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## New HIV Diagnoses by Month, Region 8,Ohio (January 2018-March 2019)

Table 1. Region 8 New HIV Infections		
Month	New Cases of HIV 2018	New Cases of HIV 2019
January	17	15
February	17	15
March	26	26
April	24	
May	13	
June	18	
July	24	
August	24	
September	28	
October	19	
November	24	
December	14	
Total	248	56

This report was created as a surveillance effort to help prevent new cases of HIV within Region 8 counties (Brown, Butler, Clermont, Clinton, Hamilton, Highland, Warren). Table 1 displays the breakdown of new HIV cases for Region 8 residents for January 2018 through March 2019 on a monthly basis. Only HIV cases where the resident was identified as a new HIV infection by a disease investigation specialist were counted for analysis purposes in this report. In 2018, the highest number of cases was seen in September (28 cases). In 2019, the highest number of new HIV cases occurred in March (26 cases). The average number of new HIV cases per month was 15.9 and 15 for the years 2018 and 2019, respectively. The 2019 monthly counts may change in future reports, as lag times in disposition of cases directly affect the case counts presented. Some HIV cases are unable to be located for follow-up with partner services, which may impact total number of cases. For 2018 and 2019 respectively, there were a total of 7 and 0 cases that were unable to be located.

New HIV cases are derived from partner services data in the Ohio Disease Reporting System and may not fully represent all new HIV infections. These data are provisional and subject to change when additional information is gained. Cases are selected based on address at diagnosis. Source: Ohio Department of Health (ODH), Ohio Disease Reporting System (ODRS). Data reported as of 6/10/2019.

Surveillance of New HIV Cases Diagnosed in Region 8, Ohio (April 2017-March 2019)

One way to monitor HIV infections within Region 8 is through the use of surveillance control charts. Factors that these control charts show are the number of new HIV cases for each month (black diamonds), control limit (red dashed lines), and the average number of cases (solid blue line). Yellow diamonds indicate data that are most likely to change in future reports. Control charts are used to detect unexpected events, such as a single point outside of the control limit, many consecutive points above or below the average line, or two or three consecutive points near a control limit. When anomalies such as these occur, it may be beneficial to examine events surrounding the anomalies in order to devise a strategy to reduce the number of cases in subsequent months or see which strategies already in place are working.

Figure 1. New HIV Infection Control Chart

Figure 1 illustrates the control chart for new HIV infections from April 2017 to March 2019. All of the monthly counts in this time frame fell below the upper control limit for number of new HIV infections. The average number of cases was calculated from April 2016 to March 2017 (15.5). There was a recalculation of the average starting February 2018 using data from February 2016 to January 2018 (17.6), in result of 8 consecutive cases above the average line.
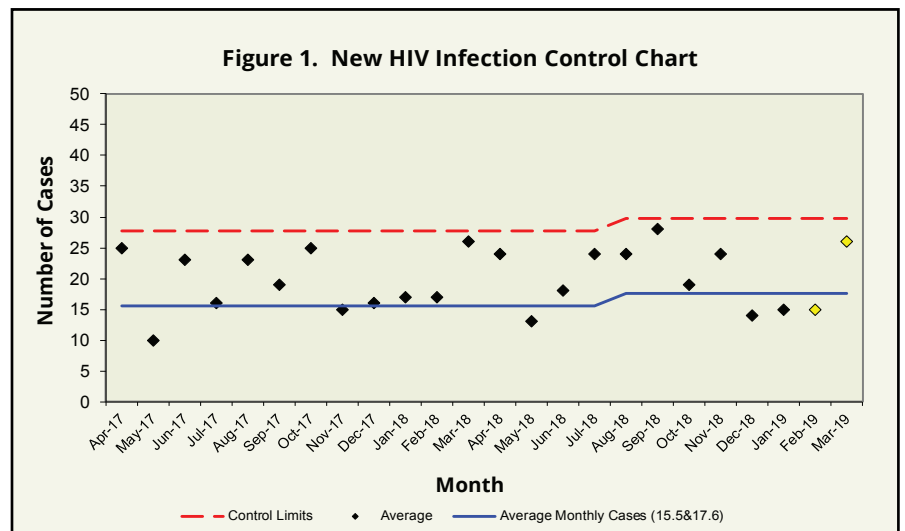
New HIV cases are derived from partner services data in the Ohio Disease Reporting System and may not fully represent all new cases of HIV. These data are provisional and subject to change when additional information is gained. Cases are selected based on address at diagnosis. Source: ODH, ODRS. Data reported as of 06/10/2019.

Demographics and Social Factors Associated with High Risk for HIV Infection

Figure 2, below, illustrates the distribution of age among new HIV diagnoses in Region 8 From 2015 to 2019, 25-34 year olds made up the largest percentage of cases. Table 2 compares the race, sex, and risk behavior groups for new HIV infections from January 2018 through March 2019. The data reflect confirmed HIV cases designated as newly testing positive and residing in Region 8. A large disparity in the sex of cases was apparent in 2018 and 2019 as males constituted over 65% of cases in both years. As Table 2 illustrates, the men who have sex with men (MSM) population accounted for 33 percent and 48 percent of new HIV cases in 2018 and 2019, respectively. Table 2 also illustrates, injection drug use (IDU) population accounted for 25 percent and 18 percent of new HIV cases. Over eighty percent of IDUs newly diagnosed with HIV during 2019 were white Region 8 residents. Understanding these demographics and high-risk factors that contribute most to new HIV infections, is vital in formulating specific and effective prevention strategies.

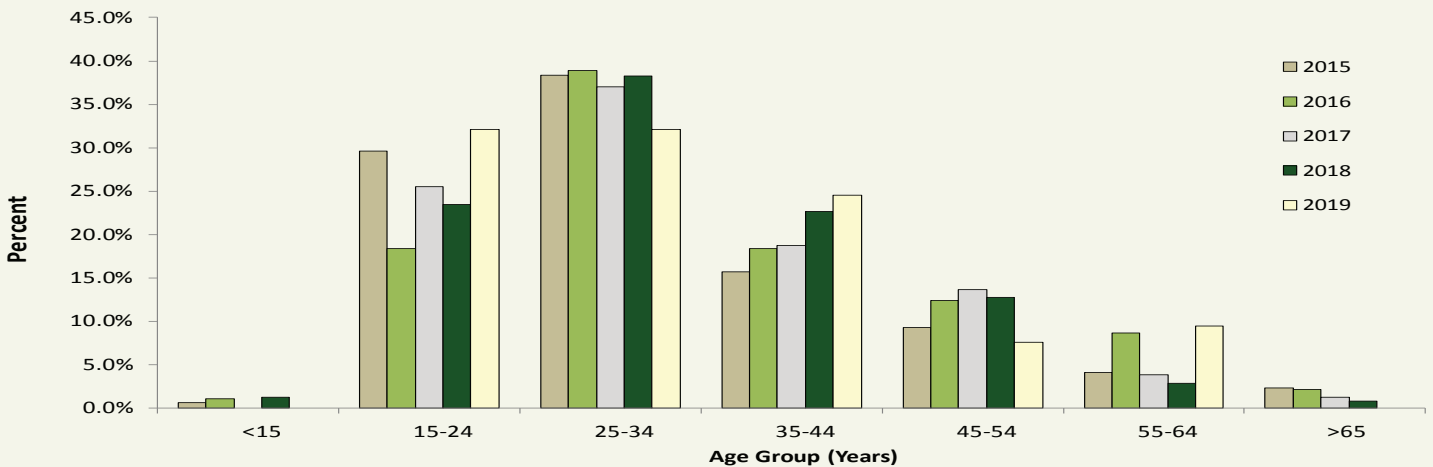Figure 2. Percentage of New HIV Diagnoses by Age, Region 8, 2015-2019

| Table 2.	Jan. - Dec. 2018		Jan. - March. 2019	
	#	%	#	%
Race				
Black	98	40.3	23	43.4
White	130	53.5	26	49.1
Other	15	6.2	4	7.5
Sex				
Male	186	76.5	35	66.0
Female	57	23.5	18	34.0
Risk Groups				
MSM	81	32.7	27	48.2
HRH	84	33.9	22	39.3
IDU	63	25.4	10	17.9

These data are provisional and subject to change when additional information is gained. New HIV positive cases between January 2018 and March 2019 were used for analysis. Cases were selected based on address at diagnosis. Source: ODH, ODRS. Data reported as of 06/10/2019. Percentages may not total to 100 due to rounding. Percentages are based on availability of data for all cases. High risk heterosexuals (HRH) are residents who are not MSM but participate in risky behaviors such as having sex with men who have sex with men (MSM), HIV+, intravenous drug user (IDU), or anonymous people. HRH status is also determined from factors such as having sex while intoxicated, exchanging sex for drugs, or having previous STIs.

Overview of HIV in Hamilton County

Table 3 displays the breakdown of new HIV cases for Hamilton County residents for January 2018 through March 2019 on a monthly basis. Only HIV cases where the resident was identified as a new HIV infection by a disease investigation specialist were counted for analysis purposes in this report. Figure 3, below, illustrates the distribution of age among new HIV diagnoses in Hamilton County. From 2015 to 2019, 25-34 year olds made up the largest percentage of cases. Table 4 compares the race, sex, and risk behavior groups for new HIV infections from January 2018 through March 2019. Table 5 and 6 displays the breakdown of new HIV cases for Region 8 without Hamilton County and the demographic makeup of the newly identified HIV cases.

Table 3. Hamilton County New HIV Infections		
Month	New Cases of HIV 2018	New Cases of HIV 2019
January	14	11
February	13	13
March	21	19
April	21	
May	10	
June	13	
July	21	
August	20	
September	22	
October	12	
November	16	
December	11	
Total	194	43

Table 4.	Jan. - Dec. 2018		Jan. - March. 2019	
	#	%	#	%
Race				
Black	89	46.6	20	48.8
White	91	47.6	18	43.9
Other	11	5.8	3	7.3
Sex				
Male	141	73.8	26	63.4
Female	50	26.2	15	36.6
Risk Groups				
MSM	61	31.4	19	44.2
HRH	79	40.7	20	46.5
IDU	57	29.4	10	23.3

Figure 3. Percentage of New HIV Diagnoses by Age, Hamilton County, 2015-2019
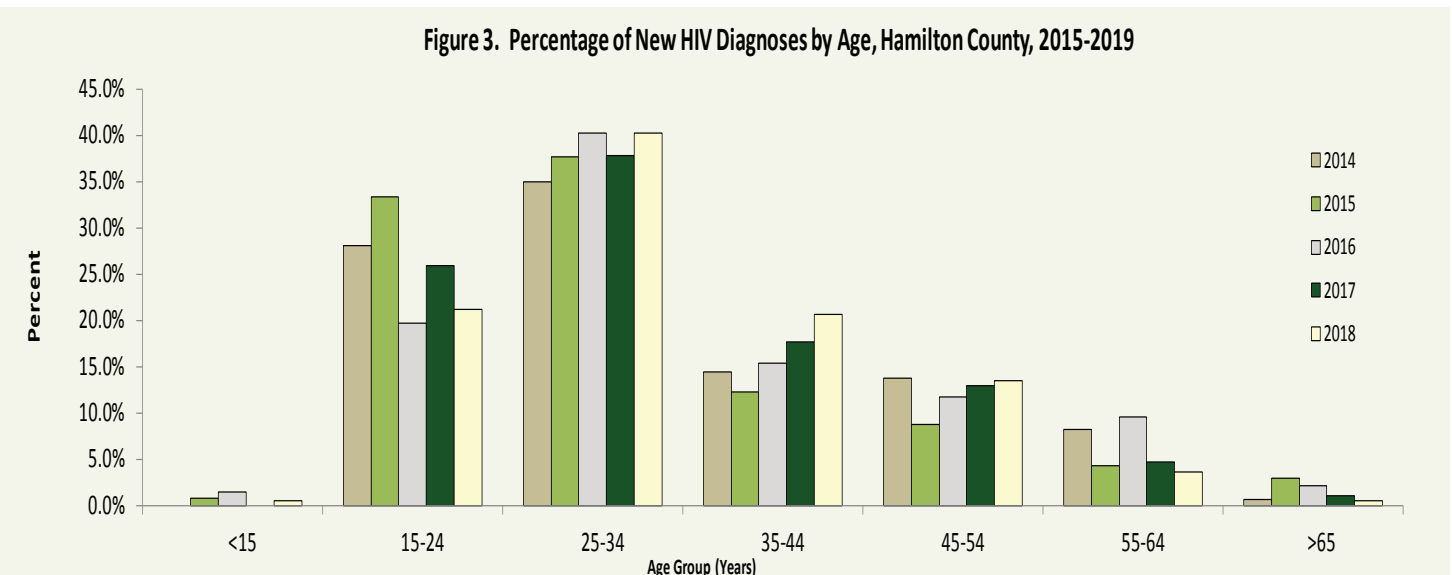
Overview of Syphilis in Select Counties in Region 8

Table 5. Select Counties in Region 8 New HIV Infections by Quarters, 2018-2019						
	Brown	**Butler**	**Clermont**	**Clinton**	**Highland**	**Warren**
2018-Q1	0	7	3	1	2	0
2018-Q2	0	4	4	1	1	0
2018-Q3	0	8	1	2	0	2
2018-Q4	0	12	2	1	0	3
2019-Q1	0	8	2	1	0	2
2019-Q2						
2019-Q3						
2019-Q4						

Table 6.	Jan. - Dec. 2018		Jan. - March 2019	
	#	**%**	**#**	**%**
Race				
Black	9	17.3	3	25.0
White	39	75	8	66.7
Other	4	7.7	1	8.3
Sex				
Male	45	86.5	9	75.0
Female	7	13.5	3	25.0
Risk Groups				
MSM	20	37.0	8	61.5
HRH	5	9.3	2	15.4
IDU	6	11.1	0	0.0

New HIV cases are derived from partner services data in the Ohio Disease Reporting System and may not fully represent all new cases of HIV. These data are provisional and subject to change when additional information is gained. Cases are selected based on address at diagnosis. Source: ODH, ODRS. Data reported as of 06/10/2019.