



Tennessee HIV/AIDS Strategy

An Integrated HIV Care and
Prevention Plan

September 2016



Acknowledgements

The development of this plan was a coordinated effort requiring the input of many talented individuals. We would like to gratefully acknowledge the contributions of all those who actively contributed to this plan including the Tennessee Community Planning Group members, Tennessee Department of Health (TDH) staff, people living with HIV/AIDS (PLWHA), Ryan White Providers, TDH grantees, all prevention and care providers, advocates and all other stakeholders. Thank you for your time, input, guidance and other valuable resources allowing this process to be successful.

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Section 1: Introduction

Since the previous Statewide Coordinated Statement of Need (SCSN) and the development of plans for HIV prevention and care for HRSA and CDC, the HIV/STD/Viral Hepatitis Program within the Tennessee Department of Health (TDH) has made exceptional strides towards the goals of primary prevention of HIV, early identification, linkage to care, and supporting high quality health care services resulting in viral suppression.

In 2015, the Ryan White Program provided outpatient ambulatory medical care to nearly 4,500 patients in HIV Centers of Excellence sites across the State. Medical Case Managers provided coordination of services and access to benefits and pharmacologic support to 6,300 patients. More than \$1 million in oral health support provided for the dental care needs of Tennesseans enrolled in Ryan White programs.

Also in 2015, some 120,000 HIV tests were conducted and 462 new positives were identified. Of these, nearly 75% were successfully linked to care. Some 1,200 individuals participated in behavioral programs for high-risk negative clients, and nearly 2.5 million condoms were distributed in Tennessee. Through Data to Care efforts, more than 300 individuals were either re-engaged in care or records were amended to align individuals in care with their medical records.

Still, in 2014 some 756 Tennesseans were diagnosed with HIV. Of these, nearly 60% were African-American, though African-Americans make up a mere 16% of the State population. Of these new diagnoses, nearly 60% are occurring in individuals younger than 35. In spite of great strides providing access to care and life-saving medications, some 18% of Tennesseans remain unaware of their HIV status and some 55% have not been retained in care.

TDH views the process of conducting this SCSN and the subsequent development of an Integrated HIV Prevention and Care Plan as an important opportunity to assess and prioritize unmet needs and gaps in services and to re-double efforts to address the treatment cascade. The Division of HIV/STD is committed to finding innovative methods to prevent new cases of HIV in Tennessee, and to assure that Tennesseans living with HIV will access medical care and support services allowing them to experience better health and enhanced quality of life. Together with its clinical and community partners, the efforts are sure to succeed.

Section 2: Overview of the Process

Description of the Planning Process

The HIV/STD Program began the process by determining the need for an external contractor to assist with the SCSN and Integrated Plan development. Funds were made available through an existing contract with the United Way of Nashville and an RFP was issued. Following review by an external review committee, the firm JL Sacco & Associates was awarded the contract.

The ‘kick-off’ for the SCSN coincided with the March 2016 statewide meetings held in Nashville. TDH offered an overview of the SCSN plan and invited stakeholders to ask questions and offer comment. This allowed more than 200 providers, consumers, and advocates exposure to the plan and an opportunity to provide input. The agenda allowed focus groups to be held during which gaps/barriers and unmet needs were identified. This process allowed TDH to populate surveys and focus group guides with input from stakeholders in these meetings.

Early in the planning process, the TDH HIV/STD/Viral Hepatitis Program reached out to the Ryan White Part A staff in Memphis and Nashville and advised them of the tentative plan. Both Part A partners agreed to co-host a local meeting to gather input on prevention and care gaps, recognizing the activity could serve as an important element in their SCSN.

A series of Regional meetings was set up to gather input on barriers and gaps that needed to be addressed and development of strategies to address the treatment cascade. Throughout April 2016, these meetings generated rich input and allowed the possibility for the HIV/AIDS Program to analyze differences by Region.

In tandem with the Regional meetings and select key informant interviews, a statewide survey of stakeholders was conducted. More than 450 responses were obtained. In addition to the online survey, paper copies were distributed at consumer meetings and through medical case managers and mailed to the contractor. These data were sorted and separate reports for both Memphis and Nashville were shared with the Part A grantees.

Linking the SCSN and the Integrated Plan

The diversity and comprehensive nature of input from all stakeholders is designed as a model for the collaborative and creative strategies employed in the IHPC Plan. For the plan to overcome the complex needs of those most-at-risk and of people living with HIV but not in care, creative and collaborative solutions to existing problems will need to be instituted. This strategy will maximize coordination, integration, and effective linkages across programs and organizations.

By building on a diversity of stakeholder input, the SCSN has been executed to be a comprehensive assessment of barriers, gaps, and unmet needs. Given the attention to making

sure the assessment was done well, the plan will be able to address the concerns expressed as part of the SCSN. Every effort to have an achievable plan has been employed. These measurable, practical strategies for addressing the treatment cascade will assure that the plan goals and activities are realistic and achievable.

Tennessee Community Planning Group (TCPG): Engagement and Oversight

The Tennessee Community Planning Group (TCPG) has overseen the process as partner with TDH. In 2015, the Guidance for the SCSN/IHPCP was shared with the TCPG and input was gathered on structuring the process.

TCPG membership was intimately involved in the initial kick-off meeting, providing support—including facilitation assistance—to the process. TCPG members were involved in focus groups and were active in making sure access to surveys was widespread. Since TCPG is nearly 40% PLWHA, the stakeholder engagement of consumers was guaranteed.

At the April 2016 TCPG meeting, TDH provided an update on the SCSN process and Regional breakout groups discussed the unique regional needs. Finally, the TCPG voted to concur with the goals and objectives of the Integrated Plan in August 2016 (see Letter of Concurrence in the Appendix A).

Participation in SCSN by all Parts/Key Stakeholders

The success of the SCSN is due to the collaboration and commitment of TDH staff and community partners throughout the State. All Ryan White partners in the State participated in the SCSN - both Part A grantees collaborated on needs assessment activities, the Part C EIS grantees, Part D grantees, and the Part F AETC grantee. In addition, both CDC directly-funded CBOs were involved. Also, the Tennessee Division of Substance Abuse Services, the state's SAMHSA grantee, has been involved in the process as a member of the TCPG.

Internally, TDH staff including leadership, prevention and care program staff, surveillance staff, and field staff provided input and guidance to be included in the SCSN and IPCP development processes.

Finally, the goal of substantive and meaningful input of PLWHA was clearly achieved. In addition to members of the TCPG, PLWHA were engaged via the statewide survey and were involved in the planning and review of the IPCP.

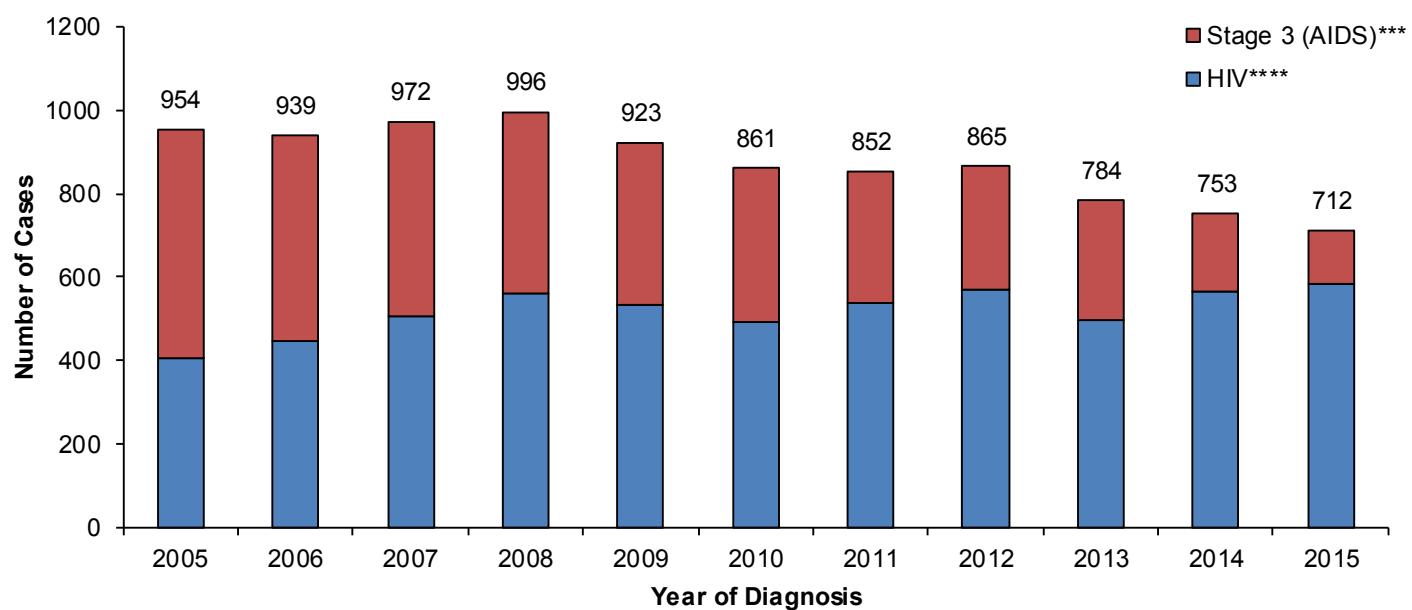
Section 3: Statewide Coordinated Statement of Need (SCSN)

Epidemiologic Overview (including Continuum of Care data)

Notes to the Reader:

- HIV disease includes all individuals diagnosed with the human immunodeficiency virus (HIV), regardless of the stage of disease progression. All persons with HIV disease can be sub-classified as either a stage 3 (acquired immunodeficiency syndrome (AIDS)) case (if they are in the later stages of the disease process and have met the case definition for stage 3 (AIDS)), or an HIV case (if they are in the earlier stages of the disease process and have not met the stage 3 (AIDS) case definition). In this report, the sub-classification of HIV or stage 3 (AIDS) is based on an individual's status of disease progression as of December 31, 2015.
- The data presented in this report only include cases diagnosed through December 31, 2015, based on information reported to the Tennessee Department of Health through August 10, 2016. The difference between the date of diagnosis and the date of report represents delays in case reporting.

Figure 1. HIV disease cases, by current status* and year of diagnosis, Tennessee, 2005-2015**



*HIV case vs. stage 3 (AIDS) case

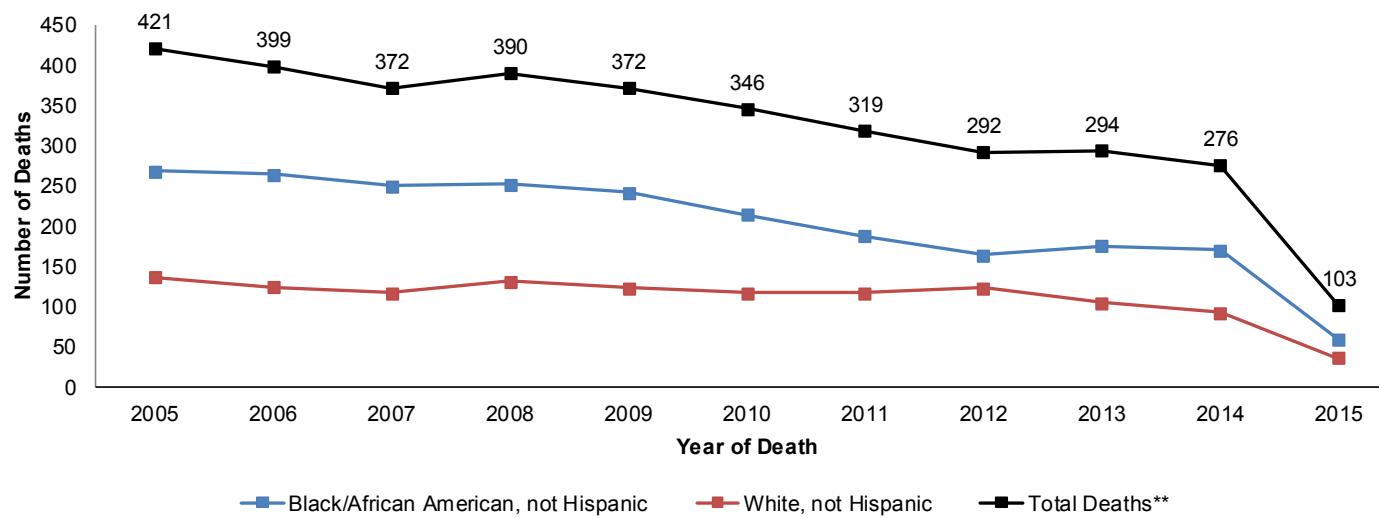
**Cases are indicated by year of initial diagnosis reported to the Tennessee Department of Health. (The year in which the first diagnosis of the person, whether as an HIV case or a stage 3 (AIDS) case, was documented by the Department).

***These cases were either: 1) initially reported as HIV cases and then later reclassified as stage 3 (AIDS) cases because they subsequently met the stage 3 (AIDS) case definition; or 2) initially reported as stage 3 (AIDS) cases.

****These cases were initially reported as HIV cases and have remained HIV cases. They have not met the case definition for stage 3 (AIDS) as of December 31, 2015.

- Since 1982, there have been a total of 27,737 HIV disease cases diagnosed through December 31, 2015.
- There have been 712 new HIV disease diagnoses from January to December 2015. In comparison, there were 756 new HIV disease diagnoses reported in 2014 (Figure 1).
- The differences in the number of individuals sub-classified as stage 3 (AIDS) cases are due to the progression of the disease over time. For those diagnosed with HIV disease in 2005, a larger number are currently classified as stage 3 (AIDS) cases compared to those diagnosed in 2015 because they have been living with the virus longer.

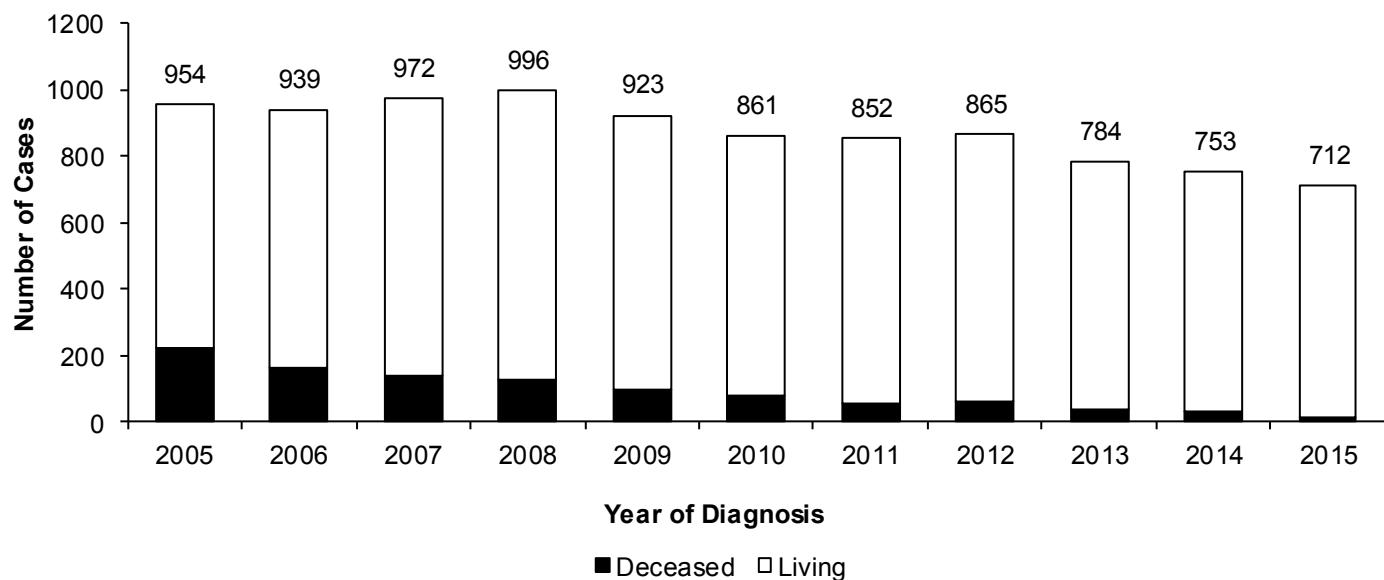
Figure 2. HIV disease deaths*, by selected race, by year of death, Tennessee, 2005-2015[†]



*Includes deaths that have occurred among those diagnosed with HIV disease in Tennessee.

[†]Only includes deaths through December 31, 2015 and reported by August 10, 2016.

Figure 3. Persons diagnosed with HIV disease by current vital status* and year of diagnosis, Tennessee, 2005-2015**



*Vital status on December 31, 2015.

**Cases are indicated by year of initial diagnosis reported to TDH. (The year in which the first diagnosis of the person, whether as an HIV case or an AIDS case, was documented by the Department).

- The total number of deaths among those diagnosed with HIV disease in Tennessee has generally decreased from 2005 to 2015 (Figure 2). The decline in 2015 may be due to delays in death reporting.
- A larger proportion of those diagnosed in 2005 have died as of December 31, 2015 compared to those diagnosed in 2015, which is likely due to differences in the length of time living with the virus and current age (Figure 3).

Table 1. Living[†] HIV, stage 3 (AIDS) and HIV disease cases by sex, by race/ethnicity, by race/ethnicity and sex, and current age^{*}, Tennessee, 2015**

	HIV*			Stage 3 (AIDS)**			HIV Disease***		
	Cases	%	Rate****	Cases	%	Rate****	Cases	%	Rate****
Sex									
Male	6,057	72.6%	188.3	6,409	74.9%	199.2	12,466	73.8%	387.5
Female	2,251	27.0%	66.5	2,122	24.8%	62.7	4,378	25.9%	129.4
Transgender	35	0.4%	n/a	29	0.3%	n/a	64	0.4%	n/a
Total	8,343	100.0%	126.4	8,560	100.0%	129.7	16,903	100.0%	256.1
Race/Ethnicity									
Black/African American	4,869	58.4%	431.0	4,666	54.5%	413.0	9,535	56.4%	844.0
Hispanic	357	4.3%	n/a	407	4.8%	n/a	764	4.5%	n/a
White	2,957	35.4%	56.9	3,232	37.8%	62.2	6,189	36.6%	119.0
Asian	38	0.5%	n/a	33	0.4%	n/a	71	0.4%	n/a
Native Hawaiian/Pacific Islander	7	0.1%	n/a	2	0.0%	n/a	9	0.1%	n/a
American Indian/Alaskan Native	8	0.1%	n/a	7	0.1%	n/a	15	0.1%	n/a
Two or More Races	107	1.3%	n/a	213	2.5%	n/a	320	1.9%	n/a
Total	8,343	100.0%	126.4	8,560	100.0%	129.7	16,903	100.0%	256.1
Race/Ethnicity-Males									
Black/African American Male	3,254	53.7%	608.2	3,164	49.4%	591.4	6,418	51.5%	1199.5
Hispanic Male	276	4.6%	n/a	325	5.1%	n/a	601	4.8%	n/a
White Male	2,418	39.9%	94.8	2,737	42.7%	107.3	5,155	41.4%	202.1
Asian Male	23	0.4%	n/a	24	0.4%	n/a	47	0.4%	n/a
Native Hawaiian/Pacific Islander Male	6	0.1%	n/a	1	0.0%	n/a	7	0.1%	n/a
American Indian/Alaskan Native Male	5	0.1%	n/a	5	0.1%	n/a	10	0.1%	n/a
Two or More Races Male	75	1.2%	n/a	153	2.4%	n/a	228	1.8%	n/a
Total	6,057	100.0%	188.3	6,409	100.0%	199.2	12,466	100.0%	387.5
Race/Ethnicity-Females									
Black/African American Female	1,594	70.8%	268.1	1,480	69.7%	248.9	3,074	70.3%	517.0
Hispanic Female	78	3.5%	n/a	81	3.8%	n/a	159	3.6%	n/a
White Female	529	23.5%	20.0	489	23.0%	18.5	1,018	23.3%	38.4
Asian Female	15	0.7%	n/a	9	0.4%	n/a	24	0.5%	n/a
Native Hawaiian/Pacific Islander Female	1	0.0%	n/a	1	0.0%	n/a	2	0.0%	n/a
American Indian/Alaskan Native Female	3	0.1%	n/a	2	0.1%	n/a	5	0.1%	n/a
Two or More Races Female	31	1.4%	n/a	60	2.8%	n/a	91	2.1%	n/a
Total	2,251	100.0%	66.5	2,122	100.0%	125.4	4,373	100.0%	125.4
Race/Ethnicity-Transgender Persons									
Black/African American Transgender	21	60.0%	n/a	22	75.9%	n/a	43	67.2%	n/a
Hispanic Transgender	3	8.6%	n/a	1	3.4%	n/a	4	6.3%	n/a
White Transgender	10	28.6%	n/a	6	20.7%	n/a	16	25.0%	n/a
Asian Transgender	0	0.0%	n/a	0	0.0%	n/a	0	0.0%	n/a
Native Hawaiian/Pacific Islander Transgender	0	0.0%	n/a	0	0.0%	n/a	0	0.0%	n/a
American Indian/Alaskan Native Transgender	0	0.0%	n/a	0	0.0%	n/a	0	0.0%	n/a
Two or More Races Transgender	1	2.9%	n/a	0	0.0%	n/a	1	1.6%	n/a
Total	35	100.0%	n/a	29	100.0%	n/a	64	100.0%	n/a
Current Age[‡]									
<15	82	1.0%	6.6	12	0.1%	1.0	94	0.6%	7.6
15-24	530	6.4%	59.9	211	2.5%	23.9	741	4.4%	83.8
25-34	1,967	23.6%	225.5	893	10.4%	102.4	2,860	16.9%	327.9
35-44	1,937	23.2%	231.4	1,879	22.0%	224.4	3,816	22.6%	455.8
45-54	2,305	27.6%	257.6	3,174	37.1%	354.7	5,479	32.4%	612.2
55-64	1,189	14.3%	139.0	1,867	21.8%	218.3	3,056	18.1%	357.4
65+	333	4.0%	32.8	524	6.1%	51.5	857	5.1%	84.3
Total	8,343	100.0%	126.4	8,560	100.0%	129.7	16,903	100.0%	256.1

[†]Includes persons who are currently living in Tennessee. Includes person diagnosed in Tennessee correctional facilities.

*Cases which remained HIV cases at the end of 2015.

**Cases classified as stage 3 (AIDS) by December 31, 2015.

***The sum of HIV cases and stage 3 (AIDS) cases.

****Per 100,000 population based on 2015 TDH estimates.

[‡]Based on age as of December 31, 2015.

Note: Percentages may not total due to rounding.

- Of the 16,903 persons living with HIV at the end of 2015, 73.8% were males (Table 1).
- The rate of those living with HIV disease was 3.0 times as high among males compared to females.
- Blacks/African Americans represented the largest proportion of living HIV disease cases (56.4%) and had a rate that was 7.1 times as high as the rate among whites.
- Among males, the rate of living cases among blacks/African Americans was 5.9 times as high as the rate among whites.
- Among females, the rate of those living with HIV disease among blacks/African Americans was 13.5 times as high among whites.
- Blacks/African Americans represented the largest proportion of transgender persons living with HIV disease (67.2%).
- The greatest proportion of living HIV disease cases were persons 45-54 years of age (32.4%).

Table 2. Diagnosed HIV, stage 3 (AIDS) and HIV disease cases by sex, by race/ethnicity, by race/ethnicity and sex, and current age*, Tennessee, 2015**

	HIV*			Stage 3 (AIDS)**			HIV Disease***		
	Cases	%	Rate****	Cases	%	Rate****	Cases	%	Rate****
Sex									
Male	457	78.5%	14.2	105	80.8%	3.3	562	78.9%	17.5
Female	118	20.3%	3.5	24	18.5%	0.7	142	19.9%	4.2
Transgender	7	1.2%	n/a	1	0.8%	n/a	8	1.1%	n/a
Total	582	100.0%	8.8	130	100.0%	2.0	712	100.0%	10.8
Race/Ethnicity									
Black/African American	356	61.2%	31.5	65	50.0%	5.8	421	59.1%	37.3
Hispanic	31	5.3%	n/a	10	7.7%	n/a	41	5.8%	n/a
White	183	31.4%	3.5	54	41.5%	1.0	237	33.3%	4.6
Asian	8	1.4%	n/a	0	0.0%	n/a	8	1.1%	n/a
Native Hawaiian/Pacific Islander	1	0.2%	n/a	0	0.0%	n/a	1	0.1%	n/a
American Indian/Alaskan Native	1	0.2%	n/a	1	0.8%	n/a	2	0.3%	n/a
Two or More Races	2	0.3%	n/a	0	0.0%	n/a	2	0.3%	n/a
Total	582	100.0%	8.8	130	100.0%	2.0	712	100.0%	10.8
Race/Ethnicity-Males									
Black/African American Male	283	61.9%	52.9	48	45.7%	9.0	331	58.9%	61.9
Hispanic Male	27	5.9%	n/a	9	8.6%	n/a	36	6.4%	n/a
White Male	139	30.4%	5.5	47	44.8%	1.8	186	33.1%	7.3
Asian Male	4	0.9%	n/a	0	0.0%	n/a	4	0.7%	n/a
Native Hawaiian/Pacific Islander Male	1	0.2%	n/a	0	0.0%	n/a	1	0.2%	n/a
American Indian/Alaskan Native Male	1	0.2%	n/a	1	1.0%	n/a	2	0.4%	n/a
Two or More Races Male	2	0.4%	n/a	0	0.0%	n/a	2	0.4%	n/a
Total	457	100.0%	14.2	105	100.0%	3.3	562	100.0%	5.3
Race/Ethnicity-Females									
Black/African American Female	67	56.8%	11.3	16	66.7%	2.7	83	58.5%	14.0
Hispanic Female	4	3.4%	n/a	1	4.2%	n/a	5	3.5%	n/a
White Female	43	36.4%	1.6	7	29.2%	0.3	50	35.2%	1.9
Asian Female	4	3.4%	n/a	0	0.0%	n/a	4	2.8%	n/a
Native Hawaiian/Pacific Islander Female	0	0.0%	n/a	0	0.0%	n/a	0	0.0%	n/a
American Indian/Alaskan Native Female	0	0.0%	n/a	0	0.0%	n/a	0	0.0%	n/a
Two or More Races Female	0	0.0%	n/a	0	0.0%	n/a	0	0.0%	n/a
Total	118	100.0%	3.5	24	100.0%	0.7	142	100.0%	4.2
Race/Ethnicity-Transgender Persons									
Black/African American Transgender	6	85.7%	n/a	1	100.0%	n/a	7	87.5%	n/a
Hispanic Transgender	0	0.0%	n/a	0	0.0%	n/a	0	0.0%	n/a
White Transgender	1	14.3%	n/a	0	0.0%	n/a	1	12.5%	n/a
Asian Transgender	0	0.0%	n/a	0	0.0%	n/a	0	0.0%	n/a
Native Hawaiian/Pacific Islander Transgender	0	0.0%	n/a	0	0.0%	n/a	0	0.0%	n/a
American Indian/Alaskan Native Transgender	0	0.0%	n/a	0	0.0%	n/a	0	0.0%	n/a
Two or More Races Transgender	0	0.0%	n/a	0	0.0%	n/a	0	0.0%	n/a
Total	7	100.0%	n/a	1	100.0%	n/a	8	100.0%	n/a
Current Age‡									
<15	8	1.4%	0.6	1	0.8%	0.1	9	1.3%	0.7
15-24	169	29.0%	19.1	10	7.7%	1.1	179	25.1%	20.2
25-34	210	36.1%	24.1	37	28.5%	4.2	247	34.7%	28.3
35-44	91	15.6%	10.9	30	23.1%	3.6	121	17.0%	14.5
45-54	72	12.4%	8.0	36	27.7%	4.0	108	15.2%	12.1
55-64	28	4.8%	3.3	13	10.0%	1.5	41	5.8%	4.8
65+	4	0.7%	0.4	3	2.3%	0.3	7	1.0%	0.7
Total	582	100.0%	8.8	130	100.0%	2.0	712	100.0%	10.8

*HIV cases diagnosed during 2015 which remained HIV cases at the end of the year. Includes persons diagnosed in Tennessee correctional facilities.

**Stage 3 (AIDS) cases initially diagnosed in 2015.

***The sum of newly diagnosed HIV cases and newly diagnosed stage 3 (AIDS) cases. Does not include cases diagnosed prior to 2015 with HIV, which progressed to stage 3 (AIDS) in 2015.

****Per 100,000 population based on 2015 TDS estimates.

†Based on age as of December 31, 2015.

Note: Percentages may not total due to rounding.

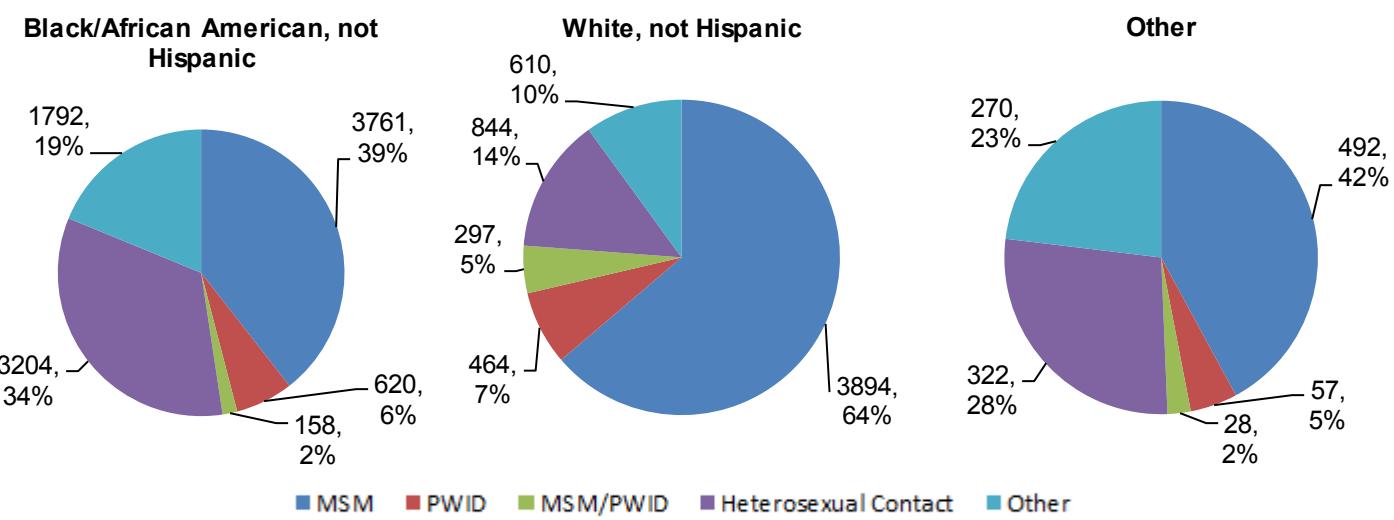
- Of the 712 persons newly diagnosed with HIV disease in 2015, 18.3% were classified as stage 3 (AIDS) cases by the end of 2015 (Table 2).
- Males represented the largest proportion of persons newly diagnosed with HIV disease (78.9%). The rate of new HIV disease diagnoses was 4.1 times as high among males compared to females.
- A greater proportion of the newly diagnosed cases occurred among blacks/African Americans compared to living cases (59.1% and 33.3%, respectively). The rate of new HIV disease cases was 8.2 times as high among blacks/African Americans compared to whites.
- The greatest proportion of newly diagnosed cases occurred among persons 25-34 years of age (34.7%). The rate of new HIV disease diagnoses was greatest among persons 25-34 years of age at the end of 2015 (28.3 per 100,000 persons).

Table 3. New and living HIV disease cases by exposure category, Tennessee, 2015[†]

Exposure Category	HIV Disease			
	2015 [†]	Living*		
Adult/Adolescent/Pediatric				
Men who have sex with men (MSM)	380	53.4%	8,217	48.6%
Persons who inject drugs (PWID)	36	5.1%	1,144	6.8%
MSM & PWID	15	2.1%	494	2.9%
Heterosexual contact	146	20.5%	4,370	25.9%
Perinatal	5	0.7%	169	1.0%
Other/Unknown	130	18.3%	2,509	14.8%
TOTAL	712	100.0%	16,903	100.0%

[†]Only includes cases diagnosed through December 31, 2015 and reported by August 10, 2016.

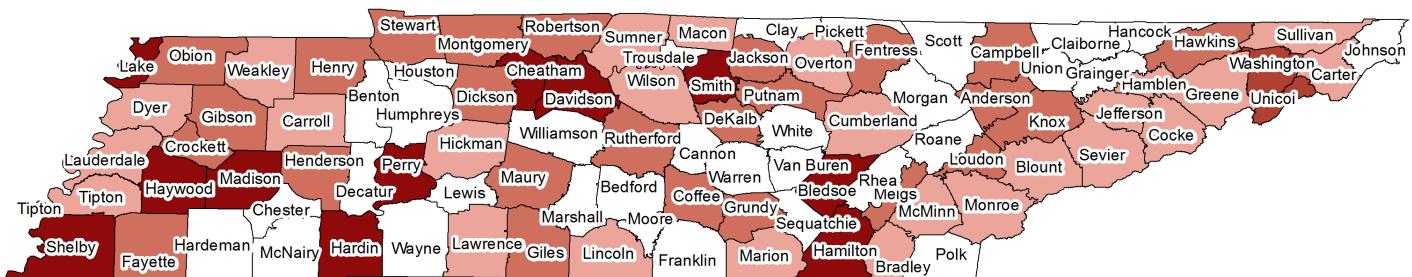
Figure 4. Living HIV disease cases by exposure category and race/ethnicity, Tennessee, 2015[†]



[†]Only includes cases diagnosed through December 31, 2015 and reported by August 10, 2016.

- Of 712 cases diagnosed from January 1, 2015 to December 31, 2015, 18.3% did not have a reported risk as of August 10, 2016 (Table 3). Surveillance activities have been implemented to resolve cases reported with unknown risk information.
- The majority of living cases are attributed to MSM (48.6%), with cases attributed to heterosexual contact representing the second greatest proportion (25.9%).
- There are differences in the distribution of exposure categories among living cases by race/ethnicity (Figure 4). Among whites, 64% of living cases are attributed to MSM, compared to 39% among blacks/African Americans. In contrast, heterosexual contact represents the exposure category for 34% of living black/African American cases and only 14% of living white cases.

Figure 5. Rate of persons diagnosed with HIV disease, Tennessee, 2015[†]



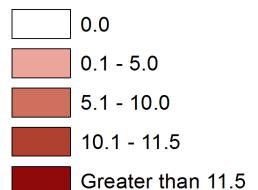
Map Created by HIV/STD Surveillance and Epidemiology

Data Source: eHARS, accessed August 10, 2016

Method: Manual, 5 Classes

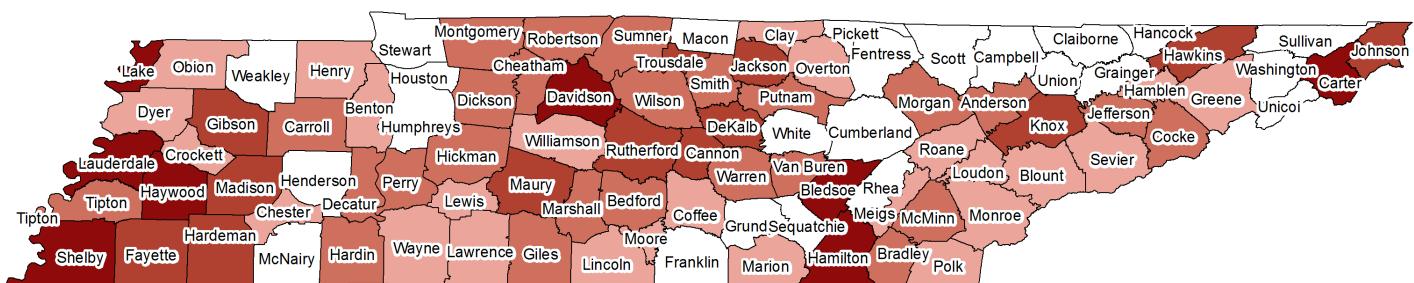
Map Created on: September 8, 2016

**Rate per 100,000
State Rate: 10.8**



[†]Only includes cases diagnosed through December 31, 2015 and reported by August 10, 2016.

Figure 6. Rate of persons living with HIV disease, Tennessee, 1982-2015[†]



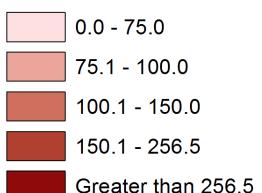
Map Created by HIV/STD Surveillance and Epidemiology

Data Source: eHARS, accessed August 10, 2016

Method: Manual, 5 Classes

Map Created on: September 8, 2016

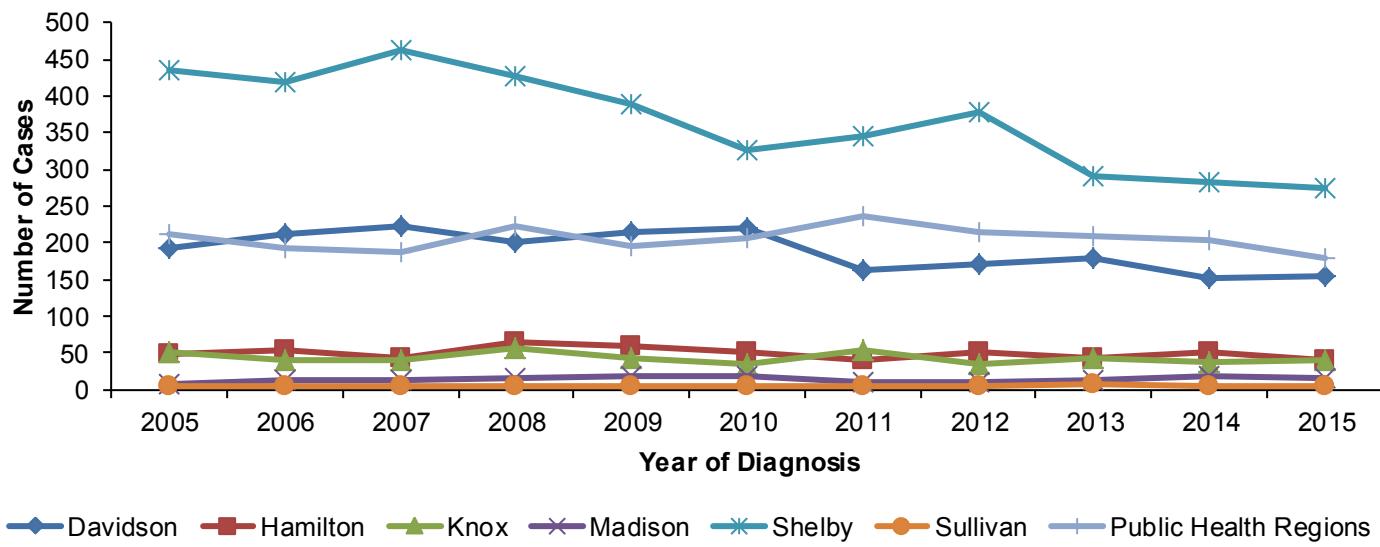
**Rate per 100,000
State Rate: 256.1**



[†]Includes those living with HIV disease as of December 31, 2015 and reported by August 10, 2016.

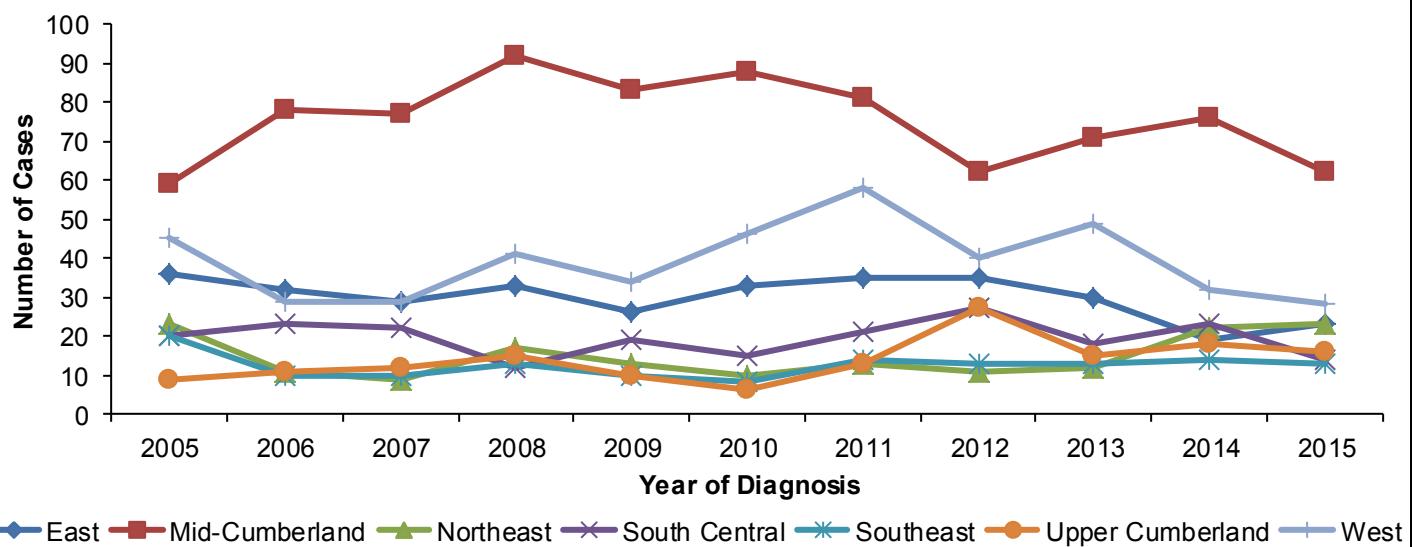
- Figure 6 presents the new HIV case rate (incidence) in Tennessee for 2015. The state rate was 10.8 cases per 100,000 persons.
- Figure 7 displays the living HIV case rate based on the current address of a living person with HIV disease. The state rate is 256.1 per 100,000 persons.
- Both figures depict the metropolitan areas of Shelby County, Davidson County, and Hamilton County representing the greatest burden of HIV disease.

Figure 7. Persons diagnosed with HIV disease by metropolitan area at time of diagnosis, Tennessee, 2005-2015[†]



[†]Only includes cases diagnosed through December 31, 2015 and reported by August 10, 2016.

Figure 8. Persons diagnosed with HIV disease by Public Health Regions at time of diagnosis, Tennessee, 2005-2015[†]



[†]Only includes cases diagnosed through December 31, 2015 and reported by August 10, 2016.

- Although Shelby County represents approximately 14% of Tennessee's general population, over the period from 2005 to 2015, the Shelby County represented 42% of the new HIV diagnoses in Tennessee (Figure 7).
- Figure 8 displays 24% of new HIV diagnoses from 2005-2015 that occurred in the Public Health Regions. Among the Public Health Regions, the greatest proportion of new diagnoses occurred in Mid-Cumberland.

Table 4. Reported P&S syphilis cases and rates, by race*, by metropolitan area, by sex Tennessee, 2015

	Male			Female			Total	
	Cases	%	Rate**	Cases	%	Rate**	Cases	Rate**
Tennessee								
White	138	41.6%	5.3	11	47.8%	0.4	149	2.8
Black/African American	191	57.5%	36.4	12	52.2%	2.0	203	18.3
Other/Unknown	3	0.9%	4.1	0	0.0%	0.0	3	2.0
Total Cases	332	100.0%	10.4	23	100.0%	0.7	355	5.4
Shelby								
White	7	7.3%	3.4	2	20.0%	1.0	9	2.2
Black/African American	89	92.7%	36.7	8	80.0%	2.8	97	18.5
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0	0.0
Total Cases	96	100.0%	20.7	10	100.0%	2.0	106	10.9
Davidson								
White	37	42.5%	18.2	1	33.3%	0.5	38	9.5
Black/African American	50	57.5%	59.8	2	66.7%	2.1	52	29.2
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0	0.0
Total Cases	87	100.0%	28.6	3	100.0%	1.0	91	14.8
Knox								
White	25	71.4%	13.3	1	50.0%	0.5	26	6.7
Black/African American	10	28.6%	54.1	1	50.0%	4.8	11	28.0
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0	0.0
Total Cases	35	100.0%	16.4	2	100.0%	0.9	37	8.4
Hamilton								
White	8	61.5%	7.8	1	100.0%	0.8	9	3.6
Black/African American	5	38.5%	16.1	0	0.0%	0.0	5	7.4
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0	0.0
Total Cases	13	100.0%	9.5	1	100.0%	0.6	14	4.3
Madison								
White	3	27.3%	9.1	0	0.0%	0.0	3	4.5
Black/African American	7	63.6%	43.0	0	0.0%	0.0	7	20.0
Other/Unknown	1	9.1%	134.6	0	0.0%	0.0	1	66.2
Total Cases	11	100.0%	22.0	0	0.0%	0.0	11	10.6
Sullivan								
White	3	75.0%	4.2	0	0.0%	0.0	3	2.0
Black/African American	0	0.0%	0.0	0	0.0%	0.0	0	0.0
Other/Unknown	1	25.0%	124.8	0	0.0%	0.0	1	60.5
Total Cases	4	100.0%	5.4	0	0.0%	0.0	4	2.6

*Includes cases identified with Hispanic ethnicity.

**Per 100,000 population based on 2014 TDH population estimates.

- There were a total of 355 P&S syphilis cases reported in 2015 (Table 4).
- The majority of cases (93.5%) were reported among males.
- The rate of P&S syphilis cases among males was highest in Davidson County (28.6), followed by Madison County (22.0).
- Nearly 30% of all P&S syphilis cases were reported in Shelby County and 25.6% were reported in Davidson County.
- The rate of reported P&S syphilis cases was higher for blacks/African Americans compared to whites in all metropolitan areas that reported P&S syphilis cases among blacks/African Americans.

Table 5. Reported P&S syphilis cases and rates, by race*, by Public Health Region, by sex Tennessee, 2015

	Male		Female		Total		
	Cases	%	Rate**	Cases	%	Rate**	
Tennessee							
White	138	41.6%	5.3	11	47.8%	0.4	149 2.8
Black/African American	191	57.5%	36.4	12	52.2%	2.0	203 18.3
Other/Unknown	3	0.9%	4.1	0	0.0%	0.0	3 2.0
Total Cases	332	100.0%	10.4	23	100.0%	0.7	355 5.4
Northeast							
White	6	100.0%	3.6	1	100.0%	0.6	7 2.0
Black/African American	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Total Cases	6	100.0%	3.4	1	100.0%	0.5	7 2.0
East							
White	17	89.5%	4.6	0	0.0%	0.0	17 2.3
Black/African American	2	10.5%	24.3	0	0.0%	0.0	2 12.3
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Total Cases	19	100.0%	5.0	0	0.0%	0.0	19 2.4
Southeast							
White	3	75.0%	1.9	0	0.0%	0.0	3 0.9
Black/African American	1	25.0%	16.5	0	0.0%	0.0	1 8.3
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Total Cases	4	100.0%	2.4	0	0.0%	0.0	4 1.2
Upper Cumberland							
White	4	80.0%	2.4	0	0.0%	0.0	4 1.2
Black/African American	1	20.0%	41.3	1	100.0%	47.0	2 44.0
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Total Cases	5	100.0%	2.9	1	100.0%	0.6	6 1.7
Mid-Cumberland							
White	19	50.0%	3.8	3	100.0%	0.6	22 2.2
Black/African American	19	50.0%	40.8	0	0.0%	0.0	19 19.8
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Total Cases	38	100.0%	6.8	3	100.0%	0.5	41 3.6
South Central							
White	3	42.9%	1.6	1	100.0%	0.5	4 1.1
Black/African American	4	57.1%	26.7	0	0.0%	0.0	4 13.6
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Total Cases	7	100.0%	3.5	1	100.0%	0.5	8 2.0
West							
White	3	42.9%	1.3	1	100.0%	0.4	4 0.9
Black/African American	3	42.9%	6.3	0	0.0%	0.0	3 3.1
Other/Unknown	1	14.3%	33.8	0	0.0%	0.0	1 17.1
Total Cases	7	100.0%	2.6	1	100.0%	0.4	8 1.4

*Includes cases identified with Hispanic ethnicity.

**Per 100,000 population based on 2014 TDH population estimates.

- The rate of P&S syphilis cases among males in the Public Health Regions was highest in the Mid-Cumberland Public Health Region (6.8) (Table 5).
- The rate of reported P&S syphilis cases was higher for blacks/African Americans compared to whites in all Public Health Regions that reported P&S syphilis cases among blacks/African Americans.

Figure 9. Reported P&S syphilis cases, by race and sex, by age group at diagnosis, Tennessee, 2015

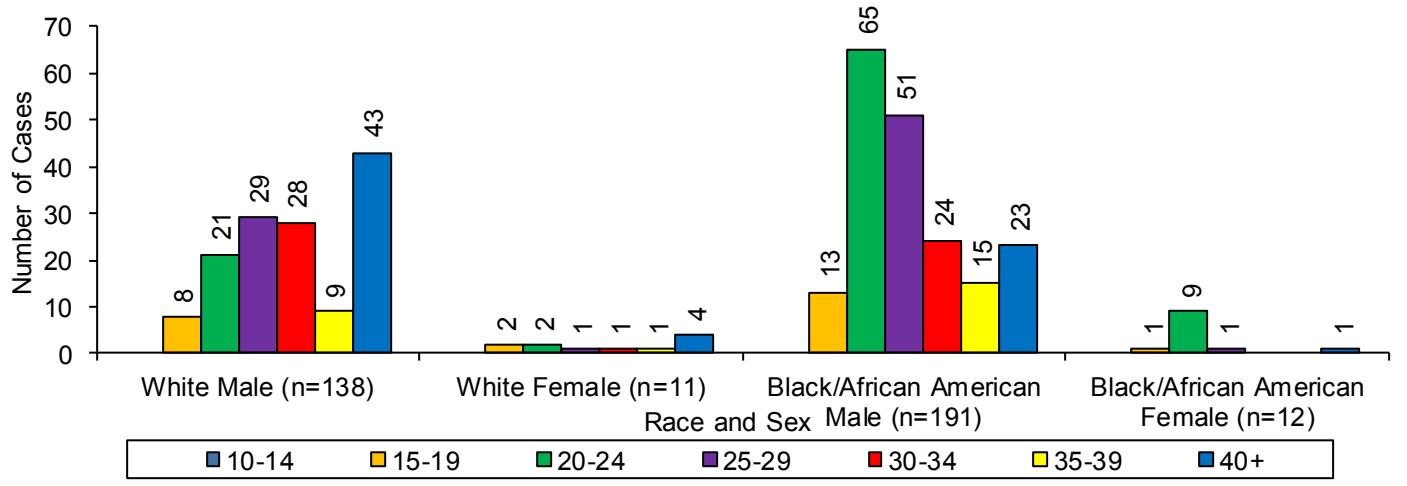
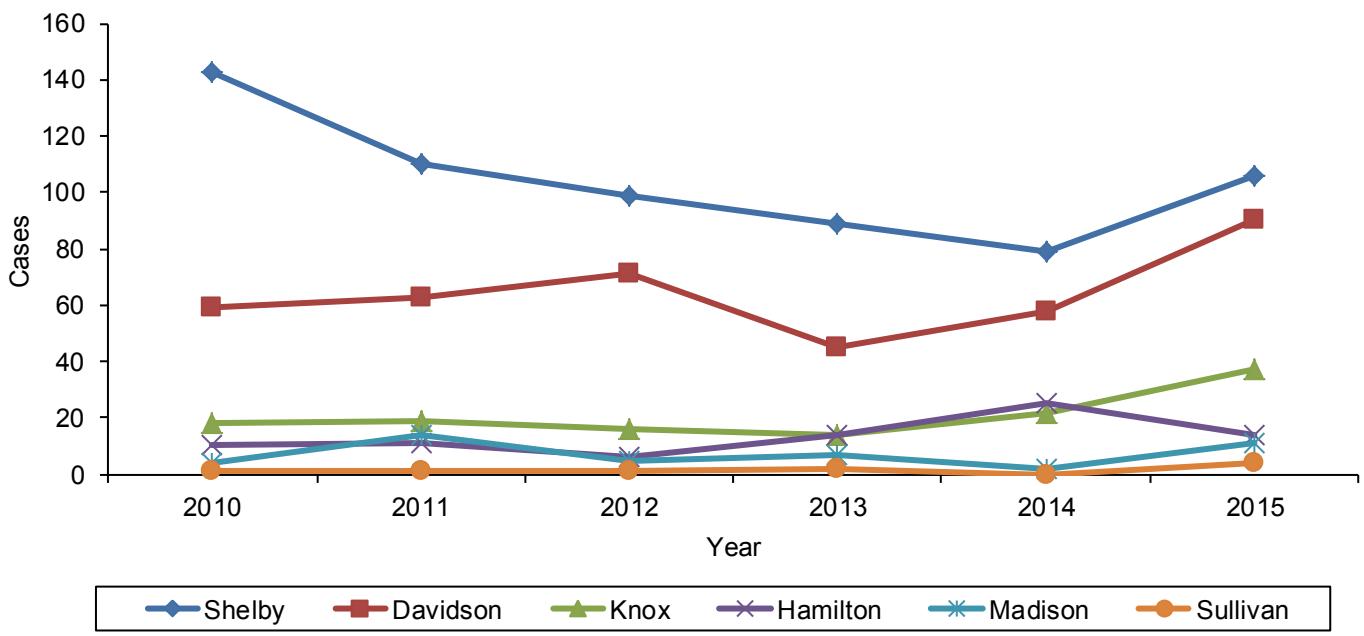
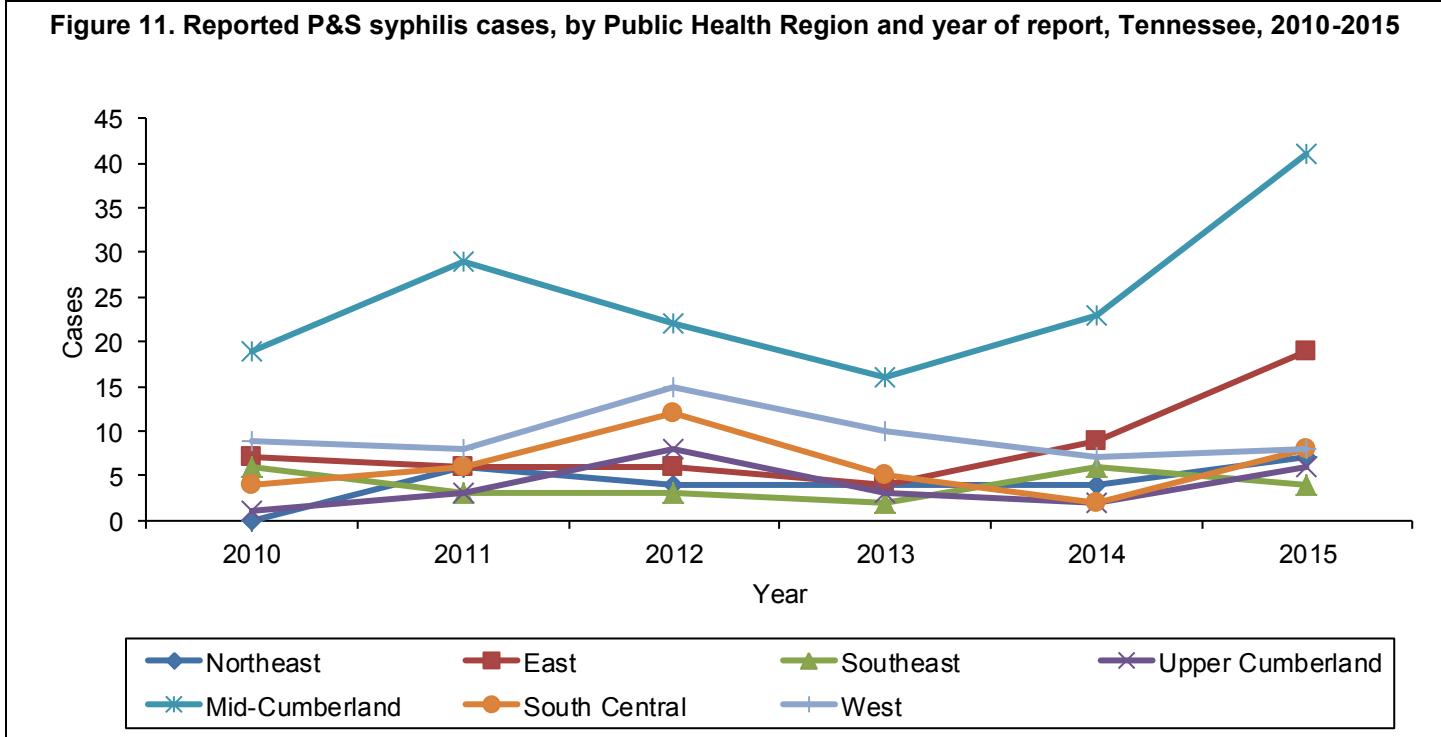


Figure 10. Reported P&S syphilis cases, by metropolitan area and year of report, Tennessee, 2010-2015



- The largest number of P&S syphilis cases were reported among black//African American males (191) and white males (138) (Figure 9). There were differences in the distribution of reported cases by age at diagnosis among the race/ethnicity and sex categories. Among black/African American males and females, the largest number of cases was reported among individuals 20-24 years of age at the time of diagnosis. Among white males and females, cases were greatest among those 40 or more years of age.
- The number of reported P&S syphilis cases in the Tennessee metropolitan areas generally decreased from 2010 through 2014 and then increased in 2015 (Figure 10).

Figure 11. Reported P&S syphilis cases, by Public Health Region and year of report, Tennessee, 2010-2015



- The number of reported P&S syphilis cases in Tennessee Public Health Regions started to generally increase from 2013 through 2015 (Figure 11).
- The greatest number of P&S syphilis cases were reported in Mid-Cumberland from 2010 through 2015.

Table 6. Reported early latent syphilis cases and rates, by race*, by metropolitan area, by sex Tennessee, 2015

	Male		Female		Total		Rate**	
	Cases	%	Rate**	Cases	%	Rate**		
Tennessee								
White	82	31.9%	3.2	11	19.0%	0.4	93	1.8
Black/African American	171	66.5%	32.6	47	81.0%	8.0	218	19.6
Other/Unknown	4	1.6%	5.4	0	0.0%	0.0	4	2.7
Total Cases	257	100.0%	8.1	58	100.0%	1.7	315	4.8
Shelby								
White	13	10.3%	6.4	1	2.9%	0.5	14	3.4
Black/African American	113	89.7%	46.6	33	97.1%	11.7	146	27.8
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0	0.0
Total Cases	126	100.0%	27.1	34	100.0%	6.7	160	16.5
Davidson								
White	22	40.0%	10.8	2	16.7%	1.0	24	6.0
Black/African American	31	56.4%	37.1	10	83.3%	10.6	41	23.1
Other/Unknown	2	3.6%	11.0	0	0.0%	0.0	2	5.6
Total Cases	55	100.0%	18.1	12	100.0%	3.9	67	10.9
Knox								
White	13	81.3%	6.9	2	100.0%	1.0	15	3.9
Black/African American	3	18.8%	16.2	0	0.0%	0.0	3	7.6
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0	0.0
Total Cases	16	100.0%	7.5	2	100.0%	0.9	18	4.1
Hamilton								
White	8	66.7%	7.8	0	0.0%	0.0	8	3.2
Black/African American	4	33.3%	12.9	1	100.0%	2.8	5	7.4
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0	0.0
Total Cases	12	100.0%	8.7	1	100.0%	0.6	13	4.0
Madison								
White	0	0.0%	0.0	0	0.0%	0.0	0	0.0
Black/African American	3	100.0%	18.4	0	0.0%	0.0	3	8.6
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0	0.0
Total Cases	3	100.0%	6.0	0	0.0%	0.0	3	2.9
Sullivan								
White	2	100.0%	2.8	0	0.0%	0.0	2	1.3
Black/African American	0	0.0%	0.0	0	0.0%	0.0	0	0.0
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0	0.0
Total Cases	2	100.0%	2.7	0	0.0%	0.0	2	1.3

*Includes cases identified with Hispanic ethnicity.

**Per 100,000 population based on 2014 TDH population estimates.

- There were a total of 315 early latent syphilis cases reported in 2015 (Table 6). Of the cases reported, 263 early latent syphilis cases were reported in the metropolitan areas.
- The majority of the cases reported in the metropolitan areas were among males (81.6%).
- The rate of early latent syphilis cases among all cases in the metropolitan regions was highest in Shelby County (16.5).
- Nearly 51% of all early latent syphilis cases were reported in Shelby County.
- The rate of reported early latent syphilis cases was higher for blacks/African Americans compared to whites in all metropolitan areas that reported cases among blacks/African Americans.

Table 7. Reported early latent syphilis cases and rates, by race*, by Public Health Region, by sex Tennessee, 2015

	Male		Female		Total		Rate
	Cases	%	Rate	Cases	%	Rate	
Tennessee							
White	82	31.9%	3.2	11	19.0%	0.4	93 1.8
Black/African American	171	66.5%	32.6	47	81.0%	8.0	218 19.6
Other/Unknown	4	1.6%	5.4	0	0.0%	0.0	4 2.7
Total Cases	257	100.0%	8.1	58	100.0%	1.7	315 4.8
Northeast							
White	2	100.0%	1.2	3	100.0%	1.7	5 1.5
Black/African American	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Total Cases	2	100.0%	1.1	3	100.0%	1.6	5 1.4
East							
White	4	100.0%	1.1	0	0.0%	0.0	4 0.5
Black/African American	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Total Cases	4	100.0%	1.1	0	0.0%	0.0	4 0.5
Southeast							
White	4	100.0%	2.6	1	100.0%	0.6	5 1.6
Black/African American	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Total Cases	4	100.0%	2.4	1	100.0%	0.6	5 1.5
Upper Cumberland							
White	3	75.0%	1.8	0	0.0%	0.0	3 0.9
Black/African American	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Other/Unknown	1	25.0%	56.8	0	0.0%	0.0	1 29.1
Total Cases	4	100.0%	2.3	0	0.0%	0.0	4 1.1
Mid-Cumberland							
White	6	33.3%	1.2	2	66.7%	0.4	8 0.8
Black/African American	12	66.7%	25.8	1	33.3%	2.0	13 13.5
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Total Cases	18	100.0%	3.2	3	66.7%	0.5	21 1.8
South Central							
White	3	100.0%	1.6	0	0.0%	0.0	3 0.8
Black/African American	0	0.0%	0.0	1	100.0%	6.9	1 3.4
Other/Unknown	0	0.0%	0.0	0	0.0%	0.0	0 0.0
Total Cases	3	100.0%	1.5	1	100.0%	0.5	4 1.0
West							
White	2	25.0%	0.9	0	0.0%	0.0	2 0.4
Black/African American	5	62.5%	10.6	1	100.0%	2.0	6 6.2
Other/Unknown	1	12.5%	33.8	0	0.0%	0.0	1 17.1
Total Cases	8	100.0%	2.9	1	100.0%	0.4	9 1.6

*Includes cases identified with Hispanic ethnicity.

**Per 100,000 population based on 2014 TDH population estimates.

- The rate of early latent syphilis cases among males in the Public Health Regions was highest in the Mid-Cumberland Public Health Region (1.8) (Table 7).
- The rate of reported P&S syphilis cases was higher for blacks/African Americans compared to whites in all Public Health Regions that reported early latent syphilis cases among blacks/African Americans.

Figure 12. Reported early latent syphilis cases, by race and sex, by age group at diagnosis, Tennessee, 2015

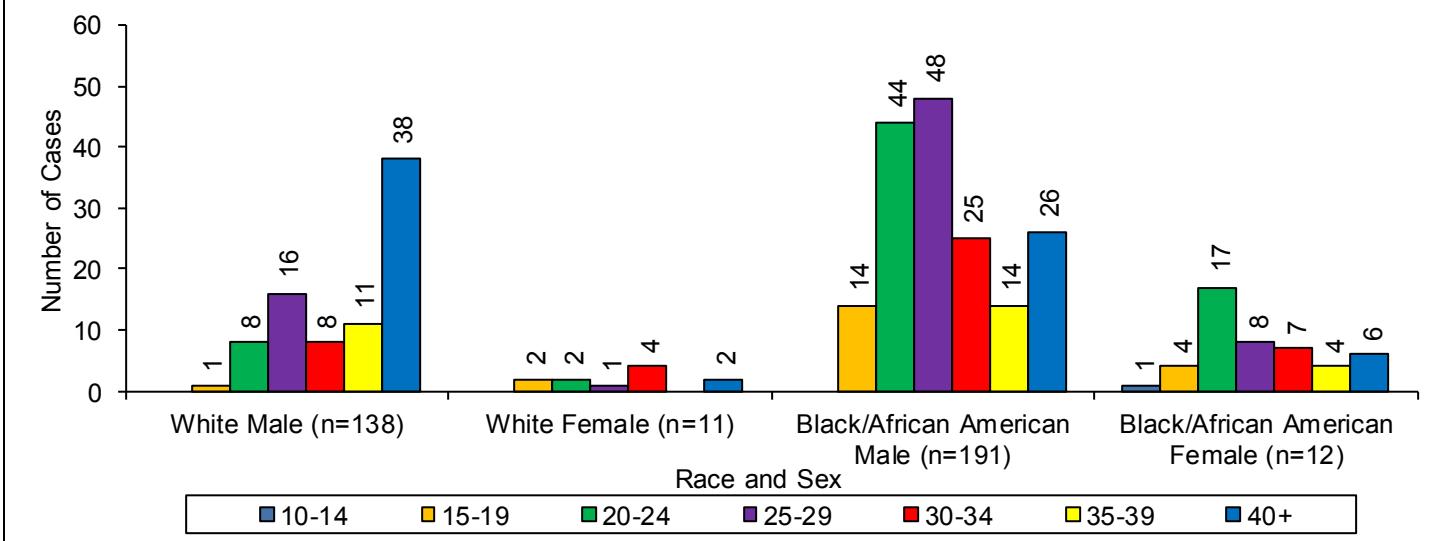
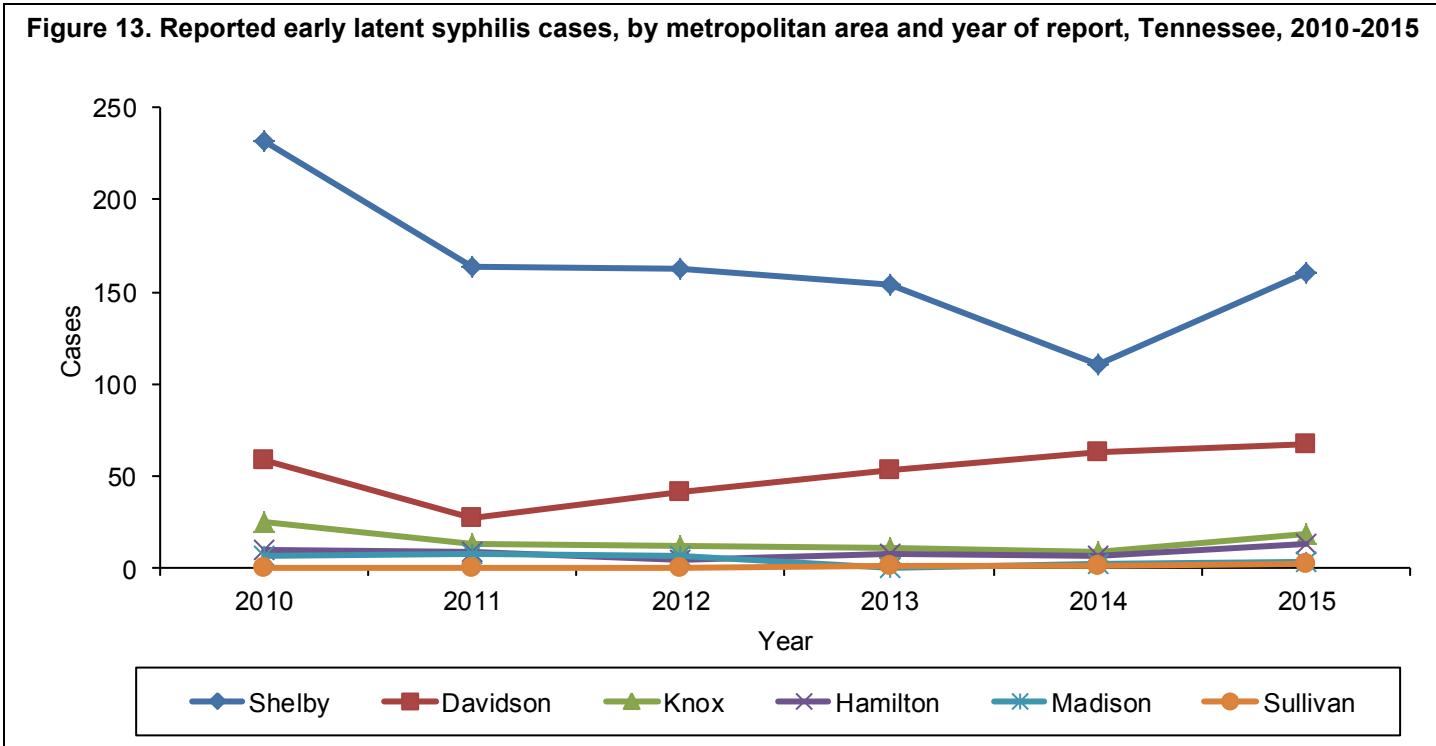
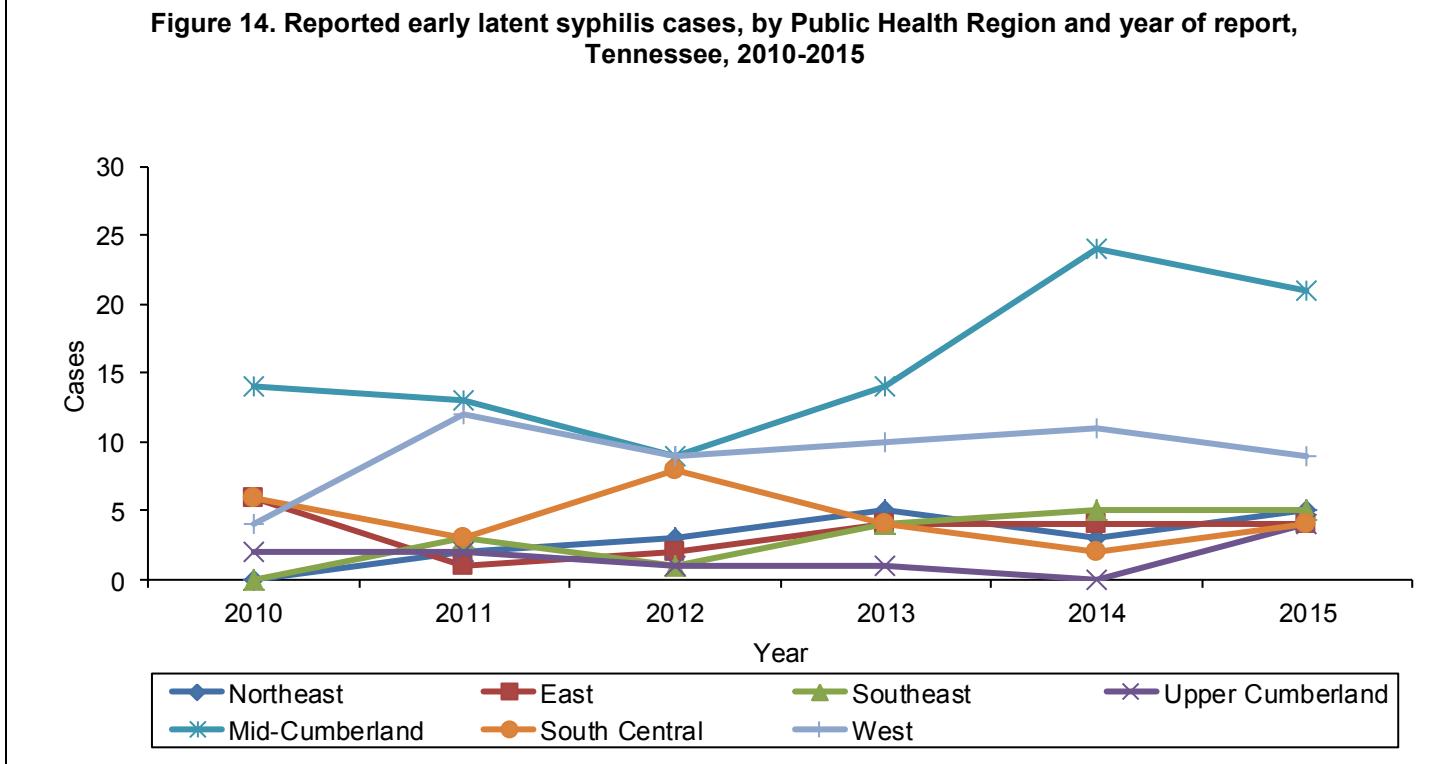


Figure 13. Reported early latent syphilis cases, by metropolitan area and year of report, Tennessee, 2010-2015



- The largest numbers of early latent syphilis cases were reported among black/African American males (171) and white males (138) (Figure 12). There were differences in the distribution of reported cases by age at diagnosis among the race/ethnicity and sex categories.
- The number of reported early latent syphilis cases in the metropolitan areas fluctuated from 2010 to 2015 (Figure 13). The number of reported cases increased in 2015 in all of the metropolitan areas.

Figure 14. Reported early latent syphilis cases, by Public Health Region and year of report, Tennessee, 2010-2015



- The number of reported early latent syphilis cases in Tennessee Public Health Regions fluctuated from 2010 through 2015 (Figure 14).
- The greatest number of early latent syphilis cases were reported in Mid-Cumberland from 2010 through 2015.

Table 8. Reported gonorrhea cases and rates, by race*, by metropolitan area, by sex Tennessee, 2015

	Male		Female		Total		Rate
	Cases	%	Rate	Cases	%	Rate	
Tennessee							
White	1,117	24.1%	43.1	1,194	30.9%	44.6	2,311 43.9
Black/African American	3,435	74.0%	655.4	2,602	67.3%	443.3	6,037 543.3
Other/Unknown	89	1.9%	120.2	70	1.8%	91.4	159 105.6
Total Cases	4,641	100.0%	145.4	3,866	100.0%	115.8	8,507 130.3
Shelby							
White	70	5.1%	34.3	52	4.3%	25.2	122 29.7
Black/African American	1,298	94.4%	534.8	1,153	95.5%	408.9	2,451 467.1
Other/Unknown	7	0.5%	39.6	2	0.2%	11.0	9 25.1
Total Cases	1,375	100.0%	296.2	1,207	100.0%	238.4	2,582 266.0
Davidson							
White	268	28.4%	132.1	132	22.2%	66.8	400 99.8
Black/African American	665	70.5%	795.3	456	76.8%	484.1	1,121 630.4
Other/Unknown	10	1.1%	54.9	6	1.0%	34.2	16 44.7
Total Cases	943	100.0%	309.5	594	100.0%	191.9	1,537 250.2
Knox							
White	137	32.8%	72.7	208	55.3%	104.8	345 89.1
Black/African American	275	65.8%	1,486.8	164	43.6%	788.7	439 1,117.4
Other/Unknown	6	1.4%	104.9	4	1.1%	66.5	10 85.2
Total Cases	418	100.0%	196.4	376	100.0%	166.9	794 181.3
Hamilton							
White	126	26.3%	122.9	98	27.4%	77.7	224 90.8
Black/African American	345	71.9%	1,111.6	251	70.1%	692.5	596 882.8
Other/Unknown	9	1.9%	234.6	9	2.5%	229.1	18 231.8
Total Cases	480	100.0%	349.3	358	100.0%	215.3	838 260.3
Madison							
White	5	4.5%	15.1	17	13.8%	50.0	22 32.8
Black/African American	103	93.6%	632.5	105	85.4%	563.1	208 595.4
Other/Unknown	2	1.8%	269.2	1	0.8%	130.2	3 198.5
Total Cases	110	100.0%	219.8	123	100.0%	230.4	233 225.3
Sullivan							
White	19	61.3%	26.3	28	90.3%	36.0	47 31.4
Black/African American	9	29.0%	543.2	2	6.5%	125.5	11 338.5
Other/Unknown	3	9.7%	374.5	1	3.2%	117.4	4 242.0
Total Cases	31	100.0%	41.6	31	100.0%	38.6	62 40.0

*Includes cases identified with Hispanic ethnicity.

**Per 100,000 population based on 2014 TDH population estimates.

- There were a total of 8,507 gonorrhea cases reported in 2015 (Table 8). Of the cases reported, 6,046 gonorrhea cases were reported in the metropolitan areas.
- The majority of the cases reported in the metropolitan areas were among males (55.5%). The rate of gonorrhea cases among males was highest in Hamilton County (349.3) followed by Davidson County (309.5).
- The rate of gonorrhea cases among all cases in the metropolitan regions was highest in Shelby County (266.0).
- Thirty percent (30.4%) of all gonorrhea cases were reported in Shelby County.
- The rate of reported gonorrhea cases higher for blacks/African Americans compared to whites in all metropolitan areas.

Table 9. Reported gonorrhea cases and rates, by race*, by Public Health Region, by sex Tennessee, 2015

	Male		Female		Total		
	Cases	%	Rate	Cases	%	Rate	
Tennessee							
White	1,117	24.1%	43.1	1,194	30.9%	44.6	2,311 43.9
Black/African American	3,435	74.0%	655.4	2,602	67.3%	443.3	6,037 543.3
Other/Unknown	89	1.9%	120.2	70	1.8%	91.4	159 105.6
Total Cases	4,641	100.0%	145.4	3,866	100.0%	115.8	8,507 130.3
Northeast							
White	34	56.7%	20.3	46	83.6%	26.1	80 23.3
Black/African American	25	41.7%	528.4	7	12.7%	168.5	32 360.2
Other/Unknown	1	1.7%	59.2	2	3.6%	105.5	3 83.7
Total Cases	60	100.0%	34.5	55	100.0%	30.2	115 32.3
East							
White	81	63.3%	22.2	82	83.7%	21.3	163 21.7
Black/African American	45	35.2%	547.2	14	14.3%	173.5	59 362.1
Other/Unknown	2	1.6%	47.9	2	2.0%	44.2	4 46.0
Total Cases	128	100.0%	33.9	98	100.0%	24.6	226 29.1
Southeast							
White	72	53.7%	45.9	108	77.1%	65.9	180 56.1
Black/African American	46	34.3%	756.8	22	15.7%	366.9	68 563.1
Other/Unknown	16	11.9%	915.9	10	7.1%	529.9	26 715.5
Total Cases	134	100.0%	81.4	140	100.0%	81.5	274 81.5
Upper Cumberland							
White	34	75.6%	20.1	38	92.7%	21.7	72 20.9
Black/African American	6	13.3%	247.7	1	2.4%	47.0	7 153.9
Other/Unknown	5	11.1%	283.8	2	4.9%	119.2	7 203.5
Total Cases	45	100.0%	25.9	41	100.0%	23.0	86 24.4
Mid-Cumberland							
White	186	33.5%	37.0	205	47.1%	39.8	391 38.4
Black/African American	354	63.8%	760.8	219	50.3%	442.8	573 596.9
Other/Unknown	15	2.7%	119.3	11	2.5%	77.6	26 97.2
Total Cases	555	100.0%	98.7	435	100.0%	75.2	990 86.8
South Central							
White	50	43.1%	27.0	105	66.9%	55.7	155 41.5
Black/African American	65	56.0%	434.0	51	32.5%	352.7	116 394.0
Other/Unknown	1	0.9%	46.5	1	0.6%	43.7	2 45.1
Total Cases	116	100.0%	57.4	157	100.0%	76.6	273 67.0
West							
White	35	14.2%	15.6	75	29.9%	32.3	110 24.1
Black/African American	199	80.9%	420.3	157	62.5%	319.9	356 369.2
Other/Unknown	12	4.9%	405.1	19	7.6%	660.9	31 531.1
Total Cases	246	100.0%	89.6	251	100.0%	88.3	497 89.0

*Includes cases identified with Hispanic ethnicity.
**Per 100,000 population based on 2014 TDH population estimates.

- The rate of gonorrhea cases among males in the Public Health Regions was highest in the Mid-Cumberland Public Health Region (98.7) (Table 9).
- The rate of reported gonorrhea cases was higher for blacks/African Americans compared to whites in all Public Health Regions.

Figure 15. Reported gonorrhea cases, by race and sex, by age group at diagnosis, Tennessee, 2015

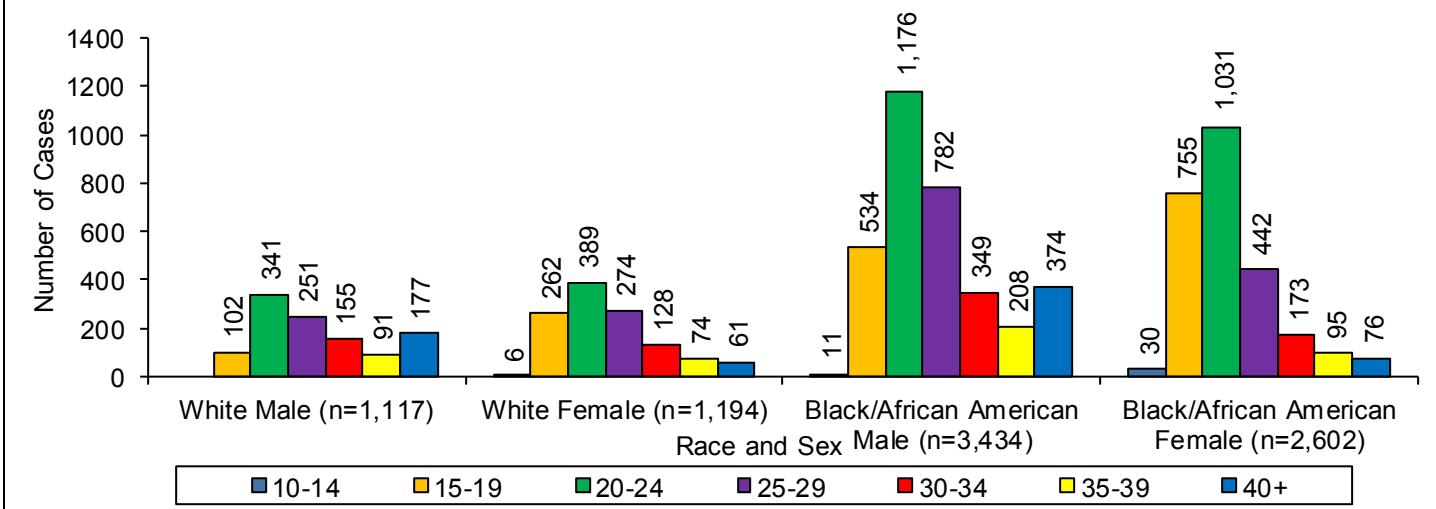
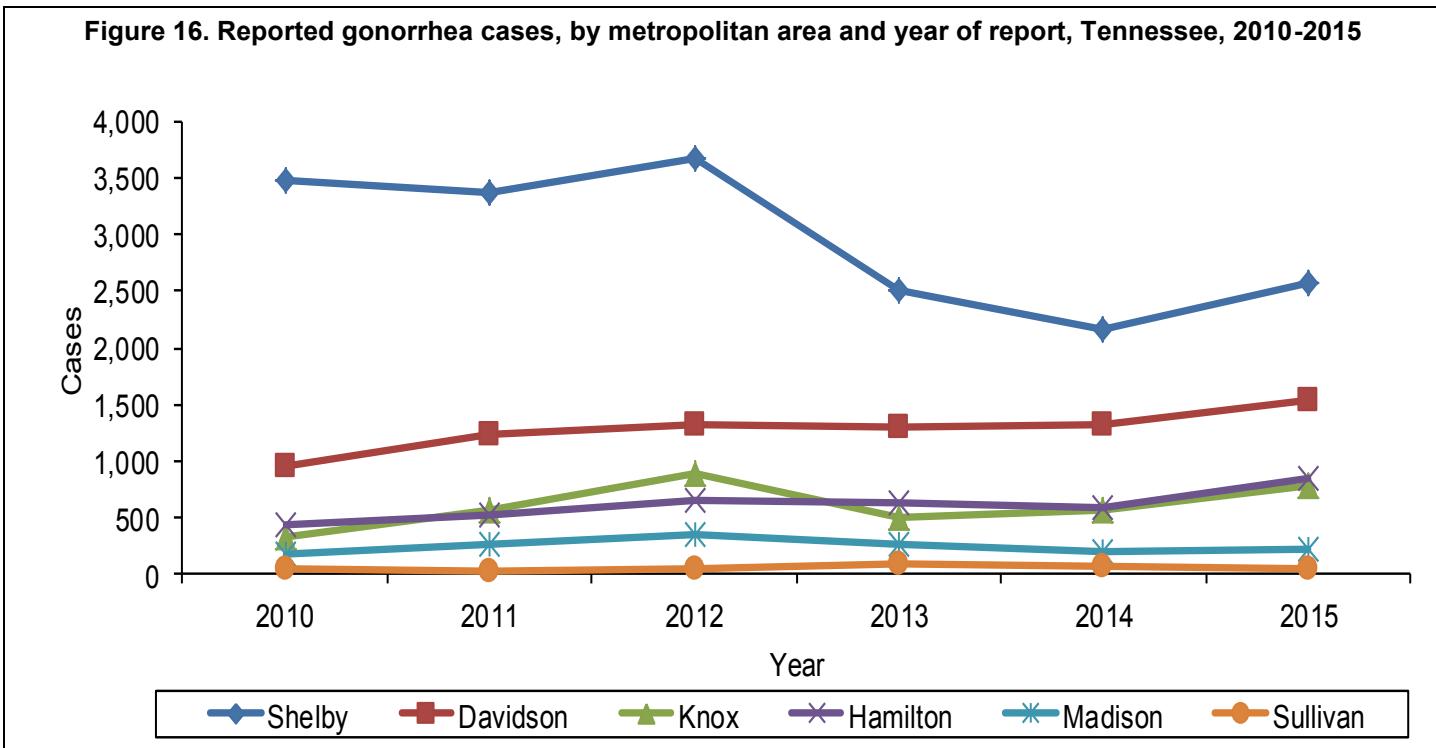
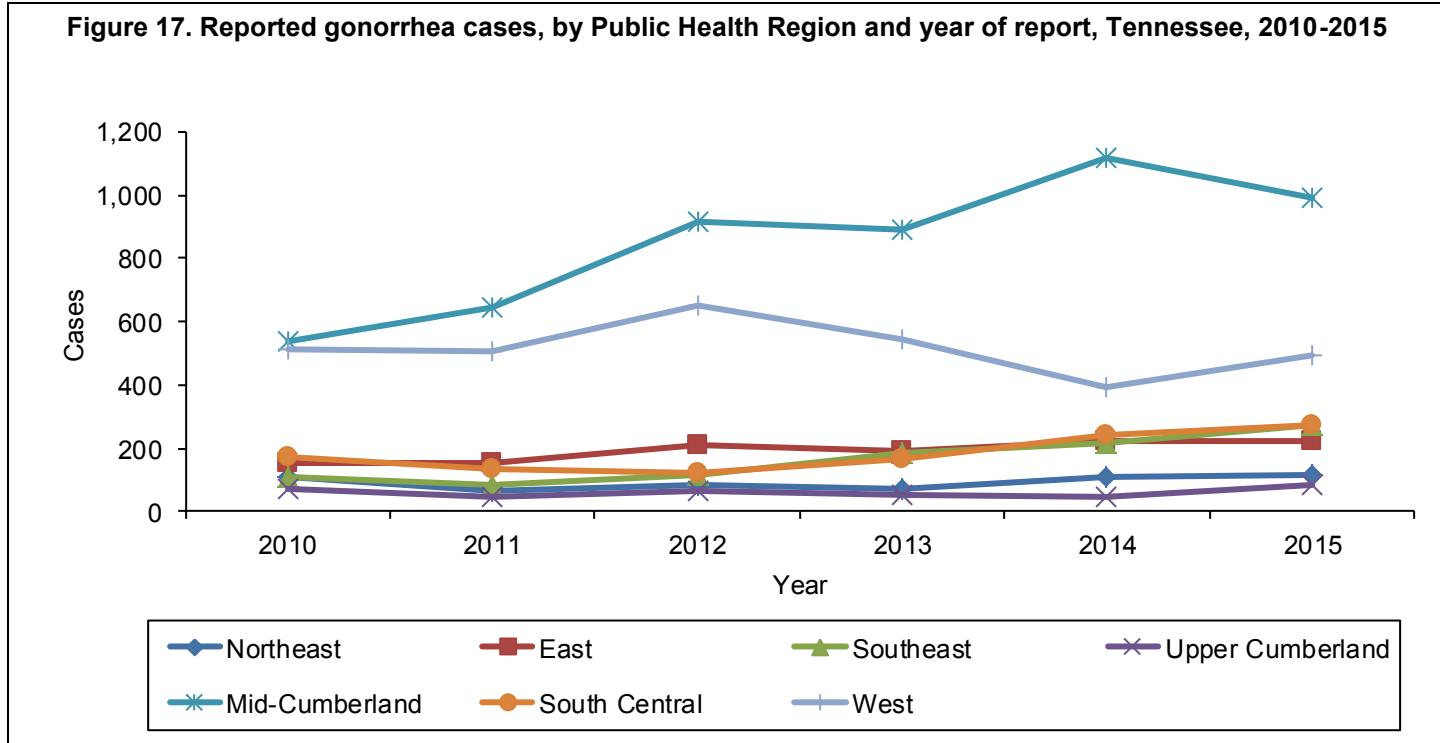


Figure 16. Reported gonorrhea cases, by metropolitan area and year of report, Tennessee, 2010-2015



- The largest numbers of gonorrhea cases were reported among black/African American males (3,434) and black African American females (2,602) (Figure 15). Among all race/ethnicity and sex categories presented, the largest number of cases was reported among individuals 20 to 24 years of age at the time of diagnosis.
- The number of reported gonorrhea cases in the metropolitan areas generally increased from 2010 through 2015 with the exception of Shelby County (Figure 16). The number of reported cases increased in 2015 in all of the metropolitan areas except Sullivan County.

Figure 17. Reported gonorrhea cases, by Public Health Region and year of report, Tennessee, 2010-2015



- The number of reported gonorrhea cases in Tennessee Public Health Regions generally increased from 2010 through 2015 (Figure 17).
- The greatest number of gonorrhea cases were reported in Mid-Cumberland from 2010 through 2015.

Table 10. Reported chlamydia cases and rates, by race*, by metropolitan area, by sex Tennessee, 2015

	Male		Female		Total			
	Cases	%	Rate	Cases	%	Rate		
Tennessee								
White	4,211	41.0%	162.4	9,955	46.6%	372.0	14,166	268.9
Black/African American	5,774	56.3%	1,101.6	10,674	50.0%	1,818.4	16,448	1,480.3
Other/Unknown	275	2.7%	371.5	721	3.4%	941.5	996	66.1
Total Cases	10,260	100.0%	321.5	21,350	100.0%	639.3	31,610	484.0
Shelby								
White	192	7.9%	94.2	531	9.3%	257.5	723	176.3
Black/African American	2,196	90.5%	904.8	5083	89.3%	1,802.6	7,279	1,387.3
Other/Unknown	39	1.6%	220.8	79	1.4%	435.8	118	329.7
Total Cases	2,427	100.0%	522.8	5693	100.0%	1,124.3	8,120	836.6
Davidson								
White	576	36.6%	283.9	1,004	34.8%	507.7	1,580	394.4
Black/African American	978	62.2%	1,169.7	1,807	62.7%	1,918.2	2,785	1,566.2
Other/Unknown	18	1.1%	98.8	70	2.4%	398.5	88	246.0
Total Cases	1,572	100.0%	515.9	2,881	100.0%	930.8	4,453	725.0
Knox								
White	426	52.5%	225.9	909	65.9%	458.0	1,335	344.9
Black/African American	366	45.1%	1,978.8	449	32.5%	2,159.4	815	2,074.4
Other/Unknown	20	2.5%	349.8	22	1.6%	365.8	42	358.0
Total Cases	812	100.0%	381.6	1,380	100.0%	612.6	2,192	500.4
Hamilton								
White	218	34.6%	212.6	463	37.3%	367.2	681	276.1
Black/African American	391	62.1%	1,259.8	728	58.7%	2,008.4	1,119	1,657.4
Other/Unknown	21	3.3%	547.3	49	4.0%	1,247.5	70	901.5
Total Cases	630	100.0%	458.5	1,240	100.0%	745.8	1,870	580.9
Madison								
White	41	15.1%	124.2	99	19.3%	291.4	140	209.0
Black/African American	220	80.9%	1,350.9	390	76.0%	2,091.5	610	1,746.2
Other/Unknown	11	4.0%	1,480.5	24	4.7%	3,125.0	35	2,316.3
Total Cases	272	100.0%	543.6	513	100.0%	960.8	785	759.0
Sullivan								
White	93	77.5%	128.9	245	90.1%	315.0	338	225.5
Black/African American	26	21.7%	1,569.1	15	5.5%	941.6	41	1,261.5
Other/Unknown	1	0.8%	124.8	12	4.4%	1,408.5	13	786.4
Total Cases	120	100.0%	160.9	272	100.0%	339.0	392	253.2

*Includes cases identified with Hispanic ethnicity.

**Per 100,000 population based on 2014 TDH population estimates.

- There were a total of 31,610 chlamydia cases reported in 2015 (Table 10). The majority of cases (67.5%) were reported among females. The proportion of chlamydia cases reported among females varied by metropolitan area.
- The rate of chlamydia cases among females in metropolitan areas was highest in Shelby County (1,124.3) followed by Madison County (960.8).
- Nearly 26% of all chlamydia cases were reported in Shelby County and 14.1% were reported in Davidson County.
- The rate of reported chlamydia cases was higher for blacks/African Americans compared to whites in all metropolitan areas.

Table 11. Reported chlamydia cases and rates, by race*, by Public Health Region, by sex Tennessee, 2015

	Male		Female		Total	
	Cases	%	Rate	Cases	%	Rate
Tennessee						
White	4,211	41.0%	162.4	9,955	46.6%	372.0
Black/African American	5,774	56.3%	1,101.6	10,674	50.0%	1,818.4
Other/Unknown	275	2.7%	371.5	721	3.4%	941.5
Total Cases	10,260	100.0%	321.5	21,350	100.0%	639.3
Northeast						
White	174	76.3%	103.8	576	89.2%	326.6
Black/African American	45	19.7%	951.2	48	7.4%	1,155.5
Other/Unknown	9	3.9%	533.2	22	3.4%	1,160.9
Total Cases	228	100.0%	131.0	646	100.0%	354.2
East						
White	545	84.4%	149.1	1,359	92.9%	352.8
Black/African American	88	13.6%	1,070.2	87	5.9%	1,077.9
Other/Unknown	13	2.0%	311.6	17	1.2%	375.5
Total Cases	646	100.0%	170.9	1,463	100.0%	367.7
Southeast						
White	264	61.1%	168.4	527	76.0%	321.7
Black/African American	129	29.9%	2,122.4	76	11.0%	1,267.3
Other/Unknown	39	9.0%	2,232.4	90	13.0%	4,769.5
Total Cases	432	100.0%	262.5	693	100.0%	403.6
Upper Cumberland						
White	225	88.6%	133.0	527	86.5%	301.5
Black/African American	13	5.1%	536.7	20	3.3%	940.7
Other/Unknown	16	6.3%	908.1	62	10.2%	3,694.9
Total Cases	254	100.0%	146.5	609	100.0%	341.0
Mid-Cumberland						
White	893	54.1%	177.5	2,111	64.0%	410.0
Black/African American	707	42.8%	1,519.5	1,081	32.7%	2,185.6
Other/Unknown	50	3.0%	397.6	109	3.3%	768.7
Total Cases	1,650	100.0%	293.4	3,301	100.0%	570.5
South Central						
White	250	66.8%	135.1	781	82.9%	414.7
Black/African American	121	32.4%	807.9	149	15.8%	1,030.4
Other/Unknown	3	0.8%	139.4	12	1.3%	524.7
Total Cases	374	100.0%	185.0	942	100.0%	459.3
West						
White	314	37.2%	140.1	823	47.9%	354.5
Black/African American	494	58.6%	1,043.4	741	43.2%	1,509.7
Other/Unknown	35	4.2%	1,181.6	153	8.9%	5,321.7
Total Cases	843	100.0%	307.2	1,717	100.0%	604.3
**Per 100,000 population based on 2014 TDH population estimates.						

*Includes cases identified with Hispanic ethnicity.

**Per 100,000 population based on 2014 TDH population estimates.

- The rate of chlamydia cases among males in the Public Health Regions was highest in the West Public Health Region (458.3) (Table 11).
- The rate of reported chlamydia cases was higher for blacks/African Americans compared to whites in all Public Health Regions.

Figure 18. Reported chlamydia cases, by race and sex, by age group at diagnosis, Tennessee, 2015

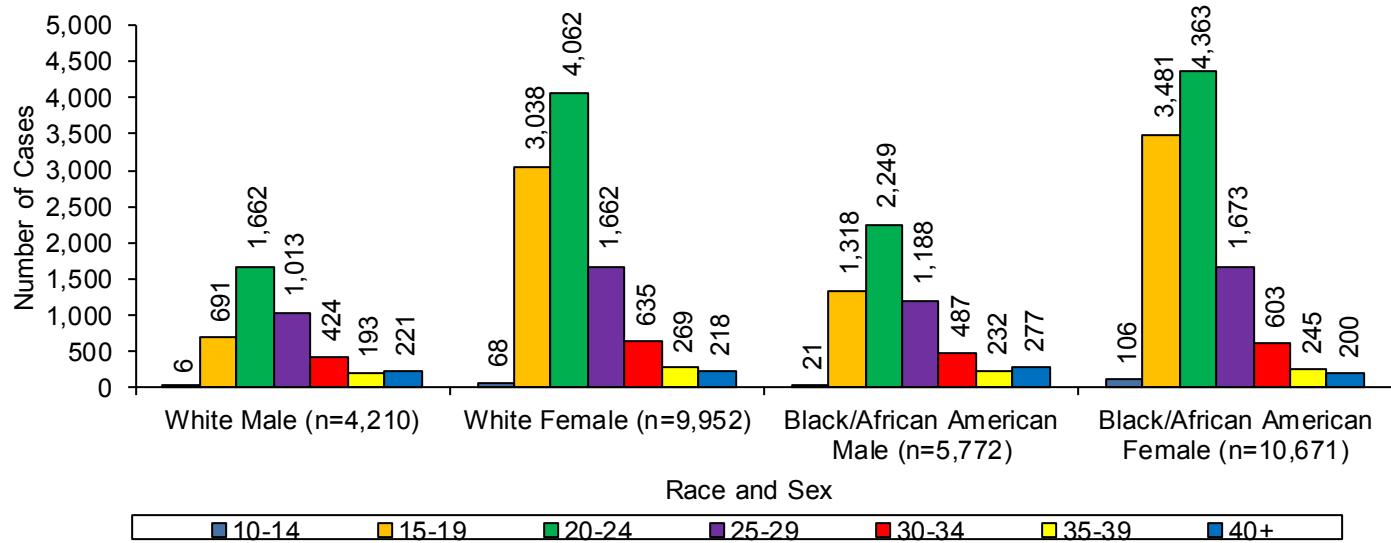
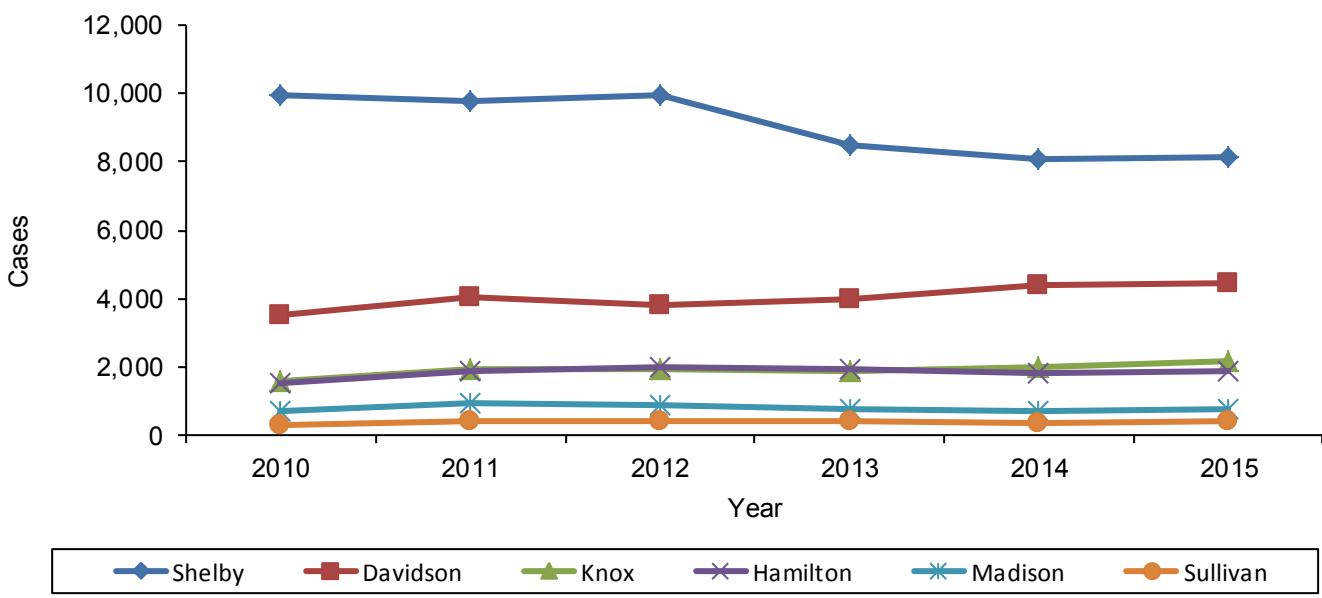
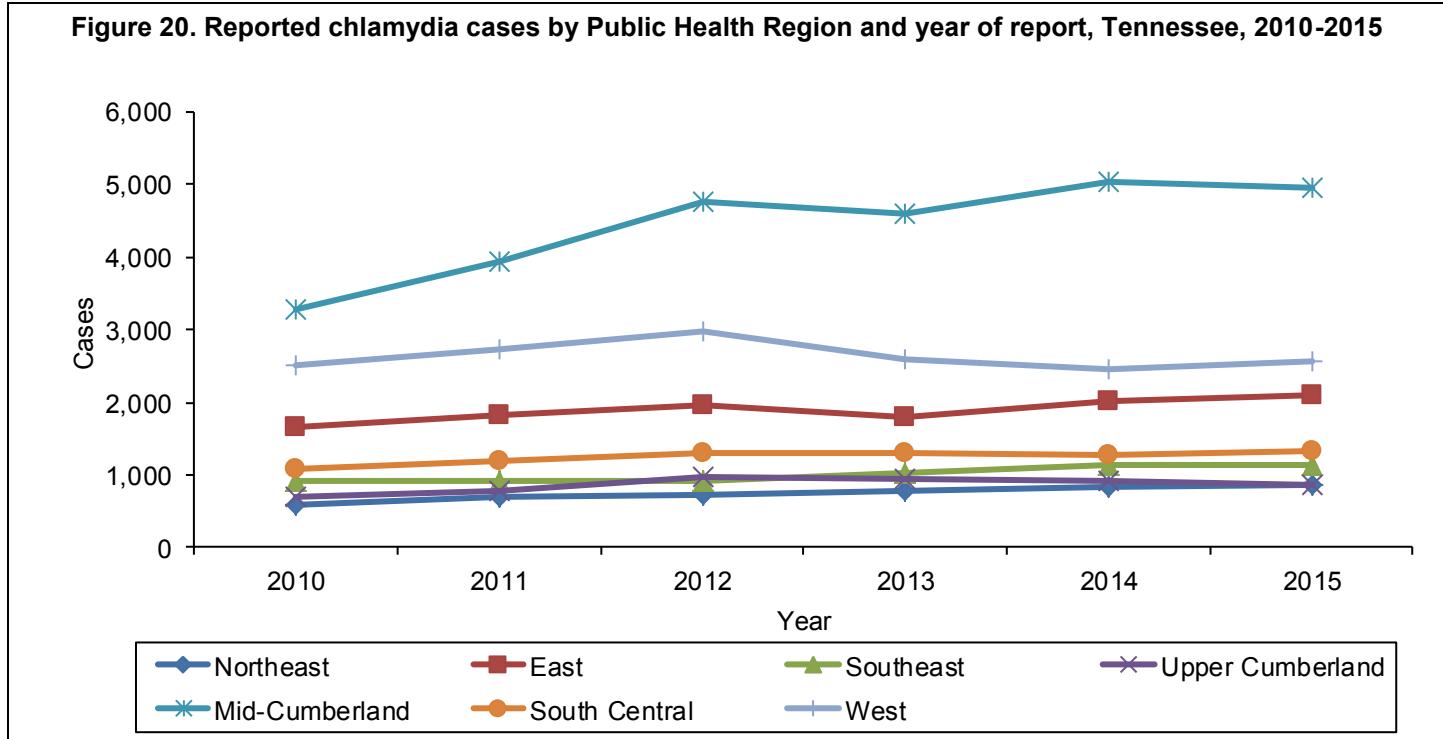


Figure 19. Reported chlamydia cases by metropolitan area and year of report, Tennessee, 2010-2015



- The largest numbers of gonorrhea cases were reported among black/African American females (10,671) and white females (9,952) (Figure 18). Among all race/ethnicity and sex categories presented, the largest number of cases was reported among individuals 20 to 24 years of age at the time of diagnosis.
- The number of reported chlamydia cases in the metropolitan areas generally increased from 2010 through 2015 with the exception of Shelby County (Figure 19). The number of reported cases increased in 2015 in all of the metropolitan areas except Sullivan County.

Figure 20. Reported chlamydia cases by Public Health Region and year of report, Tennessee, 2010-2015



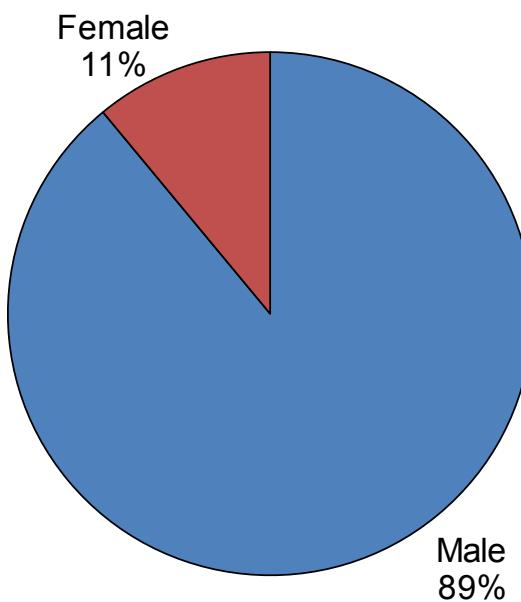
- The number of reported chlamydia cases in Tennessee Public Health Regions generally increased from 2010 through 2015 (Figure 20).
- The greatest number of chlamydia cases were reported in Mid-Cumberland from 2010 through 2015.

Table 12. HIV and STD co-infections, Tennessee, 2015

Co-Infection	Diagnosed with HIV Prior to 2015		Diagnosed with HIV in 2015		Total	
	N	%	N	%	N	%
Chlamydia	230	31.2%	43	24.7%	273	29.9%
Gonorrhea	189	25.6%	44	25.3%	233	25.5%
Syphilis*	176	23.8%	43	24.7%	219	24.0%
Chlamydia and Gonorrhea	76	10.3%	29	16.7%	105	11.5%
Chlamydia and Syphilis*	21	2.8%	7	4.0%	28	3.1%
Gonorrhea and Syphilis*	21	2.8%	5	2.9%	26	2.9%
Chlamydia, Gonorrhea, and Syphilis*	25	3.4%	3	1.7%	28	3.1%
Total	738	100.0%	174	100.0%	912	100.0%

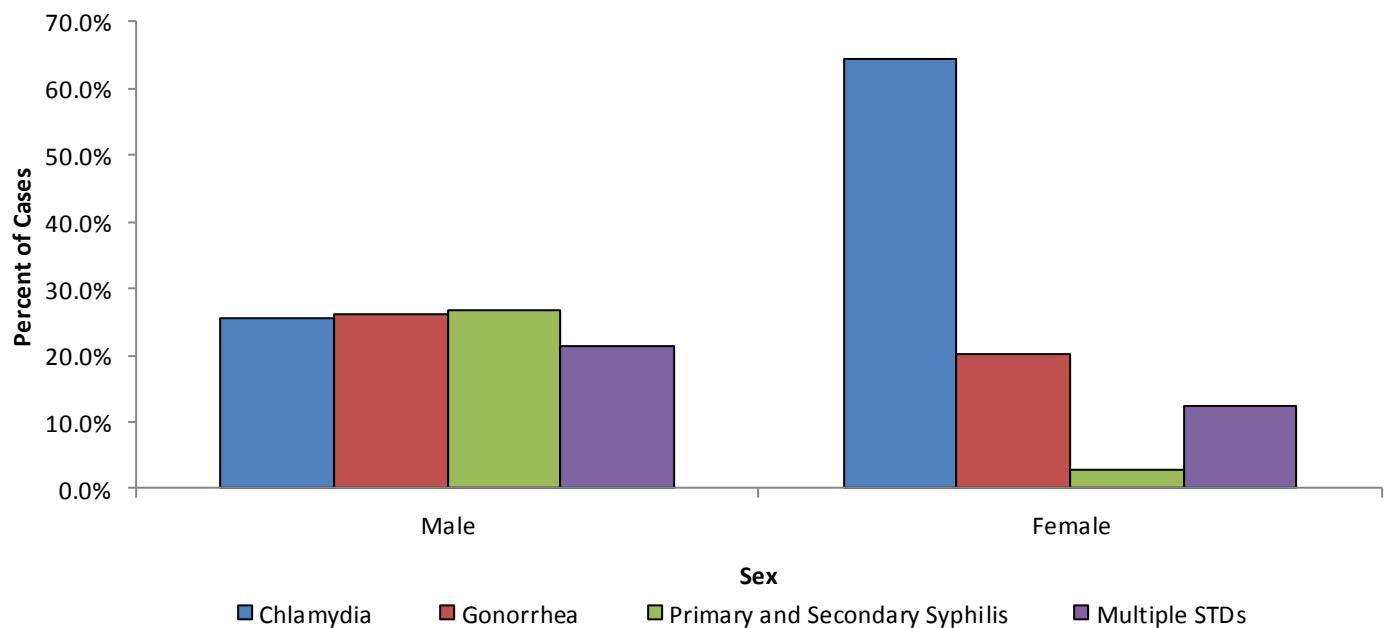
*Only includes diagnoses of primary, secondary, and early latent syphilis.

Figure 21. HIV and STD co-infections by sex, Tennessee, 2015



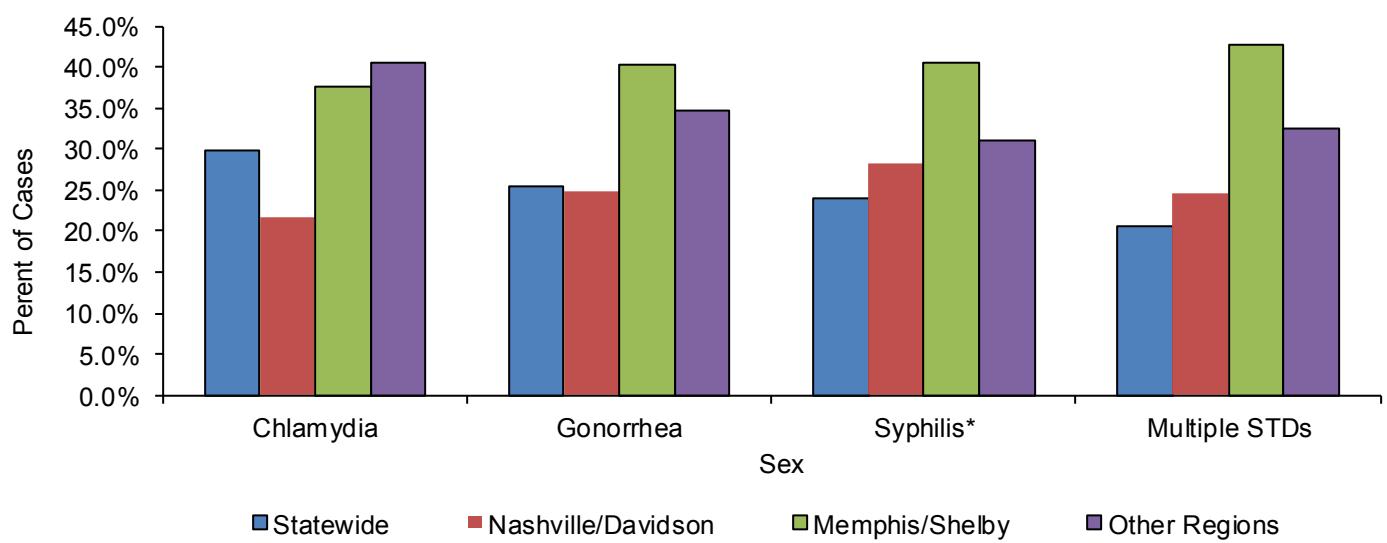
- Of the 16,903 individuals living with HIV disease, 912 were reported with an STD co-morbidity in 2015 (Table 12). The majority of those reported with an STD co-morbidity were diagnosed with HIV prior to 2015 (81%). The largest numbers of HIV co-morbidities were with chlamydia and gonorrhea alone. The proportion of reported STD infections in 2015 that were living with HIV varied by infection type. Of the 670 early syphilis cases reported in 2015, 44.5% were among individuals living with HIV. Only 4.6% of gonorrhea cases and 1.4% of chlamydia cases reported in 2015 were among individuals living with HIV.
- Of the 912 reported STD co-morbidity cases, 89% were among males (Figure 21). Males represented a higher proportion of the STD co-morbidity cases (89%) compared to all males living with HIV disease (73.8%).

Figure 22. HIV and STD co-infections by sex and type of co-infection, Tennessee, 2015



*Only includes diagnoses of primary, secondary, and early latent syphilis.

Figure 23. HIV and STD co-infections by metropolitan areas of STD diagnosis, Tennessee, 2015

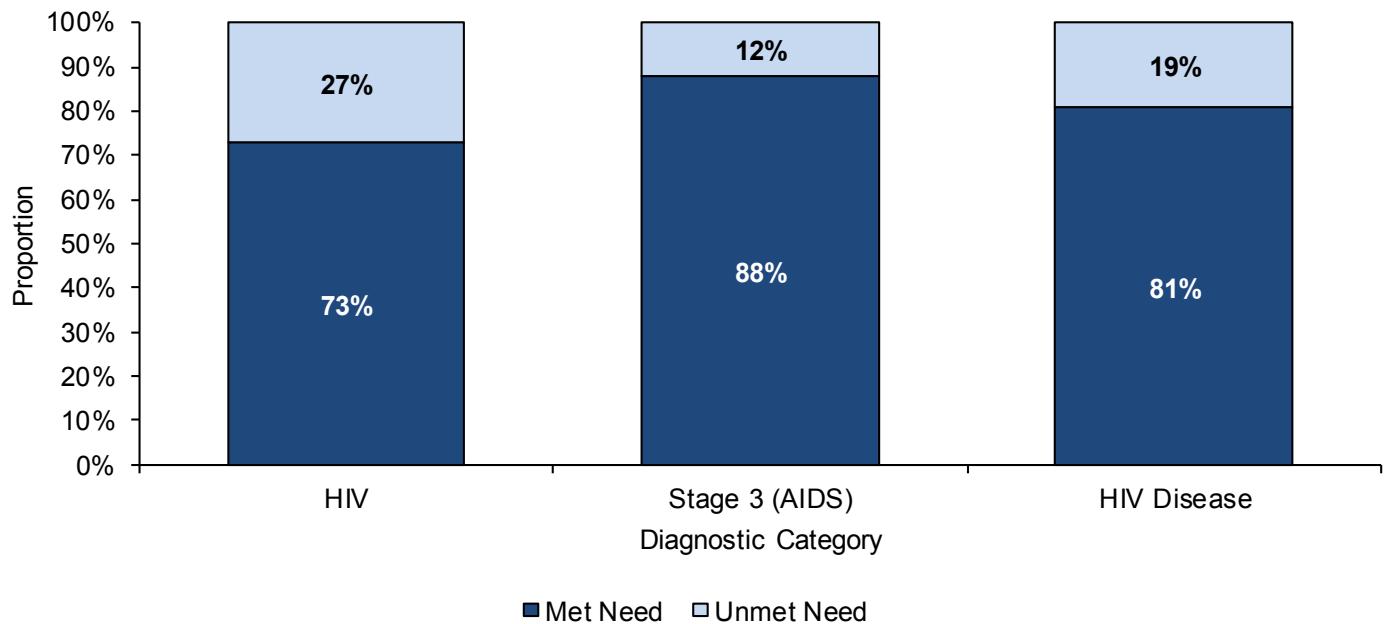


*Only includes diagnoses of primary, secondary, and early latent syphilis.

Note: Percentages may not total due to rounding.

- There were differences in the distribution of STD co-morbidity types by sex (Figure 22). Among females living with HIV who were reported with an STD co-morbidity in 2015, 64.4% were co-infected with chlamydia.
- Among all HIV and STD co-morbidity types except chlamydia, the greatest proportion of cases was diagnosed in Memphis (Figure 23).

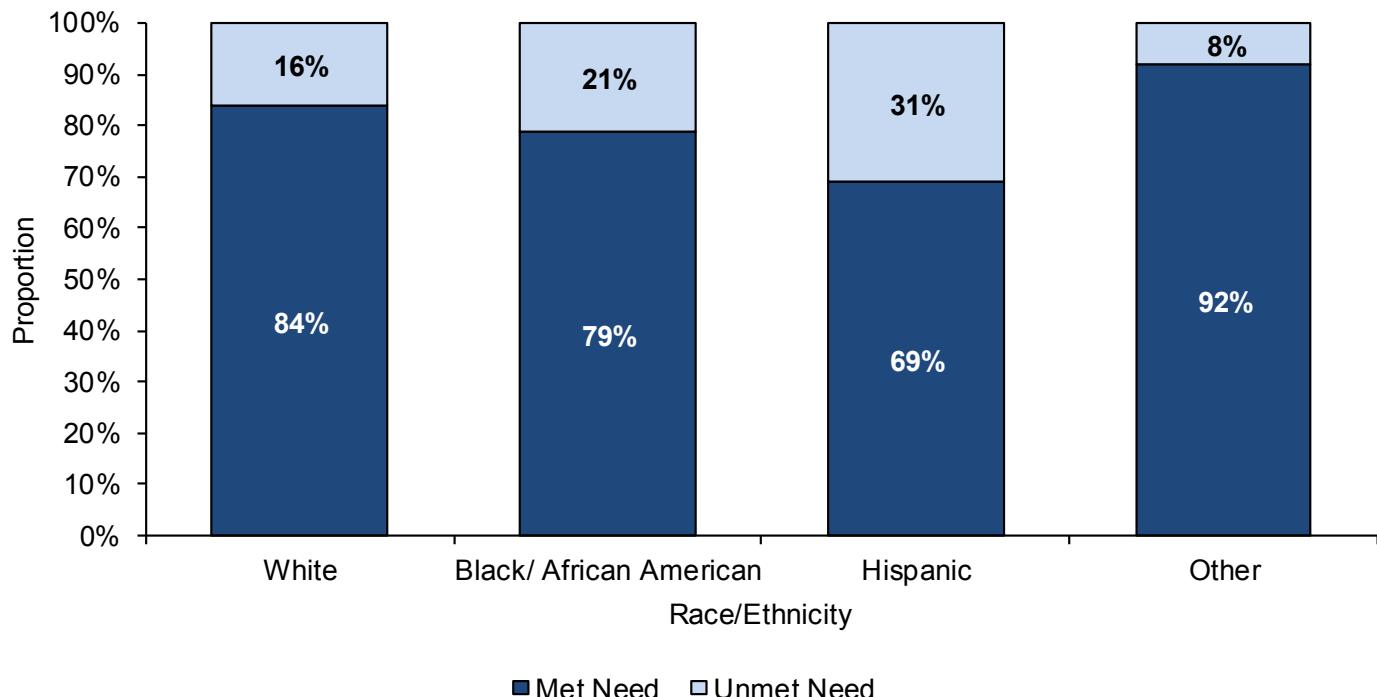
Figure 24. HIV disease unmet need*, Tennessee, 2014



*Unmet need is defined as the number of individuals for which there is no evidence of any of the following three components of HIV primary medical care during a specified 12 month time frame: viral load (VL) testing, CD4 count, or provision of anti-retroviral therapy (ART). Unmet need is further defined as the need for HIV-related health services by individuals with HIV who are aware of their HIV status but are not receiving HIV primary health care.

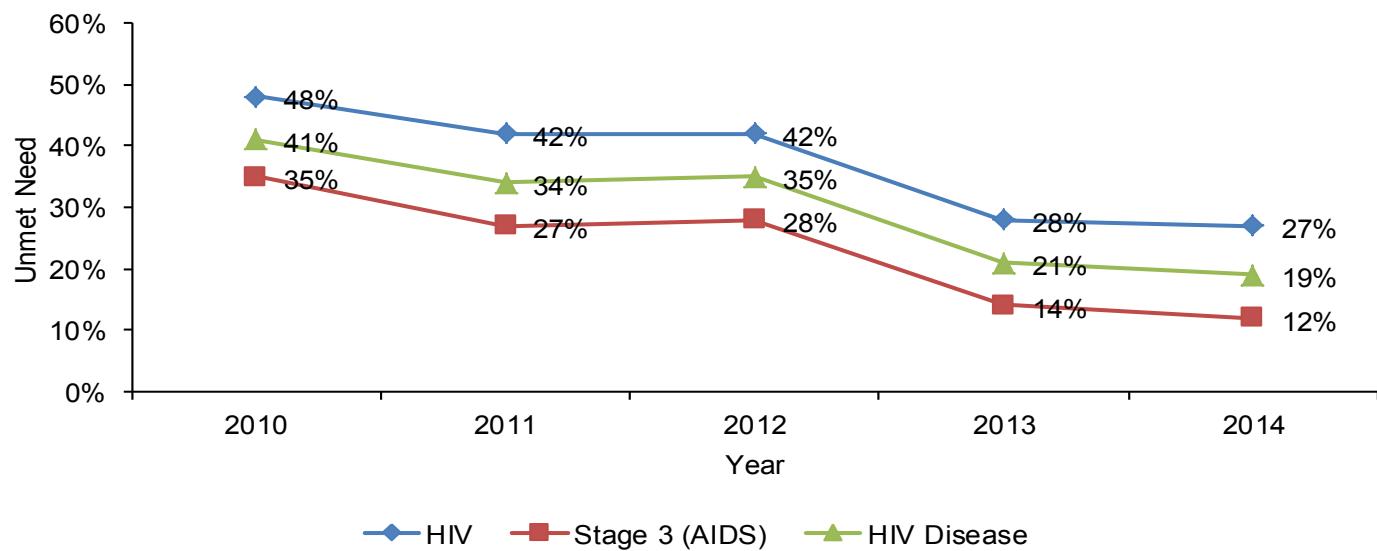
- Approximately 19% of individuals living with HIV disease met the criteria for unmet need (Figure 24).
- Persons who had a HIV diagnosis had a greater proportion of unmet need than persons who had a stage 3 (AIDS) diagnosis (27% and 12%, respectively).

Figure 25. HIV disease unmet need*, by race/ethnicity, Tennessee, 2014



*Unmet need is defined as the number of individuals for which there is no evidence of any of the following three components of HIV primary medical care during a specified 12 month time frame: viral load (VL) testing, CD4 count, or provision of anti-retroviral therapy (ART). Unmet need is further defined as the need for HIV-related health services by individuals with HIV who are aware of their HIV status but are not receiving HIV primary health care.

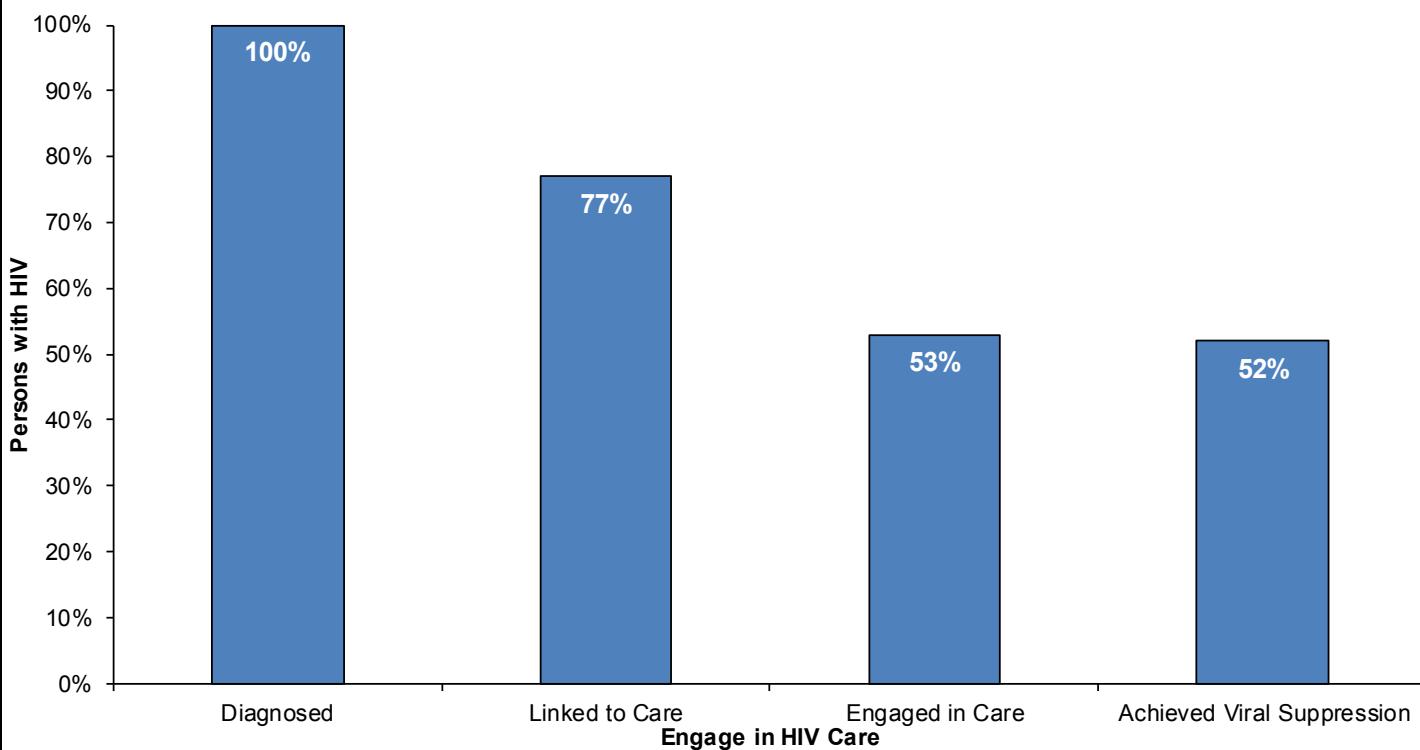
Figure 26. HIV disease unmet need*, Tennessee, 2010-2014



*Unmet need is defined as the number of individuals for which there is no evidence of any of the following three components of HIV primary medical care during a specified 12 month time frame: viral load (VL) testing, CD4 count, or provision of anti-retroviral therapy (ART). Unmet need is further defined as the need for HIV-related health services by individuals with HIV who are aware of their HIV status but are not receiving HIV primary health care.

- Hispanics represent the greatest proportion of unmet need (31%, Figure 25).
- There has been a steady decline in the proportion of unmet need (Figure 26). This decrease may be in part a result of changes in surveillance activities.

Figure 27. Continuum of Care, Tennessee, 2014



Diagnosed: All individuals diagnosed on or before December 31, 2013 and believed to be alive and residing in Tennessee as of December 31, 2014.

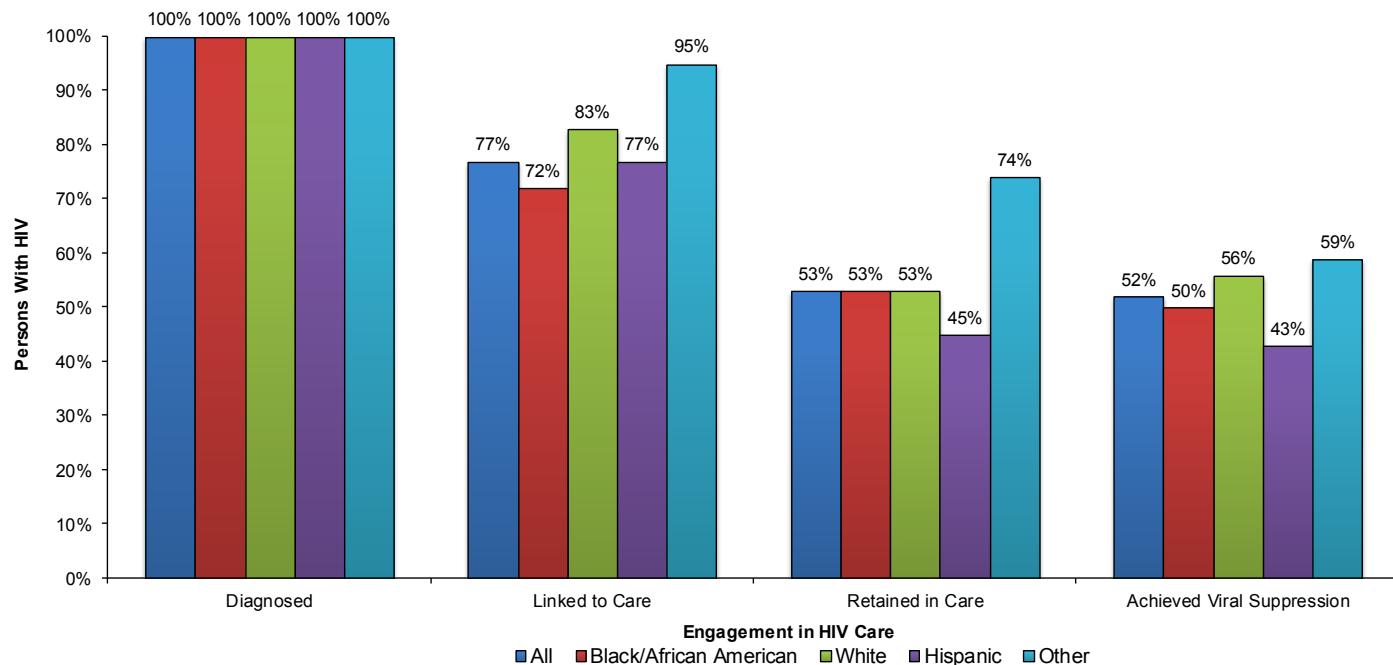
Linked to Care: At least 1 CD4 or viral load result reported within three months after the diagnosis date for those newly diagnosed with HIV in 2014 in Tennessee.

Engaged in Care: At least 2 CD4 and/or viral load results reported at least three months apart in 2014 for all individuals diagnosed with HIV on or before December 31, 2014 and believed to be alive and residing in Tennessee as of December 31, 2014.

Achieved Viral Suppression: HIV diagnosed individuals who had at least one viral load measurement in 2013 whose last viral load measure in 2014 was less than or equal to 200 copies/mL for all individuals diagnosed with HIV on or before December 31, 2013 and believed to be alive and residing in Tennessee as of December 31, 2014.

Of all of the newly diagnosed HIV cases, 77% were linked to care in 2014 (Figure 27). Of the individuals diagnosed with HIV on or before December 31, 2013 and believed to alive and residing in Tennessee as of December 31, 2014, 53% had evidence of being engaged in care in 2014 (i.e., 2 or more CD4 or viral load results reported at least three months apart in 2014). Additionally, 52% of individuals diagnosed with HIV in Tennessee achieved viral suppression in 2014. These individuals had at least one viral load measurement in 2013 whose last viral load measure in 2014 was less than or equal to 200 copies/mL.

Figure 28. Continuum of Care, by race/ethnicity, Tennessee, 2014



Diagnosed: All individuals diagnosed on or before December 31, 2013 and believed to be alive and residing in Tennessee as of December 31, 2014.

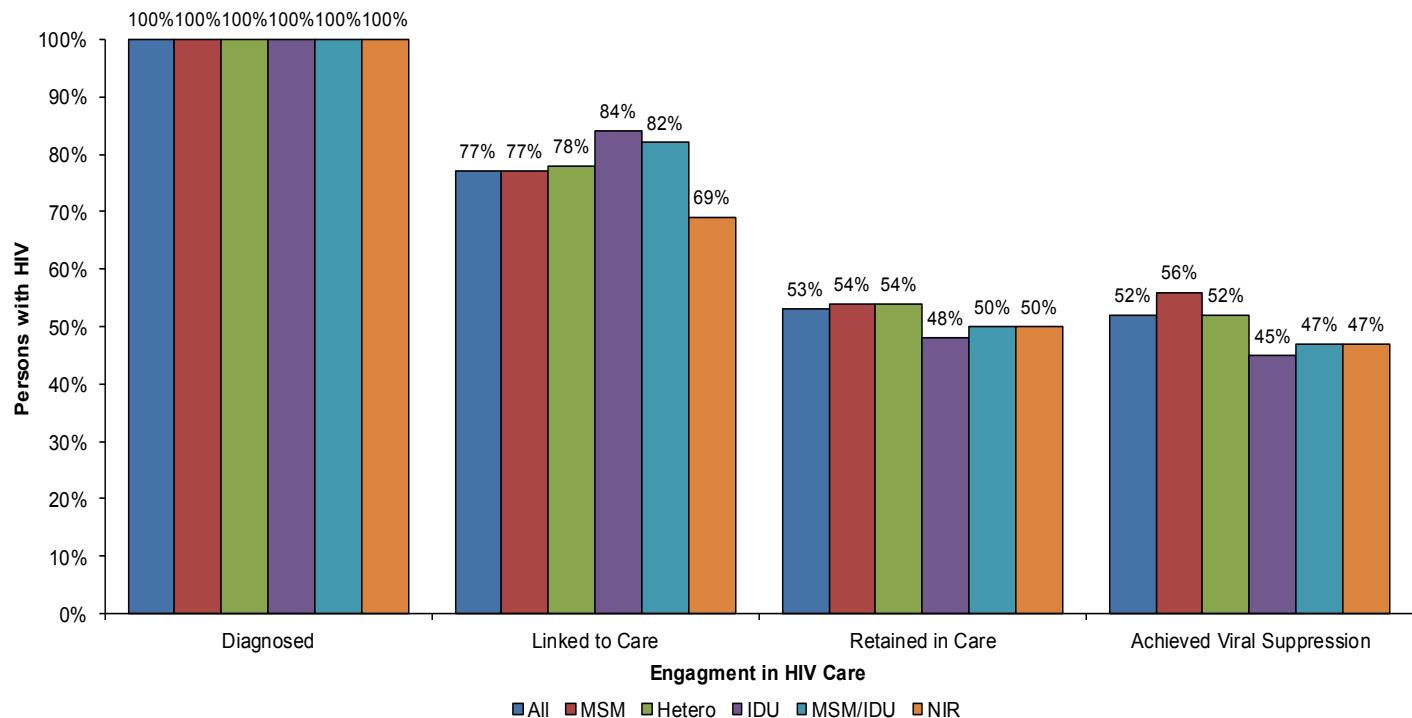
Linked to Care: At least 1 CD4 or viral load result reported within three months after the diagnosis date for those newly diagnosed with HIV in 2014 in Tennessee.

Engaged in Care: At least 2 CD4 and/or viral load results reported at least three months apart in 2014 for all individuals diagnosed with HIV on or before December 31, 2014 and believed to be alive and residing in Tennessee as of December 31, 2014.

Achieved Viral Suppression: HIV diagnosed individuals who had at least one viral load measurement in 2013 whose last viral load measure in 2014 was less than or equal to 200 copies/mL for all individuals diagnosed with HIV on or before December 31, 2013 and believed to be alive and residing in Tennessee as of December 31, 2014.

When divided by race, Tennessee's 2014 Continuum of Care demonstrates poorer outcomes for blacks/African Americans with respect to linkage to care (72%), and for both blacks/African Americans (50%) and Hispanic persons (43%) in viral suppression when compared to other races (Figure 28).

Figure 29. Continuum of Care, by transmission category, Tennessee, 2014



Diagnosed: All individuals diagnosed on or before December 31, 2013 and believed to be alive and residing in Tennessee as of December 31, 2014.

Linked to Care: At least 1 CD4 or viral load result reported within three months after the diagnosis date for those newly diagnosed with HIV in 2014 in Tennessee.

Engaged in Care: At least 2 CD4 and/or viral load results reported at least three months apart in 2014 for all individuals diagnosed with HIV on or before December 31, 2014 and believed to be alive and residing in Tennessee as of December 31, 2014.

Achieved Viral Suppression: HIV diagnosed individuals who had at least one viral load measurement in 2013 whose last viral load measure in 2014 was less than or equal to 200 copies/mL for all individuals diagnosed with HIV on or before December 31, 2013 and believed to be alive and residing in Tennessee as of December 31, 2014.

When divided by transmission category, Tennessee's 2014 Continuum of Care demonstrates poorer outcomes for IDU population in retention (48%) and viral suppression (45%), despite higher than average linkage to care rates (84%) (Figure 29).

Using Continuum of Care (CoC) data in planning, prioritizing, targeting and monitoring resources:

Each year, TDH develops a Continuum of Care based on the prior year's eHARS data. Per CDC guidelines, there is a 15 month delay between the end of the year and the generation of the Continuum of Care, to allow for the data to be finalized. Abiding by these guidelines, the 2014 CoC was generated in April 2016. The 2015 CoC will be finalized in April 2017.

TDH has used the CoC to develop our Jurisdictional Plan goals and to identify where on the continuum we most need to improve programs or shift resources to new services. As an example, due to the identification of the extreme health disparities identified for young black/African American MSM, TDH began the Social Network Strategy program targeting young black/African American MSM in Memphis and Nashville —eventually identifying 170 HIV positive young men and linking them to care.

TDH staff reviewed linkage to care data on all tests conducted by TDH (120,000/year) on a quarterly basis. Technical assistance and follow up is provided to agencies that do not achieve linkage requirements. Additionally, electronic lab submission data is reviewed quarterly for completeness and accuracy. This data is also used for program planning purposes, helping TDH determine what areas of the program need technical assistance and where resources should be targeted.

Improving engagement at each stage of continuum:

Increases in the percentage of people linked to care, retained in care, and virally suppressed may reflect true improvements in HIV CoC outcomes, enhanced surveillance activities, or both. TDH has several programs in place to improve outcomes at each stage of the CoC.

The State improved its surveillance activities by requiring laboratory reporting of all CD4 and viral load test results to TDH starting in 2013. Tennessee added additional surveillance strategies, such as matching state death data with National Death Index data and updating residential status using Accurint software. These strategies helped to provide more accurate information on the number of people living with HIV disease in Tennessee. Jurisdictions that do not use these methods might inaccurately construct their HIV CoC data because they may be missing critical laboratory data or including people in analyses who are no longer residing in their jurisdiction.

In addition to enhanced surveillance, Tennessee improved its HIV CoC activities. New activities initiated between 2010-2013 included the 2012 CAPUS award from CDC. CAPUS seeks to increase the proportion of people with HIV disease from racial/ethnic minority groups who know their status by expanding testing capacity and optimizing linking to, retention in, and reengagement in care and prevention services. In Tennessee, CAPUS funds supported (1) transition from third-generation (i.e., HIV antibody only) to fourth-generation (i.e., combined HIV antibody and antigen) HIV testing in three state laboratories, (2) implementation of social networking strategy to engage hard-to-reach black/African American MSM in HIV testing, (3) use of 'corrections navigators' (i.e., TDH staff members) to facilitate linkage of inmates to HIV care upon release, and (4) use of surveillance data to help disease intervention specialists identify and locate people living with HIV disease who are not engaged in care and to inform HIV health care providers of clients who are in care but are not virally suppressed.

TDH applies data obtained from local jurisdictional analyses to interventions to reduce locally identified health disparities in HIV disease. Line-item data about people identified as not retained in care are provided to

CAPUS funded disease intervention specialists who locate and navigate people for reengagement in HIV care. By repeated continuum analyses, we will assess the effects of changes in surveillance practices and CAPUS or other programs over time.

To improve linkage to care, TDH's HIV testing program requires all testers to link newly diagnosed HIV positive clients they have tested to care. TDH provides feedback quarterly to every testing partner, alerting them of any of their clients who tested positive and were not linked, and requires follow up on each un-linked client. This program encompasses two-thirds of all newly diagnosed positives in the state, as the testing program currently identifies 66% of all new positives in Tennessee.

In addition, TDH funds four agencies to implement ARTAS with newly diagnosed HIV positive clients.

Through Tennessee's network of HIV Centers of Excellence clinics located throughout the state, clients have access to outpatient ambulatory care and medical case management services. All Medical Case Managers (MCMs) have been trained in helping clients navigate the HIV care system. The availability of Ryan White services is communicated through media, social networks, and peer networks. The provision of wrap-around services such as transportation, food, housing, emergency financial assistance, and other programs are crucial for maintaining clients in care. There are mechanisms in place to notify MCMs when an individual appears to be out of care. The contracted mail order pharmacy notifies the MCMs any time a currently eligible person fails to re-order prescriptions. The State's new web-based eligibility system automatically notifies MCMs when eligible individuals are due for the six month re-eligibility determination. The MCM then initiates contact. If someone does not respond to schedule an appointment, the MCM attempts to locate the person and reconnect them to care.

Minority AIDS Initiative funding is used to fund specialists/coordinators in rural areas (West (2), Southeast (1)) who try to find persons a) who have dropped out of care and assist them in returning to care or b) who have never accessed care and engage them into care. All three contracted agencies have strong relationships with the Centers of Excellence in their respective areas. Both the Memphis and Nashville TGAs have implemented Early Intervention Services (EIS) in their respective geographic areas to find people and get them into care.

Challenges:

TDH is fortunate to have an integrated program —with HIV Surveillance, HIV Prevention, and Ryan White programs co-located with shared leadership. Despite required viral load and CD4 reporting by laboratories, TDH has discovered all labs are not reliably reporting viral load and CD4 data. These issues have been easier to identify since instituting a data feedback loop with the Data to Care program in 2013.

Although laboratory values were used as a proxy for clinic visits, they may not accurately reflect clinic visits. Dates or names can be misapplied to given laboratory results. Although Tennessee met CDC criteria for designation as a complete CD4 and viral load laboratory-reporting jurisdiction during 2013, noncompliance with reporting of laboratory results may have reduced the completeness of the data set.

Partnerships:

With respect to improving engagement in care and thus viral suppression, TDH has a Data to Care program, which has been in operation since 2013. Each year, TDH generates lists of clients who have fallen out of care, based on eHARS data, and assigns those cases to re-engagement specialists, trained as DIS and

housed at the central office and at the Memphis Shelby County Health Department. These DIS then work their caseload of out of care clients each month —using specialized skills in strengths based counseling and motivational interviewing to re-engage clients back into HIV care. They also address social and structural barriers that have prevented past access to or retention in care. TDH Data to Care staff have partnered closely with both Ryan White Part A programs to ensure EIS programs and Data to Care programs do not overlap and are working together to provide the best possible outcomes.

Background

The Division of HIV/AIDS Prevention at the Centers for Disease Control and Prevention (CDC) and the Health Resources and Services Administration (HRSA) released the revised *Integrated Guidance for Developing Epidemiologic Profiles* in 2014. These guidelines are meant to assist states in creating standardized profiles that meet the planning needs of HIV prevention and care programs, while allowing freedom to portray unique situations within the state. The epidemiologic profile is divided into two sections, within which three questions are addressed.

Profile Organization:

Section 1: Core Epidemiological Questions

This section deals with understanding the characteristics of the general population, the distribution of human immunodeficiency virus (HIV) disease and sexually transmitted diseases (STDs) in the state, and a description of the population at risk for HIV and STD infection. This section is organized around two key questions:

Question 1: What is the scope of the HIV disease epidemic in Tennessee?

Describes the impact of the HIV disease epidemic in Tennessee?

Question 2: What are the indicators of HIV disease risk in Tennessee?

Provides an analysis of the high-risk populations. Both the direct and indirect measures of risk behaviors associated with HIV transmission and the indicators of high-risk behaviors are described in this section.

Section 2: Ryan White HIV/AIDS Care Act Special Questions and Considerations

This section focuses on the questions that pertain to the HRSA HIV/AIDS care planning groups. It describes access to, utilization of, and standards of care among persons in Tennessee who are HIV infected. It is organized around one key question:

Question 3: What are the HIV service utilization patterns of individuals with HIV disease in Tennessee?

Characterizes patterns in the use of services by the population living with HIV/AIDS in Tennessee. Assess the unmet need of person who know they are HIV positive, but are not in care. Describes their service needs and perception of care.

Data Sources

1. Population Data

Population Estimates, Tennessee Department of Health (TDH)

TDH maintains population files for Tennessee and its counties based on data provided by the U.S. Census Bureau in partnership with the Federal State Cooperative Program for Population Estimates. Census counts are produced every ten years, with the 2010 census representing the most recent census. Population estimates are produced for non-census years based on adjustments made to the most recent census counts. The population estimates include race/ethnicity categories for whites, blacks/African Americans, and other.

2. HIV Epidemic Data

HIV/Stage 3 (AIDS) Surveillance Data, eHARS

The Tennessee Department of Health form PH-1600 (for patients less than 13 years of age) or PH-3274 (for patients over the age of 13) must be completed for the following events: (1) new diagnosis of HIV (i.e. acute HIV infection or first report of an antibody positive test result); (2) new diagnosis of stage 3 (AIDS) ($CD4 < 200$ or $<14\%$ (if the CD4 count is unavailable), or presence of one or more opportunistic infections; or (3) patient with a previously diagnosed HIV diagnosis on their first provider visit. Providers are required to report such events within 7 days, and reporting forms are located at: <http://tn.gov/health/topic/STD-professionals>.

By Phone: To either the Local Health Department, Regional Health Office, or the Tennessee Department of Health, Communicable and Environmental Disease Emergency Preparedness Section: 615.741.7500 or 1.800.525.2437

By Email: Using the appropriate Regional Health Office email address

By Fax: To either the Local Health Department, Regional Health Office, or the Tennessee Department of Health, Communicable and Environmental Disease Emergency Preparedness Section: 615.741.3691

TDH, Surveillance & Epidemiology Program is responsible for managing the HIV/stage 3 (AIDS) surveillance data, stored in the enhanced HIV/AIDS Reporting System (eHARS). The data collected in the surveillance system is based on diagnosis date, and not the time of infection. The diagnosis can be made at any clinical stage of the disease. The characteristics associated with new diagnoses may not reflect characteristics associated with recent infection. The surveillance system only includes data on individuals that are tested confidentially and reported. Members of certain subpopulation may be more or less likely to be tested, and therefore different subpopulations could be over or under-represented among diagnosed and reported HIV cases.

Death Data

Data on deaths occurring in Tennessee are from matches of our HIV case registry with the Tennessee Vital Statistics Death Registry and medical chart reviews by local surveillance staff. The most recent match with the Tennessee Vital Statistics Death Registry was completed for the 2014 calendar year. Information on deaths occurring outside of Tennessee is obtained from the National Death Index (NDI) and the Social Security Death Match. Due to limitations, the most recent available death data from these two sources is from calendar year 2011.

3. STD Surveillance Data

PRISM

The Tennessee Department of Health, STD Prevention Program is responsible for managing all reportable STD surveillance data. STD data collected through 2010 were managed in the STD

Management Information System (STD*MIS). In April 2010, TDH began utilizing Patient Reporting Investigation Surveillance Manager (PRISM) to collect and manage STD surveillance data. Data in this system are presented based on the date of report to the health department and not the diagnosis date. The data represent only those individuals tested and reported, which underestimates the true burden of infection as many infected individuals do not seek care, often due to lack of symptoms. In addition, many people receive treatment without being tested, again underestimating the true burden of infection. Since morbidity is frequently entered based on the receipt of laboratory reports at TDH, race and ethnicity information is often not available. Incomplete race and ethnicity reporting limits the interpretation of trends for these characteristics.

4. HIV Care Services Data

HIV Case Management Data, CAREWare

TDH participates in a cooperative agreement with HRSA for the provision of several programs funded by the Ryan White HIV Treatment Modernization Act. Data for persons served by these programs are collected and stored in the CAREWare database. Data include key demographic and eligibility related variables for persons residing in Tennessee, and portions of Mississippi and Arkansas. These data are used to monitor the level of need and the provision of services for individuals utilizing Ryan White funded services.

Technical Notes

HIV Disease, HIV case, stage 3 (AIDS) case: HIV disease includes all individuals diagnosed with the HIV virus regardless of the stage of disease progression. All persons with HIV disease can be sub-classified as either a stage 3 (AIDS) case (if they are in the later stages of the disease process and have met the case definition for stage 3 (AIDS)), or an HIV case (if they are in the earlier stages of the disease process and have not met the stage 3 (AIDS) case definition). In this report, the sub-classification of HIV or stage 3 (AIDS) is based on an individual's status of disease progression as of December 31, 2015.

Date of Diagnosis: Represents the date an individual was first diagnosed with the HIV virus, regardless of the stage of disease progression. However, in many instances the initial diagnosis of infection does not occur until several years after the initial infection, so at best the trends in diagnosed HIV cases can only approximate actual trends in new HIV infections.

Reporting Delay: Delays exist between the time HIV infection is diagnosed and the time the infection is reported to TDH. As a result of reporting delays, case numbers for the most recent years of diagnosis may not be complete. Data from recent years should be considered provisional. The data presented in this report have not been adjusted for reporting delay. The data in this report represent all information reported to TDH through August 10, 2016.

Vital Status: Cases are presumed to be alive unless TDH has received notification of death. Current vital status information for cases is ascertained through routine matches with Tennessee death certificates, reports of death from other states' surveillance programs, and routine site visits with major reporting sites. When comparing *Profiles*, changes in the number of living cases in a select year between the *Profiles* is due to adjustments based on results of death matching activities.

Routine Interstate Duplicate Review (RIDR): The mobility of American citizens impacts the ability to accurately track individuals living with HIV. Mobility may result in the same HIV infected person being counted in two or more different states. To help respond to potential duplication problems, the CDC initiated the Interstate Duplication Evaluation Project (IDEP), now called Routine Interstate Duplicate Review (RIDR) in 2002. RIDR compares patient records throughout the nation in order to identify duplicate cases. The states with duplicate cases contact one another to compare patient profiles in order to determine the state to which the case belongs, based on the residence during the earliest date of diagnosis. In addition, surveillance programs are able to update patient records with the most recent information. Because of this process, the cumulative number of cases for Tennessee may change, but the process has increased the accuracy of Tennessee's data by reducing the chance that a case has been counted more than once nationally.

Small Numbers: Data release limitation are set to ensure that the information cannot be used to inadvertently identify an individual. It is difficult to make meaningful statements concerning trends in areas with low numbers of cases. Please interpret rates where the numerator is less than 20 cases with caution due to the low reliability of rates based on a small number of cases.

Financial and Human Resources Inventory

Overview of Funding

Federal and State Prevention and Care Funding, FY 2016*

Funding Type	Funding Amount	Percent of Total	How Resources are Being Used	Impact on Continuum of Care
HIV Prevention				
PS 12-1201 (Cat A&B)	\$5,422,383	11.0	HIV Testing, Partner Services, Condom Distribution, Linkage to Care, Re-engagement in Care, Effective Behavioral Interventions	Diagnosis, Linkage, Re-engagement
PS 12-1210 (CAPUS)	\$1,260,524	2.5	HIV Testing in young AA MSM, Linkage to Care, Re-engagement in Care	Diagnosis, Linkage, Re-engagement
PS 15-1506 (PrEP)	\$1,579,826	3.2	PrEP Infrastructure development for AA MSM and TG women in Memphis MSA	Primary Prevention
HIV Care				
ADAP	\$21,188,318	43.0	HAART	Engagement/Retention, HAART, Viral Suppression
State ADAP**	\$7,000,000	14.2	HAART	Engagement/Retention, HAART, Viral Suppression
Part B Base	\$5,284,566	10.7	HIV Core Medical and Support Services	Linkage, Engagement/Retention, Reengagement, Viral Suppression
MAI	\$200,662	0.4	Health Education/Risk Reduction and Outreach Activities	Linkage, Reengagement, Retention, HAART
State Part B**	\$200,000	0.4	HIV Core Medical and Support Services	Linkage, Engagement/Retention, Reengagement, Viral Suppression

HOPWA				
Base Award	\$4,938,497	10.0	---	---
SAMHSA				
Base Award	\$2,161,810	4.4	---	---
Total Federal Funds				
Total State Funds	\$ 7,200,000	14.6		
Prevention and Care Total				
	\$ 49,236,586	100.0		

*Due to rounding, totals do not add up to 100%.

**State funding

Funding for Prevention

TDH conducts HIV Prevention activities in all regions of the state, primarily through funding via CDC cooperative agreements. The base HIV Prevention award funds HIV testing [in both clinical and non-clinical settings], comprehensive prevention for HIV positive persons, including partner services, condom distribution, and behavioral interventions for PLWHA and high-risk negative populations – namely, MSM and Transgender populations. TDH provides support to metro and regional health departments to provide 4th Generation HIV Testing and partner services. In addition, community HIV Prevention activities are conducted through contracts with five regional lead agencies that assist with competitive awards for community-based organizations and oversee the Regional Planning Groups (RPGs) that complement the statewide TCPG. Each year approximately 15 CBOs across the state receive funding to provide HIV Testing and culturally relevant, high impact HIV Prevention interventions to consumers in their communities.

HIV testing services are provided primarily by nurses in clinical settings, including metro and regional health departments. TDH also conducts testing in emergency rooms, corrections settings, federally qualified health centers, and in a variety of non-clinical settings. Behavioral interventions and public health strategies are delivered through community organizations through a network of peer specialists and trained counselors who have had approved training through TDH. TDH works closely with CDC and regularly hosts targeted training and capacity-building to assure high-quality HIV Prevention services.

In addition to the base HIV Prevention award, Tennessee has successfully competed for demonstration project funding for PS 12-1210 (CAPUS) and PS 15-1506 (PrEP). The CAPUS demonstration project has provided the ability for 4th Generation HIV Testing in all state labs in Tennessee, as well as targeted HIV testing for young black MSM via Social Network Strategy. In addition, the funding has supported correctional navigation, re-engagement activities (Data to Care), and social/structural interventions. Funding from PS 15-1506 from CDC—awarded in 2015—will expand infrastructure for and access to pre-exposure prophylaxis (PrEP) in the Memphis MSA.

Funding for Care, Treatment and Support Services

The bulk of HIV primary care is delivered through 14 Centers of Excellence (COE) across the State. Many Core Medical Services are available at each of the COEs. Primary medical services are provided by physicians - both Infectious Disease specialists and Internal Medicine providers - and nurse practitioners, registered nurses, and physician assistants (PAs). Each clinical site provides access to medical case managers who facilitate access to housing, medication assistance, assistance with insurance program which cover premiums, co-pays, and deductibles, and behavioral health services. All COEs provide or have access to high-quality dental care and nutrition services.

The Part F (AETC) grantee for the Southeast is based at Vanderbilt University and has a long and successful history in training health care providers—especially Ryan White providers—in Tennessee. As part of the annual training needs assessment, the Part F grantee assesses needs of Ryan White providers and programming and training offered reflect the current needs in Ryan White settings.

Additional Federal support in Tennessee comes through HUD contributions to support HOPWA services and SAMHSA funding for the Tennessee Department of Mental Health and Substance Abuse Services to provide HIV testing and education in substance abuse treatment settings. In addition to the prevention activities funded through TDH, CDC directly funds two community organizations: Nashville CARES and Le Bonheur Community Health and Well-Being in Memphis.

Workforce Capacity

A network of highly skilled health workers from many disciplines delivers HIV prevention and care services in Tennessee. HIV primary care is provided by physicians and mid-level providers (physician assistants, nurse practitioners) in Centers of Excellence clinics and Ryan White provider sites throughout the State. All clinical settings host or have relationships with medical case managers who coordinate health care services and all core medical services. Psychosocial needs are also addressed by peer navigators, mental health providers, substance abuse treatment providers, and other behavioral health professionals. Linkage and retention in care services are

provided by Disease Intervention Specialists (DIS), patient navigators, and medical case managers. Additional core medical services are provided by contracts with private dental offices, nutritional counselors, and TDH employees in HIV and STD roles overseeing early intervention services.

Ryan White Part B manages ADAP enrollment and encourages participation in the health care marketplace. Staff in all Ryan White sites are engaged in assessing coverage, assisting consumers in obtaining health care (Marketplace, TennCare, or Medicare) and assisting with insurance co-pays and deductibles where indicated. Where no other payer source is found, consumers are enrolled and receive HIV medication through the ADAP Mail Order Pharmacy Program.

Prevention work is performed by multidisciplinary teams in health departments and community-based organizations. HIV testing and counseling in TDH clinical sites is primarily performed by licensed nurses employed in county health departments. In addition, Disease Intervention Specialists (DIS) are involved in both HIV testing activity and linkage and re-engagement in care. CBO staff includes masters and bachelors-prepared employees, most often in social work or human service fields. Outreach workers, peer specialists, and group facilitators are an integral part of the prevention activities in most CBOs.

Service Continuity

The Part B program is housed with both the STD Prevention and HIV Prevention programs. The prevention portfolio also includes the adult Viral Hepatitis program. This allows for close working relationships across programs towards the delivery of a continuum of comprehensive HIV prevention and care programs and serves as a bridge between prevention and care systems. The network of care providers in the HIV Centers of Excellence provide high-quality HIV medical care, medical case management, and access to all core medical services.

In addition to health department services, TDH directly provides HIV Prevention services and contracts with local organizations to deliver community-based prevention services. HIV counseling and testing services are provided in every county health department; partner counseling/notification services are also offered. Persons who test HIV positive are informed of HIV care providers in their region and referred to the provider of their choice. Community organizations that also provide testing through contracts with TDH include several Part C funded agencies, 10 other organizations, and both CDC directly-funded organizations. Other prevention services such as risk reduction counseling and group interventions are provided by both CDC-directly funded community organization and other organizations contracted by TDH. Efforts are targeted to persons at greatest risk of HIV according to the state HIV prevention plan.

Coordination of services is imperative in Tennessee, a resource poor state, to ensure the best use of limited resources to serve the most people without duplication of services. Current plans for sustainability and continuity of services include ongoing capacity-building efforts of staff using internal TDH resources and collaborating closely with the AIDS Education and Training Center at Vanderbilt in Nashville to assess and provide training on a broad range of clinical topics. Cross-training of staff is consistently encouraged in awarded contracts and contract monitoring visits, and focus on staff retention is included in TDH's technical support of its grantees.

Assessing Gaps/Unmet Needs

This section summarizes the efforts of the Tennessee Department of Health to analyze unmet needs, gaps and barriers in both HIV-related prevention and care efforts throughout the state. Information was collected via surveys, focus groups/community forums and key informant interviews. A **Statewide On-line Survey** was conducted via Survey Monkey and gathered input from prevention/care providers and PLWHA. To compliment this survey-based data, a series of **Regional Focus Groups/Community Forums** and **Key Informant Interviews** were conducted with providers, PLWHA, and other stakeholders to provide valuable in-depth qualitative insights for this assessment process. All activities are described below in more detail along with a summary of findings for each activity.

Statewide On-line Survey

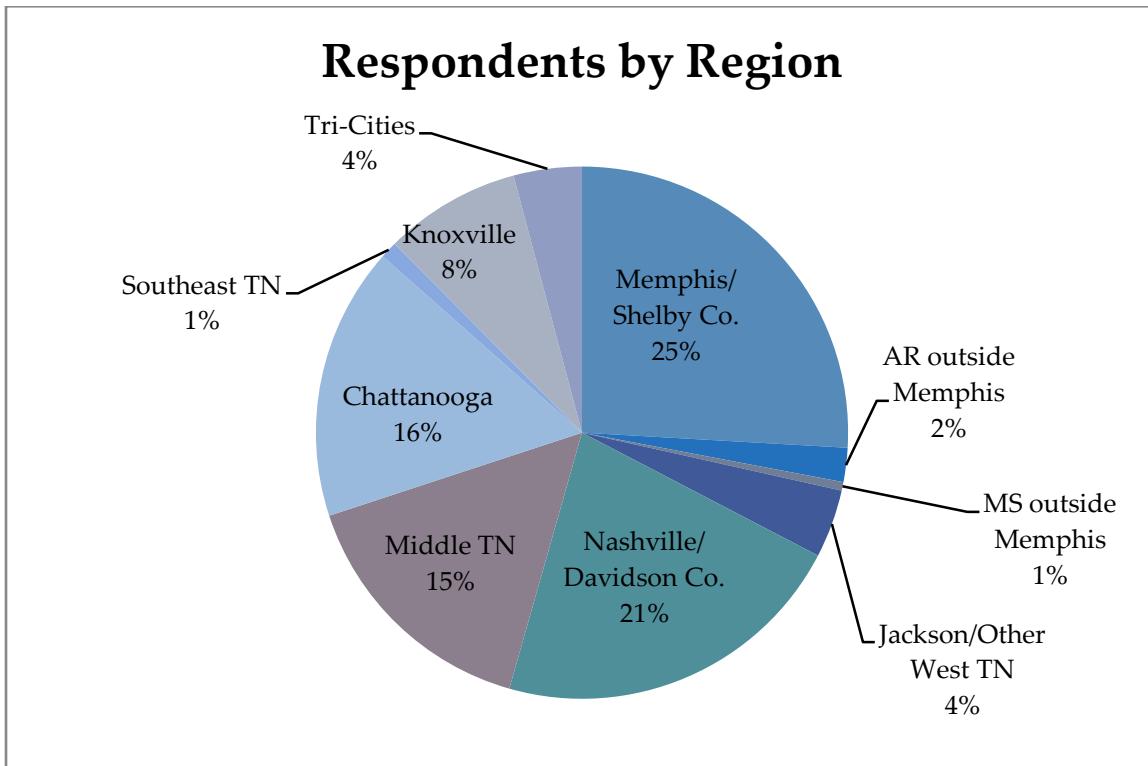
As one component of data collection for the Tennessee Prevention and Care Needs Assessment, a web-based needs assessment questionnaire was deployed in late April through early May 2016. The snowball technique was used to enlist as many stakeholders as possible throughout the state as survey respondents. To initiate this technique, the website link to this questionnaire was distributed electronically to more than 150 stakeholders who were asked to complete the survey themselves and then distribute it among other stakeholders including, but not limited to, PLWHA, prevention providers, substance abuse treatment providers, advocacy/policy workers, physicians, nurses/nurse practitioners, dentists/dental hygienists, case managers, psychosocial support staff members, consumers of HIV prevention services, and HIV peer educators. Further, a paper version of the questionnaire was sent to case managers and their supervisors to capture the input of those individuals who may not have access to the internet. A second reminder email was sent as the deadline for survey completion approached.

The total number of surveys collected included 352 web-based surveys and 94 responses via the paper version. Of that total (446), 77% identified their role in HIV prevention/care in Tennessee and region of residence – both of which were necessary for the level of requested analysis. Therefore, a total of 424 surveys were included in this summary. As not all respondents answered all questions, the total number of respondents for each question/set of questions varies

and is noted. Additionally, all percentages are rounded up and therefore may not always add to 100%.

Respondent Demographics

The breakdown *by region* of the 424 individuals who responded to this question follows:



The self-identification *role in HIV prevention/care* of the 424 individuals who responded to this question follows:

- 25% Person living with HIV/AIDS (PLWHA)
- 23% Other*
- 22% Prevention provider
- 15% Consumer of HIV prevention services
- 14% Medical/Non-medical case manager
- 13% HIV peer educator
- 13% Advocate/policy worker
- 7% Nurse/Nurse Practitioner/Physician Assistant
- 4% Psychosocial support staff
- 3% Substance abuse treatment provider
- 3% Dentist/Dental hygienist
- 2% Physician

*Other roles suggested by respondents included: administrator, college professor, pharmacist, social worker, community member, psychotherapist, spiritual/faith support, epidemiological clerk/ surveillance staff, high school teacher, training coordinator, hotline operator, nutritional expert, grant writer, and researcher.

Seventy-five percent of respondents (318) identified themselves as providing services and indicated the following as the ***primary setting*** for providing those services:

- 35% HIV community-based organization
- 24% Health department/public clinic
- 13% Other (non-HIV specific) CBO
- 10% Other*
- 7% Private physician's office
- 5% College/university
- 5% Federally qualified health center
- 1% Emergency room
- 1% Veteran's Administration

*Other settings suggested by respondents included: social media, pharmacy, support groups, client homes, drug/treatment facility, hospital-based clinic, and politician's office.

Barriers to HIV Testing

What have you seen among 'late-testers' [i.e., people whose HIV test seems to take place late in their disease process] that can advise us about barriers for HIV testing?

Respondents were allowed to select up to three responses from a list of possible barriers to HIV testing. Of the 391 respondents to this question, nearly three-quarters of respondents (72%) indicated *fear of diagnosis*; nearly two-thirds (65%) indicated *stigma*; and nearly half of respondents (41%) indicated *low perceived risk or denial of risk*. All responses are reported below:

- 72% Fear of diagnosis
- 65% Stigma
- 41% Low perceived risk or denial of risk
- 28% Substance abuse
- 24% Mental health disorders/issues
- 17% Absence of routine testing (medical setting)
- 14% Lack of transportation
- 13% Unsure where to go for testing
- 12% Lack of access-testing/healthcare
- 9% Lack of access-culturally competent materials
- 7% Other*

- 5% Cost of testing
- 3% Need translation services

**Other* barriers suggested by respondents included: teachers unable to talk to youth about safer sex/lack of HIV-related education in schools, lack of incentives, HIV criminalization laws, lack of advertising, clients with developmental delays, lack of accountability, lack of staff who will address questions and health needs in culturally-competent manner, lack of community-based testing sites, family/religious pressures, and individual being asymptomatic.

What interventions might be employed to increase awareness of testing benefits or increase uptake of HIV testing?

Common themes among the 242 respondents included the need for the following interventions:

- Targeted, community-level interventions to address stigma
- Public education (share personal stories, TV/radio/print ads, social media)
- HIV-related education in schools to include local resources (e.g., testing sites)
- Community outreach (testing vans, churches, bars, schools, peer specialists)
- Testing in primary care settings (provide as routine lab work/universal testing)
- Education among providers to deliver culturally-competent care/education
- Peer involvement in education and testing
- Incentives for testers (including free testing, gift cards, food, fun activities)
- Transportation to confidential testing sites

Primary Prevention

What barriers to accessing HIV primary prevention services do 'most-in-need' Tennesseans face?

Respondents were allowed to select up to three responses from a list of possible barriers to HIV primary prevention. Of the 369 respondents to this question, more than half of all responses (56%) indicated *stigma* followed by *denial of perceived HIV risk* (41%), *lack of social support* (34%) and *substance abuse* (31%). All responses are reported below:

- 56% Stigma
- 41% Denial of perceived HIV risk
- 34% Lack of social support
- 31% Substance Abuse
- 25% Housing instability/homelessness
- 25% Mental health disorders/issues

- 23% Lack of health insurance
- 16% Concerns about cost
- 15% Previous negative experiences-health care
- 15% Lack of transportation
- 14% Competing priorities (work, childcare)
- 9% Lack of service providers
- 8% Lack of access-culturally competent materials
- 5% Need translation services
- 3% Other*

**Other* included such barriers as: lack of sexual health training/education for teens/preteens, lack of incentives and lack of services.

What system issues result in poorer access to primary prevention services?

Respondents were allowed to select up to three responses from a list of possible system issues to primary prevention services. Of the 362 respondents to this question, more than half of all responses (56%) indicated *stigma* followed by *denial of perceived HIV risk* (41%), *lack of social support* (34%) and *substance abuse* (31%). All responses are reported below:

- 45% Poor referral practices of collaborating agencies
- 43% Transportation
- 36% Staff/provider attitudes
- 32% Wait time for services
- 23% Lack of staff resources
- 20% Staff training/capacity not well-matched to client need
- 20% Times/days of prevention programming not appropriate
- 20% Lack of cultural competence in organizations
- 7% Other*
- 6% Need translation services

**Other* system issues suggested by respondents included: housing, HIV criminalization laws, lack of universal testing, lack of resources to pay for PrEP, and lack of support for comprehensive sexual health school policies.

What suggestions (system issues, provider issues) do you have for Tennessee's HIV planning efforts to enhance HIV primary prevention?

Common themes among the 206 respondents included the following suggestions:

- Training to providers/staff (e.g., more awareness of client needs, creating patient-friendly environments, cultural sensitivity, PrEP)
- Primary prevention (sexuality education) in schools
- Information/list of resources marketed/delivered to PLWHA
- Public education (share personal stories, TV/radio/print ads, social media)
- Resources (e.g., staff)
- Extended service hours (i.e., nights and weekends)
- Transportation to those outside bus routes
- Outreach services (e.g., free testing sites)
- Testing for all those entering jails/prison
- Collaborative efforts with bordering states
- Prevention counseling for those that test negative
- Updated HIV prevention materials to reflect current technology
- Targeted efforts for the homeless/those in unstable housing

Which HIV prevention interventions do you feel are most successful at recruiting persons ‘most-in-need’?

Common themes among the 192 respondents included:

- Peer navigation/education
- Education for all community members shared via various media (print, radio, internet)
- Outreach services (e.g., mobile testing, testing events, bars, health fairs, home visits)
- Universal testing
- Incentives (e.g., free testing, money, free condoms, gift cards)
- Youth-focused programs to reach at-risk youth
- Standardized referral practices between care, intervention and surveillance entities
- Awareness/availability of rapid linkage to care
- One-on-one counseling
- Social Networking Strategy
- ARTAS
- 3MV

Prevention with PLWHA – Positive Prevention/Secondary Prevention Services

What barriers to persons living with HIV/AIDS (PLWHA) face in accessing secondary (positive prevention) services?

Respondents were allowed to select up to three responses from a list of barriers. Of the 349 respondents to this question, half of all respondents (50%) indicated *stigma* followed by *lack of social support* (45%), *housing instability* (34%) and *mental health issues* (34%). All responses are reported below:

- 50% Stigma
- 45% Lack of social support
- 34% Housing instability
- 34% Mental health issues
- 30% Substance abuse
- 27% Denial of HIV risk
- 26% Transportation
- 23% Lack of insurance
- 21% Lack of access
- 19% Cost of services
- 5% Other*
- 4% Translation services

**Other* barriers suggested by respondents included: workforce training and retention, lack of knowledge of need for secondary services, lack of motivation, and lack of trust in providers.

What system issues result in poorer access to secondary prevention services by PLWHA?

Three hundred and thirty-eight individuals responded to this question and were allowed to select up to three responses from a list of system issues. All responses are reported below:

- 43% Transportation
- 41% Staff training/capacity not well-matched to client need
- 38% Poor referral practices of collaborating agencies
- 27% Wait time for services
- 27% Staff/provider attitudes
- 25% Lack of staff resources
- 22% Lack of cultural competence in organizations
- 21% Times/days of prevention programming not appropriate
- 8% Need translation services
- 3% Other*

*Other system issues suggested by respondents included: EIS, ASL for deaf clients, limited services for transgender PLWHA, funding, and lack of universal testing.

What suggestions (system issues, provider issues) do you have for Tennessee's HIV planning efforts to enhance HIV prevention among individuals living with HIV?

Common themes among the 137 respondents included:

- Hire more PLWHA to work in prevention/care
- Promote peer navigation
- Include HIV prevention education in schools
- Extend clinic service hours
- Provide transportation (bus passes)
- Advertise HIV resources throughout community (schools, libraries, social media)
- Increase infectious disease (ID) physicians/providers across state (especially in rural areas)
- Enhance lab services in rural areas
- Improve cultural competency for providers and staff
- Improve environments to be more patient-friendly
- Promote collaboration between HIV/mental health and substance abuse providers
- Improve referral practices among agencies
- Increase access to affordable housing, mental health services, and substance abuse providers
- Enhance community-level education to decrease stigma
- Advertise and educate about PrEP among community and providers
- Enhance field/home visiting capability

Access to Pre-Exposure Prophylaxis (PrEP)

What are the barriers to increased uptake of PrEP in your area?

Three hundred and thirty-nine individuals responded to this question and were asked to select up to three responses from a list of barriers. All responses are reported below:

64%	Lack of patient knowledge/awareness
44%	Cost of medication
41%	Lack of provider knowledge/acceptance
21%	Poor access to health care
18%	Stigma of PrEP
17%	Fear of taking medication for rest of life
16%	Unknown long term effects of PrEP

- 14% Fear of side effects
- 11% Non-medication financial burden
- 5% Other*

*Other barriers suggested by respondents included: legislation preventing access, out of pocket costs for labs/doctor visits for uninsured/low income, lack of appeal to women and heterosexuals, and lack of commitment to regimen.

How else can Tennessee re-allocate resources/interventions to enhance PrEP services in your area?

Common themes among 172 respondents included the following suggestions:

- Promote PrEP navigators
- Provide public information/education on PrEP in schools and churches
- Advertise the need for/importance of prevention among providers and community
- Increase number of local providers prescribing PrEP
- Promote local PrEP providers
- Train primary care providers on PrEP along with cultural competence in providing PrEP
- Provide funding to support clients in paying for lab costs, provider visits, and medication

Linkage to Care

What do you believe are the predominant reasons people are not linked to care successfully?

Three hundred and forty-three individuals responded to this question and were asked to select up to three responses from a list of barriers. All responses are reported below:

- 37% Stigma
- 26% Denial
- 25% Lack of health insurance
- 23% Transportation
- 21% Substance abuse
- 20% Lack of social support
- 20% Concerns about cost
- 19% Not sure where to go
- 19% Housing instability/homelessness
- 18% Previous negative experience in health care
- 18% Long wait times for initial appointment
- 18% Mental health issues/disorders
- 17% Asymptomatic

14%	Other competing priorities
12%	Administrative processes
10%	Poor referral practices of testing agency
10%	Attitude of medical and social service staff members
8%	Clinic hours
8%	Experiencing prejudice from medical and social service staff
5%	Lack of access to culturally competent health promotion materials
3%	Other*
3%	Need translation services

*Other barriers suggested by respondents included: Lack of communication because of changed addresses or phone numbers, concerns about confidentiality, lack of compliance, limited number of providers, lack of collaboration between agencies, and consumer has own timeline for services.

What suggestions (system issues, provider issues) do you have for Tennessee's HIV plan to enhance linkage to care?

Common themes among 145 respondents included the following suggestions:

- Peer educators/navigators/counselors/buddy program
- Communications/follow-up with clients (e.g., calls, texts, social media)
- Expanded clinic service hours/free 24-hour services (care, testing, transportation, online Q&A)
- Cultural competence training with providers/create patient-friendly environments
- Transportation (e.g., bus passes, vouchers)
- Coordinated efforts with mental health/substance abuse providers
- Same-day, comprehensive services for first-time clients
- Infectious disease (ID) physician coverage, especially in rural areas
- Community-wide education
- Promoted access/contact with other agencies (e.g., referrals)
- Deployed case management in rural areas (e.g., home visits)
- Staffing (e.g., case managers, early intervention specialists)
- Increased number of providers prescribing PrEP
- Streamlined/simplified linkage to care process (i.e., each agency has different requirements/paperwork which delays the process)

Retention in Care

What patient factors result in poorer retention in care?

Respondents were allowed to select up to three responses from a list of barriers with 326 individuals responding to this question. All responses are listed below:

- 41% Substance abuse
- 39% Mental health disorders/issues
- 36% Lack of social support
- 32% Stigma
- 30% Housing instability/homelessness
- 30% Denial of perceived HIV risk
- 26% Lack of transportation
- 24% Competing priorities (e.g., work, childcare)
- 20% Lack of health insurance
- 15% Previous negative experience in health care
- 14% Concerns about cost
- 6% Lack of food services
- 5% Need translation services
- 4% Other*

*Other factors suggested by respondents included: rural areas without care, noncompliance, MCM turnover, inconvenient clinic hours, and asymptomatic.

What system issues result in poorer retention in care?

Respondents were allowed to select up to three responses from a list of barriers with 314 individuals responding to this question. All responses are listed below:

- 44% Poor systems for follow-up in locating patients out of care
- 42% Clinic hours/scheduling not matched to patient need
- 38% Transportation
- 33% Poor referral practices of testing agency/collaborating agencies
- 33% Staff/Provider attitudes
- 33% Difficulty accessing appointments/scheduling
- 28% Wait times in clinics
- 13% Lack of cultural competence in organizations
- 5% Need translation services
- 4% Other*

*Other factors suggest by respondents included: unaware of available services, staff turnover, too much paperwork, waiting list for positives, not a priority for clients, lack of standardized/systematic/collaborative approach to client need, clients not ready for care, lack of anonymity in HIV-only clinics, and stigma.

What suggestions (system issues, provider issues) do you have for Tennessee's HIV plan to enhance retention in care?

Common themes among 115 respondents included:

- Extended service hours
- Transportation and housing services
- Promote AETC collaboration
- Access to mental health and substance abuse services
- Access to providers in rural areas
- Advertisements of locations/services available to clients (social media)
- Cultural competency training for providers and clinical staff
- Patient-friendly/patient-centered environments in clinics
- Community education about HIV/AIDS to reduce stigma
- Communication protocols with clients using current technology (e.g., reminder calls/texts/emails prior to appointments)
- Peer navigators/counselors
- Use 'secret shoppers' in COEs
- Additional staff (e.g., retention specialists/EIS/engagement specialists, medical and non-medical case managers) to allow for one-on-one follow up

Similarities and Differences among Tennessee and Five Tennessee Regions

For purposes of this needs assessment and subsequent statewide on-line surveys, delivery of Tennessee prevention and care efforts are divided into five regions: East, Southeast, Middle, Southwest and West. These five regions and the areas each includes are indicated below:

Five Tennessee Prevention/Care Regions	Areas included in region
East	East Tennessee Knoxville Tri-Cities
Southeast	Chattanooga Southeast Tennessee

Middle	Middle Tennessee Nashville/Davidson Co
Southwest	Memphis/Shelby Co AR outside Memphis MS outside Memphis
West	Jackson/Other west Tennessee

The East Region

The East Tennessee Region mirrors the statewide results listed above with the same primary **barriers to HIV testing** (fear of diagnosis, stigma and low perceived risk/denial of risk); **barriers to primary prevention** to those most in need (stigma, denial of perceived HIV risk); **system barriers to primary prevention** (poor referral practices of collaborating agencies, transportation); **barriers to PLWHA accessing secondary services** (stigma, lack of social support); **barriers to PrEP** (lack of patient knowledge/awareness of PrEP, cost of medication/labs/services, and lack of provider knowledge/acceptance); **barriers to linkage to care** (stigma); **barriers to retention in care** (substance abuse, mental health disorders, lack of social support, and stigma); and **system barriers to retention in care** (poor systems for follow-up in locating patients out of care, clinic hours/scheduling not matched to patient need, and transportation). Also, like the statewide results, this region identifies **transportation** as the primary **system barriers to PLWHA accessing secondary services**.

Respondents noted that with a lower level of HIV incidence in this portion of the state, comes lower funding for prevention and care efforts. A common suggestion to address some of the above mentioned barriers then is **increased funding** to increase staffing of prevention and care services, transportation for clients to access care, and expand clinic hours. Complicating the delivery of information and services in this region are geographic barriers including a range of settings from very rural to urban. Frequent suggestions to address the issues of stigma and lack of knowledge in this region are to increase **community-wide HIV-related education**, especially in schools to address the lack of perceived risk among youth. Along with additional funding, education is necessary to increase the use of PrEP through **comprehensive trainings with providers** intended to enhance their acceptance and promotion of PrEP. Other suggestions to enhance HIV primary prevention efforts include **opening another Center of Excellence** to address issues close to the border with Virginia.

The Southeast Region

The Southeast Tennessee Region mirrors the statewide results listed above with the same primary **barriers to HIV testing** (fear of diagnosis, stigma and low perceived risk/denial of

risk); **barriers to primary prevention** to those most in need (stigma, denial of perceived HIV risk); **barriers to PLWHA accessing secondary services** (stigma, lack of social support); **barriers to PrEP** (lack of patient knowledge/awareness of PrEP, cost of medication/labs/services, and lack of provider knowledge/acceptance); **barriers to linkage to care** (stigma); **barriers to retention in care** (substance abuse, mental health disorders, lack of social support, and stigma); and **system barriers to retention in care** (poor systems for follow-up in locating patients out of care, clinic hours/scheduling not matched to patient need, and transportation).

At the statewide level, transportation was the primary system issue resulting in poorer access to secondary prevention services by PLWHA. For this region, however, transportation was listed only after *lack of staff training/capacity not well-matched to client need, poorer referral practices of collaborating agencies, and lack of cultural competence in organizations*. Survey respondents from this region noted a need for **more community partnerships** to increase HIV testing as well as a greater **need for translation services** (Spanish-speaking and Deaf) and **sensitivity/cultural competency training** than at the statewide level. Respondents from this region also noted that a lack of access to **culturally competent health promotion materials** was also a more prominent barrier to not being linked to care successfully. Also, noted the need to also **enlist more peers** to connect clients to services and educate clients about the process of linkage/retention to care. Enhanced HIV prevention was noted with both **youth** and with the **aging HIV-positive populations**.

The Middle Region

The Middle Tennessee Region mirrors the statewide results listed above with the same primary **barriers to HIV testing** (fear of diagnosis, stigma and low perceived risk/denial of risk); **barriers to primary prevention** to those most in need (stigma, denial of perceived HIV risk); **system barriers to primary prevention** (poor referral practices of collaborating agencies, transportation); **barriers to PLWHA accessing secondary services** (stigma, lack of social support, housing instability and mental health issues); **barriers to PrEP** (lack of patient knowledge/awareness of PrEP, cost of medication/ labs/services, and lack of provider knowledge/acceptance); **barriers to linkage to care** (stigma); and **patient barriers to retention in care** (substance abuse, mental health disorders, housing instability and denial of perceived HIV risk). Although the statewide results identify poor systems for follow-up as the primary system issues resulting in poorer retention in care, the Middle Region identified difficulty accessing appointments/scheduling as the primary barrier followed by poor system for follow-up.

More risk-focused, community-wide education including social media campaigns is needed to address low perceived risk and to advertise local services such as free testing. Respondents suggested enhanced education, outreach and testing are also needed in the schools, faith-based

community settings and unconventional settings such as liquor stores and fast food restaurants to reach those most in-need. Addressing housing and transportation issues, as well as implementing a “whole-patient-centered approach” were among the suggestions for Tennessee’s HIV plan to enhance retention in care.

The Southwest Region

The Southwest Region of Tennessee mirrors the statewide results listed above with the same primary **barriers to HIV testing** (fear of diagnosis, and stigma); **barrier to primary prevention** to those most in need (stigma); **barriers to PLWHA accessing secondary services** (stigma, lack of social support, housing instability and mental health issues); **system barriers for PLWHA** (transportation, wait times for services, staff training, poor referral practices); **barriers to PrEP** (lack of patient knowledge/awareness of PrEP, cost of medication/labs/services, and lack of provider knowledge/acceptance); **barriers to linkage to care** (stigma); and **patient barriers to retention in care** (substance abuse, mental health disorders, housing instability, lack of social support and stigma).

Unlike the statewide primary system barrier to primary prevention of poor referral practices of collaborating agencies, the primary system barrier to both primary prevention and retention in care for this region was noted as wait time for services. Suggestions to decrease wait time for services include increased funding for more staff/providers, extended service hours and transportation.

The West Region

The West Region of Tennessee mirrors the statewide results listed above with the same primary **barriers to HIV testing** (fear of diagnosis, and stigma); **barrier to primary prevention** to those most in need (stigma, denial of perceived HIV risk, lack of social support); **barriers to PLWHA accessing secondary services** (stigma, lack of social support); **system barriers for PLWHA** (transportation, staff training, poor referral practices); **barriers to PrEP** (lack of patient knowledge/awareness of PrEP, cost of medication/labs/services, and lack of provider knowledge/acceptance); and **patient barriers to retention in care** (substance abuse, mental health disorders, housing instability, lack of social support and stigma).

Unlike the statewide results, transportation was noted as equally important as a barrier to primary prevention as stigma and lack of social support. Additionally, transportation was noted overwhelmingly as the primary system barrier to primary prevention services, primary patient and system barrier to retention in care, and the primary linkage to care (followed by stigma). When identifying barriers to PLWHA in accessing secondary services, housing instability/homelessness is ranked much lower than in the statewide results.

Regional Focus Groups/Community Forums

This portion of the needs assessment process was launched in spring 2016 with focus groups held in each of Tennessee's five regions around the state, beginning April 7 to April 25, 2016. Four of five focus groups were conducted in conjunction with Tennessee's Regional Community Planning and Consortia Group meetings; focus group sessions were conducted immediately following standard business proceedings. The remaining focus group was held in lieu of a regular regional planning meeting; however, Regional Community Planning and Consortia Group members attended and participated along with other key persons from the community. Each Regional Community Planning and Consortia Group's lead agency promoted the focus groups in advance of the Regional Community Planning and Consortia Group meetings to encourage strong attendance and participation. The focus groups were facilitated by the consultant team hired to assist with the needs assessment process. The length of the focus groups lasted from one hour to one-and-a-half hours. A total of **108** individuals participated in the focus groups. The size of the focus groups ranged from **14 to 27**.

Focus Group Summary

Location/Region	Type	Participants
Chattanooga-Southeast Tennessee	Regional Community Planning and Consortia Group Meeting	24
Jackson-West Tennessee	Regional Community Planning and Consortia Group Meeting	23
Memphis-Southwest Tennessee	Community Forum / Regional Community Planning and Consortia Group members	14
Nashville-Middle Tennessee	Regional Community Planning and Consortia Group Meeting	20
Knoxville-East Tennessee	Regional Community Planning and Consortia Group Meeting	27

Across the five focus groups, participants included persons living with HIV/AIDS, HIV/STD program administrators, HIV/STD program staff, health care providers, nurses, case managers, mental health and substance abuse professionals, health department employees, an epidemiologist, community agency volunteers, human resources personnel, and administrative and support staff. Focus group participants represented a myriad of prevention and care agencies/programs/organizations/professions throughout the state of Tennessee from rural and urban areas. These included: the Tennessee Department of Health; local and regional health departments; Ryan White Parts A and B; Early Interventions Services (EIS); Minority AIDS Initiative; providers of children and family services; AIDS Service Organizations; community-based organizations; faith-based programs; Homeless Healthcare; housing; Legal Aid;

emergency assistance; mental health and substance abuse; Aging and Disability; infectious disease physicians; and representatives from all Lead Agents.

Focus Groups/Community Forum Data Collection Process

The facilitator began each focus group session with an overview, timeline, and description of the comprehensive needs assessment process, and indicated focus groups as an essential component of the process. Participants were asked to reflect on their professional and consumer/client/patient-related experiences, and to consider the National HIV/AIDS Strategy and the White House HIV/AIDS Care Continuum Initiative in order to: (a) identify barriers, gaps, and unmet needs pertaining to prevention and treatment services in their communities/regions; (b) prioritize identified barriers and unmet needs into the top three as most prevailing; and (c) offer recommendations to address the prioritized (i.e., top three) unmet needs. Participants self-selected based on expertise and interest into one of four subgroups - **(1) HIV testing, (2) pre-exposure prophylaxis (PrEP) uptake, (3) linkage to care and retention in care, or (4) unmet service needs of persons living with HIV/AIDS.**

Participants' self-selection served as their primary subgroup in which to identify and prioritize unmet needs and make their recommendations; however, after considerable/timed deliberation, primary subgroup members rotated to each of the other three subgroups to provide feedback on the remaining topics. Each subgroup's lead/transcriber remained with the primary subgroup to address questions from rotating subgroup members. This process ultimately allowed comprehensive input on each of the four topics from all focus group participants.

Focus Groups/Community Forums Results

Results include brief discussions of 'regional perspectives,' i.e., any specific barriers/ unmet needs of particular importance to a region, prompting extended discussion and feedback.

Barriers to Seeking and Receiving HIV Testing Services

Top HIV Testing Barriers

There was some variance in the top three HIV testing barriers by region; however, striking similarities emerged as well. *Stigma* (all regions), *lack of knowledge about HIV disease/HIV testing* (four regions), and a *lack of outreach to, and available/accessible testing services in high-risk/high prevalence communities, including rural areas* (three regions) emerged as the top three most frequently reported client barriers. Only one site reported *fear and anxiety about HIV test results* among its top client barriers; however, its' significance as an important obstacle in getting tested for HIV was discussed and identified as a common barrier across all regions. In addition to client barriers, service provider barriers (except in West Tennessee) were reported. As seen

below, the most frequently reported top service provider barriers were identical to client barriers - *lack of HIV knowledge* (three regions), *stigma* (two regions), and *lack of focus on, and testing offered in high risk communities* (two regions).

Top HIV Testing Barriers by Region

Region	Top Client Barriers	Top Service Provider Barriers
Southeast Tennessee	Stigma; Lack of HIV/HIV testing knowledge; Fear of HIV test results	Stigma; Lack of HIV /HIV testing knowledge; Cultural and religious bias
West Tennessee	Stigma; Lack of HIV /HIV testing knowledge; Lack of transportation	Unreported
Southwest Tennessee	Stigma; Lack of HIV /HIV testing knowledge; Lack of focus and testing in high risk communities	Stigma; Lack of HIV /HIV testing knowledge; Lack of focus and testing in high risk communities, especially for Hispanic/Latino
Middle Tennessee	Stigma; Lack of focus and testing in high risk communities; HIV Criminalization Laws	Lack of focus and testing in high risk communities; Lack of provider/staff sensitivity (2 barriers reported)
East Tennessee	Stigma; Lack of HIV/HIV testing knowledge; Limited number of testing facilities in high risk communities	Lack of funding/supplies; Shortage of staff/doctors; Lack of HIV/HIV testing knowledge

Suggested Recommendations to Address Prioritized HIV Testing Barriers

Focus group participants were progressive with suggestions for solutions to address prioritized HIV testing barriers. Across the regions, recommendations fell into one of four categories below.

1. Education and Training

- All training should include significant focus in rural areas
- Develop and implement comprehensive, plain language HIV and HIV testing training for multiple audiences: clients, consumers and the community at-large
- Develop and implement comprehensive HIV and HIV testing awareness and skills building training, and provide resource materials for service providers and staff on cultural competence, sensitivity, and stigma
- Include skills building in service provider/staff trainings, focusing on effective communication, delivering test results, and prevention counseling
- In addition to education and training, identify and implement other strategies to enhance provider-patient relationships, address language barriers and communication
- Collaborate with faith-based organizations and gatekeepers as HIV testing messengers for outreach and instruction
- Target non-traditional audiences for training (e.g., law enforcement personnel and the legal community for training on HIV Criminalization Laws)

2. Thoughtful and Creative Use of Marketing and Social Media

- Utilize multiple advertising strategies, employ multicultural mixed media, and provide English and Spanish translations of print and visual media
- Incorporate ad campaigns that feature PLWHA experiences
- Focus on HIV facts, but also emphasize what HIV is not, to help dispel myths

3. Enhanced Community Outreach Efforts to Provide HIV Testing

- Concentrate in rural areas
- Focus efforts in unserved/underserved/high risk communities, particularly Hispanic
- Utilize CBOs, ASOs and health department staff to identify and reach out to high risk/high prevalence communities
- Utilize outreach workers who mirror the intended target population(s)
- Enlist and utilize a testing buddy system (similar to mammogram screening buddies) to encourage friends who don't know their status to get tested
- Develop and implement non-traditional strategies to offer HIV testing services (e.g., mobile testing sites; incentivize providers and staff to travel to limited access areas)
- Provide transportation services to testing sites, particularly in rural areas

4. Federal, State, or Local Legislative/Policy Influence and Change

- Encourage and support CPG subcommittee members to continue working with legislation and other organizations to influence HIV Criminalization Laws
- Provide/facilitate/support comprehensive, age appropriate sex education in schools beginning with sixth grade or earlier

Other Barriers, Gaps, and Unmet Needs of HIV Testing Services

1. Client Barriers

- Risk denial ("I'm not at risk for HIV so I don't need to get tested")
- Lack of transportation/access, especially in rural areas
- Concern for privacy /confidentiality
- Cultural and religious beliefs/living in the Bible Belt
- Inability to negotiate time away from work to get tested
- Homelessness/unstable housing
- Cost prohibitive (private clinics)

2. Service Provider Barriers

- Concern for liability
- Lack of specialized resources, especially in rural areas
- Shortage of optimal locations for providers to offer, and for target populations to receive testing services
- Overall shortage of doctors/staff
- Lack of/limited interagency collaboration
- OraQuick versus blood testing

- Providers feel limited by target populations and the lack of access to free kits
- Mixed messages from CDC confound provider lack of access and provider anxiety; (i.e., CDC suggests testing 16-64 year olds, but there are not enough test kits available to do so)

Barriers to Pre-Exposure Prophylaxis (PrEP) Uptake

Top PrEP Uptake Barriers

Lack of PrEP awareness/knowledge/education (all regions), *funding/cost issues* (all regions), and *lack of prescribers/clinics* (three regions) were most frequently reported as top PrEP uptake barriers for clients. As indicated below, similar barriers emerged as top barriers for service providers - *lack of PrEP awareness/knowledge/education* (four regions), *funding/cost issues* and *shortage of providers* (each cited by two regions). Dissimilar to the top client barriers, *stigma* was identified as a top service provider barrier (three regions).

Top PrEP Uptake Barriers by Region

Region	Top Client Barriers	Top Service Provider Barriers
Southeast Tennessee	Lack of PrEP awareness, knowledge and education; Funding/cost issues; Shortage of locally staffed PrEP clinics (e.g., providers and navigators)	Lack of PrEP awareness, knowledge and education; Shortage of prescribers; Stigma
West Tennessee	Lack of PrEP awareness, knowledge and education; Funding/cost issues; Complex process for clients	Lack of PrEP awareness, knowledge and education; Funding/cost issues (2 barriers reported)
Southwest Tennessee	Lack of PrEP awareness, knowledge and education; Shortage of prescribers; Funding/costs issues	Lack of PrEP awareness, knowledge and education; Stigma (leads to provider discomfort); Lack of pharmaceutical marketing and outreach to providers
Middle Tennessee	Lack of PrEP awareness knowledge and education; Prohibitive costs for labs; Stigma	Lack of PrEP awareness, knowledge and education; Funding/cost issues (2 barriers reported)
East Tennessee	Lack of PrEP awareness, knowledge and education; Funding/cost issues; Too few prescribers	Lack of education to facilitate prescribing; Shortage of prescribers; Bias from other physicians/concern about image in the community (Stigma)

Regional Perspectives

Shelby County's (Memphis, TN) Chief of Epidemiology discussed a landmark study conducted locally among Men Who Have Sex with Men (MSM) who have gonorrhea or syphilis. Study results indicated an eight-fold increase in their risk of acquiring HIV within 24-36 months of STI diagnosis, which significantly increases the justification for local outreach and counseling to this population.

Suggested Recommendations to Address Prioritized PrEP Uptake Barriers

Five major themes emerged as solutions to address prioritized barriers pertaining to PrEP:

1. Client Education and Education Targeted to the Community At-Large

- Focus on the important goal of building and increasing community awareness about PrEP in urban and rural areas
- Provide comprehensive training and education for clients/consumers to build and increase knowledge and dispel myths: What is PrEP? Is it right for me? Risks and side effects? Where /how to get it? What should I know about research/ clinical trials?
- In addition to in-person educational sessions, consider utilizing web-based training (as appropriate for intended audiences and based on availability of resources)
- Provide interactive educational sessions (appropriate to intended audiences) that include question and answers with service providers and staff
- Incorporate discussion of PrEP users' experiences- their successes and challenges
- Include explanation of practical aspects of PrEP use, for example total costs

2. Education, Training and Support Services for Providers

- Provide comprehensive capacity building training and technical assistance for providers (What is PrEP? How to become a prescriber-benefits and challenges? What about burden/extra work to become a prescriber? How best to make PrEP accessible to patients? Rationale and benefits of prescribing, federal guidelines, etc.)
- Offer continuing education through Vanderbilt University and the Southeast AIDS Training and Education Center (SEATEC)
- In addition to in-person training, offer web-based training when appropriate for providers/staff and incorporate interactive capacity building training components
- Incorporate comprehensive explanations of the practical aspects of prescribing PrEP (e.g., total costs associated, including labs)
- Target primary care and specialty care providers for education and training
- Target and train service providers of Federally Qualified Health Centers (FQHCs) to increase PrEP awareness and knowledge and identify potential prescribers
- Utilize practice managers (owners of large medical groups) to reach out to a captive audience of providers who may be ready for training and education and who may consider becoming prescribers
- Facilitate provider meetings in which local providers can share and address common concerns and develop ways to provide ongoing support for each other

3. Funding and Cost Issues

- Encourage the State to develop program initiatives to address overall funding/cost issues
- Identify specific funding sources (grants, foundations, local companies, other) to pay for patient out-of-pocket costs (co-payments, co-insurance, deductibles)
- Identify specific funding sources (grants, foundations, local companies, other) to cover uninsured patients' medication costs
- Develop and support a partnership between the Tennessee Department of Health and PrEP providers to off-set lab costs incurred by HIV/STI lab providers
- Work with Gilead Sciences to provide outreach to physicians

4. Program and Service Delivery Enhancement

- Make PrEP a priority
- Restructure and streamline site management processes to allow easier access and user friendly services. Enhanced services would include but not be limited to: walk-in appointments; more convenient appointment slots for clients; non-traditional operating hours; more patient education; and on-site pharmacy services
- Create a PrEP hotline that provides clinical consultation services for clinicians considering and actively prescribing PrEP for their patients
- Develop and provide PrEP support groups for clients
- Provide PrEP counseling for HIV negative MSM who have gonorrhea or syphilis
- Provide enhanced patient adherence navigation services for clients

5. Advertising, Marketing and Social Media (Targeting Providers and Consumers/Community)

- Concentrate in rural areas
- Develop and conduct social media campaigns and other mass communication strategies to increase awareness and knowledge among service providers (including providers who serve high risk populations), clients/consumers, and the public
- Utilize culturally sensitive, plain language in all advertising/marketing strategies
- Develop and target audience-specific messages for HIV negative individuals who are at very high risk of acquiring HIV (MSM, heterosexual women, etc.)
- Develop and partner with CBOs, ASOs, faith-based organizations, and LGBT and other special interest groups to build and strengthen PrEP awareness and knowledge
- Incorporate “stealth marketing” strategies
- Support and employ the production of commercial ads for broadcasting during popular television and radio programs
- Continue use and evaluate the effectiveness of traditional media sources (print, signage, flyers, posters) targeting specific audiences
- Enlist and utilize a PrEP buddy system to identify and encourage friends who are HIV negative and high-risk to seek counseling for potential PrEP use

Other Barriers, Gaps, and Unmet Needs Related to PrEP Uptake

1. Client Barriers

- PrEP skepticism and use limitations (e.g., resistance issues, side effects, lack of protection against pregnancy and other STIs, use with other prevention strategies)
- Perception that PrEP use is not realistic; condom messages may conflict with PrEP messages
- Fear of discrimination (if others know I am taking PrEP)
- Denial (“I don’t need PrEP because I am not at high risk/It won’t happen to me”)
- Using PrEP will (negatively) affect my relationships
- Cultural and spiritual beliefs
- Mistrust (of medical and pharmaceutical industries; of local service providers)
- Concern about racial-ethnic disparities (e.g., Is PrEP similar to the Tuskegee Study experience?)
- Lack of transportation
- Lack of insurance coverage
- Inability to pay co-payments
- Unfamiliarity with medication assistance programs
- Assistance with costs is inadequate (i.e., meds can be paid for, but doctor visits and labs still have to be paid)
- Lack of medication compliance/adherence is crucial
- Lack of patient-provider communication (e.g., patient non-disclosure of risk factors to provider)

Top Barriers Pertaining to Linkage and Retention

Linkage and retention issues produced significant discussion and feedback from focus group participants. As evidenced by the broad list of top client barriers across the five regions, there are numerous barriers/unmet needs, many of which are prioritized differently according to local circumstances. As seen below, *untreated mental health and substance services, lack of HIV knowledge particularly about newly diagnosed patients, lack of provider sensitivity/cultural competence/poor customer service, and stigma* were all cited by two regions as a top client barrier. Among the top service provider barriers, *lack of provider sensitivity/cultural competency* (three regions) was most frequently reported; followed by (two regions each) *provider lack of HIV knowledge particularly about newly diagnosed patients, provider lack of knowledge about available resources and services, providers spending too little time with patients during office visits, and staff difficulty in locating/tracking/reaching clients.*

Top Linkage to Care and Retention in Care Barriers by Region

Region	Top Client Barriers	Top Service Provider Barriers
Southeast Tennessee	Untreated mental health and substance abuse issues; Lack of HIV knowledge particularly among newly diagnosed; Lack of provider sensitivity and cultural competence/poor customer service	Untreated mental health and substance abuse issues, Difficult to locate/track/reach clients; Lack of provider sensitivity and cultural competence
West Tennessee	Lack of peer counselors who mirror the patients they serve; Denial of new HIV diagnosis; Stigma	Lack of HIV knowledge particularly around newly diagnosed; Lack of knowledge about available resources and services to refer patients; Providers spend too little time with patients during office visits
Southwest Tennessee	Lack of HIV knowledge particularly among newly diagnosed; Lack of provider sensitivity and cultural competence/poor customer service and communication; Provider lack of cultural competence and sensitivity training	Lack of HIV knowledge particularly around newly diagnosed; Providers spend too little time with patients during office visits; Lack of provider sensitivity and cultural competence
Middle Tennessee	Stigma; Lack of knowledge about available resources and services; Cultural disparities-limited/lack of focus on Hispanic/Latino communities	Untrained and undertrained providers and staff; Lack of provider sensitivity and cultural competence; Lack of knowledge about available resources and services
East Tennessee	Untreated mental health and substance abuse issues; Lengthy wait to secure appointments due to provider shortage; Non-compliance	Shortage of providers; Difficult to locate/track/reach clients; Providers unable to provide additional times/locations for services

Suggested Recommendations to Address Prioritized Linkage and Retention Barriers

Across all regions, recommendations for linkage and retention barriers clustered around three major themes: (1) implementing program enhancements to facilitate optimal linkage and retention services for HIV positive patients; (2) implementing training and education to address provider cultural competency/sensitivity/stigma; education and support for newly diagnosed patients; and education targeting family members and the community at-large; and (3) prioritizing mental health and substance abuse services and care for HIV positive patients.

1. Program Enhancements

- Implement and/or expand the use of peer navigators to guide and assist patients in navigating the healthcare system, making and keeping appointments, facilitating transportation support, locating and utilizing services/care, etc.
 - Prioritize services to patients in underserved/unserved/rural communities, reaching out to persons who would otherwise be missed
- Expand services for Hispanic/Latino patients and their families
 - Identify and hire bilingual staff to facilitate culturally appropriate/sensitive communication and patient-provider relations
 - Utilize multicultural patient-focused print and visual media (brochures, posters, etc.)
 - Develop and implement training for Hispanic/Latino patients and family

2. Education and Training

- Provider Education and Training
 - Collaborate with health departments and other key agencies/organizations to develop and provide multiple cultural competence/sensitivity/stigma focused trainings that target a variety of relevant service providers: health care, allied health, mental health and substance abuse professionals, case managers, peer navigators, administrative and support staff
 - Develop and implement training on essential components of linkage and retention services
 - Place emphasis on educating service providers about locally available resources and services in their respective areas that will enhance their ability to provide care and that they can refer patients to
- Education and Support for Newly HIV Diagnosed Patients
 - Collaborate with health departments and other key agencies/organizations to develop and implement interactive educational sessions that partner newly diagnosed patients with local service providers to discuss and share mutual patient care/provider concerns.
 - When appropriate, incorporate the experiences of PLWHAs in training sessions to share their successes and challenges (of living with HIV)
 - Ensure training content addresses client barriers, including but not limited to stigma, discrimination, fear and anxiety, prioritizing HIV care with competing needs, etc.
 - Develop HIV stigma focused training sessions for special populations including LGBT and MSM, especially in rural areas
 - Include discussion about identifying and utilizing local resources and services
- Education for Family Members and the Community at-Large

- Provide HIV education for family members, friends, and other support persons of newly diagnosed patients and include peer counselors as instructors and co-instructors (focused on stigma reduction/consumer support)
- Ensure training content addresses client barriers, including but not limited to stigma, discrimination, fear and anxiety, prioritizing HIV care with competing needs, etc.
- Develop and conduct neighborhood/community block parties to build and foster HIV awareness, dispel myths, and reduce HIV stigma
- Incorporate HIV discussion in a non-threatening manner within the broader context of other health and non-health interests of the neighborhood

3. Mental Health and Substance Abuse Issues

- Prioritize mental health and substance abuse services for HIV positive patients
 - Increase funding to support mental health and substance abuse programs and services
 - Increase staff support with new hires
 - Develop and/or restructure patient intake process for newly HIV diagnosed patients to include mental health/substance screening and related services
 - Provide onsite care for dually-diagnosed patients, and anticipate and provide crisis support when needed

Other Barriers, Gaps and Unmet Needs Related to Linkage to and Retention in Care

1. Client Barriers

- Denial (when asymptomatic; of new diagnosis)
- Lack of confidence and self-efficacy to co-manage care with service provider
- Fear and anxiety (of discrimination; of others discovering their HIV status; of the consequences of being HIV positive)
- Sense of helplessness/hopelessness/inability to cope with being HIV positive
- Cultural and religious beliefs
- Difficulty prioritizing and managing HIV versus managing other competing needs
- Mistrust (of healthcare system and of providers)
- Age and gender discrimination
- Cost of services
- Poverty
- Homelessness/unstable housing
- Patients are unable to keep appointments (e.g., inconvenient clinic hours for working patients and students; clinic locations too far)
- Lengthy wait times for patients (i.e., too long to secure an appointment; too long waiting to be seen at doctor's office)
- Lack of transportation
- Other health problems/co morbidities (e.g., alcohol and drug use)

- Medical complications due to alternative and self-help treatments
- Lack of services and resources for soon-to-be released inmates

2. Service Provider Barriers

- Shortage of providers
- Complicated process and paperwork burden
- Too little time spent with patients during appointments resulting in inability and/or unavailability to adequately address patient's concerns
- Lack of training and education for corrections providers

Service Gaps for Persons Living With HIV/AIDS (PLWHA)

Top Service Gaps for PLWHAs

Housing issues was among the top service gaps in all regions, followed by *lack of dental and vision services /coverage* (four regions), and *mental health and substance abuse services* (three regions).

Top Service Gaps for PLWHAs by Region

Region	Top Service Gaps
Southeast Tennessee	Housing especially rural areas (lack of, inadequate, unaffordable); Lack of dental and vision coverage; Limited mental health and substance abuse services
West Tennessee	Housing (lack of, inadequate, unaffordable); Lack of dental and vision services; Lack of transportation especially in rural areas
Southwest Tennessee	Housing (lack of, inadequate, unaffordable); Insensitive staff who interact with patients/clients; Lack of mental health and substance abuse services and resources
Middle Tennessee	Housing (lack of, inadequate, unaffordable); Lack of transportation especially rural areas; Limited/lack of dental and vision services and resources
East Tennessee	Housing (HOPWA restrictions); Lack of mental health and substance abuse services and support; Lack of dental and vision care services and providers

Regional Perspectives

Lack of education and employment among PLWHAs was of particular concern for Southeast Tennessee. Many PLWHAs are in need of skill/job training and some type of work placement to improve their living situations. Southwest Tennessee noted multiple housing issues including the harsh reality that many PLWHAs are in housing programs that make them feel "institutionalized." Middle Tennessee was particularly concerned that too few PLWHAs are seeking oral health care and that significant outreach and education is needed for consumers and service providers. Focus group participant in all five regions cited providers' and client/consumers' general lack of knowledge about comprehensive HIV-related resources and services in their respective communities as a service gap. Focus group participants commented

that this lack of knowledge and awareness most certainly contributes to incorrect and/or a dearth of important treatment and care information that is needed by patients and providers. Southwest and Southeast regions suggested resurrecting and developing (respectively) local resource directories for their areas.

Suggested Recommendations for Addressing Prioritized Service Gaps of PLWHAs

As evidenced by the depth and breadth of recommendations below, focus group participants' passion and awareness of needed services for PLWHAs was captured across six themes.

1. Housing

- Encourage and support the GPC's housing subcommittee to continue its' work with legislators and others to address housing issues and to retain housing as a priority
- Campaign to lift HOPWA's double dipping and address changing housing restrictions
- Overall, develop and/or restructure housing options so that PLWHAs have multiple, affordable choices for themselves and family members
- Address host of issues related to housing costs
- Incentivize and build relationships with developers, builders and other decision makers to place housing options in mixed-income areas; areas that are safe, clean, and drug-free; and do not have the reputation as "bad neighborhoods"
- Provide handicap accessible housing
- Provide housing that meets the needs of newly HIV diagnosed patients
- Place felony-friendly housing near public transportation

2. Vision and Dental Services and Resources

- Build global awareness about the importance of oral health care for HIV positive
 - Conduct aggressive marketing/education targeting service providers
 - Conduct aggressive marketing/education to clients and the community
 - Educate patients about the importance of seeking oral health care and managing their oral health care
 - Provide additional and more affordable transportation
- Prioritize funding for vision and dental care services and resources
 - Determine ways for the state to pay for vision and dental insurance coverage for PLWHAs
 - Partner with the Lion's Club (and others) to provide deeply discounted or free services
- Fast track certification process and improve coordination of dental services in rural area to reduce/avoid multiple visit to clinics (i.e., bundle services to reduce travel since transportation and wait time are problems)

3. Mental Health and Substance Abuse Services

- Recruit SAMHSA providers to collaborate with East Tennessee Health Planning Group

- Provide increased and better quality inpatient and outpatient mental health and substance abuse services for PLWHAs, at low or no cost

4. Transportation(Especially in Rural Areas)

- Develop strategies and means to provide transportation for rural residents
- Provide federally-funded non-medical transportation services for PLWHAs
- Provide mileage reimbursement to PLWHAs
- Provides funds to pay for and distribute patient gas cards
- Provide increased transportation to medical and non-medical services

5. Education and Training

- Continue to identify, recruit and train new dental and vision providers
- Develop and provide multiple cultural competence/sensitivity/stigma focused education and trainings that target a variety of relevant service providers: health care, allied health, mental health and substance abuse professionals, case managers, peer navigators, administrative and support staff
- Implement support groups for PLWHAs in general, and for special populations including LGBT and MSM
- Provide HIV education, and resource materials to all support group members
- Utilize mixed media and in person venues (e.g., billboards, public service announcements, health fairs) to educate the community at-large about HIV

6. Resource Directory

- Develop and disseminate a comprehensive resource directory of available HIV related services and programs for clients/consumers and providers/staff in the Southeast region (Chattanooga and surrounding counties)
- Update, expand, and utilize the existing resource directory for Memphis/Shelby County clients/consumers and providers/staff

Other Service Gaps for PLWHAs

- HIV and Aging issues
- Lack of case management services
- Lack of knowledge about insurance coverage
- Lack of food, food options, access to food services, and nutritional supplements

Key Informant Interviews

To further refine findings, a set of key informant interviews with case managers to identify vulnerable consumers—those consumers likely to be difficult to retain in care and interventions to enhance care services. These providers consistently raised mental health and substance abuse problems and younger age as being indicators of vulnerability. In addition, issues of poverty and difficulty with access to services because of transportation.

Recommendations for interventions include adding additional behavioral health providers, enhancing transportation, and adding retention-specific strategies including peer navigators and focused care management. The addition of services to enhance housing options and additional support groups were offered as suggestions.

Finally, there is a conceptual shift to HIV care settings as a ‘one-stop shop’ where services are co-located; particular services where gaps exist include vision and psychiatry.

Needs Assessments conducted by the Four Regional Consortia of the Tennessee Ryan White Part B Program

From 2013-2015, the four Regional Consortia of the Tennessee Ryan White Program conducted needs assessments aimed at identifying current gaps in services among PLWHA, consumer needs and challenges that impact attrition along the HIV continuum of care between diagnosis and long-term viral suppression. The four consortia and their needs assessment activities are briefly described below:

- **Middle Tennessee** – Client Survey with PLWHA in 26 counties (2015)
- **East/Northeast Tennessee** - Client survey with PLWHA; Interviews with Providers (2015)
- **West Tennessee** – Client Survey with PLWHA in 18 counties and the Jackson/ Madison County Metropolitan Region; Focus Groups with PLWHA and faith community leaders (2015)
- **Southeast Tennessee** – Client Survey with PLWHA; Focus Groups; Key Informant/Provider Survey; and an Audit of Regional Resources (2014/2015)

The analysis of these needs assessments indicates both similarities and differences among these four regions. It is important to note that not all areas reported below were included in all four consortia needs assessments.

Gaps/Barriers related to HIV Medical Care and Services

Linkage to Care/Retention in Care

Across Middle, East/Northeast and West Tennessee, most needs assessment participants report linkage to HIV medical care within 6 months of diagnosis and most have seen their HIV provider within the last 3-6 months. Across all consortia, **stigma** was a fundamental barrier to accessing care services.

In Middle Tennessee, barriers reported as related to delayed linkage to HIV medical care or to inconsistent retention or adherence to care/treatment included not understanding the importance of **getting HIV care early**, not knowing **where to go** or lack of **convenient provision of care**,

fear of HIV medical care, discrimination or **stigma**, and lack of **finances, housing, and transportation**.

Similarly in East/Northeast Tennessee, the most often cited reasons for not receiving care within thirty days of diagnosis included being afraid of **discrimination** because of their HIV status, **not wanting people to find out** they were HIV positive, worried about how they would **pay for care**, and not knowing **where to go** for HIV medical care.

In West Tennessee, **fear of disclosing HIV status, did not qualify financially**, and not knowing **where to go** for services were identified as the biggest barriers to receiving care in the past year. In Southeast Tennessee, primary needs to enhance linkage/retention to care continue to be **stigma**, lack of **client education about available services**, lack of **client education about health insurance** and lack of **transportation**.

Medication Adherence

For those consortia that included medication adherence in their needs assessment, the vast majority of individuals participating reported good adherence to HIV anti-retroviral treatment. Primary barriers to medication adherence focused on **forgetting** and **monetary issues**.

Gaps/Barriers related to Non-medical/Non-HIV specific/Support Services

Linkage to services

For Middle Tennessee, approximately half of survey respondents received non-medical support services within six months of HIV diagnosis. **Cost, insufficient knowledge** about HIV services, **limited availability** and convenience of support services, lack of **transportation**, and fear of **stigma** or discrimination were reported as barriers to linking to non-medical services soon after initial diagnosis.

For East/Northeast Tennessee, approximately half of survey respondents received non-medical HIV services within one month of diagnosis. Primary reasons for not receiving non-medical HIV services within the last year included: **didn't know services were available**, didn't know **where to go** for services, no **transportation** to get to services, and **cost/did not qualify** for services.

For Southwest Tennessee, **transportation** continues to be a major barrier for clients accessing services, especially those clients living in rural areas.

Most important services needed but not currently offered/received

For Middle Tennessee participants, when asked which non-medical services that are NOT currently provided are the most important, respondents ranked **utility assistance, eye care, rent assistance, housing assistance, and support groups** as the most important services not currently being offered. Although not as highly ranked, other services included **early intervention services (EIS), child care, and substance abuse treatment.**

For East/Northeast Tennessee, the most important Ryan White-funded non-medical services included **non-medical case management, food bank and dental care** (bridges/dentures). **Dental work** stood out as the most needed/but not received service with half of the respondents indicated they needed dental work but had not received it. Other services needed but not received included **psychosocial support and transportation**. Regarding transportation, most respondents did not know if they qualified for transportation services. For those who did use transportation services, **gas cards** were reported as the greatest transportation need. The most important non-Ryan White-funded services needed but not received included **eye care, rent assistance and utility assistance.**

Most individuals in West Tennessee responding to the survey reported that their non-HIV specific needs were being met. For those needing services but did not receive them, those services included: **eye care, dental care, drug treatment, support groups, mental health/grief counseling, legal assistance, and food assistance.** Other services needed included **domestic violence services, employment training, short-term housing assistance, need of volunteer companion, help with housework/ cooking, utility assistance and assistance with applying for disability.**

For Southwest Tennessee, identified areas of need include special needs of clients living with hearing impairment, particularly those who communicate via American Sign Language only (**interpretation services**). The need for **alcohol and drug recovery** services was also noted in this region. Other services that were identified as needed but not received included: **eye care, vision care, clothing, cleaning supplies, personal hygiene products, classes (cooking, budgeting), and immune-boosting ingredients and herbs.**

Data: Access, Sources, and Systems

The HIV Care Continuum is developed using data from the *Enhanced HIV/AIDS Reporting Surveillance System (eHARS)*. All health care providers, hospitals, and laboratories in Tennessee are required to report people diagnosed with confirmed HIV infection and/or AIDS to TDH. Each year approximately one-third of new cases are reported from county health departments, one-third from hospitals, one-fifth from physicians, and the remainder from state/federal facilities (including prisons) and laboratories. eHARS serves various functions: (1) monitoring

the incidence and demographic profile of HIV/AIDS; (2) describing the modes of transmission among people with HIV/AIDS; (3) guiding the development and implementation of public health intervention and prevention programs; and (4) assisting in evaluating the efficacy of public health interventions. It is the principal source of knowledge regarding trends in the number and characteristics of HIV-infected people. It includes people in all age, gender, race/ethnic, and mode-of-HIV-exposure groups; and it provides a historical perspective in trends dating to the earliest recognition of the AIDS epidemic.

Ryan White Eligibility System (RWES) is the web-based application/eligibility system for Part B recipients. It was created by TDH and implemented June 18, 2012. Medical and non-medical case managers enter new, renewal, and disenrollment client information into a web-based system for Central Office staff to review, approve, and deny such actions. The Pharmacy Database contains files of clients eligible for medication benefits (from RWES). This information is forwarded to the contracted mail order pharmacy each day in order for prescriptions to be filled and medications to be mailed directly to clients. Each month, a list of clients, drugs dispensed, pricing and inventory information is forwarded to TDH from the pharmacy allowing for quality management oversight.

Ryan White HIV/AIDS Program Services Report (RSR) shows which core and support services are currently being provided in the state. The RSR is an annual report that captures information regarding the services provided by all Ryan White funded entities captured in CAREWare. Providers report on all clients who received services eligible for Ryan White Parts A, B, C or D funding. Tennessee's Ryan White Part B providers are required to use CAREWare to collect, report, and analyze data. Several Part A, C and D providers also use CAREWare.

The *Insurance Database* provides a list of clients eligible for insurance benefits (from RWES). This list is forwarded to the contracted insurance administrator who provides TDH with monthly, quarterly, and yearly reports containing client level and insurance payment information. *TennCare* is Tennessee's Medicaid system and provides individual client information used for third party payment information and confirmation of payer of last resort status. It is also used for unmet need (and related) results.

TDH is mandated by PS12-1201 to use *CDC's Evaluation Web* for CDC reporting and also captures data in *PRISM*. Grantees are required to enter all HIV rapid test results (reactive, non-reactive, and indeterminate) on a monthly basis. This testing information is uploaded to CDC in order to monitor Tennessee's PS12-1201 deliverable progress. Evaluation Web is also used to collect information such as linkage to medical care, referral to prevention services, partner services interviews, and enrollment information in evidence-based interventions.

For program planning, TDH has monthly meetings with all HIV and STD prevention staff, including surveillance. Testing data from both PRISM and Evaluation Web is reviewed. On a quarterly basis, linkage to care data on all tests conducted is reviewed. Additionally, condom distribution data, DEBI enrolled and completed data, partner services data and electronic lab submission data is reviewed quarterly for completeness and accuracy. This data is also used for program planning purposes, helping TDH determine what areas of the program need technical assistance and where resources should be targeted.

The 2016 SCSN used the available surveillance data from eHARS and utilization data from RSRs and CAREWare to advise creation of the survey tools. Data for the care continuum, accessed through the Part B surveillance staff, was used to form questions regarding challenges in linkage and retention in care. A Statewide On-line Survey was conducted via Survey Monkey and gathered input from prevention/care providers and PLWHA. To compliment this survey-based data, a series of Regional Focus Groups/Community Forums and Key Informant Interviews were conducted with providers, PLWHA, and other stakeholders to provide valuable in-depth qualitative insights for this assessment process. Findings from the qualitative meetings with stakeholders (e.g., PLWHA, prevention and care providers and key informants) were collated and common themes identified. Input from these sources created a comprehensive, well-informed picture of the current state of prevention and care within the state. All necessary data to assist in the SCSN was available.

Section 4: Integrated Prevention and Care Plan

Using the National HIV AIDS Strategy as a guide, the following plan has been created as a response to the identification of gaps and unmet needs in the SCSN. Goals and activities have been adapted from suggestions in each of the community forums and synthesized by TDH staff into this document.

GOAL 1: Reduce New HIV Infections in Tennessee

Objective 1.A. By September 30, 2021 increase the percentage of Tennesseans living with HIV who know their serostatus to at least 90%.

Strategy 1: Deliver evidence-based HIV testing activities in areas with high distribution of HIV cases.

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH	Implement 4 th Generation Testing in state labs supporting STD testing in health departments throughout Tennessee	Health department clients	70,000 tests/year ≥ 0.1% positivity
By September 30, 2021:	TDH	Conduct high quality testing via Partner Services to all named cases of known HIV positive patients	Partners of PLWHA	1.5 partner index 50% of identified partners tested

Strategy 2: Support and strengthen integrated and patient-centered HIV and related screening.

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH + community-based organizations	Implement Social Network Strategy for YMSM	YMSM in Memphis	500/year at 5% positivity
By September 30, 2021:	TDH + community-based organizations	Support 9 community-based organizations conducting targeted HIV testing in high-risk groups	MSM, high-risk negatives	4,000 tests per year for targeted testing

By September 30, 2021:	TDH + external partners	Conduct training and capacity-building with HIV prevention providers	Prevention providers	Documentation of at least 4 trainings per year
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Strategy 3: Conduct HIV testing in clinical settings.

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH	Testing in clinical settings—corrections and emergency departments	State prisons and select metro jails Memphis and Nashville EDs	40,000 tests annually $\geq 0.1\%$ positivity
By September 30, 2021:	TDH + local health departments	Ensure integrated HIV/STD testing is implemented in all Tennessee health departments	STD patients	$\geq 80\%$ of HIV negative STD patients tested for HIV in same visit
By September 30, 2021:	TDH	Collaborate with TB screening programs to expand HIV testing	Prevention providers, TB programs	$\geq 80\%$ of HIV negative TB patients tested for HIV in same visit

Objective 1.B. By September 30, 2021 reduce the number of new diagnoses in Tennessee by at least 25% (compared to 2010).

Strategy 1: Deliver effective, evidence-based HIV prevention interventions.

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
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By September 30, 2021:	TDH + community partners	Conduct behavioral interventions for PLWHA (Healthy Relationships, CRCS, CLEAR)	PLWHA	300 participants/year
By September 30, 2021:	TDH + community partners	Conduct behavioral interventions with high-risk HIV negative individuals (3MV, MPowerment, VOICES/ VOCES, TWISTA	MSM and Transgender clients	300 participants/year
By September 30, 2021:	TDH + community partnerships	Distribute condoms (in tandem with social media) in communities at high risk for HIV infection	PLWHA High risk HIV negative persons General population	1.5 million condoms distributed
By September 30, 2021:	TDH + metro health departments	Partner services staff provide HIV risk-reduction counseling, linkage to care, and partner notification services	Partners of PLWHA	\geq 75% of new positives get DIS interview
Strategy 2: Expand access to Pre-exposure Prophylaxis (PrEP).				
Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH + community-based partners	Employ PrEP navigators in both health department and community-based settings	MSM, transgender persons	Hire \geq 5 new PrEP navigators
By September 30, 2021:	TDH	Expand number of providers prescribing PrEP across Tennessee through academic detailing and provider practice liaisons	Physicians, mid-level providers	Increase # of providers prescribing PrEP in Tennessee by \geq 300% (compared to 2015)

By September 30, 2021:	TDH	Conduct trainings for staff from all 13 public health regions on how to identify STD clients at high risk of subsequent HIV infection	Health department STD supervisors and DIS	Train health department STD supervisors and DIS in all 13 PH regions
By September 30, 2021:	TDH	Through traditional and digital media in Memphis, increase public awareness of PrEP as an HIV prevention tool	MSM, transgender persons	Increase PrEP awareness by \geq 30% among high risk HIV negatives in Memphis (2018 compared to 2016)
Strategy 3: Educate all Tennesseans with easily accessible, scientifically accurate information about HIV risks, prevention, and transmission.				
Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH	Distribute HIV prevention materials from CDC health communication campaigns	MSM, general population	\geq 2,500 materials distributed
By September 30, 2021:	TDH	Use health communication materials from additional national partners	General population	\geq 2,500 materials distributed
By September 30, 2021:	TDH + community partners	Support MSM Task Force to execute regionally-specific high impact prevention campaigns	MSM	\geq 5 social media campaigns executed

Objective 1.C. By September 30, 2021 reduce percentage of young Gay and bisexual men who have engaged in HIV-risk behaviors by 10%.

Strategy 1: Implementing high-impact prevention strategies focusing on MSM.

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH + community partners	Prevention counseling with targeted testing directed toward young gay and bisexual men	YMSM	≥ 1000 YMSM/year receiving prevention counseling accompanied by HIV testing
By September 30, 2021:	TDH + planning groups	Distribution of condoms directed to young gay and bisexual men	YMSM	≥ 50 condom distribution sites targeted to young gay and bisexual men
By September 30, 2021:	TDH + community partners	Using PrEP Navigators, SNS to PrEP and Data-to PrEP strategies, increase the number of young gay and bisexual men referred to PrEP	YMSM	1000 young gay and bisexual men referred to PrEP providers
Strategy 2: Deliver evidence-based behavioral interventions targeted young, gay and bisexual men.				
Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH + community partners	Fund 8 CBOs to serve high risk MSM (3MV, MPowerment, and VOICES/VOCES)	YMSM	≥ 300/year
Strategy 3: Collaborate with external partners to advance biomedical HIV prevention interventions.				
Timeframe	Responsible Parties	Activity	Target Population	Data Indicators

By September 30, 2021:	TDH + Vanderbilt	Work with Vanderbilt AMP study to increase participation in vaccine trial	YMSM	≥ 90 patients enrolled
By September 30, 2021:	TDH + St. Jude	Work with St. Jude into research study on efficacy of injectable PrEP	YMSM	≥ 100 patients enrolled

GOAL 2: Increase Access to Care and Improve Health Outcomes for Tennesseans Living with HIV/AIDS

Objective 2.A. By September 30, 2021 increase the percentage of newly HIV diagnosed persons linked to HIV medical care within one month of their diagnosis to at least 85%.

Strategy 1: Establish seamless systems to link people to care immediately after diagnosis.

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH, health departments, and CBOs	All TDH funded testers receive notification every 30 days for clients <u>not</u> linked to care	Newly diagnosed PLWHA not linked to care within 30 days	$\leq 15\%$ of newly diagnosed persons not linked to care
By September 30, 2021:	TDH, health departments, and CBOs	Enhance linkage to care by positioning additional EIS staff focused on regions with lowest linkage rates focused on linkage rates $\leq 70\%$	Newly diagnosed PLWHA	# of new EIS positions placed in regions with $\leq 70\%$ linkage rates

Strategy 2: Enhance Early Intervention collaborations in Memphis/Nashville to improve linkage to medical care.

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
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By September 30, 2021:	TDH	Implement quarterly conference calls with Memphis and Nashville Part A recipients to enhance collaborations and improve linkage/retention rates.	Early Intervention staff	4 quarterly conference calls
By September 30, 2021:	TDH	Increase number of medical case managers targeting newly diagnosed individual to promote linkage to care	Newly diagnosed PLWHA	% of persons linked to care
By September 30, 2021:	TDH	Promote recruiting and hiring of diverse staff to enhance cultural competence in HIV testing and care sites	Newly diagnosed PLWHA	% of persons linked to care
Strategy 3: Implement behavioral interventions and public health strategies.				
Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH + community partners	Fund five ARTAS programs across the state	Newly diagnosed PLWHA	% of persons linked to care 125 linkages to care using ARTAS as a tool
By September 30, 2021:	TDH + ARTAS trainers	Provide ARTAS training to all MAI-funded and community partner staff	MAI staff	Conduct 2 trainings/year
By September 30, 2021:	TDH + community partners	Expand patient navigation (including peer navigators) programs to enhance linkage and retention efforts	RW providers	Current patient navigation staff increased by 50%

By September 30, 2021:	TDH + community partners	Provide TA and capacity-building for linkage to care providers through collaboration with Part F grantee and other TA providers	Linkage to care staff	Conduct 2 training/year and provide TA on as needed basis
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Objective 2. B. Increase the percentage of persons with diagnosed HIV infection who are retained in HIV medical care to at least 90%.

Strategy 1: Enhance systems to support retention in care to maximize the benefits of early treatment.

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH	Increase the number of providers offering psychosocial support services in Part B settings to improve likelihood of retention in care	RW providers	Increase by number of service providers by 50%
By September 30, 2021:	TDH	Use corrections navigators to ensure those being released from correctional settings are linked to care in their local communities within 30 days	PLWHA	≥90% of referrals are linked to care
By September 30, 2021:	TDH	Promote pilot program re: evening clinic hours to assess patient satisfaction	RW providers	# of HIV COEs providing after hours services
By September 30, 2021:	TDH	Increase number of medical case managers (MCMs) providing enhanced services focused on retention in care/treatment adherence	PLWHA identified by providers as being at high risk of falling out of care	50% patients identified as high risk are retained in care
By September 30, 2021:	TDH + Centers of Excellence	Build capacity by increasing the number of HIV Centers of Excellence in Tennessee	RW providers	# COEs

By September 30, 2021:	TDH + private providers	Collaborate with Part F AETC to train/support private providers in enhanced comprehensive care	Private HIV providers	40% of identified private HIV providers trained
By September 30, 2021:	TDH + Part B grantees	Enhance ease of re-certification via self-attestation processes	MCM, PLWHA	75% of eligible consumers continuously enrolled in Part B services
Strategy 2: Use Data-to-Care strategies to enhance retention in care.				
Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH + partners	Using EHARS data, create a data feedback loop between HIV surveillance, HIV prevention, and Ryan White to re-engage patients in care	PLWHA that are out of care	% patients retained in care
By September 30, 2021:	TDH + Part B providers	Use validated treatment readiness tools to assess current needs and make referrals for appropriate services	HIV re-engagement staff, PLWHA	% patients retained in care
By September 30, 2021:	TDH	Provide technical assistance regarding the use of surveillance data to augment data-to-care	HIV providers, MCMs	% patients retained in care
Strategy 3: Utilize Ryan White-funded staff to enhance retention in care.				
Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH	Fund peer navigators to enhance retention	RW providers	Current patient navigation staff increased by 50%

By September 30, 2021:	TDH	Provide training on benefits management to Ryan White clients to increase capacity in navigating changing healthcare landscape	Ryan White clients, MCMs	2 trainings/year
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Objective 2.C. Increase the percentage of persons with diagnosed HIV infection who are virally suppressed to at least 80%.

Strategy 1: Continue comprehensive coordinated patient-centered care for people living with HIV.

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH	Use Continuous Quality Improvement processes to assess clinical performance and provide training to providers to build capacity	RW providers	2 trainings/year
By September 30, 2021:	TDH	Furnish HIV providers with facility-based Continuum of Care data regarding their clients	RW providers	75% of providers receive CoC data within 12 month timeframe
By September 30, 2021:	TDH	Evaluate patient feedback to determine quality of services and ongoing gaps in services	PLWHA	50% of HIV+ clients

Strategy 2: Enhance systems to support medication adherence to increase likelihood of viral suppression.

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH	Train medical case managers on Every Dose/Every Day phone application to promote medication adherence	MCMs	# consumers who download app

Strategy 3: Take deliberate steps to increase the capacity in systems of clinical care and related services for PLWHA.

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH	Assess need for support services and co-locating psychosocial support staff in targeted sites	Ryan White patients	# expanded services
By September 30, 2021:	TDH	Annual site visits to COEs and providing targeted feedback on performance and plan for technical support	Ryan White patients	# site visits
By September 30, 2021:	TDH	Continue high quality training for Ryan White providers	Providers	# trainings offered
Objective 2.D. By September 30, 2021 reduce the percentage of persons in HIV medical care who are homeless to less than 5%.				
Strategy 1: Collaborate with HOPWA grantee on innovative mechanisms.				
Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH HOPWA grantee	Provide training to HOPWA providers on needs of HIV + consumers	HOPWA providers	Training completed
By September 30, 2021:	TDH	Work collaboratively with HOPWA grantee to create and distribute statewide resource directory	PLWHA	Directories distributed
Strategy 2: Provide specialized case management.				
Timeframe	Responsible Parties	Activity	Target Population	Data Indicators

By September 30, 2021:	TDH + COEs	Expand pilot project in Middle and East Tennessee with HIV specialty case managers to focus on assisting clients to develop skills to remain in long-term sustainable housing	PLWHA	% consumers stably housed
By September 30, 2021:	TDH + HOPWA grantees	Coordinate resources with HOPWA program to assure continuity of services for consumers receiving housing assistance services	PLWHA	% consumers stably housed
Strategy 3: Provide specialized training to re-engagement providers on working with homeless persons.				
Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH	Develop training materials for re-engagement providers offering information and skills to manage needs of homeless persons	Re-engagement staff	Successful training outcomes
By September 30, 2021:	TDH	Educate re-engagement specialists on needs of homeless persons living with HIV and strategy for successful resource	Re-engagement staff	Successful training outcomes

GOAL 3: Reducing HIV-related disparities and health inequities in Tennessee

Objective 3.A. By September 30, 2021 reduce by at least 15 percent the rate of new diagnoses among MSM, particularly young Black gay and bisexual men.

Strategy 1: Reduce stigma and decrease discrimination associated with HIV status.

Timeframe	Responsible	Activity	Target	Data Indicators
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	Parties		Population	
By September 30, 2021:	TDH + Task Force	Reduce stigma of HIV testing and the use of PrEP among MSM through support of MSM Task Force local media campaigns	MSM, YMSM	Implementation of ≥ 5 locally developed media campaign
By September 30, 2021:	TDH + Task Force	Reduce stigma of HIV testing and the use of PrEP among transgender individuals through support of Transgender Task Force local media campaigns	MSM, YMSM	Implementation of ≥ 5 locally developed media campaign
By September 30, 2021:	TDH	Develop PrEP Media campaign & website for Memphis to increase knowledge and decrease stigma of PrEP use	MSM, YMSM	Implementation of Memphis PrEP Media campaign & website
By September 30, 2021:	TDH	Implementing cultural-competency assessment programs to ensure culturally-competency services within metro-STD clinics	Metro STD clinic staff	≥ 2 metro-STD clinics with programs implemented
By September 30, 2021:	TDH	Training surveillance system users to accurately identify transgender persons	TDH Surveillance field staff	# of trainings
Strategy 2: Implement approaches to reduce HIV infections and improve health outcomes in high-risk communities.				
Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH	Use CDC's Social Network Strategy (SNS) to target YMSM with enhanced HIV testing in Memphis	YMSM	Successful execution of SNS

By September 30, 2021:	TDH	Assure representation in State and Regional planning bodies to ensure needs of vulnerable populations are considered	MSM, YMSM	Parity, Representation in planning bodies
By September 30, 2021:	TDH	Develop a Continuum of Care to quantify health outcomes along each stage of the continuum for Transgender Persons	Transgender Persons	Linkage to Medical Care Engaged/Retention to Medical Care Viral Suppression
Strategy 3: Provide support for community-level HIV prevention interventions in high-risk communities.				
Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH + CBO partners	Support 15-1502 grantees in their community-level behavioral interventions (MPowerment, Community Promise)	MSM, YMSM	# of successful community-level interventions
By September 30, 2021:	TDH + COEs	Explore adding viral suppression for youth and IDUs as a performance indicator for COEs	MSM, YMSM	Increased tracking of viral suppression
By September 30, 2021:	TDH + CBO partners	Provide funding opportunities for evidence-based community-level interventions targeting young MSM in communities with largest burden of disease	MSM, YMSM	# of successful community-level interventions
Objective 3.B. By 2021, increase the percentage of youth and persons who inject drugs with diagnosed HIV infection who are virally suppressed to at least 80%.				

Strategy 1: Reduce HIV-related disparities in communities at high risk for HIV infection.				
Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH	Prioritize youth and IDU for re-engagement within the data-to-care re-engagement program	Youth, IDU	Increased utilization of Data to Care
By September 30, 2021:	TDH	Prioritize youth and IDU for re-engagement within the MAI retention and re-engagement program	Youth, IDU	Enhanced retention and re-engagement rates
By September 30, 2021:	TDH	Work with SAMHSA-funded mental health and substance abuse providers to identify and re-engage known HIV+ clients not currently receiving HIV care	SAMSHA funded HIV providers	# of providers engaged
Strategy 2: Implement policies and procedures to increase number and diversity of providers.				
Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH	Conduct comprehensive lectures, presentations, and intersessions on the National HIV/AIDS Strategy, impact of HIV/AIDS on disparate populations, governmental public health's role in addressing HIV/AIDS, ways to achieve an AIDS-free generation, and careers in public health to medical school students and public health students.	Medical school students and public health students	10 lectures, presentations, and/or intersessions

By September 30, 2021:	TDH	Establish relationships with community partners treating youth and IDUs, especially Nashville and Memphis	Youth, IDUs	# collaborations with community agencies
Strategy 3: Enhance programs for Hep C co-infected persons with HIV.				
Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By September 30, 2021:	TDH	Augment HDAP Formulary and Medical Services Fee Schedule to cover HCV diagnostics and treatment	RW clients who are HIV/HCV co-infected	# of HCV medications and services available through the HDAP Formulary and Medical Services Fee Schedule
By September 30, 2021:	TDH	Augment HDAP Formulary and Medical Services Fee Schedule to cover mental health and substance abuse treatment	RW clients experiencing mental health and substance abuse disorders	# of mental health and substance abuse medications and services available through the HDAP Formulary and Medical Services Fee Schedule
By September 30, 2021:	TDH	Ensure all HIV + clients in care receive annual HCV screening	PLWHA	90% of all RW clients receive annual screening
By September 30, 2021:	TDH	Train HIV providers to evaluate and treat HCV	RW providers	# of trainings conducted and # of HIV providers trained

By September 30, 2021:	TDH	Train HIV providers and MCMs to identify mental health and substance abuse comorbidities jeopardizing access to HCV treatment and/or sustained care	HIV providers, MCMs	# of trainings conducted and # of HIV providers trained
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Anticipated Challenges or Barriers in Implementing the Plan

There are a few challenges which may impact the capacity to execute this plan. The issues of stigma and lack of awareness have been long-standing barriers to HIV prevention and care. As HIV continues to disproportionately impact people of color—especially MSM of color—the intersection of racism, poverty, and homophobia continue to call on TDH and its partners to renew efforts to change community norms as well as individual's behavior to promote lasting impact. Significant among the concerns is the uncertain of Federal funding for HIV prevention and care services. As uncertainty over the future of HRSA funding continues, questions arise about continuity of services—particularly in a State without Medicaid expansion. By continuing to use 340B rebate funds wisely, it is hoped that TDH can continue to pave the future of services for PLWHA.

Continued need for housing, transportation, behavioral health, and other ancillary services continue to arise as barriers for individuals living with HIV. The complex challenges faced by consumer's present complex needs that may be costly to address. Continuing to work to enroll patients in health plans and work with pharmacy assistance programs will be additional strategies which may result in cost-savings which ultimately may be used to meet ancillary needs. Finally, the growing opiate epidemic must certainly be monitored. While absolute rates of injection drug related HIV continue to be low, recent outbreaks of HIV in other parts of the country (believed to be linked to opiate injection) serve as a warning to TDH to carefully work with the Division of Substance Abuse and its prevention and treatment providers to assure HIV prevention services will be available if an increase in drug injection occurs in Tennessee.

Collaborations, Partnerships, and Stakeholder Involvement

As suggested earlier, the SCSN and planning process sought to reach a wide range of stakeholders. All Part B and HIV Prevention funded grantees, representatives from all Ryan White Parts and both SAMHSA and CDC funded organizations participated in the process. The community planning group (TCPG) was informed of the Joint Guidance at their fall 2015 meeting. The SCSN kick-off was held during an all Parts meeting to introduce the planning process at the statewide meeting in March 2016. The TCPG was advised of progress toward SCSN goals and provided input on recommendations for interventions at their April 2016 meeting. On an August 2016 conference call, the TCPG offered a letter of concurrence with the Integrated Plan (see Appendix). No relevant stakeholders have been identified as 'not engaged' in this planning and needs assessment process.

Extensive efforts were made to collaborate with the Part A programs in Nashville and Memphis during the planning process. Conference calls with the contractor were held within 4 weeks of the award and the Part A program offices were informed at all stages in the process. Both Part A

grantees co-sponsored Regional meetings. Data from the statewide survey was extracted and shared with both Part A grantees to assist with their SCSN.

Stakeholder meetings and other SCSN activities involved both directly-funded CBOs in Tennessee, all Part B contractors, all Part C partners, and engaged the Part F AETC. In addition, the state SAMHSA grantee for Tennessee was engaged.

Persons Living With HIV (PLWH) and Community Engagement

TDH continues its long tradition of substantive participation by PLWHA in this SCSN process. The statewide survey reached 107 PLWHA, meaning nearly 27% of respondents identified as living with HIV/AIDS. Additionally, the regional focus groups had substantial consumers in attendance providing honest and meaningful input.

Recruitment of survey participants relied heavily on case manager outreach to current clients. In addition to the option of an online survey, hard copy of the survey was offered to consumers for whom internet access was uncertain. Some 25 consumers provided input through this mechanism. Through this survey process, PLWHA had an opportunity to provide valuable input on timeliness between their own diagnosis and first-time medical care, quantity and quality of their current medical care including medication adherence, and suggestions to enhance first-time connection to medical care and on-going retention in care for themselves and others. PLWHA also provided input on insurance and means of paying for medical care to include HIV-related medications, access to HIV-related education and support, and other medical and social service needs.

The representation of PLWHA in surveys and community forums roughly reflects the regions and population distribution in the State. More than 50% of responses were from Nashville and Memphis, though all Regions were proportionally represented. A significant percentage of stakeholders (including PLWHA) identify as MSM, and representation included transgender and gender non-conforming community members.

Stakeholder engagement - particularly PLWHA - has been essential to the success of the SCSN. The involvement of the TCPG in the planning of the SCSN process, their oversight and collaboration, and their final input into goals and activities is essential to the success of the Integrated Plan. Their critical insights, including strategies for engaging other stakeholders and intervention approaches to address barriers, have made this plan stronger and more relevant.

Section 5: Monitoring and Improvement

HIV Planning Council Engagement/Monitoring

The Tennessee Community Planning Group (TCPG) is the prevention/care planning body which collaborates with the health department on achieving goals of the Tennessee HIV AIDS Strategy. The goal of the TCPG is to improve the effectiveness of Tennessee's HIV prevention and care programs by strengthening the scientific basis, relevance and focus of prevention and care strategies and interventions. This goal is accomplished in collaboration with TDH in support of the National HIV/AIDS Strategy by carrying out the steps in HIV high impact prevention planning and Health Resources and Services Administration (HRSA) guidelines for the Ryan White Treatment Modernization Act program grantees.

The role of TCPG in the HIV Prevention and Care Planning Process is as follows: (1) Delineate technical assistance and capacity development needs for effective community participation in the planning process; (2) Review available epidemiological, evaluation, behavioral and social science, quality assurance indicators, cost-effectiveness, and community services assessment data and other information required to prioritize HIV prevention and care needs. Collaborate with TCPG partners on how best to obtain additional data and information; (3) Assess existing community resources to determine the community's capability to respond to the HIV epidemic; (4) Identify unmet HIV Prevention and Care needs within defined populations; (5) Prioritize HIV Prevention and Care needs among target populations as based on the HIV epidemiologic data in Tennessee and propose high priority strategies and interventions; (6) Identify the technical assistance needs of community-based providers in the areas of program planning, intervention, and evaluation; (7) Ensure that a) HIV counseling, testing, and referral services (CTRS; with particular emphasis on linkage to care), early intervention, primary care, specialty care, drug assistance, and other HIV-related services; b) sexually transmitted disease, viral hepatitis, tuberculosis and substance abuse prevention and treatment; c) mental health services; and d) other public health needs are addressed in the comprehensive HIV Prevention and Care Plan.

The progress and/or challenges in meeting the goals of the plan are discussed during TCPG meetings bi-annually. In addition, by routinely sharing information, TDH enlists the help of CPG members in developing community-focused plans where performance targets are not being met. TDH—especially the health department TCPG co-chair—is also consistently involved with the CPG leadership and the Executive Committee.

During typical TCPG meetings, TDH Program staff provide updates on progress toward prevention and care targets, and frequently presents surveillance and care continuum data to advise TCPG priority-setting. Historically, the TCPG has been involved in providing feedback

and recommendations which TDH Program staff, in turn, use to revise program activities. As suggested earlier, a major role of the members of the CPG is to continue to engage with Regional CPGs.

The input of the TCPG also guides training and capacity-building efforts. TDH Program supports staff in attending training events like two statewide meetings that happen bi-annually. In addition, other training topics and capacity-building initiatives are frequently suggested by CPG members; and in turn, the training staff within TDH Program use this input to advise training/TA opportunities.

Additionally, there are multiple opportunities for updating Ryan White providers, who are not members of TCPG on the progress of plan implementation, soliciting feedback, and using the feedback to plan for improvements. The Ryan White All Parts Meeting facilitated by TDH meets bi-annually. The Ryan White All Parts Quality Management Steering Committee meets regularly. The Ryan White Part C providers meet every other month and the Part B Directors meet quarterly with monthly contractor calls.

Continuous Quality Improvement

The data sources identified in the plan are readily available data sources, such as HIV/AIDS Bureau (HAB) Performance Measures and report data required for submission to CDC or HRSA. Performance measures from various quality initiatives were aligned with the milestones along the HIV Care Continuum beginning with linkage to care, antiretroviral therapy, retention in care and viral suppression.

TDH contracts with a consultant from the National Quality Center to coordinate the Tennessee Regional Quality Management Group. This group meets quarterly and has as its focus measuring and improving retention in care. In addition to this group, the Ryan White program supports a statewide quality management group. This *Quality Management (QM) Statewide Committee* includes all Ryan White providers (Parts A, B, C, D, & F). In order to respond to needs more appropriately, the committee has designated an executive Committee comprised of representatives from all five regions. The Executive Committee reviewed national, state and local HIV quality initiatives and determined the QM project to focus on patients with Hep C/HIV co-infection.

Evaluation of the Ryan White Programs for progress on the SCSN and Integrated Plan will continue statewide through QM Program data collection and reporting of Performance Measures. Additionally, evaluation will take place through the required semi-annual Ryan White Part B progress reports and the annual data reporting.

The Part B staff conducts bi-annual site visits to all medical and non-medical case management sites to conduct review of client enrollment and verifying eligibility. Sites receive feedback within 30 days following the site visit and are expected respond to any findings or recommendations within 30 days. Part B staff provides additional follow-up monitoring and technical assistance as indicated.

TDH staff conducts site visits annual to Centers of Excellence (COEs) to re-designate centers eligible to continue in the program. Additionally, staff conducts internal quality audits and on-site visits to oversee web-based applications for RW services and monitor data to assure accurate and timely inclusion in the Continuum of Care.

Part B grantees are required to submit *quarterly implementation plan reports* fifteen days following the end of each quarter. The implementation plan is a federally required report that requires agencies to report on program outcomes and objectives per core and support service area. All grantees are also required to submit quarterly CAREWare exports which report on client level data services. Each Part B grantee must have a Quality Management Plan in place and must conduct a minimum of two special studies each year.

The prevention activities funded by TDH are documented using multiple data-collection tools. TDH is mandated by PS12-1201 to use *CDC's Evaluation Web* for reporting. Evaluation Web is a secured database developed by Luther Consulting used to collect information on Counseling, Testing, and Referral Services (CTRS) in the form of rapid HIV testing information received from grantees funded by TDH. In addition, TDH uses *PRISM* to collect additional data on HIV prevention interventions. Grantees are required to enter all HIV rapid test results (reactive, non-reactive, and indeterminate) on a monthly basis. This testing information is uploaded to CDC in order to monitor Tennessee's PS12-1201 deliverable progress.

Evaluation Web is also used to collect information such as linkage to medical care, referral to prevention services, partner services interviews, and enrollment.

TDH prevention grantees are required to submit *quarterly narrative reports (QNR)* at the end of each quarter. The QNR is an internal report that requires grantees to provide information of meeting contract deliverables, condom distribution, challenges and barriers, and technical assistance needs. Also, grantees are required to submit a *monthly CTR summary* which includes a breakdown of the total number of rapid tests administered for each month by priority population, non-priority population and number tested positive. This is cross checked with Evaluation Web to ensure reporting consistency and reporting of progress.

In addition to formal data analysis, a critical arm of TDH Program's monitoring plan involves *site visits* with funded partners to measure their progress toward strategic goals. These site visits provide Program staff with an important perspective on implementation activities. These site visits typically include review of records, staff interviews, and review of consumer feedback. The combination of review of quantitative data and site visit impressions allows Program staff to craft a TA plan that is designed specifically to build on the strengths of the organization and to address challenges in succinctly targeted ways.

Implementation and Monitoring Plan

Building on the strength of existing quality management activities, the Program Implementation and Monitoring Plan involves two strategic activities.

First, Program staff will use the plan goals and activities as a ‘map’ of internal progress and review progress toward strategic outcomes at least quarterly. This *data review* will look at targets established and measure progress toward the goals. Regularly measuring the outcomes against data sources, particularly Care Continuum data, allows for course correction. Where problems exist, reallocation of additional resources, development of supplemental strategies, and provision of additional training and TA will be indicated.

Second, Program staff will utilize quantitative and observational methods described above to advise contractors and TDH staff regarding progress towards benchmarks and need for program improvement plans. Following the analysis of data, TDH staff will *share findings* with partners. Where problems exist, the intention is to work collaboratively to develop solutions and an implementation timeline.

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Table of HIV Resources Inventory including: <ul style="list-style-type: none"> ● public and private funding sources for HIV prevention, care and treatment services 	46-47

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Assessing Needs, Gaps, and Barriers	49-81
<p>Description of :</p> <p>The process used to identify HIV prevention and care service needs of people at higher risk for HIV and PLWH including how strategies were used to target, recruit, and retain participants in the HIV planning process that represent:</p> <ul style="list-style-type: none"> • the myriad of HIV-infected populations and persons at higher risk for HIV infection • other key stakeholders in HIV prevention, care, and related services • organizations that can be best inform and support the development and implementation of the Integrated HIV Prevention and Care Plan <p>Description of the HIV prevention and care <i>service needs and gaps</i> of persons at risk for HIV and PLWH.</p> <p>Description of the <i>barriers</i> to HIV prevention and care services, including, but not limited to:</p> <ul style="list-style-type: none"> • social and structural barriers • federal, state or local legislative/policy barriers • health department barriers • program barriers • service provider barriers including those stakeholders that are not involved with planning for HIV services that need to be involved to address gaps more effectively • client barriers 	49-81
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Description of data and/or information that the planning group would like to have used in conducting the needs assessment including developing the HIV Care Continuum and the plan, but that was unavailable - NA	83
Integrated HIV Prevention and Care Plan	84-102

Identification of at least two objectives that correspond to each NHAS goal. Description of at least three strategies that correspond to each objective. Description of the activities/interventions, targeted populations, responsible parties, and time-phased, resources needed to implement the activity. Identification of any activities specifically aimed at addressing gaps along the HIV Care Continuum. Description of the metrics that will be used to monitor progress in achieving each goal outlined in the plan. [Metrics are consistent with the most current HHS Core Indicators and the NHAS Indicators.]	85-101
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Description of the process for regularly updating planning bodies and stakeholders on the progress of plan implementation, soliciting feedback, and using the feedback from stakeholders for plan improvements. Description of the plan to monitor and evaluate implementation of the goals and SMART objectives from Section II: Integrated HIV Prevention and Care Plan. Description of the strategies to utilize surveillance and program data to assess and improve health outcomes along the HIV Care Continuum which will be used to impact the quality of the HIV service delivery system, including strategic long-range planning.	104-107

Appendix A: Letter of Concurrence



Tennessee Community Planning Group

Statewide Community Planning for HIV Prevention

August 17, 2016

John Messick
Grants Management Officer
Procurement and Grants office
Centers for Disease Control and Prevention
2920 Brandywine Road
Room 3000, Mailstop E-15
Atlanta, GA 30341

Dear Mr. Messick,

The Tennessee HIV Community Planning Group (TCPG) confirmed concurrence by consensus on August 12, 2016 with the state of Tennessee's Jurisdictional Plan for HIV Prevention & Care. The planning group reviewed the state's epidemiology, needs assessment, goals and objectives and finds them to be responsive to the needs for HIV Prevention & Care in Tennessee.

The health department co-chair and the community co-chair have signed this letter of concurrence.

Sincerely,

Melissa Morrison
TN Department of Health Co-Chair

Gary Law
TCPG Community Co-Chair

Appendix B: Nashville/Memphis Part A Plans

