HIV/AIDS Surveillance Epidemiologic Report for Ohio 2015

HIV/AIDS Surveillance Program

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Ohio Department of Health

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Introduction

Organization of this Report

The 2015 HIV Surveillance Epidemiologic Report is organized into three sections:

1. Diagnoses of HIV infection (any stage) and diagnoses of infection classified as stage 3 (AIDS) in Ohio and by county

2. Prevalence: persons living with diagnosed HIV infection (any stage) and persons living with infection ever classified as stage 3 (AIDS) in Ohio and by county

3. Deaths of persons with diagnosed HIV infection (any stage) and of persons with infection ever classified as stage 3 (AIDS) in Ohio and by county

Each section presents rates, case counts and percentages by selected characteristics and risk factor categories at the state and county level.

Readers are strongly encouraged to read all titles and footnotes carefully to ensure a complete understanding of the displayed data.

Questions or Comments: Questions or comments about this report may be directed to the Ohio Department of Health (ODH), HIV Surveillance Program at (614) 995-5599. Additional HIV/AIDS surveillance data is available on the ODH website: http://www.odh.ohio.gov/healthStats/disease/hivdata/hivcov.aspx.

Explanation of Terms

In 2012, the Centers for Disease Control and Prevention (CDC) revised the public health surveillance case definitions for HIV infection; however, CDC did not implement this change nationally until April 2014. The revisions were primarily made to address recent changes in diagnostic criteria. Laboratory diagnostic criteria now accommodate a new multi-step testing algorithm, including criteria for differentiating between HIV-1 and HIV-2 infections, and recommendations for testing to recognize HIV infection at the earliest stage. A confirmed case of HIV infection is classified in one of five HIV infection stages. These stages are for public health surveillance purposes only and classified based upon the following criterion:

- **HIV infection, Stage 0:** Early HIV infection, recognized by a negative HIV test within 180 days prior to a positive HIV result. The criteria for stage 0 diagnosis supersede and are independent of the criteria used for other stages.

- **HIV infection, Stage 1:** No AIDS-defining condition and either CD4 count of ≥500 cells per micro liter or CD4 percentage of total lymphocytes of ≥29.

- **HIV infection, Stage 2:** No AIDS-defining condition and either CD4 count of 200-499 cells per microliter or CD4 percentage of total lymphocytes of 14-28.

- **HIV infection, Stage 3 (AIDS):** Documentation of an AIDS-defining condition or either a CD4 count of <200 cells per microliter or a CD4 percentage of total lymphocytes of <14. Documentation of an AIDS-defining condition supersedes a CD4 count or percentage that would not, by itself, be the basis for a stage 3 (AIDS) classification.

- **HIV infection, Stage unknown:** No reported information on AIDS-defining conditions and no information available on CD4 count or percentage.

The term *diagnosis of HIV infection* is defined as a diagnosis of HIV infection, regardless of the stage of disease (stage 0, 1, 2, 3 [AIDS], or unknown), and refers to all persons with a diagnosed HIV infection. The term *HIV infection, stage 3 (AIDS),* and its condensed version, *stage 3 (AIDS)*, refer specifically to persons diagnosed as stage 3 (AIDS) at initial diagnosis of HIV infection and/or persons living with a diagnosed HIV infection who progress to stage 3 (AIDS) during a given year.

HIV diagnoses do not necessarily represent all new infections (i.e. incidence or stage 0) as some individuals were infected recently, while others were infected at some time in the past but are unaware of their HIV diagnostic status.

Surveillance data on diagnoses of HIV infection reflect the date of HIV diagnosis, not the date the case and/or lab result was reported to the ODH. Similarly, the stage 3 (AIDS) infection data reflect the first date the criteria for stage 3 (AIDS) were met. All rates of HIV diagnoses are presented per 100,000 population.

Deaths among persons with diagnosed HIV infection represent deaths attributable to any cause, and not specifically those with a death certificate listing HIV infection as the underlying cause of death. Caution should be used when interpreting trends in deaths due to lags in the reporting of deaths in the enhanced HIV/AIDS reporting system (eHARS).

The number of persons living with a diagnosis of HIV infection reflects all persons ever reported with an HIV infection, regardless of stage of infection, who are not known to have died.

Data are also presented for transmission and exposure categories. CDC defines transmission categories as risk factors arranged in a hierarchy based upon the likelihood of exposure to HIV.

HIV transmission categories are mutually exclusive where a person with multiple risks is placed in the highest ranking category. The CDC transmission categories in rank order from highest to lowest are: male-to-male sexual contact (MSM), injection drug use (IDU), MSM and IDU, heterosexual contact followed by all other risks (e.g. blood transfusion, organ transplant) which are grouped together into one (lowest) category.

Exposure categories are similar to transmission categories. The categories are the same and are mutually exclusive, but there is no hierarchy of risk. In addition, every combination of exposure category is considered, thereby, allowing a person with multiple risks to be represented in the exposure category identifying all the reported ways that he/she may have been exposed to HIV.

Except where noted, race/ethnicity is presented using the following categories: white, non-Hispanic; black/African-American, non-Hispanic; Hispanic/Latino (a); Asian/Pacific Islander; and American Indian/Alaska Native. In narrative discussions, white, non-Hispanic is referred to as white; and black/African-American, non-Hispanic is referred to as black/African-American.

HIV/AIDS Surveillance

Disease (i.e. case) reporting serves as the foundation of the public health core function of infectious disease prevention and control. HIV infections and AIDS are reportable public health conditions in all 50 states and U.S. territories. Confidential, named-based reporting of AIDS cases began in Ohio in the early-to-mid 1980's, and was followed by confidential, name-based HIV case reporting in 1990. As previously mentioned, cases of HIV infection are defined for public health reporting purposes in accordance with the current U.S. Centers for Disease Control and Prevention (CDC) case definitions (Revised 2012).

Population-based HIV/AIDS surveillance is the cornerstone of national, state and local HIV/AIDS prevention and care activities. ODH's HIV/AIDS surveillance system collects confidential case information, including demographic, geographic and risk factor characteristics, on persons newly diagnosed and persons living with a diagnosis of HIV infection (i.e. prevalence).

Reports of HIV and AIDS cases are received by the ODH HIV Surveillance Program for further investigation and analysis. The resulting data is disseminated to state and local HIV stakeholders to guide the development and implementation of prevention programs and policies to evaluate the efficacy of public health prevention interventions. The data also helps determine state and local funding allocation for HIV prevention services. HIV/AIDS surveillance data are also used to support the allocation of resources for all parts of the federal Health Resources and Services Administration's Ryan White HIV/AIDS Treatment Extension Act.

State and local public health department personnel identify new reports of persons diagnosed with HIV infection through active and passive surveillance activities with health care providers and facilities using standardized confidential HIV case report forms. These forms are used to collect and report demographic information, mode(s) of HIV exposure, initial HIV-related laboratory results, clinical information and vital status.

All information documented on case report forms is reviewed and entered into Ohio's enhanced HIV/AIDS Reporting System (eHARS). eHARS is a CDC developed and supported database application used for state level monitoring and analysis, and reporting de-identified statistics to CDC for monitoring national HIV/AIDS surveillance trends. Security and confidentiality standards are followed by HIV surveillance staff to ensure adherence in handling personally identifiable information.

The ODH HIV Surveillance Program staff is responsible for conducting epidemiologic investigation on newly diagnosed cases of HIV infection to ensure timely and complete reporting of cases, and maintaining quality assurance on the information collected. The local public health authority has dedicated personnel to interview newly diagnosed HIV patients to provide partner notification services, obtain risk-related behavioral information to offer the patient education on risk behavior modification, and link persons to a health care provider for HIV care services, including further testing to monitor immunologic status and antiretroviral therapy options.

The goals of the ODH HIV Surveillance Program are:

- To assess the disease burden of HIV and AIDS in Ohio
- To describe the scope and identify trends in HIV infection in Ohio
- To investigate modes of HIV transmission
- To evaluate Ohio's HIV surveillance system
- To maintain a secure and confidential database
- To disseminate high quality surveillance data

Reporting Delays/Lags

A key consideration for the analysis of HIV/AIDS surveillance data requires the factoring in of reporting delays. A reporting delay – the time between diagnosis of HIV infection and report of the case to the public health authority – can differ among exposure, geographic, racial/ethnic, age, sex and vital status categories. In some instances, reporting delays for mode of HIV exposure (i.e. risk factor) can be several years, even with active follow-up to obtain this key information.

All population-based disease surveillance systems experience reporting lags and incomplete reporting. The reporting lags for Ohio's HIV/AIDS surveillance data range from 9-18 months. This is an acceptable range and is recognized as meeting the CDC national quality standards for HIV/AIDS reporting. This allows states time to collect more complete and accurate information so that the data can be used to accurately identify trends in HIV transmission and populations at risk.

Data Representativeness and Limitations

HIV infection surveillance data represents confidential reports of HIV infection and AIDS diagnoses; it does not represent all persons with an HIV infection. The distinction is that HIV diagnosis data represent the earliest date of diagnosis reported to the ODH HIV Surveillance Program. The earliest date reported may not be the earliest date an individual became aware of their HIV infection. Individuals may have previously tested anonymously or were diagnosed out-of-state prior to being confidentially tested and reported to Ohio. HIV infection surveillance data may underestimate the level of recently infected persons because some infected persons do not know they are infected as they have not sought testing or did seek testing but did not respond to learn their test results. Reporting of behavioral risk information may not be complete as some persons diagnosed with an HIV infection may be reluctant to disclose their sexual and/or drug use history.

Due to the long and variable period from initial HIV infection to the development of stage 3 infection (AIDS); trends in AIDS surveillance do not represent recent HIV infections. Asymptomatic HIV-infected persons are not represented by stage 3 infection (AIDS) data. In addition, incomplete HIV or CD4 total lymphocyte testing may interfere with the representativeness of reporting.

Revisions in Ohio's HIV reporting rule (Administrative Code 3701-3-12) were implemented to require the reporting of all CD4 total lymphocyte counts and viral load results, including undetectable levels, for persons diagnosed with HIV infection in Ohio. These changes went into effect July

1, 2014. Widespread use of highly active antiretroviral therapy (HAART) complicates the interpretation of AIDS case surveillance data and area estimation. Persons diagnosed with HIV whose infection was classified as stage 3 infection (AIDS) may reflect treatment failures or the failure of the health care system to halt progression of HIV.

Calculation of Prevalent Cases

Beginning with Ohio's 2014 HIV surveillance data, the method for estimating prevalent cases is based upon the most recent residential address for all persons presumed alive rather than the residence at time of HIV and AIDS diagnosis. This change in methodology:

- Provides a more accurate description of the population currently living with diagnosed HIV infection in Ohio, increasing the likelihood of accurately counting a person migrating out of or into an Ohio county, and improves the accuracy for estimating persons currently receiving HIV care in Ohio; and
- Results in a 7 percent increase in prevalent cases as more persons diagnosed in a jurisdiction outside of Ohio migrated into Ohio than persons diagnosed in Ohio who migrated to a jurisdiction outside of Ohio.

The aforementioned changes in the number of prevalent cases based upon this revised methodology *did not* result in a statistically significant increase in Ohio 2014 HIV infection prevalence. Any increase in prevalent cases can be attributed to the change in methodology through a redistribution of cases.

Diagnoses of HIV Infection

HIV/AIDS impacts persons regardless of sex, age, race/ethnic group and/or geographic region in Ohio, but its impact is not the same across all population groups. The number of diagnoses of HIV infection reported remained stable from 2010-2013, but decreased in 2014. There were 950 persons ranging in age from five to 76 years with a median age of 30 years, diagnosed and reported with HIV infection in Ohio in 2014. The rate for persons diagnosed with HIV infection in Ohio also remained stable from 2010-2013 (average rate=8.8), but decreased to 8.2 diagnosed HIV infections in 2014 (Figure 1 on page 10).

While black/African-American and white males each accounted for 33–38 percent of diagnosed HIV infections in Ohio between 2010 and 2013, 2014 is the first year that a race/sex subpopulation (black/African-American males) accounted for more than 40 percent of cases of HIV infection in Ohio with 412 cases representing 43 percent of HIV infections. In addition, reporting trends from 2010-2014 suggest increases in cases among black/African-American and Hispanic/Latino males and persons 20-29 years of age, and decreases in cases among black/African-American females (Table 1 on page 11).

Not all Ohio counties reported a diagnosed HIV infection in 2014. The number of HIV infections varied with the fewest number of cases and lowest rates of diagnoses observed in the least densely populated rural counties, and the greatest number of cases and highest rates in the more densely populated urban counties (Table 7 on page 22).

Age: From 2010 to 2014, the number and proportion of persons diagnosed with HIV infection in Ohio increased for persons 20-24 and 25-29 years of age. The number and proportion remained stable for persons aged <13, 13-14, 30-34, 55-64 and 65 and older. The number and proportion decreased for persons 15-19, 35-39, 40-44, 45-49 and 50-54 years of age.

In 2014, the highest number (217 cases) and proportion (23 percent) of persons diagnosed with HIV infection were 20-24 years of age -- an increase of 12 percent from the number of persons in 2010. The number and proportion of persons diagnosed with HIV infection and 24-29 years of age increased the most (28 percent) between 2010 (142 cases) and 2014 (181 cases).

Race/ethnicity: From 2010-2014, the number and proportion of persons diagnosed with HIV infection in Ohio remained relatively stable for persons of all races/ethnicities. In 2014, black/African-Americans accounted for more than half (52 percent) of persons diagnosed with HIV infection in Ohio, followed by whites (37 percent), Hispanic/Latino(a)s (7 percent), Asian/Pacific Islanders (1 percent) and American Indian/Alaska Natives (<1 percent). Three percent of diagnosed HIV infections had an unknown or missing race/ethnicity in Ohio in 2014.

Black/African-Americans and Hispanic/Latino(a)s continue to be disproportionately diagnosed with HIV infection. Rates in 2014 suggest black/African-Americans were more than nine times more likely to be diagnosed with HIV infection compared to whites (34.6 vs. 3.8) and Hispanic/Latino(a)s with a rate of 16.9 were more than four times more likely to be diagnosed with HIV infection compared to whites.

Sex: From 2010-2013, males accounted for approximately 81 percent of all persons diagnosed with HIV infection in Ohio, but increased to 86 percent of all persons in 2014. Both black/African-American and Hispanic/Latino males saw an increase in diagnosed HIV infections in Ohio between 2010-2014 while black/African- American females saw a significant decrease in new diagnoses between 2010 and 2014. White female and male diagnoses of HIV infection remained stable between 2010 and 2013, but diagnoses decreased for both in 2014. The number and proportion remained stable for males and females of all other race/ethnicities.

In 2014, black/African-American males accounted for 43 percent of diagnosed HIV infections in Ohio, followed by white males (33 percent), black/African-American females (9 percent), Hispanic/Latino males (6 percent) and white females (4 percent). Males and females of all other race/ethnicities combined accounted for two percent of diagnosed HIV infections. Three percent of diagnosed HIV infections had unknown or missing race/ethnicity by sex in Ohio in 2014.

The gap in disparities among black/African American and Hispanic/Latino males compared to white males diagnosed with HIV infection in Ohio continues to widen. Between 2010 and 2014, black/African-American males diagnosed with HIV infection in Ohio saw an increase in the rate (54.2 to 60.5) and number (369 cases to 408 cases) of diagnosed HIV infections. Likewise, Hispanic/Latino males diagnosed with HIV infection in Ohio saw an increase in the rate (18.3 to 28.5) and number (38 cases to 59 cases) between 2010 and

2014. In comparison, white males diagnosed with HIV infection in Ohio between 2010 and 2014 saw a decrease in the rate (8.0 to 6.9) and number (363 cases to 314 cases) of diagnosed HIV infections.

Transmission and exposure categories: Trends between 2010 and 2014 must be interpreted with caution due to 24 percent with missing or no reported risks. The validity of trends could be affected by the high proportion of those with missing or no reported risks if they differ significantly from persons diagnosed with HIV infection in Ohio with reported risks. The magnitude of this bias cannot easily be determined. But reported HIV transmission data for Ohio suggest a decrease in the number and proportion among females with heterosexual contact.

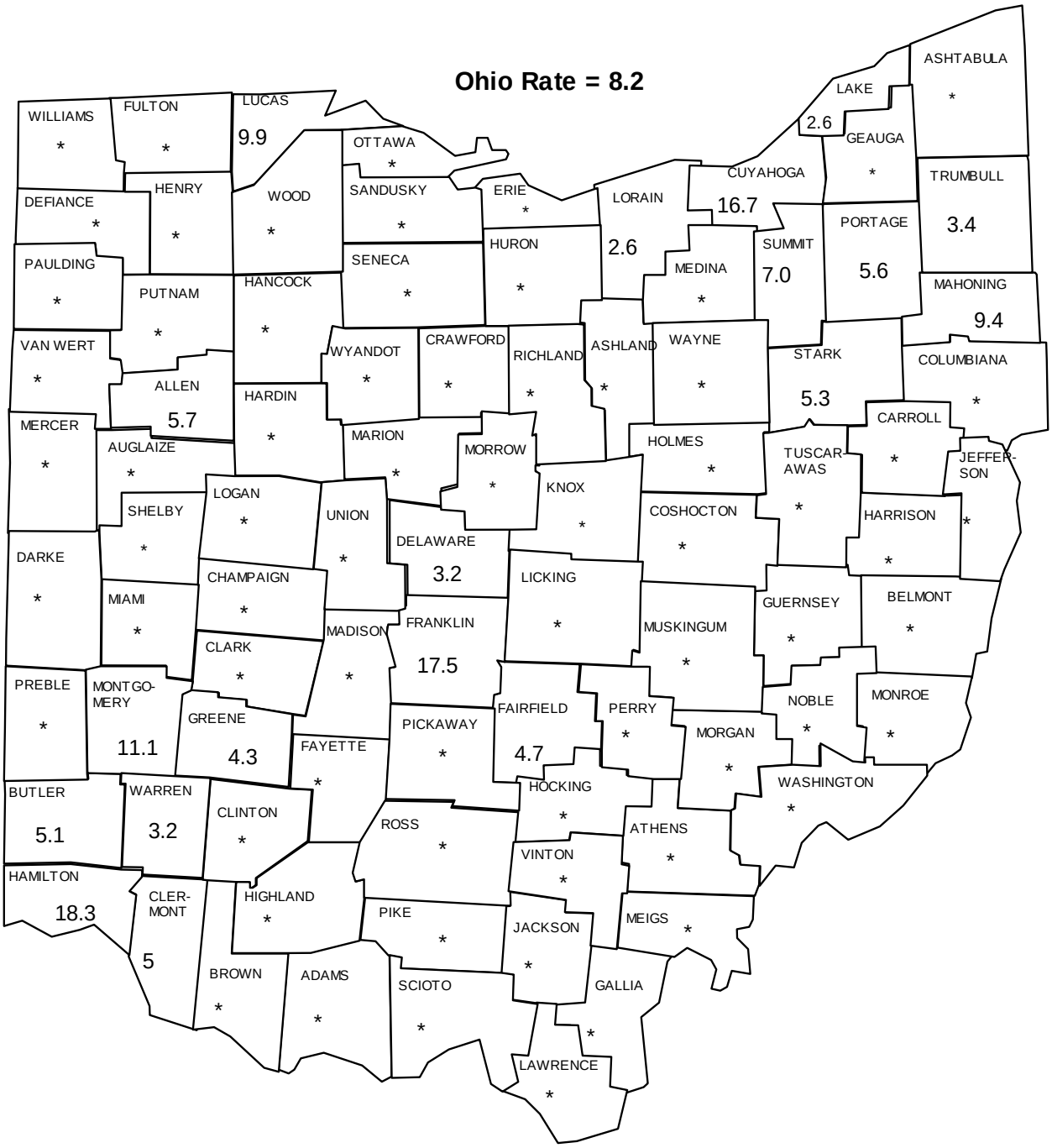
In 2014, male-to-male sexual contact (MSM) accounted for 58 percent of HIV transmissions reported in Ohio, followed by heterosexual contact (13 percent), injection drug use (IDU) (three percent), MSM and IDU (2 percent) and perinatal transmission (<1 percent). All four reported perinatal transmission cases in Ohio in 2014 were foreign-born.

In 2014, MSM alone accounted for 57 percent of HIV exposures reported in Ohio, followed by heterosexual contact only (13 percent). MSM and heterosexual contact, IDU and heterosexual contact, and MSM and IDU each accounted for two percent of HIV exposures. All other known exposures were less than two percent each in Ohio in 2014.

Geographic Area: The number of HIV infections reported in Ohio counties in 2014 ranged from zero to 215 and county rates ranged from zero to 18.3 diagnosed HIV infections in 2014. In 2014, two-thirds (67 percent) of diagnosed HIV infections reported in Ohio resided in the largest and most densely populated counties of the state: Franklin (23 percent), Cuyahoga (22 percent), Hamilton (16 percent) and Montgomery (6 percent).

At the end of 2014, the Ohio counties with rates of new HIV diagnoses reported above the state's average (8.2) were Hamilton (18.3), Franklin (17.5), Cuyahoga (16.7), Montgomery (11.1), Lucas (9.9) and Mahoning (9.4).

Figure 1. Rates of diagnoses of HIV infection by county, Ohio, 2014.



Note: Diagnoses of HIV infection include all reported persons with a diagnosis of HIV infection. The rate is the number of reported persons with a diagnosis of HIV infection per 100,000 population calculated using 2014 U.S. Census estimates. Asterisk (*) indicates rate not calculated for case count <5 due to unstable rates.
Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through December 31, 2014.

Table 1. Diagnoses of HIV infection, by year of diagnosis and selected characteristics, Ohio, 2010-2014.

	Diagnosis of HIV Infection by Year														
	2010			2011			2012			2013			2014		
Characteristic	Rate[a]	No.	%	Rate[a]	No.	%	Rate[a]	No.	%	Rate[a]	No.	%	Rate[a]	No.	%
Sex															
Males	14.3	809	83%	14.5	823	79%	14.8	839	82%	15.3	871	82%	14.3	813	86%
Females	2.9	170	17%	3.7	220	21%	3.2	187	18%	3.2	189	18%	2.3	137	14%
Age at diagnosis (yr)															
<13	0.3	5	1%	*	3	<1%	0.4	8	1%	0.5	9	1%	*	3	<1%
13-14	*	1	<1%	*	-	-	*	-	-	*	1	<1%	*	-	-
15-19	10.1	78	8%	8.3	64	6%	8.2	63	6%	8.3	64	6%	6.9	53	6%
20-24	24.5	194	20%	27.8	220	21%	27.1	214	21%	29.6	234	22%	27.4	217	23%
25-29	19.0	142	15%	20.7	155	15%	21.6	162	16%	23.1	173	16%	24.2	181	19%
30-34	16.8	121	12%	18.8	136	13%	20.2	146	14%	16.2	117	11%	16.8	121	13%
35-39	16.8	114	12%	16.8	114	11%	13.7	93	9%	15.0	102	10%	14.1	96	10%
40-44	14.4	105	11%	15.4	112	11%	12.5	91	9%	13.5	98	9%	11.8	86	9%
45-49	13.2	100	10%	12.2	92	9%	13.0	98	10%	12.8	97	9%	11.5	87	9%
50-54	7.4	63	6%	9.4	80	8%	9.1	77	8%	8.1	69	7%	4.7	40	4%
55-64	3.0	47	5%	3.4	54	5%	4.0	63	6%	4.8	76	7%	3.5	55	6%
65+	0.5	9	1%	0.7	13	1%	0.6	11	1%	1.1	20	2%	0.6	11	1%
Race/Ethnicity															
White, not Hispanic	4.5	415	42%	4.7	436	42%	4.5	418	41%	4.7	432	41%	3.8	355	37%
Black/African American, not Hispanic	33.1	472	48%	35.5	506	49%	34.1	486	47%	35.8	511	48%	34.6	493	52%
Hispanic/Latino	11.2	45	5%	14.9	60	6%	14.1	57	6%	15.4	62	6%	16.9	68	7%
Asian/Pacific Islander	2.6	6	1%	3.0	7	1%	2.6	6	1%	3.4	8	1%	3.4	8	1%
American Indian/Alaska Native	*	1	<1%	*	1	<1%	*	-	-	*	1	<1%	*	1	<1%
Unknown	*	40	4%	*	33	3%	*	59	6%	*	46	4%	*	25	3%
Race/Sex															
White, not Hispanic Males	8.0	363	37%	8.0	366	35%	8.1	368	36%	8.2	375	35%	6.9	314	33%
White, not Hispanic Females	1.1	52	5%	1.5	70	7%	1.1	50	5%	1.2	57	5%	0.9	41	4%
Black/African American, not Hispanic Males	54.2	369	38%	54.6	372	36%	53.7	366	36%	59.9	408	38%	60.5	412	43%
Black/African American, not Hispanic Females	13.8	103	11%	18.0	134	13%	16.1	120	12%	13.8	103	10%	10.9	81	9%
Hispanic/Latino Males	18.3	38	4%	24.1	50	5%	25.1	52	5%	22.7	47	4%	28.5	59	6%
Hispanic/Latina Females	3.6	7	1%	5.1	10	1%	2.6	5	<1%	7.7	15	1%	4.6	9	1%
Asian/Pacific Islander Males	*	4	<1%	*	4	<1%	4.5	5	<1%	5.3	6	1%	5.3	6	1%
Asian/Pacific Islander Females	*	2	<1%	*	3	<1%	*	1	<1%	*	2	<1%	*	2	<1%
American Indian/Alaska Native Males	*	1	<1%	*	1	<1%	*	-	-	*	1	<1%	*	-	-
American Indian/Alaska Native Females	*	-	-	*	-	-	*	-	-	*	-	-	*	1	<1%
Unknown	*	40	4%	*	33	3%	*	59	6%	*	46	4%	*	25	3%
Total	**8.4**	**979**		**9.0**	**1,043**		**8.8**	**1,026**		**9.1**	**1,060**		**8.2**	**950**	

Notes: Diagnoses of HIV infection include persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and a later AIDS diagnosis, and concurrent diagnoses of HIV and AIDS. Diagnoses of HIV infection by year (2010-2014) represent all reported cases diagnosed in each year.

[a] The rate is the number of persons with a reported diagnosis of HIV infection per 100,000 population calculated using 2014 U.S. Census estimates.

Dash (-) indicates no cases were reported for the given category. Asterisk (*) indicates rate not calculated for case count < 5 due to unstable rates.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through December 31, 2014.

Table 2. Diagnoses of HIV infection, by year of diagnosis, transmission and exposure category, Ohio, 2010-2014.

Diagnosis of HIV Infection by Year - Transmission Categories

	2010		2011		2012		2013		2014	
Transmission Category[a]	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Male adult or adolescent										
Male-to-male sexual contact	570	71%	555	68%	572	68%	589	68%	553	68%
Injection drug use (IDU)	8	1%	14	2%	18	2%	20	2%	15	2%
Male-to-male sexual contact and IDU	22	3%	18	2%	25	3%	19	2%	19	2%
Heterosexual contact	41	5%	33	4%	26	3%	37	4%	38	5%
Other/unknown	163	20%	201	24%	195	23%	202	23%	187	23%
Subtotal	804	100%	821	100%	836	100%	867	100%	812	100%
Female adult or adolescent										
Injection drug use	13	8%	16	7%	8	4%	19	10%	13	10%
Heterosexual contact	120	71%	141	64%	107	59%	113	62%	87	65%
Other/unknown	36	21%	62	28%	65	36%	50	27%	34	25%
Subtotal	169	100%	219	100%	180	100%	182	100%	134	100%
Child (<13 yrs at diagnosis)										
Perinatal	5	83%	3	100%	5	50%	4	36%	2	50%
Other/unknown	1	17%	-	-	5	50%	7	64%	2	50%
Subtotal	6	100%	3	100%	10	100%	11	100%	4	100%
Total	**979**		**1,043**		**1,026**		**1,060**		**950**	

Notes: Diagnoses of HIV infection include persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and a later AIDS diagnosis, and concurrent diagnoses of HIV and AIDS. Diagnoses of HIV infection by year (2010-2014) represent all reported cases diagnosed in each year.

Dash (-) indicates no cases were reported for the given category.

[a]Transmission categories are mutually exclusive, hierarchical risk categories determined by the CDC. A person with multiple risks is only represented in the highest category based on the CDC hierarchical algorithm.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through December 31, 2014.

Diagnosis of HIV Infection by Year - Exposure Categories

	2010		2011		2012		2013		2014	
Exposure Category[a]	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Male-to-male sex (MSM) only	555	57%	539	52%	539	53%	563	53%	537	57%
Injection drug use (IDU) only	8	1%	13	1%	18	2%	17	2%	12	1%
Heterosexual contact only	161	16%	174	17%	133	13%	150	14%	125	13%
MSM & IDU	18	2%	13	1%	17	2%	14	1%	15	2%
IDU & Heterosexual contact	13	1%	17	2%	8	1%	22	2%	16	2%
MSM & Heterosexual contact	15	2%	16	2%	33	3%	26	2%	16	2%
MSM & IDU & Heterosexual contact	4	<1%	5	<1%	8	1%	5	<1%	4	<1%
Perinatal exposure	5	1%	3	<1%	7	1%	6	1%	3	<1%
Other/unknown	200	20%	263	25%	263	26%	257	24%	222	23%
Total	**979**		**1,043**		**1,026**		**1,060**		**950**	

Notes: Diagnoses of HIV infection include persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and a later AIDS diagnosis, and concurrent diagnoses of HIV and AIDS. Diagnoses of HIV infection by year (2010-2014) represent all reported cases diagnosed in each year.

Dash (-) indicates no cases were reported for the given category.

[a]Exposure categories are mutually exclusive risk categories. All possible combinations of risks are represented among exposure categories. A person with multiple risks is represented in the exposure category identifying all the reported ways in which that person may have been exposed to HIV.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through December 31, 2014.

Prevalence: Persons Living With Diagnosed HIV Infection

As people live longer with a diagnosis of HIV infection, the cumulative number of persons living with HIV in Ohio continues to increase each year. Overall, persons living with diagnosed HIV infection in Ohio have reached a steady state – the cumulative number of persons living with diagnosed HIV infection in Ohio is no longer growing exponentially. However, the growth in the number of persons living with diagnosed HIV infection is not the same across all population groups.

From 2010-2014, the number of persons living with diagnosed HIV infection in Ohio increased by 23 percent (Table 3 on page 16). At the end of 2014, 21,612 persons were living with HIV infection. The rate of persons living with diagnosed HIV infection was 186.4 per 100,000 (Figure 2 on page 15). The proportion of persons living with diagnosed HIV infection stage 0, 1, 2 or unknown increased from 46 percent in 2010 to 51 percent in 2014. Over the same time period, persons living with stage 3 (AIDS) decreased from 54 percent to 49 percent.

Each of Ohio's 88 counties had persons living with diagnosed HIV infection in 2014. The number of persons living with diagnosed HIV infection varies across geographic area of the state, with the fewest number of cases and lowest rates of persons living with a diagnosed HIV infection observed in the least densely populated rural counties and the highest number of cases and rates in the more densely populated urban counties (Table 7 on page 22).

Age: From 2010-2014, the proportion of persons living with diagnosed HIV infection in Ohio increased for persons 25-29, 50-54, 55-64 and 65 years and older. The proportion of persons living with diagnosed HIV infection decreased for persons 35-39, 40-44 and 45-49 years of age. The proportion of persons living with diagnosed HIV infection remained stable for persons aged <13, 13-14, 20-24, 15-19 and 30-34 years of age. While the proportion of persons living with diagnosed HIV infection 25-29 years of age increased 51 percent during this time period; persons 50 and older increased 65 percent – more than any other age group living with diagnosed HIV infection in Ohio between 2010 and 2014.

At the end of 2014, persons 50-54 years of age accounted for the highest proportion (18 percent) of persons living with diagnosed HIV infection, followed by persons 45-49 (16 percent) and persons 40-44 years of age (12 percent). All other age groups accounted for less than 10 percent of persons living with diagnosed HIV infection in Ohio in 2014.

Race/ethnicity: From 2010 to 2014, the proportion of persons living with diagnosed HIV infection in Ohio increased among black/African-Americans and decreased among whites. The proportion of persons living with diagnosed HIV infection in Ohio among all other race/ethnicities remained stable between 2010 and 2014. At the end of 2014, whites accounted for 46 percent of persons living with diagnosed HIV infection, followed by black/African-Americans (44 percent), Hispanic/Latino(a)s (6 percent), Asian/Pacific Islanders (<1 percent) and American Indian/Alaskan Natives (<1 percent). Three percent of persons living with diagnosed HIV infection in Ohio had an unknown or missing race/ethnicity at the end of 2014.

Sex: From 2009 to 2013, males accounted for 79 percent of persons living with diagnosed HIV infection in Ohio at the end of each year. The percentage of males living with diagnosed HIV infection in Ohio increased to 80 percent in 2014. At the end of 2014, white males accounted for 40 percent of persons living with diagnosed HIV infection in Ohio, followed by black/African-American males (32 percent), black/African-American females (12 percent), white females (6 percent) and Hispanic/Latino males (4 percent). Males and females of all other race/ethnicities combined, accounted for less than two percent of persons living with diagnosed HIV infection. Three percent of persons living diagnosed with HIV infection had unknown or missing race/ethnicity by sex in Ohio at the end of 2014.

Transmission and exposure categories: From 2010 to 2014, the increase in number and change in proportion of persons living with diagnosed HIV infection in Ohio remained relatively stable across HIV transmission categories. Trends in HIV transmission and exposure categories reported between 2010 and 2014 must be interpreted with caution due to the large proportion (17-18 percent) of prevalent cases without a risk(s) for HIV infection reported (Table 4 on page 17).

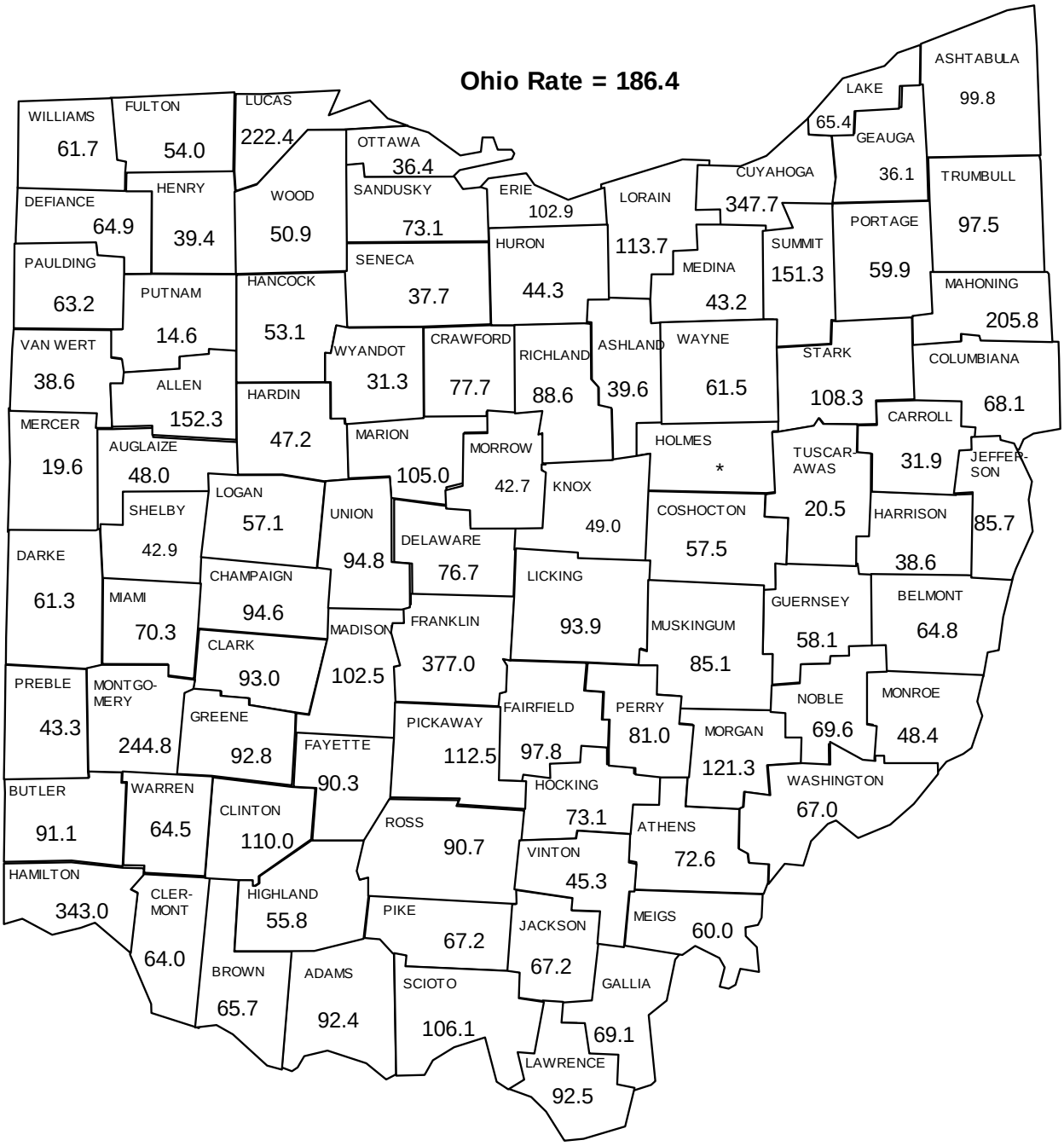
At the end of 2014, MSM accounted for 53 percent of HIV transmissions reported among persons living with diagnosed HIV infection in Ohio, followed by heterosexual contact (19 percent), IDU (6 percent), MSM and IDU (4 percent) and perinatal transmission (1 percent). Eighteen percent of persons living with diagnosed HIV infection in Ohio had missing or no reported risk at the end of 2014.

MSM only accounted for 50 percent of HIV exposures reported in Ohio, followed by heterosexual contact only (19 percent), IDU only, MSM and IDU, MSM and heterosexual contact, and IDU and heterosexual contact (each at 3 percent). All other known exposures were one percent in Ohio at the end of 2014.

Geographic Area: The number of persons living with diagnosed HIV infection ranged from four to 4,642 in Ohio counties at the end of 2014. Ohio county rates ranged from zero to 377.0 persons living with diagnosed HIV infection at the end of 2014. More than two-thirds (69 percent) of persons living with diagnosed HIV infection reported in Ohio resided in the six largest and most densely populated counties of the state: Franklin (22 percent), Cuyahoga (20 percent), Hamilton (13 percent), Montgomery (6 percent), Lucas (5 percent) and Summit (4 percent).

At the end of 2014, the Ohio counties with the rates of persons living with diagnosed HIV infection above the state's average (186.4) were Franklin (377.0), Cuyahoga (347.7), Hamilton (343.0), Montgomery (244.8) and Lucas (222.4).

Figure 2. Rates of persons living with diagnosed HIV infection by county, Ohio, 2014.



Note: Reported persons living with diagnosed HIV infection represents all persons ever diagnosed with HIV infection (any stage) who have not been reported as having died as of December 31, 2014, regardless of whether or not the person was a resident of Ohio at the time of initial HIV and/or AIDS diagnosis. The rate is the number of reported persons living with diagnosed HIV infection per 100,000 population calculated using 2014 U.S. Census estimates.
Asterisk (*) indicates rate not calculated for case count <5 due to unstable rates.
Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through December 31, 2014.

Table 3. Persons living with diagnosed HIV infection, by year of diagnosis and selected characteristics, Ohio, 2010-2014.

	Living with a Diagnosis of HIV Infection									
	2010		2011		2012		2013		2014	
Characteristic	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Sex										
Males	13,906	79%	14,716	79%	15,553	79%	16,407	79%	17,204	80%
Females	3,687	21%	3,897	21%	4,083	21%	4,272	21%	4,408	20%
Age at end of year (yr)										
<13	61	<1%	59	<1%	66	<1%	72	<1%	65	<1%
13-14	25	<1%	21	<1%	11	<1%	8	<1%	13	<1%
15-19	176	1%	159	1%	156	1%	144	1%	136	1%
20-24	780	4%	883	5%	959	5%	1,012	5%	968	4%
25-29	1,120	6%	1,243	7%	1,364	7%	1,517	7%	1,688	8%
30-34	1,458	8%	1,521	8%	1,607	8%	1,648	8%	1,715	8%
35-39	1,962	11%	1,876	10%	1,880	10%	1,901	9%	1,959	9%
40-44	3,008	17%	2,933	16%	2,798	14%	2,671	13%	2,578	12%
45-49	3,564	20%	3,666	20%	3,648	19%	3,666	18%	3,531	16%
50-54	2,662	15%	2,938	16%	3,301	17%	3,568	17%	3,823	18%
55-64	2,319	13%	2,751	15%	3,147	16%	3,595	17%	4,070	19%
65+	458	3%	563	3%	699	4%	877	4%	1,066	5%
Race/Ethnicity										
White, not Hispanic	8,390	48%	8,818	47%	9,224	47%	9,643	47%	9,995	46%
Black/African American, not Hispanic	7,592	43%	8,083	43%	8,570	44%	9,076	44%	9,558	44%
Hispanic/Latino	1,001	6%	1,056	6%	1,122	6%	1,185	6%	1,250	6%
Asian/Pacific Islander	73	<1%	79	<1%	84	<1%	93	<1%	101	<1%
American Indian/Alaska Native	17	<1%	18	<1%	19	<1%	20	<1%	21	<1%
Unknown	520	3%	559	3%	617	3%	662	3%	687	3%
Race/Sex										
White, not Hispanic Males	7,240	41%	7,598	41%	7,951	40%	8,314	40%	8,626	40%
White, not Hispanic Females	1,150	7%	1,220	7%	1,273	6%	1,329	6%	1,369	6%
Black/African American, not Hispanic Males	5,458	31%	5,825	31%	6,196	32%	6,597	32%	6,999	32%
Black/African American, not Hispanic Females	2,134	12%	2,258	12%	2,374	12%	2,479	12%	2,559	12%
Hispanic/Latino Males	726	4%	771	4%	831	4%	879	4%	934	4%
Hispanic/Latina Females	275	2%	285	2%	291	1%	306	1%	316	1%
Asian/Pacific Islander Males	64	<1%	67	<1%	71	<1%	78	<1%	84	<1%
Asian/Pacific Islander Females	9	<1%	12	<1%	13	<1%	15	<1%	17	<1%
American Indian/Alaska Native Males	11	<1%	12	<1%	13	<1%	14	<1%	14	<1%
American Indian/Alaska Native Females	6	<1%	6	<1%	6	<1%	6	<1%	7	<1%
Unknown	520	3%	559	3%	617	3%	662	3%	687	3%
Total	**17,593**		**18,613**		**19,636**		**20,679**		**21,612**	

Notes: Living with a diagnosis of HIV infection by year (2010-2014) represents all persons ever diagnosed and reported with HIV or AIDS who have not been reported as having died as of December 31, 2014. Persons living with a diagnosis of HIV infection represent persons living in Ohio as of December 31, 2014, regardless of whether or not the person was a resident of Ohio at time of initial HIV and/or AIDS diagnosis.
Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through December 31, 2014.

Table 4. Persons living with diagnosed HIV infection, by year of diagnosis, transmission and exposure categories, Ohio, 2010-2014.

Living with a Diagnosis of HIV Infection - Transmission Categories

	2010		2011		2012		2013		2014	
Transmission Category[a]	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Male adult or adolescent										
Male-to-male sexual contact	9,107	66%	9,669	66%	10,252	66%	10,840	67%	11,389	67%
Injection drug use (IDU)	709	5%	722	5%	740	5%	757	5%	770	5%
Male-to-male sexual contact and IDU	719	5%	738	5%	764	5%	783	5%	803	5%
Heterosexual contact	1,013	7%	1,044	7%	1,073	7%	1,109	7%	1,145	7%
Other/unknown	2,257	16%	2,440	17%	2,615	17%	2,805	17%	2,983	17%
Subtotal	13,805	100%	14,613	100%	15,444	100%	16,294	100%	17,090	100%
Female adult or adolescent										
Injection drug use	440	12%	453	12%	464	12%	483	12%	498	12%
Heterosexual contact	2,436	68%	2,572	68%	2,678	68%	2,791	67%	2,873	67%
Other/unknown	692	19%	751	20%	813	21%	863	21%	899	21%
Subtotal	3,568	100%	3,776	100%	3,955	100%	4,137	100%	4,270	100%
Child (<13 yrs at diagnosis)										
Perinatal	183	83%	187	83%	196	83%	200	81%	202	80%
Other/unknown	37	17%	37	17%	41	17%	48	19%	50	20%
Subtotal	220	100%	224	100%	237	100%	248	100%	252	100%
Total	**17,593**		**18,613**		**19,636**		**20,679**		**21,612**	

Notes: Living with a diagnosis of HIV infection by year (2010-2014) represents all persons ever diagnosed and reported with HIV or AIDS who have not been reported as having died as of December 31, 2014. Persons living with a diagnosis of HIV infection represent persons living in Ohio as of December 31, 2014, regardless of whether or not the person was a resident of Ohio at time of initial HIV and/or AIDS diagnosis.

[a]Transmission categories are mutually exclusive, hierarchical risk categories determined by the CDC. A person with multiple risks is only represented in the highest category based on the CDC hierarchical algorithm.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through December 31, 2014.

Living with a Diagnosis of HIV Infection - Exposure Categories

	2010		2011		2012		2013		2014	
Exposure Category[a]	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Male-to-male sex (MSM) only	8,552	49%	9,099	49%	9,649	49%	10,210	49%	10,742	50%
Injection drug use (IDU) only	600	3%	613	3%	633	3%	647	3%	657	3%
Heterosexual contact only	3,449	20%	3,616	19%	3,751	19%	3,900	19%	4,018	19%
MSM & IDU	548	3%	561	3%	579	3%	594	3%	610	3%
IDU & Heterosexual contact	549	3%	562	3%	571	3%	593	3%	611	3%
MSM & Heterosexual contact	554	3%	569	3%	602	3%	629	3%	646	3%
MSM & IDU & Heterosexual contact	171	1%	177	1%	185	1%	189	1%	193	1%
Perinatal exposure	190	1%	194	1%	204	1%	210	1%	213	1%
Other/unknown	2,980	17%	3,222	17%	3,462	18%	3,707	18%	3,922	18%
Total	**17,593**		**18,613**		**19,636**		**20,679**		**21,612**	

Notes: Living with a diagnosis of HIV infection by year (2010-2014) represents all persons ever diagnosed and reported with HIV or AIDS who have not been reported as having died as of December 31, 2014. Persons living with a diagnosis of HIV infection represent persons living in Ohio as of December 31, 2014, regardless of whether or not the person was a resident of Ohio at time of initial HIV and/or AIDS diagnosis.

[a]Exposure categories are mutually exclusive risk categories. All possible combinations of risks are represented among exposure categories. A person with multiple risks is represented in the exposure category identifying all the reported ways in which that person may have been exposed to HIV.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through December 31, 2014.

Deaths Among Persons With Diagnosed HIV Infection

From 2010-2014, general trends in deaths among persons with diagnosed HIV infection in Ohio suggest an increase among persons 25-29 years of age and a decrease among persons 30-54 years of age (Table 5 on page 20). Since the beginning of the U.S. HIV epidemic, MSM continue to account for the highest number of deaths among persons diagnosed with HIV infection in Ohio (Table 6 on page 21). There were 178 deaths among persons diagnosed with HIV infection in Ohio in 2014 and 12,001 deaths since the beginning of the HIV epidemic. All Ohio counties have (ever) reported at least one death among persons with diagnosed HIV infection (Table 7 on page 22).

Age: From 2010-2014, the number of deaths of persons with diagnosed HIV infection in Ohio generally increased for persons 24-29 years of age. The number of deaths of persons with diagnosed HIV infection in Ohio decreased for persons 30-34, 35-39, 40-44, 45-49 and 50-54 years of age. Trends in the number of deaths of persons with diagnosed HIV infection in Ohio remained stable for persons 55 years and older and were not discernable for persons <13, 13-14, 15-19 and 20-24 years of age due to low numbers.

In 2014, the largest proportion of deaths of persons with diagnosed HIV infection were 55-64 years of age (32 percent), followed by persons 45-49 years of age (19 percent), persons 40-44 years of age (11 percent) and persons 65 years of age and older (7 percent). All other age groups had fewer than 5 percent of deaths each among persons with diagnosed HIV infection.

Race/ethnicity: From 2010-2014, the highest number and proportion of deaths among persons with diagnosed HIV infection in Ohio occurred among whites and black/African-Americans. The few deaths reported among Hispanic/Latino(a), Asian/Pacific Islander and American Indian/Alaska Native persons with diagnosed HIV infection in Ohio make trends in deaths in these race/ethnicities undiscernible over this period of time.

In 2014, the largest proportion of deaths of persons with diagnosed HIV infection were whites (52 percent), followed by black/African-Americans (41 percent) and Hispanic/Latino(a)s (3 percent). There were no reported deaths among Asian/Pacific Islanders and American Indian/Alaska Natives. Three percent of deaths among persons with diagnosed HIV infection in Ohio in 2014 had an unknown or missing race/ethnicity.

Sex: From 2010-2014, males accounted for approximately 80 percent of deaths each year of persons with diagnosed HIV infection in Ohio. During the same time period, deaths of white and black African-American males with diagnosed HIV infection decreased in Ohio. Trends remained stable or could not be identified due to low numbers among all other races/ethnicities by sex categories.

In 2014, the largest proportion of deaths of persons with diagnosed HIV infection were white males (47 percent), followed by black/African-American males (30 percent), black/African-American females (11 percent), white females (6 percent) and Hispanic/Latino males (3 percent). Males and females of all other races/ethnicities had no deaths or accounted for 1 percent or less of deaths of persons with diagnosed HIV infection in Ohio 2014.

Transmission and exposure categories: From 2010-2014, the number of deaths among MSM with diagnosed HIV infection decreased, but this transmission category still accounts for the largest proportion of deaths reported among all HIV transmission categories. Trends in the number and proportion of deaths of persons with diagnosed HIV infection remained stable or could not be identified due to low numbers among all other transmission categories during the time period. Trends in the number and proportion of deaths of persons with diagnosed HIV infection should be interpreted with caution due to the high proportion (19 percent) of deaths for which an HIV transmission category was missing or unreported during this period of time.

In 2014, the largest proportion of deaths of persons with diagnosed HIV infection by exposure was among MSM only (41 percent), followed by heterosexual contact only (19 percent), IDU and heterosexual contact (7 percent), and MSM and IDU (six percent). All other exposure categories each accounted for five percent or less of deaths of persons with diagnosed HIV infection. Trends in deaths by exposure category should be interpreted with caution due to the high proportion (19 percent) of deaths for which an exposure category was missing or unreported during this period of time.

Geographic Area: At the end of 2014, 60 percent of cumulative deaths of persons with diagnosed HIV infection were reported in the four largest and most densely populated counties of the state: Cuyahoga (23 percent), Franklin (19 percent), Hamilton (12 percent) and Montgomery (6 percent). The majority (77 out of 88) of Ohio counties had less than one percent of cumulative deaths, with the smallest proportions in the rural counties.

Table 5. Reported deaths among persons with a diagnosis of HIV infection, by year of death and cumulative deaths by selected characteristics, Ohio, 2010-2014.

	Year of Death among Persons with a Diagnosis of HIV Infection											
	2010		2011		2012		2013		2014		Cumulative Deaths	
Characteristic	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Sex												
Males	223	82%	222	80%	232	78%	195	82%	147	83%	10,476	87%
Females	48	18%	55	20%	66	22%	44	18%	31	17%	1,525	13%
Age at death (yr)												
<13	-	-	-	-	-	-	-	-	-	-	81	1%
13-14	-	-	-	-	-	-	-	-	-	-	3	<1%
15-19	-	-	1	<1%	1	<1%	-	-	-	-	33	<1%
20-24	11	4%	7	3%	1	<1%	1	<1%	4	2%	200	2%
25-29	7	3%	7	3%	9	3%	10	4%	11	6%	1,000	8%
30-34	16	6%	15	5%	12	4%	12	5%	9	5%	1,884	16%
35-39	20	7%	14	5%	20	7%	10	4%	7	4%	2,297	19%
40-44	40	15%	40	14%	32	11%	30	13%	19	11%	2,151	18%
45-49	65	24%	57	21%	52	17%	52	22%	25	14%	1,688	14%
50-54	50	18%	49	18%	48	16%	40	17%	33	19%	1,144	10%
55-64	50	18%	62	22%	85	29%	59	25%	57	32%	1,111	9%
65+	12	4%	25	9%	38	13%	25	10%	13	7%	409	3%
Race/Ethnicity												
White, not Hispanic	159	59%	133	48%	154	52%	118	49%	93	52%	7,154	60%
Black/African American, not Hispanic	94	35%	126	45%	115	39%	99	41%	73	41%	4,347	36%
Hispanic/Latino	12	4%	12	4%	9	3%	12	5%	6	3%	407	3%
Asian/Pacific Islander	1	<1%	1	<1%	1	<1%	-	-	-	-	20	<1%
American Indian/Alaska Native	2	1%	-	-	1	<1%	-	-	-	-	13	<1%
Unknow n	3	1%	5	2%	18	6%	10	4%	6	3%	60	<1%
Race/Sex												
White, not Hispanic Males	134	49%	116	42%	124	42%	103	43%	83	47%	6,588	55%
White, not Hispanic Females	25	9%	17	6%	30	10%	15	6%	10	6%	566	5%
Black/African American, not Hispanic Males	76	28%	94	34%	82	28%	74	31%	54	30%	3,494	29%
Black/African American, not Hispanic Females	18	7%	32	12%	33	11%	25	10%	19	11%	853	7%
Hispanic/Latino Males	9	3%	8	3%	7	2%	10	4%	6	3%	316	3%
Hispanic/Latina Females	3	1%	4	1%	2	1%	2	1%	-	-	91	1%
Asian/Pacific Islander Males	1	<1%	1	<1%	1	<1%	-	-	-	-	20	<1%
Asian/Pacific Islander Females	-	-	-	-	-	-	-	-	-	-	-	-
American Indian/Alaska Native Males	1	<1%	-	-	-	-	-	-	-	-	9	<1%
American Indian/Alaska Native Females	1	<1%	-	-	1	<1%	-	-	-	-	4	<1%
Unknow n	3	1%	5	2%	18	6%	10	4%	6	3%	60	<1%
Total	**271**		**277**		**298**		**239**		**178**		**12,001**	

Notes: Deaths among persons with HIV/AIDS represent deaths attributed to any cause among persons reported with a diagnosis of HIV or AIDS. Deaths by year (2010-2014) represent the number of deaths per year; cumulative deaths represent all reported deaths since the beginning of the epidemic through 2014.

Dash (-) indicates no cases were reported for the given category.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through December 31, 2014.

Table 6. Reported deaths among persons with a diagnosis of HIV infection, by year of death and cumulative deaths, transmission and exposure categories, Ohio, 2010-2014.

	Year of Death among Persons with a Diagnosis of HIV Infection - Transmission Categories											
	2010		2011		2012		2013		2014		Cumulative Deaths	
Transmission Category[a]	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Male adult or adolescent												
Male-to-male sexual contact	120	54%	112	50%	118	51%	113	58%	77	53%	6,740	65%
Injection drug use (IDU)	21	10%	19	9%	16	7%	15	8%	15	10%	964	9%
Male-to-male sexual contact and IDU	15	7%	19	9%	18	8%	11	6%	12	8%	766	7%
Heterosexual contact	16	7%	26	12%	13	6%	15	8%	13	9%	408	4%
Other/unknown	49	22%	46	21%	67	29%	41	21%	29	20%	1,534	15%
Subtotal	221	100%	222	100%	232	100%	195	100%	146	100%	10,412	100%
Female adult or adolescent												
Injection drug use	10	22%	10	19%	11	17%	8	18%	6	19%	390	26%
Heterosexual contact	27	59%	33	61%	39	59%	29	66%	20	65%	826	56%
Other/unknown	9	20%	11	20%	16	24%	7	16%	5	16%	259	18%
Subtotal	46	100%	54	100%	66	100%	44	100%	31	100%	1,475	100%
Child (<13 yrs at diagnosis)												
Perinatal	4	100%	1	100%	-	-	-	-	1	100%	85	75%
Other/unknown	-	-	-	-	-	-	-	-	-	-	29	25%
Subtotal	4	100%	1	100%	-	-	-	-	1	100%	114	100%
Total	**271**		**277**		**298**		**239**		**178**		**12,001**	

Notes: Deaths among persons with HIV/AIDS represent deaths attributed to any cause among persons reported with a diagnosis of HIV or AIDS. Deaths by year (2010-2014) represent the number of deaths per year; cumulative deaths represent all reported deaths since the beginning of the epidemic through 2014.

Dash (-) indicates no cases were reported for the given category.

[a]Transmission categories are mutually exclusive, hierarchical risk categories determined by the CDC. A person with multiple risks is only represented in the highest category based on the CDC hierarchical algorithm.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through December 31, 2014.

	Year of Death among Persons with a Diagnosis of HIV Infection - Exposure Categories											
	2010		2011		2012		2013		2014		Cumulative Deaths	
Exposure Category[a]	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Male-to-male sex (MSM) only	113	42%	109	39%	108	36%	105	44%	73	41%	6,506	54%
Injection drug use (IDU) only	19	7%	15	5%	19	6%	8	3%	8	4%	876	7%
Heterosexual contact only	43	16%	59	21%	52	17%	44	18%	33	19%	1,234	10%
MSM & IDU	13	5%	12	4%	15	5%	10	4%	10	6%	636	5%
IDU & Heterosexual contact	12	4%	14	5%	8	3%	15	6%	13	7%	476	4%
MSM & Heterosexual contact	7	3%	3	1%	10	3%	8	3%	4	2%	227	2%
MSM & IDU & Heterosexual contact	2	1%	7	3%	3	1%	1	<1%	2	1%	129	1%
Perinatal exposure	4	1%	1	<1%	-	-	-	-	1	1%	85	1%
Other/unknown	58	21%	57	21%	83	28%	48	20%	34	19%	1,832	15%
Total	**271**		**277**		**298**		**239**		**178**		**12,001**	

Notes: Deaths among persons with HIV/AIDS represent deaths attributed to any cause among persons reported with a diagnosis of HIV or AIDS. Deaths by year (2010-2014) represent the number of deaths per year; cumulative deaths represent all reported deaths since the beginning of the epidemic through 2014.

Dash (-) indicates no cases were reported for the given category.

[a]Exposure categories are mutually exclusive risk categories. All possible combinations of risks are represented among exposure categories. A person with multiple risks is represented in the exposure category identifying all the reported ways in which that person may have been exposed to HIV.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through December 31, 2014.

Table 7. Reported 2014 diagnoses of HIV infection, reported 2014 persons living with a diagnosis of HIV infection, and cumulative reported deaths among persons with a diagnosis of HIV infection as of December 31, 2014, Ohio, by County.

County[b]	Diagnoses of HIV Infection[a] 2014	Persons Living with a Diagnosis of HIV Infection[c]		Cumulative Reported Deaths[e]
	No.	Rate[d]	No.	No.
Adams	3	92.4	26	11
Allen	6	152.3	160	89
Ashland	1	39.6	21	11
Ashtabula	3	99.8	99	39
Athens	2	72.6	47	30
Auglaize	-	48.0	22	14
Belmont	2	64.8	45	29
Brown	2	65.7	29	13
Butler	19	91.1	341	155
Carroll	-	31.9	9	8
Champaign	3	94.6	37	25
Clark	3	93.0	127	124
Clermont	10	64.0	129	54
Clinton	1	110.0	46	21
Columbiana	4	68.1	72	48
Coshocton	2	57.5	21	9
Crawford	-	77.7	33	20
Cuyahoga	210	347.7	4,381	2,733
Darke	3	61.3	32	21
Defiance	2	64.9	25	20
Delaware	6	76.7	145	38
Erie	4	102.9	78	60
Fairfield	7	97.8	147	52
Fayette	1	90.3	26	14
Franklin	215	377.0	4,642	2,235
Fulton	-	54.0	23	17
Gallia	2	69.1	21	9
Geauga	2	36.1	34	26
Greene	7	92.8	152	78
Guernsey	2	58.1	23	11
Hamilton	148	343.0	2,767	1,483
Hancock	-	53.1	40	32
Hardin	1	47.2	15	9
Harrison	-	38.6	6	5
Henry	-	39.4	11	9
Highland	-	55.8	24	15
Hocking	1	73.1	21	11
Holmes	-	-	4	5
Huron	-	44.3	26	14
Jackson	2	67.2	22	15
Jefferson	1	85.7	58	57
Knox	-	49.0	30	17
Lake	6	65.4	150	89
Lawrence	-	92.5	57	29
Licking	4	93.9	159	73
Logan	-	57.1	26	19
Lorain	8	113.7	346	185
Lucas	43	222.4	968	583
Madison	-	102.5	45	20
Mahoning	22	205.8	480	271
Marion	1	105.0	69	39
Medina	2	43.2	76	23
Meigs	-	60.0	14	6
Mercer	1	19.6	8	12
Miami	2	70.3	73	46
Monroe	-	48.4	7	4
Montgomery	59	244.8	1,305	776
Morgan	1	121.3	18	2
Morrow	1	42.7	15	16
Muskingum	2	85.1	73	41
Noble	-	69.6	10	1
Ottawa	-	36.4	15	15
Paulding	-	63.2	12	10
Perry	2	81.0	29	12
Pickaway	1	112.5	64	54
Pike	-	67.2	19	13
Portage	9	59.9	97	56
Preble	3	43.3	18	12
Putnam	-	14.6	5	9
Richland	-	88.6	108	100
Ross	1	90.7	70	49
Sandusky	2	73.1	44	27
Scioto	1	106.1	82	36
Seneca	-	37.7	21	24
Shelby	4	42.9	21	19
Stark	20	108.3	407	270
Summit	38	151.3	820	504
Trumbull	7	97.5	200	109
Tuscarawas	1	20.5	19	17
Union	1	94.8	51	17
Van Wert	-	38.6	11	4
Vinton	-	45.3	6	3
Warren	7	64.5	143	43
Washington	-	67.0	41	49
Wayne	2	61.5	71	30
Williams	3	61.7	23	19
Wood	2	50.9	66	46
Wyandot	-	31.3	7	5
No County	19	-	1,226	528
Total	**950**	**186.4**	**21,612**	**12,001**

[a] The number of diagnoses of HIV infection includes persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and a later AIDS diagnosis, and concurrent diagnoses of HIV and AIDS.

[b] County is based on county of residence at time of earliest HIV diagnosis. Cases whose residence is a correctional facility or whose county is unknown are included in No County.

[c] Living with a diagnosis of HIV infection represents all persons ever diagnosed and reported with HIV or AIDS who have not been reported as having died as of December 31, 2014. Persons living with a diagnosis of HIV infection represent persons living in Ohio as of December 31, 2014, regardless of whether or not the person was a resident of Ohio at time of initial HIV and/or AIDS diagnosis.

[d] The rate is the number of persons living with a diagnosis of HIV infection per 100,000 population calculated using 2014 U.S. Census estimates.

[e] Deaths of persons with a diagnosis of HIV infection may be due to any cause.

Dash (-) indicates no cases were reported for the given category.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through December 31, 2014.