

# HIV/AIDS Surveillance Report June 2018

Kentucky Cabinet for Health and Family Services
Department for Public Health
HIV/AIDS Section



# CABINET FOR HEALTH AND FAMILY SERVICES DEPARTMENT FOR PUBLIC HEALTH

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#### Dear Reader:

Enclosed please find the June 2018 issue of Kentucky's HIV/AIDS Annual Surveillance Report, which contains data on HIV infections among Kentuckians reported to the Department for Public Health. This annual edition is a Centers for Disease Control and Prevention (CDC) grant deliverable and is produced to fulfill the requirements of Funding Opportunity Announcement (FOA): PS18-1802.

Confidential AIDS reporting started in 1982, whereas legislation requiring confidential HIV name-based reporting was not enacted until July of 2004. Prior to July 2004, HIV infections were reported with a unique code. Section I (and throughout the report) profiles the cumulative and living HIV infections diagnosed among Kentuckians, regardless of progression to AIDS. A total of 10,567 cumulative HIV infections were diagnosed and reported as of June 30, 2018. Of these HIV infections, 63% have progressed to AIDS as of the report date.

Section II profiles new HIV infections diagnosed among Kentuckians. In calendar year 2016, there were 336 new HIV infections diagnosed among Kentucky residents, a diagnosis rate of 7.6 per 100,000 population. Trends among people with newly diagnosed infections are presented in this section, and disparities by race/ethnicity, age at diagnosis, sex, and mode of transmission are highlighted.

Section III profiles Kentuckians with HIV infection who were diagnosed with AIDS within 30 days of initial HIV diagnosis, also referred to as concurrent diagnoses. Analyses focus on the most recent 10.5 year period: January 1, 2008, through June 30, 2018. Twenty-four percent of the 3,542 individuals with new HIV disease diagnoses within that period were diagnosed with AIDS within 30 days of the initial HIV diagnosis.

Please read the data source and technical notes on pages 3-5 for further information concerning interpretation of the data. The data presented in this report are available at

https://chfs.ky.gov/agencies/dph/dehp/hab/Documents/AnnualReport2018.pdf.

To receive e-mail updates when new HIV/AIDS statistical reports are released online, please send a blank email to the following address: mailto:subscribe-dph-semiannualreport@listserv.ky.gov.

Sincerely,

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Kentucky HIV/AIDS Surveillance Report: June 30, 2018

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#### Kentucky HIV/AIDS Surveillance Report: June 30, 2018

#### **Data Sources**

The HIV/AIDS Annual Report presents data regarding HIV disease cases diagnosed among Kentuckians and reported to the Kentucky Department for Public Health's HIV/AIDS Surveillance Program through June 30, 2018. In this annual edition, HIV disease cases diagnosed among Kentuckians are presented, regardless of disease progression. The data only include those persons who have been confidentially tested and reported to the HIV/AIDS Surveillance Program. No adjustments are made to the data presented to account for undiagnosed, anonymously tested, or unreported cases.

<u>Population data</u>: Kentucky population estimates used in the calculation of rates were obtained from the Kentucky State Data Center, source: Population Division, U.S. Census Bureau, 2010. Available at <a href="http://www.ksdc.louisville.edu/">http://www.ksdc.louisville.edu/</a> Accessed September 13, 2018.

#### **HIV/AIDS Reporting Requirements**

According to state regulation 902 KAR 2:020, Section 13, health professionals licensed under KRS chapters 311 through 314, health facilities licensed under KRS 216.015(13), and medical laboratories licensed under KRS chapter 333 are required to report HIV and AIDS cases to the Kentucky Department for Public Health or the Louisville Metro Department of Public Health and Wellness within five business days of diagnosis, depending on county of residence.

Persons with HIV or AIDS residing in the Kentucky Counties of Bullitt, Henry, Jefferson, Oldham, Shelby, Spencer, and Trimble are reported to the Surveillance Nurse Consultant at the Louisville Metro Department of Public Health and Wellness at 502-574-6574. All other cases are reported to the Kentucky Department for Public Health's HIV/AIDS Surveillance Program at 866-510-0008. Case information from both sites is combined by the Kentucky Department for Public Health to produce this report. Additional case reporting information can be found on the Kentucky HIV/AIDS Section Web site: <a href="https://chfs.ky.gov/agencies/dph/dehp/hab/Pages/reportsstats.aspx">https://chfs.ky.gov/agencies/dph/dehp/hab/Pages/reportsstats.aspx</a>.

#### **Key Terminology**

The terminology used in this report is in a format consistent with CDC's technical guidelines for HIV surveillance grantees in the United States, and also consistent with the National HIV surveillance report, available online at: <a href="http://www.cdc.gov/hiv/library/reports/surveillance/">http://www.cdc.gov/hiv/library/reports/surveillance/</a>.

Age: Current Age: An individual's age or age group as of June 30, 2018.

Age at Diagnosis: An individual's age or age group at the time of initial HIV disease diagnosis.

"Adults and adolescents" refers to persons aged 13 years and older.

"Pediatric" refers to persons aged less than 13 years.

<u>AIDS (Acquired Immunodeficiency Syndrome)</u>: Advanced stage of HIV infection characterized by severe immune deficiency. Diagnosed by the presence of at least one of 26 opportunistic illnesses or a CD4 T-lymphocyte count of less than 200 cells/ml of blood. The CD4 T-lymphocyte count takes precedence over the CD4 T-lymphocyte percentage, and a percentage of less than 14% is considered only if the count is missing.

Concurrent Diagnosis: Both HIV and AIDS are diagnosed within a 30-day period.

Date of Diagnosis: The date of an individual's initial HIV disease diagnosis.

<u>HIV (Human Immunodeficiency Virus)</u>: A retrovirus that infects the helper T cells of the immune system, resulting in immunodeficiency. HIV is diagnosed by a positive confirmatory antibody test or positive/detectable viral detection test.

<u>HIV Disease:</u> Persons with a diagnosis of HIV infection regardless of stage of disease. This includes persons with HIV (non-AIDS), as well as those who have advanced stages of the disease (AIDS).

#### Kentucky HIV/AIDS Surveillance Report: June 30, 2018

<u>Race and Ethnicity</u>: Ethnicity categories include Hispanic and not Hispanic. Data for all not Hispanic persons are displayed in combination with their racial groupings, which include:

- ♦ White
- ♦ Black or African American
- Asian
- Native Hawaiian or other Pacific Islander
- ♦ American Indian or Alaska Native

Kentucky's HIV data are collected for all racial and ethnic groupings. However, due to small numbers, data for the following racial groups are aggregated into the "other" designation: American Indian or Alaska Native, Native Hawaiian or Pacific Islander, and persons of multiple races.

<u>Sex</u>: Sex designations in this report are based on a person's sex assignment at birth. According to the CDC, transgender is an umbrella term that is used to identify persons whose sex assigned at birth does not match current gender identity or expression. Data for transgender persons are not presented in this report because information on gender identity (a person's internal understanding of his or her gender or the gender with which a person identifies) is not consistently collected or documented in the data sources used by the HIV Surveillance Program. HIV Surveillance personnel collect this information, when available, from sources such as case report forms submitted by health care or HIV testing providers and medical records, or by matching with other databases (e.g., Ryan White program data). In May 2012, CDC issued guidance to state and local programs on methods for collecting data on transgender persons and working with transgender-specific data. However, characterization of HIV infection among transgender persons in Kentucky would require supplemental data from special studies.

<u>Transmission Category</u>: Classification used to summarize the behavior or event most likely responsible for disease transmission. Each case is only included in a single transmission route.

- Men Who Have Sex With Men (MSM): Men who report having sexual contact with other men.
- Injection Drug Use (IDU): Individuals who report injecting nonprescription drugs.
- MSM/IDU: Men who report having sex with other men and also inject nonprescription drugs.
- **Heterosexual Contact:** A person reporting specific heterosexual contact with a person known to have, or to be at high risk for, HIV infection, such as an injection drug user, a bisexual male (females only), or a person with hemophilia/coagulation disorder.
- Female Heterosexual Contact (FHC): A female who does not fit in the heterosexual contact category above, with no reported injection drug use, but reported sexual contact with a male and no additional information about the male's HIV status or behaviors. This category was accepted by the CDC in 2010, and Kentucky's data were revised starting with the June 2012 annual report. Cases previously categorized as "undetermined" and meeting this criteria were re-classified.
- Hemophilia: Individuals receiving clotting factor for hemophilia/coagulation disorder.
- **Perinatal:** Individuals born to a mother with HIV or a mother with an exposure history listed in the transmission category hierarchy.
- ♦ Blood Transfusion/Organ Transplant: Individuals who received blood transfusions or organ transplants. Individuals with a transfusion date listed after March 1985 are considered Cases of Public Health Importance (COPHI) and are followed to verify the mode of transmission.
- ♦ Undetermined/No Identified Risk (NIR): Individuals reporting no exposure history to HIV through any of the modes listed in the transmission category hierarchy above. Cases previously classified in this category who meet the Female Heterosexual Contact category have been re-assigned to that category beginning in June 2012.

#### **Technical Notes**

- 1. <u>Reporting Delays</u>- Delays exist between the time HIV infection is diagnosed and the time the infection is reported to the HIV/AIDS Surveillance Program. As a result of reporting delays, case statistics for the most recent years of diagnosis may not be complete. Therefore, the data for 2017 and 2018 are considered provisional and will not be presented in the analysis of trends. The data presented in this report have not been adjusted for reporting delays.
- 2. <u>Place of Residence</u>- HIV data are presented based on residence at the time the initial HIV infection was diagnosed. Data presented on living cases reflect those originally diagnosed while living in Kentucky that are still presumed to be living, regardless of their current residence.
- 3. <u>Vital Status</u>- Cases are presumed to be alive unless the HIV/AIDS Surveillance Program has received notification of death. Current vital status information for cases is ascertained through routine site visits with major reporting sites, reports of death from providers, reports of death from other states' surveillance programs, routine matches with Kentucky death certificates (vital statistics registry), and Social Security Death Master Files (SSDMF).
- 4. <u>Transmission Route</u>- Despite the possible existence of multiple methods through which HIV was transmitted, cases are assigned a single most likely transmission route based on a hierarchy developed by the CDC. See the "Key Terminology" list on page 4 for a description of the transmission categories. A limitation of the dataset is the large number of cases reported with an undetermined transmission route. Currently, surveillance data are collected through hard copy case reports, telephone reports, and chart reviews, which occasionally result in missing information. Enhanced surveillance activities have been implemented to resolve case reports with missing risk factor information, including the re-classification of females into the "Female Heterosexual Contact" category.
- 5. Routine Interstate Duplicate Review (RIDR)- Case duplication between states can occur and has become more of an issue due to the mobility of our society. To help resolve duplicate reporting, CDC initiated the Routine Interstate Duplicate Review (RIDR) project in 2004. 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 to assign the case one state residency based on residence at the earliest date of diagnosis. Due to this process, the cumulative number of cases within Kentucky may change, but the process has increased the accuracy of Kentucky's data by reducing the chance that a case has been counted more than once nationally.
- 6. <u>Small Numbers</u>- Data release limitations are set to ensure that the information cannot be used to inadvertently identify an individual. Data suppression rules are applied based on the population denominators for analyses below the state level. Additional numerator suppression rules are applied for groups or geographic areas that have <500,000 population. Rates are not released when the numerator is fewer than ten cases because of the low reliability of rates based on the small number of cases.
- 7. Difference between HIV Infection/HIV Disease, HIV without AIDS, and concurrent diagnosis of HIV with AIDS-HIV infection includes all individuals diagnosed with HIV regardless of the stage of disease progression. This term is used interchangeably with HIV disease. The data are presented based on the date of the first diagnosis reported to the HIV/AIDS Surveillance Program. HIV without AIDS includes individuals who were diagnosed with HIV and had not progressed to AIDS as of the report date. Concurrent diagnosis with AIDS includes those who were diagnosed with AIDS within 30 days of initial HIV diagnosis. See "Key Terminology" on page 3 for a description of how HIV and AIDS are defined.

Section I: Cumulative and Living HIV Infections Diagnosed as of June 30, 2018, Kentucky

Table 1. Cumulative <sup>(1)</sup> HIV Disease Cases By Age at Diagnosis*, Race/Ethnicity, and Sex as of June 30, 2018, Kentucky											
	White, Not Hispanic		-	Black, Not Hispanic		Hispanic		Other/ Unknown		TOTAL	
	Age Group	No.	%	No.	%	No.	%	No.	%	No.	%
	<13	27	<1	31	1	0	0	1	<1	59	1
	13-19	128	2	157	6	6	2	15	7	306	4
$\Xi$	20-29	1,567	28	910	35	158	40	78	38	2,713	31
MALE	30-39	1,978	36	762	29	142	36	58	29	2,940	34
$\mathbf{Z}$	40-49	1,267	23	525	20	54	14	34	17	1,880	22
, ,	50+	568	10	224	9	32	8	17	8	841	10
	TOTAL	5,535	100	2,609	100	392	100	203	100	8,739	100
	<13	14	2	20	2	1	1	1	1	36	2
$\Xi$	13-19	42	5	52	6	4	5	3	4	101	6
T	20-29	242	29	250	29	36	46	19	28	547	30
1	30-39	271	33	281	33	19	24	22	32	593	32
FEMALE	40-49	158	19	158	18	14	18	18	26	348	19
$\overline{\mathbf{x}}$	50+	98	12	94	11	5	6	6	9	203	11
	TOTAL	825	100	855	100	79	100	69	100	1,828	100

<sup>(1)</sup> Includes HIV disease cases diagnosed from the beginning of the epidemic as of June 30, 2018.

Since the beginning of the HIV epidemic in 1982, the majority (83%) of HIV cases diagnosed among Kentuckians have been reported among males (8,739 cases). In terms of age at time of diagnosis, more male HIV cases were diagnosed at ages 30-39 (2,940 or 34%) than any other age grouping. Among white males, the highest percentage of cumulative cases was aged 30-39 years at the time of diagnosis (36%). Among black males, 35% of cases were aged 20-29 years and 29% were aged 30-39 years at time of diagnosis. The percentage of Hispanic males aged 20-29 at time of diagnosis (40%) was higher when compared to blacks (35%) and whites (28%). Conversely, Hispanic males had the lowest percentage of cases diagnosed at ages 40-49 years (14%) as compared to black males and white males (20% and 23% respectively). Six percent of black males were teenagers at time of diagnosis compared to 2% of white males and 2% of Hispanic males.

Similar patterns exist among females with HIV disease. More females were diagnosed with HIV disease at ages 30-39 (593 or 32%) than in any other age category. For females cases, age at identification was nearly identical across age groups for Black and White females, while Hispanic females were most often identified in the 20-29 year age group (46%).

<sup>\*</sup>Age at initial HIV diagnosis.

Table 2. Cumulative <sup>(1)</sup> Adult/Adolescent* HIV Disease Cases By Transmission Route, Race/Ethnicity, and Sex as of June 30, 2018, Kentucky											
		White, Not Hispanic		Black, Not Hispanic		Hispanic		Other/ Unk nown		TOTAL	
	Transmission Category	No.	%	No.	%	No.	%	No.	%	No.	%
	MSM <sup>(2)</sup>	4,049	74	1,431	56	233	59	134	66	5,847	67
	$\mathrm{IDU}^{(3)}$	323	6	334	13	33	8	12	6	702	8
$\Xi$	MSM/IDU	377	7	154	6	10	3	8	4	549	6
	Heteros exual <sup>(4)</sup>	219	4	234	9	40	10	16	8	509	6
MALE	Other <sup>(5)</sup>	88	2	16	1	0	0	0	0	104	1
	Undetermined <sup>(6)</sup>	452	8	409	16	76	19	32	16	969	11
	TOTAL <sup>(7)</sup>	5,508	100	2,578	100	392	100	202	100	8,680	100
	$\mathrm{IDU}^{(3)}$	200	25	162	19	11	14	11	16	384	21
$\Xi$	Heterosexual <sup>(4)</sup>	399	49	403	48	43	55	38	56	883	49
AI	Female Heteros exual <sup>(8)</sup>	142	18	217	26	20	26	14	21	393	22
Ž	Other <sup>(5)</sup>	12	1	5	1	0	0	0	0	17	1
FEMALE	Undetermined <sup>(6)</sup>	58	7	48	6	4	5	5	7	115	6
<del></del>	TOTAL <sup>(7)</sup>	811	100	835	100	78	100	68	100	1,792	100

<sup>\*</sup>Cases are classified as adult/adolescent if they were 13 years of age or older at time of HIV diagnosis.

- (4) "Heterosexual" includes persons who have had heterosexual contact with a person with HIV or at risk for HIV.
- (5) "Other" includes persons who had a transfusion/transplant or hemophilia/coagulation disorder listed as mode of transmission or pediatric cases diagnosed as adults.
- (6) "Undetermined" refers to persons whose route of exposure to HIV is unknown. This includes persons who are under investigation, dead, lost to investigation or refused interview, and persons whose mode of exposure remains undetermined after investigation.
- (7) Percentages may not total 100% due to rounding.
- (8) "Female Heterosexual" = A female not reporting drug use, but reporting sex with male. See terminology on page 4 for additional definition.

Among adult/adolescent males, the majority of cumulative HIV cases reported the primary route of exposure as MSM (67%), while among adult/adolescent women, most (49%) were exposed through heterosexual contact with a person with HIV or at high risk for HIV infection (e.g., a person who injects drugs). Adult/adolescent minority males (13% of black males and 8% of Hispanic males) reported higher percentages of IDU as the route of transmission in comparison to non-minority adult/adolescents (6% of whites). Conversely, a higher percentage of adult/adolescent white males (74%) reported MSM as the primary route of transmission as compared to 56% of all adult/adolescent black males and 59% of all adult/adolescent Hispanic males.

The most reported risk factor for adult/adolescent female cases in each racial/ethnic group was heterosexual contact. When including female heterosexual contact as a risk category, only 6% of adult/adolescent females have undetermined routes of transmission compared to 11% of adult/adolescent males. Adult/adolescent Hispanic males (19%) and black males (16%) have higher percentages of cases without an identified risk factor than adult/adolescent white males (8%). The existence of large percentages of cases without known routes of transmission poses a barrier to the provision of effective responses to the epidemic within these groups. Risk factor information forms the basis for program planning, service provision, and guides resource allocation.

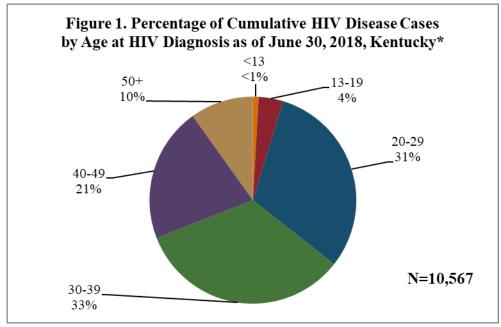
<sup>(1)</sup> Includes HIV disease cases diagnosed from the beginning of the epidemic as of June 30, 2018.

<sup>(2)</sup> MSM = Men Who Have Sex With Men.

<sup>(3)</sup> IDU = Injection Drug Use.

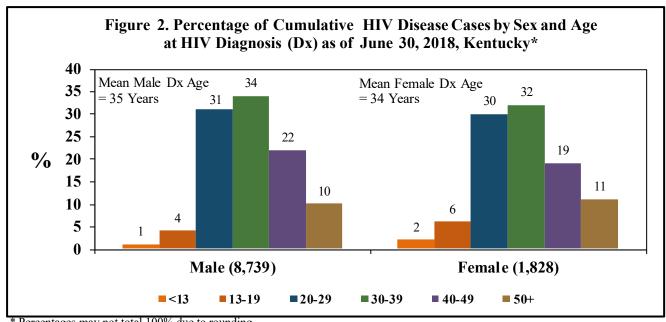
#### Cumulative HIV Diagnoses by Age at Diagnosis and Sex, Kentucky

Figure 1 shows the distribution of cumulative Kentucky HIV cases by age at diagnosis. One-third (33%)of cumulative HIV cases in Kentucky were aged 30-39 years at time of diagnosis. Persons aged 20-29 years also account for almost a third of cumulative cases (31%). Children (aged <13 years at diagnosis) and teenagers (aged 13-19 years) account for the smallest percentages of cases at less than 5% each.



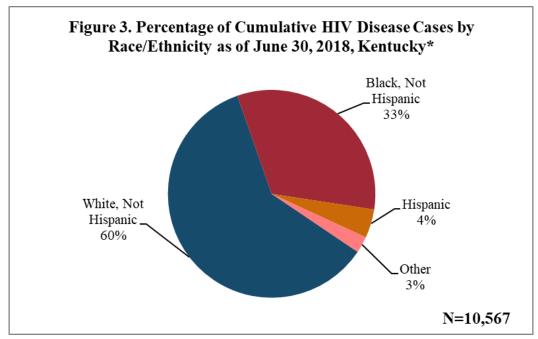
<sup>\*</sup> Percentages may not total 100% due to rounding.

Figure 2 shows the percentage of HIV cases by age group and sex. Cumulatively, 8,739 male HIV cases have been diagnosed, of which 34% were aged 30-39 years at time of diagnosis. Similarly, females aged 30-39 years at time of diagnosis accounted for the highest percentage of cumulative HIV cases by age group among females (32%). The mean age at diagnosis is 35 years for males and 34 years for females.



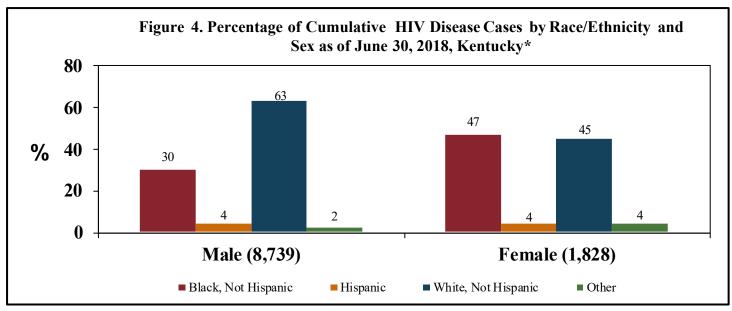
#### Cumulative HIV Diagnoses by Race/Ethnicity and Sex, Kentucky

Figure 3 shows that 60% of cumulative HIV cases diagnosed in Kentucky are in Whites, 33% are in Blacks, and 4% are in Hispanics.



<sup>\*</sup> Percentages may not total 100% due to rounding.

Figure 4 shows the percentages of cumulative HIV cases within each sex group by race/ethnicity. Among males, the majority are white (63%) with black males accounting for 30% of cumulative cases. The distribution among females by racial/ethnic grouping differs from males with black females accounting for a higher percentage of cases than white females at 47% and 45%, respectively.



<sup>\*</sup> Percentages may not total 100% due to rounding.

# Cumulative Adult/Adolescent HIV Diagnoses by Transmission Route, Kentucky

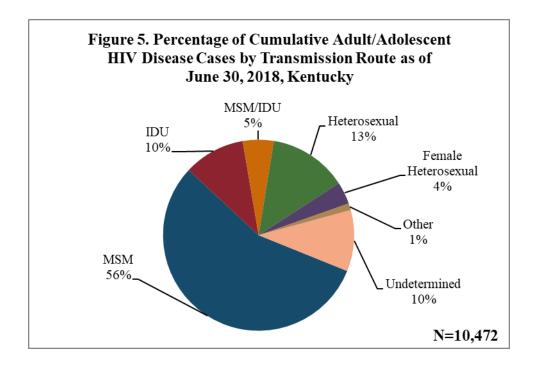


Table 3. Cumulative Adult/Adolescent HIV Disease Cases by Transmission Route, as of June 30, 2018, Kentucky						
Transmission Route	No.	%				
MSM	5,847	56				
IDU	1,086	10				
MSM/IDU	549	5				
Heterosexual	1,392	13				
Female Heterosexual*	393	4				
Other†	121	1				
Undetermined	1,084	10				
Total**	10,472	100				

<sup>\*</sup>Female Heterosexual = A female not reporting drug use, but reporting sex with male. See terminology on page 4 for additional definition.

In Kentucky, 56% of cumulative adult/adolescent HIV cases identified their primary transmission route as men who have sex with men (MSM) as shown in Figure 5. Thirteen percent of adult/adolescent HIV cases reported heterosexual contact as their primary transmission route, 10% reported injection drug use (IDU), and 5% reported both MSM and IDU. Ten percent of cumulative adult/adolescent HIV cases were reported without a risk factor identified. Cumulative adult/adolescent HIV case frequencies for each route of exposure are displayed in Table 3.

<sup>\*\*</sup>Percentages may not total 100% due to rounding.

<sup>†&</sup>quot;Other" includes persons with 'transfusion/transplant' or 'hemophilia/coagulation' listed as mode of transmission. Also includes persons with perinatal exposure, but who were diagnosed as an adult. See Table 12 for perinatal data.

## Cumulative HIV Diagnoses by Residential Area Development District (ADD) and County at Time of Diagnosis, Kentucky

Table 4. Cumulative and Living HIV Disease Cases By Residential Area Development District (ADD) and County at Time of Diagnosis, as of June 30, 2018, Kentucky<sup>(1)</sup>

•	Total HIV	Total Living with	*	Total HIV	Total Living with
ADD/County	Disease Cases <sup>(2)</sup>	HIV Disease <sup>(3)</sup>	ADD/County	Disease Cases <sup>(2)</sup>	HIV Disease <sup>(3)</sup>
Barren River	376	238	Buffalo Trace	58	38
Allen	20	11	Bracken	7	5
Barren	45	25	Fleming	8	5
Butler	15	14	Lewis	16	9
Edmonson	10	7	Mason	27	19
Hart	13	8	Robertson	0	0
Logan	29	18			
Metcalfe	7	3	Cumberland Valley	206	131
Monroe	16	10	Bell	22	15
Simpson	20	12	Clay	33	24
Warren	201	130	Harlan	23	12
	·		Jackson	16	11
Big Sandy	81	49	Knox	21	14
Floyd	23	14	Laurel	44	28
Johnson	9	3	Rockcastle	10	7
Magoffin	6	4	Whitley	37	20
Martin	10	9	•		
Pike	33	19	FIVCO	147	90
			Boyd	91	56
Bluegrass	2,056	1,459	Carter	19	13
Anderson	34	23	Elliott	5	3
Bourbon	34	25	Greenup	20	12
Boyle	36	25	Lawrence	12	6
Clark	54	39			
Estill	12	8	Gateway	106	74
Fayette	1,413	994	Bath	14	11
Franklin	99	68	Menifee	11	10
Garrard	12	8	Montgomery	27	22
Harrison	13	9	Morgan	33	16
Jessamine	73	56	Rowan	21	15
Lincoln	13	6			
Madison	115	89	Green River	303	187
Mercer	34	19	Daviess	151	90
Nicholas	7	6	Hancock	7	4
Powell	12	8	Henderson	62	32
Scott	61	50	McLean	10	7
Woodford	34	26	Ohio	14	10
	residential county at time		Union	52	40

<sup>(2)</sup> Total cases with HIV disease regardless of progression to AIDS, both living and deceased.

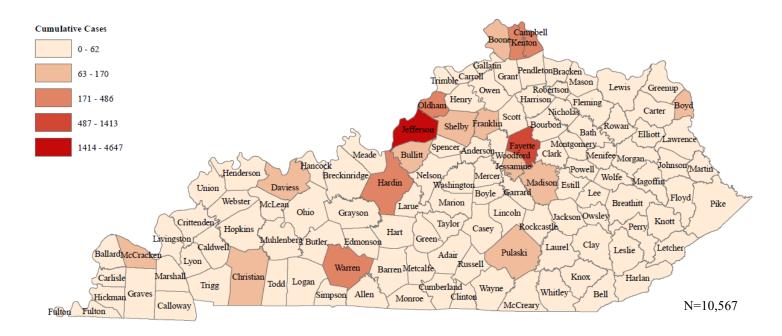
<sup>(3)</sup> Living cases regardless of current residence.

## Cumulative HIV Diagnoses by Residential Area Development District (ADD) and County at Time of Diagnosis, Kentucky (continued)

Table 4 (continued). Cumulative and Living HIV Disease Cases By Residential Area Development District (ADD) and County at Time of Diagnosis, as of June 30, 2018, Kentucky<sup>(1)</sup>

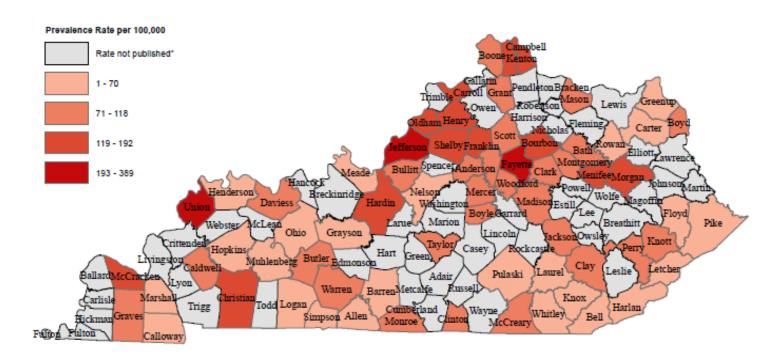
ADD/County	Total HIV Disease Cases <sup>(2)</sup>	Total Living with HIV Disease (3)	ADD/County	Total HIV Disease Cases <sup>(2)</sup>	Total Living with HIV Disease <sup>(3)</sup>
Kentucky River	90	63	Northern Kentucky	892	602
Breathitt	5	2	Boone	145	103
Knott	15	13	Campbell	190	130
Lee	6	4	Carroll	19	15
Leslie	2	0	Gallatin	2	1
Letcher	22	14	Grant	35	24
Owsley	3	3	Kenton	486	318
Perry	31	23	Owen	6	4
Wolfe	6	4	Pendleton	9	7
KIPDA	5,067	3,257	Pennyrile	341	194
Bullitt	95	73	Caldwell	23	12
Henry	32	23	Christian	163	111
Jefferson	4,647	2,996	Crittenden	10	6
Oldham	189	90	Hopkins	43	19
Shelby	83	64	Livingston	15	8
Spencer	12	9	Lyon	17	6
Trimble	9	2	Muhlenberg	33	15
			Todd	22	8
Lake Cumberland	179	130	Trigg	15	9
Adair	8	5			
Casey	10	8	Purchase	327	201
Clinton	13	10	Ballard	10	5
Cumberland	4	3	Calloway	38	22
Green	8	6	Carlisle	5	3
McCreary	20	19	Fulton	10	7
Pulaski	67	44	Graves	59	39
Russell	13	9	Hickman	9	8
Taylor	24	20	Marshall	26	16
Wayne	12	6	McCracken	170	101
•			(1) One case was missing re	sidential county at time of	of diagnosis.
Lincoln Trail	337	231	(2) Total cases with HIV di	sease regardless of progre	ession to AIDS,
Breckinridge	17	7	both living and deceased.		
Grayson	18	10	(3) Living cases regardless of	of current residence.	
Hardin	205	149			
Larue	5	4			
Marion	17	9			
Meade	25	17			
Nelson	43	30			
Washington	7	5			

Figure 6. Cumulative HIV Disease Cases Diagnosed By Residential County at Time of Diagnosis as of June 30, 2018, Kentucky\*



<sup>\*</sup>One case was missing residential county at time of diagnosis

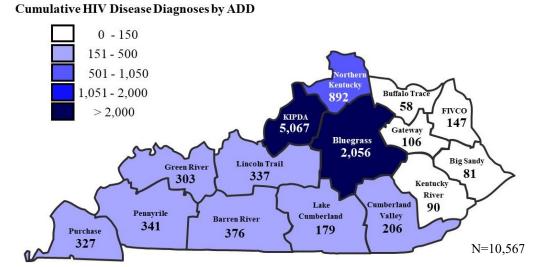
Figure 7. HIV Disease Prevalence Rates By Residential County at Time of Diagnosis as of June 30, 2018, Kentucky



<sup>\*</sup>Counties in gray had small numbers of living cases (<10). Rates not published when cell size is less than 10.

#### Cumulative HIV Diagnoses by Area Development District (ADD), Kentucky

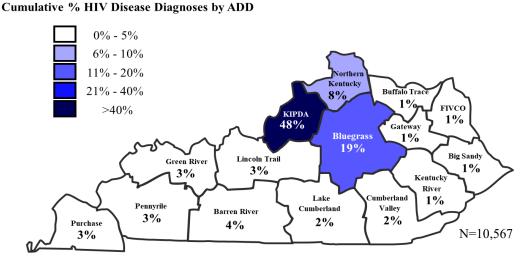
Figure 8. Cumulative HIV Disease Diagnoses by Area Development District (ADD) of Residence at Time of HIV Diagnosis as of June 30, 2018, Kentucky



<sup>\*</sup>One case was missing residential county information at time of diagnosis.

Figure 8 indicates that the highest number of cumulative HIV cases, 5,067 (48%), resided in the KIPDA ADD at the time of diagnosis, which includes the city of Louisville. The Bluegrass ADD, which includes the city of Lexington, had the second highest number of HIV cases diagnosed, 2,056 (19%), followed by the Northern Kentucky ADD, including a portion of the Cincinnati metropolitan area, with 892 (8%) of cumulative cases.

Figure 9. Percentage of Cumulative HIV Disease Diagnoses by Area Development District (ADD) of Residence at Time of HIV Diagnosis as of June 30, 2018, Kentucky



<sup>\*</sup>One case was missing residential county information at time of diagnosis.

Figure 9 shows the percentage of the cumulative 10,567 HIV cases statewide that were diagnosed within each ADD. The percentage of diagnoses by ADD ranged from 1% of total statewide cases residing in each of Buffalo Trace, Gateway, FIVCO, Big Sandy, and Kentucky River ADDs to almost half (48%) residing in the KIPDA ADD at time of diagnosis.

#### Living HIV Disease Diagnoses by Demographics, Kentucky

Table 5. Living HIV Disease Diagnoses By Transmission Route, Race/Ethnicity, and Sex as of June 3	30,
2018, Kentucky <sup>(1)</sup>	

	•	,		Kentuc	·	1				ı	
			e, Not	l .	k, Not			1	er/		
			anic		panic	Hisp			nown		TAL
	Transmission Category	No.	%	No.	%	No.	%	No.	%	No.	%
	MSM <sup>(2)</sup>	2,563	75	1,022	60	211	61	121	68	3,917	69
	IDU <sup>(3)</sup>	165	5	141	8	22	6	7	4	335	6
丘	MSM/IDU	225	7	74	4	7	2	7	4	313	6
MALE	Heterosexual <sup>(4)</sup>	126	4	151	9	36	10	15	8	328	6
₹	Perinatal	13	<1	23	1	0	0	1	1	37	1
$\geq$	Other <sup>(5)</sup>	16	<1	4	<1	0	0	0	0	20	<1
	Undetermined <sup>(6)</sup>	322	9	296	17	68	20	28	16	714	13
	Male Subtotal <sup>(7)</sup>	3,430	100	1,711	100	344	100	179	100	5,664	100
	IDU <sup>(3)</sup>	125	22	76	13	8	12	9	16	218	17
田	Heteros exual <sup>(4)</sup>	286	50	284	48	39	57	28	49	637	50
FEMALE	Female Heteros exual <sup>(8)</sup>	110	19	182	31	18	26	14	25	324	25
<b>Y</b>	Perinatal	10	2	14	2	1	1	1	2	26	2
	Other <sup>(5)</sup>	0	0	2	<1	0	0	0	0	2	<1
$\subseteq$	Undetermined <sup>(6)</sup>	37	7	29	5	3	4	5	9	74	6
	Female Subtotal <sup>(7)</sup>	568	100	587	100	69	100	57	100	1,281	100
	MSM <sup>(2)</sup>	2,563	64	1,022	44	211	51	121	51	3,917	56
	IDU <sup>(3)</sup>	290	7	217	9	30	7	16	7	553	8
Ç	MSM/IDU	225	6	74	3	7	2	7	3	313	5
	Heteros exual <sup>(4)</sup>	412	10	435	19	75	18	43	18	965	14
ALL LIVING	Female Heteros exual <sup>(8)</sup>	110	3	182	8	18	4	14	6	324	5
	Perinatal	23	1	37	2	1	<1	2	1	63	1
T	Other <sup>(5)</sup>	16	<1	6	<1	0	0	0	0	22	<1
	Undetermined <sup>(6)</sup>	359	9	325	14	71	17	33	14	788	11
f	TOTAL <sup>(7)</sup>	3,998	100	2,298	100	413	100	236	100	6,945	100

- (1) Includes living HIV disease cases diagnosed from the beginning of the epidemic as of June 30, 2018.
- (2) MSM = Men Who Have Sex With Men.
- (3) IDU = Injection Drug Use.
- (4) "Heterosexual" includes persons who have had heterosexual contact with a person with HIV or at risk for HIV.
- (5) "Other" includes persons who had exposure through hemophilia/coagulation disorder, transfusion/transplant or pediatric cases diagnosed as adults
- (6) "Undetermined" refers to persons whose route of exposure to HIV is unknown. This includes persons who are under investigation, dead, lost to investigation or refused interview, and persons whose route of exposure remains undetermined after investigation.
- (7) Percentages may not total 100% due to rounding.
- (8) "Female Heterosexual" includes a female who does not report drug use as an exposure, but does report sex with male. See terminology on page 4 for additional definition.

Table 5 shows living HIV cases diagnosed through June 30, 2018, by demographic and behavioral characteristics. There are 6,945 Kentuckians reported to be living with HIV (prevalence rate of 155.9 cases per 100,000). The distribution of behavioral characteristics varied by race/ethnicity and sex, but the majority of Kentucky males living with HIV contracted the disease through MSM contact (69%), whereas the majority of Kentucky females contracted HIV through heterosexual contact (50%). An additional 25% of females reported "female heterosexual contact" which is different than "heterosexual contact" in that the behavioral risk or sero-status of the male partner is unknown.

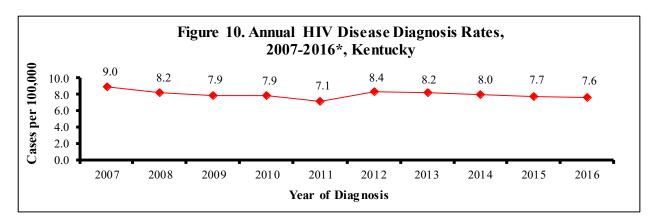
# Section II: New HIV Infections Diagnosed among Kentuckians, as of June 30, 2018

As of June 30, 2018, a total of 10,567 cumulative HIV infections among Kentuckians had been reported to the Department for Public Health's HIV/AIDS Surveillance Program since AIDS reporting started in 1982. Of these infections, 63% have progressed to AIDS. The number of new HIV infections diagnosed since 2007 are presented in Table 6 along with the percentage from each year that have progressed to AIDS. Of the 3,924 HIV infections diagnosed since 2007, 1,531 (39%) had progressed to AIDS as of June 30, 2018.

Table 6. Number of HIV Infections per Year of Diagnosis (2007-2018 <sup>†</sup> ) and Percentage that Progressed to AIDS in the Course of Illness as of June 30, 2018 Kentucky						
Year of HIV Diagnosis	TOTAL HIV/AIDS*	Percentage that Progressed to AIDS†				
	No.	%				
2007	382	51%				
2008	352	53%				
2009	340	47%				
2010	343	45%				
2011	311	44%				
2012	367	37%				
2013	360	35%				
2014	351	32%				
2015	340	28%				
2016	336	35%				
2017	346	27%				
2018†	96	18%				
TOTAL	3924	39%				

<sup>\*</sup>Total HIV infections regardless of disease progression.

Figure 10 displays annual HIV diagnosis rates among Kentuckians. The annual HIV diagnosis rate has remained fairly steady from 2007 to 2016 with slight fluctuations between 7.1 to 9.0 cases per 100,000 population.



<sup>\*</sup>Data are current as of June 30, 2018. 2017 and 2018 data are considered preliminary due to reporting delays and not included in trend analysis.

<sup>†</sup>Data reported as of June 30, 2018.

# Estimated Annual HIV Disease Diagnosis Rates per 100,000. A Comparison of Kentucky to Other States and Washington, DC., Using National Data from the Centers for Disease Control and Prevention (CDC), 2016<sup>(1)</sup>

Table 7. Estimated\* Annual HIV Disease Diagnosis Rates per 100,000 Population by Residence at Time of Diagnosis, 2016

Rank	Area of Residence	Rate
1	Washington, DC	48.0
2	Georgia	26.3
3	Louisiana	24.6
4	Florida	24.0
5	Maryland	18.3
6	Nevada	17.9
7	Texas	16.1
8	South Carolina	15.3
9	New York	14.6
10	Mississippi	14.2
11	North Carolina	13.9
12	New Jersey	12.8
13	California	12.7
14	Delaware	12.3
14	Arizona	11.2
15	Alabama	11.0
16	Illinois	10.9
16	Tennessee	10.9
17	Virginia	10.7
18	Arkansas	10.5
19	Massachusetts	10.4
20	Pennsylvania	9.0
21	Missouri	8.5
22	Ohio	8.4
23	Colorado	7.6
24	Michigan	7.5

Rank	Area of Residence	Rate
24	Oklahoma	7.5
25	Indiana	7.3
26	Kentucky**	7.2
27	Connecticut	7.1
28	Rhode Island	6.6
29	North Dakota	6.1
30	New Mexico	6.0
30	Washington	6.0
31	Hawaii	5.7
32	Oregon	5.4
33	Minnesota	5.2
34	Alaska	5.0
35	Kansas	4.9
36	South Dakota	4.6
37	Iowa	4.4
37	Utah	4.4
38	Nebraska	4.0
39	Wisconsin	3.9
40	Maine	3.8
41	West Virginia	3.6
42	Wyoming	3.4
43	New Hampshire	3.1
44	Idaho	2.6
45	Montana	1.7
46	Vermont	1.3

<sup>&</sup>lt;sup>1</sup>U.S. estimated rates from Centers for Disease Control and Prevention. HIV Surveillance Report, 2016; vol.28 http://www.cdc.gov/hiv/library/reports/surveillance/. Published November 2017. Accessed August 2018.

Estimated National HIV Diagnosis Rate per 100,000, 2016:

12.3

In 2016, the annual estimated national HIV diagnosis rate was 12.3 per 100,000 population. The diagnosis rates among the 50 States and Washington, DC ranged from 1.3 per 100,000 population (Vermont) to 48.0 per 100,000 (Washington, DC). Kentucky ranked 26<sup>th</sup> with an estimated diagnosis rate of 7.2 per 100,000.

<sup>\*</sup>Estimated numbers resulted from statistical adjustment that accounted for reporting delays, but not incomplete reporting.

<sup>\*\*</sup>Kentucky's rate is estimated by CDC using a different methodology and should not be compared directly to reported data elsewhere in this report.

## New HIV Diagnosis: Kentucky vs. The United States, 2016

TYCW III V	Diagno	515. IXCIITUI					
Table 8. New HIV Diagnoses* by Demographics, 2016, Kentucky							
	Number of New	% of New					
Characteristics	Cases	HIV cases <sup>(1)</sup>					
SEX Male (adult/adolescent)	283	84					
Female (adult/adolescent)	51	15					
Child (<13 yrs)	2	1					
TOTAL	336	100					
AGE AT DIAGNOSIS‡							
<13	2	1					
13-24	60	18					
25-44	204	61					
45-64	64	19					
65+	6	2					
TOTAL	336	100					
RACE/ETHNICITY							
White, Not Hispanic	176	52					
Black, Not Hispanic	116	35					
Hispanic	33	10					
Other/Unknown	11	3					
TOTAL	336	100					
TRANSMISSION ROUTE							
MSM <sup>(2)</sup>	197	59					
$IDU^{(3)}$	16	5					
MSM/IDU	16	5					
Heterosexual	25	7					
Perinatal	2	1					
0.1 /77 1							

<sup>\*</sup>HIV diagnoses regardless of disease progression

Other/Undetermined<sup>(4)</sup>

TOTAL

80

336

24

100

Table 9. Estimated New U.S. HIV Infections* by							
De mographics, 2016 <sup>(5)</sup>							
	Number						
	of New	% of New					
<b>Characteristics</b>	Cases (6)	HIV cases (1)					
SEX							
Male (adult/adolescent)	32,131	81					
Female (adult/adolescent)	7,529	19					
Child (<13 yrs)	122	<1					
TOTAL <sup>†</sup>	39,782	100					
AGE AT DIAGNOSIS‡	100	.1					
<13	122	<1					
13-24	8,451	21					
25-44	21,241	53					
45-64	9,127	23					
65+	841	2					
TOTAL <sup>†</sup>	39,782	100					
RACE/ETHNICITY							
White, Not Hispanic	10,345	26					
Black, Not Hispanic	17,528	44					
Hispanic	9,766	25					
Other	2,143	5					
TOTAL <sup>†</sup>	39,782	100					
TRANSMISSION ROUTE							
MSM <sup>(2)</sup>	26,570	67					
IDU <sup>(3)</sup>	2,224	6					
MSM/IDU	1,201	3					
Heterosexual	9,578	24					
Perinatal	99	<1					
Other/Undetermined <sup>(4)</sup>	110	<1					
TOTAL <sup>†</sup> (5) U.S. coses from Contars for Dis	39,782	100					

<sup>(5)</sup> U.S. cases from Centers for Disease Control and Prevention. *HIV* Surveillance Report: Diagnoses of HIV Infection in the United States and Dependent Areas, 2016: 28.

Kentucky's distribution of HIV cases by sex and age at diagnosis (Table 8) closely parallels that of the U.S. (Table 9). However, the percentage of new HIV cases in Kentuckians that are White, not Hispanic, is much greater than in the U.S. population (52% vs. 26%, respectively). This can be partially attributed to the greater percentage of White, not Hispanic, persons in Kentucky's general population (85.4%) as compared to the U.S. population (62.0%)<sup>1</sup>. United States cases have been adjusted for reporting delays and missing risk factors. Kentucky cases have not been adjusted for reporting delays and missing risk factors.

<sup>(1)</sup> Percentages may not always total 100% due to rounding.

<sup>(2)</sup> MSM = Men Who Have Sex With Men

<sup>(3)</sup> IDU = Injection Drug Use

<sup>(4)</sup> Includes hemophilia, blood transfusion, and risk not reported or not identified

<sup>‡</sup>Age at initial HIV diagnosis.

<sup>(6)</sup> These numbers do not represent actual cases, rather they are point estimates that have been adjusted for reporting delays and missing risk-factor information, but not for incomplete reporting.

<sup>†</sup> Totals among subpopulations may be different because values were calculated independently.

 $<sup>\</sup>underline{https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\_15\_5YR\_S0601\&prodType=table}$ 

#### Adult/Adolescent HIV Diagnoses Regardless of Progression to AIDS†, Kentucky

Table 10. Adult	Table 10. Adult/Adolescent <sup>(1)</sup> HIV Diagnoses by Year of Diagnosis, Sex, Age at Diagnosis, Race/Ethnicity, and Transmission Route, Kentucky															
	•		•	1	'rans m	ission	Route	, Ken	tucky							
Characteristics	1982		201		201		201		201		201	7 <sup>(2)</sup>	2018	8 <sup>(2)</sup>	Tot	
<u>SEX</u>	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Male	7,175	83	295	83	286	83	284	84	283	85	280	81	77	80	8,680	83
Female	1,482	17	62	17	58	17	55	16	51	15	65	19	19	20	1,792	17
TOTAL <sup>(3)</sup>	8,657	100	357	100	344	100	339	100	334	100	345	100	96	100	10,472	100
AGE AT DIAGNOSIS*																
13-19	333	4	10	3	14	4	14	4	13	4	13	4	10	10	407	4
20-29	2,597	30	121	34	109	32	141	42	125	37	125	36	42	44	3,260	31
30-39	3,075	36	84	24	87	25	76	22	96	29	92	27	23	24	3,533	34
40-49	1,881	22	76	21	86	25	58	17	54	16	58	17	15	16	2,228	21
50+	771	9	66	18	48	14	50	15	46	14	57	17	6	6	1,044	10
TOTAL <sup>(3)</sup>	8,657	100	357	100	344	100	339	100	334	100	345	100	96	100	10,472	100
RACE/ETHNICITY																
White, Not Hispanic	5,286	61	208	58	199	58	185	55	175	52	212	61	54	56	6,319	60
Black, Not Hispanic	2,826	33	112	31	101	29	127	37	115	34	100	29	32	33	3,413	33
Hispanic	346	4	19	5	31	9	13	4	33	10	23	7	5	5	470	4
Other/Unknown	199	2	18	5	13	4	14	4	11	3	10	3	5	5	270	3
TOTAL <sup>(3)</sup>	8,657	100	357	100	344	100	339	100	334	100	345	100	96	100	10,472	100
TRANSMISSION ROUTE																
MS M <sup>(4)</sup>	4,806	56	214	60	204	59	208	61	197	59	179	52	39	41	5,847	56
IDU <sup>(5)</sup>	957	11	20	6	10	3	15	4	16	5	48	14	20	21	1,086	10
MS M/IDU	463	5	14	4	11	3	15	4	16	5	25	7	5	5	549	5
Heterosexual <sup>(6)</sup>	1,259	15	34	10	27	8	27	8	25	7	17	5	3	3	1,392	13
Female Heterosexual <sup>(7)</sup>	246	3	26	7	35	10	26	8	27	8	27	8	6	6	393	4
Other <sup>(8)</sup>	119	1	1	<1	0	0	1	<1	0	0	0	0	0	0	121	1
Undetermined <sup>(9)</sup>	807	9	48	13	57	17	47	14	53	16	49	14	23	24	1,084	10
TOTAL <sup>(3)</sup>	8,657	100	357	100	344	100	339	100	334	100	345	100	96	100	10,472	100

<sup>†</sup>HIV disease cases include both persons with HIV alone and those who have progressed to AIDS.

Table 10 shows a breakdown of new adult/adolescent HIV diagnoses by year of diagnosis and demographic characteristics. Cumulative data are presented as of June 30, 2018. New diagnoses over the most recent years for which data are complete, 2013-2017, have been predominantly among males, whites, and males reporting sexual contact with other males. New HIV cases over the five year period 2013-2017 were also highest among persons 20-29 years old in comparison to other age groups.

<sup>\*</sup>Age at time of initial HIV diagnosis.

<sup>(1)</sup> Cases are classified as Adult/Adolescent if they were 13 years of age or older at time of diagnosis.

<sup>(2)</sup> Data reported as of June 30, 2018. 2017 and 2018 data are not used in trend analyses due to reporting delays.

<sup>(3)</sup> Percentages may not total 100% due to rounding.

<sup>(4)</sup> MSM = Men Who Have Sex With Men.

<sup>(5)</sup> IDU = Injection Drug Use.

<sup>(6) &</sup>quot;Heterosexual" includes persons who have had heterosexual contact with a person with HIV or at risk for HIV.

<sup>(7) &</sup>quot;Female Heterosexual" = A female not reporting drug use, but reporting sex with male. See terminology on page 4 for additional definition.

 $<sup>(8) \ &</sup>quot;Other" \ includes \ persons \ who \ had \ exposure \ through \ hemophilia/coagulation \ disorder, \ transfusion/transplant, \ or \ perinatal, \ but \ diagnosed \ as \ an \ adult.$ 

<sup>(9) &</sup>quot;Undetermined" refers to persons whose route of exposure to HIV is unknown. This includes persons who are under investigation, deceased, lost to investigation or refused interview, and persons whose route of exposure remains undetermined after investigation.

#### Adult/Adolescent HIV Diagnoses that have Progressed to AIDS†, Kentucky

Table 11. Adult/Adolescent<sup>(1)</sup> HIV Disease Cases with AIDS by Year of Initial HIV Diagnosis, Sex, Age at Diagnosis, Race/Ethnicity, and Transmission Route, Kentucky

	Race/Ethnicity, and Transmission Route, Kentucky															
Characteristics	1982	2-12	201	13	201	14	20	15	201	16	201	7 <sup>(2)</sup>	2013	8 <sup>(2)</sup>	Tot	al
<u>S EX</u>	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Male	5,042	84	101	81	96	85	82	85	98	84	78	85	14	82	5,511	84
Female	975	16	24	19	17	15	14	15	18	16	14	15	3	18	1,065	16
TOTAL <sup>(3)</sup>	6,017	100	125	100	113	100	96	100	116	100	92	100	17	100	6,576	100
AGE AT DIAGNOSIS*																
13-19	171	3	1	1	1	1	1	1	4	3	1	1	1	6	180	3
20-29	1,660	28	29	23	20	18	20	21	21	18	18	20	4	24	1,772	27
30-39	2,303	38	30	24	27	24	25	26	38	33	26	28	4	24	2,453	37
40-49	1,324	22	30	24	43	38	22	23	25	22	25	27	4	24	1,473	22
50+	559	9	35	28	22	19	28	29	28	24	22	24	4	24	698	11
TOTAL <sup>(3)</sup>	6,017	100	125	100	113	100	96	100	116	100	92	100	17	100	6,576	100
RACE/ETHNICITY																
White, Not Hispanic	3,746	62	72	58	61	54	53	55	64	55	61	66	8	47	4,065	62
Black, Not Hispanic	1,899	32	38	30	34	30	32	33	40	34	20	22	6	35	2,069	31
Hispanic	248	4	8	6	13	12	5	5	10	9	8	9	1	6	293	4
Other/Unknown	124	2	7	6	5	4	6	6	2	2	3	3	2	12	149	2
TOTAL <sup>(3)</sup>	6,017	100	125	100	113	100	96	100	116	100	92	100	17	100	6,576	100
TRANSMISSION ROUTE																
MS M <sup>(4)</sup>	3,341	56	61	49	62	55	57	59	57	49	43	47	5	29	3,626	55
IDU <sup>(5)</sup>	774	13	12	10	3	3	4	4	5	4	8	9	3	18	809	12
MS M/IDU	361	6	4	3	3	3	2	2	2	2	7	8	0	0	379	6
Heterosexual <sup>(6)</sup>	928	15	15	12	14	12	6	6	9	8	5	5	0	0	977	15
Female Heterosexual <sup>(7)</sup>	118	2	9	7	10	9	9	9	10	9	8	9	1	6	165	3
Other <sup>(8)</sup>	114	2	0	0	0	0	1	1	0	0	0	0	0	0	115	2
Undetermined <sup>(9)</sup>	381	6	24	19	21	19	17	18	33	28	21	23	8	47	505	8
TOTAL <sup>(3)</sup>	6,017	100	125	100	113	100	96	100	116	100	92	100	17	100	6,576	100

<sup>†</sup>HIV disease cases that have progressed to AIDS include only persons reported with an AIDS diagnosis as of June 30, 2018.

Table 11 shows a breakdown of adult/adolescent HIV diagnoses that have progressed to AIDS by year of initial HIV diagnosis and demographic characteristics. Newly diagnosed cases that had progressed to AIDS as of June 30, 2018, were predominantly male, white, and males reporting sexual contact with other males.

<sup>\*</sup>Age at time of initial HIV diagnosis.

<sup>(1)</sup> Cases are classified as Adult/Adolescent if they were 13 years of age or older at time of initial HIV diagnosis.

<sup>(2)</sup> Data reported as of June 30, 2018. 2017 and 2018 data not used in trend analyses due to reporting delays.

<sup>(3)</sup> Percentages may not total 100% due to rounding.

<sup>(4)</sup> MSM = Men Who Have Sex With Men.

<sup>(5)</sup> IDU = Injection Drug Use.

<sup>(6) &</sup>quot;Heterosexual" includes persons who have had heterosexual contact with a person with HIV or at risk for HIV.

<sup>(7) &</sup>quot;Female Heterosexual" = A female not reporting drug use, but reporting sex with male. See terminology on page 3 for additional definition.

<sup>(8) &</sup>quot;Other" includes persons who had exposure through hemophilia/coagulation disorder, transfusion/transplant, or perinatal, but diagnosed as an adult.

<sup>(9) &</sup>quot;Undetermined" refers to persons whose route of exposure to HIV is unknown. This includes persons who are under investigation, deceased, lost to investigation or refused interview, and persons whose route of exposure remains undetermined after investigation.

Table 12. Number and Percentage of Cumulative Pediatric <sup>(1)</sup> HIV Disease Cases By Transmission Route and Race/Ethnicity as of June 30, 2018, Kentucky										
		e, Not panic		x, Not panic		e r <sup>(2)</sup> nown	TOTAL			
Transmission Route	No.	%	No.	%	No.	%	No.	%		
Pediatric Hemophilia/Coagulation Disorder	10	24	1	2	0	0	11	12		
Perinatal Exposure, Mother with HIV	27	66	43	84	3	100	73	77		
Pediatric Transfusion/Transplant	2	5	0	0	0	0	2	2		
Pediatric risk not identified or reported	2	5	7	14	0	0	9	9		
TOTAL <sup>(3)</sup> 41 100 51 100 3 100 95 100										

- (1) Cases are classified as Pediatric if they are less than 13 years of age at time of diagnosis.
- (2) Other includes Hispanics and persons of other races.
- (3) Percentages may not total 100% due to rounding

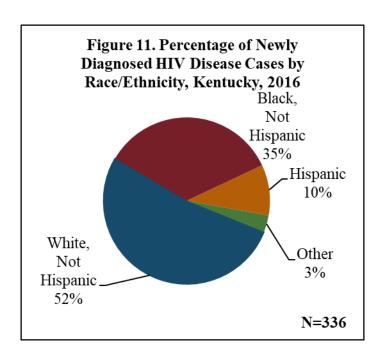
Table 13. Nun	Table 13. Number and Percentage of Cumulative Pediatric <sup>(1)</sup> HIV Disease Cases by Disease Status and Year of Diagnosis, Kentucky															
	1982	-2012	20	2013 2014 2015 2016						16	20	17	2018 <sup>(2)</sup> To		tal	
<b>Disease Status</b>	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
HIV infections without AIDS	32	40	3	100	7	100	1	100	2	100	1	100	0	0	46	48
HIV infections with AIDS	49	60	0	0	0	0	0	0	0	0	0	0	0	0	49	52
Total <sup>(3)</sup>	81	100	3	100	7	100	1	100	2	100	1	100	0	0	95	100

- (1) Cases are classified as Pediatric if they are less than 13 years of age at time of diagnosis.
- (2) Data reported as of June 30, 2018.
- (3) Percentages may not total 100% due to rounding.

There have been 95 pediatric HIV cases reported to the Kentucky HIV/AIDS surveillance program (Table 12 and Table 13) since reporting began in 1982. The majority of reported pediatric cases (77%) were due to perinatal transmission through an HIV-infected mother, 11 cases were reported with a primary exposure route of pediatric hemophilia or coagulation disorders, and two cases were due to pediatric transfusion or transplant (Table 12). Since 1991, there have been no pediatric HIV cases with hemophilia or coagulation disorders reported as the route of exposure. The two pediatric cases reported with pediatric transfusion or transplant as the risk factor were diagnosed in 1987 or earlier. Eighty-four percent of the 51 pediatric HIV cases among blacks were due to perinatal exposure as compared to 66% of the 41 pediatric HIV cases among whites. Only one pediatric HIV case has been reported among Hispanics. The majority (59%) of the 73 cumulative perinatal exposures from a mother with HIV were in blacks.

Table 13 shows disease progression to AIDS as of June 30, 2018. Eighty-one (85%) of the cumulative 95 pediatric cases in Kentucky were diagnosed prior to 2013. Seven or fewer new pediatric HIV cases have been reported during each of the most recent five years, and none of these cases had progressed to AIDS as of the report date.

#### New HIV Disease Cases by Race/Ethnicity, Kentucky



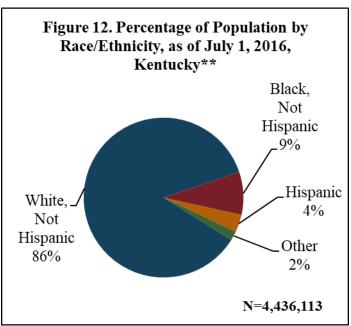


Figure 11 shows the race/ethnicity percentage distribution for newly diagnosed HIV cases among Kentuckians in 2016, the latest year data are considered complete. The majority of cases diagnosed in 2016 were white (52%), followed by black (35%). Ten percent of new cases diagnosed in 2016 were Hispanic and 3% were persons of other races, including American Indian/Alaska Native, Native Hawaiian/Pacific Islander, and persons of multiple races.

Figure 12 shows the percentage race/ethnicity distribution of Kentucky's population based on the 2016 population estimates. The majority of Kentuckians are white, not-Hispanic. Persons who identify with multiple races were grouped under the "other" category.

HIV racial disparities are highlighted by these two graphs, showing higher percentages of new cases among blacks and Hispanics in relation to their representation in the general population. Blacks accounted for 35% of new HIV cases diagnosed in 2016 yet comprised just 9% of Kentucky's population in 2016. Similarly, Hispanics accounted for 10% of newly diagnosed HIV cases in 2016 yet comprised only 4% of Kentucky's population in that same year.

Rates of new diagnoses by race/ethnicity and sex are presented in Table 14, further highlighting racial disparities.

Table 14. Number and Rate of New HIV Diagnoses by Race/Ethnicity and Sex, Kentucky, 2016

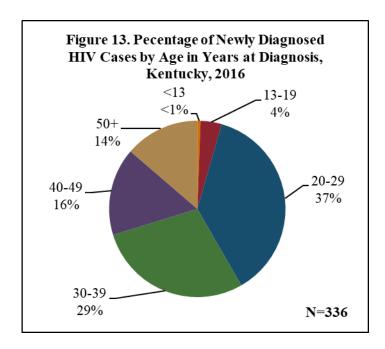
	Ma	ale	Fen	<b>Total No</b>	Total	
Race/Ethnicity	No. of Cases	Rate*	No. of Cases	Rate*	of Cases	Rate
Hispanic	29	34.1	4	†	33	21.0
Black, not Hispanic	87	45.6	29	15.0	116	30.2
White, not Hispanic	159	8.5	17	0.9	176	4.6
Other	10	25.1	1	†	11	13.4
Total	285	13.0	51	2.3	336	7.6

<sup>\*</sup>Rate per 100,000 based on census data estimates for racial and gender distribution for Kentucky in 2016.

<sup>†</sup>Rates are not published when cell size is less than 10.

<sup>\*\*</sup> Percentages may not total 100% due to rounding.

#### New HIV Disease Cases by Age at Diagnosis, Kentucky



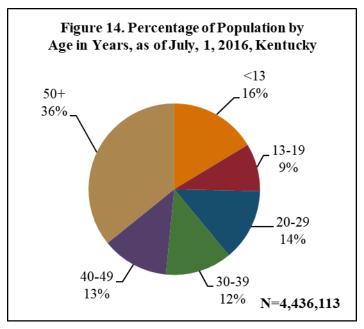


Figure 13 shows the percentage age distribution of newly diagnosed HIV cases among Kentuckians in 2016 at time of HIV diagnosis. The highest percentage of new diagnoses was reported among Kentuckians aged 20-29 years (37%). Kentuckians aged 30-39 and 40-49 years accounted for 29% and 16% of new cases diagnosed in 2016, respectively.

Figure 14 shows the percentage distribution of Kentucky's population based on 2016 population estimates by age, which can be directly compared to the percentages in each age group that were newly diagnosed in 2016. HIV-related disparities by age are highlighted by these two graphs. Higher percentages of new diagnoses occurred among persons in age groups 20-29, 30-39, and 40-49 years in comparison to the proportion of these groups in the general population.

Table 15. Number and Rate of New HIV Diagnoses by Age at Diagnosis and Race/Ethnicity§, Kentucky, 2016											
Black not Hispanic White not Hispanic											
Age at Diagnosis	No. of Cases										
20-29	62	95.8	46	9.2							
30-39	20	40.5	60	12.8							
40-49	15	34.3	36	7.4							
50+	12	11.7	30	2.1							

§Rates among pediatric cases (<13 years), teens and Hispanics by age at diagnosis not published due to small numbers.

Rates of new diagnoses in 2016 (Table 15) were higher among blacks across all age groups in comparison to whites. These differences were highest among 20-year-olds and 40-year-olds at the time of diagnosis. However, the rates among blacks in all age groups were at least three times higher than the rates among their white counterparts of the same age group. Rates among Hispanics are not presented due to small numbers.

<sup>\*</sup>Rate per 100,000 based on census data estimates for racial and age distribution for Kentucky in 2016.

Table 16. HIV Disease Cases and Diagnosis Rates by Year of HIV Diagnosis and Area Development

District (ADD) of Residence at Time of HIV Diagnosis, 1982-2018<sup>(2)</sup>, Kentucky

	(ADD) of Residenc	e at 1 m	ne oi h	IV DIA	gnosis,	1982-2	2018~,	Kentu	cky	1
AREA DEVELOPMENT DISTRICT	CASES & RATES <sup>(1)</sup>	1982- 2012*	2013	2014	2015	2016	2017	2018(2)	TOTAL CASES <sup>(3)</sup>	% of Total
1. Barren River	Cases	303	13	16	13	15	13	3	376	4%
	Rate per 100,000		4.5	5.5	4.4	5.0	4.3			
2. Big Sandy	Cases Rate per 100,000	58	5	2	4	5	5	2	81	1%
3. Bluegrass	Cases	1,661	104	73	70	65	66	17	2,056	19%
	Rate per 100,000		13.1	9.2	8.7	8.0	8.0			
4. Buffalo Trace	Cases Rate per 100,000	51	0	2	0	3	0	2	58	1%
5. Cumberland Valley	Cases	159	6	9	11	9	11	1	206	2%
·	Rate per 100,000				4.7		4.7			
6. FIVCO	Cases	129	2	0	3	5	8	0	147	1%
	Rate per 100,000									
7. Gateway	Cases	84	2	8	4	3	4	1	106	1%
	Rate per 100,000									
8. Green River	Cases	254	11	12	10	3	9	4	303	3%
	Rate per 100,000		5.1	5.6	4.6					
9. KIPDA	Cases	4,288	144	151	147	162	140	35	5,067	48%
	Rate per 100,000		14.6	15.3	14.8	16.2	13.9			
10. Kentucky River	Cases Rate per 100,000	63	5	9	7	1	5	0	90	1%
11. Lake Cumberland	Cases	138	13	4	9	3	11	1	179	2%
	Rate per 100,000		6.2				5.3			
12. Lincoln Trail	Cases	257	12	22	9	16	11	10	337	3%
	Rate per 100,000		4.4	8.0		5.9	4.0			
13. Northern KY	Cases	731	17	23	34	25	46	16	892	8%
	Rate per 100,000		3.8	5.1	7.5	5.5	10.0			
14. Pennyrile	Cases	283	11	8	10	17	11	1	341	3%
	Rate per 100,000		5.0		4.6	7.9	5.2			
15. Purchase	Cases	278	15	12	9	4	6	3	327	3%
	Rate per 100,000		7.6	6.1						
TOTAL C	ASES <sup>(3)</sup>	8,737	360	351	340	336	346	96	10,566	100%

<sup>(1)</sup> Rates are only listed for years of diagnosis 2013-2017. Data for 2017 and 2018 are provisional due to reporting delays and are subject to change. Due to the small numbers of HIV cases reported in some ADDs, please interpret the corresponding rates with caution. Rates are not published when cell size is less than 10.

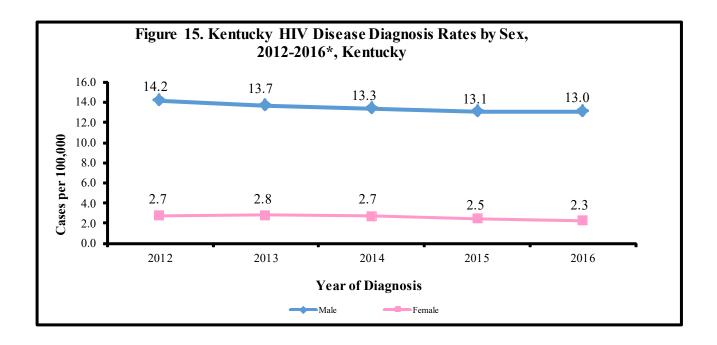
<sup>(2)</sup> Data reported as of June 30, 2018. Rates are not published for 2018 because data are not complete

<sup>(3)</sup> Total HIV disease cases both living and deceased, regardless of progression to AIDS; Total HIV cases reported are 10,567—1 HIV case had unknown residential information.

<sup>\*</sup>Rates are not published due to multi-year aggregation of data.

Table 16 shows the HIV disease cases and diagnosis rates by year of HIV diagnosis and Area Development District (ADD) of residence at time of HIV diagnosis. The majority of the cases can be accounted for by the three urban ADDs, i.e. KIPDA, Bluegrass, and Northern Kentucky ADDs. The rates are higher in general for KIPDA ADD followed by Bluegrass ADD, which includes the cities of Louisville and Lexington respectively. The Northern Kentucky ADD showed a distinct increase in 2017, which on separate investigation was found to be mainly associated with people who inject drugs.

#### Trends in HIV Disease Diagnosis Rates by Sex, 2012-2016, Kentucky

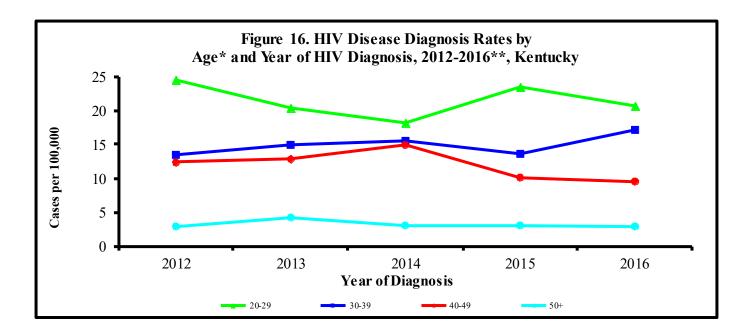


<sup>\*</sup>Data for 2017 and 2018 are not included in trend analyses since they are considered provisional due to reporting delays.

Males represent the majority (83%) of cumulative HIV cases diagnosed among Kentuckians. The yearly diagnosis rates among males have remained almost stable over the five year period shown. From 2012 to 2016, the HIV diagnosis rates among males fluctuated between 4.9 to 5.6 times higher then the rate for females (Figure 15).

The female HIV diagnosis rates have remained fairly stable over the most recent five years, between 2.3 to 2.8 cases per 100,000 females. The highest HIV diagnosis rate among females within the most recent five years was in 2013 at 2.8 newly diagnosed cases per 100,000 females.

#### Trends in HIV Disease Diagnosis Rates by Age at HIV Diagnosis, 2012-2016, Kentucky



<sup>\*</sup>Due to the small numbers of HIV cases reported, rates are not presented for age groups 0-12 and 13-19 years old.

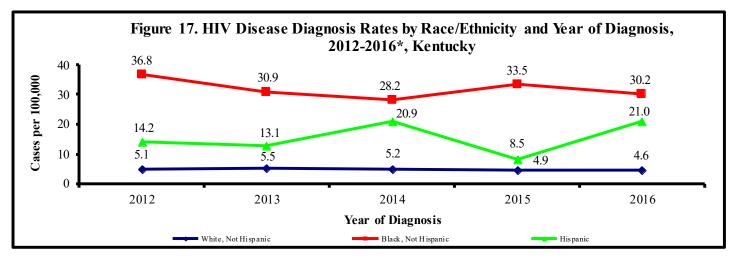
Figure 16 shows HIV diagnosis rates by age category over the most recent five years (2012-2016) with complete data. The diagnosis rates among Kentuckians in the 30-39 and 40-49 year age groups reveal a slight upward trend from 2012 to 2014, while rates in the 20-29 year age group decreased during this time. Between 2014 and 2015, the rate increased among the 20-29 year age group, while rates in the 30-39 and 40-49 year age groups decreased. The yearly diagnosis rates among those 50 years and over remained almost stable over the five year period shown.

Table 17. Mean Age at Time of HIV Diagnosis, 2012-2016, Kentucky										
HIV Diagnosis Year	Mean Age	Age Range								
2012	33.6	1-78								
2013	36.3	2-75								
2014	35.2	0-73								
2015	34.5	1-80								
2016	34.5	0-71								

Table 17 shows the mean ages and actual age ranges at time of HIV diagnosis from 2012-2016. The mean ages of Kentuckians at time of HIV diagnosis in the five-year period ranged between 33.6-36.3 years (age range 0-80 years).

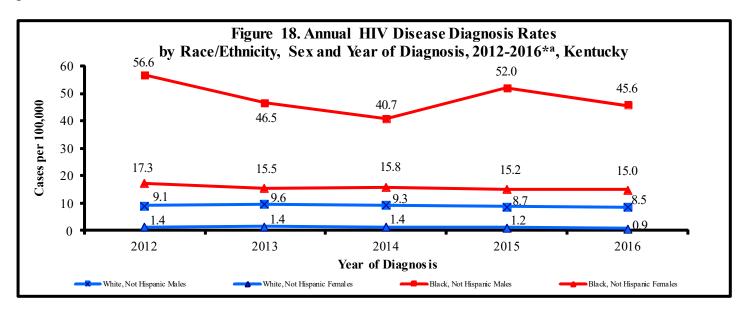
<sup>\*\*</sup>Data for 2017 and 2018 are not included in trend analyses since they are considered provisional due to reporting delays.

#### Trends in HIV Disease Diagnosis Rates by Race/Ethnicity, 2012-2016, Kentucky



<sup>\*</sup>Data for 2017 and 2018 are not included in trend analyses since they are considered provisional due to reporting delays.

Figure 17 shows that between 2012 and 2016, the HIV diagnosis rates for blacks fluctuated between 5.4 to 7.2 times higher than whites. The diagnosis rates for Hispanics were between 1.7 to 4.6 times higher than whites over the same five year period. The trends among whites have remained steady. The rates for blacks decreased between 2012 and 2014 and then increased in 2015. The rates for Hispanics decreased slightly between 2012 and 2013, increased in 2014, then dropped to the lowest level of 8.5 in 2015, but again increased to 21.0 cases per 100,000 in 2016.

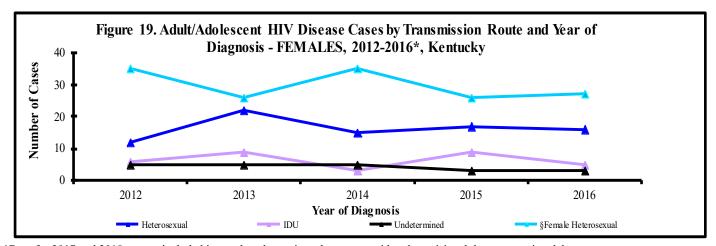


<sup>\*</sup>Data for 2017 and 2018 are not included in trend analyses since they are considered provisional due to reporting delays.

Figure 18 presents diagnosis rates from 2012 through 2016 for blacks and whites by sex. Black males and black females had consistently higher rates of new diagnoses in comparison to their white counterparts. The HIV diagnosis rates among black males fluctuated between 4.4 to 6.2 times higher than that of white males. The rates among black females were 11.1 to 16.7 times higher than those of white females over the five year period.

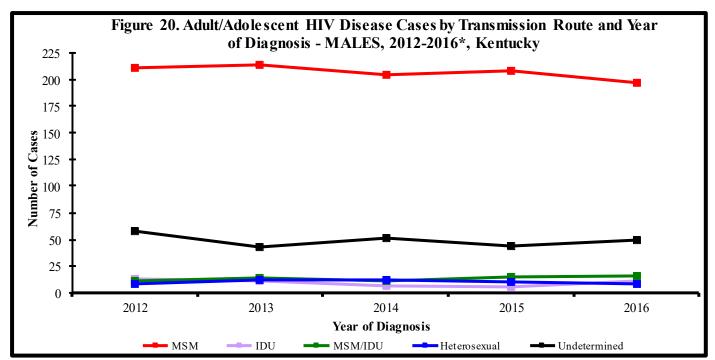
<sup>&</sup>lt;sup>a</sup> Rates for Hispanic cases by sex are not presented due to the small number of cases reported.

#### Trends in HIV Disease Diagnosis Rates by Route of Transmission and Sex, 2012-2016, Kentucky



<sup>\*</sup>Data for 2017 and 2018 are not included in trend analyses since they are considered provisional due to reporting delays. §Female Heterosexual Contact = A female not reporting drug use, but reporting sex with male with unknown HIV status or risk. See terminology on page 4.

Figure 19 shows Kentucky's adult/adolescent female HIV cases by transmission route and year of diagnosis. The largest number of new female cases reported female heterosexual contact (FHC) as their primary route of transmission followed by heterosexual contact over the five year period. Females reporting FHC were previously classified as "undetermined," now if they have reported sexual contact with a male of unknown sero-status or unknown behaviors and no drug use, they are re-classified as FHC. This change was applied to all the years shown. The number of new female cases reporting IDU as the primary route of transmission varied from 5.2% (2014) to 16.4% (2015) of the total cases for each year.



\*Data for 2017 and 2018 are not included in trend analyses since they are considered provisional due to reporting delays.

In Figure 20, which depicts trends for adult/adolescent males by transmission route, the largest number of cases diagnosed each year from 2012 to 2016 reported MSM as their primary risk factor. The second largest number of cases were those with an undetermined risk. The number of males reporting IDU, MSM and IDU, and heterosexual contact as the primary route of transmission were similar throughout the five year period.

# Section III: HIV Infections Diagnosed Concurrently with AIDS among Kentuckians as of June 30, 2018

During the most recent 10.5 year period for which data are available (January 1, 2008, to June 30, 2018), a total of 3,542 HIV disease cases were diagnosed among Kentuckians. Of these, 1,335 (38%) had progressed to AIDS as of June 30, 2018.

ble 18. AIDS Cases Diagnosed within th 2018 by Time (in days) from HIV D		
Time to AIDS Diagnosis (Days)	No.	%
≤30 Days †	841	63
31-60 Days	103	8
61-90 Days	57	4
91-365 Days	127	10
>365 Days	207	15
Total	1,335	100

†Cases diagnosed with AIDS within 30 days of initial HIV diagnosis are considered concurrent diagnoses. Note: 2,207 HIV-only cases diagnosed in the same timeframe are not included in the table as they had not progressed to AIDS as of June 30, 2018.

The distribution of progression to AIDS (in days) for the 1,335 AIDS cases is shown in Table 18. Sixty-three percent of the 1,335 AIDS cases diagnosed in the most recent 10.5 years were diagnosed with AIDS within 30 days of the initial HIV diagnosis - also known as a "concurrent diagnosis."

According to the Centers for Disease Control and Prevention (CDC)\* late testers are those who have an AIDS diagnosis within one year of initial HIV diagnosis. During the presented time period, 1,128 (32%) of the 3,542 Kentuckians diagnosed with HIV disease were late testers.

\*CDC. Late versus early testing of HIV—16 sites, United States, 2000-2003. MMWR 2003; 52(25): 581-586.

#### Concurrent Diagnoses by Selected Characteristics, 2008-2018\*, Kentucky

Table 19. HIV Infections Diagnosed in the Most Recent 10.5 Year Period (January 1, 2008-June 30, 2018) that were Diagnosed Concurrently with AIDS (within 30 Days of HIV Diagnosis) and those without a Concurrent

Diagnosis\*\* by Sex, Age at Diagnosis, Race/Ethnicity, and Transmission Category, Kentucky

Diagnosis by Sex, Age at		ncurrent AIDS		oncurrent AIDS		l HIV
	Diag	nosis*	Diagn	osis**	Disease Dia	agnoses***
Characteristics	No.	<b>%</b> <sup>(1)</sup>	No.	% <sup>(1)</sup>	No.	<b>%</b> <sup>(1)</sup>
<u>SEX</u>						
Male	703	84	2,224	82	2,927	83
Female	138	16	477	18	615	17
AGE AT DIAGNOSIS						
<13	0	0	30	1	30	1
13-19	13	2	156	6	169	5
20-29	153	18	1,057	39	1,210	34
30-39	235	28	627	23	862	24
40-49	240	29	531	20	771	22
50+	200	24	300	11	500	14
RACE/ETHNICITY- Female						
White, Not Hispanic	52	38	230	48	282	46
Black, Not Hispanic	72	52	207	43	279	45
Hispanic	10	7	17	4	27	4
Other/Unknown	4	3	23	5	27	4
RACE/ETHNICITY- Male						
White, Not Hispanic	443	63	1,226	55	1,669	57
Black, Not Hispanic	169	24	767	34	936	32
Hispanic	72	10	140	6	212	7
Other/Unknown	19	3	91	4	110	4
TRANSMISSON CATEGORY						
MSM <sup>(2)</sup>	415	49	1,573	58	1,988	56
$IDU^{(3)}$	66	8	175	6	241	7
MSM/IDU	21	2	115	4	136	4
Heteros exual <sup>(4)</sup>	81	10	212	8	293	8
Female Heterosexual <sup>(5)</sup>	67	8	203	8	270	8
Perinatal	0	0	24	1	24	1
Other <sup>(6)</sup>	1	<1	3	<1	4	<1
Undetermined <sup>(7)</sup>	190	23	396	15	586	17
TOTAL	841	100	2,701	100	3,542	100

<sup>\*</sup>Concurrent is defined as being diagnosed with both HIV and AIDS within a 30 day period.

<sup>\*\*</sup>Without AIDS diagnosis 30 days after initial HIV diagnosis. Includes both HIV (non AIDS) cases and those with an AIDS diagnosis more than 30 days after initial HIV diagnosis.

<sup>\*\*\*</sup>Total diagnoses January 1, 2008 through June 30, 2018 with HIV, regardless of AIDS diagnosis status.

<sup>(1)</sup> Percentages may not total to 100% due to rounding. Percentages for each characteristic add up to 100% by column.

<sup>(2)</sup> MSM = Men Who Have Sex With Men.

<sup>(3)</sup> IDU = Injection Drug Use.

<sup>(4) &</sup>quot;Heterosexual" includes persons who have had heterosexual contact with a person with HIV or at risk for HIV.

<sup>(5) &</sup>quot;Female Heterosexual" = A female not reporting drug use, but reporting sex with male. See terminology on page 4.

<sup>(6) &</sup>quot;Other" includes persons who had exposure through hemophilia, transfusion/transplant, or perinatal, but diagnosed as an adult.

<sup>(7) &</sup>quot;Undetermined" refers to persons whose mode of exposure to HIV is unknown. This includes persons who are under investigation, dead, lost to investigation or refused interview, and persons whose mode of exposure remains undetermined after investigation.

## Concurrent Diagnoses by Selected Characteristics, 2008-2018, Kentucky (Narrative)

Table 19 (page 30), examines the distribution of HIV cases among Kentuckians diagnosed between January 1, 2008 and June 30, 2018 by sex, age at diagnosis, race/ethnicity, and transmission route. Data are presented for cases diagnosed concurrently with AIDS (diagnosed with AIDS within a 30 day period after an initial HIV diagnosis), cases without a concurrent HIV/AIDS diagnosis (anyone who did not have an AIDS diagnosis within 30 days of the initial HIV diagnosis, whether they developed AIDS or not), and for all cases diagnosed with HIV (regardless of AIDS diagnosis status) within the 10.5 year period.

Of the 3,542 Kentuckians diagnosed with HIV disease during the 10.5 year period, about a quarter (841 or 24%) were diagnosed with HIV and AIDS concurrently (within 30 days).

During the 10.5 year period presented, males consistently represent the highest number of diagnosed cases of HIV, with and without a concurrent AIDS diagnosis (84 % and 82% respectively).

The distribution by age at diagnosis differs between the two groups, with the highest percentages of concurrent cases being aged 40-49 years (29%), while the highest percentages among non–concurrently diagnosed cases were aged 20-29 years (39%).

The racial/ethnic distribution of cases diagnosed concurrently with AIDS differs by sex. Among females, the highest percentage of concurrent diagnoses were among black females (52%), followed by white and hispanic females (38% and 7%, respectively). However, among males, the majority of concurrent diagnoses were among white males (63%). Twenty-four percent of concurrently diagnosed cases in males were among black males and 10% were among hispanic males. The percentages of concurrent diagnoses among hispanic males and hispanic females are comparable. Caution should be taken when interpreting the data for the "other" and "unknown" race/ethnicity categories as the numbers of cases are small.

Data by route of transmission show HIV cases diagnosed concurrently with AIDS within 30 days have a similar distribution to those without a concurrent diagnosis, with the majority of cases among those with a concurrent diagnosis reporting male-to-male sexual contact as the mode of transmission (49%), followed by persons reporting heterosexual exposure (10%). There were no children (<13 years at diagnosis) reported with a concurrent diagnosis. Twenty-three percent of concurrently diagnosed HIV and AIDS cases have an undetermined transmission route, which creates challenges for prevention initiatives aimed at increasing early testing and engagement in care.

#### HIV Diagnoses by Area Development District (ADD), January 1, 2008-June 30, 2018

Figure 21. Number of HIV Disease Diagnoses within each Area Development District of Residence at Time of Diagnosis, for the Most Recent 10.5 years,
January 1, 2008—June 30, 2018, Kentucky

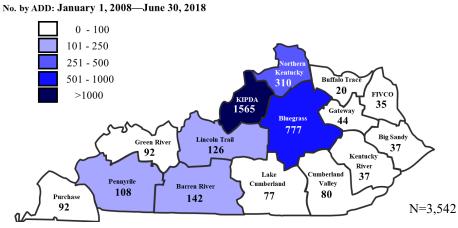
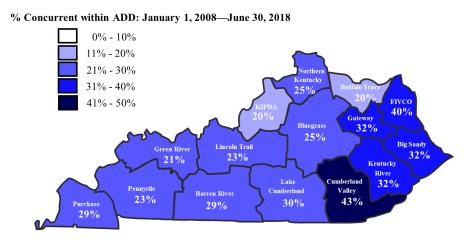


Figure 21 displays the total number of HIV infections (3,542) diagnosed between January 1, 2008, and June 30, 2018, by ADD of residence at time of HIV diagnosis. Data represent the total number of HIV cases in each ADD, regardless of disease progression status. The highest number of cases (1,565 or 44%) diagnosed during this time period were among residents of the KIPDA ADD, which includes the city of Louisville. The second highest number of cases (777 or 22%) resided in the Bluegrass ADD, which includes the city of Lexington. The ADDs in eastern Kentucky had the lowest number of HIV cases diagnosed and reported during this period.

Figure 22. Percentage of All HIV Disease Diagnoses within each Area Development District of Residence at Time of Diagnosis, who have a Concurrent Diagnosis of AIDS, for the Most Recent 10.5 Years, January 1, 2008 – June 30, 2018, Kentucky



Note: The percentages presented in Figure 22 represent the proportion of concurrent diagnoses out of the total for each individual ADD. Totals for each ADD are presented in Figure 21.

Figure 22 shows the percentage of total HIV cases within each ADD that were concurrently diagnosed with AIDS (within 30 days of initial HIV diagnosis), between January 1, 2008, and June 30, 2018. The percentage of concurrent HIV and AIDS diagnoses within each ADD ranged from 20% to 43%. The ADDs with the highest proportion of concurrent HIV and AIDS cases were in the eastern Kentucky region: Cumberland Valley, FIVCO, Kentucky River, Big Sandy, and Gateway ADDs (43%, 40%, 32%, 32%, and 32% respectively). The percentages in ADDs that had <50 total cases (see figure 21) should be interpreted with caution due to the small number of cases.

#### HIV Diagnoses by Care Coordinator Region, January 1, 2008-June 30, 2018, Kentucky

Figure 23. Number of New HIV Disease Diagnoses within each Care Coordinator Region of Residence at Time of Diagnosis, for the Most Recent 10.5 Years, January 1, 2008-June 30, 2018, Kentucky

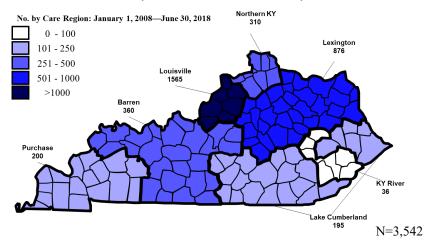
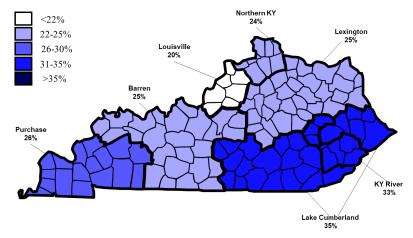


Figure 23 shows the total number of new HIV infections (regardless of disease progression status) diagnosed between January 1, 2008, and June 30, 2018, by Care Coordinator Region based on place of residence at time of HIV diagnosis. A Care Coordinator Region is defined based on the specific counties of the state for which clinical and support services are provided by a state-funded agency (agencies listed on page 34). The highest number of cases (1,565 or 44%) diagnosed in this period occurred among residents of the Louisville Region. The second highest number of diagnoses (876 or 25%) occurred in residents of the Lexington Region.

Figure 24. Percentage of All HIV Disease Diagnoses within each Care Coordinator Region of Residence at Time of Diagnosis, who have a Concurrent Diagnosis of AIDS, for the Most Recent 10.5 Years, January 1, 2008-June 30, 2018, Kentucky % Concurrent within Care Region: January 1, 2008-June 30, 2018



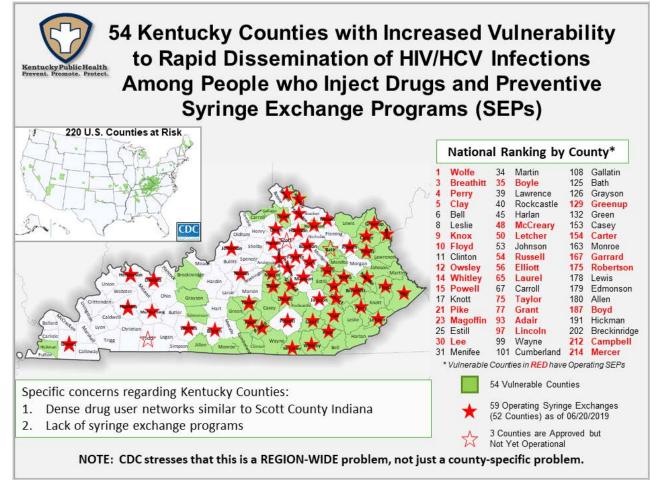
Note: The percentages presented in Figure 24 represent the proportion of concurrent diagnoses out of the total for each individual region. Totals for each region are presented in Figure 23. Owsley County is currently being served by both the Lake Cumberland and KY River District Health Departments (HD). In Figures 23 & 24 Owsley County is included only in the KY River District HD, and Graves and Todd Counties are included in Purchase District HD.

Figure 24 shows the percentage of total HIV cases within each Care Coordinator Region that were concurrently diagnosed with AIDS (within 30 days of an initial HIV diagnosis) between January 1, 2008, and June 30, 2018. The percentage of concurrent HIV and AIDS diagnoses within each care region ranged from 20% to 35%. In all regions, approximately a quarter or more of cases diagnosed within each jurisdiction were concurrent diagnoses with the highest proportions of concurrent HIV and AIDS cases residing in the Lake Cumberland Region (35%) and Kentucky River Region (33%). For cases diagnosed concurrently, testing was likely not conducted near time of initial infection.

# **HIV Care Coordinator Regions, Kentucky**

Map for Counties Covered	Region Name and Address	Counties Covered:					
	Purchase Region: Heartland Cares, Inc. 619 N 30 <sup>th</sup> Street Paducah, KY 42001 (270) 444-8183 (877) 444-8183 Fax: (270) 444-8147	Ballard Caldwell Calloway Carlisle	Christian Crittenden Fulton Graves	Hickman Hopkins Livingston Lyon	McCracken Marshall Muhlenberg Todd Trigg		
	Barren Region: Matthew 25 452 Old Corydon Road Henderson, KY 42420 (270) 826-0200 (866) 607-6590 Fax: (270) 826-0212	Allen Barren Breckin- ridge Butler Daviess Edmonson	Grayson Hancock Hardin Hart Henderson Larue	Logan McLean Marion Meade Metcalfe Monroe	Nelson Ohio Simpson Union Warren Washington Webster		
	Louisville Region: U of L 550 Clinic 501 E Broadway, Suite 120 Louisville, KY 40202 (502) 852-2008 Fax: (502) 852-2510	Bullitt Henry Jefferson Oldham	Shelby Spencer Trimble				
	Northern Kentucky Region: Northern KY Dist HD 8001 Veterans Memorial Drive Florence, KY 41042 (859) 341-4264 Fax: (859) 578-3689	Boone Campbell Carroll Gallatin Grant	Kenton Owen Pendleton				
	Lexington Region: UK Bluegrass Care Clinic 740 S. Limestone, K512 UK Medical Center Lexington, KY 40536 (859) 323-5544 (866) 761-0206 Fax: (859) 257-3477	Anderson Bath Bourbon Boyd Boyle Bracken Carter Clark	Elliott Estill Fayette Fleming Franklin Garrard Greenup Harrison	Jessamine Lawrence Lewis Lincoln Madison Mason Menifee Mercer	Montgomery Morgan Nicholas Powell Robertson Rowan Scott Woodford		
	Lake Cumberland Region: Lake Cumberland Dist HD 500 Bourne Avenue Somerset, KY 42501 (606) 678-4761 (800) 928-4416 Fax: (606) 678-2708	Adair Bell Breathitt Casey Clay Clinton Cumber- land	Floyd Green Harlan Jackson Johnson Knox	Laurel Magoffin Martin McCreary Owsley Pike	Pulaski Rockcastle Russell Taylor Wayne Whitley		
	Kentucky River Region: Kentucky River Dist HD 441 Gorman Hollow Road Hazard, KY 41701 (606) 439-2361 Fax: (606) 439-0870	Knott Lee Leslie Letcher	Owsley Perry Wolfe				
	Graves County HD 416 Central Ave Mayfield, KY 42066 (270) 247-3553		nty is covered by Purchase Regio		lealth Department ,		
	Todd County HD 205 Public Square Elkton, KY 42220 (270) 265-2362		y is covered by Tourchase Region.	odd County Healt	h Department , as		

#### Harm Reduction Programs and HIV Outbreak Vulnerability



## **HIV Counseling and Testing Sites, Kentucky**

The HIV Prevention Program at the Department for Public Health sponsors several HIV counseling and testing sites in each of the 120 counties across the state. Sponsored non-clinical agencies offer rapid-rapid HIV-1/2 antibody testing and can provide results within 1 to 20 minutes. Those with reactive results from an initial rapid test can be tested immediately with a different brand of rapid test that is less sensitive than the initial rapid test. Clients receiving reactive results from both rapid tests are almost certainly infected with HIV and can be promptly linked to an HIV care provider without waiting days or weeks for a confirmatory test. Sponsored clinical agencies offer a rapid finger stick HIV 1/2 antibody test.

All state sponsored testing sites offer anonymous or confidential HIV testing at **free or minimal cost** by appointment and/or on a walk in basis. Pre-test and post-test counseling are offered at all agencies.

A listing of state sponsored HIV testing sites is provided on the next page. Please note that this list only includes those testing sites that are funded by the Kentucky Department for Public Health to administer testing and **IS NOT** an all-inclusive list of testing centers in the Commonwealth of Kentucky.

For a comprehensive list of HIV testing sites, please visit: https://chfs.ky.gov/agencies/dph/dehp/hab/Pages/prevention.aspx http://www.aidsvu.org

<sup>&</sup>lt;sup>1</sup>Journal of Acquired Immune Deficiency Syndrome 2016;73:323–331

# State Sponsored HIV Counseling and Testing Sites, Kentucky

County / Agency	City	Phone	County / Agency	City	Phone
Adair County Health Department	Columbia	(270) 384-2286	Jessamine County Health Department	Nicho las ville	(859) 885-4149
Allen County Health Department	Scottsville	(270) 237-4423	Johnson County Health Department	P a ints ville	(606) 789-2590
Anders on County Health Department	Lawrenceburg	(502) 839-4551	Kenton County Health Department	Covington	(859) 431-3345
Ballard County Health Department	La Center	(270) 665-5432	Knott County Health Department	Hindman	(606) 785-3144
Barren County Health Department	Glasgow	(270) 651-8321	Knox County Health Department	Barbourville	(606) 546-3486
Bath County Health Department	Owings ville	(606) 674-9646	Larue County Health Department	Hodgenville	(270) 358-3844
Bell County Health Department	P ine ville	(606) 248-2862	Laurel County Health Department	London	(606) 864-5187
Boone County Health Department Bourbon County Health Department	Florence Paris	(859) 363-2060	Lawrence County Health Department Lee County Health Department	Lo uis a Beattyville	(606) 638-4389
Boyd County Health Department	Ashland	(859) 987-1915 (606) 324-7181	Les lie County Health Department	Hyden	(606) 464-2492 (606) 672-2393
Boyle County Health Department	Danville	(859) 236-2053	Letcher County Health Department	Whites burg	(606) 633-2945
Bracken County Health Department	Bro o ks ville	(606) 735-2157	Lewis County Health Department	Vanceburg	(606) 796-2632
Breathitt County Health Department	Jackson	(606) 666-5274	Linco ln County Health Department	Stanford	(606) 756 2652
Breckinridge County Health Department	Hardins burg	(270) 756-5121	Livings to n County Health Department	Smithland	(270) 928-2193
Bullitt County Health Department	Shepherds ville	(502) 543-2415	Logan County Health Department	Russellville	(270) 726-8341
Butler County Health Department	Mo rganto wn	(270) 526-3221	Lyon County Health Department	Eddyville	(270) 388-9763
Caldwell County Health Department	P rince to n	(270) 365-6571	Madis on County Health Department	Richmond	(859) 626-4241
Callo way County Health Department	Murray	(270) 753-3381	Madis on County Health Department - Berea	Berea	(859) 986-1192
Campbell County Health Department	Newport	(859) 431-1704	Mago ffin County Health Department	Salyers ville	(606) 349-6212
Carlis le County Health Department	Bardwell	(270) 628-5431	Marion County Health Department	Lebanon	(270) 692-3393
Carroll County Health Department	Carro llto n	(502) 732-6641	Mars hall County Health Department	Benton	(270) 527-1496
(Carter Co.) West Carter Health Center	Olive Hill	(606) 286-5588	Martin County Health Department	Inez	(606) 298-7752
Casey County Health Department	Liberty	(606) 787-6911	Mason County Health Department	Mays ville	(606) 564-9447
Christian County Health Department	Hopkins ville	(270) 887-4160	(McCracken Co.) Heartland Cares Clinic	Paducah	(270) 444-8183
Clark County Health Department	Winchester	(859) 744-4482	McCracken County Health Department	Paducah	(270) 444-9631
Clay County Health Department	Manchester	(606) 598-2425	McCreary County Health Department	Whitley City	(606) 376-2412
Clinton County Health Department Crittenden County Health Department	Albany Marion	(606) 387-5711 (270) 965-5215	McLean County Health Department  Meade County Health Department	Calhoun	(270) 273-3062 (270) 422-3988
Cumberland County Health Department	Burkes ville	(270) 864-2206	Menifee County Health Department	Brandenburg Frenchburg	(606) 768-2151
Daviess County Health Department	Owens boro	(270) 686-7744	Mercer County Health Department	Harro ds burg	(859) 734-4522
Edmons on County Health Department	Bro wns ville	(270) 597-2194	Metcalfe County Health Department	Edmonton	(270) 432-3214
Elliott County Health Department	Sandy Hook	(606) 738-5205	Monroe County Health Department	To mpkins ville	(270) 487-6782
Es till County Health Department	Irvine	(606) 723-5181	Montgomery County Health Department	Mount Sterling	(859) 498-3808
(Fayette Co.) AVOL (AIDS Volunteers, Inc.)	Lexington	(859) 225-3000	Morgan County Health Department	West Liberty	(606) 743-3744
(Fayette Co.) Bluegrass Community Health Center	Lexington	(859) 259-2635	Muhlenberg County Health Department	CentralCity	(270) 754-3200
(Fayette Co.) Lex-Fayette Health Department	Lexington	(859) 288-2323	Nelson County Health Department	Bards to wn	(502) 348-3222
(Fayette Co.) Moveable Feast Lexington	Lexington	(859) 252-2867	Nicholas County Health Department	Carlis le	(859) 289-2188
Fleming County Health Department	F lemings burg	(606) 845-6511	Ohio County Health Department	Hartford	(270) 298-3663
Floyd County Health Department	Prestonsburg	(606) 886-2788	Oldham County Health Department	LaGrange	(502) 222-3516
Franklin County Health Department	Frankfort	(502) 564-4269	Owen County Health Department	Owenton	(502) 484-5736
Fulton County Health Department	Fulton	(270) 472-1982	Ows ley County Health Department	Booneville	(606) 593-5181
Fulton County Health Department – Hickman	Hickman Wars aw	(270) 236-2825	Pendleton County Health Department	Falmouth	(859) 654-6985
Gallatin County Health Department		(859) 567-2844 (859) 792-2153	Perry County Health Department Pike County Health Department	Hazard Pikeville	(606) 436-2196 (606) 437-5500
Garrard County Health Department Grant County Health Department	Lancas ter Williams to wn	(859) 824-5074	P o well County Health Department	Stanton	(606) 437-3300
Graves County Health Department	Mayfield	(270) 247-3553	P ulas ki County Health Department	Somerset	(606) 679-4416
Grays on County Health Department	Leitchfield	(270) 259-3141	Roberts on County Health Department	Mount Olivet	(606) 724-5222
Green County Health Department	Greens burg	(270) 932-4341	Rockcastle County Health Department	Mt. Vernon	(606) 256-2242
Greenup County Health Department	Greenup	(606) 473-9838	Rowan County Health Department	Morehead	(606) 784-8954
Hancock County Health Department	Hawesville	(270) 927-8803	Russell County Health Department	James to wn	(270) 343-2181
Hardin County Health Department	Eliza be thto wn	(270) 765-6196	Scott County Health Department	Georgeto wn	(502) 863-3971
Harlan County Health Department	Harlan	(606) 573-4820	Shelby County Health Department	Shelbyville	(502) 633-1231
Harris on County Health Department	Cynthiana	(859) 234-2842	Simps on County Health Department	Franklin	(270) 586-8261
Hart County Health Department	Munfordville	(270) 524-2511	Spencer County Health Department	Taylors ville	(502) 477-8146
(Henders on Co.) Matthew 25 AIDS Services	Henderson	(270) 826-0200	Taylor County Health Department	Campbells ville	(270) 465-4191
Henders on County Health Department	Henderson	(270) 826-3951	Todd County Health Department	Elkton	(270) 265-2362
Henry County Health Department	NewCastle	(502) 845-2882	Trigg County Health Department	Cadiz	(270) 522-8121
Hickman County Health Department	C linto n	(270) 653-6110	Trimble County Health Department	Bedford	(502) 255-7702
Hopkins County Health Department Jackson County Health Department	Madisonville McKee	(270) 821-5242 (606) 287-8421	Union County Health Department Warren County Health Department	Morganfield Bowling Green	(270) 389-1230 (270) 781-2490
(Jeffers on Co.) Dixie Health Center	Lo uis ville	(502) 937-7277	Washington County Health Department	Springfield	(859) 336-3989
(Jeffers on Co.) Harambee Health Center, Inc.	Lo uis ville	(502) 593-5939	Wayne County Health Department	Monticello	(606) 348-7464
(Jeffers on Co.) LouMetro HD - Fam Plan/Methador		(502) 574-6660	Webster County Health Department	Dixon	(270) 639-9315
(Jeffers on Co.) Louis ville-Metro HD - Specialty	Louis ville	(502) 574-6697	Whitley County Health Department	Corbin	(606) 549-3380
(Jeffers on Co.) Louis ville-Metro HD - TB Clinic	Louis ville	(502) 574-6617	Wolfe County Health Department	Campton	(606) 668-3 185
(Jeffers on Co.) Newburg Health Center	Lo u is ville	(502) 458-0778	Woodford County Health Department	Versailles	(859) 873-4541
(Jeffers on Co.) The More Center	Lo u is ville	(502) 574-6414			

(502) 636-4540

(Jeffers on Co.) Volunteers of America – Louis ville Louis ville