

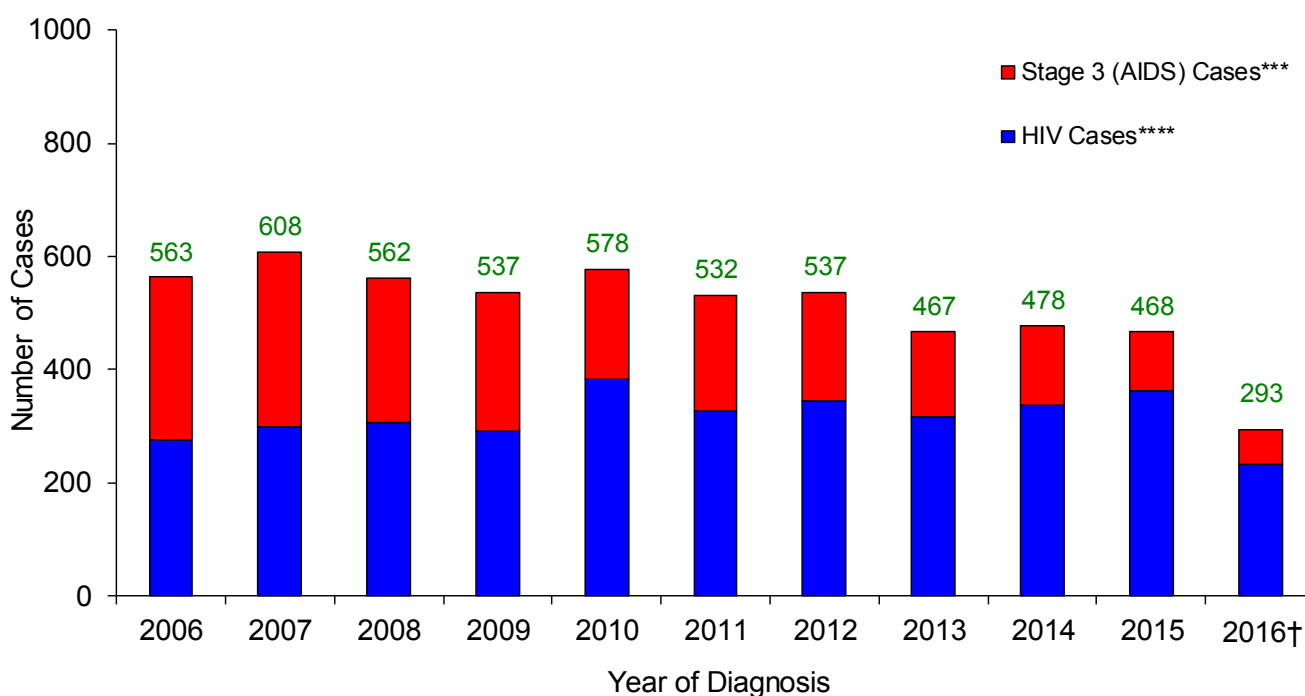
# Missouri Department of Health and Senior Services Bureau of Reportable Disease Informatics HIV/STD Statistics

June 2016

## 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 June 30, 2016.
- The data presented in this report only include cases **diagnosed** through June 30, 2016, based on information **reported** to the Missouri Department of Health and Senior Services through September 30, 2016. The difference between the date of diagnosis and the date of report represents delays in case reporting.
- When assessing trends over time, please note that data presented for 2016 only represent cases diagnosed through June 30, 2016. All data are subject to change.
- Additional data quality assurances undertaken in the past year have improved data quality but have resulted in changes in the number of reported cases over time and the number of persons living with HIV. This may result in discrepancies when comparing the current report to previous epidemiological data.

**Figure 1. HIV disease cases, by current status\* and year of diagnosis\*\*, Missouri, 2006—2016†**



\*HIV case versus stage 3 (AIDS) case

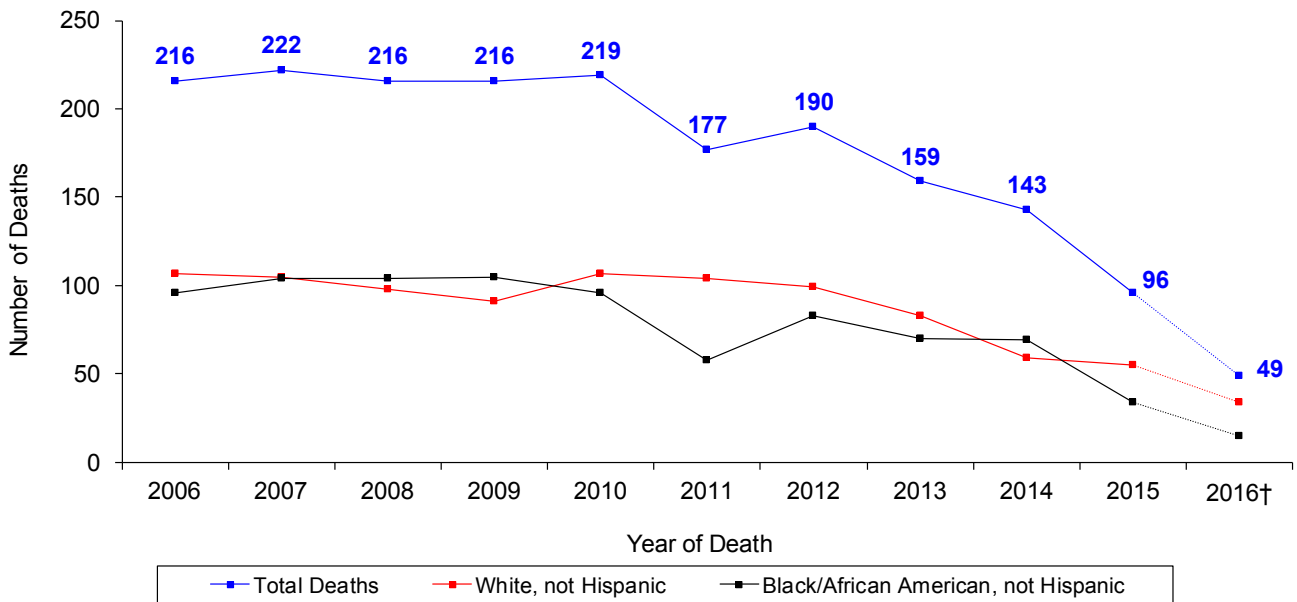
\*\*Cases are indicated by year of initial diagnosis reported to the Missouri Department of Health and Senior Services (the year in which the first diagnosis of the person, whether as an HIV case or a stage 3 (AIDS) case, was documented by the Department).

†Only includes cases diagnosed through June 30, 2016 and reported by September 30, 2016.

\*\*\*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.

- Between 1982 and June 30, 2016, there have been a total of 20,688 HIV disease cases diagnosed.
- There were 293 new HIV disease diagnoses from January to June 2016. In comparison, there were 234 new HIV disease diagnoses reported during the same time period in 2015.<sup>1</sup>
- 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 2006, 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.

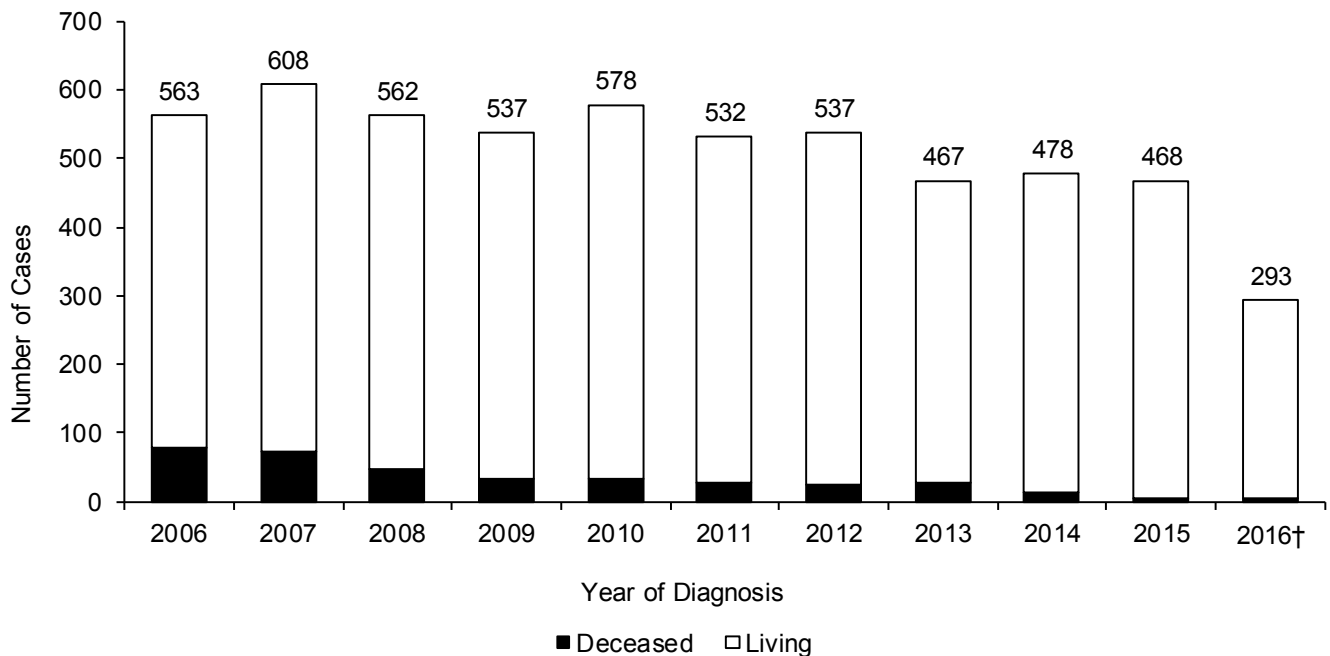
**Figure 2. HIV disease deaths\*, by selected race, and by year of death, Missouri, 2006—2016†**



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

†Only includes deaths through June 30, 2016, and reported by September 30, 2016.

**Figure 3. Persons diagnosed with HIV disease by current vital status\* and year of diagnosis\*\*, Missouri, 2006—2016†**



\*Vital status on June 30, 2016.

\*\*Cases are indicated by year of initial diagnosis reported to the Missouri Department of Health and Senior Services (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).

†Only includes events occurring through June 30, 2016, and reported by September 30, 2016.

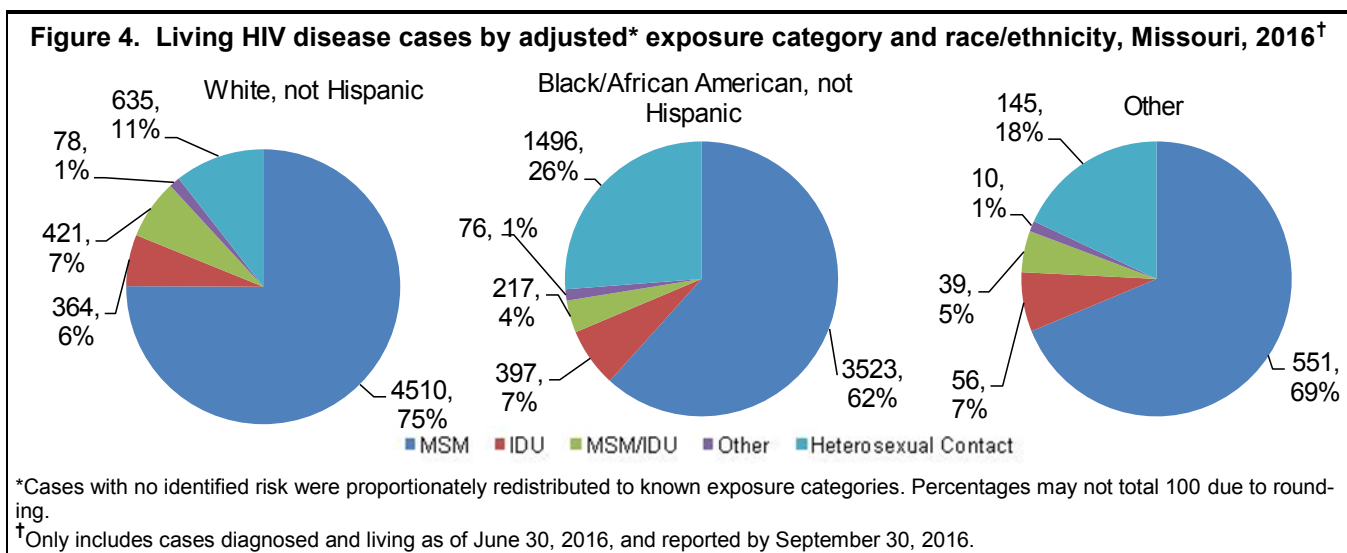
- The total number of deaths among those diagnosed with HIV disease in Missouri remained generally stable from 2006 to 2010 (Figure 2). The decline since 2010 may be due to delays in death reporting.
- A larger proportion of those diagnosed in 2006 have died as of June 30, 2016, compared to those diagnosed in 2015, likely due to differences in the length of time living with the virus and current age (Figure 3).

<b>Sex</b>	<b>Diagnosed 2016†</b>		<b>Living 2016†</b>		
	<u>Cases</u>	<u>%</u>	<u>Cases</u>	<u>%</u>	<u>Rate**</u>
Male	235	80.2%	10,349	82.7%	346.7
Female	58	19.8%	2,169	17.3%	70.0
<b>Total</b>	<b>293</b>	<b>100.0%</b>	<b>12,518</b>	<b>100.0%</b>	<b>205.8</b>
<b>Race/Ethnicity</b>					
White	128	43.7%	6,008	48.0%	123.7
Black/African American	131	44.7%	5,709	45.6%	808.9
Hispanic	23	7.8%	546	4.4%	220.5
Asian/Pacific Islander	3	1.0%	86	0.7%	68.1
American Indian/Alaskan Native	0	0.0%	10	0.1%	38.4
Two or More Races/Unknown	8	2.7%	159	1.3%	N/A
<b>Total</b>	<b>293</b>	<b>100.0%</b>	<b>12,518</b>	<b>100.0%</b>	<b>205.8</b>
<b>Race/Ethnicity-Males</b>					
White Male	109	46.4%	5,324	51.4%	222.9
Black/African American Male	101	43.0%	4,367	42.2%	1,300.2
Hispanic Male	17	7.2%	458	4.4%	358.2
Asian/Pacific Islander Male	2	0.9%	63	0.6%	104.8
American Indian/Alaskan Native Male	0	0.0%	10	0.1%	76.2
Two or More Races/Unknown Male	6	2.6%	127	1.2%	N/A
<b>Total</b>	<b>235</b>	<b>100.0%</b>	<b>10,349</b>	<b>100.0%</b>	<b>346.7</b>
<b>Race/Ethnicity-Females</b>					
White Female	19	32.8%	684	31.5%	27.7
Black/African American Female	30	51.7%	1,342	61.9%	362.8
Hispanic Female	6	10.3%	88	4.1%	73.5
Asian/Pacific Islander Female	1	1.7%	23	1.1%	34.8
American Indian/Alaskan Native Female	0	0.0%	0	0.0%	0.0
Two or More Races/Unknown Female	2	3.4%	32	1.5%	N/A
<b>Total</b>	<b>58</b>	<b>100.0%</b>	<b>2,169</b>	<b>100.0%</b>	<b>70.0</b>
<b>Current Age***</b>					
<2	1	0.3%	1	0.0%	0.7
2-12	3	1.0%	33	0.3%	3.9
13-18	11	3.8%	51	0.4%	10.8
19-24	71	24.2%	509	4.1%	99.7
25-44	126	43.0%	4,627	37.0%	300.6
45-64	76	25.9%	6,586	52.6%	409.0
65+	5	1.7%	711	5.7%	74.5
<b>Total</b>	<b>293</b>	<b>100.0%</b>	<b>12,518</b>	<b>100.0%</b>	<b>205.8</b>
*Includes all individuals diagnosed with the HIV virus, regardless of current status (i.e., HIV or stage 3 (AIDS)).					
†Only includes cases diagnosed or living as of June 30, 2016, and reported by September 30, 2016.					
**Per 100,000 population based on 2015 MDHSS estimates.					
***Based on age as of June 30, 2016.					
Note: Percentages may not total due to rounding.					

- There are 12,518 individuals living with HIV disease that were diagnosed in Missouri through June 30, 2016.
- The proportion of the newly diagnosed cases that occurred among Hispanics was greater than the proportion of living cases that are Hispanic.
- The greatest proportion of newly diagnosed cases occurred among persons 25-44 years of age (43.0%).
- Persons 45-64 years of age represented the largest proportion of those living with HIV disease (52.6%).

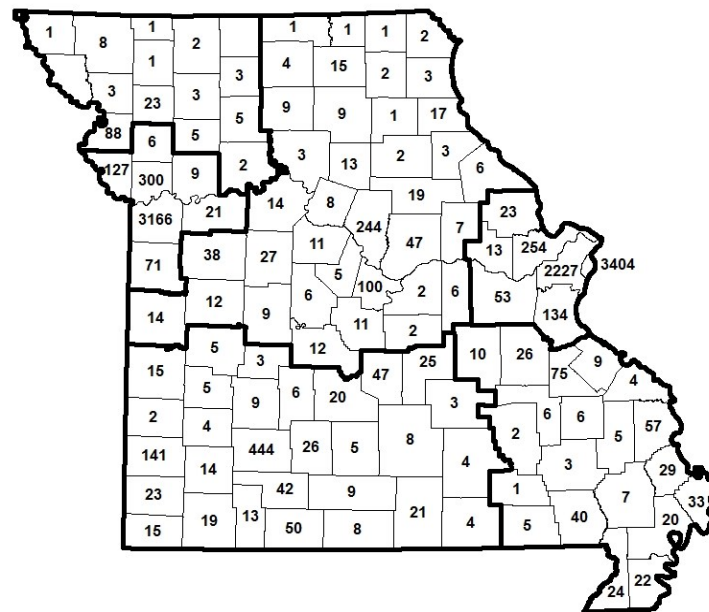
Exposure category	HIV Disease			
	2016 <sup>†</sup>		Living*	
<b>Adult/Adolescent</b>				
Men who have sex with men (MSM)	182	63.0%	8,584	69.2%
Men who have sex with men and inject drugs (MSM/IDU)	12	4.2%	677	5.5%
Injecting drug use (IDU)	14	4.8%	817	6.6%
Heterosexual contact	19	6.6%	2,276	18.3%
Hemophilia/coagulation disorder	0	0.0%	40	0.3%
Blood transfusion or tissue recipient	0	0.0%	10	0.1%
No indicated risk (NIR)	62	21.5%	-----	-----
<b>ADULT/ADOLESCENT SUBTOTAL</b>	<b>289</b>	<b>100.0%</b>	<b>12,407 **</b>	<b>100.0%</b>
<b>Pediatric (&lt;13 years old)</b>				
<b>PEDIATRIC SUBTOTAL</b>	<b>4</b>	<b>100.0%</b>	<b>111</b>	<b>100.0%</b>
<b>TOTAL</b>	<b>293</b>		<b>12,518</b>	

\*Cases with no identified risk were proportionately redistributed to known exposure categories.  
<sup>†</sup>Only includes cases diagnosed through June 30, 2016, and reported by September 30, 2016.  
 \*\*Includes 3 cases with a confirmed "other" exposure category.



- Of adult/adolescent cases diagnosed from January 1 to June 30, 2016, 21.5% did not have a reported risk as of September 30, 2016. Surveillance activities have been implemented to resolve cases reported with unknown risk information. These cases will not be proportionately redistributed until the end of the surveillance follow-up period (Table 2).
- The majority of adult/adolescent living cases are attributed to MSM (69.2%), with cases attributed to heterosexual contact representing the second greatest proportion (18.3%). Cases with missing exposure category information have been proportionately re-distributed into known exposure categories (Table 2).
- There are differences in the distribution of exposure categories among living cases by race/ethnicity (Figure 4). Among whites, 75.1% of living cases are attributed to MSM, compared to 61.5% among blacks/African Americans. In contrast, heterosexual contact represents the exposure category for 26.3% of living black/African American cases but only 10.6% of living white cases.

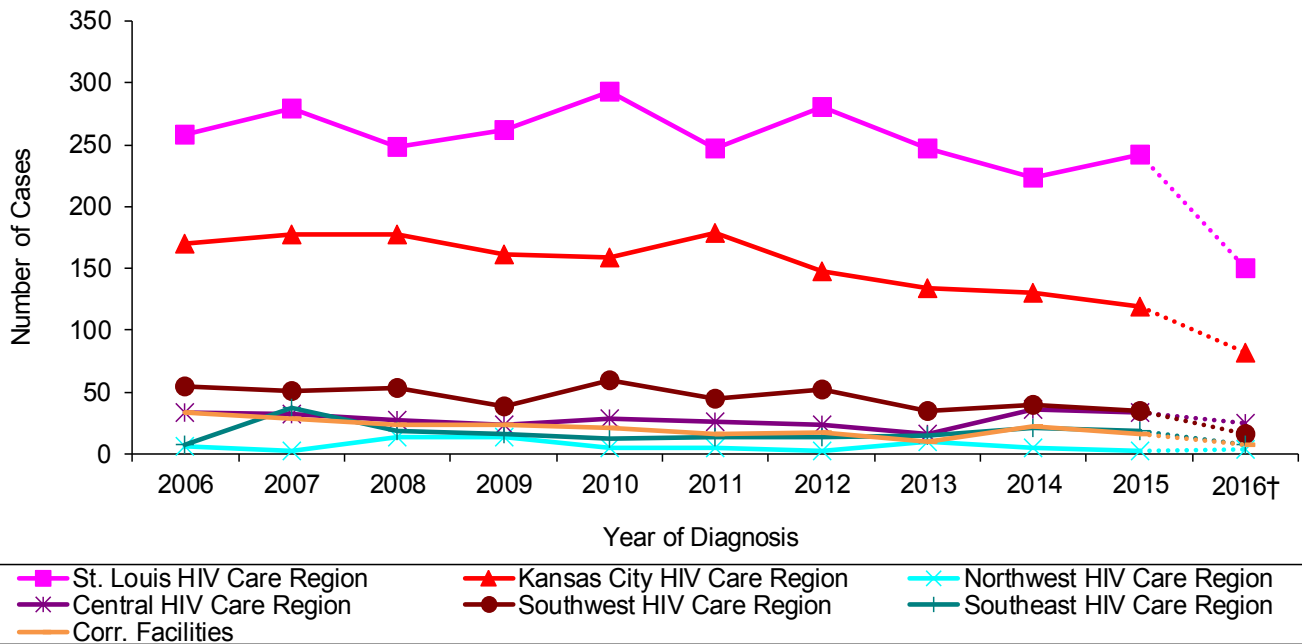
**Figure 5. Number of persons living with HIV disease by county of residence\* and HIV care region at time of diagnosis, Missouri, 1982-2016†**



\*Based on residence at time of most recent diagnosis of HIV or stage 3 (AIDS). Excludes persons diagnosed in Missouri correctional facilities (n=505).

†Includes those living with HIV disease as of June 30, 2016, and reported by September 30, 2016.

**Figure 6. Persons diagnosed with HIV disease by HIV care region at time of diagnosis, Missouri, 2006-2016†**



†Only includes cases diagnosed through June 30, 2016, and reported by September 30, 2016.

- Figure 5 presents the number of cases still presumed to be living whose most recent diagnosis (i.e. HIV or stage 3 (AIDS)) occurred in the county. It does not reflect the current number of cases living in the county. The majority of living cases were diagnosed in Jackson County, St. Louis City, and St. Louis County.
- Although the St. Louis HIV Care Region represents approximately 35% of Missouri’s general population, over the period from 2006 to 2016, the St. Louis HIV Care Region represented 49% of new HIV diagnoses in Missouri (Figure 6).

## PRIMARY AND SECONDARY (P&S) SYPHILIS

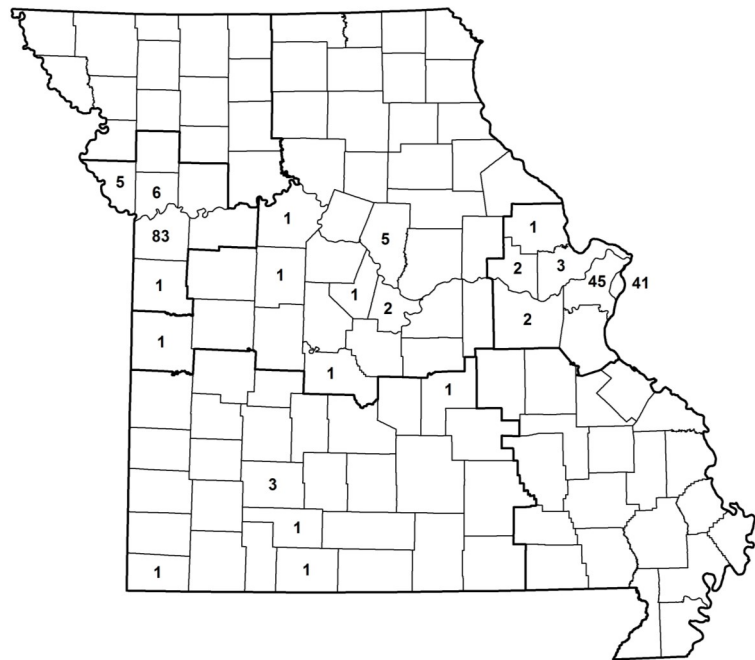
**Table 3. Reported P&S syphilis cases, by race, by geographic area, by sex, Missouri, 2016<sup>†</sup>**

Missouri	Cases		
	Male	Female	Total
White	68	15	83
Black/African American	83	19	102
Other/Unknown*	20	3	23
<b>Total Cases</b>	<b>171</b>	<b>37</b>	<b>208</b>
<b>St. Louis HIV Care Region</b>			
White	19	4	23
Black/African American	54	7	61
Other/Unknown*	9	1	10
<b>Total Cases</b>	<b>82</b>	<b>12</b>	<b>94</b>
<b>Kansas City HIV Care Region</b>			
White	37	9	46
Black/African American	26	10	36
Other/Unknown*	11	2	13
<b>Total Cases</b>	<b>74</b>	<b>21</b>	<b>95</b>
<b>Northwest HIV Care Region</b>			
White	0	0	0
Black/African American	0	0	0
Other/Unknown*	0	0	0
<b>Total Cases</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Central HIV Care Region</b>			
White	6	1	7
Black/African American	3	2	5
Other/Unknown*	0	0	0
<b>Total Cases</b>	<b>9</b>	<b>3</b>	<b>12</b>
<b>Southwest HIV Care Region</b>			
White	6	1	7
Black/African American	0	0	0
Other/Unknown*	0	0	0
<b>Total Cases</b>	<b>6</b>	<b>1</b>	<b>7</b>
<b>Southeast HIV Care Region</b>			
White	0	0	0
Black/African American	0	0	0
Other/Unknown*	0	0	0
<b>Total Cases</b>	<b>0</b>	<b>0</b>	<b>0</b>

<sup>†</sup>Includes cases reported through June 30, 2016.

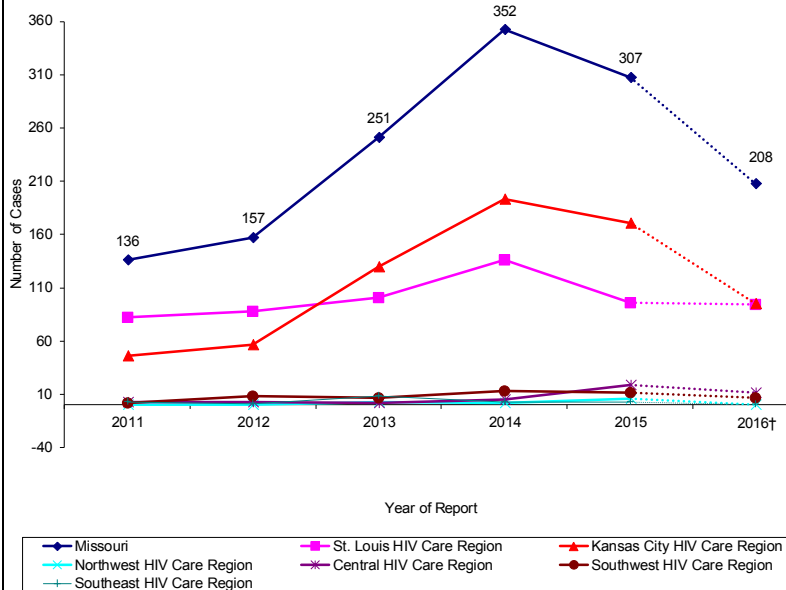
\*Includes cases identified with Hispanic ethnicity.

**Figure 7. Reported P&S syphilis cases by county, Missouri, 2016<sup>†</sup>**



<sup>†</sup>Includes cases reported through June 30, 2016.

**Figure 8. Reported P&S syphilis cases by geographic area and year of report, Missouri, 2011-2016<sup>†</sup>**



<sup>†</sup>Only includes cases reported through June 30, 2016.

- The number of reported cases of P&S syphilis in Missouri increased from 2011 to 2014. Overall, Missouri had 208 reported cases through June 2016 compared to 145 for the same time period in 2015.<sup>1</sup> The increase in the number of reported cases is primarily attributed to the increase in the number of reported cases in the St. Louis HIV Care Region, where 94 cases of P&S syphilis were reported through June 2016 compared to 41 during the same time period in 2015.<sup>1</sup>
- Of the P&S syphilis cases reported in Missouri from January 1 to June 30, 2016, 58 (27.9%) were co-infected with HIV. All but one of the 58 co-infections were diagnosed among males. Fifty-one of the co-infections were attributed to MSM, two were attributed to MSM/IDU, two were attributed to heterosexual contact, and three co-infections had no identified risk.

## EARLY LATENT SYPHILIS

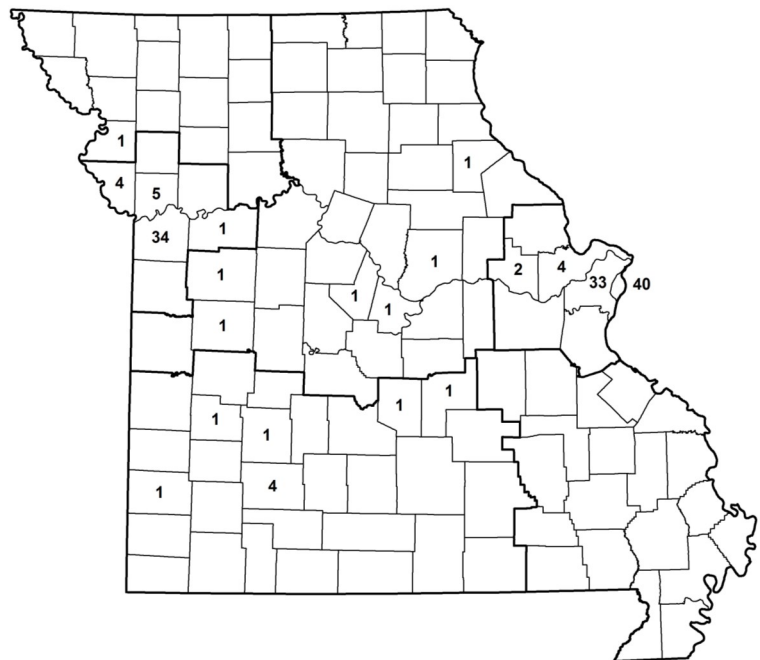
**Table 4. Reported early latent syphilis cases, by race, by geographic area, by sex, Missouri, 2016†**

Missouri	Cases		
	Male	Female	Total
White	52	9	61
Black/African American	55	9	64
Other/Unknown*	11	3	14
<b>Total Cases</b>	<b>118</b>	<b>21</b>	<b>139</b>
<b>St. Louis HIV Care Region</b>			
White	22	0	22
Black/African American	47	4	51
Other/Unknown*	5	1	6
<b>Total Cases</b>	<b>74</b>	<b>5</b>	<b>79</b>
<b>Kansas City HIV Care Region</b>			
White	20	7	27
Black/African American	6	5	11
Other/Unknown*	4	2	6
<b>Total Cases</b>	<b>30</b>	<b>14</b>	<b>44</b>
<b>Northwest HIV Care Region</b>			
White	1	0	1
Black/African American	0	0	0
Other/Unknown*	0	0	0
<b>Total Cases</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>Central HIV Care Region</b>			
White	3	1	4
Black/African American	2	0	2
Other/Unknown*	0	0	0
<b>Total Cases</b>	<b>5</b>	<b>1</b>	<b>6</b>
<b>Southwest HIV Care Region</b>			
White	6	1	7
Black/African American	0	0	0
Other/Unknown*	2	0	2
<b>Total Cases</b>	<b>8</b>	<b>1</b>	<b>9</b>
<b>Southeast HIV Care Region</b>			
White	0	0	0
Black/African American	0	0	0
Other/Unknown*	0	0	0
<b>Total Cases</b>	<b>0</b>	<b>0</b>	<b>0</b>

†Includes cases reported through June 30, 2016.

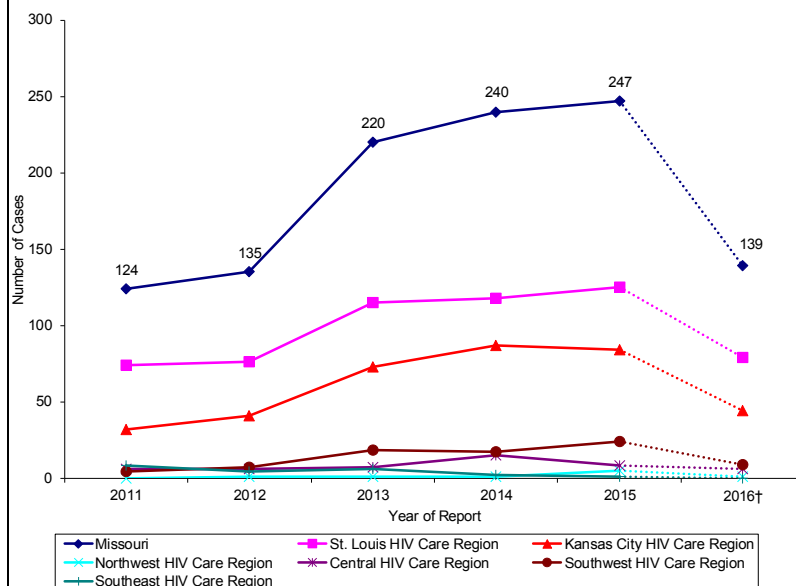
\*Includes cases identified with Hispanic ethnicity.

**Figure 9. Reported early latent syphilis cases by county, Missouri, 2016†**



†Includes cases reported through June 30, 2016.

**Figure 10. Reported early latent syphilis cases by geographic area and year of report, Missouri, 2011-2016†**



†Only includes cases reported through June 30, 2016.

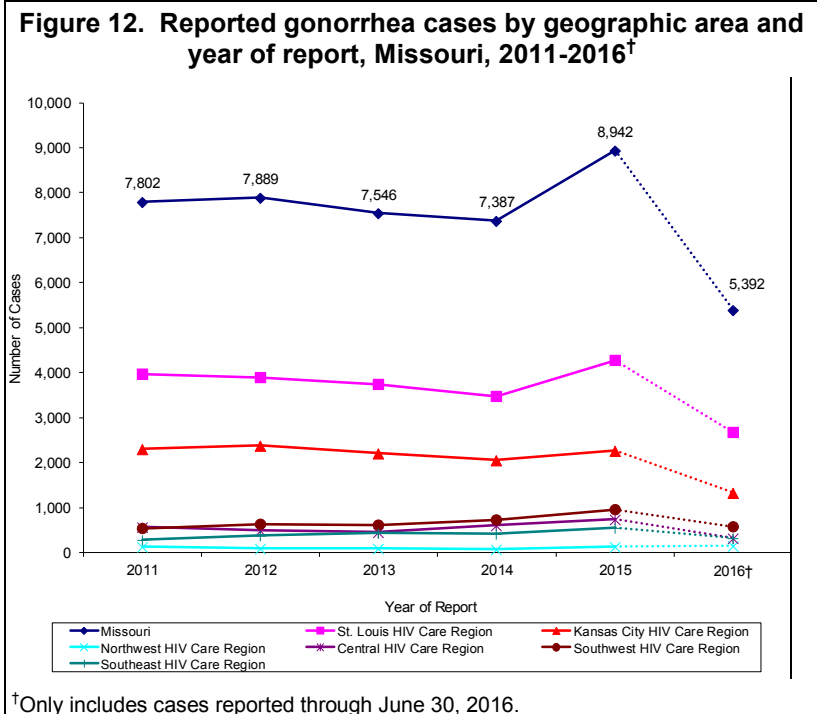
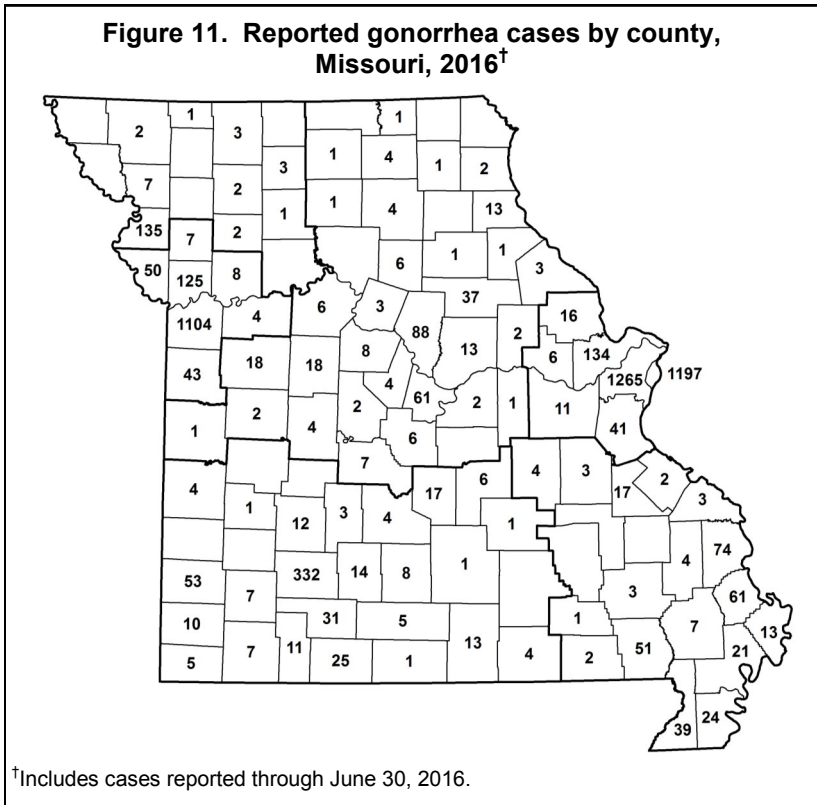
- The number of early latent syphilis cases reported in Missouri increased from 2011 to 2015. Overall, Missouri had 139 reported cases through June 2016 compared to 122 for the same time period in 2015.<sup>1</sup>
- Of the early latent syphilis cases reported in Missouri from January 1 to June 30, 2016, 51 (36.7%) were co-infected with HIV. Males represented all co-infections diagnosed. Fifty of the co-infections were attributed to MSM, and one was attributed to IDU.

## GONORRHEA

**Table 5. Reported gonorrhea cases, by race, by geographic area, by sex, Missouri, 2016<sup>†</sup>**

	Cases		
	Male	Female	Total
<b>Missouri</b>			
White	778	786	1,564
Black/African American	1,707	1,338	3,045
Other/Unknown*	434	349	783
<b>Total Cases</b>	<b>2,919</b>	<b>2,473</b>	<b>5,392</b>
<b>St. Louis HIV Care Region</b>			
White	191	123	314
Black/African American	1114	845	1,959
Other/Unknown*	221	176	397
<b>Total Cases</b>	<b>1,526</b>	<b>1,144</b>	<b>2,670</b>
<b>Kansas City HIV Care Region</b>			
White	199	189	388
Black/African American	387	378	765
Other/Unknown*	103	85	188
<b>Total Cases</b>	<b>689</b>	<b>652</b>	<b>1,341</b>
<b>Northwest HIV Care Region</b>			
White	50	58	108
Black/African American	19	8	27
Other/Unknown*	10	11	21
<b>Total Cases</b>	<b>79</b>	<b>77</b>	<b>156</b>
<b>Central HIV Care Region</b>			
White	65	114	179
Black/African American	49	30	79
Other/Unknown*	33	30	63
<b>Total Cases</b>	<b>147</b>	<b>174</b>	<b>321</b>
<b>Southwest HIV Care Region</b>			
White	227	200	427
Black/African American	53	18	71
Other/Unknown*	51	26	77
<b>Total Cases</b>	<b>331</b>	<b>244</b>	<b>575</b>
<b>Southeast HIV Care Region</b>			
White	46	102	148
Black/African American	85	59	144
Other/Unknown*	16	21	37
<b>Total Cases</b>	<b>147</b>	<b>182</b>	<b>329</b>

<sup>†</sup>Includes cases reported through June 30, 2016.  
 \*Includes cases identified with Hispanic ethnicity.



- A total of 5,392 gonorrhea cases were reported in Missouri through June 30, 2016 (Table 5).
- The number of reported gonorrhea cases in Missouri generally decreased from 2011 to 2014 but then increased in 2015 (Figure 12). More gonorrhea cases have been reported during the first six months of 2016 (5,392) compared to the same time period in 2015 (4,154<sup>1</sup>).

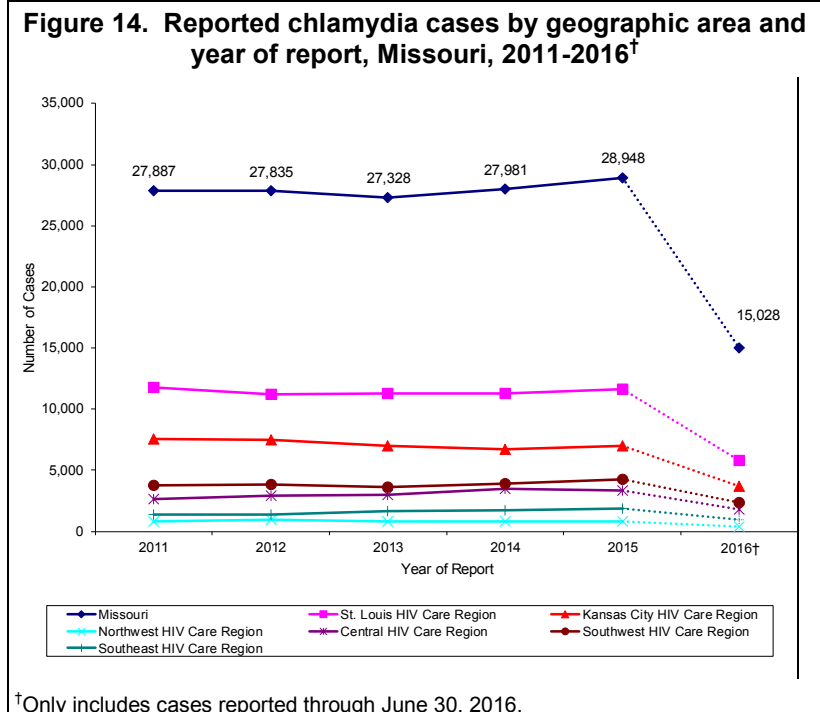
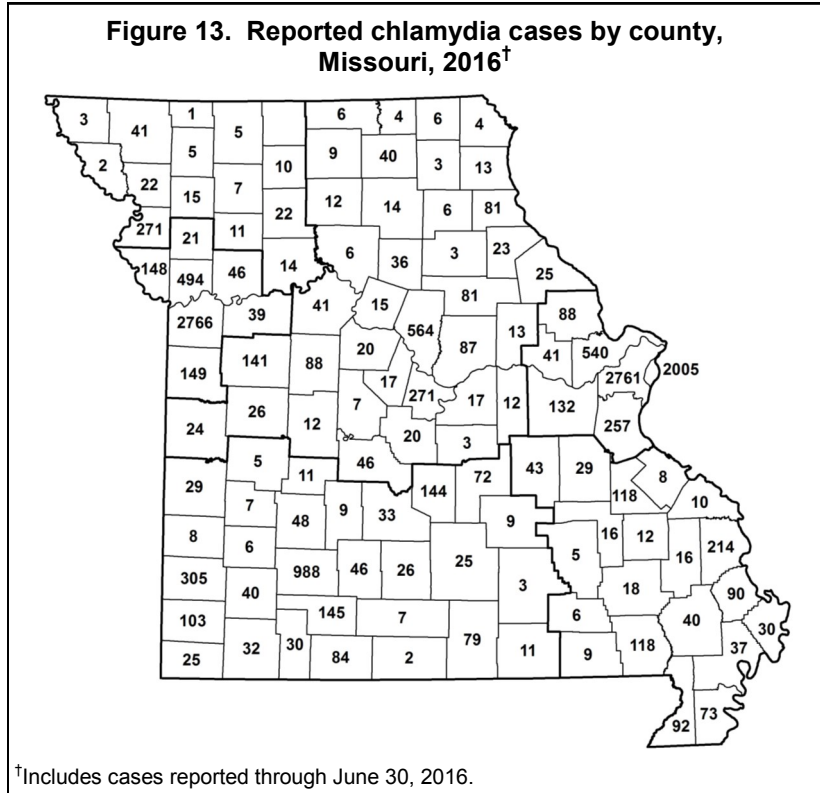


## CHLAMYDIA

**Table 6. Reported chlamydia cases, by race, by geographic area, by sex, Missouri, 2016<sup>†</sup>**

	Cases		
	Male	Female	Total
<b>Missouri</b>			
White	1,719	4,286	6,005
Black/African American	2,150	3,667	5,817
Other/Unknown*	1,026	2,180	3,206
<b>Total Cases</b>	<b>4,895</b>	<b>10,133</b>	<b>15,028</b>
<b>St. Louis HIV Care Region</b>			
White	415	829	1,244
Black/African American	1,158	2,065	3,223
Other/Unknown*	442	915	1,357
<b>Total Cases</b>	<b>2,015</b>	<b>3,809</b>	<b>5,824</b>
<b>Kansas City HIV Care Region</b>			
White	307	835	1,142
Black/African American	571	1,105	1,676
Other/Unknown*	297	548	845
<b>Total Cases</b>	<b>1,175</b>	<b>2,488</b>	<b>3,663</b>
<b>Northwest HIV Care Region</b>			
White	91	223	314
Black/African American	26	17	43
Other/Unknown*	24	48	72
<b>Total Cases</b>	<b>141</b>	<b>288</b>	<b>429</b>
<b>Central HIV Care Region</b>			
White	275	789	1,064
Black/African American	152	236	388
Other/Unknown*	97	247	344
<b>Total Cases</b>	<b>524</b>	<b>1,272</b>	<b>1,796</b>
<b>Southwest HIV Care Region</b>			
White	519	1,181	1,700
Black/African American	135	85	220
Other/Unknown*	116	296	412
<b>Total Cases</b>	<b>770</b>	<b>1,562</b>	<b>2,332</b>
<b>Southeast HIV Care Region</b>			
White	112	429	541
Black/African American	108	159	267
Other/Unknown*	50	126	176
<b>Total Cases</b>	<b>270</b>	<b>714</b>	<b>984</b>

<sup>†</sup>Includes cases reported through June 30, 2016.  
 \*Includes cases identified with Hispanic ethnicity.



- A total of 15,028 chlamydia cases were reported in Missouri through June 30, 2016 (Table 6).
- The number of reported chlamydia cases in Missouri remained relatively stable during the period from 2011 to 2015. The number of reported cases increased by 3.5% from 2014 to 2015 (Figure 14). More cases of chlamydia were reported in the first six months of 2016 (15,028) compared to the same time period in 2015 (14,435<sup>1</sup>).

## References

1. Missouri Department of Health and Senior Services. HIV/STD Statistics, June 2015. <http://health.mo.gov/data/hivstdaids/pdf/15statsheet.pdf>. Published November 2015.

## Appendix

HIV Care Region vs. HIV Region: Previous *HIV/STD Statistics* reports divided the state into geographic regions known as HIV Regions using the HIV prevention planning regions. Based on guidance from the Bureau of HIV, STD, and Hepatitis (BHS), the data in the 2016 *HIV/STD Statistics* report are presented by HIV care regions in an effort to align with future goals to have a single definition for the geographic regions used for HIV planning. Beginning with the *2014 Epidemiologic Profiles of HIV, STD, and Hepatitis in Missouri*, the state was divided into geographic regions known as HIV care regions using the HIV medical case management (care) regions. The transition to care regions resulted in some changes. The North Central HIV Region is now known as the Central HIV Care Region. The remaining five regions retained the same names. The counties comprising the St. Louis, Southeast, and Southwest HIV Care Regions remained the same. The Northwest HIV Care Region no longer contains Clinton County. Clinton County now belongs in the Kansas City HIV Care Region. The Kansas City HIV Care Region no longer contains Johnson, Bates, Henry, and Benton Counties. These four counties now belong in the Central HIV Care Region. As a result of these changes, regional data in the 2016 *HIV/STD Statistics* report should not be compared to reports published prior to 2015. Additionally, calculations for the past ten years were recalculated using the HIV care regions at the regional level in order to accurately display trends over time in the 2016 *HIV/STD Statistics* report.

### MISSOURI HIV CARE REGIONS

