion of PLWHA with Unmet Need for Medical Care by EMA/TGA, 2011. Released 8/17/12

^cHIV Disease = People living with HIV disease, regardless of AIDS status, in the Houston EMA

^dPer HRSA definition. A person with diagnosed HIV who has any of the following in a 12 month period in any payer system: (1) an HIV primary medical care visit, (2) a blood test to monitor HIV (either a CD4 count or a viral load test), or (3) a prescription for HIV medication.

^eCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

Total Population in the Ryan White HIV/AIDS Program

The Health Resources and Services Administration (HRSA) provides funding for HIV care, treatment, and support services in the Houston Area through the Ryan White HIV/AIDS Program. The program is organized into a series of Parts, each for a specific geographic service area, population, or purpose. The Houston Area receives Part A and Minority AIDS Initiative (MAI) funds (for the jurisdiction of the Houston EMA), Part B (for the AIDS Drug Assistance Program or ADAP and for services to the jurisdiction of the Houston HSDA), Part C (for early intervention services and capacity development and planning activities), and Part D (for services to women, infants, children, and youth living with HIV). The Houston Area also receives funds from the State of Texas called *State Services*, distributed by the Texas Department of State Health Services (DSHS). The overall intent of these funds is to ensure that people living with HIV/AIDS have access to core medical and support services for the effective management of HIV disease. Though HRSA determines which types of services can be supported through the Ryan White HIV/AIDS Program, local communities are given the ability to select which services will be funded each year in order to meet the needs of the local population.

In 2011, Houston Area Ryan White HIV/AIDS Program funds from Part A, Part B, MAI, and State Services were allocated to the following core medical and support services:

Primary medical care	Health insurance assistance
Vision care	Hospice
Local pharmaceutical assistance (non-ADAP)	Medical nutritional therapy and supplements
Medical case management	Mental health counseling
Clinical case management	Substance abuse treatment
Service linkage targeting the newly diagnosed at primary care sites and public HIV testing sites	Translation services
Early intervention services for the incarcerated	Transportation by van and bus
Oral health	Food pantry
	Legal assistance
	Adult day treatment

(Table 3) In 2011, services funded by the Ryan White HIV/AIDS Program Part A, Minority AIDS Initiative (MAI), Part B, and State Services (State of Texas matching funds for HIV care) served a total of 11,184 clients, of whom 72% were male, 28% were female, 20% were White, 54% were African American, and 25% were Hispanic/Latino. The five services with the largest volume of clients in 2011 were (1) primary medical care (at 6,842 clients), (2) service linkage for the newly diagnosed at primary medical care sites (at 6,749 clients), (3) medical case management (at 4,646 clients), (4) local pharmaceutical assistance (non-ADAP) (at 3,064 clients), and (5) oral health care services (at 2,607 clients).

TABLE 3-Number of Clients Served by the Ryan White HIV/AIDS Program Part A, B, MAI, and State Services in the Houston EMA/HSDA by Type of Service, Sex, and Race/Ethnicity, 2011

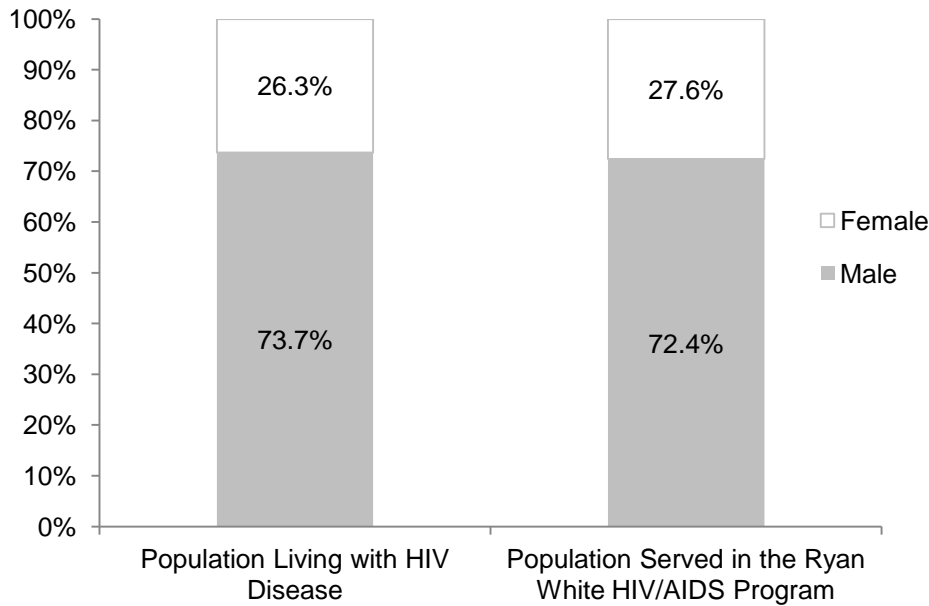
	Total Number Served	Percent by Sex		Percent by Race/Ethnicity			
		Male	Female	White	Black/African American	Hispanic/Latino	Other
Total all services/all clients	11,184	72%	28%	20%	54%	25%	1%
Primary medical care	6,842	73%	27%	18%	50%	31%	1%
Vision care	1,496	79%	21%	26%	39%	33%	2%
Pharmaceutical assistance	3,064	74%	26%	23%	44%	31%	2%
Medical case management	4,646	70%	30%	22%	53%	24%	1%
Clinical case management	1,012	72%	28%	23%	46%	30%	1%
Service linkage, primary care	6,749	72%	28%	17%	55%	27%	1%
Service linkage, testing sites	207	65%	35%	8%	60%	30%	2%
Early intervention services	1,108	81%	19%	15%	71%	13%	1%
Oral health	2,607	74%	26%	27%	44%	27%	2%
Health insurance assistance	840	80%	20%	38%	43%	17%	2%
Hospice	54	72%	28%	39%	41%	19%	1%
Medical nutritional therapy	662	83%	17%	33%	35%	29%	3%
Mental health counseling	307	88%	12%	47%	31%	21%	1%
Substance abuse treatment	30	90%	10%	43%	30%	27%	0%
Translation services	40	65%	35%	12%	55%	13%	20%
Transportation, van	394	60%	40%	20%	56%	22%	2%
Transportation, bus	2,406	72%	27%	14%	69%	16%	1%
Food pantry	1,217	70%	30%	18%	61%	20%	1%
Legal assistance	567	65%	35%	20%	64%	15%	1%
Adult day treatment	44	80%	20%	20%	52%	27%	1%

Source: Ryan White Grant Administration and The Resource Group. All Services/All Grants. Presented 4/12/12

(Graph 2) The distribution of the population served by the Ryan White HIV/AIDS Program Part A, Minority AIDS Initiative (MAI), Part B, and State Services in 2011 closely mirrors the distribution of the total population of people living with HIV in the Houston EMA. In 2011, the program served slightly more females living with HIV than are represented in the HIV-infected population as a whole.

(Graph 3) The program also served 3.9% more African Americans and 3.8% more Hispanic/Latinos living with HIV in 2011 than are represented in the HIV-infected population as a whole.

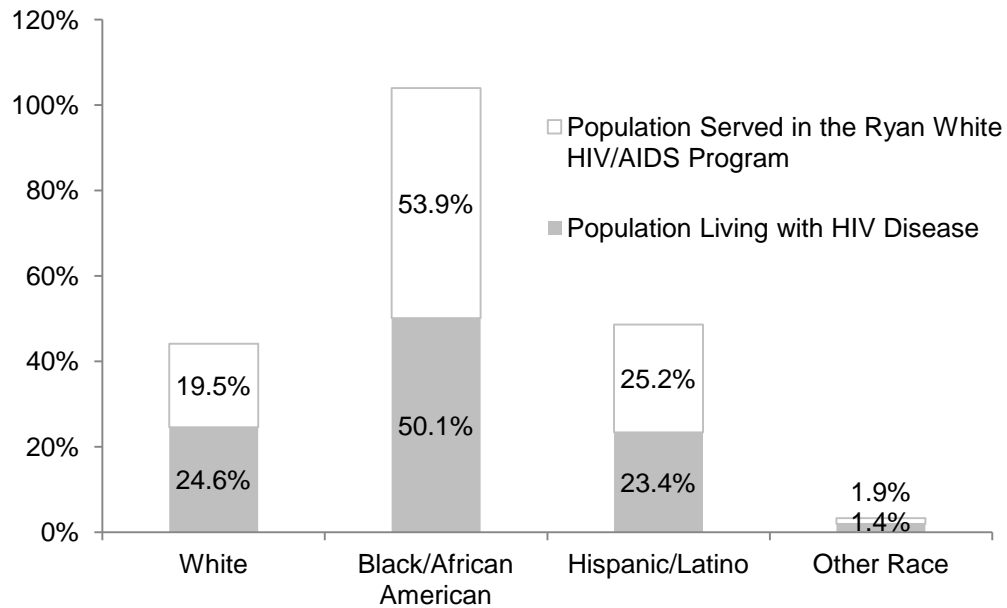
GRAPH 2-Comparison of Total Population Living with HIV^a in the Houston EMA to the Population Served in the Ryan White HIV/AIDS Program^b by Sex, 2011



^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bTotal number of clients served by the Ryan White HIV/AIDS Program Part A, the Minority AIDS Initiative (MAI), Part B, and State Services (State of Texas matching funds) in calendar year 2011. Source: Ryan White Grant Administration and The Resource Group. All Services/All Grants. Presented 4/12/12

GRAPH 3-Comparison of Total Population Living with HIV^a in the Houston EMA to the Population Served in the Ryan White HIV/AIDS Program^b by Race/Ethnicity, 2011



^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bTotal number of clients served by the Ryan White HIV/AIDS Program Part A, the Minority AIDS Initiative (MAI), Part B, and State Services (State of Texas matching funds) in calendar year 2011. Source: Ryan White Grant Administration and The Resource Group. All Services/All Grants. Presented 4/12/12

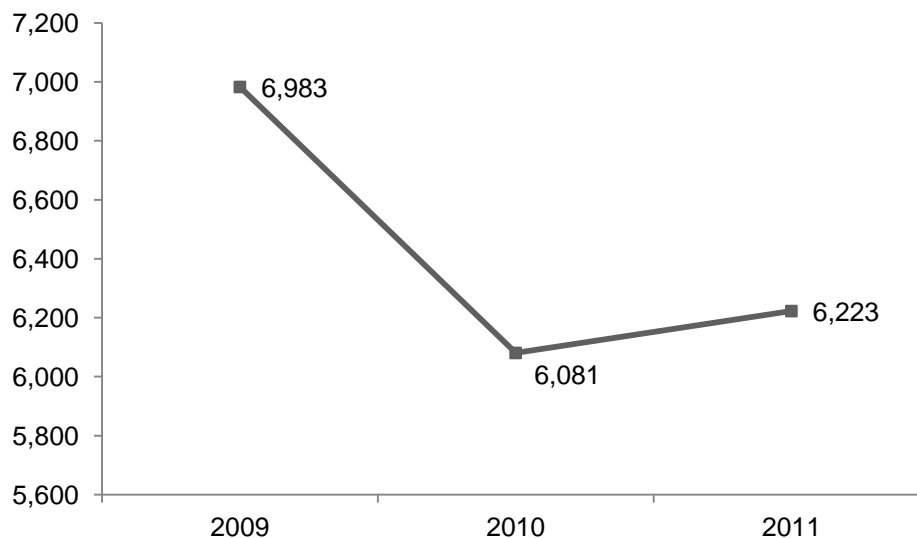
Detail of Selected Ryan White HIV/AIDS Program Service Categories

The Ryan White HIV/AIDS Program Part A, Minority AIDS Initiative (MAI), Part B, and State Services (matching funds from the State of Texas) funds can be used to support a continuum of HIV care for people residing in the Houston Area geographic service designations. The continuum of care supported by these funds includes services that produce medical outcomes related to HIV (i.e., core medical services) and those that directly link individuals to medical outcomes (i.e. support services). At least 75% of Ryan White funds must be spent on core medical services and no more than 25% on supportive services. This section provides details about service utilization for six selected core medical services currently funded by the program in the Houston EMA.

Primary Care

(Graph 4) From 2009 to 2011, the average number of clients served for HIV primary care through the Ryan White HIV/AIDS Program in the Houston EMA was 6,429. The overall number of clients receiving this service decreased by 10.9% during this three year time period.

GRAPH 4-Total Number of Persons Receiving Primary Care through the Ryan White HIV/AIDS Program in the Houston EMA, from 2009 to 2011



Source: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2009 - December 31, 2011

(Table 4) In 2011, a total of 6,223 unduplicated clients received HIV primary care through the Ryan White HIV/AIDS Program in the Houston EMA. Of these, 71.1% were male, 28.9% were female, 18.0% were White, 48.2% were African American, 32.2% were Hispanic/Latino, 7.4% were under age 24, 25.1% were age 25 to 34, and 67.5% were age 35 and older. Compared to their proportions of the total number of persons living with HIV in the Houston EMA in 2011, women are slightly over-represented in this service (by 1.6%), Hispanic/Latinos are over-represented (by 8.8%), and people age 35 and older are under-represented (by 8.1%). Due to differences in data calculation methodology, reported risk cannot be compared.

TABLE 4—People Living with HIV^a and Receiving Primary Care^b through the Ryan White HIV/AIDS Program (RW) in the Houston EMA by Sex, Race/Ethnicity, Age, and Risk, 2011

	Living with HIV Disease ^c		In RW Primary Care	
	Number	%	Number	%
Total	21,664	100.0%	6,223	100.0%
Sex				
Male	15,953	73.7%	4,425	71.1%
Female	5,691	26.3%	1,798	28.9%
Race/Ethnicity				
White	5,329	24.6%	1,121	18.0%
Black/African American	10,842	50.1%	2,997	48.2%
Hispanic/Latino	5,061	23.4%	2,003	32.2%
Other/Multiple Races	412	1.9%	102	1.6%
Age at Diagnosis				
0 - 24	1,262	5.8%	461	7.4%
25 - 34	4,001	18.5%	1,559	25.1%
35 - 44	6,094	28.2%	1,992	32.0%
45 - 54	6,646	30.7%	1,661	26.7%
55+	3,641	16.8%	550	8.8%
Transmission Risk^d				
Male-to-male sexual activity (MSM)	11,142	51.5%	1,547	24.9%
Injection drug use (IDU)	2,402	11.1%	74	1.2%
MSM/IDU	1,062	4.9%	9	0.1%
Heterosexual contact	6,737	31.1%	1,996	32.1%
Perinatal transmission	280	1.3%	45	0.7%
Adult other risk	21	0.1%	2,886	46.4%

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bSource: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2011 - December 31, 2011

^cHIV Disease = People living with HIV disease, regardless of AIDS status, in the Houston EMA

^dFor living cases, those with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification. This is not the case for RW primary care clients.

Therefore, data on risk composition should not be used comparatively.

(Table 5) Of clients served for HIV primary care in 2011 by the Ryan White HIV/AIDS Program, the majority were Houston/Harris County residents (92.0%). In addition, 17.4% were monolingual Spanish speakers, 6.3% were homeless, 0.8% were transgender, and 4.5% had either active substance abuse or an active psychiatric illness.

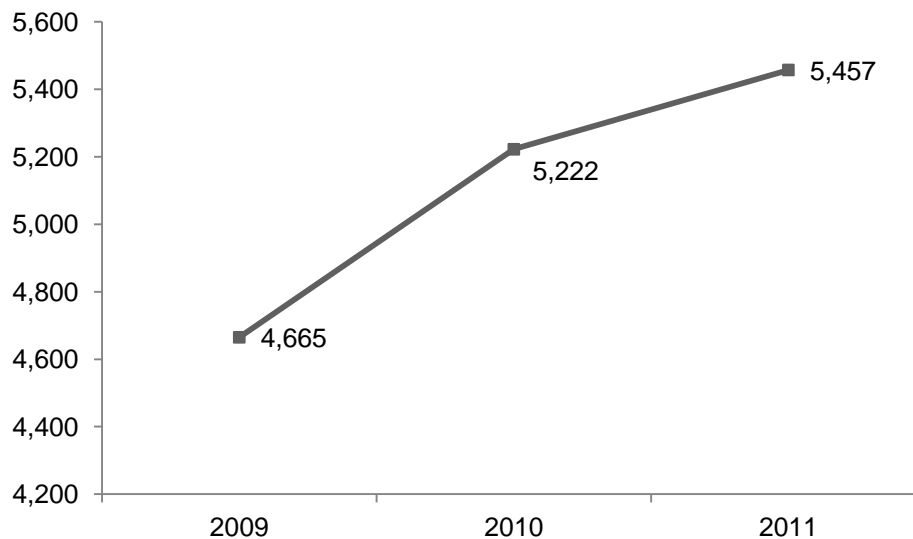
	Number	%
Total Unduplicated Clients	6,223	100.0%
Monolingual Spanish	1,085	17.4%
Homeless	390	6.3%
Transgender	47	0.8%
Houston/Harris County residents	5,723	92.0%
Non-Houston/Harris County residents	500	8.0%
Active substance abuse	169	2.7%
Active psychiatric illness	113	1.8%

Source: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2011 - December 31, 2011

AIDS Drug Assistance Program (ADAP)

(Graph 5) From 2009 to 2011, the average number of clients served in the AIDS Drug Assistance Program (ADAP) of the Ryan White HIV/AIDS Program in the Houston Health Service Designation Area (HSDA) was 5,115. Overall, the number of clients receiving this service increased by 17.0% during this three year time period.

GRAPH 5-Total Number of Persons Served in the AIDS Drug Assistance Program (ADAP) in the Houston HSDA, from 2009 to 2011



Source: Texas Department of State Health Services, ADAP, 2009 - 2011

(Table 6) In 2011, a total of 5,457 unduplicated clients were served by the AIDS Drug Assistance Program (ADAP) in the Houston HSDA. Of these, 73.7% were male, 26.3% were female, 16.4% were White, 47.2% were African American, 33.8% were Hispanic/Latino, 4.0% were under age 24, 21.9% were age 25 to 34, and 74.1% were age 35 and older.

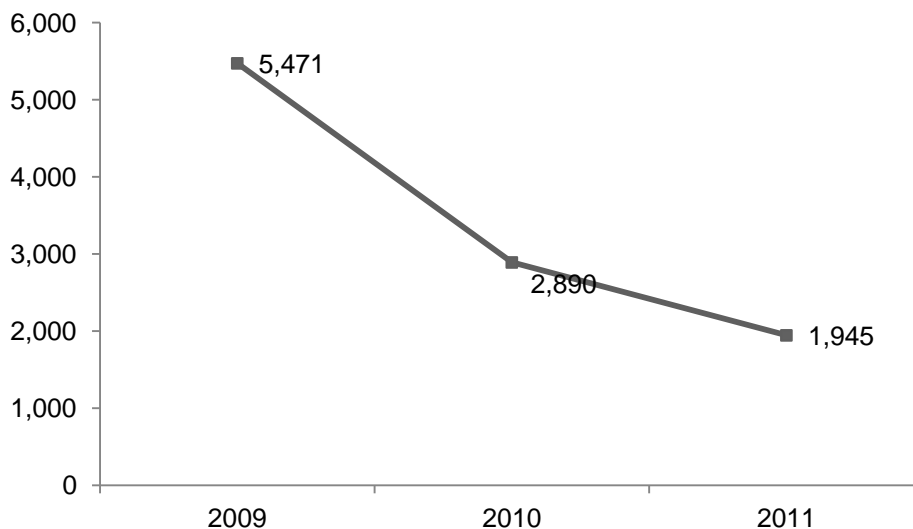
TABLE 6-People Served in the AIDS Drug Assistance Program (ADAP) in the Houston HSDA by Sex, Race/Ethnicity, and Age, 2011		
	Number	%
Total	5,457	100.0%
Sex		
Male	4,023	73.7%
Female	1,434	26.3%
Race/Ethnicity		
White	894	16.4%
Black/African American	2,575	47.2%
Hispanic/Latino	1,843	33.8%
Other/Multiple Races	145	2.7%
Age at Diagnosis		
0 - 24	217	4.0%
25 - 34	1,195	21.9%
35 - 44	1,812	33.2%
45 - 54	1,621	29.7%
55+	612	11.2%

Source: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2011 - December 31, 2011

Case Management

(Graph 6) From 2009 to 2011, the average number of clients who received clinic-based case management through the Ryan White HIV/AIDS Program in the Houston EMA was 3,435. Overall, the number of clients receiving this service decreased by 64.4% during this three year time period.

GRAPH 6-Total Number of Persons Receiving Clinic-Based Case Management through the Ryan White HIV/AIDS Program in the Houston EMA, from 2009 to 2011



Source: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2009 - December 31, 2011

(Table 7) In 2011, a total of 1,945 unduplicated clients received clinic-based case management through the Ryan White HIV/AIDS Program in the Houston EMA. Of these, 73.6% were male, 26.4% were female, 23.9% were White, 49.8% were African American, 24.9% were Hispanic/Latino, 6.1% were under age 24, 20.6% were age 25 to 34, and 73.3% were age 35 and older. Compared to their proportions of the total number of persons living with HIV in the Houston EMA in 2011, Hispanic/Latinos are slightly over-represented in this service (by 1.5%) and people age 35 and older are slightly under-represented (by 2.3%). Due to differences in data calculation methodology, reported risk cannot be compared.

TABLE 7-People Living with HIV^a and Receiving Clinic-Based Case Management^b through the Ryan White HIV/AIDS Program (RW) in the Houston EMA by Sex, Race/Ethnicity, Age, and Risk, 2011					
	Living with HIV Disease ^c			In RW Case Management	
		Number	%	Number	%
Total		21,664	100.0%	1,945	100.0%
Sex					
	Male	15,953	73.7%	1,431	73.6%
	Female	5,691	26.3%	514	26.4%
Race/Ethnicity					
	White	5,329	24.6%	465	23.9%
	Black/African American	10,842	50.1%	968	49.8%
	Hispanic/Latino	5,061	23.4%	484	24.9%
	Other/Multiple Races	412	1.9%	28	1.4%
Age at Diagnosis					
	0 - 24	1,262	5.8%	118	6.1%
	25 - 34	4,001	18.5%	401	20.6%
	35 - 44	6,094	28.2%	523	26.9%
	45 - 54	6,646	30.7%	593	30.5%
	55+	3,641	16.8%	310	15.9%
Transmission Risk^d					
	Male-to-male sexual activity (MSM)	11,142	51.5%	670	34.4%
	Injection drug use (IDU)	2,402	11.1%	59	3.0%
	MSM/IDU	1,062	4.9%	14	0.7%
	Heterosexual contact	6,737	31.1%	738	37.9%
	Perinatal transmission	280	1.3%	22	1.1%
	Adult other risk	21	0.1%	565	29.0%

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bSource: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2011 - December 31, 2011

^cHIV Disease = People living with HIV disease, regardless of AIDS status, in the Houston EMA

^dFor living cases, those with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification. This is not the case for RW primary care clients. Therefore, data on risk composition should not be used comparatively.

(Table 8) Of clients who received clinic-based case management in 2011 through the Ryan White HIV/AIDS Program, the majority were Houston/Harris County residents

(85.7%). In addition, 12.2% were monolingual Spanish speakers, 6.2% were homeless, 1.8% were transgender, and 6.7% had either active substance abuse or an active psychiatric illness.

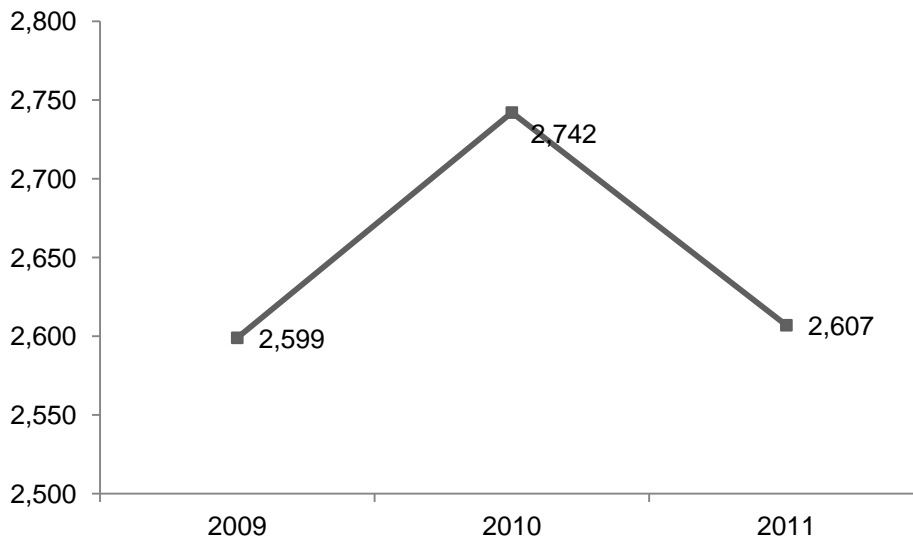
	Number	%
Total Unduplicated Clients	1,945	100.0%
Monolingual Spanish	237	12.2%
Homeless	120	6.2%
Transgender	35	1.8%
Houston/Harris County residents	1,667	85.7%
Non-Houston/Harris County residents	278	14.3%
Active substance abuse	120	6.2%
Active psychiatric illness	11	0.6%

Source: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2011 - December 31, 2011

Oral Health

(Graph 7) From 2009 to 2011, the average number of clients who received oral health care through the Ryan White HIV/AIDS Program in the Houston EMA was 2,649. Overall, the number of clients receiving this service increased by 0.3% during this three year time period.

GRAPH 7-Total Number of Persons Receiving Oral Health Care through the Ryan White HIV/AIDS Program in the Houston EMA, from 2009 to 2011



Source: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2009 - December 31, 2011

(Table 9) In 2011, a total of 2,607 unduplicated clients received oral health care through the Ryan White HIV/AIDS Program in the Houston EMA. Of these, 74.2% were male, 25.8% were female, 27.2% were White, 44.3% were African American, 27.0% were Hispanic/Latino, 1.9% were under age 24, 12.7% were age 25 to 34, and 85.4% were age 35 and older. Compared to their proportions of the total number of persons living with HIV in the Houston EMA in 2011, African Americans are under-represented in this service (by 5.8%) and people age 35 and older are over-represented (by 9.8%). Due to differences in data calculation methodology, reported risk cannot be compared.

TABLE 9-People Living with HIV^a and Receiving Oral Health Care^b through the Ryan White HIV/AIDS Program (RW) in the Houston EMA by Sex, Race/Ethnicity, Age, and Risk, 2011				
	Living with HIV Disease ^c		In RW Oral Health Care	
	Number	%	Number	%
Total	21,664	100.0%	2,607	100.0%
Sex				
Male	15,953	73.7%	1,935	74.2%
Female	5,691	26.3%	672	25.8%
Race/Ethnicity				
White	5,329	24.6%	708	27.2%
Black/African American	10,842	50.1%	1,154	44.3%
Hispanic/Latino	5,061	23.4%	705	27.0%
Other/Multiple Races	412	1.9%	40	1.5%
Age at Diagnosis				
0 - 24	1,262	5.8%	49	1.9%
25 - 34	4,001	18.5%	331	12.7%
35 - 44	6,094	28.2%	688	26.4%
45 - 54	6,646	30.7%	971	37.2%
55+	3,641	16.8%	568	21.8%
Transmission Risk^d				
Male-to-male sexual activity (MSM)	11,142	51.5%	727	27.9%
Injection drug use (IDU)	2,402	11.1%	48	1.8%
MSM/IDU	1,062	4.9%	10	0.4%
Heterosexual contact	6,737	31.1%	666	25.5%
Perinatal transmission	280	1.3%	9	0.3%
Adult other risk	21	0.1%	1,107	42.5%

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bSource: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2011 - December 31, 2011

^cHIV Disease = People living with HIV disease, regardless of AIDS status, in the Houston EMA

^dFor living cases, those with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification. This is not the case for RW primary care clients. Therefore, data on risk composition should not be used comparatively.

(Table 10) Of clients who received oral health care in 2011 through the Ryan White HIV/AIDS Program, the majority were Houston/Harris County residents (91.9%). In

addition, 13.4% were monolingual Spanish speakers, 4.4% were homeless, 0.5% were transgender, and 6.7% had either active substance abuse or an active psychiatric illness.

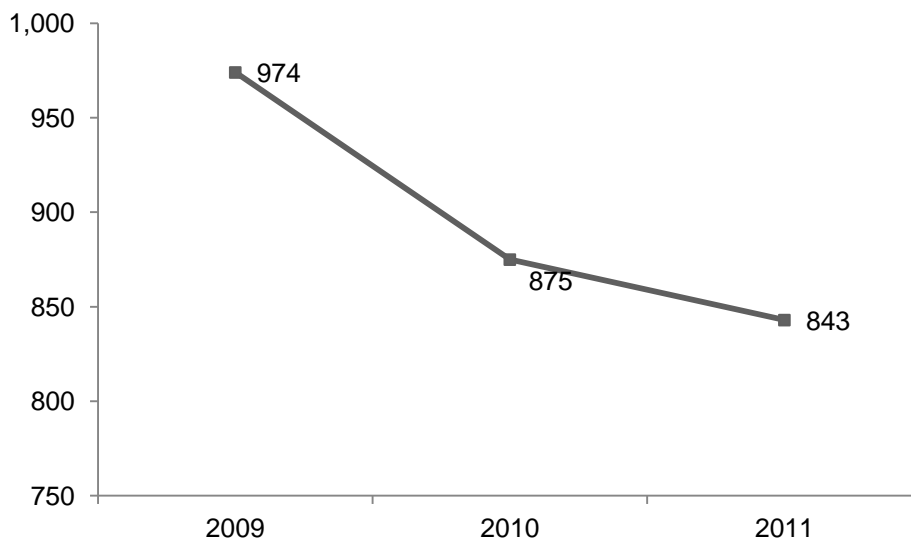
	Number	%
Total Unduplicated Clients	2,607	100.0%
Monolingual Spanish	349	13.4%
Homeless	114	4.4%
Transgender	14	0.5%
Houston/Harris County residents	2,396	91.9%
Non-Houston/Harris County residents	211	8.1%
Active substance abuse	89	3.4%
Active psychiatric illness	86	3.3%

Source: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2011 - December 31, 2011

Health Insurance Assistance

(Graph 8) From 2009 to 2011, the average number of clients who received health insurance assistance through the Ryan White HIV/AIDS Program in the Houston EMA was 897. Overall, the number of clients receiving this service decreased by 13.4% during this three year time period.

GRAPH 8-Total Number of Persons Receiving Health Insurance Assistance through the Ryan White HIV/AIDS Program in the Houston EMA, from 2009 to 2011



Source: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2009 - December 31, 2011

(Table 11) In 2011, a total of 843 unduplicated clients received health insurance assistance through the Ryan White HIV/AIDS Program in the Houston EMA. Of these,

79.6% were male, 20.4% were female, 37.5% were White, 43.1% were African American, 17.4% were Hispanic/Latino, 10.3% were age 25 to 34, and 87.7% were age 35 and older. Compared to their proportions of the total number of persons living with HIV in the Houston EMA in 2011, men are over-represented in this service (by 5.9%), Whites are over-represented (by 12.9%) and people age 35 and older are over-represented (by 12.0%). Due to differences in data calculation methodology, reported risk cannot be compared.

TABLE 11-People Living with HIV^a and Receiving Health Insurance Assistance^b through the Ryan White HIV/AIDS Program (RW) in the Houston EMA by Sex, Race/Ethnicity, Age, and Risk, 2011				
	Living with HIV Disease ^c		With RW Health Insurance Assistance	
	Number	%	Number	%
Total	21,664	100.0%	843	100.0%
Sex				
Male	15,953	73.7%	671	79.6%
Female	5,691	26.3%	172	20.4%
Race/Ethnicity				
White	5,329	24.6%	316	37.5%
Black/African American	10,842	50.1%	363	43.1%
Hispanic/Latino	5,061	23.4%	147	17.4%
Other/Multiple Races	412	1.9%	†	†
Age at Diagnosis				
0 - 24	1,262	5.8%	†	†
25 - 34	4,001	18.5%	87	10.3%
35 - 44	6,094	28.2%	227	26.9%
45 - 54	6,646	30.7%	360	42.7%
55+	3,641	16.8%	152	18.0%
Transmission Risk^d				
Male-to-male sexual activity (MSM)	11,142	51.5%	276	32.7%
Injection drug use (IDU)	2,402	11.1%	9	1.1%
MSM/IDU	1,062	4.9%	†	†
Heterosexual contact	6,737	31.1%	165	19.6%
Perinatal transmission	280	1.3%	8	0.9%
Adult other risk	21	0.1%	355	42.1%

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bSource: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2011 - December 31, 2011

^cHIV Disease = People living with HIV disease, regardless of AIDS status, in the Houston EMA

^dFor living cases, those with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification. This is not the case for RW primary care clients. Therefore, data on risk composition should not be used comparatively.

[†]Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data.

(Table 12) Of clients who received health insurance assistance in 2011 through the Ryan White HIV/AIDS Program, the majority were Houston/Harris County residents

(92.5%). In addition, 4.0% were monolingual Spanish speakers, 3.8% were homeless, and 5.8% had either active substance abuse or an active psychiatric illness.

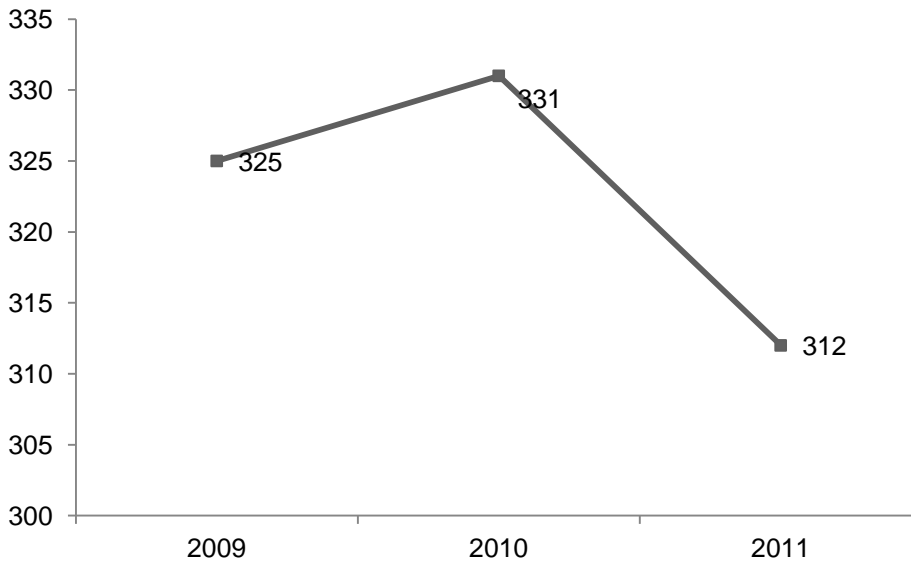
	Number	%
Total Unduplicated Clients	843	100.0%
Monolingual Spanish	34	4.0%
Homeless	32	3.8%
Transgender	1	1
Houston/Harris County residents	780	92.5%
Non-Houston/Harris County residents	63	7.5%
Active substance abuse	20	2.4%
Active psychiatric illness	29	3.4%

Source: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2011 - December 31, 2011
¹Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data.

Mental Health Services

(Graph 9) From 2009 to 2011, the average number of clients who received mental health services through the Ryan White HIV/AIDS Program in the Houston EMA was 323. Overall, the number of clients receiving this service decreased by 4.0% during this three year time period.

GRAPH 9-Total Number of Persons Receiving Mental Health Services through the Ryan White HIV/AIDS Program in the Houston EMA, from 2009 to 2011



Source: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2009 - December 31, 2011

(Table 13) In 2011, a total of 312 unduplicated clients received mental health services through the Ryan White HIV/AIDS Program in the Houston EMA. Of these, 87.5% were male, 12.5% were female, 47.1% were White, 31.4% were African American, 10.3% were under 24, 15.4% were 25 to 34, and 74.4% were age 35 and older. Compared to their proportions of the total number of persons living with HIV in the Houston EMA in 2011, men are over-represented in this service (by 13.8%), Whites are over-represented (by 22.5%) and people age 35 and older are over-represented (by 15.6%). Due to differences in data calculation methodology, reported risk cannot be compared.

TABLE 13-People Living with HIV^a and Receiving Mental Health Services^b through the Ryan White HIV/AIDS Program (RW) in the Houston EMA by Sex, Race/Ethnicity, Age, and Risk, 2011				
	Living with HIV Disease ^c		In RW Mental Health Services	
	Number	%	Number	%
Total	21,664	100.0%	312	100.0%
Sex				
Male	15,953	73.7%	273	87.5%
Female	5,691	26.3%	39	12.5%
Race/Ethnicity				
White	5,329	24.6%	147	47.1%
Black/African American	10,842	50.1%	98	31.4%
Hispanic/Latino	5,061	23.4%	¶	¶
Other/Multiple Races	412	1.9%	¶	¶
Age at Diagnosis				
0 - 24	1,262	5.8%	32	10.3%
25 - 34	4,001	18.5%	48	15.4%
35 - 44	6,094	28.2%	85	27.2%
45+	6,646	30.7%	147	47.1%
Transmission Risk^d				
Male-to-male sexual activity (MSM)	11,142	51.5%	150	48.1%
Injection drug use (IDU)	2,402	11.1%	¶	¶
MSM/IDU	1,062	4.9%	¶	¶
Heterosexual contact	6,737	31.1%	35	11.2%
Perinatal transmission	280	1.3%	11	3.5%
Adult other risk	21	0.1%	112	35.9%

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bSource: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2011 - December 31, 2011

^cHIV Disease = People living with HIV disease, regardless of AIDS status, in the Houston EMA

^dFor living cases, those with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification. This is not the case for RW primary care clients. Therefore, data on risk composition should not be used comparatively.

[¶]Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data.

(Table 14) Of clients who received mental health services in 2011 through the Ryan White HIV/AIDS Program, the majority were Houston/Harris County residents (95.2%). In addition, 5.8% were monolingual Spanish speakers, 4.2% were homeless, and 11.5% had either active substance abuse or an active psychiatric illness.

	Number	%
Total Unduplicated Clients	312	100.0%
Monolingual Spanish	18	5.8%
Homeless	13	4.2%
Transgender	0	0.0%
Houston/Harris County residents	297	95.2%
Non-Houston/Harris County residents	15	4.8%
Active substance abuse	16	5.1%
Active psychiatric illness	20	6.4%

Source: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2011 - December 31, 2011

The Houston EMA Treatment Cascade

As more has been learned about the benefits of HIV treatment both for life expectancy for people living with the disease¹ and for reductions in new HIV infections,² a national imperative has emerged to ensure that all HIV-positive persons are aware of their infection and fully engaged in HIV care to the extent that their HIV viral load is suppressed.³ To determine the degree to which this is occurring nationally, a mathematical estimation model of the number and percent of persons in the U.S. at each stage of the engagement in HIV care continuum was developed and published in 2011 by the Centers for Disease Control and Prevention (CDC).⁴ This model is now commonly known as the HIV Treatment Cascade, and it is being utilized by state and local communities to measure the extent to which they are achieving national goals.

According to the CDC Treatment Cascade, there are 1,178,350 people with HIV in the U.S. today. Of those, 79.9% are aware of their infection, and, of those aware, 51.0% are engaged in HIV medical care. In addition, 34.9% of diagnosed persons in the U.S. also have a suppressed HIV viral load. This represents 27.9% of all people estimated to be infected with HIV, including those who are unaware of their status.

(Graph 10) Applying the CDC’s methodology to Houston Area data, it is possible to develop a Houston EMA Treatment Cascade. According to the methodology, there are 26,424 people with HIV in the EMA today. Of those, 81.6% are aware of their infection, and, of those aware, 51.0% are engaged in HIV medical care. In addition, 44.7% of diagnosed persons in the EMA also have a suppressed HIV viral load. This represents 36.5% of all people in the EMA estimated to be infected with HIV, including those who are unaware of their status.

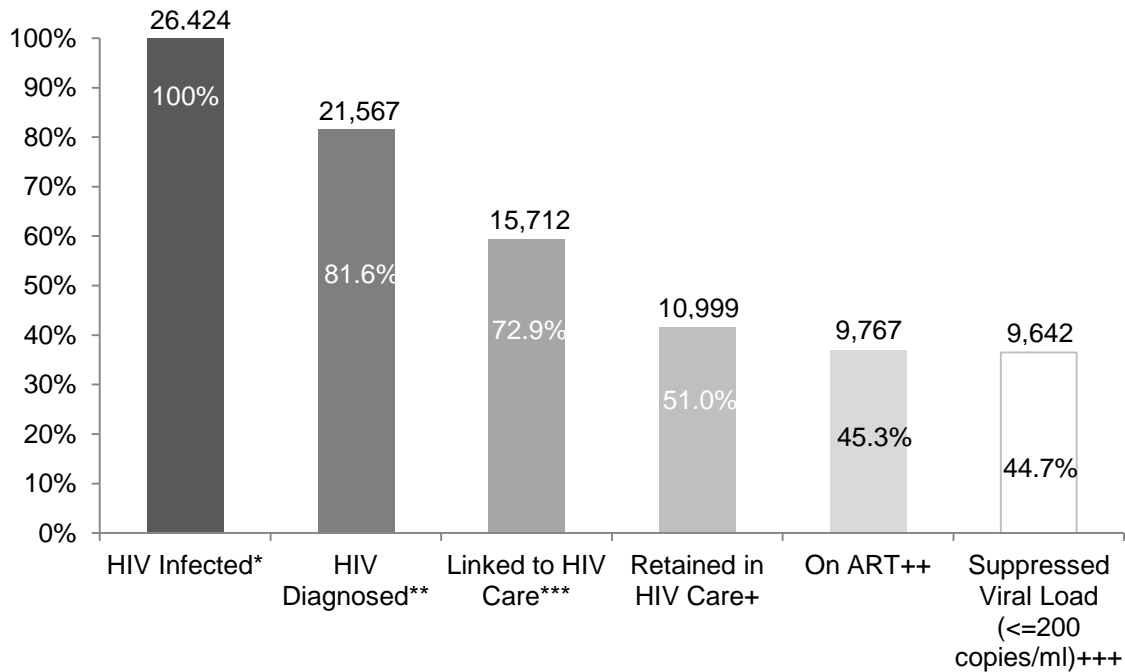
¹Nakagawaa, F. et al., Projected life expectancy of people with HIV according to timing of diagnosis, *AIDS*, 2012.

²Cohen MS, et al. Prevention of HIV-1 infection with early antiretroviral therapy. *New England Journal of Medicine*, 2011.

³National HIV/AIDS Strategy for the United States, July 2010.

⁴Centers for Disease Control and Prevention, MMWR, *Vital Signs: HIV Prevention Through Care and Treatment--United States*. December 2, 2011.

GRAPH 10-Number and Percentage of HIV-Infected Persons Engaged in Selected Stages of the Continuum of HIV Care in the Houston EMA, 2012



*Total (aware + unaware) in the Houston EMA, 2010. Source: Texas Department of State Health Services, Undiagnosed Infections by EMA/TGA, 2010. Report generated August 2012.

**No. persons who are HIV positive in 2011 in the Houston EMA. Source: Texas Department of State Health Services, Viral Loads for EMAs/TGA for Part A. Data from among adults and adolescents (>= 13 years of age as of end of the year 2011) residing in Texas diagnosed with HIV infection through 2011 and living with HIV infection on 12/31/2011.

***No. Persons with met need in 2011 in the Houston EMA. Source: Texas Department of State Health Services, Viral Loads for EMAs/TGA for Part A. Data from among adults and adolescents (>= 13 years of age as of end of the year 2011) residing in Texas diagnosed with HIV infection through 2011 and living with HIV infection on 12/31/2011.

+National extraction method: estimated number diagnosed x estimated percentage retained in care (51%) [Calculation source: Vital Signs: HIV Prevention Through Care and Treatment — United States *Weekly* December 2, 2011 / 60(47);1618-1623]

++National extraction method: estimated number retained in HIV care x percentage prescribed ART in MMP (88.8%) [Calculation source: Vital Signs: HIV Prevention Through Care and Treatment — United States *Weekly* December 2, 2011 / 60(47);1618-1623]

+++No. persons with VL<=200 (Among persons with >=1 VL test) in 2011 in the Houston EMA. Texas Department of State Health Services, Viral Loads for EMAs/TGA for Part A. Data from among adults and adolescents (>= 13 years of age as of end of the year 2011) residing in Texas diagnosed with HIV infection through 2011 and living with HIV infection on 12/31/2011.

Please note: *Graph 10* was developed in October 2012 using a preliminary methodology based on a national model and available local data. Efforts are currently underway to develop a consensus method for reliably operationalizing the model in local communities. Until then, it should be noted that *Graph 10* data are preliminary as of the date of this publication whenever results are used or presented. Please contact the authors of this document for additional information or questions about these data.



Chapter 5: Profile of the Out-of-Care in the Houston Area

What are the characteristics of persons who are HIV-positive but not in care?

“It is estimated that as many as 30 percent of people diagnosed with HIV are not accessing care. There is a need to re-engage people diagnosed with HIV who have never been in care or who have subsequently fallen out of care.”

≈ National HIV/AIDS Strategy for the United States
July 2010

Evidence shows that, with treatment, HIV infected persons may have no fewer years of life expectancy than a non-infected person living with a chronic condition.¹ Recent clinical trials have also proven a connection between a suppressed HIV viral load, most often achieved through continuous HIV treatment, and prevention of HIV transmission to others.² Communities with lower HIV viral loads tend to have fewer new HIV infections.³ Therefore, maintenance in HIV care for all persons living with HIV is a national priority.³

An examination of the number and characteristics of persons who have been diagnosed with HIV but are not in HIV care provides important information about how a local community is fairing in regards to this national goal. It provides information about the specific populations that may be experiencing barriers to HIV care and should be targeted for engagement efforts. When examined for change over time, it also provides information about the overall accessibility of a local system of HIV care.

Definitions

The Health Resources and Services Administration (HRSA) has developed a uniform definition for being out of care for HIV. According to HRSA, a person with diagnosed HIV with no evidence of any of the following in a 12 month period is considered out of care: (1) an HIV primary medical care visit, (2) a blood test to monitor HIV (either a CD4 count or a viral load test), or (3) a prescription for HIV medication. If an HIV-positive person has evidence of at least one of these services in a 12 month period, then they are considered to be in care for HIV. Oftentimes, the term “unmet need” is used interchangeably with being out of care. This is because someone who is out of care is considered to have *unmet* medical needs for HIV.

In this definition, services can be received from any health care system or payer source. Therefore, to be in care according to this definition, a person does not have to receive services from a HRSA-funded program, such as the Ryan White HIV/AIDS Program. Analyses of HIV service utilization strive to include as many different health care systems and payer sources as possible in order to produce the most thorough understanding of unmet need in a geographic area.

¹Nakagawaa, F. et al., Projected life expectancy of people with HIV according to timing of diagnosis, *AIDS*, 2012.

²Cohen MS, et al. Prevention of HIV-1 infection with early antiretroviral therapy. *New England Journal of Medicine*, 2011.

³National HIV/AIDS Strategy for the United States, July 2010.

Overall Trends in Unmet Need in the Houston Area, 2008 to 2011

(Table 1) From 2008 to 2011, both the total number and the percent of persons living with HIV/AIDS that meet the federal definition of being out of care have decreased in the Houston Eligible Metropolitan Area (EMA). In 2008, 35.7% of persons living with HIV in the EMA (or 6,807 PLWHA) were estimated to be out of care; and, in 2011, the percent was 27.1% (or 5,864 PLWHA). During the same time period, the total number of persons diagnosed with HIV in the EMA increased by 13.5% (from 19,076 to 21,664).

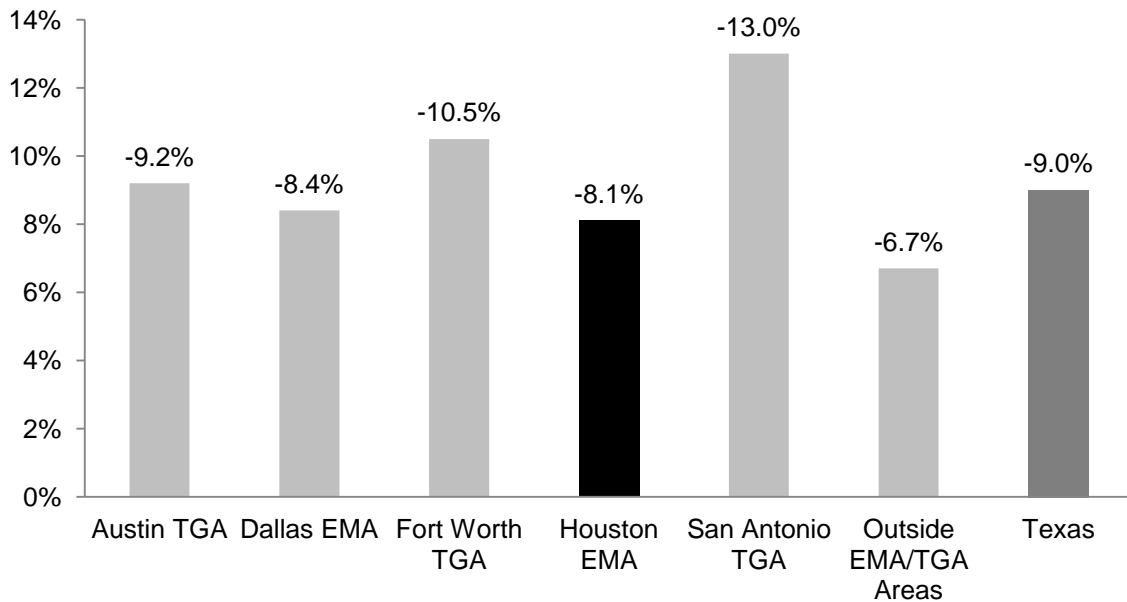
TABLE 1-Number and Percent of Persons Living with HIV/AIDS (PLWHA) and Unmet Need for HIV Care in Texas and the Houston EMA, 2008 to 2011

Year	Texas			Houston EMA		
	Total PLWHA	Number Out of Care	Percent Out of Care	Total PLWHA	Number Out of Care	Percent Out of Care
2008	59,027	21,285	36.1%	19,076	6,807	35.7%
2009	61,948	22,736	36.7%	19,959	7,133	35.7%
2010	65,077	21,553	33.1%	20,875	7,129	34.2%
2011	69,212	18,784	27.1%	21,644	5,864	27.1%
Change	17.3%	-11.8%	-9.0%	13.5%	-13.9%	-8.6%

Source: Texas Department of State Health Services, 2008-2010 Number, Percent, and Percent Change in the Number of PLWH and Unmet Need by EMA/TGA. Released 8/17/12

(Graph 1) The Houston EMA's four-year decline in unmet need is the lowest of all federally-designated geographic service areas in the state (HRSA-defined EMAs and TGAs) and lower than the state's percentage as a whole.

GRAPH 1-Change in Percent of Persons Living with HIV/AIDS (PLWHA) Who Are Out of Care by HRSA Geographic Service Area in Texas, 2008 to 2011



Source: Texas Department of State Health Services, 2008-2010 Number, Percent, and Percent Change in the Number of PLWH and Unmet Need by EMA/TGA. Released 8/17/12

Profile of Persons with Unmet Need in the Houston EMA, 2011

(Table 2) In 2011, there were 5,864 people diagnosed with HIV/AIDS in the Houston EMA determined to be out of care according to the federal definition. Of these, a larger proportion of people with HIV (not progressed to AIDS) compared to those with an AIDS diagnosis, men compared to women, Hispanic/Latinos compared to other races/ethnicities, young adults (age 25 to 34) compared to other age groups, and injection drug users (IDU) compared to other risk categories were out of care.

	Texas		Houston EMA	
	Number	Percent ^b	Number	Percent ^b
Total	10,931	27.1%	5,864	27.1%
Disease Stage				
HIV (not AIDS)	10,931	35.5%	3,488	37.2%
AIDS Diagnosis	7,853	20.5%	2,376	19.4%
Sex				
Male	14,855	27.6%	4,428	27.8%
Female	3,929	25.6%	1,436	25.2%
Race/Ethnicity				
White	4,761	21.8%	1,168	21.9%
Black/African American	8,223	30.8%	3,038	28.0%
Hispanic/Latino	5,455	28.6%	1,562	30.9%
Other/Multiple Races	236	31.5%	81	29.5%
Age at Diagnosis				
Under 2	3	10.5%	1	16.7%
2 - 12	60	27.4%	15	21.1%
13 - 24	1,068	29.2%	368	31.1%
25 - 34	3,864	31.0%	1,238	30.9%
35 - 44	5,612	29.0%	1,738	28.5%
45 - 54	5,370	23.9%	1,558	23.4%
55+	2,808	25.4%	946	26.0%
Transmission Risk^c				
Male-to-male sexual activity (MSM)	9,411	24.4%	2,941	26.4%
Injection drug use (IDU)	3,192	35.9%	722	30.2%
MSM/IDU	1,367	31.9%	272	25.7%
Heterosexual contact	4,591	27.6%	1,858	27.6%
Perinatal transmission	183	25.7%	63	22.5%
Adult other risk	39	29.8%	8	38.1%

^aSource: Texas Department of State Health Services, Number & Proportion of PLWHA with Unmet Need for Medical Care by EMA/TGA, 2011. Released 8/17/12

^bRepresents the percent of each category in the geographic area that meets the standard definition of being out of care; and not the distribution of people that meets the standard definition of being out of care

^cCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

(Table 2) The proportions of each group that are out of care in the Houston EMA are comparable (within up to 3 ± percentage points difference) to the proportions for the state of Texas as a whole, with two notable exceptions: (1) a lower proportion (6.3%↓) of persons under age 12 is out of care in the Houston EMA compared to Texas, and (2) lower proportions of persons with any type of IDU risk (5.7%↓ for IDU alone and 6.2%↓ for IDU combined with male-to-male sexual activity or MSM) are out of care in the Houston EMA compared to the state.

Disproportional Impact of Unmet Need in the Houston EMA, 2011

Within the demographic groups with larger proportions out of care in the Houston EMA in 2011 (Table 1), there were additional sub-groups whose unmet need was further disproportional, meaning that the proportion of the sub-group that was out of care in 2011 exceeded the total proportion out of care for the larger group. For example, a larger proportion of people with an HIV diagnosis (not progressed to AIDS) were out of care in 2011 in the EMA when compared to people with an AIDS diagnosis. Within the group of persons with an HIV diagnoses (not progressed to AIDS) who were out of care that year, a larger proportion of them were men, African Americans, and injection drug users (IDU). These groups would be considered to have disproportional unmet need. Other groups in the EMA with disproportional unmet need according to this analysis are:

- African American males (46.3% out of care)
- African American men with male-to-male sexual activity (MSM) (30.1% out of care)
- Hispanic/Latino men with male-to-male sexual activity (MSM) (30.0% out of care)
- Injection drug users (IDU), particularly Hispanic/Latino male IDU (44.0% out of care)
- Heterosexual men, particularly Hispanic/Latino heterosexual men (37.6% out of care)
- Persons living in specific zip codes in the Houston EMA (**Table 3**)

TABLE 3-Zip Codes in the Houston EMA with Unmet Need Proportions Exceeding Total EMA Unmet Need, 2011		
	Number	Percent
Total EMA	5,864	27.1%
Zip Code (in order, highest to lowest percent)		
77032	89	59.7%
77036	177	35.3%
77004	187	34.5%
77057	98	34.0%
77081	121	33.5%
77074	74	31.4%
77060	81	31.3%
77042	77	29.1%
77020	73	28.5%
77082	71	28.4%
77026	133	27.9%

Source: Texas Department of State Health Services, Unmet Need by Zip Code, 2011. Released 8/17/12



Chapter 6: Special Topics in HIV/AIDS Epidemiology in the Houston Area

What is the HIV/AIDS burden among specific populations in the Houston Area?

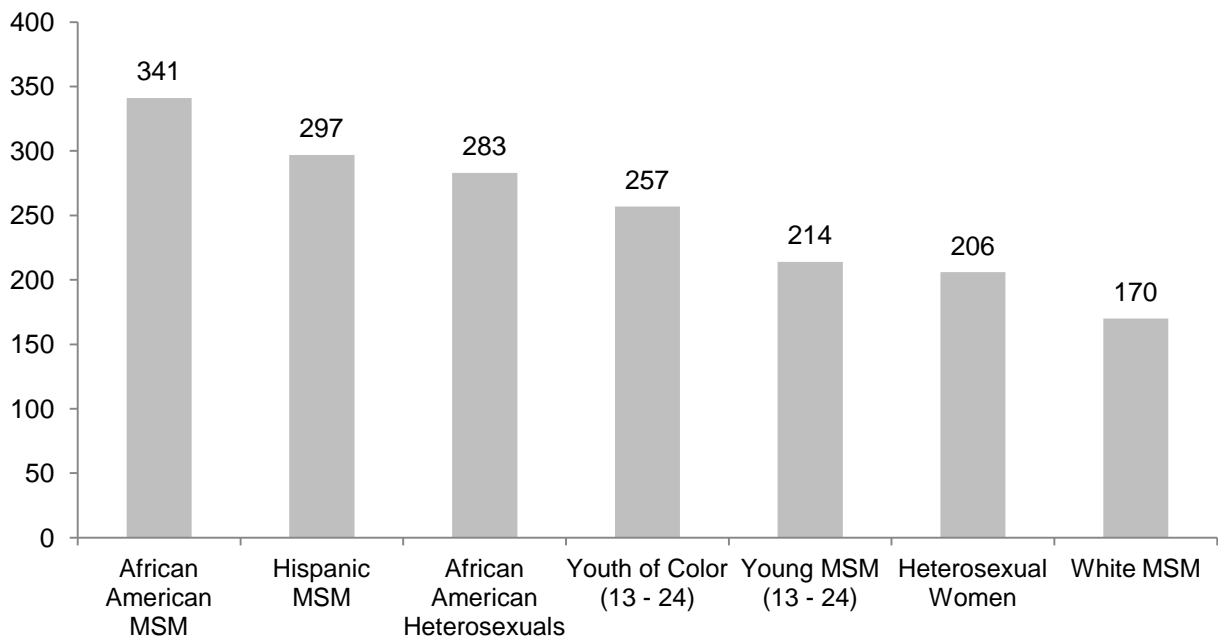
“Monitoring the burden of the [HIV] epidemic among specific population groups provides guidance for targeting prevention and treatment efforts and allows assessment of intervention success.”

➤ CDC Health Disparities and Inequalities Report
January 2011

While all people are equally at risk for HIV infection, some populations bear a disproportionate burden of the disease.¹ Nationally, gay and bisexual men (MSM), African Americans, Hispanic/Latinos, injection drug users (IDU), and transgender persons have been hardest-hit by the HIV epidemic.¹ Moreover, the subpopulations of White MSM, African American MSM, Hispanic MSM, and African American heterosexuals have the largest numbers of new HIV infections in the U.S. today.¹

(Graph 1) In the Houston Area, MSM, African Americans, and Hispanic/Latinos had the largest numbers of new HIV diagnoses in 2011. At the subpopulation level, African American MSM, Hispanic MSM, African American heterosexuals, and young MSM (age 13 – 24) of color were also hardest-hit.

GRAPH 1-Subpopulations with the Largest Numbers of New HIV Diagnoses in the Houston Eligible Metropolitan Area (EMA), 2011



Source: Texas eHARS. Living HIV cases as of 12/31/11

¹Centers for Disease Control and Prevention. *High-Impact Prevention: CDC's Approach to Reducing HIV Infections in the United States*, August 2011.

Because of such patterns in the epidemiology, it is encouraged that epidemiological profiles include information about HIV disease in populations that have been historically disproportionately impacted in their local community, so that the needs of these groups can be considered in HIV prevention and care planning. This chapter will present data on new HIV diagnoses and persons living with HIV disease for the following disproportionately impacted groups in the Houston Area:

1. African Americans
2. Hispanic/Latinos
3. Homeless
4. Incarcerated
5. Injection Drug Users (IDU)
6. Men Who Have Sex with Men (MSM), including MSM of Color (MSMOC) and Young MSM (MSM age 13 to 24) (YMSM)
7. Rural
8. Seniors (age 55+)
9. Transgender
10. Women of Childbearing Age (age 13 to 44)
11. Youth (age 13 to 24), including Adolescents (age 13 to 17)

It will also present data on co-infection between HIV and two non-HIV infections of epidemiological significance:

1. HIV and Active TB Disease
2. HIV and Infectious Syphilis
3. HIV and Hepatitis B and C

African Americans

(Table 1 and Table 2) In 2011, 651 African Americans were diagnosed with HIV in Houston/Harris County. When the jurisdiction of analysis is expanded to the Houston EMA, there were an additional 23 African Americans newly diagnosed in 2011 for a total of 674. For both jurisdictions, African Americans were roughly half of all new HIV diagnoses in that year. When compared to all new HIV diagnoses in Houston/Harris County in 2011 regardless of race, larger proportions of newly diagnosed African Americans were (1) female (32.0% v. 23.5%) and (2) heterosexual (41.9% v. 31.2%).

AFRICAN AMERICANS TABLE 1-New Diagnoses of HIV and Persons Living with HIV in Houston/Harris County by Sex, Age, and Risk^a						
	New HIV Disease ^b			Persons Living with HIV ^c		
	Cases	%	Rate ^d	Cases	%	Rate ^d
Total African American	651	100.0%	88.1	10,000	100.0%	1294.2
Sex						
Male	443	68.0%	127.0	6,331	63.3%	1750.1
Female	208	32.0%	53.4	3,669	36.7%	892.8
Age at Diagnosis						
0 - 12	5	0.8%	3.4	48	0.5%	30.4
13 - 24	185	28.4%	130.6	731	7.3%	492.2
25 - 34	173	26.6%	156.4	2,170	21.7%	1809.4
35 - 44	130	20.0%	124.3	2,929	29.3%	2721.8
45 - 54	102	15.7%	100.6	2,784	27.8%	2631.3
55+	56	8.6%	41.9	1,338	13.4%	1007.3
Transmission Risk^e						
Male-to-male sexual activity (MSM)	323	49.6%	*	3,598	36.0%	*
Injection drug use (IDU)	41	6.3%	*	1,591	15.9%	*
MSM/IDU	8	1.2%	*	487	4.9%	*
Heterosexual contact	273	41.9%	*	4,157	41.6%	*
Perinatal transmission/other	7	1.1%	*	167	1.7%	*
Total All Races/Ethnicities	1,249	100.0%	29.9	20,022	100.0%	489.2

^aSource: Houston/Harris County eHARS

^bNew HIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in Houston/Harris County in 2011

^cPLWH = People living with HIV disease, regardless of AIDS status, in Houston/Harris County in 2010

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection:

<http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

^ePatients with no risk reported were recategorized into standard categories using the multiple imputation or risk program of the Centers for Disease Control and Prevention (CDC)

*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

Roughly half of all people *living* with HIV in Houston/Harris County and in the Houston EMA is also African American at 10,000 and 10,842 persons, respectively. When compared to all people living with HIV in the Houston EMA in 2011 regardless of race, larger proportions of HIV positive African Americans were again (1) female (36.9% v. 26.3%) and (2) heterosexual (41.9% v. 31.1%). However, prevalence rates remain highest among male African Americans at 1,566 for every 100,000 population.

AFRICAN AMERICANS TABLE 2-New Diagnoses of HIV and Persons Living with HIV in the Houston EMA by Sex, Age, and Risk^a							
	New HIV Disease ^b			Persons Living with HIV ^c			
	Cases	%	Rate ^d	Cases	%	Rate ^d	
Total African American	674	100.0%	73.2	10,842	100.0%	1177.8	
Sex							
Male	451	66.9%	103.3	6,837	63.1%	1565.8	
Female	223	33.1%	46.1	4,005	36.9%	827.6	
Age at Diagnosis							
0 - 12	¶	¶	¶	¶	¶	¶	
13 - 24	¶	¶	¶	818	7.5%	439.1	
25 - 34	185	27.4%	140.8	2,272	21.0%	1729.7	
35 - 44	127	18.8%	101.6	3,059	28.2%	2447.0	
45 - 54	106	15.7%	76.9	3,071	28.3%	2227.9	
55+	55	8.2%	32.9	1,573	14.5%	939.9	
Transmission Risk^e							
Male-to-male sexual activity (MSM)	332	49.3%	*	3,951	36.4%	*	
Injection drug use (IDU)	46	6.8%	*	1,660	15.3%	*	
MSM/IDU	9	1.3%	*	489	4.5%	*	
Heterosexual contact	283	42.0%	*	4,548	41.9%	*	
Perinatal transmission/other	5	0.7%	*	194	1.8%	*	
Total All Races/Ethnicities	1,334	100.0%	24.5	21,664	100.0%	397.6	

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bNew HIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in the Houston EMA in 2011

^cPLWH = People living with HIV disease, regardless of AIDS status, with residence at diagnosis in the Houston EMA in 2011

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection:

<http://www.dshs.state.tx.us/chs/popdat/detailX.shtml>

^eCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

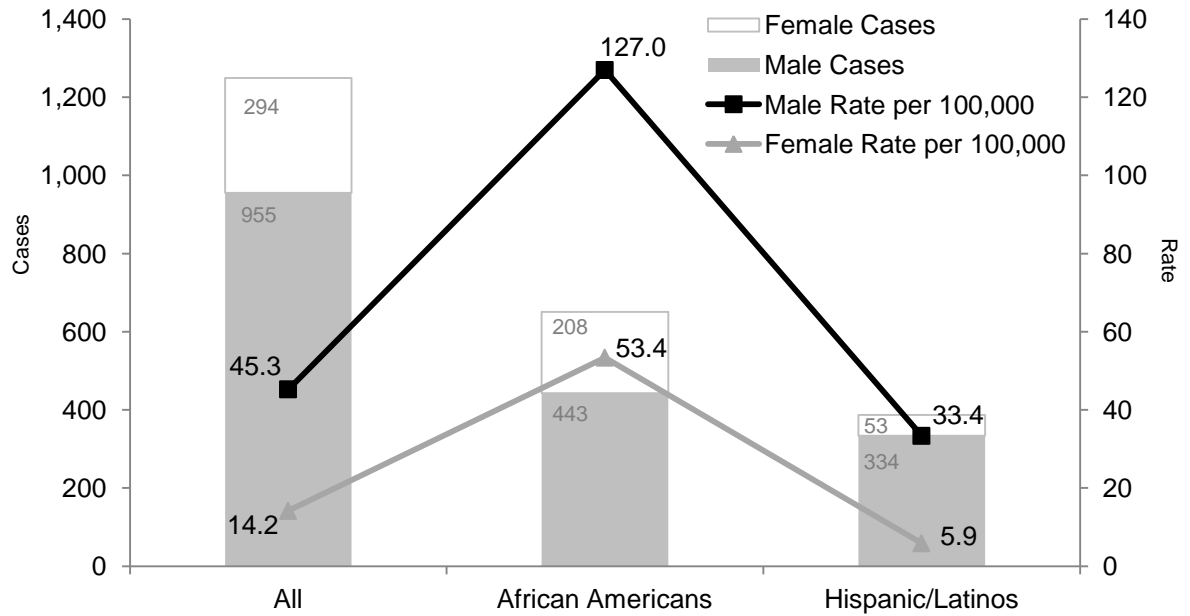
*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

¶Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

(Graph 1) A subpopulation analysis of new HIV diagnoses by race/ethnicity and sex in Houston/Harris County in 2011 reveals that the highest rate of new HIV cases occurred in African American males. In 2011, their rate of new HIV diagnoses in Houston/Harris County was 127 cases for every 100,000 African American males in the jurisdiction compared to 45 per 100,000 for all males in Houston/Harris County and 53 per 100,000 for African American females in Houston/Harris County.

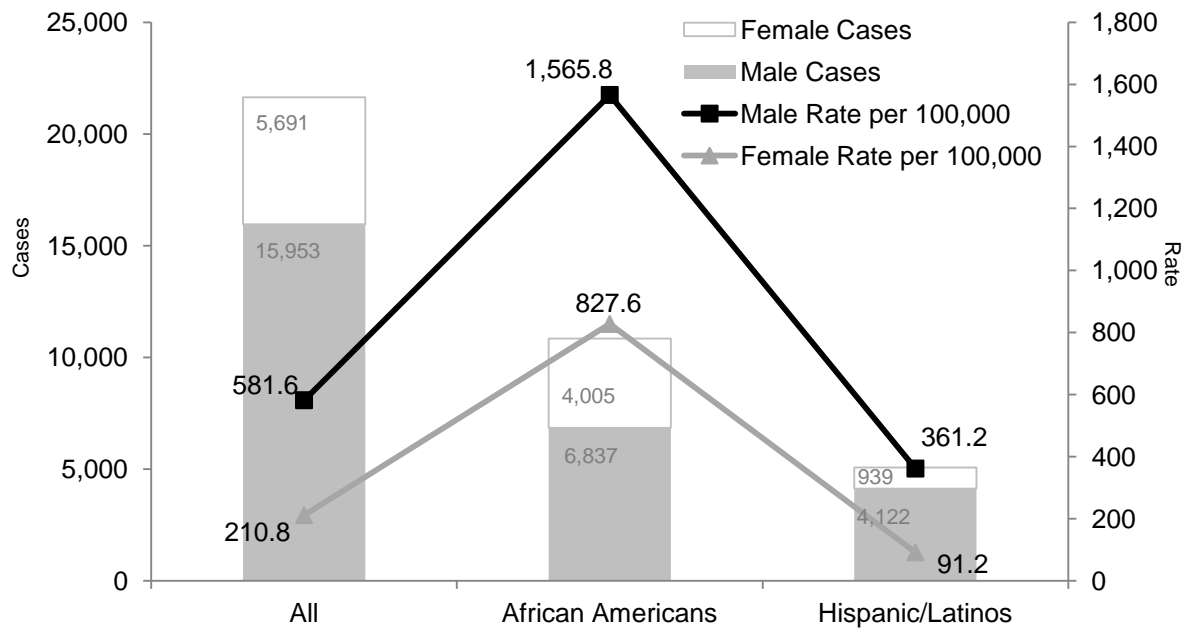
(Graph 2) A subpopulation analysis of people living with HIV by race/ethnicity and sex in the Houston EMA in 2011 reveals that almost one third (31.6%) of all people living with HIV are African American males. About 19% of all people living with HIV in the Houston EMA are African American females.

AFRICAN AMERICANS GRAPH 1-Number of Cases and Rates of New HIV Diagnoses in Houston/Harris County by Sex and Race/Ethnicity, 2011



Source: Houston/Harris County eHARS

AFRICAN AMERICANS GRAPH 2-Number of Cases and Rates of People Living with HIV in the Houston EMA by Sex and Race/Ethnicity, 2011



Source: Texas eHARS. Living HIV cases as of 12/31/11

Hispanic/Latinos

(Table 1 and Table 2) In 2011, 387 Hispanic/Latinos were diagnosed with HIV in Houston/Harris County. When the jurisdiction of analysis is expanded to the Houston EMA, there were an additional 23 Hispanic/Latinos newly diagnosed in 2011 for a total of 410. For both jurisdictions, Hispanic/Latinos were roughly 31% of all new HIV diagnoses in that year. When compared to all new HIV diagnoses in Houston/Harris County in 2011 regardless of race, larger proportions of newly diagnosed Hispanic/Latinos were (1) male (86.3% v. 76.5%) and (2) MSM (72.1% v. 60.8%).

HISPANIC/LATINOS TABLE 1-New Diagnoses of HIV and Persons Living with HIV in <i>Houston/Harris County</i> by Sex, Age, and Risk^a						
	New HIV Disease ^b			Persons Living with HIV ^c		
	Cases	%	Rate ^d	Cases	%	Rate ^d
Total Hispanic/Latino	387	100.0%	20.3	4,585	100.0%	274.3
Sex						
Male	334	86.3%	33.4	3,738	81.5%	435.2
Female	53	13.7%	5.9	847	18.5%	104.2
Age at Diagnosis						
0 - 24	78	20.2%	10.2	235	5.1%	29.8
25 - 34	134	34.6%	31.6	1,062	23.2%	351.1
35 - 44	102	26.4%	27.6	1,566	34.2%	624.5
45 - 54	46	11.9%	25.1	1,241	27.1%	711.2
55+	27	7.0%	17.1	481	10.5%	307.9
Transmission Risk^e						
Male-to-male sexual activity (MSM)	279	72.1%	*	2,778	60.6%	*
Injection drug use (IDU)	18	4.7%	*	266	5.8%	*
MSM/IDU	11 ^N	2.8% ^N	*	174	3.8%	*
Heterosexual contact	80	20.7%	*	1,304	28.4%	*
Perinatal transmission/other	†	†	*	63	1.4%	*
Total All Race/Ethnicities	1,249	100.0%	29.9	20,022	100.0%	489.2

^aSource: Houston/Harris County eHARS

^bNew HIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in Houston/Harris County in 2011

^cPLWH at end of 2010 = People living with HIV disease, regardless of AIDS status, in Houston/Harris County at the end of 2010

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection:

<http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

^ePatients with no risk reported were recategorized into standard categories using the multiple imputation or risk program of the Centers for Disease Control and Prevention (CDC)

*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

[†]MSM/IDU, perinatal, and other were combined since the perinatal category had less than 5 cases and had to be suppressed to ensure confidentiality of cases and reliability of data

Roughly 23% of all people *living* with HIV in Houston/Harris County and in the Houston EMA is also Hispanic/Latino at 4,585 and 5,061 persons, respectively. When compared to all people living with HIV in the EMA in 2011 regardless of race, larger proportions of HIV positive Hispanic/Latinos were again (1) male (81.4% v. 73.7%) and (2) MSM (61.0% v. 51.5%).

HISPANIC/LATINOS TABLE 2-New Diagnoses of HIV and Persons Living with HIV in the Houston EMA by Sex, Age, and Risk^a						
	New HIV Disease ^b			Persons Living with HIV ^c		
	Cases	%	Rate ^d	Cases	%	Rate ^d
Total Hispanic/Latino	410	100.0%	18.9	5,061	100.0%	233.1
Sex						
Male	348	84.9%	30.5	4,122	81.4%	361.2
Female	62	15.1%	6.0	939	18.6%	91.2
Age at Diagnosis						
0 - 12	†	†	†	0	0.0%	0.0
13 - 24	†	†	†	255	5.0%	19.1
25 - 34	136	33.2%	29.0	1,135	22.4%	104.8
35 - 44	103	25.1%	24.8	1,669	33.0%	247.8
45 - 54	49	12.0%	22.4	1,390	27.5%	456.3
55+	28	6.8%	15.2	593	11.7%	247.2
Transmission Risk^e						
Male-to-male sexual activity (MSM)	288	70.2%	*	3,086	61.0%	*
Injection drug use (IDU)	20	4.9%	*	305	6.0%	*
MSM/IDU	9	2.2%	*	174	3.4%	*
Heterosexual contact	90	22.0%	*	1,428	28.2%	*
Perinatal transmission/other	†	†	*	68	1.3%	*
Total All Races/Ethnicities	1,334	100.0%	24.5	21,664	100.0%	397.6

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bNew HIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in the Houston EMA in 2011

^cPLWH = People living with HIV disease, regardless of AIDS status, with residence at diagnosis in the Houston EMA in 2011

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection:

<http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

^eCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

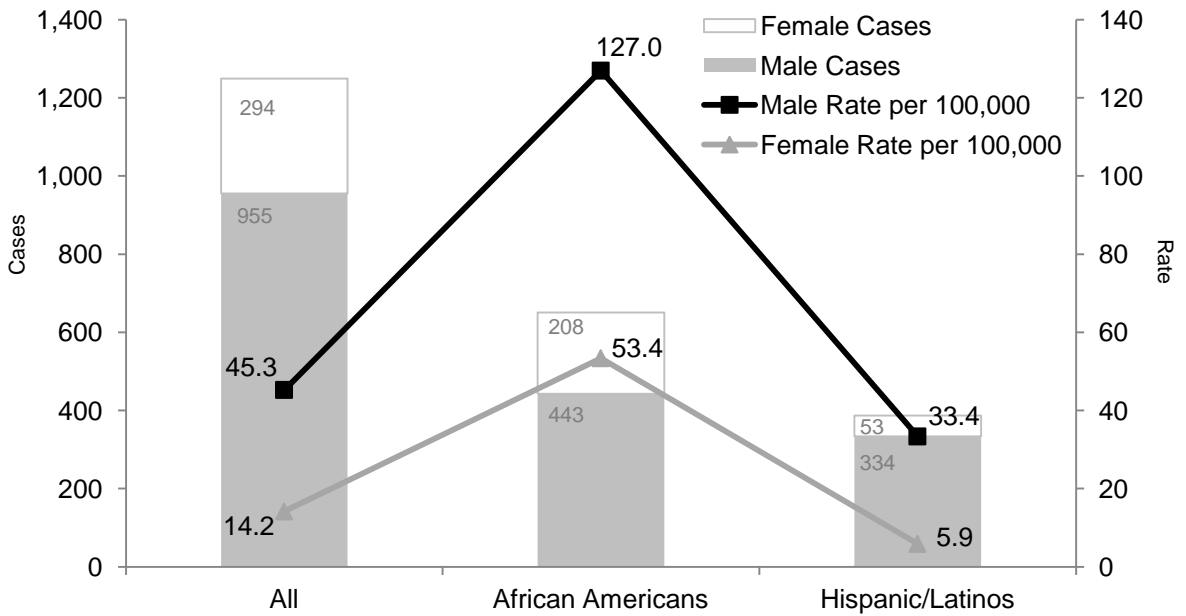
*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

†Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

(Graph 1) A subpopulation analysis of new HIV diagnoses by race/ethnicity and sex in Houston/Harris County in 2011 reveals that the highest rate of new HIV cases occurred in African American males. In 2011, Hispanic/Latino males had a rate of new HIV diagnoses of 33 cases for every 100,000 Hispanic/Latino males in Houston/Harris County compared to 127 per 100,000 for African American males, 45 per 100,000 for all males, and 6 per 100,000 for Hispanic/Latino females.

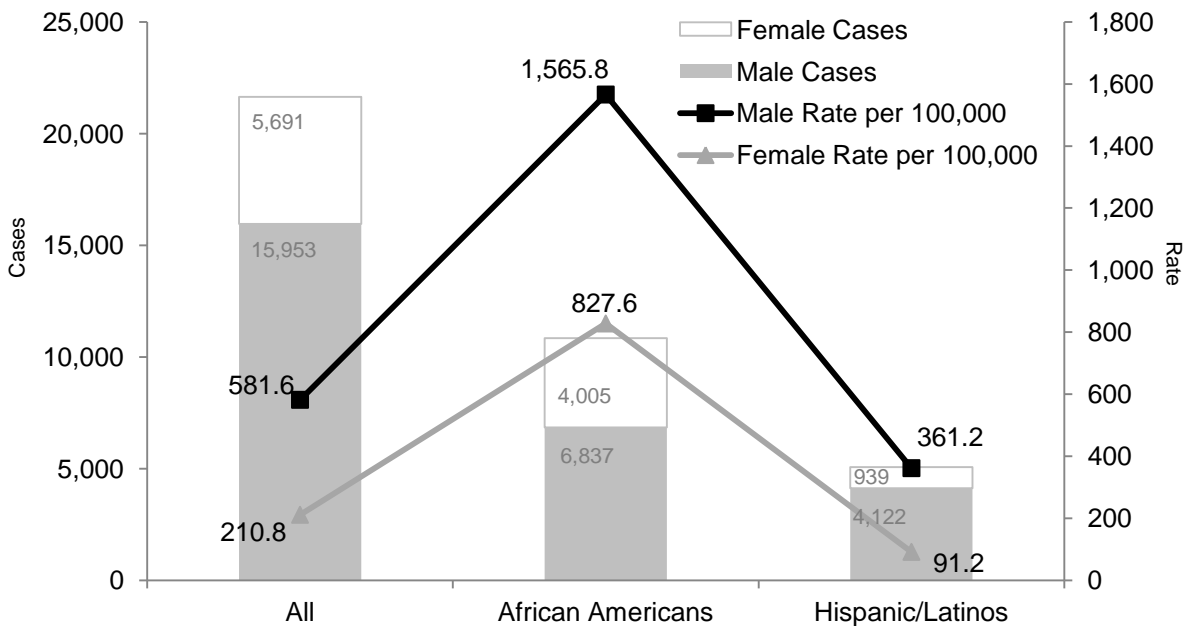
(Graph 2) A subpopulation analysis of people living with HIV by race/ethnicity and sex in the Houston EMA in 2011 reveals that almost 20% of all people living with HIV are Hispanic/Latino males. About 4% of all people living with HIV in the Houston EMA are Hispanic/Latino females. The highest single proportion of people living with HIV in the Houston EMA is African American males at 31.6%.

HISPANIC/LATINOS GRAPH 1-Number of Cases and Rates of New HIV Diagnoses in Houston/Harris County by Sex and Race/Ethnicity, 2011



Source: Houston/Harris County eHARS

HISPANIC/LATINOS GRAPH 2-Number of Cases and Rates of People Living with HIV in the Houston EMA by Sex and Race/Ethnicity, 2011



Source: Texas eHARS. Living HIV cases as of 12/31/11

Homeless

A point-in-time (PIT) count of homeless persons is conducted annually in most major cities and towns across the country.¹ The purpose of the count is to approximate the number of homeless individuals in a defined geographic area according to the Department of Housing and Urban Development (HUD) definition of homelessness, which is: persons staying in emergency shelter, transitional housing, or safe haven with beds dedicated for homeless persons; plus those persons who are unsheltered (i.e., staying in a place not meant for human habitation).¹ Commonly referred to as a homeless enumeration, the last PIT count for the Houston Area took place in January 2012 in Harris and Fort Bend Counties.¹

According to the Harris and Fort Bend Counties PIT count, there were 7,356 homeless individuals in Harris and Fort Bend Counties in 2012.¹ This calculates into 0.16% of the total population of the two counties, or 1 out of every 636 residents, being homeless in 2012.¹ The number of homeless persons in the two counties decreased from 2011 by 13.8% or 1,182 fewer homeless individuals according to the HUD definition.¹

Of those currently homeless in Harris and Fort Bend Counties, it is estimated that 1 out of every 12, or 8.9%, has been diagnosed with HIV.² In addition, 1.6% of homeless persons report that they were triggered into homelessness by an HIV diagnosis.²

(Table 1) In 2011, 476 persons who received HIV care through the Ryan White HIV/AIDS Program in the Houston EMA were indicated as homeless. Of these, 75.0% were male, 23.7% were female, and 1.3% was transgender. In addition, 15.3% were White, 55.7% were African American, and 27.3% were Hispanic/Latino. About two-thirds (66.4%) were age 35 and older, and one-third (33.6%) was under age 35; 7.4% were age 13 to 24. About one quarter (25.2%) indicated male-to-male sexual activity (MSM), 33.4% indicated heterosexual contact, and 33.6% reported no known risk or other risk.

Compared to the proportions of all persons in HIV care in the Houston EMA in 2011, homeless persons who are in care are more male (+2.0%), more African American and Hispanic/Latino (+6.2% and +5.1%, respectively), and younger (+10.5% more persons under age 35) than in the general in care population in the EMA. Due to differences in data calculation methodology, reported risk cannot be compared.

(Table 2) In 2011, the proportion of homeless persons living with HIV in the Houston EMA who were not in HIV care was 2.5 times the proportion of non-homeless persons living with HIV. 62% of homeless persons living with HIV in the EMA were not in HIV care in 2011. This is a slightly lower percentage than for the state as a whole.

¹Houston/Harris County/Fort Bend County Point-in-Time Enumeration 2012 Executive Summary. Prepared by Catherine Troisi, Ph.D., Enumerator, and the Coalition for the Homeless of Houston/Harris County, May 2012

²Troisi, CL, et al., Perceived Needs of Homeless Persons in Houston/Harris County. Prepared for the Coalition for the Homeless of Houston/Harris County, 2012

HOMELESS TABLE 1-Persons Receiving HIV Care in the Houston EMA by Sex, Race/Ethnicity, Age, Risk, and Homeless Status, 2011

	Homeless Persons in the Ryan White HIV/AIDS Program ^a		All Persons in HIV Care ^b
	Cases	%	%
Total	476	100.0%	100.0%
Sex			
Male	357	75.0%	73.0%
Female	113	23.7%	27.0%
Transgender	6	1.3%	^c
Race/Ethnicity			
White	73	15.3%	26.4%
Black/African American	265	55.7%	49.5%
Hispanic/Latino	130	27.3%	22.2%
Other/Multiple Races	8	1.7%	2.0%
Age at Diagnosis			
0 - 12	0	0.0%	0.4%
13 - 24	35	7.4%	5.2%
25 - 34	125	26.3%	17.5%
35 - 44	147	30.9%	27.6%
45 - 54	122	25.6%	32.2%
55+	47	9.9%	17.1%
Transmission Risk^d			
Male-to-male sexual activity (MSM)	120	25.2%	52.1%
Injection drug use (IDU)	24	5.0%	10.6%
Heterosexual contact	159	33.4%	30.9%
Other/unknown	173	36.3%	6.5%

^aSource: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2011 - December 31, 2011

^bSource: Texas Department of State Health Services, Number & Proportion of PLWHA with Unmet Need for Medical Care by EMA/TGA, 2011. Released 8/17/12. Data reflect persons in HIV care not limited to the Ryan White HIV/AIDS Program.

^cTransgender is not collected for the denominator of all persons in HIV care in the Houston EMA

^dCases with unknown risk have been redistributed for the denominator of all persons in HIV care only

HOMELESS TABLE 2-Percent of Persons Living with HIV in the Houston EMA with Unmet Need for HIV Care by Type of Residence, 2011

	Houston EMA	Texas
Total Unmet Need	27.6%	27.9%
All Housed (house, apartment, etc.)	27.4%	25.9%
Homeless	62.4%	64.5%
In Jail	19.4%	20.3%
In Other Detention (not state prison)	63.0%	58.4%

Source: Texas Department of State Health Services, Homeless, Insurance, and Poverty, 2011. Released 8/17/12

Incarcerated

(Table 1) The average number of people incarcerated in public jail facilities in the Houston EMA in 2012 was 10,898. This equates to a rate of incarceration of 2.06 persons incarcerated for every 1,000 persons residing in the EMA, a rate lower than the statewide rate of 2.29 persons incarcerated for every 1,000 Texas residents. Within counties in the EMA, the incarceration rate is highest in Chambers County at 2.93 persons incarcerated for every 1,000 residents while the volume of incarcerated persons is highest in Houston/Harris County at 8,861 total persons incarcerated.

INCARCERATED TABLE 1-Number and Rate of Incarcerated Persons in the Houston EMA by County, 2012^a			
County	Total Population-2010 ^b	Average Daily Incarcerated Population	Incarceration Rate ^c
Chambers	35,096	103	2.93
Fort Bend	585,375	779	1.33
Harris (incl. Houston)	4,092,459	8,861	2.17
Liberty	75,643	141	1.86
Montgomery	455,746	940	2.06
Waller	43,205	74	1.71
EMA Total	5,287,524	10,898	2.06
Texas Total	25,179,476	57,591	2.29

^aSource: Texas Commission on Jail Standards, Incarceration Rate Report - Highest to Lowest, January 1, 2013

^bSource: U.S. Census (2010). Profile of General Population and Housing Characteristics. 2010 Census Summary File 1. Retrieved on 1/31/13.

^cRate is per 1,000 population

(Table 2) In 2011, 65 persons were incarcerated at the time of their HIV diagnosis in Houston/Harris County. This represents 5.2% of all new HIV diagnoses reported in the jurisdiction in that year and 0.7% of the average daily incarcerated population in Houston/Harris County.

Of those incarcerated at the time of HIV diagnosis, 90.8% were male, 58.5% were African American, and 58.5% reported male-to-male sexual activity (MSM). When compared to all new HIV diagnoses in Houston/Harris County in 2011, larger proportions of newly diagnosed inmates were (1) male (90.8% v. 76.5%), (2) African American (58.5% v. 52.1%), and (3) between 13 and 24 years of age (24.6% v. 22.9%). Due to differences in data calculation methodology, reported risk cannot be compared.

INCARCERATED TABLE 2-New Diagnoses of HIV Disease in Houston/Harris County by Sex, Race/Ethnicity, Age, Risk, and Incarceration Status, 2011^a				
	New HIV Disease, Incarcerated ^b		New HIV Disease, All	
	Cases	%	Cases	%
Total	65	100.0%	1,249	100.0%
Sex				
Male	59	90.8%	955	76.5%
Female	6	9.2%	294	23.5%
Race/Ethnicity				
White	5	7.7%	178	14.3%
Black/African American	38	58.5%	651	52.1%
Hispanic/Latino	20	30.8%	387	31.0%
Other/Multiple Races	¶	¶	33	2.6%
Age at Diagnosis				
0 - 12	0	0.0%	8	0.6%
13 - 24	16	24.6%	286	22.9%
25 - 34	17	26.2%	364	29.1%
35 - 44	19	29.2%	298	23.9%
45+	13	20.0%	293	23.5%
Transmission Risk^c				
Male-to-male sexual activity (MSM)	38	58.5%	759	60.8%
Heterosexual contact	14	21.5%	389	31.1%
Other adult risk/unknown [*]	12	18.5%	100	8.0%

^aSource: Houston/Harris County eHARS

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in Houston/Harris County in 2011. This dataset reflects individuals who were incarcerated at the time of their HIV diagnosis.

^cPatients with no risk reported were recategorized into standard categories using the multiple imputation or risk program of the Centers for Disease Control and Prevention (CDC)

^dData has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data. New HIV for MSM/IDU, perinatal, and other were combined for this reason.

^e"Other adult risk/unknown" includes MSM/IDU, other adult risk, and unknown/unidentified risk

(Table 3) The Ryan White HIV/AIDS Program in the Houston EMA supports services to HIV positive inmates at the Harris County Jail. These services are specific to pre-discharge planning for the purpose of connecting infected inmates to community-based HIV care, treatment, and support services post-release. In 2011, 1,108 persons received this service while incarcerated at the Harris County Jail.

Of these, 79.4% were male, 19.5% were female, and 1.1% was transgender. In addition, 14.8% were White, 70.7% were African American, and 13.3% were Hispanic/Latino. About two-thirds (69.4%) were age 35 and older, and one-third (30.6%) was under age 35; 6.6% were age 13 to 24. Most (45.3%) reported heterosexual contact, and 31.2% reported no known risk or other risk.

INCARCERATED TABLE 3-Persons Receiving HIV Care in the Houston EMA by Sex, Race/Ethnicity, Age, Risk, and Incarceration Status, 2011

	Incarcerated Persons in the Ryan White HIV/AIDS Program ^a		All Persons in HIV Care ^b
	Cases	%	%
Total	1,108	100.0%	100.0%
Sex			
Male	880	79.4%	73.0%
Female	216	19.5%	27.0%
Transgender	12	1.1%	^c
Race/Ethnicity			
White	164	14.8%	26.4%
Black/African American	783	70.7%	49.5%
Hispanic/Latino	147	13.3%	22.2%
Other/Multiple Races	14	1.3%	2.0%
Age at Diagnosis			
0 - 12	0	0.0%	0.4%
13 - 24	73	6.6%	5.2%
25 - 34	266	24.0%	17.5%
35 - 44	338	30.5%	27.6%
45 - 54	361	32.6%	32.2%
55+	70	6.3%	17.1%
Transmission Risk^d			
Male-to-male sexual activity (MSM)	207	18.7%	52.1%
Injection drug use (IDU)	53	4.8%	10.6%
Heterosexual contact	502	45.3%	30.9%
Other adult risk /unknown ^e	346	31.2%	6.5%

^aSource: Harris County Public Health Services, Ryan White Grant Administration. Centralized Patient Care Data Management System (CPCDMS) Reporting Period: January 1, 2011 - December 31, 2011. The incarceration location for this dataset is the Harris County Jail. The service received is community-based case management (Service Linkage) for linkage to HIV primary medical care post-release. HIV primary medical care while incarcerated is provided by another funding source.

^bSource: Texas Department of State Health Services, Number & Proportion of PLWHA with Unmet Need for Medical Care by EMA/TGA, 2011. Released 8/17/12. Data reflect persons in HIV care not limited to the Ryan White HIV/AIDS Program.

^cTransgender is not collected for the denominator of all persons in HIV care in the Houston EMA

^dCases with unknown risk have been redistributed for the denominator of all persons in HIV care only

^eOther adult risk/unknown" includes MSM/IDU, other adult risk, and unknown/unidentified risk

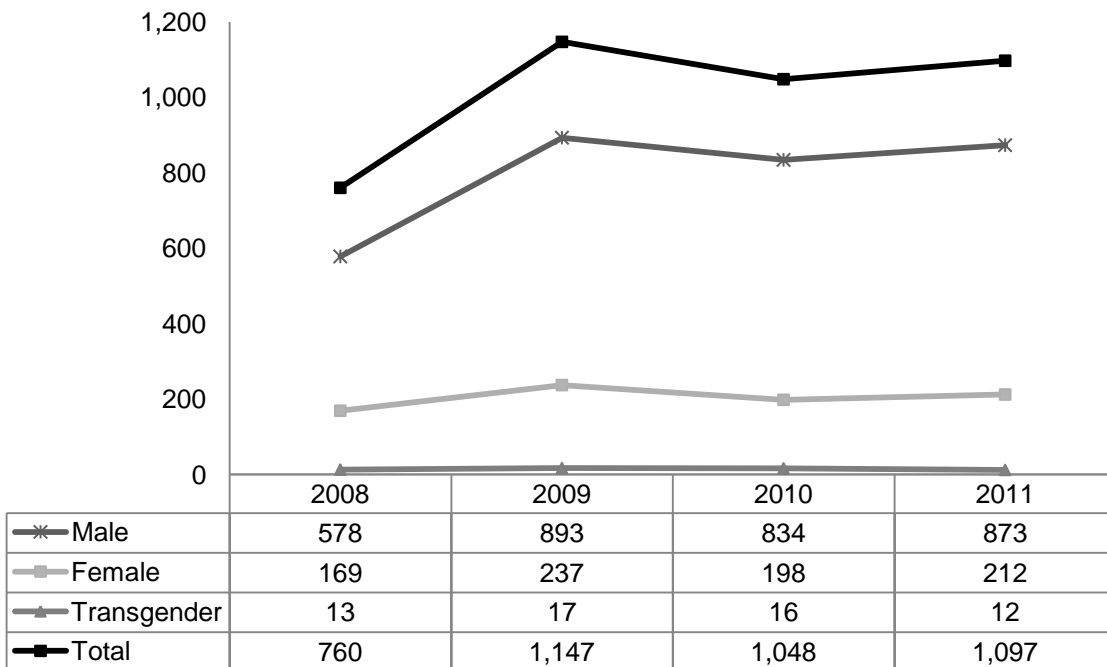
(Table 4) In 2011, 19.4% of persons living with HIV incarcerated in jail in the Houston EMA were not in HIV care. This is a slightly lower percentage than for the state as a whole. For persons in a detention facility of some kind, but not including the state prison system, the percent out of care in 2011 was 63.0%, which is slightly higher than the state as a whole. The unmet need percentage for jail inmates is lower than the general EMA population while the percentage for those in detention facilities is 2 times higher.

	Houston EMA	Texas
Total Unmet Need	27.6%	27.9%
All Housed (house, apartment, etc.)	27.4%	25.9%
Homeless	62.4%	64.5%
In Jail	19.4%	20.3%
In Other Detention (not state prison)	63.0%	58.4%

Source: Texas Department of State Health Services, Homeless, Insurance, and Poverty, 2011. Released 8/17/12

(Graph 1) The number of HIV positive persons receiving pre-discharge planning in the Harris County Jail through the Ryan White HIV/AIDS Program has remained stable over a four year period at an average of 1,013 clients served per year. The number of male clients has consistently exceeded the number of female clients, and, on average, 15 transgender identified clients are served annually. In total, 4,052 HIV positive clients were provided pre-discharge planning during this four year period. Close to half (45.8%) were duplicate clients, meaning that they were re-incarcerated and received pre-discharge again during this timeframe.

INCARCERATED GRAPH 1-Number of Persons Receiving Pre-Discharge Planning Services through the Ryan White HIV/AIDS Program in the Harris County Jail by Sex, 2008 to 2011



Source: The Houston Regional HIV/AIDS Resource Group, AIDS Regional Information and Evaluation System (ARIES), 2012

Injection Drug Users (IDU)

(Table 1 and Table 2) In 2011, there were 66 cases of new HIV disease and 79 new cases of AIDS diagnosed in individuals with a history of injection drug use (IDU) in Houston/Harris County. When the jurisdiction of analysis is expanded to the Houston EMA, there were an additional 37 new cases of HIV disease in IDUs and an additional 33 new cases of AIDS in IDUs. Individuals with IDU risk were the only group in both jurisdictions with more new cases of AIDS than new cases of HIV diagnosed in 2011. In general, when IDUs were newly diagnosed with HIV in Houston/Harris County and in the EMA in 2011, they were male, African American, and over age 35.

The same general demographic trends are observed in the total numbers of IDUs living with HIV in both jurisdictions. In Houston/Harris County, males comprise 57.4% of all IDUs living with HIV, Africans Americans are 71.2%, and people over age 35 are 87.1%. In the EMA, males are 70.7% of all IDUs living with HIV, Africans Americans are 62.0%, and people over age 35 are 87.8%. Again, in general, IDUs living with HIV in Houston/Harris County and in the EMA are male, African American, and over age 35.

IDU TABLE 1-New Diagnoses of HIV and Persons Living with HIV in <i>Houston/Harris County</i> by Sex, Race/Ethnicity, and Age^a						
	New HIV Disease ^b		New AIDS ^c		Persons Living with HIV ^d	
	Cases	%	Cases	%	Cases	%
Total IDU^e	66	100.0%	79	100.0%	2,233	100.0%
Sex						
Male	44	66.7%	48	60.8%	1,282	57.4%
Female	22	33.3%	31	39.2%	951	42.6%
Race/Ethnicity						
White	5	7.6%	10	12.7%	346	15.5%
Black/African American	41	62.1%	53	67.1%	1,591	71.2%
Hispanic/Latino	18	27.3%	15	19.0%	266	11.9%
Other/Multiple Race	2	3.0%	2	2.5%	31	1.4%
Age at Diagnosis						
0 - 12	0	0.0%			0	0.0%
13 - 24	7	10.6%	18 [¶]	22.8% [¶]	32	1.4%
25 - 34	11	16.7%			258	11.6%
35 - 44	16	24.2%	23	29.1%	616	27.6%
45 - 54	19	28.8%	27	34.2%	844	37.8%
55+	14	21.2%	12	15.2%	484	21.7%
Total All Persons	1,249	100.0%	775	100.0%	20,022	100.0%

^aSource: Houston/Harris County eHARS

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in Houston/Harris County in 2011

^cAIDS = People diagnosed with AIDS with residence at diagnosis in Houston/Harris County in 2011

^dPLWH at end of 2010 = People living with HIV disease, regardless of AIDS status, in Houston/Harris County at the end of 2010

^ePatients with no risk reported were recategorized into standard categories using the multiple imputation or risk program of the Centers for Disease Control and Prevention (CDC)

[¶]Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

IDU TABLE 2-New Diagnoses of HIV and Persons Living with HIV in the *Houston EMA* by Sex, Race/Ethnicity, and Age^a

	New HIV Disease ^b		New AIDS ^c		Persons Living with HIV ^d	
	Cases	%	Cases	%	Cases	%
Total IDU^e	103	100.0%	112	100.0%	3,464	100.0%
Sex						
Male	76	73.8%	78	69.6%	2,448	70.7%
Female	27	26.2%	34	30.4%	1,016	29.3%
Race/Ethnicity						
White	15	14.6%	20	17.9%	787	22.7%
Black/African American	54	52.4%	68	60.7%	2,149	62.0%
Hispanic/Latino	29	28.2%	23	20.5%	478	13.8%
Other/Multiple Race	†	†	†	†	50	1.4%
Age at Diagnosis						
0 - 12	†	†	†	†	†	†
13 - 24	11	10.7%	†	†	40	1.2%
25 - 34	18	17.5%	†	†	382	11.0%
35 - 44	26	25.2%	29	25.9%	916	26.4%
45 - 54	28	27.2%	36	32.1%	1,357	39.2%
55+	17	16.5%	15	13.4%	769	22.2%
Total All Persons	1,334	100.0%	821	100.0%	21,664	100.0%

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bHIV Disease = People living with HIV disease, regardless of AIDS status, in the Houston EMA

^cAIDS = People diagnosed with AIDS with residence at diagnosis in the Houston EMA

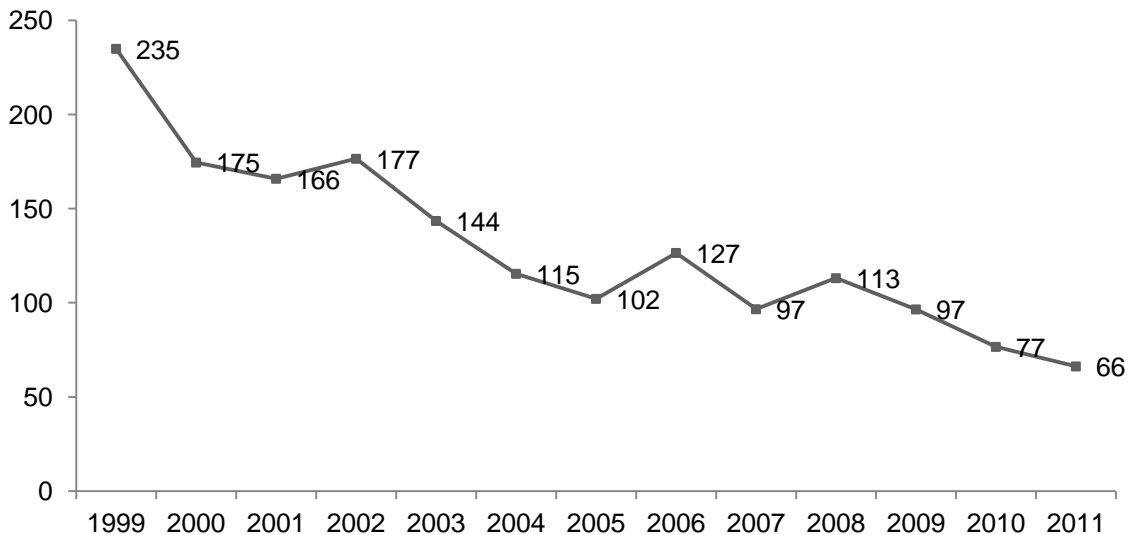
^dHIV Disease = People living with HIV disease, regardless of AIDS status, in the Houston EMA

^eCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

^fData has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

(Graph 1) Over time, the number of IDUs diagnosed with HIV in Houston/Harris County has declined, from a high of 235 in 1999 to the current low of 66 for 2011.

IDU GRAPH 1-Number of New HIV Diagnoses in Injection Drug Users in Houston/Harris County, 1999 to 2011



Source: Houston/Harris County eHARS

MSM

Men Who Have Sex with Men (MSM), including MSM of Color (MSMOC)

(Table 1) In 2011, 759 persons newly diagnosed with HIV in Houston/Harris County were identified as having male-to-male sexual activity (MSM). Of these, a majority (82.1%) was MSM of color (MSMOC), with 42.6% African American, 36.8% Hispanic/Latino, and 2.8% Other/Multiple Races. White MSM were 18.1% of new HIV diagnoses among MSM that year. In total, MSM were 60.8% of all new HIV diagnoses in Houston/Harris County in 2011, and African American MSM were 25.9% of all new diagnoses. Most newly diagnosed MSM in Houston/Harris County were under age 35 (59.2%), and 27.7% were young MSM (MSM between the ages of 13 and 24).

When HIV prevalence among MSM is analyzed, there are demographic differences. For example, of all HIV positive MSM living in Houston/Harris County, a smaller percentage is MSMOC (60.0%) than are newly diagnosed MSM, and more are White (36.6%) than all other single race/ethnicity. In addition, most MSM living with HIV in Houston/Harris County are persons over age 35 (75.1%). While young MSM comprised a notable proportion of new diagnoses in 2011, they were only 5.9% of prevalent cases.

MSM TABLE 1-New Diagnoses of HIV and Persons Living with HIV in Houston/Harris County by Race/Ethnicity and Age^a				
	New HIV Disease ^b		Persons Living with HIV ^c	
	Cases	%	Cases	%
Total MSM^d	759	100.0%	10,381	100.0%
Race/Ethnicity				
White	137	18.1%	3,804	36.6%
Black/African American	323	42.6%	3,598	34.7%
Hispanic/Latino	279	36.8%	2,778	26.8%
Other/Multiple Race	21	2.8%	202	1.9%
Age at Diagnosis				
0 - 12	0	0.0%	0	0.0%
13 - 24	210	27.7%	614	5.9%
25 - 34	239	31.5%	1,974	19.0%
35 - 44	176	23.2%	2,927	28.2%
45 - 54	89	11.7%	3,348	32.3%
55+	46	6.1%	1,518	14.6%
Total All Persons	1,249	100.0%	20,022	100.0%

^aSource: Houston/Harris County eHARS

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in Houston/Harris County in 2011

^cPLWH = People living with HIV disease, regardless of AIDS status, in Houston/Harris County at the end of 2010

^dPatients with no risk reported were recategorized into standard categories using the multiple imputation or risk program of the Centers for Disease Control and Prevention (CDC)

(Table 2) Similar trends are seen when the jurisdiction of analysis is expanded to the Houston EMA. In 2011, 836 persons newly diagnosed with HIV were identified as MSM (an increase of 77 cases from the number in Houston/Harris County). Of these, a majority (79.7%) was also MSM of color (MSMOC), with White MSM comprising 20.3%

of new HIV diagnoses among MSM in that year. In total, MSM were 62.7% of all new HIV diagnoses in the EMA in 2011, and African American MSM were 25.6% of all new HIV diagnoses in the EMA in 2011. Most newly diagnosed MSM in the EMA were under age 35 (57.1%), and 25.6% were young MSM (MSM between the ages of 13 and 24).

Again, demographic differences are seen between prevalence of HIV among MSM and newly diagnosed MSM in the EMA. For example, a smaller proportion of all MSM living with HIV in the EMA is MSMOC (65.0% vs. 79.7%), and half the proportion is under age 35 (24.8% vs. 57.1%). Also, young MSM are 6.0% of prevalent cases compared to 25.6% of newly diagnosed MSM in the EMA.

MSM TABLE 2-New Diagnoses of HIV and Persons Living with HIV in the Houston EMA by Race/Ethnicity and Age^a				
	New HIV Disease^b		Persons Living with HIV^c	
	Cases	%	Cases	%
Total MSM^d	836	100.0%	12,204	100.0%
Race/Ethnicity				
White	170	20.3%	4,269	35.0%
Black/African American	341	40.8%	4,441	36.4%
Hispanic/Latino	297	35.5%	3,260	26.7%
Other/Multiple Race	28	3.3%	235	1.9%
Age at Diagnosis				
0 - 12	0	0.0%	0	0.0%
13 - 24	214	25.6%	734	6.0%
25 - 34	263	31.5%	2,292	18.8%
35 - 44	183	21.9%	3,236	26.5%
45 - 54	107	12.8%	3,998	32.8%
55+	42	5.0%	1,944	15.9%
Total All Persons	1,334	100.0%	21,664	100.0%

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

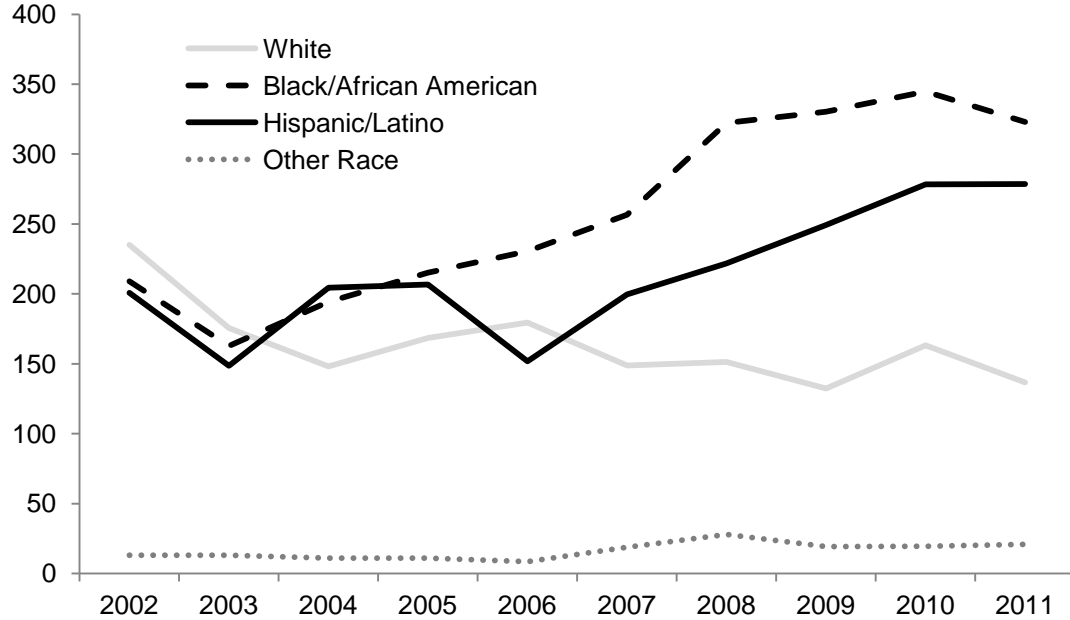
^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in the Houston EMA in 2011

^cPLWH = People living with HIV disease, regardless of AIDS status, in the Houston EMA at the end of 2011

^dCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

(Graph 1) Over a ten year period, an average of 489 MSM of color (MSMOC) are diagnosed with HIV in Houston/Harris County each year compared to an average of 164 White MSM annually. This breaks down to 259 African American MSM and 214 Hispanic/Latino MSM diagnosed each year on average. In addition, the number of African American MSM diagnosed with HIV has increased each year of this ten year period (following a low of 163 in 2003) as did the number of Hispanic MSM diagnosed with HIV each year (following a low of 152 in 2006). In 2011, there were 323 and 279 cases in these groups, respectively.

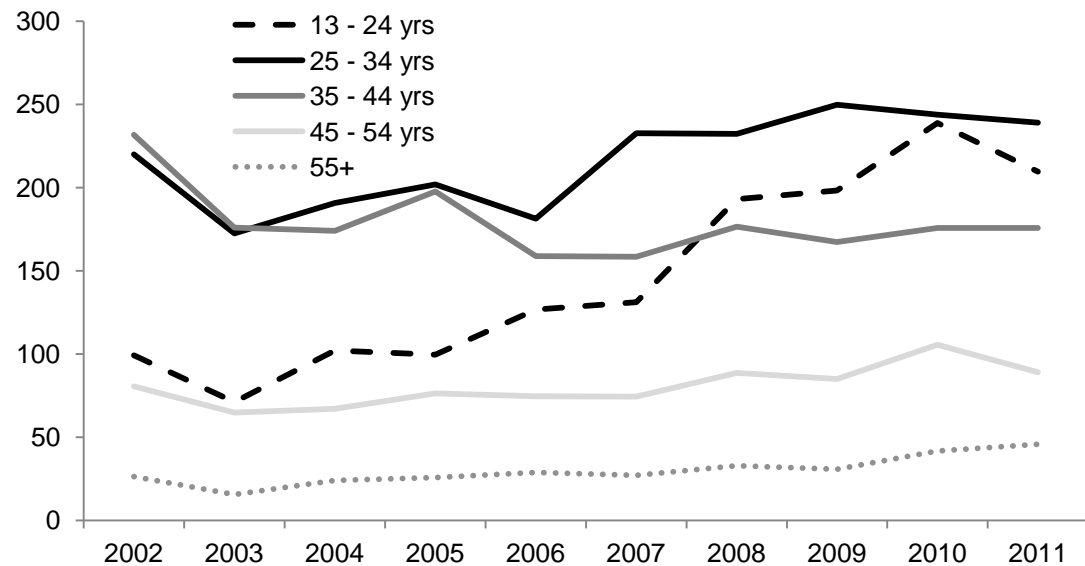
MSM GRAPH 1-Number of New HIV Diagnoses in MSM in Houston/Harris County by Race/Ethnicity, 2002 to 2011



Source: Houston/Harris County eHARS

(Graph 2) When analyzed by age, the numbers of newly diagnosed MSM in Houston/Harris County in each age range have remained relatively stable over a ten year period, with the exception of young MSM (MSM age 13 to 24) and MSM age 35 to 44. In the case of the former, the numbers of new HIV cases in young MSM have increased each year (from 2003 to 2010) while, in the case of MSM age 35 to 44, the numbers of new HIV cases have declined (beginning in 2002). Overall, the most new cases among MSM are diagnosed in the age group of 25 to 34.

MSM GRAPH 2-Number of New HIV Diagnoses in MSM in Houston/Harris County by Age, 2002 to 2011



Source: Houston/Harris County eHARS

Young MSM (MSM age 13 to 24) (YMSM)

(Table 3) Young MSM (MSM age 13 to 24) (YMSM) were 16.8% of all new HIV diagnoses in Houston/Harris County in 2011. Of these, the majority (90.5%) was African American or Hispanic/Latino. The same race/ethnicity distribution is seen in prevalent cases in YMSM, with 91.2% African American or Hispanic/Latino. By proportion, YMSM are 3.1% of all people living with HIV in Houston/Harris County.

YMSM (MSM age 13 to 24) TABLE 3-New Diagnoses of HIV and Persons Living with HIV in Houston/Harris County by Race/Ethnicity^a				
	New HIV Disease ^b		Persons Living with HIV ^c	
	Cases	%	Cases	%
Total YMSM^d	210	100.0%	614	100.0%
Race/Ethnicity				
White	18	8.6%	46	7.5%
Black/African American	127	60.5%	416	67.8%
Hispanic/Latino	63	30.0%	144	23.5%
Other/Multiple Race	3	1.4%	8	1.3%
Total All Persons	1,249	100.0%	20,022	100.0%

^aSource: Houston/Harris County eHARS

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in Houston/Harris County in 2011

^cPLWH at end of 2010 = People living with HIV disease, regardless of AIDS status, in Houston/Harris County at the end of 2010

^dPatients with no risk reported were recategorized into standard categories using the multiple imputation or risk program of the Centers for Disease Control and Prevention (CDC)

(Table 4) The same trends are observed when the jurisdiction of analysis is expanded to the Houston EMA. In 2011, 214 cases of HIV were newly diagnosed in YMSM, which represents 17.1% of all new HIV diagnoses in the EMA in that year. Again, a majority of newly diagnosed YMSM (88.3%) was African American or Hispanic/Latino. Among all persons living with HIV in the Houston EMA, YMSM were 3.4%. Again, the majority of these (91.0%) were African American or Hispanic/Latino.

YMSM (MSM age 13 to 24) TABLE 4-New Diagnoses of HIV and Persons Living with HIV in the Houston EMA by Race/Ethnicity^a				
	New HIV Disease ^b		Persons Living with HIV ^c	
	Cases	%	Cases	%
Total YMSM^d	214	100.0%	734	100.0%
Race/Ethnicity				
White	21	9.8%	56	7.6%
Black/African American	125	58.4%	489	66.6%
Hispanic/Latino	64	29.9%	179	24.4%
Other/Multiple Race	†	†	10	1.4%
Total All Persons	1,249	100.0%	21,644	100.0%

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bNew HIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in the Houston EMA in 2011

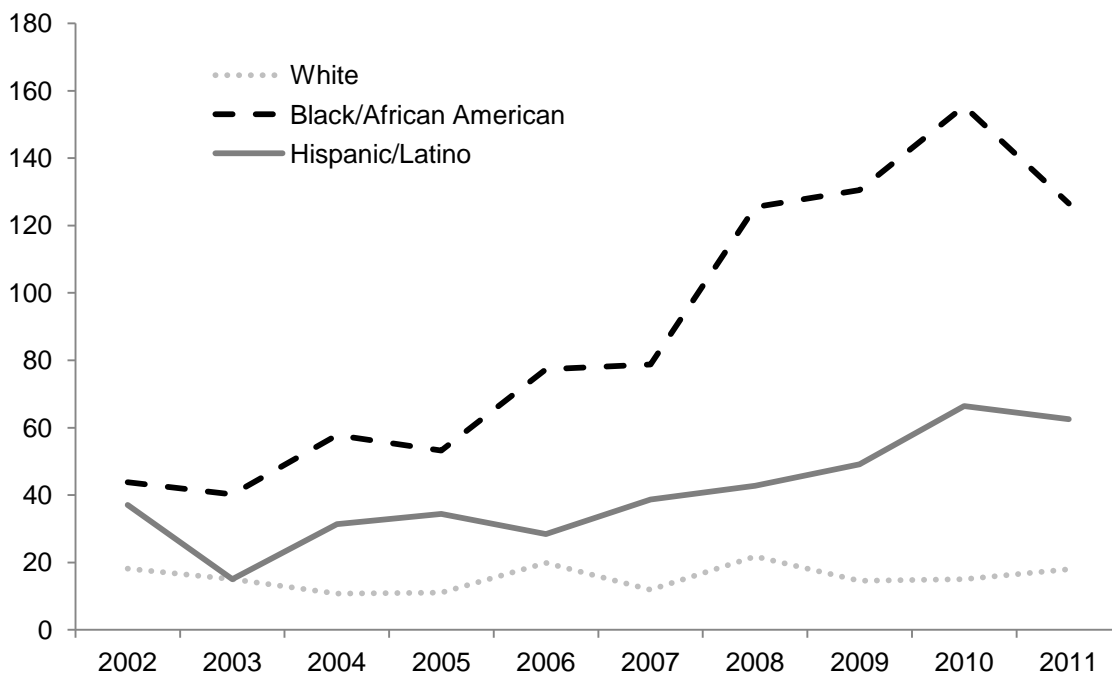
^cPLWH = People living with HIV disease, regardless of AIDS status, with residence at diagnosis in the Houston EMA in 2011

^dCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

†Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

(Graph 3) Over a ten year period, the numbers of YMSM diagnosed with HIV in Houston/Harris County have been highest in those who are African American. Between 2002 and 2011, the number of African American YMSM diagnosed with HIV in Houston/Harris County increased by 189%. On average, 89 African American YMSM are diagnosed with HIV each year in Houston/Harris County, 41 Hispanic/Latino YMSM are diagnosed, and 16 White YMSM are diagnosed. In the last year (between 2010 and 2011), there was a decline in the number of new HIV cases in both African American and Hispanic/Latino YMSM of 29 and 4, respectively, while the number of new cases in White YMSM increased by 3 cases.

YMSM (MSM age 13 to 24) GRAPH 3-Number of New HIV Diagnoses in YMSM in Houston/Harris County by Race/Ethnicity, 2002 to 2011



Source: Houston/Harris County eHARS

Rural

Urban and Rural Population Distribution

(Table 1) The geographic service areas for HIV prevention and care planning in the Houston Area include a total of 10 counties. Six of these counties, including Houston/Harris County, form the Houston Eligible Metropolitan Area (EMA) defined federally by the Health Resources and Services Administration (HRSA). These six counties plus four additional counties form the Houston Health Services Delivery Area (HSDA) defined locally by the Texas Department of State Health Services (DSHS). The EMA has a total population of 5,287,524, and the HSDA has a total population of 5,445,956. Of these total populations, 5% and 7% are considered rural, respectively. This is compared to 15% of the total Texas population that is rural.

At the county level, four counties in the HSDA have a majority of the population that is rural (Austin, Colorado, Liberty, Waller). Houston/Harris County is the least rural at 1%, and Austin County is the most rural at 66%.

County	Total Population ^b	Percent of Population-Urban	Percent of Population-Rural
Chambers	35,096	54%	46%
Fort Bend	585,375	94%	6%
Harris (incl. Houston)	4,092,459	99%	1%
Liberty	75,643	37%	63%
Montgomery	455,746	77%	23%
Waller	43,205	38%	62%
EMA Total	5,287,524	95%	5%
Austin	28,417	34%	66%
Colorado	20,874	37%	63%
Walker	67,861	54%	46%
Wharton	41,280	50%	50%
HSDA Total	5,445,956	93%	7%
Texas Total	25,145,561	85%	15%

^aSource: U.S. Census (2010). Urban and Rural. 2010 Census Summary File 1. Retrieved on 2/26/13

^bSource: U.S. Census (2010). Profile of General Population and Housing Characteristics. 2010 Census Summary File 1. Retrieved on 1/31/13.

Population Density

(Table 2) Population density is a measure of the number of people living per square mile in a defined geographic area. It is commonly used as a measure of proximity of people to each other and to various resources. Rural areas tend to have lower population density (or fewer people per square mile), while urban areas tend to have higher population density (or more people per square mile).

In the Houston Area, population density mirrors urban and rural population distribution above. Houston/Harris County is the most densely populated at 2,367 people per square

mile while Colorado is the least densely populated at 22 people per square mile. Overall, population density in both the EMA and HSDA has increased in the last 10 year period.

County	Population Density-2000 ^a	Population Density-2010 ^b
Chambers	43.4	58.6
Fort Bend	405.3	669.3
Harris (incl. Houston)	1,967.0	2,367.2
Liberty	60.5	65.2
Montgomery	281.4	436.5
Waller	63.6	84.1
EMA Total	470.2	893.1
Austin	36.1	43.5
Colorado	21.2	21.7
Walker	78.4	86.2
Wharton	37.8	37.9
HSDA Total	299.5	578.5
Texas Total	79.6	96.0

^aSource: U.S. Census Bureau (2000). Retrieved on 3/25/04

^bSource: U.S. Census (2010). Geographic Identifiers. Census 2000 Summary File 1 (SF 1) 100-Percent Data. Retrieved on 2/26/13

Distribution of Total Population in the Rural Counties of the Houston EMA

(Table 3) In the last 10 year period, the population in the rural counties of the Houston EMA grew by 53.8% compared to a 26.6% growth for the EMA as a whole and a 20.6% growth for the state of Texas. Over 400,000 more people live in the rural counties of the EMA today than in 2000. The largest percent change in population occurred in Fort Bend and Montgomery Counties, with 65.2% and 55.2% more people in 2010 than in 2000, respectively. Liberty County grew the least with a 7.9% increase over 10 years.

County	Total-2000 ^b	Total-2010 ^c	Change in Population	
			#	%
Chambers	26,031	35,096	9,065	+34.8%
Fort Bend	354,355	585,375	231,020	+65.2%
Liberty	70,136	75,643	5,507	+7.9%
Montgomery	293,688	455,746	162,058	+55.2%
Waller	32,660	43,205	10,545	+32.3%
Rural EMA Total	776,870	1,195,065	418,195	+53.8%
EMA Total	4,176,056	5,287,524	1,111,468	+26.6%
Texas Total	20,851,820	25,145,561	4,293,741	+20.6%

^aFor the purpose of this analysis, "rural" is defined as all counties in the Houston EMA *except* Harris County. This definition is consistent with how HIV care services are currently targeted in the EMA.

^bSource: U.S. Census Bureau (2000). Retrieved on 3/25/04

^cSource: U.S. Census (2010). Profile of General Population and Housing Characteristics. 2010 Census Summary File 1. Retrieved on 1/31/13.

(Table 4) In 2011, the population of the rural counties in the Houston EMA was 56.2% White (non-Hispanic), 21.6% Hispanic, 14.8% African American, and 7.3% all other races. This is *unlike* when the urban county of Harris is included in the analysis and racial/ethnic minorities comprise the majority of the population. In rural EMA counties, Whites (non-Hispanics) remain the population majority.

RURAL TABLE 4-Distribution of Total Rural^a Population in the Houston EMA by Sex, Race/Ethnicity, and Age, 2011^b		
	Number	Percent
Total Rural EMA Population	1,427,379	100.0%
Sex		
Male	719,163	50.4%
Female	708,216	49.6%
Race/Ethnicity		
White	802,748	56.2%
Black/African American	211,745	14.8%
Hispanic/Latino	308,078	21.6%
Other	104,808	7.3%
Age at Diagnosis		
Under 2	36,997	2.6%
2 - 12	182,269	12.8%
13 - 24	284,091	19.9%
25 - 34	172,472	12.1%
35 - 44	189,570	13.3%
45 - 54	251,262	17.6%
55+	310,718	21.8%

^aFor the purpose of this analysis, "rural" is defined as all counties in the Houston EMA except Harris County. This definition is consistent with how HIV care services are currently targeted in the EMA.

^bSource: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>. For the purpose of this analysis, "rural" has been defined as all counties in the Houston EMA except Harris County. This definition is consistent with how HIV care services are currently targeted in the EMA.

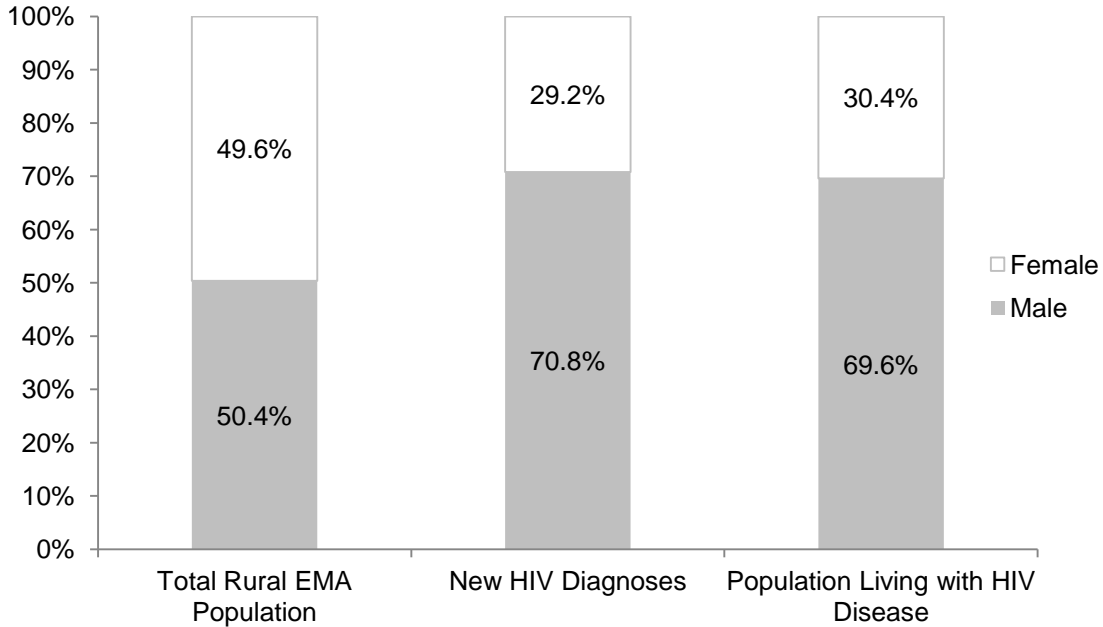
Comparison of Total Rural Population to the Population Living with HIV Disease

(Graph 1) The population of the rural counties in the Houston EMA is fairly evenly divided between males and females at 50.4% and 49.6%, respectively. However, more males than females were newly-diagnosed with HIV in 2011 (70.8% vs. 29.2%) and more males than females are currently living with HIV (69.6% vs. 30.4%). These differences are *less* than when the urban county of Harris is included in the analysis. In other words, in the rural counties, the proportion of the HIV burden by sex and the demographic distribution of the population by sex are *more* analogous.

(Graph 2) The populations in the rural counties in the Houston EMA that are newly-diagnosed with HIV and living with HIV are more racially diverse than the general population of the rural counties. While African Americans and Hispanics account for 36.4% of the total population in the rural counties, they are 69.0% of all new HIV diagnoses and 63.4% of all people living with HIV in the rural counties. These differences are *more* than when the urban county of Harris is included in the analysis. In

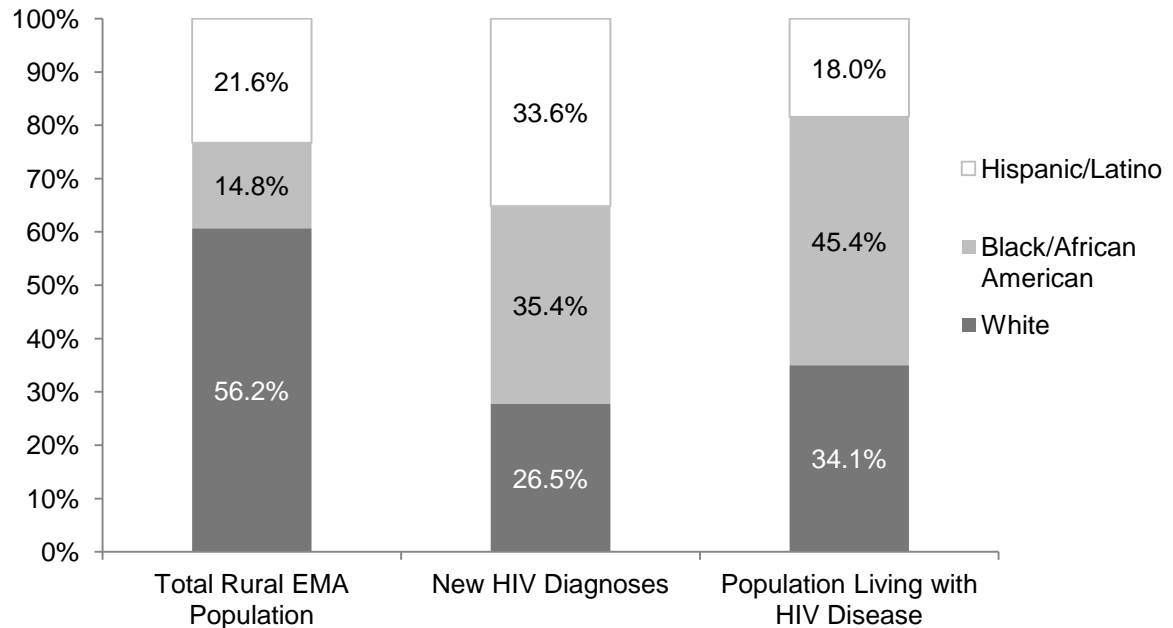
other words, in the rural counties, the proportion of the HIV burden by race/ethnicity and the demographic distribution of the population by race/ethnicity are *less* analogous.

RURAL GRAPH 1-Comparison of Total Rural Population^a in the Houston EMA to the HIV-Infected Rural Population^b by Sex, 2011



^aSource: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>
 For the purpose of this analysis, "rural" is defined as all counties in the Houston EMA *except* Harris County. This definition is consistent with how HIV care services are currently targeted in the EMA.
^bSource: Texas eHARS. Living HIV cases as of 12/31/11

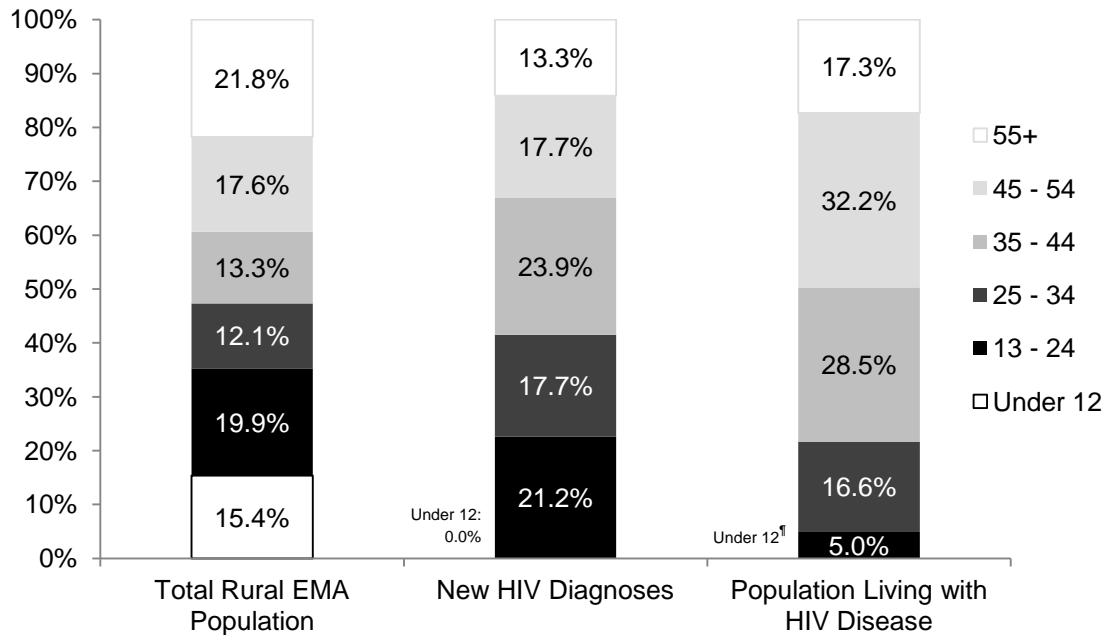
RURAL GRAPH 2-Comparison of Total Rural Population^a in the Houston EMA to the HIV-Infected Rural Population^b by Race/Ethnicity, 2011



^aSource: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>
 For the purpose of this analysis, "rural" is defined as all counties in the Houston EMA *except* Harris County. This definition is consistent with how HIV care services are currently targeted in the EMA.
^bSource: Texas eHARS. Living HIV cases as of 12/31/11

(Graph 3) When analyzed by age, people age 35 to 44 account for a larger proportion of new HIV diagnoses (23.9%) than their share of the general population in the rural counties of the Houston EMA (13.3%). Similarly, people age 45 to 54 account for a larger proportion of those living with HIV (32.2%) than their share of the total rural population (17.6%). This is comparable to when the urban county of Harris is included in the analysis.

RURAL GRAPH 3-Comparison of Total Rural Population^a in the Houston EMA to the HIV-Infected Rural Population^b by Age (Descending), 2011



^aSource: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>
 For the purpose of this analysis, "rural" is defined as all counties in the Houston EMA except Harris County. This definition is consistent with how HIV care services are currently targeted in the EMA.
^bSource: Texas eHARS. Living HIV cases as of 12/31/11
^cData has been suppressed to meet cell size limit of 5

HIV/AIDS in the Rural Counties of the Houston EMA

Diagnoses of HIV Disease

(Table 5) In 2011, 113 new diagnoses of HIV (regardless of AIDS status) and 97 new diagnoses of AIDS were reported in the rural counties of the Houston EMA. This is a rate of 8 new HIV diagnoses for every 100,000 people in the rural counties, and 7 new AIDS diagnoses for every 100,000 people in the rural counties. The majority of new HIV diagnoses (70.8%) and of new AIDS diagnoses (77.3%) in the rural counties were among men. African Americans had the highest rate of both new HIV and AIDS diagnoses in the rural counties with 19 new HIV diagnoses per 100,000 African Americans and 18 new AIDS diagnoses per 100,000 African Americans. The age distribution of new diagnoses in the rural counties mirrors a bell curve that peaks with 35 to 44 year olds for HIV (14.2% of new diagnoses) and for AIDS (17.4% of new diagnoses). Male-to-male sexual activity or MSM was reported most often in 2011 for both new HIV and new AIDS diagnoses, followed by heterosexual contact.

RURAL TABLE 5-New Diagnoses of HIV and AIDS in the Rural Counties of the Houston EMA by Sex, Race/Ethnicity, Age, and Risk Category, 2011^a

	New HIV Disease ^b			New AIDS ^c		
	Cases	%	Rate ^d	Cases	%	Rate ^d
Total Rural EMA Counties	113	100%	7.9	97	100%	6.8
Sex						
Male	80	70.8%	11.1	75	77.3%	10.4
Female	33	29.2%	4.7	22	22.7%	3.1
Race/Ethnicity						
White	30	26.5%	3.7	29	29.9%	3.6
Black/African American	40	35.4%	18.9	38	39.2%	17.9
Hispanic/Latino	38	33.6%	12.3	27	27.8%	8.8
Other/Multiple Races	5	4.4%	4.8	†	†	†
Age at Diagnosis						
0 - 12	0	0.0%	0.0	0	0.0%	0.0
13 - 24	24	21.2%	8.4	7	7.2%	2.5
25 - 34	20	17.7%	11.6	16	16.5%	9.3
35 - 44	27	23.9%	14.2	33	34.0%	17.4
45 - 54	20	17.7%	8.0	20	20.6%	8.0
55+	15	13.3%	4.8	13	13.4%	4.2
Transmission Risk^e						
Male-to-male sexual activity (MSM)	66	58.4%	*	55	56.7%	*
Injection drug use (IDU)	6	5.3%	*	9	9.3%	*
MSM/IDU	†	†	*	†	†	*
Heterosexual contact	40	35.4%	*	30	30.9%	*
Perinatal transmission	0	0.0%	*	0	0.0%	*
Adult other risk	†	†	*	†	†	*

^aSource: Texas eHARS. Living HIV cases as of 12/31/11. For the purpose of this analysis, "rural" is defined as all counties in the Houston EMA *except* Harris County. This definition is consistent with how HIV care services are currently targeted in the EMA.

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in Rural Houston EMA

^cAIDS = People diagnosed with AIDS with residence at diagnosis in Rural Houston EMA

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection:

<http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

^eCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

†Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

Persons Living with HIV Disease

(Table 6) At the end of 2011, there were 1,893 people living with HIV or AIDS in the rural counties of the Houston EMA. This means that, for every 100,000 people residing in the rural counties, 133 are HIV positive. The majority of all people living with HIV (69.6%) in the rural counties are men. African Americans had the highest rate of living HIV cases in the rural counties with 406 HIV positive African Americans for every 100,000 African Americans. People aged 35 to 44 had the highest HIV prevalence rate of all age groups (at 284 cases for every 100,000 people in that age range), but people aged 45 to 54 comprised the largest *percentage* of living HIV cases (32.2%). Male-to-male sexual

activity or MSM was reported most often by people living with HIV in the rural counties, followed by heterosexual contact.

RURAL TABLE 6-People Living with HIV and AIDS in the Rural Counties of the Houston EMA by Sex, Race/Ethnicity, Age, and Risk Category, 2011^a						
	Living with HIV Disease ^b			Living with AIDS ^c		
	Cases	%	Rate ^d	Cases	%	Rate ^d
Total Rural EMA Counties	1,893	100%	132.6	1,108	100.0%	77.6
Sex						
Male	1,317	69.6%	183.1	807	72.8%	112.2
Female	576	30.4%	81.3	301	27.2%	42.5
Race/Ethnicity						
White	646	34.1%	80.5	399	36.0%	49.7
Black/African American	859	45.4%	405.7	477	43.1%	225.3
Hispanic/Latino	340	18.0%	110.4	207	18.7%	67.2
Other/Multiple Races	48	2.5%	45.8	25	2.3%	23.9
Age at Diagnosis						
0 - 1	¶	¶	¶	0	0.0%	0.0
2 - 12	¶	¶	¶	0	0.0%	0.0
13 - 24	95	5.0%	33.4	26	2.3%	9.2
25 - 34	314	16.6%	182.1	119	10.7%	69.0
35 - 44	539	28.5%	284.3	323	29.2%	170.4
45 - 54	610	32.2%	242.8	410	37.0%	163.2
55+	327	17.3%	105.2	230	20.8%	74.0
Transmission Risk^e						
Male-to-male sexual activity (MSM)	852	45.0%	*	527	47.6%	*
Injection drug use (IDU)	247	13.0%	*	147	13.3%	*
MSM/IDU	92	4.9%	*	55	5.0%	*
Heterosexual contact	663	35.0%	*	367	33.1%	*
Perinatal transmission	35	1.8%	*	10	0.9%	*
Adult other risk	¶	¶	*	¶	¶	*

^aSource: Texas eHARS. Living HIV cases as of 12/31/11. For the purpose of this analysis, "rural" is defined as all counties in the Houston EMA *except* Harris County. This definition is consistent with how HIV care services are currently targeted in the EMA.

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in Rural Houston EMA

^cAIDS = People diagnosed with AIDS with residence at diagnosis in Rural Houston EMA

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection:

<http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

^eCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

¶Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

Deaths of Persons with HIV/AIDS

(Table 7) In the rural counties of the Houston EMA, 34 people with HIV (regardless of AIDS status) died in 2011 either from HIV disease or from another cause. This is a mortality rate of 2 deaths of persons with HIV for every 100,000 people residing in the rural counties. The majority of deaths occurred among men (76.5%), and most occurred among Whites (non-Hispanics) (41.2%); however, African Americans had the highest mortality *rate* at 5 deaths for every 100,000 African Americans in the rural counties. HIV

mortality rates in the rural counties also show a positive correlation with increasing age. Male-to-male sexual activity or MSM was reported most among persons who died in 2011 followed by injection drug use (IDU).

RURAL TABLE 7-Deaths of Persons with HIV and AIDS in the Rural Counties of the Houston EMA by Sex, Race/Ethnicity, Age, and Risk Category, 2011^a						
	Persons with HIV Disease ^b			Persons with AIDS ^c		
	Cases	%	Rate ^d	Cases	%	Rate ^d
Total Rural EMA Counties	34	100%	2.4	29	100%	2.0
Sex						
Male	26	76.5%	3.6	22	75.9%	3.1
Female	8	23.5%	1.1	7	24.1%	1.0
Race/Ethnicity						
White	14	41.2%	1.7	13	44.8%	1.6
Black/African American	11	32.4%	5.2	10	34.5%	4.7
Hispanic/Latino	7	20.6%	2.3	†	†	†
Other/Multiple Races	†	†	†	†	†	†
Age at Diagnosis						
0 - 1	0	0.0%	0.0	0	0.0%	0.0
2 - 12	0	0.0%	0.0	0	0.0%	0.0
13 - 24	0	0.0%	0.0	†	†	†
25 - 34	5	14.7%	2.9	†	†	†
35 - 44	7	20.6%	3.7	6	20.7%	3.2
45 - 54	9	26.5%	3.6	8	27.6%	3.2
55+	13	38.2%	4.2	12	41.4%	3.9
Transmission Risk^e						
Male-to-male sexual activity (MSM)	16	47.1%	*	14	48.3%	*
Injection drug use (IDU)	10	29.4%	*	9	31.0%	*
MSM/IDU	†	†	*	†	†	*
Heterosexual contact	8	23.5%	*	6	20.7%	*
Perinatal transmission	0	0.0%	*	0	0.0%	*
Adult other risk	†	†	*	†	†	*

^aSource: Texas eHARS. Living HIV cases as of 12/31/11. For the purpose of this analysis, "rural" is defined as all counties in the Houston EMA *except* Harris County. This definition is consistent with how HIV care services are currently targeted in the EMA.

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in Rural Houston EMA

^cAIDS = People diagnosed with AIDS with residence at diagnosis in Rural Houston EMA

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection:

<http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

^eCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

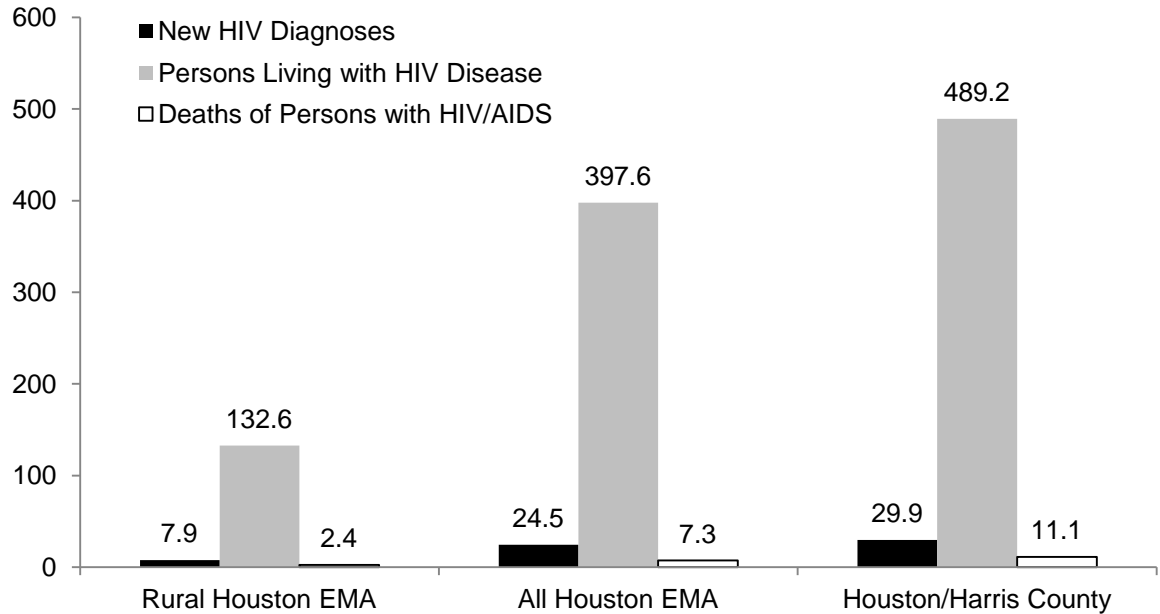
*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

†Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

Summary of HIV Epidemiology by Rural and Urban Counties

(Graph 4) Overall, the urban county of Harris has the highest rates of core HIV indicators, which, in turn, increase the rates of the Houston EMA as a whole. In this comparison, the rural counties of the Houston EMA have the lowest rates of core HIV indicators.

RURAL GRAPH 4-Rates of New HIV Diagnoses, Persons Living with HIV, and Deaths among HIV Positive Individuals by Rural and Urban Jurisdiction



Sources:
 Rural Houston EMA and All Houston EMA: Texas eHARS. For the purpose of this analysis, "rural" is defined as all counties in the Houston EMA *except* Harris County. This definition is consistent with how HIV care services are currently targeted in the EMA.
 Houston/Harris County: Houston/Harris County eHARS. Diagnoses, 2011; Prevalence, 2010; Mortality, 2010

Seniors (age 55+)

(Table 1 and Table 2) In 2011, 106 people age 55 and older were newly diagnosed with HIV in Houston/Harris County. This equates to 8.5% of all new HIV diagnoses in that year. When compared to all new HIV diagnoses in Houston/Harris County in 2011 regardless of age, larger proportions of newly diagnosed seniors (1) were White (19.8% v. 14.3%) and (2) reported injection drug use (13.2% v. 5.3%). In addition, newly diagnosed seniors were more evenly distributed between MSM and heterosexual contact than were all new HIV diagnoses in 2011 in Houston/Harris County. The same demographic trends can be seen in new HIV diagnoses in seniors in the Houston EMA.

SENIORS (age 55+) TABLE 1-New Diagnoses of HIV and Persons Living with HIV in <i>Houston/Harris County</i> by Sex, Race/Ethnicity, and Risk^a				
	New HIV Disease ^b		Persons Living with HIV ^c	
	Cases	%	Cases	%
Total Seniors	106	100.0%	3,096	100.0%
Sex				
Male	83	78.3%	2,446	79.0%
Female	23	21.7%	650	21.0%
Race/Ethnicity				
White	21	19.8%	1,232	39.8%
Black/African American	56	52.8%	1,338	43.2%
Hispanic/Latino	27	25.5%	481	15.5%
Other/Multiple Races	2	1.9%	45	1.5%
Transmission Risk^d				
Male-to-male sexual activity (MSM)	46	43.4%	1,518	49.0%
Injection drug use (IDU)	14	13.2%	484	15.6%
MSM/IDU	¶	¶	170	5.5%
Heterosexual contact	46	43.4%	920	29.7%
Perinatal transmission/other	¶	¶	4	0.1%
Total All Ages	1,249	100.0%	20,022	100.0%

^aSource: Houston/Harris County eHARS

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in Houston/Harris County in 2011

^cPLWH at end of 2010 = People living with HIV disease, regardless of AIDS status, in Houston/Harris County at the end of 2010

^dPatients with no risk reported were recategorized into standard categories using the multiple imputation or risk program of the Centers for Disease Control and Prevention (CDC)

¶Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

Of all persons living with HIV in the Houston EMA, people age 55 and older comprise 16.8% at 3,641 persons. When compared to all people living with HIV in the Houston EMA in 2011 regardless of age, larger proportions of HIV positive seniors (1) were again White (39.0% v. 24.6%) and (2) reported injection drug use risk, either IDU alone or in combination with MSM (21.1% v. 16.0%). However, prevalence rates among seniors remain highest in African Americans at 940 per 100,000 population.

SENIORS (age 55+) TABLE 2-New Diagnoses of HIV and Persons Living with HIV in the Houston EMA by Sex, Race/Ethnicity, and Risk^a						
	New HIV Disease ^b			Persons Living with HIV ^c		
	Cases	%	Rate ^d	Cases	%	Rate ^d
Total Seniors	104	100.0%	10.6	3,641	100.0%	370.3
Sex						
Male	79	76.0%	17.1	2,843	78.1%	614.8
Female	25	24.0%	4.8	798	21.9%	153.2
Race/Ethnicity						
White	20	19.2%	3.7	1,420	39.0%	264.3
Black/African American	55	52.9%	32.9	1,573	43.2%	939.9
Hispanic/Latino	28	26.9%	15.2	593	16.3%	322.8
Other/Multiple Races	¶	¶	¶	55	1.5%	58.0
Transmission Risk^e						
Male-to-male sexual activity (MSM)	41	39.4%	*	1,738	47.7%	*
Injection drug use (IDU)	16	15.4%	*	564	15.5%	*
MSM/IDU	¶	¶	¶	206	5.7%	*
Heterosexual contact	46	44.2%	*	1,126	30.9%	*
Adult other risk	¶	¶	¶	7	0.2%	*
Total All Ages	1,334	100.0%	24.5	21,664	100.0%	397.6

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in the Houston EMA

^cPLWH at end of 2010 = People living with HIV disease, regardless of AIDS status, in the Houston EMA at the end of 2010

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection:

<http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

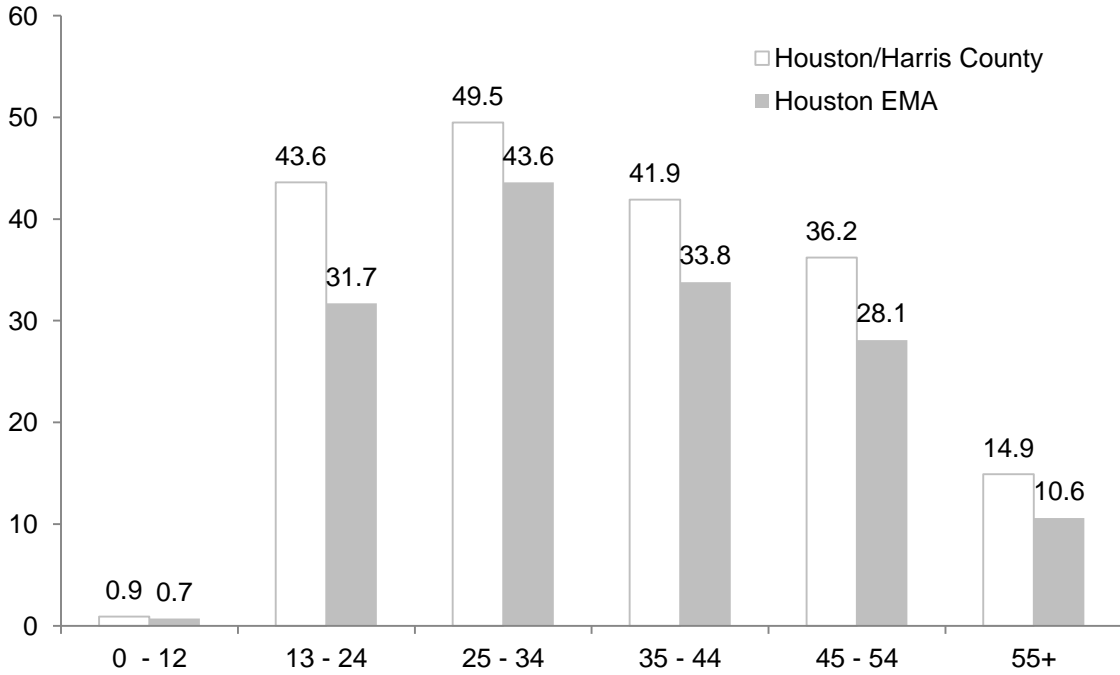
^eCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

¶Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

(Graph 1) Rates of new HIV diagnoses by age in Houston/Harris County and in the Houston EMA follow a general bell curve, with a peak among people age 25 to 34 in both jurisdictions. For people age 55 and older, the rate of new HIV diagnoses is highest in Houston/Harris County at 15 new HIV cases for every 100,000 seniors in the jurisdiction. In the Houston EMA, there are 11 new HIV cases for every 100,000 seniors.

SENIORS (age 55+) GRAPH 1-Rate^a of New HIV Diagnoses in the Houston EMA^b and Houston/Harris County^c by Age as of December 31, 2011



^aSource: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

^bSource: Texas eHARS. Living HIV cases as of 12/31/11

^cSource: Houston/Harris County eHARS

Transgender

HIV surveillance data on transgender people is not uniformly collected by HIV surveillance systems.¹ As a result, minimal epidemiological data are available on new HIV diagnoses and persons living with HIV among transgender individuals both nationally and in the Houston Area.¹ The epidemiological data that are available are presented below. Discrepancies exist between these two data sources due to data collection differences between surveillance and care data management systems.

(Table 1) In 2011, eight new HIV diagnoses and 10 new AIDS diagnoses were reported among transgender persons in Houston/Harris County. This equates to 0.6% of all new HIV diagnoses and 1.3% of all new AIDS diagnoses made in the jurisdiction in that year. In addition, transgender persons were 0.1% of all persons living with HIV in Houston/Harris County at the end of 2010.

TRANSGENDER TABLE 1-New Diagnoses of HIV and AIDS and People Living with HIV Disease in Houston/Harris County^a			
	Cases of New HIV Disease, 2011 ^b	Cases of New AIDS, 2011 ^c	Persons Living with HIV Disease, 2010 ^d
Total Transgender ^f	8	10	29
Total All Persons	1,249	775	20,002

^aSource: Houston/Harris County eHARS

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in Houston/Harris County in 2011

^cNew AIDS = People diagnosed with AIDS with residence at diagnosis in Houston/Harris County in 2011

^dPLWH at end of 2010 = People living with HIV disease, regardless of AIDS status, in Houston/Harris County at the end of 2010

^fThis category is not stratified further because of a small number of cases. All cases indicated male natal sex and current female full-time gender expression, or MTF.

(Table 2) In 2011, 68 transgender persons HIV were served by the Ryan White HIV/AIDS Program in the Houston EMA. This equates to 0.6% of all Ryan White clients served in that year. Of the 68 transgender clients documented, 23.5% were new to care.

TRANSGENDER TABLE 2-Number of Clients Served by the Ryan White HIV/AIDS Program Part A, B, MAI, and State Services in the Houston EMA/HSDA, 2011		
	Total Clients Served	New Clients Served
Total Transgender	68	16
Total All Persons Served	11,184	2,401

Source: Ryan White Grant Administration and The Resource Group. All Services/All Grants. Presented 4/12/12

¹Centers for Disease Control and Prevention, "HIV Infection among Transgender People." August 2011.

Women of Childbearing Age (age 13 to 44)

(Table 1 and Table 2) In 2011, 210 women of childbearing age (age 13 to 44) were newly diagnosed with HIV in Houston/Harris County. This equates to 16.8% of all new HIV diagnoses in Houston/Harris County in that year. When the jurisdiction of analysis is expanded to the Houston EMA, there were an additional 10 women of childbearing age (age 13 to 44) diagnosed in 2011 for a total of 220, or 16.5% of all new HIV diagnoses in the EMA that year. In both jurisdictions, the majority of new diagnoses in women age 13 to 44 were African American (at 73.8% and 72.3% respectively). In addition, almost all newly diagnosed women of this age range reported heterosexual contact.

WOMEN OF CHILDBEARING AGE (age 13 to 44) TABLE 1-New Diagnoses of HIV and Persons Living with HIV in Houston/Harris County by Race/Ethnicity, Age, and Risk^a				
	New HIV Disease ^b		Persons Living with HIV ^c	
	Cases	%	Cases	%
Total Women Age (age 13 to 44)	210	100.0%	3,213	100.0%
Race/Ethnicity				
White	17	8.1%	252	7.8%
Black/African American	155	73.8%	2,348	73.1%
Hispanic/Latino	34	16.2%	543	16.9%
Other/Multiple Races	4	1.9%	70	2.2%
Age at Diagnosis				
13 - 24	62	29.5%	304	9.5%
25 - 34	93	44.3%	1,218	37.9%
35 - 44	55	26.2%	1,691	52.6%
Transmission Risk^d				
Injection drug use (IDU)	¶	¶	440	13.7%
Heterosexual contact	197	93.8%	2,686	83.6%
Perinatal transmission/other	13	6.2%	87	2.7%
Total All Persons	1,249	100.0%	20,022	100.0%

^aSource: Houston/Harris County eHARS

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in Houston/Harris County in 2011

^cPLWH at end of 2010 = People living with HIV disease, regardless of AIDS status, in Houston/Harris County at the end of 2010

^dPatients with no risk reported were recategorized into standard categories using the multiple imputation or risk program of the Centers for Disease Control and Prevention (CDC)

[¶]Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

Women of childbearing age (age 13 to 44) are also about 16% of all persons living with HIV in Houston/Harris County and in the Houston EMA. Again, the majority of women living with HIV in this age range is African American and is heterosexual in both jurisdictions. However, the proportion of women living with HIV who reported injection drug use is slightly higher than for all persons living with HIV regardless of sex.

WOMEN OF CHILDBEARING AGE (age 13 to 44) TABLE 2-New Diagnoses of HIV and Persons Living with HIV in the Houston EMA by Race/Ethnicity, Age, and Risk^a						
	New HIV Disease ^b			Persons Living with HIV ^c		
	Cases	%	Rate ^d	Cases	%	Rate ^d
Total Women Age (age 13 to 44)	220	100.0%	17.0	3,430	100.0%	265.2
Race/Ethnicity						
White	18	8.2%	4.7	279	8.1%	72.4
Black/African American	159	72.3%	68.8	2,498	72.8%	1080.9
Hispanic/Latino	38	17.3%	6.6	583	17.0%	100.7
Other/Multiple Races	¶	¶	¶	70	2.0%	71.7
Age at Diagnosis						
13 - 24	63	28.6%	14.3	324	9.4%	73.7
25 - 34	94	42.7%	22.7	1,251	36.5%	301.7
35 - 44	63	28.6%	14.4	1,855	54.1%	422.5
Transmission Risk^e						
Injection drug use (IDU)	13	5.9%	*	437	12.7%	*
Heterosexual contact	206	93.6%	*	2,891	84.3%	*
Perinatal transmission	¶	¶	¶	101	2.9%	*
Adult other risk	¶	¶	¶	¶	¶	¶
Total All Persons	1,334	100.0%	24.5	21,664	100.0%	397.6

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in the Houston EMA

^cPLWH at end of 2010 = People living with HIV disease, regardless of AIDS status, in the Houston EMA at the end of 2010

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection:

<http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

^eCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

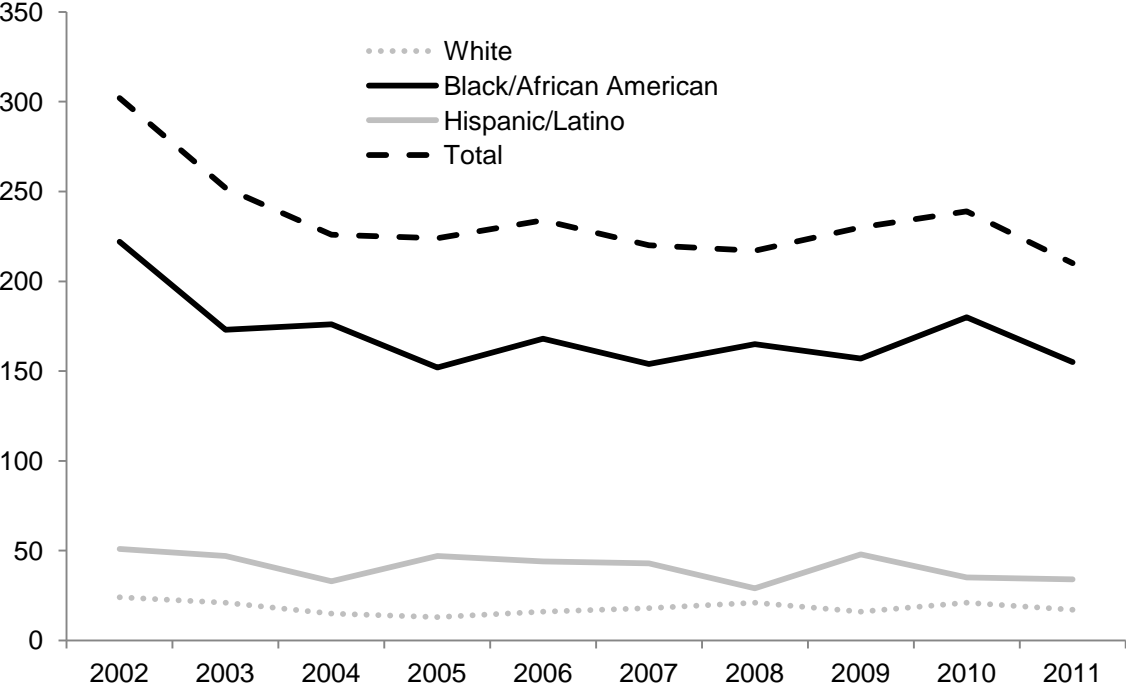
*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

¶Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

(Graph 1) From 2002 to 2011, the numbers of new HIV diagnoses in women of childbearing age (age 13 to 44) in Houston/Harris County have declined. For example, in 2002, there were 302 new HIV diagnoses in women of this age range while, in 2011, there were 210. On average, there were 10 fewer new HIV diagnoses in women of this age range during this ten year period.

African American women comprised the majority of new HIV diagnoses among women of childbearing age (age 13 to 44) during this ten year period. On average, during this ten year period, there have been 170 new HIV diagnoses among African American women of childbearing age (age 13 to 44), 41 new HIV diagnoses among Hispanic/Latino women of childbearing age (age 13 to 44), and 18 new HIV diagnoses among White women of childbearing age (age 13 to 44). For all groups, the numbers of new HIV diagnoses have been on the decline.

WOMEN OF CHILDBEARING AGE (age 13 to 44) GRAPH 1-Number of New HIV Diagnoses in Women of Childbearing Age in Houston/Harris County by Race/Ethnicity, 2002 to 2011



Source: Houston/Harris County eHARS

Youth (age 13 to 24)

Youth (age 13 to 24)

(Table 1 and Table 2) In 2011, 286 youth (people age 13 to 24) were diagnosed with HIV in Houston/Harris County. This equates to 22.8% of all new HIV diagnoses in Houston/Harris County in that year. Most were persons of color and MSM. When compared to all new HIV diagnoses in Houston/Harris County in 2011 regardless of age, larger proportions of newly diagnosed youth were (1) African American (64.7% v. 52.1%) and (2) MSM (73.4% v. 60.8%). The same demographic trends are seen when the jurisdiction of analysis is expanded to the Houston EMA. People age 13 to 24 in the EMA were 21.5% of all new HIV diagnoses in 2011. Again larger proportions of newly diagnosed youth in the EMA were (1) African American (63.4% v. 50.5%) and (2) MSM (72.8% v. 60.6%) compared to all new HIV diagnoses in that year regardless of age.

YOUTH (age 13 to 24) TABLE 1-New Diagnoses of HIV and Persons Living with HIV in Houston/Harris County by Sex, Race/Ethnicity, and Risk^a				
	New HIV Disease ^b		Persons Living with HIV ^c	
	Cases	%	Cases	%
Total Youth (age 13 to 24)	286	100.0%	1,045	100.0%
Sex				
Male	224	78.3%	741	70.9%
Female	62	21.7%	304	29.1%
Race/Ethnicity				
White	23	8.0%	77	7.4%
Black/African American	185	64.7%	731	70.0%
Hispanic/Latino	75	26.2%	216	20.7%
Other/Multiple Races	3	1.0%	21	2.0%
Transmission Risk^d				
Male-to-male sexual activity (MSM)	210	73.4%	614	58.8%
Injection drug use (IDU)	7	2.4%	32	3.1%
Heterosexual contact	64	22.4%	237	22.7%
Perinatal/MSM-IDU/other	6	2.1%	163	15.6%
Total All Ages	1,249	100.0%	20,022	100.0%

^aSource: Houston/Harris County eHARS

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in Houston/Harris County in 2011

^cPLWH at end of 2010 = People living with HIV disease, regardless of AIDS status, in Houston/Harris County at the end of 2010

^dPatients with no risk reported were recategorized into standard categories using the multiple imputation or risk program of the Centers for Disease Control and Prevention (CDC)

Though people age 13 to 24 are about 20% of new HIV diagnoses in both Houston/Harris County and the Houston EMA, they are only 5% of all persons living with HIV in both jurisdictions. Prevalent cases in youth in both jurisdictions also tend to be

African American or Hispanic/Latino and MSM. About 15% of people age 13 to 24 living with HIV in the Houston EMA were perinatally infected.

YOUTH (age 13 to 24) TABLE 2-New Diagnoses of HIV and Persons Living with HIV in the Houston EMA by Sex, Race/Ethnicity, and Risk^a						
	New HIV Disease ^b			Persons Living with HIV ^c		
	Cases	%	Rate ^d	Cases	%	Rate ^d
Total Youth (age 13 to 24)	287	100.0%	31.7	1,185	100.0%	130.7
Sex						
Male	224	78.0%	48.0	861	72.7%	184.4
Female	62	21.6%	14.3	324	27.3%	73.7
Race/Ethnicity						
White	25	8.7%	8.6	89	7.5%	30.6
Black/African American	182	63.4%	97.7	818	69.0%	439.1
Hispanic/Latino	75	26.1%	20.1	255	21.5%	68.5
Other/Multiple Races	5	1.7%	8.7	23	1.9%	40.1
Transmission Risk^e						
Male-to-male sexual activity (MSM)	209	72.8%	*	721	60.9%	*
Injection drug use (IDU)	6	2.1%	*	28	2.3%	*
MSM/IDU	¶	¶	¶	13	1.1%	*
Heterosexual contact	66	23.0%	*	241	20.4%	*
Perinatal transmission	¶	¶	¶	182	15.4%	*
Total All Ages	1,334	100.0%	24.5	21,664	100.0%	397.6

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in the Houston EMA

^cPLWH at end of 2010 = People living with HIV disease, regardless of AIDS status, in the Houston EMA at the end of 2010

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection:

<http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

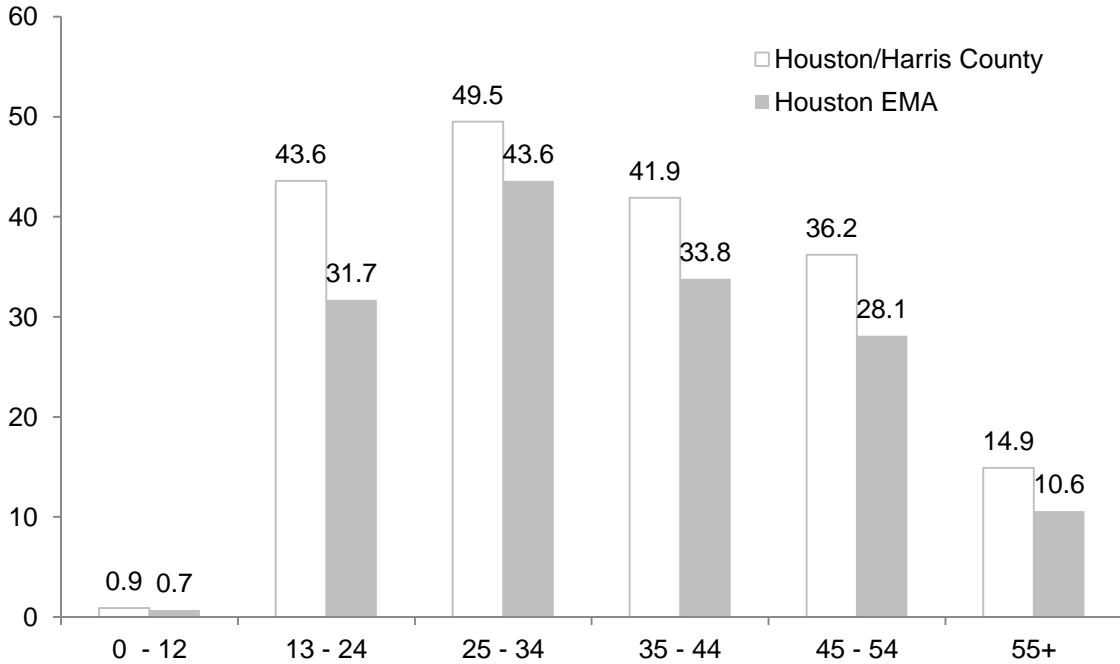
^eCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

¶Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

(Graph 1) Rates of new HIV diagnoses by age in Houston/Harris County and in the Houston EMA follow a general bell curve, with a peak among people age 25 to 34 in both jurisdictions. For people age 13 to 24, the rate of new HIV diagnoses is highest in Houston/Harris County at 44 new HIV cases for every 100,000 youth in the jurisdiction. This is also the *second* highest rate of new HIV diagnoses by age group in Houston/Harris County (behind people age 25 to 24). In the Houston EMA, there were 32 new HIV cases for every 100,000 youth in the jurisdiction.

YOUTH (age 13 to 24) GRAPH 1-Rate^a of New HIV Diagnoses in the Houston EMA^b and Houston/Harris County^c by Age as of December 31, 2011



^aSource: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

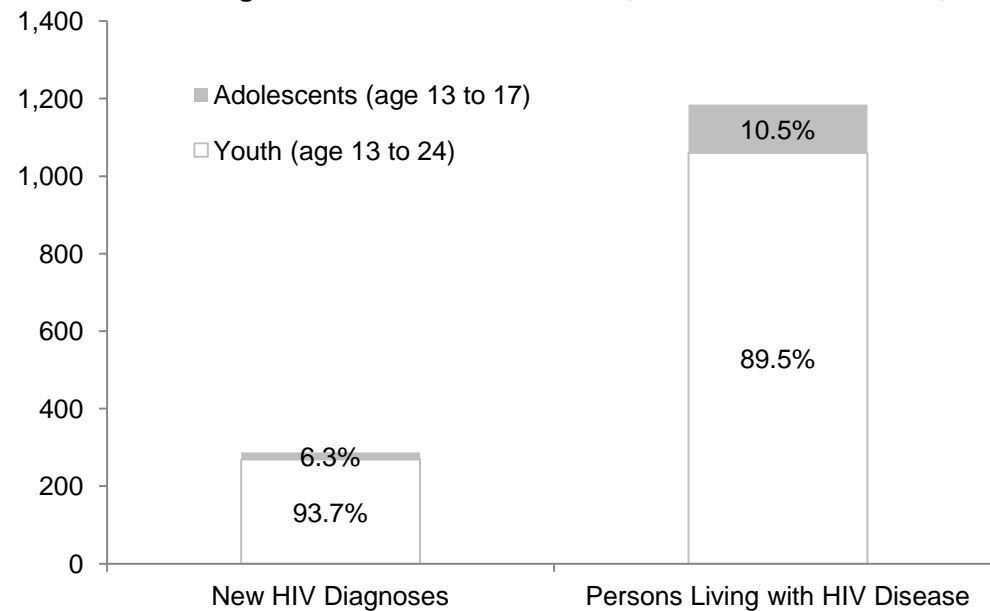
^bSource: Texas eHARS. Living HIV cases as of 12/31/11

^cSource: Houston/Harris County eHARS

Adolescents (age 13 to 17)

(Graph 2) In 2011, adolescents (people age 13 to 17) were 6.3% of all new HIV diagnoses that occurred in youth (people age 13 to 24) and 10.5% of all youth living with HIV in the Houston EMA.

ADOLESCENTS (age 13 to 17) GRAPH 2-Number and Proportion of New HIV Diagnoses and Persons Living with HIV in the Houston EMA, Adolescents and Youth, 2011



Source: Texas eHARS. Living HIV cases as of 12/31/11

(Table 3 and Table 4) In 2011, 18 adolescents (people age 13 to 17) were diagnosed with HIV in both Houston/Harris County and the Houston EMA. 100% were African American or Hispanic/Latino in both jurisdictions.

ADOLESCENTS (age 13 to 17) TABLE 3-New Diagnoses of HIV and Persons Living with HIV in Houston/Harris County by Sex, Race/Ethnicity, and Risk^a				
	New HIV Disease ^b		Persons Living with HIV ^c	
	Cases	%	Cases	%
Total Adolescents (age 13 to 17)	18	100.0%	102	100.0%
Sex				
Male	8	44.4%	54	52.9%
Female	10	55.6%	48	47.1%
Race/Ethnicity				
White	0	0.0%	†	†
Black/African American	12	66.7%	74	72.5%
Hispanic/Latino	6	33.3%	22	21.6%
Other/Multiple Races	0	0.0%	6	5.9%
Transmission Risk^d				
Male-to-male sexual activity (MSM)	7	38.9%	9	8.8%
Heterosexual contact	9	50.0%	8	7.8%
Perinatal/IDU/other	2	11.1%	85	83.3%
Total All Ages	1,249	100.0%	20,022	100.0%

^aSource: Houston/Harris County eHARS

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in Houston/Harris County in 2011

^cPLWH at end of 2010 = People living with HIV disease, regardless of AIDS status, in Houston/Harris County at the end of 2010

^dPatients with no risk reported were recategorized into standard categories using the multiple imputation or risk program of the Centers for Disease Control and Prevention (CDC)

^eData has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

A total of 125 adolescents (people age 13 to 17) are living with HIV in the Houston EMA. Almost all (92.8%) are African American or Hispanic/Latino. The majority were also perinatally infected (79.2%). However, small percentages also reported MSM (12.1%) and heterosexual contact (12.2%) as their primary risk factor. This is divergent from new HIV diagnoses in this age group in the EMA, for which the majority were either MSM or heterosexual (88.8%).

ADOLESCENTS (age 13 to 17) TABLE 4-New Diagnoses of HIV and Persons Living with HIV in the *Houston EMA* by Sex, Race/Ethnicity, and Risk^a

	New HIV Disease ^b			Persons Living with HIV ^c		
	Cases	%	Rate ^d	Cases	%	Rate ^d
Total Adolescents (age 13 to 17)	18	100.0%	1.3	125	100.0%	8.8
Sex						
Male	9	50.0%	1.2	63	50.4%	8.7
Female	9	50.0%	1.3	62	49.6%	9.0
Race/Ethnicity						
White	0	0.0%	0.0	¶	¶	¶
Black/African American	12	66.7%	4.9	86	68.8%	34.9
Hispanic/Latino	6	33.3%	0.9	30	24.0%	4.5
Other/Multiple Races	0	0.0%	0.0	¶	¶	¶
Transmission Risk^e						
Male-to-male sexual activity (MSM)	8	44.4%	*	12	9.6%	*
Injection drug use (IDU)	0	0.0%	*	0	0.0%	*
MSM/IDU	¶	¶	¶	0	0.0%	*
Heterosexual contact	8	44.4%	*	14	11.2%	*
Perinatal transmission	¶	¶	¶	99	79.2%	*
Total All Ages	1,334	100.0%	24.5	21,664	100.0%	397.6

^aSource: Texas eHARS. Living HIV cases as of 12/31/11

^bHIV Disease = People diagnosed with HIV, regardless of AIDS status, with residence at diagnosis in the Houston EMA

^cPLWH at end of 2010 = People living with HIV disease, regardless of AIDS status, in the Houston EMA at the end of 2010

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection:

<http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

^eCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

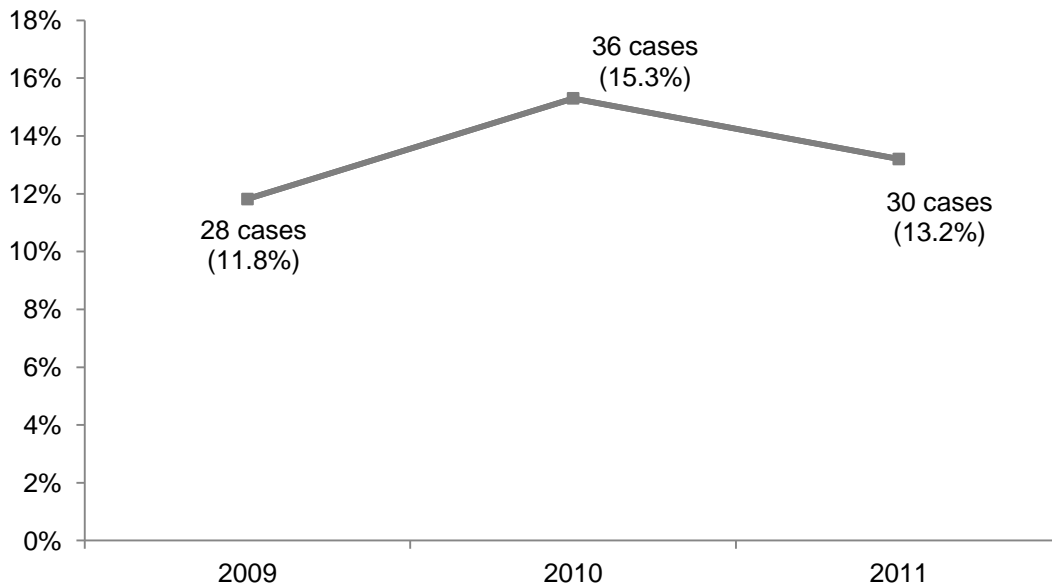
¶Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

Co-Infection: *HIV and Active TB Disease*

There are two types of tuberculosis (TB): (1) active TB disease and (2) latent TB infection. Active TB disease occurs when the TB bacteria are multiplying in the body and cause illness. Latent TB infection occurs when the TB bacteria do not multiply because the immune system has suppressed them; there are no symptoms, and the individual is not infectious. HIV-infected persons are at greater risk for developing active TB disease than non HIV-infected persons due to their weakened immune systems.¹ An individual who is co-infected with HIV and active TB disease is considered to have an AIDS-defining condition.¹ Moreover, a person who is HIV infected and has *latent* TB infection can progress to active TB disease more easily than a non HIV-infected person.¹ Data on co-infection between HIV and active TB disease are presented here.

(Graph 1) On average, about 31 cases of active TB disease diagnosed in the city of Houston are also co-infected with HIV each year. In 2011, HIV co-infected cases were 13.2% of all persons diagnosed with active TB disease in the city of Houston in that year.

TB GRAPH 2- Percent and Number of Persons with TB Who Are Co-Infected with HIV in Houston (excluding Harris County), 2009 to 2011



Source: Houston Department of Health and Human Services, TB Facts 2011 Revised 9/20/2012

(Table 1) In 2011, 25 persons newly diagnosed with AIDS in Houston/Harris County were also co-infected with active TB disease. Of all persons living with HIV in the jurisdiction in 2010, 523 cases were co-infected with active TB disease. In general, people with HIV and TB co-infection in Houston/Harris County tend to be male, African American, and age 35 and older. Most co-infected cases report the risk category of MSM followed by heterosexual contact.

¹Centers for Disease Control and Prevention, "TB and HIV Coinfection." Last Modified: July 17, 2010. Located at <http://www.cdc.gov/tb/topic/TBHIVcoinfection/default.htm>

TB TABLE 1-HIV Cases with TB Disease in Houston/Harris County by Sex, Race/Ethnicity, Age, and Risk^a				
	New AIDS Diagnoses^b		Persons Living with HIV^c	
	Cases	%	Cases	%
Total Cases Co-Infected with TB^d	25	100.0%	523	100.0%
Sex				
Male	20	80.0%	410	78.4%
Female	5	20.0%	113	21.6%
Race/Ethnicity				
White	¶	¶	70	13.4%
Black/African American	14	56.0%	268	51.2%
Hispanic/Latino	8	32.0%	163	31.2%
Other/Multiple Races	3	12.0%	22	4.2%
Age at Diagnosis				
0 - 12	0	0.0%	0	0.0%
13 - 24	10¶	40.0%	6	1.1%
25 - 34			50	9.6%
35 - 44	8	32.0%	145	27.7%
45 - 54	7¶	28.0%	202	38.6%
55+			120	22.9%
HIV Transmission Risk^e				
Male-to-male sexual activity (MSM)	9	36.0%	191	51.8%
Injection drug use (IDU)	¶	¶	107	11.2%
MSM/IDU	¶	¶	64	5.3%
Heterosexual contact	10	40.0%	154	30.4%
Perinatal transmission/other	6	24.0%	7	1.3%
Total All Cases	775	100.0%	20,022	100.0%

^aSource: Houston/Harris County eHARS

^bAIDS = People diagnosed with AIDS with residence at diagnosis in Houston/Harris County in 2011

^cPLWH at end of 2010 = People living with HIV disease, regardless of AIDS status, in Houston/Harris County at the end of 2010

^dAnalysis includes pulmonary and extrapulmonary active tuberculosis (TB) disease. Active TB disease, of any site, pulmonary (among people age 13 or older), disseminated, or extrapulmonary is an AIDS-defining condition

^ePatients with no risk reported were recategorized into standard categories using the multiple imputation or risk program of the Centers for Disease Control and Prevention (CDC)

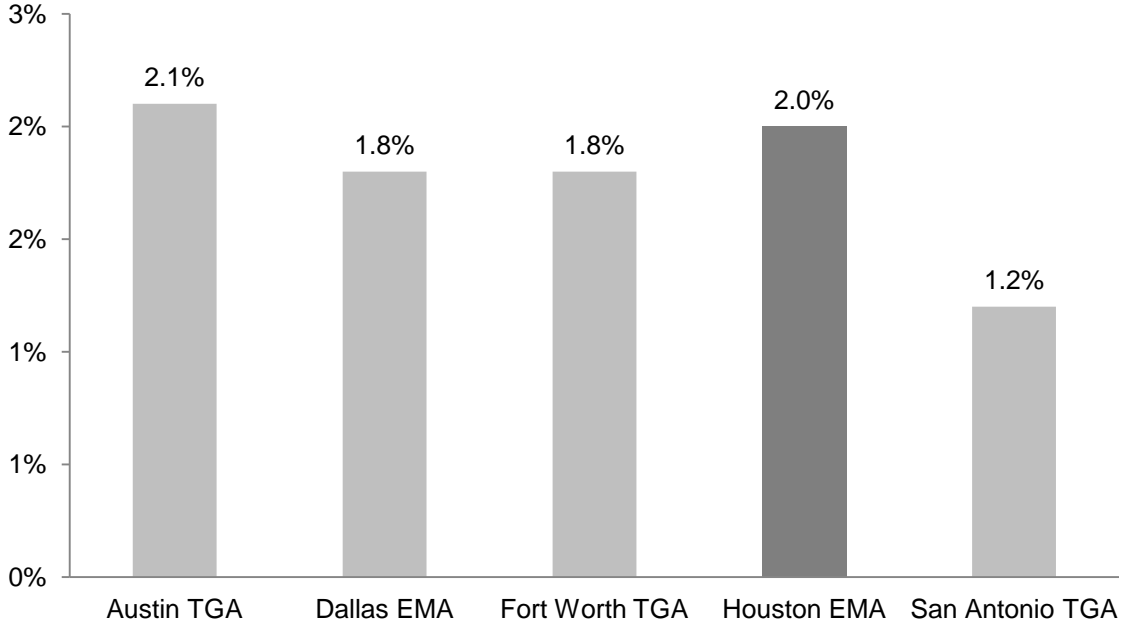
[¶]The age groups of 13-24 and 25-34 as well as 45-54 and 55+ were combined to meet the cell size minimum of 5 cases. This ensures confidentiality of cases and reliability of data.

*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

¶Data has been suppressed or combined to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

(Graph 2) The Houston EMA is second highest among the federally-designated geographic service areas in Texas (i.e., other EMAs or Transitional Grant Areas/TGA) in terms of the percent of persons living with HIV who are also co-infected with active TB disease. Currently, the Houston EMA is at 2.0% of all HIV-infected persons co-infected with TB. The Austin TGA has the highest proportion in the state at 2.1%.

TB GRAPH 2- Percent of Persons Living with HIV/AIDS (PLWHA) Who Are TB Co-Infected by HRSA Geographic Service Area in Texas, 2011



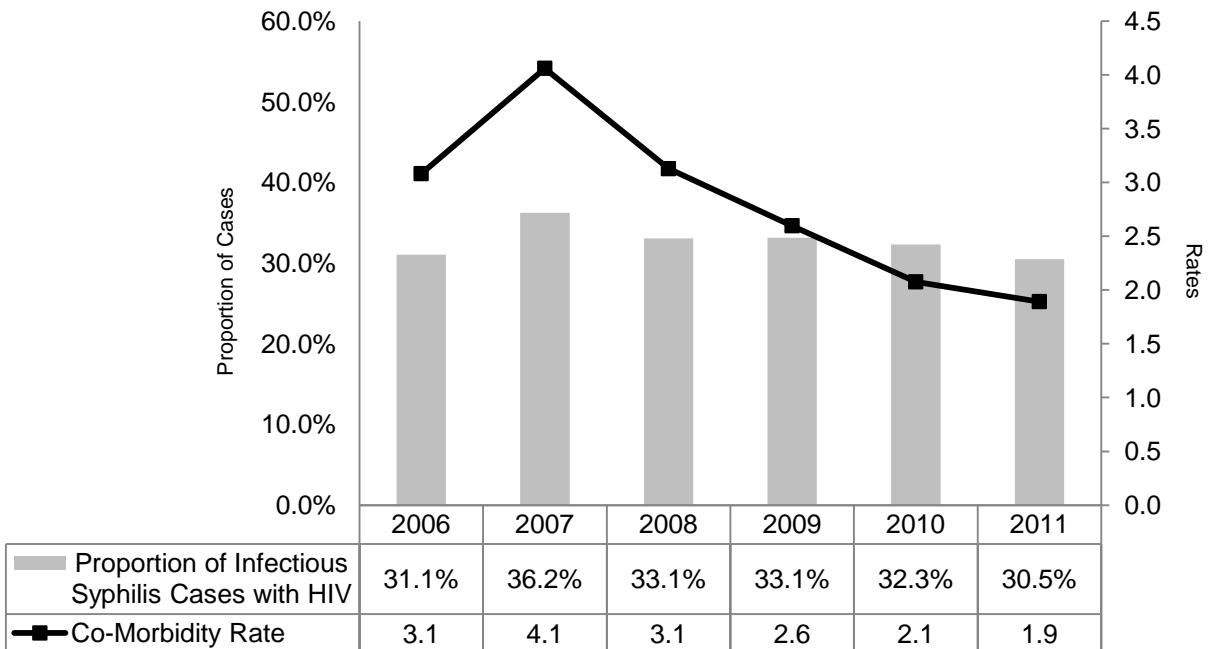
Source: Texas Department of State Health Services, HIV TB Comorbidity. Released 8/17/12. PLWH reported through Dec 31, 2011 with a diagnosis of M. tuberculosis or pulmonary TB (excluding "unknown" diagnoses).

Co-Infection: *HIV and Infectious Syphilis*

There are four general stages of syphilis: (1) primary, (2) secondary, (3) latent, and (4) tertiary. The primary and secondary stages are of most concern epidemiologically as this is when syphilis is most communicable, or infectious, to others. Therefore, primary and secondary syphilis, taken together, are commonly referred to as *infectious syphilis*. Co-infection of syphilis and HIV is also of concern because of the implications co-infection has for both HIV transmission and syphilis treatment. For example, when an HIV-positive person is co-infected with syphilis, the syphilis infection increases the infectiousness of the HIV to sex partners.¹ Moreover, research has shown that HIV-infected persons may experience a more rapid course of illness associated with syphilis, including a greater risk of neurological complications.² Data on co-infection between HIV and infectious syphilis, all syphilis stages, and early latent syphilis are described here.

(**Graph 1**) On average, about 33% of individuals diagnosed with infectious syphilis in Houston/Harris County each year are also co-infected with HIV. The current rate of HIV and infectious syphilis co-infection in Houston/Harris County is 1.9 co-infected persons for every 100,000 persons in the jurisdiction. The co-infection rate has been on a downward trend since 2007, when the rate was 4.1 co-infected people for every 100,000 population and the proportion of syphilis cases co-infected with HIV was 36.2%.

SYPHILIS GRAPH 1-Proportion and Rate of Cases Co-Infected with HIV and Infectious Syphilis in Houston/Harris County, 2006 to 2011



Source: Houston/Harris County STD*MIS Interview Records. Rate per 100,000 population.

Population Source: DSHS Center for Health Statistics 2011 Population Projection: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>

¹Centers for Disease Control and Prevention, "Syphilis & MSM (Men Who Have Sex With Men) - CDC Fact Sheet." Last Modified: September 1, 2010. Located at <http://www.cdc.gov/std/syphilis/STDFact-MSM-Syphilis.htm>

²Centers for Disease Control and Prevention. Sexually Transmitted Diseases Treatment Guidelines, 2010, MMWR 2010;59. Diseases Characterized by Genital, Anal, or Perianal Ulcers

(Table 1) In 2011, 79 cases of infectious syphilis were also co-infected with HIV in Houston/Harris County. Of these, the majority was African American (62.0%), between the ages of 15 and 34 (70.9%), and MSM (91.1%). When all syphilis stages are included in the analysis, 471 cases were co-infected with HIV in 2011 for a rate of 11.3 co-infected persons for every 100,000 persons living in Houston/Harris County.

SYPHILIS TABLE 1-Syphilis Cases Co-Infected with HIV in Houston/Harris County by Sex, Race/Ethnicity, Age, and Risk, 2011^a						
	HIV and Infectious Syphilis ^b			HIV and All Syphilis ^c		
	Cases	%	Rate ^d	Cases	%	Rate ^d
Total Co-Infected Cases^e	79	100.0%	1.9	471	100.0%	11.3
Sex						
Male	¶	¶	¶	453	96.2%	21.5
Female	¶	¶	¶	18	3.8%	0.9
Race/Ethnicity						
White	15	19.0%	0.8	124	26.3%	6.5
Black/African American	49	62.0%	6.6	244	51.8%	33.0
Hispanic/Latino	12	15.2%	1.0	93	19.7%	7.7
Other/Unknown	¶	¶	¶	10	2.1%	2.8 ^f
Age at Diagnosis						
0 - 14	0	0.0%	0.0	0	0.0%	0.0
15 - 24	29	36.7%	5.3	106	22.5%	19.3
25 - 34	27	34.2%	3.7	159	33.8%	21.6
35 - 44	15	19.0%	2.1	124	26.3%	17.5
45+	8	10.1%	0.7	82	17.4%	6.7
Syphilis Transmission Risk						
Male-to-male sexual activity (MSM)	72	91.1%	*	393	83.4%	*
Non-MSM sexual risk	7	8.9%	*	78	16.6%	*

^aSource: STD*MIS Interview Records

^bInfectious syphilis is primary and secondary syphilis only

^cAll syphilis includes primary, secondary, and latent syphilis, but not congenital syphilis

^dRate per 100,000 population. Source: DSHS Center for Health Statistics 2011 Population Projection:

<http://www.dshs.state.tx.us/chs/popdat/detailX.shtml>

^eHIV status will be unknown for those not interviewed

^fFor the purpose of this analysis, the rate for "other" race/ethnicity includes those for whom race/ethnicity is unknown.

*Population data are not available for risk groups; therefore, it is not possible to calculate rate by risk

¶Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data

(Table 2) Though not as easily spread as *infectious syphilis*, early latent syphilis can still be transmitted to sex partners, and there are typically no symptoms.³ Moreover, if latent syphilis remains untreated, it can result in damage to internal organs.³

In 2011, there were 172 persons in the Houston EMA who were co-infected with HIV and early latent syphilis. Of these, almost all were male (97.1%), and the majority was African American (60.5%), between the ages of 13 and 34 (66.9%), and MSM (89.0%).

³Centers for Disease Control and Prevention, "Syphilis & MSM (Men Who Have Sex With Men) - CDC Fact Sheet." Last Modified: September 1, 2010. Located at <http://www.cdc.gov/std/syphilis/STDFact-MSM-Syphilis.htm>

SYPHILIS TABLE 2-Cases Co-Infected with HIV and Early Latent Syphilis in the Houston EMA by Sex, Race/Ethnicity, Age, and Risk, 2011^a			
		HIV and Early Latent Syphilis^b	
		Cases	%
Total Co-Infected Cases		172	100.0%
Sex			
	Male	167	97.1%
	Female	5	2.9%
Race/Ethnicity			
	White	32	18.6%
	Black/African American	104	60.5%
	Hispanic/Latino	33	19.2%
	Other/Unknown	3	1.7%
Age at Diagnosis			
	13 - 24	50	29.1%
	25 - 34	65	37.8%
	35 - 44	36	20.9%
	45 - 54	19	11.0%
	55+	2	1.2%
HIV Transmission Risk^c			
	Male-to-male sexual activity (MSM)	153	89.0%
	Injection drug use (IDU)	3	1.7%
	MSM/IDU	5	2.9%
	Heterosexual contact	11	6.4%
	Perinatal transmission	¶	¶
	Adult other risk	¶	¶

^aSource: Texas Department of State Health Services. PLWHA Comorbidities 2011. Released 8/17/12

^bLatent syphilis is syphilis detectable via testing but with no evidence of disease. Patients who have latent syphilis and acquired it during the preceding year are classified as having early latent syphilis.

^cCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

^dData are not available

Co-Infection: *HIV and Hepatitis B and C*

Hepatitis refers to a group of viral infections that affect the liver. The most common types are Hepatitis A, Hepatitis B, and Hepatitis C. Hepatitis A is an acute disease with no long-term health implications once it is treated whereas Hepatitis B and C can be both acute and chronic.¹ Chronic untreated Hepatitis B or C can lead to serious liver problems, including liver damage, cirrhosis, liver failure, or liver cancer.¹ Hepatitis infections tend to progress more rapidly to liver damage in HIV-infected persons, and HIV-infected persons who are co-infected with Hepatitis have an increased risk for liver-related morbidity and mortality.² In addition, Hepatitis C infection may impact the course of HIV treatment in co-infected persons.²

In Texas, it is not mandatory for providers and laboratories to report chronic Hepatitis B and C to the local health authority, and acute Hepatitis C has not been reportable since 2007. However, in Houston/Harris County, voluntary reporting continues to occur. Data on co-infection between HIV and Hepatitis B and C are described here.

(Table 1) In 2010, 299 persons living with HIV in Houston/Harris County had been diagnosed with Hepatitis B or C in either 2009 or 2010. This translates into 1.5% of all persons living with HIV in the jurisdiction in 2010 having been co-infected with either Hepatitis B or C in 2009 or 2010. In general, people with HIV and Hepatitis B or C co-infection tend to be male, African American, and age 35 and older. Though most co-infected cases report the risk category of MSM, injection drug use (IDU) activity was reported in almost one-quarter of co-infected cases. This is consistent with the research on Hepatitis transmission, particularly Hepatitis C, which has been shown to be more effectively transmitted through exposure to blood than through sexual contact.³

¹Centers for Disease Control and Prevention, "Viral Hepatitis." Last Modified: March 12, 2013. Located at <http://www.cdc.gov/hepatitis/>

²Centers for Disease Control and Prevention, "HIV/AIDS and Viral Hepatitis." Last Modified: August 17, 2012. Located at <http://www.cdc.gov/hepatitis/Populations/HIV.htm>

³Centers for Disease Control and Prevention, "Hepatitis C Information for Health Professionals." Last Modified: March 14, 2011. Located at <http://www.cdc.gov/hepatitis/HCV/index.htm>

HEPATITIS TABLE 1-HIV Cases with Hepatitis B or C in Houston/Harris County by Sex, Race/Ethnicity, Age, and Risk, 2010			
		HIV ^a and Hepatitis B or C ^b	
		Cases	%
Total Co-Infected Cases^c		299	100.0%
Sex			
	Male	251	83.9%
	Female	48	16.1%
Race/Ethnicity			
	White	63	21.1%
	Black/African American	184	61.5%
	Hispanic/Latino	46	15.4%
	Other/Unknown	6	2.0%
Age at Diagnosis			
	0 - 12	0	0.0%
	13 - 24	5	1.7%
	25 - 34	54	18.1%
	35 - 44	88	29.4%
	45 - 54	110	36.8%
	55+	42	14.0%
HIV Transmission Risk^d			
	Male-to-male sexual activity (MSM)	161	53.8%
	Injection drug use (IDU)	37	12.4%
	MSM/IDU	36	12.0%
	Heterosexual contact/perinatal/other [¶]	65	21.7%

^aSource: Houston/Harris County eHARS

^bSource: Houston/Harris County Maven data management system

^cPeople living with HIV as of 2010 in Houston/Harris County with Hepatitis B and/or C diagnosed in either 2009 and 2010

^dCases with unknown risk have been redistributed based on historical patterns of risk ascertainment and reclassification

[¶]Data has been suppressed to meet the cell size minimum of 5. This ensures confidentiality of cases and reliability of data



Explanation of Data Sources

What are the sources for the data presented in the 2013 Houston Area HIV/AIDS epidemiologic profile?

“Several of these sources directly report HIV and AIDS cases and clinical conditions of persons with a diagnosis of HIV infection or AIDS. Other sources are used to round out the picture of the HIV/AIDS epidemic [.]”

≈ Integrated Guidelines for Developing Epidemiologic Profiles
2004

The data that comprise the 2013 epidemiologic profile for the Houston Area was drawn from local, state, and national sources. Some data were extracted from databases specifically for this document, and others were provided in summary form only. Below is a brief description of each of the major data sources used in this document:

U.S. Bureau of the Census

A decennial census of the U.S. population is required by the U.S. Constitution, and the U.S. Census Bureau was established in 1902 for this purpose. The most recent decennial census of the American population was conducted in 2010. The U.S. Census Bureau also collects yearly statistics about the U.S. population through the American Community Survey (ACS). Like the decennial census, the ACS collects detailed information on demographic, social, and economic characteristics of the U.S. population. Because the ACS is conducted every year, it provides more current estimates of population statistics throughout the decade. It is recommended that the decennial census and ACS be used in conjunction to produce an accurate representation of the U.S. population. 2010 U.S. Census data and 2009-2011 ACS three-year estimates have been used to supply the county level population and demographic statistics presented in this document. For more information about the methodology and limitations of these data sources, please visit the following:

- U.S. Census: <http://www.census.gov/>
- American Fact Finder: <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>
- American Community Survey (ACS): <http://www.census.gov/acs/www/>

Texas Department of State Health Services (DSHS) Center for Health Statistics

The DSHS Center for Health Statistics is a clearinghouse for Texas-specific health-related data, including a population database for all Texas counties that can provide denominators for rates of disease. These data are extracted from the Texas State Data Center and presented as a single series of yearly population estimates and projections by demographic characteristics for the period of 1990 through 2040. The Center also maintains a series of Health Facts Profiles of selected community health indicators for each Texas county. The Center's 2011 population projection file was used as the denominator for all rates presented in this document. Data from the 2009 Health Facts Profiles for relevant counties were used in Chapter 1. For more information about the methodology and limitations of these data sources, please visit the following:

- Texas Center for Health Statistics: <http://www.dshs.state.tx.us/chs/>

- Population Data for Texas: <http://www.dshs.state.tx.us/chs/popdat/detailX.shtm>
- Texas Health Facts Profiles: <http://www.dshs.state.tx.us/chs/cfs/Texas-Health-Facts-Profiles.doc>

Enhanced HIV/AIDS Reporting System (eHARS)

The Enhanced HIV/AIDS Reporting System (eHARS) is an HIV/AIDS surveillance system deployed at all state and local health departments by the Centers for Disease Control and Prevention (CDC). Its purpose is to serve as a centralized source for the ongoing, systematic collection and dissemination of data on HIV/AIDS in local jurisdictions. All laboratory evidence of HIV/AIDS disease is entered into the eHARS system using case reports and laboratory reports. On a monthly basis, health departments submit de-identified data electronically to the national HIV/AIDS database at the CDC. For the local jurisdiction of Houston/Harris County, eHARS is administered by the Houston Department of Health and Human Services (HDHHS); for counties outside of Harris, the system is managed by the Texas Department of State Health Services (DSHS). The eHARS database is the source of data on HIV/AIDS diagnoses, prevalence, and mortality presented in this document. For the document sections on Houston/Harris County, data were extracted directly from the HDHHS instance of eHARS in December 2012; for the document sections on the Houston Eligible Metropolitan Area (EMA), data were aggregated from files extracted by DSHS from the Texas instance of eHARS in July 2012. Because data were extracted at different times, there may be inconsistencies at the individual case level between the jurisdictional data presented in this document. For more information about the methodology and limitations of these data sources, please visit the following:

- Centers for Disease Control and Prevention (CDC) HIV/AIDS Surveillance System: <http://www.cdc.gov/hiv/topics/surveillance/index.htm>
- Texas Department of State Health Services (DSHS) HIV-STD Epidemiology and Surveillance Branch: <http://www.dshs.state.tx.us/hivstd/contractor/surveillance.shtm>
- Houston Department of Health and Human Services (HDHHS) Epidemiology and Disease Reporting: <http://www.dshs.state.tx.us/hivstd/contractor/surveillance.shtm>

In addition to the raw data extracted from eHARS and presented in this document, several data reports from the Texas eHARS database developed and formatted by DSHS were also used. These reports are provided annually to the Houston EMA for use in grant writing and other planning activities. Questions about the methodology and limitations of these reports should be directed to the author at DSHS:

- 2011 New Dx Cases with Met Need But No Linkage to Care Dates. Released 8/17/12
- Number and Proportion of PLWHA with Unmet Need for Medical Care by EMA/TGA, 2011. Released 8/17/12
- Undiagnosed Infections by EMA/TGA, 2010. Report generated August 2012.
- Viral Loads for EMAs/TGA for Part A. Data from among adults and adolescents (≥ 13 years of age as of end of the year 2011) residing in Texas diagnosed with HIV infection through 2011 and living with HIV infection on 12/31/2011.
- 2007-2010 Number, Percent, and Percent Change in the Number of PLWH and Unmet Need by EMA/TGA. Released 8/17/12
- Unmet Need by Zip Code, 2011. Released 8/17/12

- HIV Testing and Awareness Data for the Houston EMA, 2011. Sent 9/10/12
- HIV TB Comorbidity. Released 8/17/12
- PLWHA Comorbidities 2011. Released 8/17/12
- Homelessness, Insurance, and Poverty. Released 8/17/12

Sexually Transmitted Disease Management Information System (STD*MIS)

The Sexually Transmitted Disease Management Information System (STD*MIS) is an application provided by the CDC to state and local health departments for the purpose of STD surveillance, including managing evidence of reportable STDs received from laboratories, health care providers, facilities, and Disease Intervention Specialists (DIS) as well as tracking STD treatment, partner services, and other public health follow-up activities. For the local jurisdiction of Houston/Harris County, STD*MIS is administered by the HDHHS; for counties outside of Harris, STD*MIS is managed by DSHS. STD*MIS is the source of data on Chlamydia, gonorrhea, and syphilis in Houston/Harris County presented in this document. Data were extracted directly from the HDHHS instance of STD*MIS and reflect only cases that were diagnosed and reported. For more information about the methodology and limitations of this data source, please visit the following:

- Centers for Disease Control and Prevention (CDC) STD Surveillance System: <http://www.cdc.gov/std/std-mis/default.htm>
- Houston Department of Health and Human Services (HDHHS) Epidemiology and Disease Reporting: <http://www.dshs.state.tx.us/hivstd/contractor/surveillance.shtm>

Centralized Patient Care Data Management System (CPCDMS)

The Centralized Patient Care Data Management System (CPCDMS) is a browser-based client level database unique to the Houston Area. It links all Ryan White HIV/AIDS Program Part A, B, C, and State Services (State of Texas matching funds) funded agencies on specific client level data variables, including registration, encounter, medical information, demographics, co-morbidity, biological marker, service utilization, outcomes survey, and assessment data for each client served. Its purpose is to manage and produce real-time client level data for tracking service utilization, planning for services, and quality improvement of services community-wide. All entities in the Houston Area receiving Ryan White HIV/AIDS Program funds other than Part D enter data into CPCDMS. CPCDMS is administered by the Harris County Public Health Services Ryan White Grant Administration, the Administrative Agent for Ryan White HIV/AIDS Program Part A and the Minority AIDS Initiative (MAI) for the Houston EMA. All data on Ryan White HIV/AIDS Program service utilization presented in this document have been extracted from CPCDMS either as raw data for the purpose of this document or in previously developed data reports. For more information about the methodology and limitations of this data source, please visit the following:

- Ryan White Grant Administration Centralized Patient Care Data Management System (CPCDMS): <http://www.hcphes.org/rwga/cpcdms.html>

Other Sources

Additional sources are used throughout this document as indicated in the source and footnotes. Please refer directly to these sources for more information about their methodology and limitations.



Houston Area Ryan White Planning Council
2223 West Loop South, #240
Houston, Texas 77027
Tel: (713) 572-3724
Fax: (713) 572-3740
Web: www.rwpchouston.org

Houston Area HIV Prevention Community
Planning Group
8000 N. Stadium Drive, 5th Floor
Houston, TX 77054
Tel: (832) 393-4696
Fax: (832) 393-5236
Web: www.CPGHou.org