

## Section 1: Core Epidemiologic Questions

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**Question 1:** What are the sociodemographic characteristics of the general population in Ohio?

**Question 2:** What is the scope of the HIV/AIDS epidemic in Ohio?

**Question 3:** What are the indicators of HIV/AIDS infection risk in Ohio?

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## Question 1

### What are the sociodemographic characteristics of the general population in Ohio?

This section provides demographic and socioeconomic information to describe the sociodemographic characteristics of Ohio residents. The 2010 U.S. Census was the primary source of sociodemographic data for Ohio.

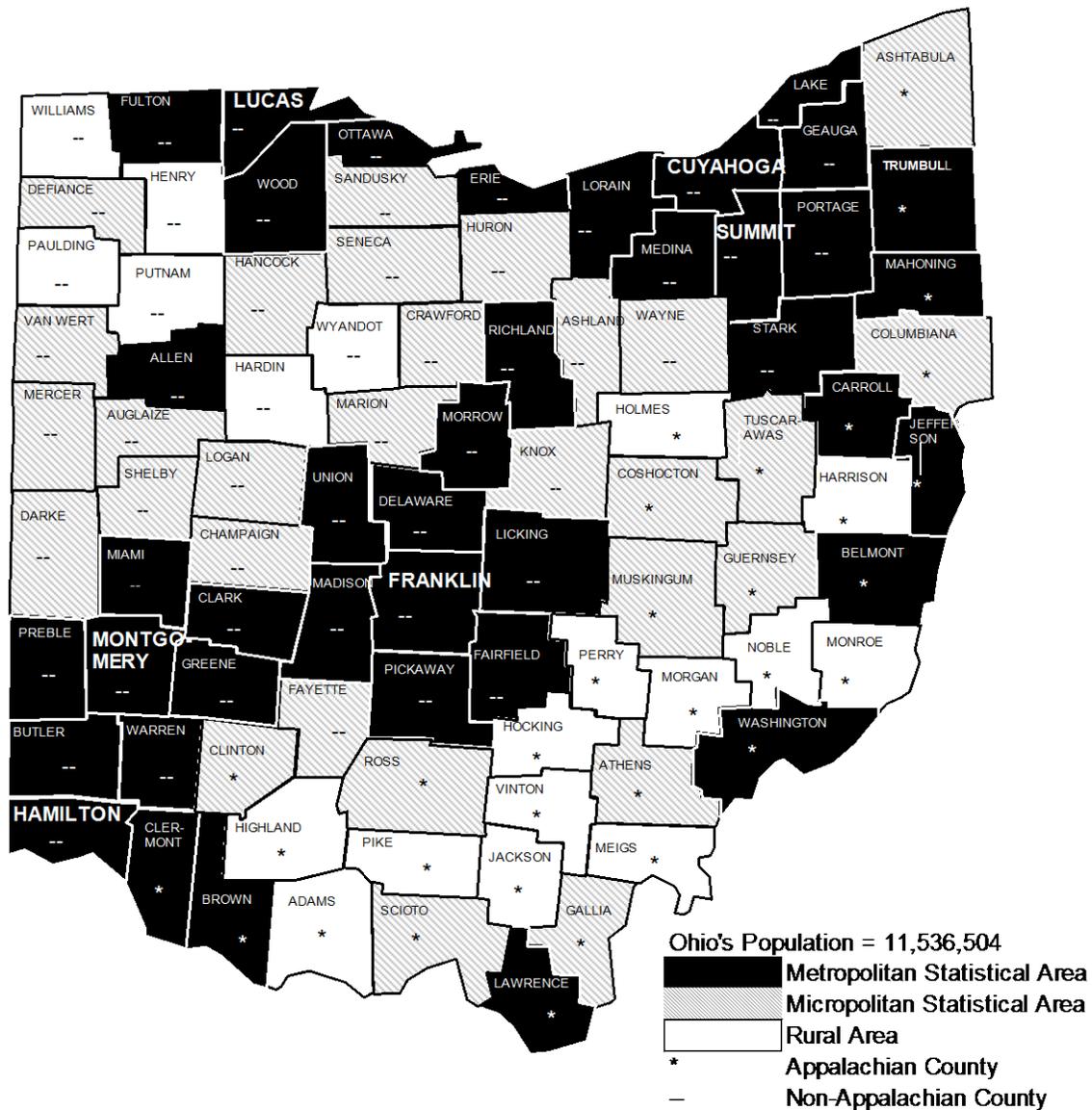
#### Highlights Sociodemographic Characteristics of Ohio's Population

- Ohio is composed of 88 counties with a population of 11,536,504, according to U.S. Census 2010 estimates. The five largest Ohio counties, in descending order are Cuyahoga, Franklin, Hamilton, Montgomery and Summit. Twenty-nine counties, located in southeast Ohio, are considered Appalachian counties. There are 16 Metropolitan Statistical Areas (MSAs) and three major cities (Cleveland, Cincinnati and Columbus).
- U.S. Census 2010 estimates 83 percent of Ohio residents are white, 12 percent are black/African American, two percent are Hispanic/Latino and one percent are Asian/Pacific Islanders. American Indian/Alaska Natives are less than one percent of Ohio's population. The proportion of females (51 percent) was slightly higher than the proportion of males (49 percent). The median age of Ohio residents is 38.8 years. The age distribution for males and females in Ohio is similar; however, a greater proportion of females (16 percent) are age 65 and older compared to males (12 percent). One-third (33 percent) of the population is less than 25 years of age.
- In Ohio, The percent of Ohioans living below the 2010 Federal Poverty Level (FPL) is 15.1 percent. Counties with a FPL of 25 percent or more above the state average are defined as having a high level of poverty. Twenty-nine Appalachian counties concentrated along the southeast border of Ohio and three core urban counties – Cuyahoga, Franklin and Lucas have high levels of poverty.

# Demographics

## Geographic Description

Figure 1. Geographic description of Ohio by county



Note: Counties in bold, large type contain a core urban area of 50,000 or more population. County populations in table form can be found in Appendix C, page 291.

Source: Summary File 1, U.S. Census Bureau, Census 2010.

As stated previously, Ohio is composed of 88 counties with a population of 11,536,504 persons according to 2010 census estimates. Ohio counties are categorized as part of a metro, micro or rural area. A metro area contains a core urban area of 50,000 or more population, and a micro area contains an urban core of at least 10,000 (but less than 50,000) population. Each metro or micro area consists of one or more counties and includes the counties containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core. The remaining counties that are not contained in a metro or micro area are part of the rural area. Almost half, 40 of 88, of Ohio counties are in metro areas with Cuyahoga, Franklin, Hamilton, Montgomery and Summit as the most populace. Twenty-nine counties are in micro areas and the remaining 19 counties are in rural areas. Thirteen of 19 counties in the rural area are Appalachian counties along the southeast border of Ohio. Farmers with distinct settlement patterns, land use practices, and cultural values that were essentially a mixture of Scots-Irish, German/Swiss, and Cherokee cultures settled these counties. This inter-cultural "Back Country" lifestyle formed the basis for the cultural difference that later developed between Appalachian and non-Appalachian Ohio.

The core counties for the eight largest urban areas in Ohio represent 46.7 percent of Ohio's population. These counties include Summit County (Akron), Stark County (Canton), Hamilton County (Cincinnati), Cuyahoga County (Cleveland), Franklin County (Columbus), Montgomery County (Dayton), Lucas County (Toledo) and Mahoning County (Youngstown). The greatest proportion of Ohio residents reside in Cuyahoga County (11.1 percent), followed by Franklin (10.1 percent) and Hamilton (7.0 percent) counties. Ohio counties that are the least populous include Harrison, Monroe, Morgan, Noble and Vinton. These counties are part of the Appalachian region and 0.1 percent of Ohioans live in each county (**Figure 1**).

## Sex and Age

**Table 1. Ohio population distribution, by sex and age**

AGE	Ohio					
	Males		Females		Total Population	
	No.	%	No.	%	No.	%
<14	1,146,277	20%	1,097,172	19%	2,243,449	19%
15-19	420,975	7%	402,707	7%	823,682	7%
20-24	384,202	7%	378,914	6%	763,116	7%
25-29	357,832	6%	360,793	6%	718,625	6%
30-34	344,087	6%	347,242	6%	691,329	6%
35-39	356,420	6%	362,042	6%	718,462	6%
40-44	377,896	7%	383,473	6%	761,369	7%
45-49	420,425	7%	434,709	7%	855,134	7%
50-54	434,740	8%	452,317	8%	887,057	8%
55-64	703,861	12%	748,405	13%	1,452,266	13%
65+	685,441	12%	936,574	16%	1,622,015	14%
<b>Total</b>	<b>5,632,156</b>	<b>100%</b>	<b>5,904,348</b>	<b>100%</b>	<b>11,536,504</b>	<b>100%</b>

Source: Summary File 1, U.S. Census Bureau, Census 2010.

Forty-nine percent of Ohio's 11,536,504 residents are male and 51 percent are female. The median age of Ohio residents is 38.8 years. The age distribution for males and females in Ohio is similar; however, a greater proportion of females (16 percent) are age 65 and older compared to males (12 percent). One-third (33 percent) of the population is less than 25 years of age (**Table 1**).

### ***Race/Ethnicity and Sex***

**Table 2. Distribution of Ohio's population, by race/ethnicity and sex**

<b>Race/Ethnicity</b>	<b>Ohio</b>					
	<b>Males</b>		<b>Females</b>		<b>Total Population</b>	
	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>
White, not Hispanic	4,671,883	83%	4,889,741	83%	9,561,624	83%
Black/African American, not Hispanic	679,334	12%	747,062	13%	1,426,396	12%
Hispanic/Latino	170,210	3%	156,203	3%	326,413	3%
Asian/Pacific Islander	96,912	2%	100,882	2%	197,794	2%
American Indian/Alaska Native	15,064	<1%	15,354	<1%	30,418	<1%
<b>Total</b>	<b>5,633,403</b>	<b>100%</b>	<b>5,909,242</b>	<b>100%</b>	<b>11,542,645</b>	<b>100%</b>

Source: U.S. Census Bureau, Census 2009 Estimates.

U.S. Census 2009 estimates 83 percent of Ohio residents are white, 12 percent are black/African American, two percent are Hispanic and one percent are Asian/Pacific Islanders. American Indian/Alaskan Natives are less than one percent of Ohio's population. The racial/ethnic distribution of Ohio residents is the same between males and females (**Table 2**).

## **Socioeconomic Status (SES)**

### ***Poverty***

The percent of Ohioans living below the 2010 Federal Poverty Level (FPL) is 15.1 percent. Counties with a FPL at least 25 percent below the state average, less than 11.3 percent living in poverty, are defined as having a low level of poverty. Twenty-one counties concentrated in metro, micro and rural areas in the northwest and southwest regions of the state have low levels of poverty. Delaware and Warren counties have the lowest poverty levels - 5.1 and 5.9 percent, respectively.

Counties with a FPL of 25 percent or more above the state average, greater than 18.8 percent living in poverty, are defined as having a high level of poverty. Twenty-nine counties concentrated along the southeast border of Ohio, Appalachian counties, and three core urban counties – Cuyahoga, Franklin and Lucas have high levels of poverty. Athens, Scioto and Jackson counties have the highest poverty levels - 34.7, 23.5 and 22.9 percent, respectively. Summary data in table form can be found in Appendix C, page 292.

### ***Education Level***

In Ohio, 83 percent of persons 25 years of age and older have a high school diploma or more education, and 21 percent have a bachelor's degree or higher. Holmes County had the lowest percentage of persons with a high school diploma or higher at 51.5 percent. This may be attributed to the large Amish population in this Ohio county. Delaware County had the greatest percentage (92.9 percent) of persons 25 years of age and older with a high school diploma or more education and the greatest percentage of persons with a bachelor's degree or higher (41.0 percent).

### ***Health Insurance***

The Ohio Family Health Survey (OFHS) conducted from August 2008 through January 2009, estimated 17.0 percent of Ohioans were without health insurance in 2008. The uninsured include those without health insurance and those who have coverage under the U.S. Indian Health Service only.

Counties where the proportion of uninsured persons is at least 25 percent below the state average, which is less than 12.8 percent uninsured, are defined as having a low proportion of uninsured persons. Sixteen counties concentrated in micro and rural areas in the northwest region of the state and metro counties adjacent to counties with core urban areas have a low proportion of uninsured persons. Hardin, Fulton, Delaware and Greene counties have the lowest proportion of uninsured persons - 5.6, 7.5, 7.6 and 7.8 percent, respectively.

Counties where the proportion of uninsured persons is 25 percent or more above the state average, which is greater than 21.3 percent uninsured, are defined as having a high proportion of uninsured persons. Twenty counties mostly concentrated in the Appalachian region have a high proportion of uninsured persons. Adams, Morgan and Pike counties have the highest

proportion of uninsured persons - 47.4, 36.4 and 35.4 percent, respectively. Summary data in table form can be found in Appendix C, page 293.

**Table 3. Distribution of non-elderly (0-64 years of age) population and uninsured by race/ethnicity, Ohio 2009**

Race/Ethnicity	Ohio		
	Non-Elderly Population	Non-Elderly Uninsured	
	No.	No.	%
White, not Hispanic	8,126,478	1,110,700	14%
Black/African American, not Hispanic	1,290,607	237,900	18%
Hispanic/Latino	309,555	69,500	22%
Other <sup>a</sup>	210,689	49,500	23%
<b>Total</b>	<b>9,937,329</b>	<b>1,467,600</b>	<b>15%</b>

<sup>a</sup>"Other" includes Asian/Pacific Islanders and American Indians/Alaskan Natives.

Source: KFF State Health Facts Online. <http://www.statehealthfacts.kff.org>

Based on the Census Bureau's March 2009 and 2010 Current Population Survey, 15 percent of non-elderly (0-64 years of age) Ohioans are uninsured. The proportion of persons with health insurance is different among race/ethnic groups. Non-elderly whites are more likely to have health insurance (14 percent uninsured), compared to non-elderly blacks/African Americans (18 percent uninsured), and non-elderly Hispanics (22 percent uninsured) (**Table 3**).

### **Medicaid**

Approximately 21 percent of Ohioans received Medicaid benefits in fiscal year 2009 per the Ohio Department of Job and Family Services. Counties where the proportion of persons who receive Medicaid is at least 25 percent below the state average are defined as having a low proportion of persons receiving Medicaid benefits. Thirteen counties concentrated in micro and rural areas in the northwest region of the state and metro counties adjacent to counties with core urban areas have a low proportion of persons receiving Medicaid benefits. Geauga, Delaware and Warren counties have the lowest proportion of persons receiving Medicaid benefits - 7.7, 8.4 and 9.2 percent, respectively.

Counties where the proportion of persons receiving Medicaid benefits is 25 percent or more above the state average are defined as having a high proportion of persons receiving Medicaid benefits. Twenty counties mostly concentrated in the Appalachian region have a high proportion of persons receiving Medicaid benefits. Pike, Adams and Vinton counties have the highest proportion of persons receiving Medicaid benefits - 40.9, 38.4 and 37.4, respectively. Summary data in table form can be found in Appendix C, page 294.

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## Question 2

### What is the Scope of the HIV/AIDS Epidemic in Ohio?

The HIV/AIDS epidemic impacts persons regardless of sex, age, race/ethnic group and/or geographic region in Ohio, but the impact is not the same for all population groups. While white men who reported having sex with men (MSM) continue to account for the highest number of cases in Ohio's epidemic, recent trends suggest increases in cases among females, blacks and heterosexuals. The HIV/AIDS epidemic has affected persons in Ohio for 30 years. As the HIV epidemic continues to change and the number of persons living with a diagnosis of HIV infection continues to grow, it is important to identify populations most impacted and at greatest risk for HIV infection in order to equitably allocate resources for HIV prevention and care initiatives. Hence, there is a continued need to report cases in a timely, complete and accurate manner.

This section provides detailed information about demographic and risk characteristics of HIV-infected individuals and trends in the epidemic in Ohio. The data presented in this section include new diagnoses of HIV infection, AIDS in 2011 and the number of persons living with a diagnosis of HIV infection as of December 31, 2011, as reported through September 30 2012. HIV surveillance data are analyzed using diagnosis dates to increase the completeness of case reporting and provide an accurate reflection of the epidemic.

### **Highlights**

#### **Scope of the HIV Epidemic in Ohio**

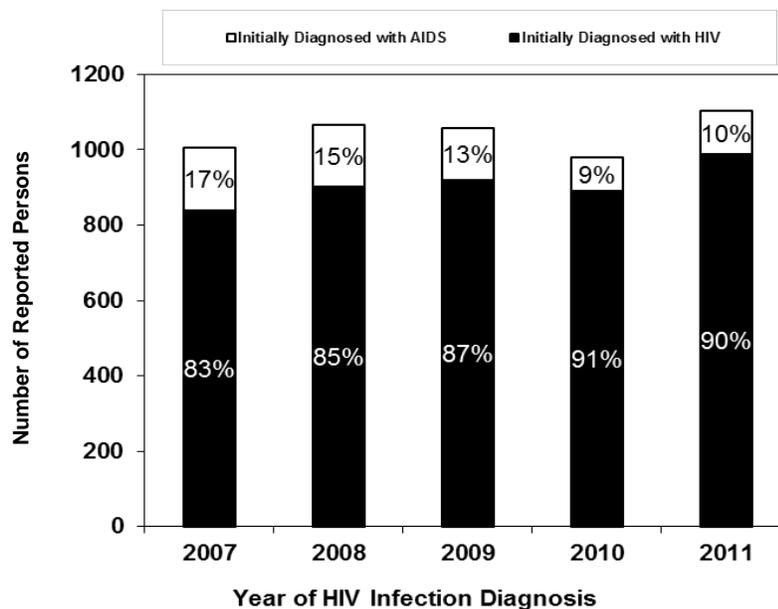
- In 2011, there were 1,103 new diagnoses of HIV infection in Ohio. Of these: 20 percent were female, 35 percent were 20-29 years old, 48 percent were black and 44 percent were white.
- The number of persons living with a diagnosis of HIV infection in Ohio continues to increase each year. As of December 31, 2011, 17,926 persons were known to be living with an HIV infection, of which 48 percent were living with AIDS.
- Blacks/African Americans and Hispanic/Latinos are disproportionately impacted by HIV infections in Ohio. The rate of persons living with an HIV infection per 100,000 population in Ohio in 2011 was more than six times higher among blacks/African Americans compared to whites (572.1 for blacks/African Americans, compared to 92.0 for whites). Among Hispanic/Latino Ohioans, the rate was almost three times higher than among whites (229.6 per 100,000 population for Hispanic/Latinos).
- In 2011, 50 percent of persons living with a diagnosis of HIV infection in Ohio were 40-54 years of age. Seventy-nine percent were male, 30 percent were under 40 years old, 48 percent were white and 45 percent were black/African American.
- The number of persons living with a diagnosis of HIV infection 20-24 years of age was no more than four percent each year between 2007 and 2011, but their numbers increased by 487 percent – from 125 in 2007 to 734 in 2011.
- 2011 risk estimates for Ohio indicate male-to-male sexual contact was the leading mode of transmission for HIV reported among males in Ohio, followed by heterosexual contact and injection drug use. Among females in Ohio, heterosexual contact was the leading mode of transmission, followed by injection drug use.

## Overall Trends in HIV Infection in Ohio

### Trends in HIV/AIDS Diagnoses

There were 1,103 new diagnoses of HIV infection in Ohio during 2011. This number reflects all persons confidentially tested and reported with a diagnosis of HIV infection that had not been previously reported to the Ohio Department of Health (ODH). It includes persons diagnosed with HIV (non-AIDS), persons diagnosed with HIV and later diagnosed with AIDS, and persons concurrently diagnosed with HIV and AIDS. Persons with concurrent HIV and AIDS diagnoses represent AIDS diagnoses among persons not previously reported with an HIV diagnosis. It is not possible to determine how many of these cases were not aware of their HIV infection until they were diagnosed with an AIDS-defining condition. Similarly, it is not known how many may have previously tested positive for HIV anonymously, but not confidentially, or how many may have been previously diagnosed out-of-state but not confidentially reported in Ohio with an HIV diagnosis.

**Figure 2. Reported new diagnoses of HIV infection by initial diagnosis, Ohio, 2007-2011**



Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through September 30, 2012.

Figure 2 shows the number and proportion of persons reported with a diagnosis of HIV infection compared to persons initially diagnosed with AIDS. Persons initially diagnosed with AIDS had no initial diagnosis of HIV in Ohio or were initially diagnosed with AIDS within 30 days of their initial diagnosis of HIV in Ohio; therefore, initial diagnoses with AIDS are concurrent diagnoses. The number of HIV diagnoses should be interpreted with caution, as these data can be affected by reporting practices and delays; and may not reflect true increases or decreases in new HIV infections.

**Table 4. New diagnoses of HIV infection, by year of diagnosis and cumulative diagnoses, by selected characteristics, Ohio, 2007-2011**

Characteristic	Diagnosis of HIV Infection by Year									
	2007		2008		2009		2010		2011	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Sex</b>										
Males	805	80%	843	79%	828	78%	812	83%	882	80%
Females	202	20%	224	21%	229	22%	169	17%	221	20%
<b>Age at diagnosis (yr)</b>										
<13	7	1%	6	1%	7	1%	4	<1%	3	<1%
13-14	-	-	-	-	-	-	1	<1%	-	-
15-19	43	4%	51	5%	69	7%	79	8%	62	6%
20-24	151	15%	180	17%	195	18%	192	20%	227	21%
25-29	146	14%	141	13%	171	16%	143	15%	158	14%
30-34	112	11%	137	13%	114	11%	123	13%	142	13%
35-39	149	15%	146	14%	130	12%	115	12%	120	11%
40-44	170	17%	145	14%	115	11%	106	11%	127	12%
45-49	107	11%	116	11%	103	10%	101	10%	104	9%
50-54	70	7%	85	8%	73	7%	63	6%	85	8%
55-64	39	4%	51	5%	71	7%	44	4%	62	6%
65+	13	1%	9	1%	9	1%	10	1%	13	1%
<b>Race/Ethnicity</b>										
White, not Hispanic	440	44%	467	44%	452	43%	427	44%	484	44%
Black/African American, not Hispanic	488	48%	511	48%	535	51%	481	49%	529	48%
Hispanic/Latino	54	5%	65	6%	44	4%	40	4%	52	5%
Asian/Pacific Islander	7	1%	5	<1%	4	<1%	6	1%	8	1%
American Indian/Alaska Native	-	-	2	<1%	-	-	2	<1%	2	<1%
Unknown	18	2%	17	2%	22	2%	25	3%	28	3%
<b>Race/Sex</b>										
White, not Hispanic Males	379	38%	409	38%	390	37%	374	38%	411	37%
White, not Hispanic Females	61	6%	58	5%	62	6%	53	5%	73	7%
Black/African American, not Hispanic Males	363	36%	366	34%	385	36%	379	39%	397	36%
Black/African American, not Hispanic Females	125	12%	145	14%	150	14%	102	10%	132	12%
Hispanic/Latino Males	44	4%	50	5%	34	3%	34	3%	43	4%
Hispanic/Latina Females	10	1%	15	1%	10	1%	6	1%	9	1%
Asian/Pacific Islander Males	6	1%	4	<1%	2	<1%	4	<1%	5	<1%
Asian/Pacific Islander Females	1	<1%	1	<1%	2	<1%	2	<1%	3	<1%
American Indian/Alaska Native Males	-	-	-	-	-	-	1	<1%	2	<1%
American Indian/Alaska Native Females	-	-	2	<1%	-	-	1	<1%	-	-
Unknown	18	2%	17	2%	22	2%	25	3%	28	3%
<b>Total</b>	<b>1,007</b>		<b>1,067</b>		<b>1,057</b>		<b>981</b>		<b>1,103</b>	

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 (2007-2011) represent all reported cases diagnosed in each year.

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

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through September 30, 2012.

The majority of persons newly diagnosed with an HIV infection in Ohio in 2011 were male (80 percent). Persons diagnosed with an HIV infection are increasingly younger than in previous years. In 2007, 34 percent of new diagnoses of HIV infection were among persons 29 years of age or younger. By 2011, the proportion rose to 41 percent – an increase of 7 percent among persons 29 years of age or younger over five years. Conversely, the proportion of new

diagnoses of HIV infection among persons 30-44 years of age decreased by 7 percent over the five years between 2007 and 2011. In 2007, 43 percent of new diagnoses of HIV infection were among persons 30-44 years of age and by 2011, the proportion fell to 36 percent. The proportion of new diagnoses of HIV infection among persons 45 years of age or older remained relatively constant between 2007 and 2011 at approximately 24 percent of cases. The largest percentage of new diagnoses was among blacks/African Americans. Blacks/African Americans accounted for 49 percent of new diagnoses of HIV infection between 2007 and 2011, but represent only 12 percent of Ohio's population per 2011 U.S. Census estimates; and Hispanic/Latinos account for more than four percent of new diagnoses of HIV infection each year, but represent less than two percent of Ohio's population. White males accounted for the largest percent (38 percent) of new diagnoses of HIV infection in 2011 followed by black/African American males (36 percent), black/African American females (12 percent), white females (6 percent) and then Hispanic/Latino males (4 percent) (Table 4).

### Trends among Persons Living with a Diagnosis of HIV Infection

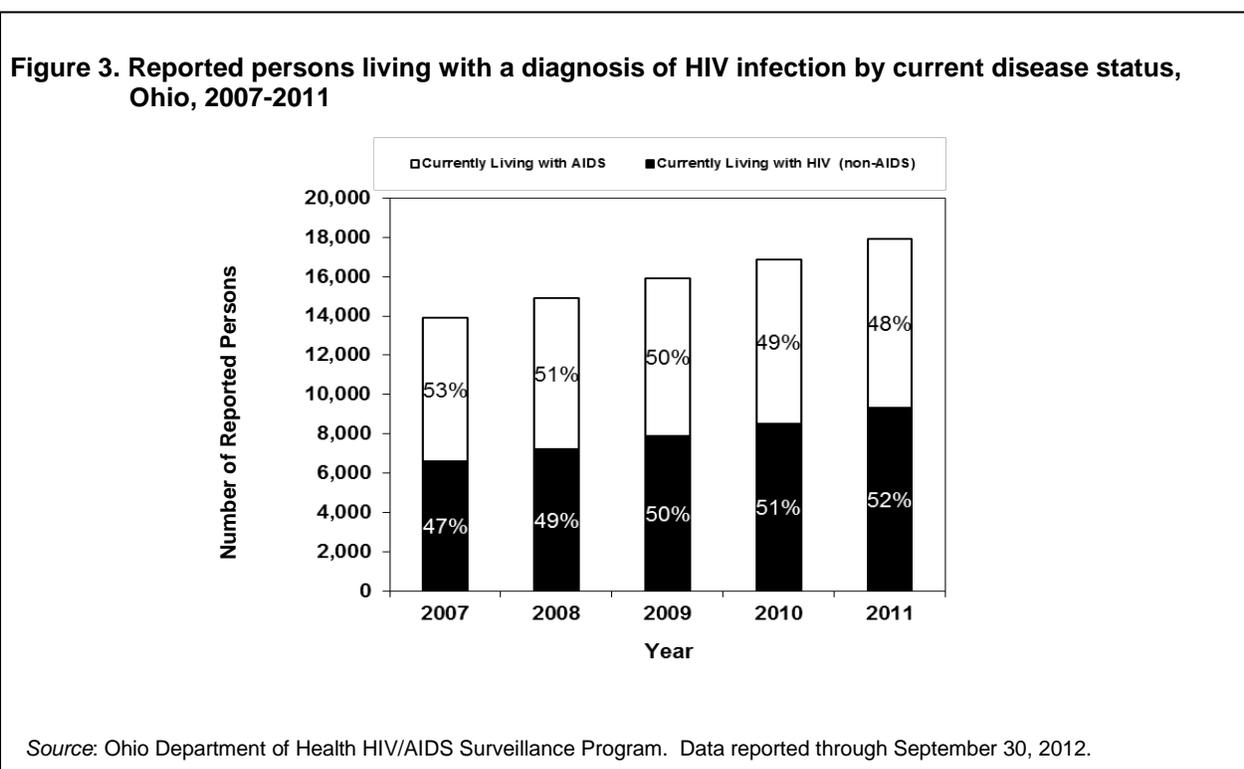


Figure 3 illustrates the increase in the number of persons living with a diagnosis of HIV infection in Ohio by current disease status. From 2007 to 2011, the proportion of reported persons living with HIV (non-AIDS) increased by five percent. Of persons living with a diagnosis of HIV infection in 2011, 52 percent were living with HIV (non-AIDS) and 48 percent were living with AIDS.

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. The number of persons living with a diagnosis of HIV infection reflects all persons ever reported with HIV or AIDS who are not known to have died.

**Table 5. Reported persons living with a diagnosis of HIV infection, by year and by selected characteristics, Ohio, 2007-2011**

Characteristic	Living with a Diagnosis of HIV Infection									
	2007		2008		2009		2010		2011	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Sex</b>										
Males	10,978	79%	11,764	79%	12,544	79%	13,332	79%	14,195	79%
Females	2,923	21%	3,135	21%	3,350	21%	3,513	21%	3,730	21%
<b>Age at diagnosis (yr)</b>										
<13	38	<1%	43	<1%	48	<1%	51	<1%	54	<1%
13-14	10	<1%	11	<1%	12	<1%	13	<1%	13	<1%
15-19	58	<1%	58	<1%	63	<1%	83	<1%	114	1%
20-24	125	1%	204	1%	343	2%	519	3%	734	4%
25-29	519	4%	694	5%	879	6%	1,029	6%	1,188	7%
30-34	883	6%	1,016	7%	1,157	7%	1,293	8%	1,436	8%
35-39	1,279	9%	1,410	9%	1,523	10%	1,625	10%	1,752	10%
40-44	2,157	16%	2,298	15%	2,426	15%	2,536	15%	2,663	15%
45-49	3,007	22%	3,132	21%	3,229	20%	3,327	20%	3,421	19%
50-54	2,587	19%	2,692	18%	2,773	17%	2,858	17%	2,952	16%
55-64	2,635	19%	2,726	18%	2,811	18%	2,868	17%	2,940	16%
65+	604	4%	616	4%	631	4%	644	4%	659	4%
<b>Race/Ethnicity</b>										
White, not Hispanic	6,872	49%	7,307	49%	7,726	49%	8,135	48%	8,608	48%
Black/African American, not Hispanic	6,033	43%	6,513	44%	7,020	44%	7,491	44%	8,009	45%
Hispanic/Latino	649	5%	708	5%	751	5%	791	5%	843	5%
Asian/Pacific Islander	57	<1%	62	<1%	66	<1%	71	<1%	79	<1%
American Indian/Alaska Native	14	<1%	16	<1%	16	<1%	18	<1%	20	<1%
Unknown	277	2%	294	2%	316	2%	340	2%	367	2%
<b>Race/Sex</b>										
White, not Hispanic Males	5,904	42%	6,285	42%	6,644	42%	7,002	42%	7,403	41%
White, not Hispanic Females	968	7%	1,022	7%	1,082	7%	1,133	7%	1,205	7%
Black/African American, not Hispanic Males	4,333	31%	4,673	31%	5,042	32%	5,414	32%	5,803	32%
Black/African American, not Hispanic Females	1,700	12%	1,840	12%	1,978	12%	2,077	12%	2,206	12%
Hispanic/Latino Males	467	3%	514	3%	547	3%	581	3%	624	3%
Hispanic/Latina Females	182	1%	194	1%	204	1%	210	1%	219	1%
Asian/Pacific Islander Males	47	<1%	51	<1%	53	<1%	56	<1%	61	<1%
Asian/Pacific Islander Females	10	<1%	11	<1%	13	<1%	15	<1%	18	<1%
American Indian/Alaska Native Males	11	<1%	11	<1%	11	<1%	12	<1%	14	<1%
American Indian/Alaska Native Females	3	<1%	5	<1%	5	<1%	6	<1%	6	<1%
Unknown	277	2%	294	2%	316	2%	340	2%	367	2%
<b>Total</b>	<b>13,902</b>		<b>14,900</b>		<b>15,895</b>		<b>16,846</b>		<b>17,926</b>	

Notes: Living with a diagnosis of HIV infection by year (2007-2011) represents all persons ever diagnosed and reported with HIV or AIDS who have not been reported as having died as of December 31, 2011. Living with a diagnosis of HIV infection includes those diagnosed with HIV (not AIDS) and those diagnosed with AIDS by current disease status as of December 31, 2011.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through September 30, 2012.

In 2007, 13,902 persons in Ohio were known to be living with a diagnosis of HIV infection and in 2011, this increased 29 percent to 17,926 persons. During this same time, persons living with a

diagnosis of HIV infection 34 years of age or younger increased by 82 percent. Whereas those 20-24 years of age were less than four percent of persons living with a diagnosis of HIV infection during this time, their numbers increased by 487 percent – from 125 in 2007 to 734 in 2011. The number of blacks/African Americans living with a diagnosis of HIV infection increased 33 percent, Hispanic/Latinos living with a diagnosis of HIV infection increased 30 percent and whites living with a diagnosis of HIV infection increased 25 percent. Persons living with a diagnosis of HIV infection categorized as “other” or unknown race also increased, but represented no more than two percent of all cases in any given year (**Table 5**).

**Table 6. Reported persons living with a diagnosis of HIV infection by current disease status and by selected characteristics, Ohio, as of December 31, 2011**

Characteristic	Living with a diagnosis of HIV infection			Current Disease Status			
	Rate <sup>a</sup>	No.	%	HIV (not AIDS)		AIDS	
				No.	%	No.	%
<b>Sex</b>							
Males	251.7	14,195	79%	7,282	78%	6,913	80%
Females	63.2	3,730	21%	2,041	22%	1,689	20%
<b>Age at diagnosis (yr)</b>							
<13	2.8	54	<1%	35	<1%	19	<1%
13-14	4.2	13	<1%	9	<1%	4	<1%
15-19	14.2	114	1%	85	1%	29	<1%
20-24	94.6	734	4%	572	6%	162	2%
25-29	165.1	1,188	7%	849	9%	339	4%
30-34	203.3	1,436	8%	915	10%	521	6%
35-39	255.9	1,752	10%	995	11%	757	9%
40-44	349.0	2,663	15%	1,352	15%	1,311	15%
45-49	415.7	3,421	19%	1,565	17%	1,856	22%
50-54	332.4	2,952	16%	1,341	14%	1,611	19%
55-64	194.0	2,940	16%	1,304	14%	1,636	19%
65+	40.0	659	4%	302	3%	357	4%
<b>Race/Ethnicity</b>							
White, not Hispanic	92.0	8,608	48%	4,455	48%	4,153	48%
Black/African American, not Hispanic	572.1	8,009	45%	4,160	45%	3,849	45%
Hispanic/Latino	229.6	843	5%	413	4%	430	5%
Asian/Pacific Islander	39.0	79	<1%	50	1%	29	<1%
American Indian/Alaska Native	93.5	20	<1%	11	<1%	9	<1%
Unknown	*	367	2%	235	3%	132	2%
<b>Race/Sex</b>							
White, not Hispanic Males	161.8	7,403	41%	3,759	40%	3,644	42%
White, not Hispanic Females	25.2	1,205	7%	696	7%	509	6%
Black/African American, not Hispanic Males	870.1	5,803	32%	2,984	32%	2,819	33%
Black/African American, not Hispanic Females	300.9	2,206	12%	1,176	13%	1,030	12%
Hispanic/Latino Males	329.6	624	3%	309	3%	315	4%
Hispanic/Latina Females	123.2	219	1%	104	1%	115	1%
Asian/Pacific Islander Males	62.9	61	<1%	40	<1%	21	<1%
Asian/Pacific Islander Females	17.1	18	<1%	10	<1%	8	<1%
American Indian/Alaska Native Males	130.2	14	<1%	8	<1%	6	<1%
American Indian/Alaska Native Females	56.4	6	<1%	3	<1%	3	<1%
Unknown	*	367	2%	235	3%	132	2%
<b>Total</b>	<b>155.3</b>	<b>17,926</b>		<b>9,324</b>		<b>8,602</b>	

Notes: 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, 2011. Living with a diagnosis of HIV infection by current disease status categorizes cases by those diagnosed with HIV (not AIDS) and those diagnosed with AIDS as of December 31, 2011.

Asterisk (\*) indicates rate not calculated for case count < 5 due to unstable rates.

<sup>a</sup> The rate is the number of persons living with a diagnosis of HIV infection per 100,000 population calculated using 2011 U.S. Census estimates.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through September 30, 2012.

The rates in Table 6 depict the extent to which populations are impacted by diagnoses of HIV infection. The rate of persons living with a diagnosis of HIV infection in Ohio in 2011 was 155.3 cases per 100,000 population. The rate of blacks/African Americans living with a diagnosis of HIV infection per 100,000 population was more than six times the rate among whites (572.1 per 100,000 black/African American compared to 92.0 per 100,000 whites). Among Ohio's

Hispanic/Latino population, the rate was almost three times the rate among whites (229.6 per 100,000 Hispanic/Latinos). The rate of males living with a diagnosis of HIV infection was 251.7 per 100,000 population compared to 63.2 per 100,000 population for females.

The disproportionate impact of HIV infections among Ohio black/African Americans and Hispanic/Latinos is observed among males and females. The rate of persons living with a diagnosis of HIV infection was 870.1 per 100,000 population for black/African American males and 329.6 per 100,000 population for Hispanic/Latino males, compared to 161.8 per 100,000 population for white males. For females, the rate was 300.9 per 100,000 population for black/African American females, 123.2 per 100,000 population for Hispanic/Latina females and 25.2 per 100,000 population for white females.

## HIV Infection by Ohio County

**Table 7. Diagnoses of HIV infection in 2011, reported persons living with a diagnosis of HIV infection as of December 31, 2011, and cumulative deaths reported among persons with a diagnosis of HIV infection as of December 31, 2011, Ohio, by County**

County <sup>b</sup>	Diagnoses of HIV Infection <sup>a</sup> 2011		Persons Living with a Diagnosis of HIV Infection <sup>c</sup>		Cumulative Reported Deaths <sup>e</sup>	County <sup>b</sup>	Diagnoses of HIV Infection <sup>a</sup> 2011		Persons Living with a Diagnosis of HIV Infection <sup>c</sup>		Cumulative Reported Deaths <sup>e</sup>
	No.	Rate <sup>d</sup>	No.	No.	No.		No.	Rate <sup>d</sup>	No.	No.	
Adams	-	28.1	8	11	11	Logan	2	46.0	21	19	
Allen	7	117.8	125	80	80	Lorain	15	84.2	254	175	
Ashland	1	30.1	16	11	11	Lucas	43	190.2	837	554	
Ashtabula	2	56.2	57	37	37	Madison	-	43.8	19	20	
Athens	3	61.8	40	29	29	Mahoning	26	147.1	349	253	
Auglaize	-	32.7	15	14	14	Marion	3	92.1	61	37	
Belmont	3	41.3	29	28	28	Medina	2	25.4	44	21	
Brown	3	47.0	21	9	9	Meigs	1	33.8	8	6	
Butler	21	74.6	276	144	144	Mercer	3	26.9	11	10	
Carroll	-	31.3	9	7	7	Miami	2	63.2	65	43	
Champaign	2	57.8	23	22	22	Monroe	-	13.7	2	4	
Clark	8	101.7	140	115	115	Montgomery	87	217.1	1,167	725	
Clermont	10	34.6	69	52	52	Morgan	1	53.2	8	1	
Clinton	2	52.5	22	19	19	Morrow	3	28.7	10	15	
Columbiana	3	43.7	47	44	44	Muskingum	2	77.7	67	38	
Coshocton	1	35.2	13	7	7	Noble	-	0.0	-	1	
Crawford	2	36.9	16	19	19	Ottawa	2	43.5	18	15	
Cuyahoga	205	297.6	3,781	2,582	2,582	Paulding	1	41.2	8	9	
Darke	4	54.9	29	21	21	Perry	3	46.8	17	11	
Defiance	3	54.0	21	19	19	Pickaway	4	46.4	26	51	
Delaware	7	53.3	95	34	34	Pike	1	48.9	14	12	
Erie	3	78.2	60	54	54	Portage	8	55.1	89	53	
Fairfield	7	73.4	108	44	44	Preble	-	28.5	12	12	
Fayette	-	48.3	14	13	13	Putnam	1	23.3	8	7	
Franklin	272	321.3	3,787	2,088	2,088	Richland	1	62.3	77	95	
Fulton	-	61.2	26	15	15	Ross	7	75.4	59	46	
Gallia	3	54.9	17	8	8	Sandusky	4	56.0	34	25	
Geauga	3	25.7	24	25	25	Scioto	1	51.7	41	34	
Greene	7	73.1	119	75	75	Seneca	-	33.6	19	23	
Guemsey	-	37.6	15	11	11	Shelby	-	50.7	25	18	
Hamilton	142	289.4	2,316	1,384	1,384	Stark	30	91.2	342	252	
Hancock	1	48.0	36	29	29	Summit	47	131.3	709	464	
Hardin	-	25.0	8	8	8	Trumbull	6	65.5	137	101	
Harrison	1	50.5	8	5	5	Tuscarawas	-	16.2	15	15	
Henry	1	17.8	5	9	9	Union	2	41.7	22	17	
Highland	2	43.7	19	14	14	Van Wert	-	24.5	7	3	
Hocking	-	51.0	15	10	10	Vinton	-	22.4	3	3	
Holmes	-	18.7	8	4	4	Warren	9	45.1	97	38	
Huron	3	37.0	22	14	14	Washington	-	55.1	34	46	
Jackson	-	33.1	11	14	14	Wayne	1	48.0	55	27	
Jefferson	3	71.2	49	54	54	Williams	2	53.2	20	19	
Knox	3	32.6	20	17	17	Wood	1	44.3	56	42	
Lake	5	55.7	128	89	89	Wyandot	-	13.2	3	5	
Lawrence	1	51.2	32	28	28	No County	32	*	1,242	476	
Licking	6	68.8	115	72	72	<b>Total</b>	<b>1,103</b>	<b>155.3</b>	<b>17,926</b>	<b>11,229</b>	

<sup>a</sup> 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.

<sup>b</sup> 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.

<sup>c</sup> 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, 2011.

Living with a diagnosis of HIV infection by current disease status categorizes cases by those diagnosed with HIV (not AIDS) and those diagnosed with AIDS as of December 31, 2011.

<sup>d</sup> The rate is the number of persons living with a diagnosis of HIV infection per 100,000 population calculated using 2011 U.S. Census estimates.

<sup>e</sup> 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.

Asterisk (\*) indicates rate not calculated because Census data is not applicable to the respective category.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through September 30, 2012.

Every county in Ohio has reported persons living with a diagnosis of HIV infection; however the impact of HIV infections varies by county. Franklin County had the highest rate of HIV infection in Ohio (321.3 per 100,000 population) followed by Cuyahoga County (297.6 per 100,000 population) and Hamilton County (289.4 per 100,000 population) (**Table 7**).

While HIV impacts the entire state, the majority of cases are from the counties containing the eight largest urban areas in Ohio. These counties include Summit County (Akron), Stark County (Canton), Hamilton County (Cincinnati), Cuyahoga County (Cleveland), Franklin County (Columbus), Montgomery County (Dayton), Lucas County (Toledo) and Mahoning County (Youngstown). These counties account for 74 percent of persons living with a diagnosis of HIV infection in Ohio in 2011; however, they account for 48 percent of Ohio's population. Of the rural counties, while Allen County had few new diagnosis of HIV infections reported in 2011 (seven cases); they had the highest rate of persons living with a diagnosis of HIV infection in 2011 among rural Ohio counties (117.8 cases per 100,000 population) (**Table 7**).

## HIV Infection and U.S. Census Data

As discussed earlier, the demographic distribution of the HIV epidemic in Ohio differs from the distribution of Ohio's overall population. The following tables and graphs illustrate these differences.

**Table 8. Reported persons living with a diagnosis of HIV infection 2011 and U.S. Census 2011 estimates, by selected demographic characteristics**

Demographic Characteristics	Living with a Diagnosis of HIV Infection			Census 2011 Estimates	
	Rate <sup>a</sup>	No.	%	No.	%
<b>Sex</b>					
Males	251.7	14,195	79%	5,639,352	49%
Females	63.2	3,730	21%	5,905,599	51%
<b>Age as of 12/11</b>					
<13	2.8	54	<1%	1,910,139	17%
13-14	4.2	13	<1%	307,460	3%
15-19	14.2	114	1%	802,615	7%
20-24	94.6	734	4%	775,978	7%
25-29	165.1	1,188	7%	719,472	6%
30-34	203.3	1,436	8%	706,374	6%
35-39	255.9	1,752	10%	684,776	6%
40-44	349.0	2,663	15%	763,109	7%
45-49	415.7	3,421	19%	822,978	7%
50-54	332.4	2,952	16%	887,999	8%
55-64	194.0	2,940	16%	1,515,607	13%
65+	40.0	659	4%	1,648,444	14%
<b>Race/Ethnicity</b>					
White, not Hispanic	92.0	8,608	48%	9,351,839	81%
Black/African American, not Hispanic	572.1	8,009	45%	1,400,016	12%
Hispanic/Latino	229.6	843	5%	367,116	3%
Asian/Pacific Islander	39.0	79	<1%	202,532	2%
American Indian/Alaska Native	93.5	20	<1%	21,381	<1%
Unknown	*	367	2%		*
<b>Race/Sex</b>					
White, not Hispanic Males	161.8	7,403	41%	4,576,339	40%
White, not Hispanic Females	25.2	1,205	7%	4,775,500	41%
Black/African American, not Hispanic Males	870.1	5,803	32%	666,946	6%
Black/African American, not Hispanic Females	300.9	2,206	12%	733,070	6%
Hispanic/Latino Males	329.6	624	3%	189,337	2%
Hispanic/Latina Females	123.2	219	1%	177,779	2%
Asian/Pacific Islander Males	62.9	61	<1%	96,992	1%
Asian/Pacific Islander Females	17.1	18	<1%	105,540	1%
American Indian/Alaska Native Males	130.2	14	<1%	10,749	<1%
American Indian/Alaska Native Females	56.4	6	<1%	10,632	<1%
Unknown	*	367	2%	*	*
<b>Total</b>	<b>155.3</b>	<b>17,926</b>	<b>100%</b>	<b>11,544,951</b>	<b>100%</b>

Notes: 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, 2011. Living with a diagnosis of HIV infection by current disease status includes cases of those diagnosed with HIV (not AIDS) and those diagnosed with AIDS as of December 31, 2011.

Asterisk (\*) indicates case count < 5 and/or rate not calculated because Census data is not applicable to the respective category.

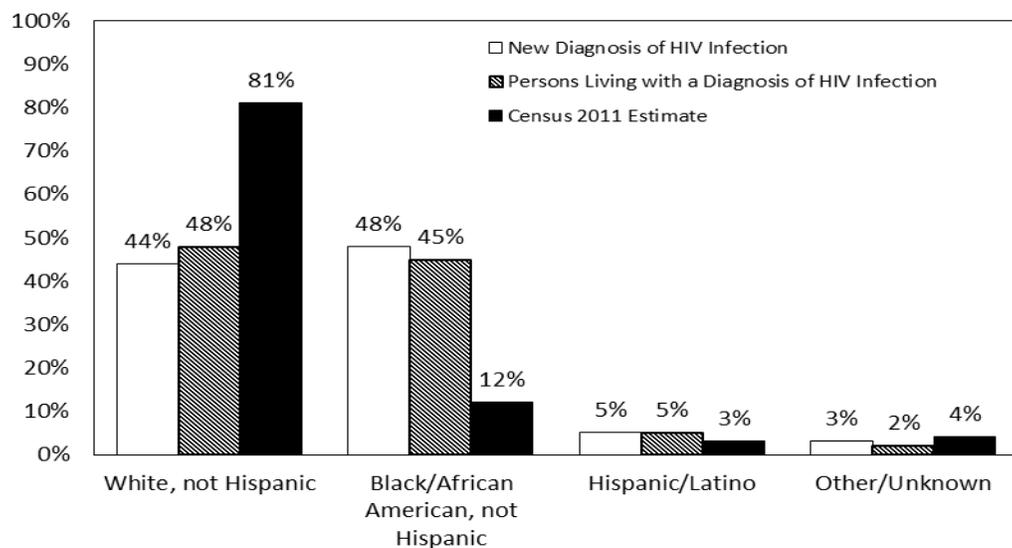
<sup>a</sup> The rate is the number of persons living with a diagnosis of HIV infection per 100,000 population calculated using 2011 U.S. Census estimates.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through September 30, 2012.

Table 8 compares 2011 United States Census data to persons living with a diagnosis of HIV infection as of December 31, 2011 and demonstrates the disproportionate impact of HIV by sex and race/ethnicity. Although almost equal proportions of males and females reside in Ohio, 79 percent of Ohioans living with a diagnosis of HIV infection in 2011 were male. Black/African-American males and females each accounted for six percent of Ohio's population, but 32 percent of Ohioans living with a diagnosis of HIV infection in 2011 were black/African-American males and 12 percent were black females.

## HIV Infection by Race/Ethnicity and Sex

**Figure 4. New diagnoses of HIV infection in 2011, persons living with HIV as of December 31, 2011 and 2011 U.S. Census estimates, by race/ethnicity, Ohio**



Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through September 30, 2012. U.S. Census Bureau, Census 2011 estimates.

Figure 4 illustrates the disproportionate impact of HIV on blacks/African Americans and Hispanic/Latinos. Twelve percent of Ohioans were black; however, 48 percent of Ohio's new diagnoses of HIV infection in 2011 and 44 percent of Ohioans living with a diagnosis of HIV infection in 2011 were black/African-American. Hispanic/Latinos comprised three percent of Ohio's population; however, five percent of Ohio's new diagnoses of HIV infection in 2011 and five percent of Ohioans living with a diagnosis of HIV infection in 2011 were Hispanic/Latino.

**Table 9. New diagnoses of HIV infection by race/ethnicity and sex, Ohio, 2011**

Race/Ethnicity	Males			Females			2011 Diagnoses of HIV Infection		
	No.	%	Rate <sup>a</sup>	No.	%	Rate <sup>a</sup>	No.	%	Rate <sup>a</sup>
White, not Hispanic	411	47%	9.0	73	33%	1.5	484	44%	5.2
Black/African American, not Hispanic	397	45%	59.5	132	60%	18.0	529	48%	37.8
Hispanic/Latino	43	5%	22.7	9	4%	5.1	52	5%	14.2
Asian/Pacific Islander	5	1%	5.2	3	1%	*	8	1%	3.9
American Indian/Alaska Native	2	<1%	*	-	*	*	2	<1%	*
Unknown	24	2%	*	4	2%	*	28	3%	*
<b>Total</b>	<b>882</b>	<b>100%</b>	<b>15.6</b>	<b>221</b>	<b>100%</b>	<b>3.7</b>	<b>1103</b>	<b>100%</b>	<b>9.6</b>

Note: 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.

Dash (-) indicates no cases. Asterisk (\*) indicates rate not calculated because case count < 5 or U.S. Census data is not applicable to the respective category.

<sup>a</sup> The rate is the number of persons living with a diagnosis of HIV infection per 100,000 population calculated using 2011 U.S. Census estimates.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through September 30, 2012.

Among Ohio males newly diagnosed with an HIV infection in 2011, 47 percent were white, 45 percent were black/African American and five percent were Hispanic/Latino. Among females, 60 percent of new diagnoses of HIV infection were black/African American, 33 percent were white and four percent were Hispanic/Latina (**Table 9**).

In 2011, the overall rate of new diagnoses of HIV infection was 9.6 per 100,000 population in Ohio. Males had four times the rate of new diagnoses of HIV infection compared to females (15.6 per 100,000 males and 3.7 per 100,000 females). Blacks/African Americans had the highest rate of reported new diagnoses of HIV infection (37.8 per 100,000 blacks/African Americans) followed by Hispanic/Latinos (14.2 per 100,000 Hispanic/Latinos). Among males, black/African American males had the highest rate of reported new diagnoses of HIV infection (59.5 per 100,000 black/African American males) followed by Hispanic/Latino males (22.7 per 100,000 Hispanic/Latino males). Among females, black/African-American females had the highest rate of reported diagnoses of HIV infection (18.0 per 100,000 black/African American females) followed by Hispanic/Latina females (5.1 per 100,000 Hispanic/Latina females) (**Table 9**).

## HIV Infection by Age Group

**Table 10. New diagnoses of HIV infection by age group and sex, Ohio, 2011**

Age at Diagnosis	Males		Females		2011 Diagnoses of HIV Infection	
	No.	%	No.	%	No.	%
<13	2	<1%	1	<1%	3	<1%
13-14	-	-	-	-	-	-
15-19	48	5%	14	6%	62	6%
20-24	195	22%	32	15%	227	21%
25-29	127	14%	31	14%	158	14%
30-34	115	13%	27	12%	142	13%
35-39	92	10%	28	13%	120	11%
40-44	100	11%	27	12%	127	12%
45-49	81	9%	23	10%	104	9%
50-54	70	8%	15	7%	85	8%
55-64	43	5%	19	9%	62	6%
65+	9	1%	4	2%	13	1%
<b>Total</b>	<b>882</b>	<b>100%</b>	<b>221</b>	<b>100%</b>	<b>1,103</b>	<b>100%</b>

*Note:* Diagnoses of HIV infection reflect cases of HIV diagnosed for the first time, including cases that are diagnosed with HIV, not AIDS; cases that are diagnosed with HIV and later progressed to AIDS; and cases concurrently with HIV and AIDS.

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

*Source:* Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through September 30, 2012.

The largest proportion of Ohio's new diagnoses of HIV infection in 2011 were among males aged 20-24 years (22 percent) and females aged 20-24 years (15 percent). Ohio males at the time of diagnosis of HIV infection were younger than females. Twenty-eight percent of Ohio's males were 24 years or younger at the time of diagnosis of HIV infection compared to 21 percent of Ohio's females who were 24 years or younger at the time of diagnosis of HIV infection (**Table 10**).

**Table 11. New diagnoses of HIV infection by age group and race/ethnicity, Ohio, 2011**

Age at Diagnosis	White, not Hispanic		Black/African American, not Hispanic		Hispanic/Latino		Other/Unknown		2011 Diagnoses of HIV Infection	
	No.	%	No.	%	No.	%	No.	%	No.	%
<13	-	-	2	<1%	1	2%	-	-	3	<1%
13-14	-	-	-	-	-	-	-	-	-	-
15-19	16	3%	44	8%	1	2%	1	3%	62	6%
20-24	84	17%	127	24%	8	15%	8	21%	227	21%
25-29	60	12%	87	16%	7	13%	4	11%	158	14%
30-34	74	15%	54	10%	8	15%	6	16%	142	13%
35-39	53	11%	52	10%	11	21%	4	11%	120	11%
40-44	64	13%	52	10%	6	12%	5	13%	127	12%
45-49	61	13%	38	7%	4	8%	1	3%	104	9%
50-54	39	8%	40	8%	4	8%	2	5%	85	8%
55-64	27	6%	26	5%	2	4%	7	18%	62	6%
65+	6	1%	7	1%	-	-	-	-	13	1%
<b>Total</b>	<b>484</b>	<b>100%</b>	<b>529</b>	<b>100%</b>	<b>52</b>	<b>100%</b>	<b>38</b>	<b>100%</b>	<b>1,103</b>	<b>100%</b>

*Note:* Diagnoses of HIV infection reflect cases of HIV diagnosed for the first time, including cases that are diagnosed with HIV (not AIDS); cases diagnosed with HIV and later progressed to AIDS; and cases diagnosed concurrently with HIV and AIDS.

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

*Source:* Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through September 30, 2012.

The proportion of Ohio's reported diagnoses of HIV infection varied by age group among race/ethnicity categories. Black/African American Ohioans diagnosed with an HIV infection were younger when diagnosed compared to whites. Twenty-four percent of blacks/African Americans at the time of diagnosis of HIV infection were 20-24 years of age compared to 17 percent of whites who were 20-24 years of age. Comparisons with Hispanic/Latino or Other/Unknown race/ethnicity categories were not suitable due to the small number of cases in each age group (**Table 11**).

## HIV Infection by Mode of Transmission

### No reported risk/No identified risk (NRR/NIR)

Mode of transmission information is collected on the HIV/AIDS reporting form; however, the number of reports lacking this information is increasing and can be greater than 50 percent for some population groups in Ohio. A case is considered no risk reported (NRR) if risk information is absent from the initial case report. The case is considered no identified risk (NIR) after 12 months as an NRR and epidemiologic follow-up has been conducted. NIR was reported for 30 percent of Ohio males and 47 percent of Ohio females with a new diagnosis of HIV infection in 2011. For Ohioans living with a diagnosis of HIV infection in 2011, 19 percent of males and 30 percent of females were reported as having NIR. This lack of information may be attributed to a person's inability to identify risk, unwillingness to disclose risk behavior, or reluctance and/or inability to identify with a risk behavior as defined by CDC. Reports of HIV infection with NIR information are investigated in an attempt to reclassify them into a transmission category.

Because data reflecting recent HIV diagnoses have a high proportion of NIR cases due to inadequate time to investigate and reclassify, CDC transmission estimates for Ohio will be presented in this section. These are point estimates adjusted for reporting delays and for redistribution of cases in persons initially diagnosed as NIR; however they do not adjust for incomplete reporting. After adjustment for reporting delays and redistribution of cases among persons initially diagnosed as NIR, greater than 99 percent of cases were reclassified into a transmission category. Totals for estimated new diagnoses and persons living with a diagnosis of HIV infection do not match actual totals, due to elimination of cases not reclassified into a transmission category.

HIV transmission remains a key reporting indicator 30 years into the epidemic. Health care providers and others offering testing and treatment for HIV should continue to help patients understand why this remains critical to helping prevent HIV and AIDS in Ohio.

**Table 12. New diagnoses of HIV infection by estimated transmission category and sex, Ohio, 2011**

Transmission Category	Males		Females		2011 Diagnoses of HIV Infection	
	No.	%	No.	%	No.	%
Male-to-male sexual contact	762	84%	N/A	0%	762	67%
Injection drug use (IDU)	32	4%	30	13%	62	5%
Male-to-male sexual contact and IDU	28	3%	N/A	0%	28	2%
Heterosexual contact	87	9%	205	87%	292	26%
<b>Total</b>	<b>909</b>	<b>100%</b>	<b>235</b>	<b>100%</b>	<b>1,144</b>	<b>100%</b>

*Note* : Numbers do not represent actual cases of HIV infection. They are point estimates of cases of HIV diagnoses statistically adjusted for reporting delays and redistribution of cases in persons initially reported without an identified risk. The estimates have not been adjusted for incomplete reporting. Numbers of cases 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.

*Source*: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through June 30, 2012.

Ohio's estimated leading mode of transmission for new diagnoses of HIV infection in 2011 was male-to-male sexual contact followed by heterosexual contact. Among males, an estimated 84 percent of cases were attributed to male-to-male sexual contact, nine percent to heterosexual contact and four percent to injection drug use. Among females, an estimated 87 percent of cases were attributed to heterosexual contact and 13 percent to injection drug use (**Table 12**).

**Table 13. New diagnoses of HIV infection by estimated transmission category and race/ethnicity, Ohio, 2011**

Transmission Category	White, not Hispanic		Black/African American, not Hispanic		Hispanic/Latino		Other/Unknown		2011 Diagnoses of HIV Infection	
	No.	%	No.	%	No.	%	No.	%	No.	%
Male-to-male sexual contact	372	74%	342	62%	25	48%	23	62%	762	67%
Injection drug use (IDU)	23	5%	25	5%	12	23%	2	5%	62	5%
Male-to-male sexual contact and IDU	21	4%	6	1%	0	0%	0	0%	27	2%
Heterosexual contact	84	17%	182	33%	15	29%	12	32%	293	26%
<b>Total</b>	<b>500</b>	<b>100%</b>	<b>555</b>	<b>100%</b>	<b>52</b>	<b>100%</b>	<b>37</b>	<b>100%</b>	<b>1,144</b>	<b>100%</b>

*Note:* Numbers do not represent actual cases of HIV infection. They are point estimates of cases of HIV diagnoses statistically adjusted for reporting delays and for redistribution of cases in persons initially reported without an identified risk. The estimates have not been adjusted for incomplete reporting. Numbers of cases 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.  
*Source:* Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through June 30, 2012.

Male-to-male sex was estimated as the leading mode of HIV transmission across all racial/ethnic groups in Ohio. Black/African Americans and Hispanic/Latinos had a lower estimated percentage of HIV cases attributed to male-to-male sexual contact compared to whites and a larger percentage of estimated HIV cases attributed to heterosexual contact compared to whites. Hispanic/Latinos had a higher estimated percentage of estimated HIV cases attributed to injection drug use compared to whites (**Table 13**).

**Table 14. Persons living with a diagnosis of HIV infection by estimated transmission category, Ohio, 2007-2011**

Transmission Category	Estimated Persons Living with a Diagnosis of HIV Infection by Year									
	2007		2008		2009		2010		2011	
	No.	%	No.	%	No.	%	No.	%	No.	%
Male-to-male sexual contact	8,407	61%	9,048	61%	9,689	62%	10,361	62%	11,115	62%
Injection drug use (IDU)	1,306	9%	1,355	9%	1,405	9%	1,443	9%	1,506	8%
Male-to-male sexual contact and IDU	657	5%	683	5%	708	4%	738	4%	765	4%
Heterosexual contact	3,382	25%	3,660	25%	3,939	25%	4,147	25%	4,431	25%
<b>Total</b>	<b>13,752</b>	<b>100%</b>	<b>14,746</b>	<b>100%</b>	<b>15,741</b>	<b>100%</b>	<b>16,689</b>	<b>100%</b>	<b>17,817</b>	<b>100%</b>

*Note:* Numbers do not represent actual cases of HIV infection. They are point estimates of cases of HIV diagnoses statistically adjusted for reporting delays and for redistribution of cases in persons initially reported without an identified risk. The estimates have not been adjusted for incomplete reporting. Numbers of cases 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.  
*Source:* Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through June 30, 2012.

Table 14 further illustrates that for persons living with a diagnosis of HIV infection, the leading estimated mode of transmission continues to be male-to-male sexual contact, followed by heterosexual contact and primary injection drug use. The number of persons living with a diagnosis of HIV infection among the three estimated modes of transmission continues to increase. Estimates indicate persons living with a diagnosis of HIV infection reporting male-to-male sexual contact increased 32 percent from 2007 through 2011. Those reporting heterosexual contact increased 31 percent and those reporting injection drug use increased 15 percent during the same period.

## Perinatal Transmissions

Perinatal HIV transmissions represent HIV transmission from mother-to-child during pregnancy, delivery or breastfeeding. Perinatal transmission accounts for 91 percent of all AIDS cases among children under the age of 13 in the U.S. and 100 percent of all reported AIDS cases among children under the age of 13 in Ohio<sup>1</sup>. Reports of perinatal transmission are underestimated for several reasons including lack of routine HIV testing in physicians' practices – approximately 60 percent of Ohio pregnant women who had a live birth were tested, far below CDC's recommendation of universal testing<sup>2</sup>. Information from Ohio's Pregnancy Risk Assessment Monitoring System (PRAMS) indicates that only 76 percent of recent mothers were offered an HIV test during pregnancy or delivery in 2009 in Ohio. In addition, pregnant women may not seek appropriate prenatal care regardless of HIV-status. Even if follow-up on perinatal exposures were prioritized over other surveillance activities, we would have difficulties following all exposures until they meet the definition of sero-reversion because of mothers changing physicians and moving. In addition, children are considered sero-reverters by physicians before meeting the surveillance case definition making it difficult to identify perinatal exposures.

**Table 15. Reported perinatal HIV transmission diagnoses by birth country status and race/ethnicity, 2007-2011**

Demographic Characteristics	Year of HIV Diagnosis									
	2007		2008		2009		2010		2011	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Birth Country Status</b>										
Foreign born	2	28%	3	50%	4	57%	4	100%	2	67%
U.S. born	5	72%	3	50%	3	43%	-	-	1	33%
<b>Race/Ethnicity</b>										
White, not Hispanic	-	-	-	-	3	43%	-	-	-	-
Black/African American, not Hispanic	6	86%	5	83%	4	57%	4	100%	2	67%
Other/Unknown	1	14%	1	17%	-	-	-	-	1	33%
<b>Total</b>	<b>7</b>	<b>100%</b>	<b>6</b>	<b>100%</b>	<b>7</b>	<b>100%</b>	<b>4</b>	<b>100%</b>	<b>3</b>	<b>100%</b>

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 (2007-2011) represent all reported cases diagnosed in each year.

Other/Unknown includes Hispanic/Latino, Asian/Pacific Islander, American Indian/Alaska Native and missing race/ethnicity.

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

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through September 30, 2012.

Table 15 shows that at least half of reported perinatal HIV infections in Ohio were among foreign-born children in any given year between 2007 and 2011, the exception is 2007 when two foreign-born children were reported with an HIV infection. In 2010, all four reported perinatal HIV infections were amongst foreign-born children. The majority of reported perinatal HIV infections in Ohio have been among black/African-American children since 2007. In 2010, all four reported perinatal HIV infections were among black/African-American children (**Table 15**).

<sup>1</sup> Centers for Disease Control and Prevention. "One Test. Two Lives". Atlanta: Department of Health and Human Services, Centers for Disease Control and Prevention <http://www.cdc.gov/hiv/topics/perinatal/1test2lives/>

<sup>2</sup> Ohio Department of Health, Ohio Pregnancy Risk Assessment Monitoring System. (2011). Prevention of perinatal HIV transmission and Ohio's HIV testing laws Retrieved from <http://www.odh.ohio.gov/healthstats/pramshs/pramshsdata.aspx>

## AIDS Trends

As new drug treatments make it possible for HIV infected individuals to remain asymptomatic, the number of new AIDS diagnoses and AIDS-related deaths has declined since 1996. AIDS incidence (the number of new AIDS diagnoses) is no longer the gold standard to monitor the HIV/AIDS epidemic. However, it is important to continue monitoring AIDS incidence and mortality, as one measure of the efficacy of improved treatments and help identify groups that might not be receiving care, for whom treatment has not been successful or who have not tested to learn their status. Examining the time frame between HIV diagnosis and AIDS diagnosis helps to identify persons who might not be diagnosed with HIV early in the course of the disease. Data should be interpreted with caution as it is possible some cases reported with a diagnosis of HIV less than 12 months prior to their AIDS diagnosis may have previously tested anonymously or confidentially in a different state and not reported in Ohio.

**Table 16. Reported AIDS diagnoses by race and sex, 2011**

Race/Ethnicity	Males		Females		2011 AIDS Diagnoses	
	No.	Rate <sup>a</sup>	No.	Rate <sup>a</sup>	No.	Rate <sup>a</sup>
White, not Hispanic	204	4.5	34	0.7	238	2.5
Black/African American, not Hispanic	199	29.8	70	9.5	269	19.2
Hispanic/Latino	19	10.0	4	*	23	6.3
Asian/Pacific Islander	2	*	-	*	2	*
American Indian/Alaska Native	-	*	1	*	1	*
Unknow n	13	*	3	*	16	*
<b>Total</b>	<b>437</b>	<b>7.7</b>	<b>112</b>	<b>1.9</b>	<b>549</b>	<b>4.8</b>

Note: Data reflects all persons with an AIDS diagnoses in 2011.

Dash (-) indicates no cases. Asterisk (\*) indicates rate not calculated because case count < 5 and/or U.S. Census data is not applicable to the respective category.

<sup>a</sup> The rate is the number of persons living with a diagnosis of HIV infection per 100,000 population calculated using 2011 U.S. Census estimates.

Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through September 30, 2012.

Table 16 shows the rates per 100,000 population of reported AIDS diagnoses by race and sex in Ohio in 2011. The rates depict the disproportionate impact of AIDS by race and sex. The majority of persons in Ohio with AIDS diagnoses were black/African American. The rate of reported AIDS diagnoses among black/African Americans (19.2 per 100,000 blacks) was eight times greater compared to whites (2.5 per 100,000 whites). The rate of reported AIDS diagnoses per 100,000 population was higher among black/African American (29.8 per 100,000 black/African American males) and Hispanic/Latino males (10.0 per 100,000 Hispanic/Latino males) compared to white males (4.5 per 100,000 white males). The rate of reported AIDS diagnoses per 100,000 population was also greater among black/African-American females (9.5 per 100,000 black/African American females) compared to white females (0.7 per 100,000 white females) in Ohio (**Table 16**).

**Table 17. Time to an AIDS diagnosis after a diagnosis of HIV infection by selected characteristics, Ohio, 2011**

Characteristic	AIDS Diagnoses					
	Total AIDS Diagnoses		≥ 12 Months after HIV Diagnosis		< 12 Months after HIV Diagnosis <sup>a</sup>	
	No.	%	No.	%	No.	%
<b>Sex</b>						
Males	437	80%	177	81%	260	79%
Females	112	20%	42	19%	70	21%
<b>Age at AIDS diagnosis</b>						
<13	1	<1%	-	-	1	<1%
13-14	-	-	-	-	-	-
15-19	11	2%	3	1%	8	2%
20-24	61	11%	20	9%	41	12%
25-29	64	12%	25	11%	39	12%
30-34	73	13%	23	11%	50	15%
35-39	70	13%	23	11%	47	14%
40-44	76	14%	33	15%	43	13%
45-49	82	15%	35	16%	47	14%
50-54	51	9%	26	12%	25	8%
55-64	55	10%	29	13%	26	8%
65+	5	1%	2	1%	3	1%
<b>Race/Ethnicity</b>						
White, not Hispanic	238	43%	93	42%	145	44%
Black/African American, not Hispanic	269	49%	108	49%	161	49%
Hispanic/Latino	23	4%	7	3%	16	5%
Asian/Pacific Islander	2	<1%	-	-	2	1%
American Indian/Alaska Native	1	<1%	1	<1%	-	-
Unknown	16	3%	10	5%	6	2%
<b>Race/Sex</b>						
White, not Hispanic Males	204	37%	77	35%	127	38%
White, not Hispanic Females	34	6%	16	7%	18	5%
Black/African American, not Hispanic Males	199	36%	85	39%	114	35%
Black/African American, not Hispanic Females	70	13%	23	11%	47	14%
Hispanic/Latino Males	19	3%	6	3%	13	4%
Hispanic/Latina Females	4	1%	1	<1%	3	1%
Asian/Pacific Islander Males	2	<1%	-	-	2	1%
Asian/Pacific Islander Females	-	-	-	-	-	-
American Indian/Alaska Native Males	-	-	-	-	-	-
American Indian/Alaska Native Females	1	<1%	1	<1%	-	-
Unknown	16	3%	10	5%	6	2%
<b>Transmission Category</b>						
<b>Male adult or adolescent</b>						
Male-to-male sexual contact	253	58%	99	56%	154	59%
Injection drug use (IDU)	8	2%	3	2%	5	2%
Male-to-male sexual contact and IDU	13	3%	7	4%	6	2%
Heterosexual contact	32	7%	18	10%	14	5%
Other/unknown	130	30%	49	28%	81	31%
Subtotal	436	100%	176	100%	260	100%
<b>Female adult or adolescent</b>						
Injection drug use	8	7%	3	7%	5	7%
Heterosexual contact	50	45%	26	63%	24	35%
Other/unknown	52	47%	12	29%	40	58%
Subtotal	110	100%	41	100%	69	100%
<b>Child (&lt;13 yrs at diagnosis)</b>						
Perinatal	3	100%	2	100%	1	100%
Other/unknown	-	-	-	-	-	-
Subtotal	3	100%	2	100%	1	100%
<b>Total</b>	<b>549</b>	<b>100%</b>	<b>219</b>	<b>40%</b>	<b>330</b>	<b>60%</b>

<sup>a</sup>Includes cases whose diagnoses of HIV and AIDS were concurrent.

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

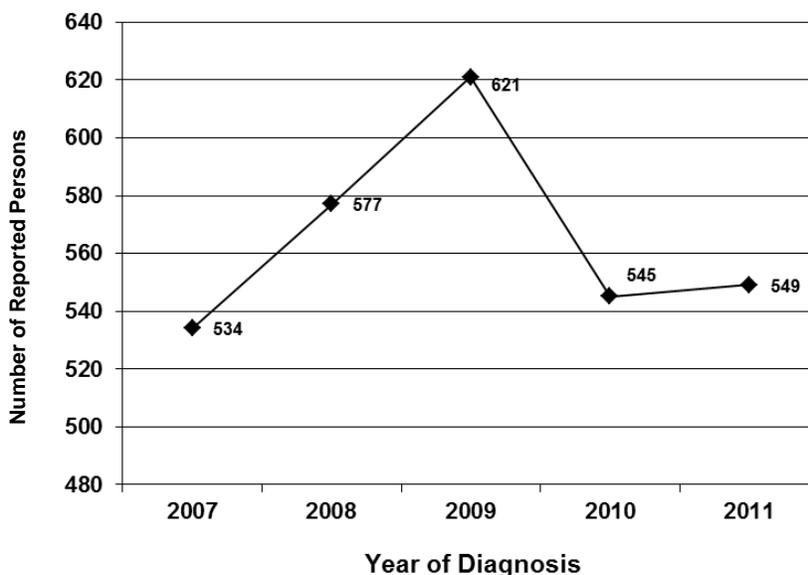
Source: Ohio Department of Health HIV/AIDS Surveillance Program. Data reported through September 30, 2012.

Among Ohioans diagnosed with AIDS in 2011, 20 percent were female, 29 percent were 40-49 years of age, 49 percent were black, 43 percent white and four percent were Hispanic/Latino. The leading mode of transmission among Ohio males was male-to-male sexual contact (58 percent), followed by heterosexual contact (seven percent). Among Ohio females, heterosexual contact was the leading mode of transmission (45 percent) followed by injection drug use (seven percent). Thirty percent of males and 47 percent of females had other/unknown as the mode of transmission in Ohio.

Forty percent of Ohio's reported AIDS cases were diagnosed a year or more after the first reported HIV diagnosis. Eighty-one percent of AIDS cases were male, 57 percent were 40 years or older and 49 percent black/African American. black/African American males comprised 39 percent, white males 35 percent and black/African American females 11 percent of AIDS cases diagnosed a year or more after the first reported HIV diagnosis.

Sixty percent of AIDS cases were diagnosed less than 12 months after the first reported HIV diagnosis. The majority of these AIDS cases were male (79 percent), 15 percent were 30-34 years of age, 14 percent were 35-39 or 45-49 years of age and blacks/African Americans comprised 49 percent of AIDS cases diagnosed less than a year after the first reported HIV diagnosis (**Table 17**).

**Figure 5. Reported persons diagnosed with AIDS, Ohio 2007-2011**



Source: Ohio Department of Health HIV/AIDS Surveillance. Data reported through September 30, 2011.

Figure 5 illustrates the general trends in reported AIDS diagnoses in Ohio from 2007 to 2011. The number of reported persons diagnosed with AIDS among persons previously reported with a diagnosis of HIV infection remained below 600 in each year except 2009. The number of reported AIDS diagnoses increased to 621 cases in 2009. This increase may be due to an

artifact in case reporting and therefore, may or may not indicate a true increase in the number of reported AIDS diagnoses in 2009.

**Table 18. Ranking of HIV as an underlying cause of death among males 25-44 years old, Ohio, 2010**

<b>Male Race/Ethnicity</b>	<b>Ranking</b>	<b>Deaths No.</b>	<b>Death Rate<sup>a</sup></b>
White, not Hispanic	12	15	unreliable
Black/African American, not Hispanic	8	14	unreliable
Hispanic/Latino	-	2	unreliable
<b>Total</b>	<b>10</b>	<b>31</b>	<b>2.0</b>

<sup>a</sup>Number of deaths with HIV as the leading underlying cause per 100,000 population calculated using 2010 U.S. census estimates.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. CDC WONDER On-line Database, released 2012. Compiled from Compressed Mortality File 1999-2010 Series 20 No. 2M, 2010. Accessed at <http://wonder.cdc.gov/cmfi-icd10.html> on December 12, 2012.

HIV as the underlying cause of death means AIDS was documented by the certifying physician of death as the primary cause of death on the death certificate. In 2010, HIV was the tenth leading underlying cause of death for males 25 to 44 years of age in Ohio. For Hispanic/Latino males between 25 to 44 years of age in Ohio, HIV was not ranked as a leading underlying cause of death in 2010. For this same age group and time period, HIV was ranked as the eighth leading underlying cause of death for black/African American males and the twelfth leading underlying cause of death for white males in Ohio (Table 18). HIV was not a leading underlying cause of death for any race/ethnicity or age group among Ohio females in 2010.

## Question 3

### What are the indicators of risk for HIV infection and AIDS in Ohio?

This section examines direct measures of risk behavior in the groups at greatest risk for acquiring HIV. The focus of this section will be on three high-risk behaviors: male/male sex (MSM), injection drug and other substance use, and heterosexual contact. HIV/STD co-infection data is also presented as a direct measure of risk behavior to more easily identify patterns in HIV/STD co-infections that may inform and improve HIV prevention and targeted HIV testing strategies in Ohio.

#### Highlights Risk Indicators for HIV Infection in Ohio

- Among MSM who participated in a 2009 Ohio Department of Health (ODH) HIV Prevention Program MSM survey, 59 percent indicated sometimes or never using a condom during oral, anal or vaginal sex in the previous six months.
- Among MSM who participated in the 2009 ODH HIV Prevention Program MSM online and bar surveys 24 percent of Ohio MSM reported always using a condom or barrier method when performing oral, anal or vaginal sex during the previous six months.
- Among injection drug users (IDU) reported with a diagnosis of early syphilis in Ohio in 2009, 46 percent (10 of 22 persons) reported exchanging sex for drugs or money.
- According to the 2010 Ohio Behavioral Risk Factor Surveillance System (BRFSS), among the heterosexual population almost 11 percent of persons 18-24 years of age and 8.5 percent of blacks/African Americans reported engaging in a high-risk situation in the past 12 months. High-risk situations include IDU, contracting an STD, anal sex, or exchanging sex for money/drugs in the last 12 months.
- According to the 2011 Ohio HIV/STD surveillance study, the greatest proportion of persons co-infected with HIV and Syphilis between 2001 and 2010 were white males (57 percent) and black/African American males (35 percent). Persons living with a diagnosis of HIV infection (PLWHA) and syphilis during the study period were almost exclusively male (97 percent).
- According to the 2011 Ohio HIV/STD surveillance study, a person with a reported history of Syphilis between 2001 and 2010 was 21.7 times more likely to be living with HIV compared to a PLWHA with no reported history of syphilis.

## Male/Male Sex

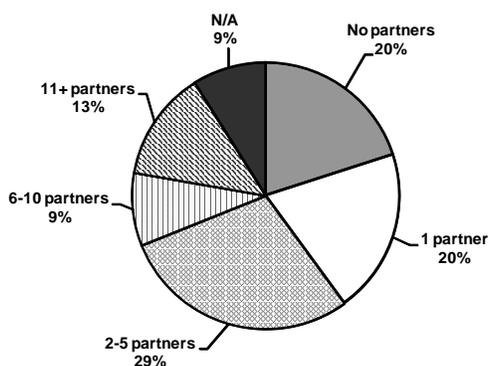
The following direct measures of risk behavior are collected and analyzed to provide information about how these risk behaviors are associated with an increased risk for acquiring or transmitting HIV infection among MSM:

- Number of sex partners
- Frequency of condom use
- Substance use

In 2009, the Ohio Statewide HIV Prevention Strategic Plan to Reduce Incidence in MSM conducted surveys to describe risk behaviors in the MSM population using a variety of methods. To reach Ohio MSM, data collection targeted specific locations frequented by MSM. Focus groups, bar and online surveys were administered in each of the Ohio HIV prevention planning regions. Purposive sampling supported rapid data collection but limited data to MSM participants accessible through regional AIDS service organizations, MSM service agencies, gay bars and the Internet. Thus, subsets of MSM that may be underrepresented in the data include MSM without home computers, MSM who are not bar patrons, and MSM who do not identify with the MSM subgroup of gay men networked to agency representatives, clients, programs or services. Due to the sampling method used, data cannot be generalized to Ohio's MSM population. However, the surveys do provide valuable information on HIV risk behaviors in a subpopulation of high risk MSM (For a more detailed description of these surveys, including the definition of purposive sampling, and strengths and weaknesses, see Appendix A).

### *Number of sex partners*

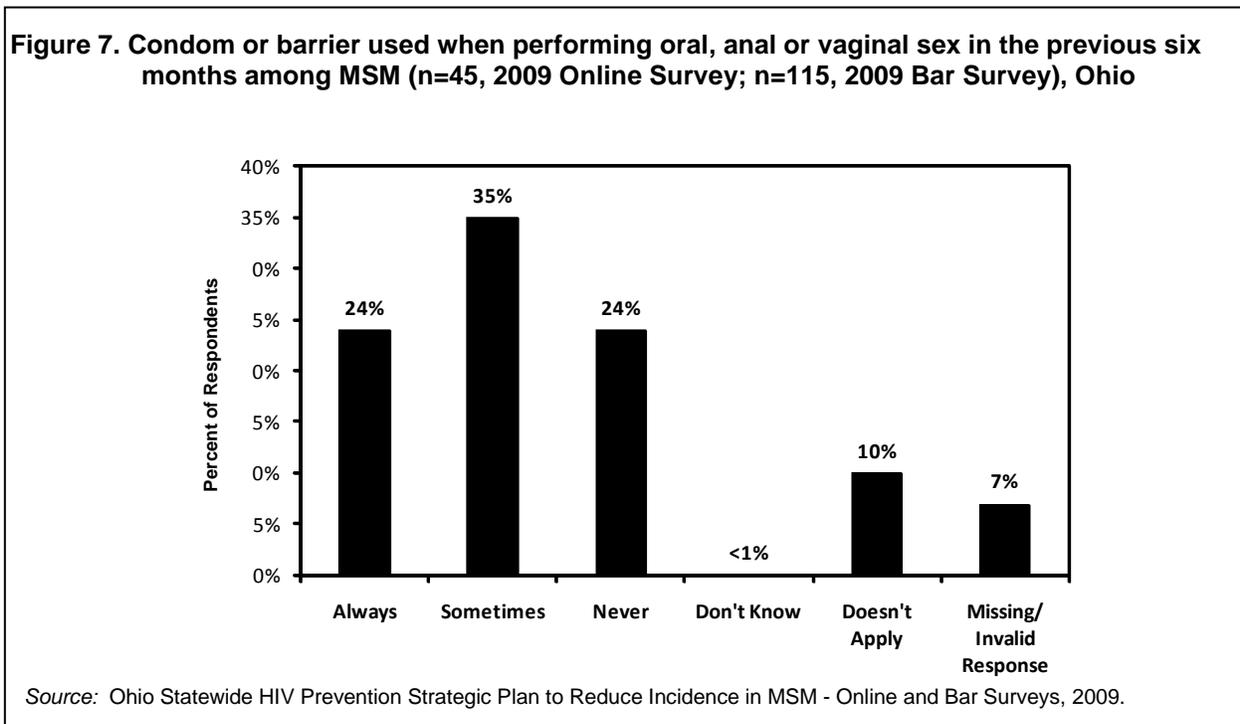
**Figure 6. Number of unprotected sexual contacts of Men Who Have had Sex with Men in the previous 6 months (n=45, 2009 Online Survey), Ohio**



Source: Ohio Statewide HIV Prevention Strategic Plan to Reduce Incidence in MSM - Online Survey, 2009.

The number of sex partners an individual has is associated with his/her risk of becoming infected with HIV - the more sex partners a person has, the greater the chance that one of those partners might be HIV infected. Among Ohio MSM surveyed online (n=45) in 2009, 51 percent reported having unprotected sexual contact with two or more sex partners in the past six months, 29 percent reported two to five partners, nine percent reported six to 10 partners and 11 percent reported 11 or more partners in the past six months (**Figure 6**). Gender of the sexual partners was not asked.

### **Frequency of condom use**



Condom use can prevent the transmission of HIV through sexual contact. Twenty-four percent of Ohio MSM participating in the online (n=45) and bar surveys (n=115) in 2009 reported always using a condom or barrier method when performing oral, anal or vaginal sex during the previous six months, 24 percent reported never using a condom or barrier method and 35 percent reported sometimes using a condom or barrier method in the previous six months (**Figure 7**).

### **Substance Use**

Using contaminated equipment when injecting illicit or non-illicit drugs is a risk factor for transmitting HIV because of the potential for direct contact with HIV-infected blood; in addition, injection drug use and other substance use can impair a person's judgment leading to unprotected sex, which may put a person at increased risk for HIV infection. Exchanging sex for drugs/money is another risk factor for HIV infection, three percent of Ohio MSM participating in the online (n=45) and bar surveys (n=115) in 2009 reported exchanging sex for drugs/money during the previous six years.

## Injection Drug and Other Substance Use

Among persons using injection drugs (IDU) or other substances (illegal and legal), the following measures of risk behavior are available in Ohio to provide information associated with acquiring or transmitting HIV infection:

- Injection drug and other substance use
- Exchanging sex for drugs or money

The National Household Survey of Drug Abuse (NHSDA), Youth Risk Behavior Survey (YRBS) and questions asked of clients newly diagnosed with HIV or syphilis by Ohio disease investigation specialists (DIS) provide information on behaviors related to substance use.

NHSDA provides information on the prevalence and incidence of illicit drug, alcohol and tobacco use in the civilian, non-institutionalized population of the United States aged 12 years or older. Beginning in 1999, the NHSDA produced state-level estimates for select variables. Estimates provided in this section are based on 2007 and 2008 annual averages from the NHSDA, the most recent available.

The YRBS is a self-administered questionnaire distributed in public and private high schools containing grades 9-12 throughout the U.S. Schools for incarcerated youth are not included in this survey. The questionnaire contains multiple-choice questions addressing several categories of health-related behaviors including drug use, sexual behaviors, HIV infection and other STDs. The YRBS is useful in assessing HIV risk among high school students because it provides students' responses to questions about their sexual and drug use behaviors. Because IDU and sexual contact are potential sources of HIV transmission, having knowledge about the extent to which students are engaging in these behaviors is beneficial for HIV prevention efforts. YRBS analysis is representative of high school students only and because the survey is based upon self-reports, there is the potential for reporting bias.

DIS attempt to interview all Ohio patients newly diagnosed with HIV or syphilis in order to inform the patient of their disease status, assist with partner notification and educate them about the prevention measures they must take in order to avoid infecting others. Information is collected on clinical status, treatment, patient demographics and detailed mode of exposure. Early syphilis data can serve as a surrogate marker for recent unsafe sexual practices because of the short incubation period between exposure and infection. In addition, early syphilis can serve as a surrogate measure for specific behaviors that can facilitate the transmission and/or acquisition of HIV infection.

## ***Injection drug and other substance use***

**Table 19. Estimated percentage of substance use in the past month or year in Ohio by age group, NHSDA, 2007-2008**

<b>Substance Use</b>	<b>12-17 years of age</b>	<b>18-25 years of age</b>	<b>&gt;25 years of age</b>	<b>Total (12 years of age and older)</b>
	<b>Estimated %</b>	<b>Estimated %</b>	<b>Estimated %</b>	<b>Estimated %</b>
<b>Past Month Use of Any Illicit Drug<sup>a</sup></b>	9.66%	19.62%	5.36%	7.61%
<b>Past Month Use of Marijuana</b>	7.38%	16.84%	3.84%	5.86%
<b>Past Month Use of Any Illicit Drug other than Marijuana</b>	4.35%	7.87%	2.41%	3.30%
<b>Past Month Use of Alcohol</b>	16.25%	64.48%	53.61%	51.23%
<b>Past Month Binge Alcohol Use<sup>b</sup></b>	10.65%	46.75%	23.98%	25.54%
<b>Past Year Use of Cocaine</b>	1.22%	5.83%	1.34%	1.90%

\* PI = Prediction Interval

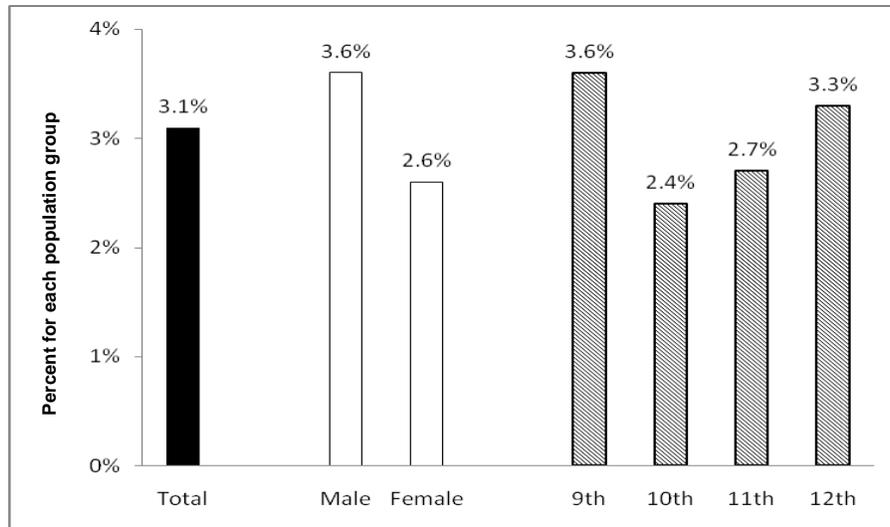
<sup>a</sup> Any illicit drug includes marijuana, cocaine (including crack), heroin, hallucinogens, inhalants or any prescription-type psychotherapeutic used nonmedically.

<sup>b</sup> Binge alcohol use is defined as drinking five or more drinks on the same occasion on at least one day in the past 30 days. By "occasion" is meant at the same time or within a couple of hours of each other.

Source: SAMHSA, Office of Applied Studies, National Household Survey on Drug Abuse, 2007 and 2008. Available at <http://www.oas.samhsa.gov/2k8/state/stateTabs.htm>

Table 19 provides estimates of substance use in Ohio between 2007 and 2008 for the following substances: any illicit drug use in the past month; past month use of marijuana; any illicit drug other than marijuana use in the past month; alcohol use in the past month; “binge” alcohol use in the past month; cocaine use in the past month. Estimates are shown for a sample of Ohio’s population 12 years or older, 12-17 years of age, 18-25 years of age and 26 years of age or older. In Ohio, an estimated 7.6 percent of the adolescent/adult population reported use of *any* illicit drug in the past month. *Any* illicit drug includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants or any prescription-type psychotherapeutic drug used non-medically. Illicit drug use other than marijuana in the past month was reported in 3.3 percent of the adolescent/adult population. It is estimated that 1.9 percent of the Ohio adolescent/adult population reported past year use of cocaine. Overall, estimates of substance use in Ohio were greatest among those 18-25 years of age. Among those 18-25 years of age in Ohio, an estimated 64.5 percent reported use of alcohol and almost half (46.8 percent) reported binge alcohol use in the past month.

**Figure 8. Injection drug use among high school students, by sex and school grade, Ohio, YRBS 2007**



Source: Youth Risk Behavior Survey (YRBS), 2007. Data available at <http://apps.nccd.cdc.gov/yrbss/>.

The YRBS for 2007 reveals among Ohio's high school population, 3.1 percent of high school students reported using a needle to inject any illegal drug into their body one or more times during their life. IDU was highest among male students (3.6 percent) and students in ninth grade (3.6 percent) (**Figure 8**).

### ***Exchanging sex for drugs or money***

There were 584 reported Ohio patients diagnosed with early syphilis in 2009. Of the 22 Ohio early syphilis cases reporting engaging in injection drug use, 46 percent (10 of 22) reported exchanging sex for drugs or money (data not shown).

## Heterosexual Contact

The following direct measures of risk behavior are collected and analyzed to provide information about risk behaviors that are associated with acquiring or transmitting HIV infection among persons engaging in heterosexual contact:

- High risk situations (IDU, STD, unprotected anal sex or exchange of sex for money or drugs in the last 12 months)
- Number of sex partners
- Frequency of condom use
- Substance use

Questions asked of clients with a new diagnosis of HIV infection or syphilis by Ohio DIS, BRFSS and YRBS provide information on risk behaviors that are related to heterosexual contact.

### *High-risk situations*

**Table 20. Percent of high-risk situations in the past 12 months among persons who had heterosexual contact, by demographic characteristics, Ohio, BRFSS 2010**

<b>Demographic Characteristics</b>	<b>%</b>
<b>Sex</b>	
Males	2.8%
Females	3.8%
<b>Age as of 12/10</b>	
18-24	10.8%
25-34	5.6%
35-44	1.4%
45-54	1.7%
55-64	0.6%
<b>Race/Ethnicity</b>	
White, not Hispanic	2.6%
Black/African American, not Hispanic	8.5%
Hispanic/Latino	11.6%
<b>Total</b>	<b>3.3%</b>

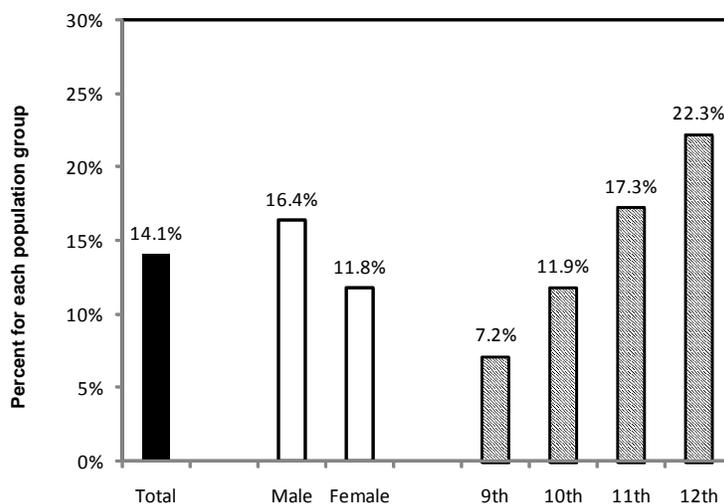
Source: Behavioral Risk Factor Surveillance System (BRFSS), 2010

High-risk situations include IDU, contracting an STD, anal sex, or exchanging sex for money/drugs in the last 12 months. According to the 2010 Ohio BRFSS, a greater proportion of females (3.8 percent) engaged in a high-risk situation in the past 12 months compared to males (2.8 percent). Almost 11 percent of persons 18-24 years of age and 8.5 percent of black/African Americans reported engaging in a high-risk situation in the past 12 months (**Table 20**).

### Number of sex partners

According to the 2007 YRBS, 42 percent of high school students and 56 percent of 12<sup>th</sup> grade students reported having sexual intercourse, suggesting that the majority of students will have sex while in high school (data not shown).

**Figure 9. Percentage of high school students reporting four or more lifetime sex partners, by sex and school grade, Ohio, YRBS 2007**

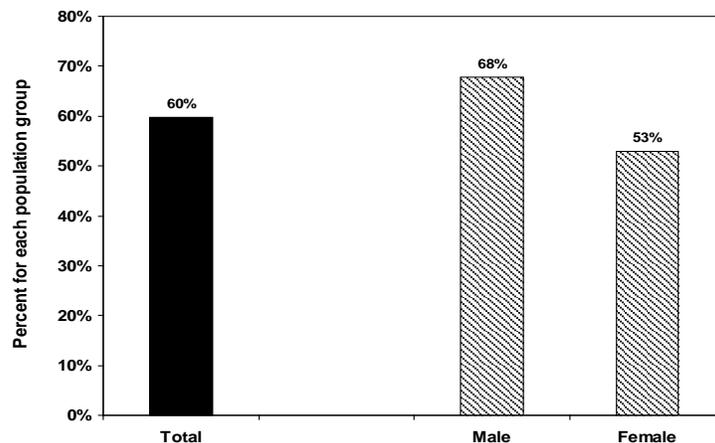


Source: Youth Risk Behavior Survey (YRBS), 2007. Data available at <http://apps.nccd.cdc.gov/yrbss>

Fourteen percent of high school students reported four or more sex partners during their lifetime, according to the 2007 YRBS. Sixteen percent of males and almost 12 percent of females had four or more sex partners and 22.3 percent of 12<sup>th</sup> grade students reported four or more sex partners (**Figure 9**).

### Frequency of condom use

**Figure 10. Condom use of high school students who have had sex in the past three months at last sexual intercourse, by sex, Ohio, YRBS 2007**



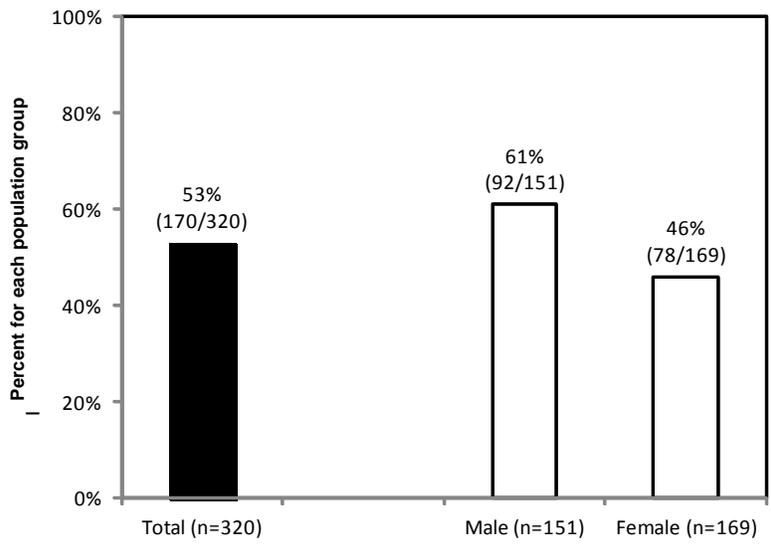
Source: Youth Risk Behavior Survey (YRBS), 2007. Data available at <http://apps.nccd.cdc.gov/yrbss>

The 2007 YRBS indicated that among Ohio high school students, 60 percent who have had sexual intercourse in the past three months reported using a condom at last sexual intercourse. More males (68 percent) than females (53 percent) who have had sexual intercourse in the past three months reported using a condom at last sexual intercourse (**Figure 10**).

**Substance use**

The Ohio STD Surveillance Program collects data about information that may indicate high-risk behaviors among heterosexual males and females. Having an STD can also increase the potential of transmitting or acquiring HIV. There is an increased risk of HIV transmission in the presence of STD infections that cause genital ulcers (such as syphilis or herpes) as well as other STDs that are frequently asymptomatic (such as chlamydia and gonorrhea)<sup>3</sup>. While heterosexual males and females with early syphilis may not be representative of all heterosexual males and females in Ohio, data on these patients do provide valuable information on HIV risk behaviors in a subpopulation of high-risk heterosexual males and females.

**Figure 11. Percent of heterosexual patients with early syphilis reporting engagement in non-injection drug use, by sex, Ohio, 2010**



\*Early Syphilis includes primary, secondary and early latent syphilis

Source: Ohio Department of Health, STD Surveillance. Data reported through October 2011.

Fifty-three percent of heterosexual patients with early syphilis in Ohio reported engaging in non-injection drug use in 2010. More males reported engaging in non-injection drug use (61 percent) compared to females engaging in non-injection drug use (46 percent) (**Figure 11**).

According to the 2007 YRBS, 22.5 percent of high school students who had sex in the past three months used alcohol or drugs at last sexual intercourse. Alcohol and drug use at last sexual intercourse was higher among males (27.5 percent) than females (17.7 percent) (data not shown).

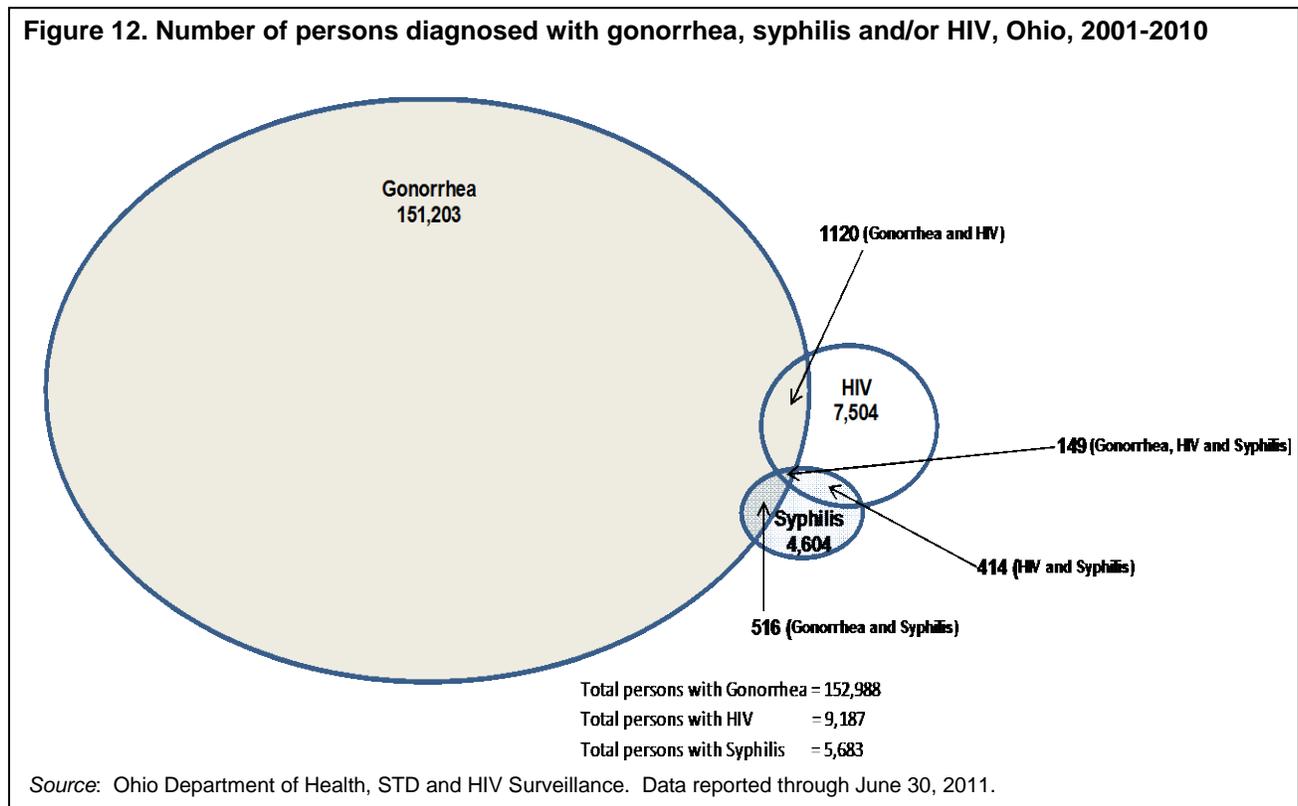
<sup>3</sup> Centers for Disease Control and Prevention. 2007. The role of STD prevention and treatment in HIV prevention. Fact Sheet: CS115145.

# HIV/STD Infections

## Direct Measures of Risk Behaviors

An “epidemiological synergy” between diagnoses of HIV infection and other STDs has been observed and studied since the beginning of the HIV/AIDS epidemic. In addition to common modes of transmission, biological mechanisms for this epidemiological synergy have been observed<sup>4</sup>. Substantial evidence indicates that HIV infections with either a previous, concurrent or later ulcerative (e.g. herpes and syphilis) or non-ulcerative STD (e.g. chlamydia and gonorrhea) increases the likelihood of both transmitting and acquiring HIV<sup>5</sup>. Furthermore, HIV/STD infection trends can offer important insights into growing populations with HIV, making the combination of HIV and STD surveillance data helpful in forecasting which populations HIV rates are likely to increase. Syphilis and gonorrhea are the two STDs examined in this section. The following measures of risk behavior are assessed for Ohio to provide information about behaviors associated with acquiring or transmitting HIV infection:

- Persons with HIV and a previous STD diagnosis (history of syphilis or gonorrhea)
- Persons with HIV and a later STD diagnosis (co-infection with syphilis or gonorrhea)



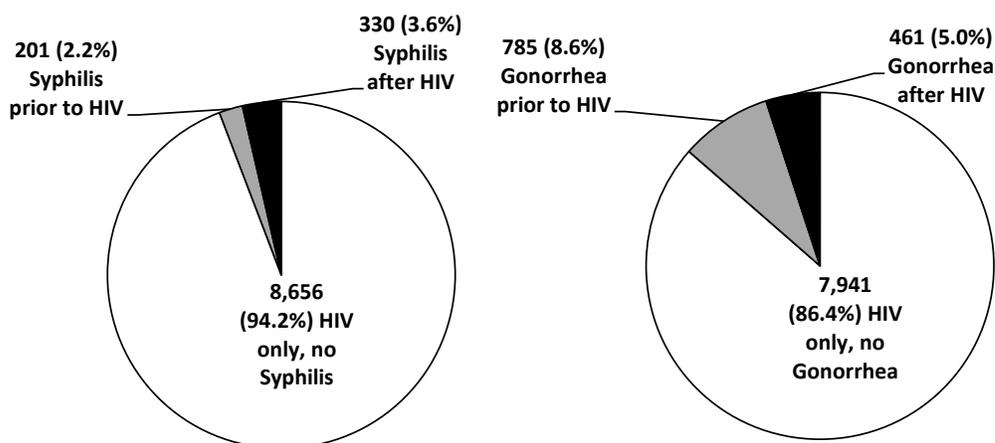
<sup>4</sup> Centers for Disease Control and Prevention. 2007. The role of STD prevention and treatment in HIV prevention. Fact Sheet: CS115145.

<sup>5</sup> Ibid.

The ODH HIV/AIDS Surveillance Program retrospectively assessed all Ohio reports of syphilis, gonorrhea and HIV infections reported among persons 13 years of age and older during the 10-years between January 1, 2001 and December 31, 2010. A history of syphilis or gonorrhea in persons living with a diagnosis of HIV infection was determined based on the earliest syphilis or gonorrhea diagnosis, whereas HIV co-infection with syphilis or gonorrhea was determined based on the most recent syphilis or gonorrhea diagnosis. There were 5,683 persons with at least one syphilis diagnosis and 152,988 persons with at least one gonorrhea diagnosis. Approximately 19 percent of persons living with a diagnosis of HIV had a previous, concurrent or later syphilis and/or gonococcal infection reported (**Figure 12**).

### HIV and a Previous STD Diagnosis (History of Syphilis or Gonorrhea)

**Figure 13. Number and percent of persons living with HIV (n=9,187) by syphilis and gonorrhea diagnosis, Ohio, 2001-2010**



Source: Ohio Department of Health, STD and HIV Surveillance. Data reported through June 30, 2011.

Of the 9,187 persons known to be living with a diagnosis of HIV infection during the 10-year study period, 201 (2.2 percent) reported a previous syphilis infection and 785 (8.6 percent) reported a previous gonococcal infection (Figure 13). Based on this study, a person in Ohio with a reported history of syphilis was 21.7 times more likely to be living with HIV compared to a person living with a diagnosis of HIV infection in Ohio with no reported history of syphilis (Odds ratio [OR]: 21.7; 95 percent confidence interval [CI]: 19.0-24.8). Likewise, a person in Ohio with a reported history of gonorrhea was 4.2 times more likely to be living with HIV compared to a person living with a diagnosis of HIV infection in Ohio with no reported history of gonorrhea (OR: 4.2; 95 percent CI: 3.9-4.5) (**Figure 13**).

## HIV and a Later STD (Co-infection with Syphilis or Gonorrhea)

**Table 21. Persons living with a diagnosis of HIV infection and persons co-infected with HIV and Syphilis or Gonorrhea, by selected characteristics, Ohio, 2001-2010**

Characteristic	Living with a diagnosis of HIV infection		Living with a diagnosis of HIV infection & Syphilis		Living with a diagnosis of HIV infection & Gonorrhea	
	No.	%	No.	%	No.	%
<b>Sex</b>						
Males	7243	79%	367	97%	463	81%
Females	1944	21%	10	3%	108	19%
<b>Age as of 12/10</b>						
<13	52	1%	-	-	-	-
13-14	13	<1%	-	-	1	<1%
15-19	77	1%	13	3%	44	8%
20-24	660	7%	68	18%	104	18%
25-29	1076	12%	55	15%	95	17%
30-34	1152	13%	57	15%	71	12%
35-39	1181	13%	67	18%	89	16%
40-44	1487	16%	60	16%	87	15%
45-49	1437	16%	28	7%	35	6%
50-54	1007	11%	19	5%	31	5%
55-64	868	9%	9	2%	12	2%
65+	177	2%	1	<1%	2	<1%
<b>Race/Sex</b>						
White, not Hispanic Males	3668	40%	218	58%	192	34%
White, not Hispanic Females	561	6%	5	1%	24	4%
Black/African American, not Hispanic Males	3095	34%	130	34%	248	43%
Black/African American, not Hispanic Females	1241	14%	5	1%	77	13%
Hispanic/Latino Males	330	4%	8	2%	20	4%
Hispanic/Latina Females	108	1%	-	-	4	1%
Other/Unknown*	184	1%	11	3%	6	1%
<b>Total</b>	<b>9187</b>		<b>377</b>		<b>571</b>	

Notes: Living with a diagnosis of HIV infection alone, with Syphilis, or with Gonorrhea represents all persons diagnosed and reported in Ohio from January 1, 2001 through December 31, 2010 who have not been reported as having died as of December 31, 2010.

\*Other/Unknown includes males and females who are Asian/Pacific Islanders, American Indian/Alaska Natives or persons with missing race/sex information.

Source: Ohio Department of Health HIV/AIDS and STD Surveillance Programs. HIV/AIDS Surveillance data reported through June 30, 2011.

The proportion of co-infections varied for persons living with a diagnosis of HIV infection by sex, age and race/ethnicity during the 10-year study period. Persons living with a diagnosis of HIV infection and syphilis were almost exclusively male (97 percent). Persons co-infected with HIV and syphilis or gonorrhea were younger compared to persons living with a diagnosis of HIV infection alone. The greatest proportion of persons living with only a diagnosis of HIV infection was in the 40-49 year age group (32 percent). The greatest proportions of persons co-infected with HIV and syphilis were in the 35-39 year age group (18 percent) and the 20-24 year old age

group (18 percent). The greatest proportion of persons co-infected with HIV and gonorrhea was in the 20-29 year age group (36 percent).

White and black/African American males make up the greatest proportions of persons living with only a diagnosis of HIV infection (40 percent and 34 percent, respectively) and persons co-infected with HIV and syphilis (58 percent and 34 percent, respectively). The greatest proportion of persons co-infected with HIV and gonorrhea were black/African American males (44 percent), white males (34 percent) and black/African American females (13 percent) (**Table 21**).

**Table 22. Persons living with a diagnosis of HIV infection and persons co-infected with HIV and syphilis or gonorrhea, by transmission category, Ohio, 2001-2010**

Transmission Category	Living with a diagnosis of HIV infection		Living with a diagnosis of HIV infection & Syphilis		Living with a diagnosis of HIV infection & Gonorrhea	
	No.	%	No.	%	No.	%
<b>Male adult or adolescent</b>						
Male-to-male sexual contact	4696	65%	329	90%	343	74%
Injection drug use (IDU)	210	3%	2	<1%	14	3%
Male-to-male sexual contact and IDU	188	2%	12	3%	10	2%
Heterosexual contact	695	10%	6	2%	36	8%
Missing/Unknown	1454	20%	18	5%	60	13%
Subtotal	7243	100%	367	100%	463	100%
<b>Female adult or adolescent</b>						
Injection drug use	144	7%	2	20%	10	9%
Heterosexual contact	1140	59%	6	60%	72	67%
Missing/Unknown	660	34%	2	20%	26	24%
Subtotal	1944	100%	10	100%	108	100%
<b>Total</b>	<b>9187</b>		<b>377</b>		<b>571</b>	

Notes: Living with a diagnosis of HIV infection alone, with Syphilis, or with Gonorrhea represents all persons diagnosed and reported in Ohio from January 1, 2001 through December 31, 2010 who have not been reported as having died as of December 31, 2010.

Source: Ohio Department of Health HIV/AIDS and STD Surveillance Programs. HIV/AIDS Surveillance data reported through June 30, 2011.

The proportion of co-infections also varied for persons living with a diagnosis of HIV infection by transmission category during the 10-year study period. The majority of males living with a diagnosis of HIV infection were MSM (65 percent). An even greater majority of males co-infected with HIV and syphilis (90 percent) or gonorrhea (74 percent) were MSM. The Missing/Unknown mode of transmission was a significant proportion of males living with a diagnosis of HIV infection (20 percent) and co-infected with HIV and gonorrhea (13 percent).

The greatest proportion of females living with a diagnosis of HIV infection had heterosexual contact as their mode of transmission (59 percent). Proportions were similar for females co-infected with HIV and syphilis (60 percent) or gonorrhea (67 percent). Females co-infected with HIV and syphilis (20 percent) or gonorrhea (9 percent) had a greater proportion of IDU in comparison to females living with a diagnosis of HIV infection (7 percent). Data for females should be interpreted with caution due to the proportion with missing/unknown mode of transmission and small numbers (**Table 22**).

## HIV Testing

HIV testing patterns provide information that is helpful in assessing HIV counseling and testing programs. HIV testing data are available from population-based surveys conducted in the general population via the Behavioral Risk Factor Surveillance System (BRFSS) and from publicly funded HIV counseling and testing sites in Ohio who submit data to the Ohio Department of Health HIV Prevention Program.

**Table 23. HIV testing in the general population, Behavioral Risk Factor Surveillance System, Ohio, 2010**

	Ever tested	Tested, past 12 months
	Total <sup>a</sup> (n=5588)	Total <sup>a</sup> (n=2165)
<b>Overall</b>	36.2%	9.1%
<b>Sex</b>		
male	33.0%	8.2%
female	39.2%	10.0%
<b>Age groups</b>		
18-24	30.4%	16.2%
25-34	54.1%	17.1%
35-44	44.1%	8.0%
45-54	26.6%	3.5%
55-64	17.7%	2.7%
<b>Race/ethnicity</b>		
White, not Hispanic	33.2%	7.2%
Black/African American, not Hispanic	58.4%	23.6%

<sup>a</sup>Includes persons 18 to 64 years of age.

Source: Ohio Department of Health, BRFSS Data 2010.

More than a third (36.2 percent) of Ohioans surveyed in BRFSS in 2010 reported having ever been tested for HIV. Females (39.2 percent) were more likely to report having ever been tested compared to males (33.0 percent) for HIV. More than half (54.1 percent) of persons surveyed in the 25 to 34 year-old age group indicated having ever been tested for HIV. Blacks/African American (58.4 percent) were more likely to report having ever been tested for HIV when compared to whites (33.2 percent). HIV testing in the general Ohio population for other race/ethnicities was not available from BRFSS. Only 9.1 percent of the persons surveyed in 2010 reported an HIV test during the past 12 months. The patterns for persons testing for HIV during the past 12 months were similar to the patterns for persons ever tested for HIV. More females (10.0 percent) reported testing during the past 12 months compared to males (8.2 percent), more persons 25-34 years of age (17.1 percent) reported testing in the past 12 months

compared to other age groups and blacks/African Americans (23.6 percent) were more likely to report testing during the past 12 months compared to all other race/ethnicity groups (**Table 23**).

**Table 24. Locations of most recent HIV testing, general population (n=756), Behavioral Risk Factor Surveillance System, Ohio, 2010**

	Private doctor or HMO	Counseling and testing site	Hospital	Clinic	Jail or prison (or other correctional facility)	Drug treatment facility	At home	Somewhere else
<b>Overall</b>	45.4%	3.2%	18.3%	16.9%	1.2%	0.2%	6.4%	8.6%
<b>Sex</b>								
male	34.0%	3.5%	17.2%	21.1%	2.6%	0.3%	9.0%	12.3%
female	54.6%	2.9%	19.1%	13.5%	0.1%	0.1%	4.2%	5.6%
<b>Age groups</b>								
18-24	46.2%	10.2%	21.6%	15.8%	0.0%	0.0%	2.4%	3.9%
25-34	45.7%	2.4%	16.1%	19.7%	2.0%	0.0%	5.0%	9.1%
35-44	52.1%	2.7%	15.1%	11.8%	0.9%	0.0%	8.4%	9.0%
45-54	39.1%	2.6%	19.3%	20.1%	0.9%	1.0%	9.2%	7.8%
55-64	35.5%	2.5%	32.4%	13.6%	0.6%	0.1%	4.3%	11.0%
<b>Race/ethnicity</b>								
White, not Hispanic	45.2%	2.8%	18.8%	15.6%	1.4%	0.1%	7.0%	9.0%
Black/African American, not Hispanic	51.3%	1.9%	12.4%	21.4%	0.2%	0.4%	4.5%	7.9%

Note: HMO - health maintenance organization.

Source: Ohio Department of Health, BRFSS Data 2010.

Survey respondents in the 2010 BRFSS indicated being tested most recently at a private physician's office or a health maintenance organization (HMO) (45.4 percent). The second most common location was a hospital (18.3 percent). These same testing locations were the most common places respondents had a recent HIV test regardless of sex, age or race/ethnicity, except for males 25-34 and 45-54 years in age. Men in these age groups reported testing at a clinic as their second most common location for most recent HIV test. Lastly, the 2010 Ohio BRFSS survey revealed only 3.2 percent of Ohioans had been tested for HIV most recently at a counseling, testing and referral (CTR) site (**Table 24**).

## HIV Testing at Publicly Funded Counseling, Testing and Referral (CTR) Sites

Table 25. HIV counseling, testing and referral site data by demographics and type of test, Ohio, 2011

Demographic Characteristics and Type of HIV Testing	Ohio				
	Total Tests		Positive Tests		Percent Positive
	No.	%	No.	%	
<b>Sex</b>					
Male	33,769	56%	294	82%	1%
Female	26,040	43%	64	18%	<1%
Transgender/Unknown	208	<1%	1	<1%	<1%
<b>Age</b>					
<13	133	<1%	0	0%	0%
13-14	386	1%	0	0%	0%
15-19	6,571	11%	21	6%	<1%
20-24	14,644	24%	105	29%	1%
25-29	10,424	17%	77	21%	1%
30-34	7,432	12%	46	13%	1%
35-39	4,842	8%	32	9%	1%
40-44	4,328	7%	21	6%	<1%
45-49	3,812	6%	20	6%	1%
50-54	3,099	5%	19	5%	1%
55-64	2,759	5%	12	3%	<1%
65+	622	1%	1	<1%	<1%
Unknown/Missing	965	2%	5	1%	1%
<b>Race/Ethnicity</b>					
White, not Hispanic	22,020	37%	118	33%	1%
Black/African American, not Hispanic	32,169	54%	212	59%	1%
Hispanic/Latino	2,756	5%	17	5%	1%
Asian/Pacific Islander	665	1%	2	1%	<1%
American Indian/Alaska Native	190	<1%	1	<1%	1%
Other	1,432	2%	6	2%	<1%
Unknown	785	1%	3	1%	<1%
<b>Testing</b>					
Anonymous	6,338	11%	29	8%	<1%
Confidential	52,790	88%	330	92%	1%
Unknown	889	1%	0	0%	0%
<b>Total</b>	<b>60,017</b>	<b>100%</b>	<b>359</b>	<b>100%</b>	<b>1%</b>

Source : Ohio Department of Health, HIV Counseling and Testing System, 2012.

Ohio has 210 publicly funded HIV CTR sites. In 2011, 56 percent of HIV tests administered at public CTR sites were provided for males, 43 percent for females, 54 percent for blacks/African American, 37 percent for whites and 24 percent for persons 20-24 years of age. The overwhelming majority of HIV testing at CTR sites were confidential (88 percent); only 11 percent of HIV tests at CTR sites in 2011 were anonymous (Table 25). CTR records do not contain individual identifying information and records of repeat visits by the same client cannot be linked. Therefore, data from the CTR system represent the number of tests rather than number of persons tested.

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