



Hamilton County Public Health - Epidemiology and Assessment

HIV Quarterly Report

David Carlson, MPH, Director of Epidemiology

New HIV Diagnoses by Month, Hamilton County, Ohio (January 2015 - September 2016)**Table 1. Hamilton County New HIV Infections**

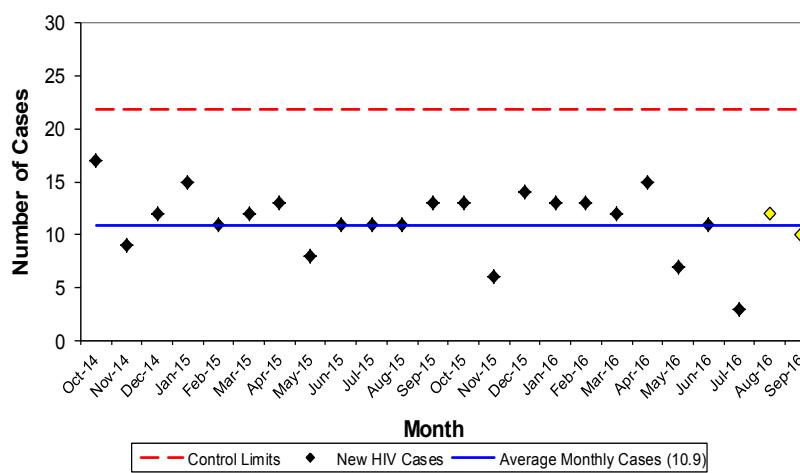
Month	New Cases of HIV 2015	New Cases of HIV 2016
January	15	13
February	11	13
March	12	12
April	13	15
May	8	7
June	11	11
July	11	3
August	11	12
September	13	10
October	13	
November	6	
December	14	
Total	138	96

This report was created as a surveillance effort to help prevent new cases of HIV within Hamilton County. Table 1 displays the breakdown of new HIV cases for Hamilton County residents for January 2015 through September 2016 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 2015, the highest number of cases was seen in January (15 cases). In 2016, the highest number of new HIV cases occurred in April (15 cases). The average number of new HIV cases per month was slightly higher in 2015 than 2016. The 2016 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 and partner services, which may impact total number of cases. For 2015 and 2016 respectively, there were a total of 7 and 2 cases that were unable to be located.

New HIV cases are derived from partner services data in the Ohio Disease Reporting System and do 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), STD Surveillance. Data reported as of 11/21/2016.

Surveillance of New HIV Cases Diagnosed in Hamilton County, Ohio (Oct 2014 - Sep 2016)

One way to monitor HIV infections within Hamilton County 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 illustrates the control chart for new HIV infections from October 2014 to September 2016. All of the monthly counts in this time frame fell below the upper control limit for number of new HIV infections. The average (10.9) was calculated from October 2011 to September 2013.

Figure 1. New HIV Infection Control Chart

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, STD Surveillance. Data reported as of 11/21/2016.



Demographics and Social Factors Associated with High Risk for HIV Infection

Figure 2, below, illustrates the distribution of age among new HIV diagnoses in Hamilton County. The age distribution of primary and secondary syphilis cases has shifted from 2012 to 2016. In 2016, 15-24 year olds made up the largest percentage of cases whereas in 2016 the 25-34 year olds represent the largest percentage. Table 2 compares the race, sex, and risk behavior groups for new HIV infections from January 2015 through September 2016. The data reflect confirmed HIV cases designated as newly testing positive and residing in Hamilton County. When race was examined, a decrease in the percent of black Hamilton County residents can be seen in 2016 (58.3 percent) compared to 2015 (71.7 percent). A large disparity in the sex of cases was apparent in 2015 and 2016 as males constituted approximately 80% of cases in both years. As Table 2 illustrates, the men who have sex with men (MSM) population accounted for 50.0 percent and 39.8 percent of new HIV cases in 2015 and 2016, respectively. Nearly sixty-five percent of MSMs newly diagnosed with HIV during 2015 and 2016 were black Hamilton County residents. Understanding these demographics and high-risk factors that contribute most to new HIV infections, is vital in formulating specific and effective prevention strategies. As data for 2016 are collected and updated, demographic estimates will become more reliable.

Figure 2. Percentage of New HIV Diagnoses by Age, Hamilton County

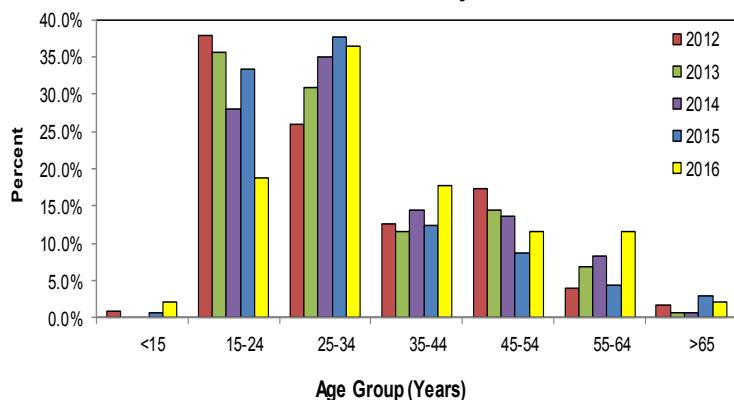


Table 2. Demographics of New HIV Cases

	Jan - Dec 2015		Jan - Sep 2016	
	#	%	#	%
Race				
Black	99	71.7	56	58.3
White	37	26.8	32	33.4
Other	2	1.4	8	8.4
Sex				
Male	108	78.3	75	78.1
Female	30	21.7	21	21.9
Risk Groups				
MSM	69 of 138	50.0	37 of 93	39.8
HRH	44 of 138	31.9	27 of 93	29.0
IDU	2 of 138	1.5	7 of 93	7.5

These data are provisional and subject to change when additional information is gained. New HIV positive cases between January 2015 and September 2016 were used for analysis. Cases were selected based on address at diagnosis. Source: ODH, STD Surveillance. Data reported as of 11/21/2016. Percentages may not total to 100 due to rounding. Percentages for risk groups are sex-specific and based only on cases that had valid information within the required fields. 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. **Note: Table 2 MSM is now measured out of all cases.**

Additional Resources

For additional resources on HIV/AIDS please visit the following websites:

- http://www.hamiltoncountyhealth.org/en/programs_and_services/community_health_services/stds.html
- <http://www.cdc.gov/hiv/>
- <http://www.odh.ohio.gov/odhprograms/bid/hivstd/hivprev.aspx>