



Hamilton County Public Health - Epidemiology and Assessment

HIV Quarterly Report

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New HIV Diagnoses by Month, Hamilton County, Ohio (January 2015 - March 2016)

Table 1. Hamilton County New HIV Infections

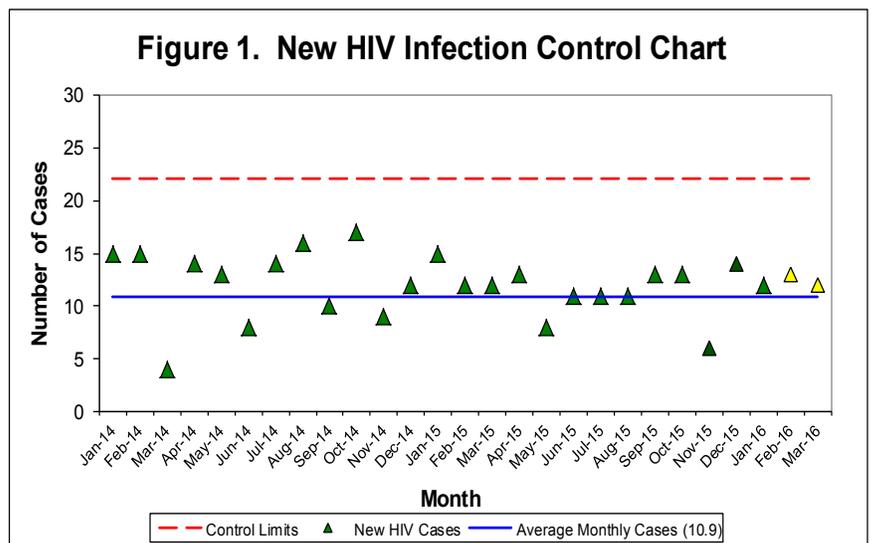
Month	New Cases of HIV 2015	New Cases of HIV 2016
January	15	12
February	12	13
March	12	12
April	13	
May	8	
June	11	
July	11	
August	11	
September	13	
October	13	
November	6	
December	14	
Total	139	37

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 March 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 (14 cases). In 2016, the highest number of new HIV cases occurred in February (13 cases). The average number of new HIV cases per month was 11.6 and 12.3 for the years 2015 and 2016, respectively. 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 4 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 6/16/2016.

Surveillance of New HIV Cases Diagnosed in Hamilton County, Ohio (Jan 2014 - Mar 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 (green triangles), control limits (red dashed lines), and the average number of cases (solid blue line). Yellow triangles 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, 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 January 2014 to March 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.



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Demographics and Social Factors Associated with High Risk for HIV Infection

Table 2 compares the race, sex, and risk behavior groups for new HIV infections from January 2015 through March 2016. The data reflect confirmed HIV cases designated as newly testing positive and residing in Hamilton County. When race was examined, an increase in the percent of white Hamilton County residents can be seen in 2016 (35.6 percent) compared to 2015 (26.6 percent). A large disparity in the sex of cases was apparent in 2015 and 2016 as males contributed to approximately 75-80 percent of cases in both years. Figure 2, below, illustrates the distribution of age among new HIV diagnoses in Hamilton County. As Table 2 illustrates, the men who have sex with men (MSM) population accounted for 64.5 percent and 45.2 percent of male cases in 2015 and 2016, respectively. Sixty-five percent of MSMs newly diagnosed with HIV during 2015 and 2016 were black Hamilton County residents. By understanding these demographics and high-risk factors that contribute most to new HIV infections, it is possible to create a specific and effective prevention strategy. As data for 2016 are collected and updated, demographic percentages will become more reliable.

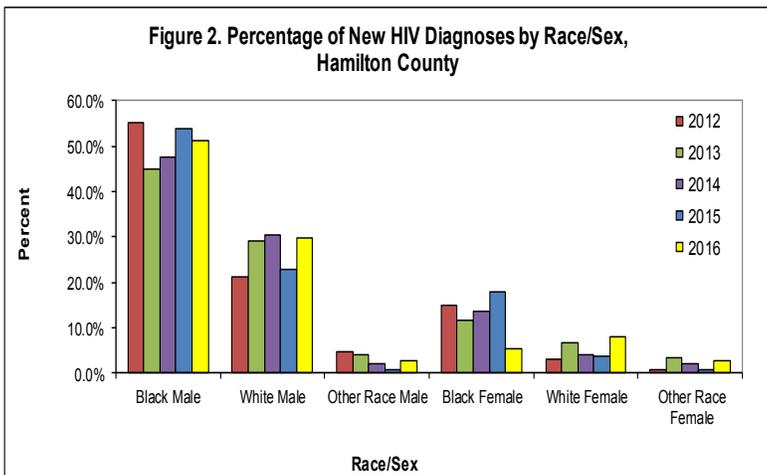


Table 2. Demographics of New HIV Cases

	Jan - Dec 2015		Jan - Mar 2016	
	#	%	#	%
Race				
Black	100	72.0	21	56.8
White	37	26.6	14	37.8
Other	2	1.4	2	5.4
Sex				
Male	108	77.7	31	83.8
Female	31	22.3	6	16.2
Risk Groups				
MSM	69 of 107	64.5	14 of 31	45.2
HRHF	22 of 31	71.0	4 of 6	66.7
IDU	2 of 138	1.5	2 of 37	5.41

These data are provisional and subject to change when additional information is gained. New HIV positive cases between January 2015 and March 2016 were used for analysis. Cases were selected based on address at diagnosis. Source: ODH, STD Surveillance. Data reported as of 6/16/2016. 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 heterosexual females (HRHF) are women who self-identified as participating in sex with a known MSM, HIV+, IDU, or anonymous person. HRHF status is also determined from factors such as having sex while intoxicated, exchanging sex for drugs, or having previous STIs.

Table 3. HIV Testing History of Newly Diagnosed HIV Persons January 2015 – March 2016

	Black Residents	White Residents	All Residents
Previously Tested for HIV	99 of 113 (87.6%) (5.8%)	40 of 46 (87.0%) (9.8%)	143 of 163 (87.7%) (6.9%)

These data are provisional and subject to change when additional information is gained. Cases represent new HIV infections. Percentages and numbers are reflective of only completed data fields. Percentages given in red indicate the percent of cases with missing/unknown information for the 'Previously tested for HIV' variable. Source: ODH, STD Surveillance. Data reported as of 6/16/2016.

It is also important to evaluate the prevention and education processes being used to reduce the number of new HIV infections. As there was no direct way to evaluate HIV prevention education and compliance using the Ohio Disease Reporting System, an alternative measure utilizing the number of new HIV diagnoses who were previously tested for

HIV was used. During HIV testing, patients receive education on HIV prevention practices. Ideally, this education would have 100 percent compliance resulting in no new HIV infections from individuals who had a previous HIV test. However, data from 2015 and 2016 show that over 80 percent of new HIV infections were previously tested at least once

before the current positive HIV test. These data may suggest that non-compliance may be a factor that is impacting HIV in our community. Interventions developed for the high-risk demographics shown above may benefit by focusing on improving HIV prevention education and compliance.