

Michigan's HIV Surveillance Program collects, interprets, and disseminates population level data regarding persons living with HIV (PLWH) and persons at risk of contracting the virus. Since 2001, the program has produced semi-annual reports for a wide audience. Beginning in 2016, these reports were overhauled and split into two parts. "HIV in Detroit, Michigan, an overview of the epidemic" presents the most relevant information using graphical, user-friendly displays and can be found on our website. To explore current, pressing issues regarding the HIV epidemic, please review that report. This report, "Detroit, Michigan HIV Surveillance Report, New Diagnoses and Prevalence Tables", contains the most commonly requested regional data.

The old surveillance reports utilized residence at diagnosis (the CDC standard) and therefore any person diagnosed in Michigan, regardless of their current location, was included. However, due to population changes, as well as the extended lifespan among PLWH, it is more appropriate to include only those currently living in Michigan. Due to differences in the underlying dataset, do not compare any numbers or figures in the new Detroit, Michigan HIV Surveillance Report to reports preceding 2016.

Key Definitions

The Basics

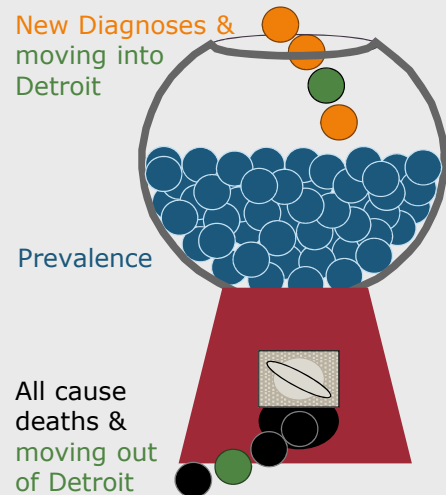
New Diagnoses: The number of cases newly diagnosed over a given period of time, usually a year. In HIV surveillance new diagnoses do not necessarily represent new infections as newly diagnosed persons may have been infected for many years.

Prevalence: The total number of persons currently living with HIV (PLWH).

Reported Prevalence: The number of diagnosed persons who were reported to surveillance.

Estimated Prevalence: The CDC estimates that 13% of PLWH in Michigan are not diagnosed. In other words, the reported prevalence is 87% of the estimated prevalence. The undiagnosed PLWH are distributed by county based on the proportion of PLWH living there (Table 4 of Michigan HIV Surveillance Report). When displayed as a number, the estimated prevalence is rounded up to the nearest ten.

HIV Stages: Stage 3 (formally called AIDS) refers to persons with a CD4 count of <200 cells. Once a person progresses to stage 3, the CD4 count may improve, but that person is still categorized as stage 3. Stages 0, 1, or 2 (aka non-stage 3) refer to persons who have never progressed to stage 3.



Linkage, Care, and Viral Suppression

Linked to Care: The proportion of newly diagnosed PLWH who have visited a doctor at least eight days after diagnosis (assessed by CD4, viral load, or genotype test).

In Care: The proportion of PLWH who visit a doctor at least once during a calendar year (assessed by CD4, viral load, or genotype test).

Community Viral Suppression: The proportion virally suppressed ($\leq 200\text{c/mL}$) out of *all* PLWH.
Higher levels of community viral suppression reduce HIV transmission.

Viral Suppression (VS) Rate: The proportion virally suppressed ($\leq 200\text{c/mL}$) out of PLWH *in care*.

Demographics

Race: In this report, persons described as white, Black, Asian/Native Hawaiian/Pacific Islander, or American Indian/Alaska Native are all non-Hispanic/Latino(a); persons described as Hispanic may be of any race.

Gender: When available, this report utilizes current gender. When missing, gender is assumed to match sex at birth. Surveillance is aware that transgender persons are underreported and, many times, are categorized as the gender of their birth sex. This is because current gender did not become available for collection until 2010. Michigan surveillance anticipates that the reporting of current gender identity will continue to improve.

Risk Categories and Hierarchy

MSM: Men who have sex with men.

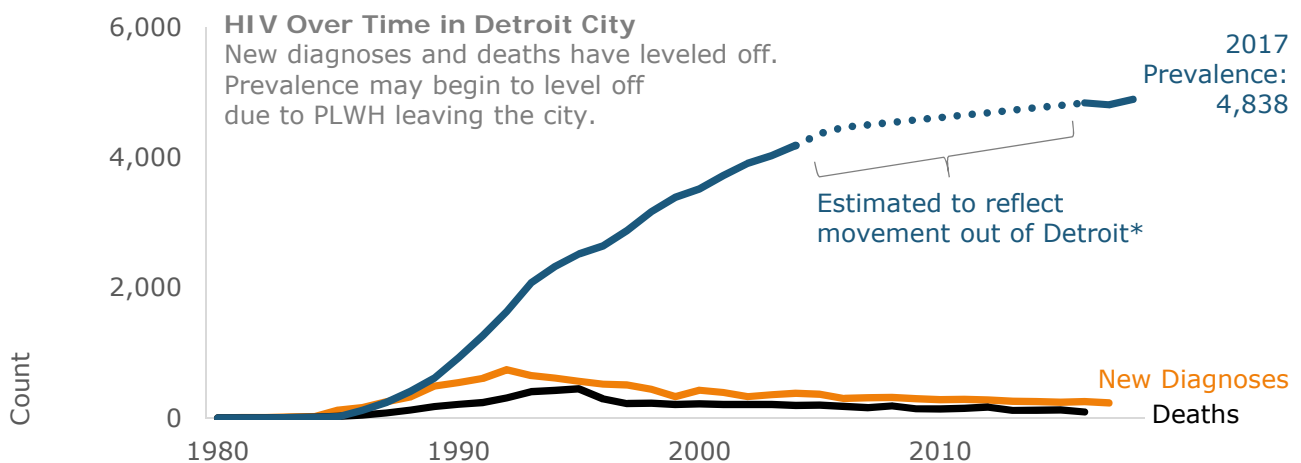
PWID: Persons who inject drugs.

Heterosexual: Males: men who are not MSM or PWID and reported sex with an HIV positive female or a female at risk (includes CDC and HRSA definitions).

Females: females who are not a PWID and reported sex with a male.

Blood Products: Hemophiliacs, blood transfusion recipients, and organ recipients who received blood products prior to 1985 & persons documented to have ever received an infected organ or unit of blood.

Perinatal: HIV transmission from mother to child during birth or through breastfeeding.



*PLWH have left Detroit since the beginning of the epidemic, the this number was unknown until 2015. To avoid the appearance that all movement occurred in 2015, the emigration count (854) was distributed evenly between 2004 and 2014. This estimation was not needed at state or regional levels as movement was low.

Table 1. New Diagnoses, Deaths, and Prevalence of HIV Infection by Year in the City of Detroit

Year	HIV Infection - All Stages			HIV Stage 3 Infection		
	Diagnoses	Deaths	Prevalence	Diagnoses	Deaths	Prevalence
1981	2	1	1	2	1	1
1982	2	0	3	2	0	3
1983	12	4	11	10	4	9
1984	21	11	21	21	11	19
1985	123	25	119	40	25	34
1986	164	44	239	74	41	67
1987	249	79	409	140	74	133
1988	322	124	607	206	122	217
1989	489	175	921	301	167	351
1990	544	212	1,253	342	203	490
1991	607	237	1,623	415	224	681
1992	742	311	2,054	581	294	968
1993	652	404	2,302	508	379	1,097
1994	613	423	2,492	481	393	1,185
1995	562	444	2,610	468	407	1,246
1996	522	292	2,840	376	273	1,349
1997	504	222	3,122	331	196	1,484
1998	441	223	3,340	317	194	1,607
1999	327	205	3,462	291	180	1,718
2000	425	216	3,671	326	183	1,861
2001	390	206	3,855	250	174	1,937
2002	328	206	3,977	270	179	2,028
2003	359	204	4,132	274	168	2,134
2004	376	192	4,316	270	162	2,242
2005	365	198	4,483	307	164	2,385
2006	301	178	4,606	228	145	2,468
2007	310	156	4,760	213	136	2,545
2008	312	187	4,885	229	147	2,627
2009	294	140	5,039	192	111	2,708
2010	279	137	5,181	205	120	2,793
2011	282	146	5,317	190	114	2,869
2012	275	167	5,425	146	131	2,884
2013	253	119	5,559	176	100	2,960
2014	252	118	5,693	128	86	3,002
2015	238	123	4,839	130	102	2,684
2016	252	94	4,809	134	69	2,654
2017	228	--	4,838	102	--	2,628
Total	12,417	6,223		8,676	5,479	

The current reported prevalence of HIV infection in Detroit is 4,838 cases. The prevalence of stage 3 HIV infection, which is a subset of the overall HIV infection prevalence, is 2,628 cases. The HIV infection columns display data on all persons with HIV, including those with stage 3.

The number of reported deaths includes those directly attributable to the presence of HIV infection as well as those due to other causes. Reported deaths for the most recent year is incomplete.

on January 1, 2018

Table 2. Demographic Information of City of Detroit Residents Living with HIV

Demographic Group	Estimated Prevalence	Reported HIV Infection							2016 Census Estimates	
		Non Stage 3		Stage 3		Total			Count	%
		Count	%	Count	%	Count	%	Rate per 100,000		
Total	5,570	2,210	100%	2,628	100%	4,838	100%	684.7	706,574	100%
Race/Ethnicity										
Black	4,930	1,939	88%	2,336	89%	4,275	88%	785.2	544,427	77%
Hispanic	210	85	4%	89	3%	174	4%	340.0	51,177	7%
White	300	136	6%	117	4%	253	5%	387.8	65,232	9%
Other	160	50	2%	86	3%	136	3%	297.3	45,738	6%
Asian/NH/PI	20	6	<1%	4	<1%	10	<1%	102.6	9,744	1%
Am Indian/AN	10	3	<1%	0	0%	3	<1%	--	2,428	<1%
Multi/Other	150	41	2%	82	3%	123	3%	366.4	33,566	5%
Gender & Race										
Male	4,130	1,640	74%	1,942	74%	3,582	74%	1,068.4	335,256	47%
Black	3,610	1,416	64%	1,713	65%	3,129	65%	1,242.2	251,892	36%
Hispanic	160	68	3%	64	2%	132	3%	505.5	26,112	4%
White	250	116	5%	100	4%	216	4%	633.9	34,077	5%
Other	130	40	2%	65	2%	105	2%	453.1	23,175	3%
Female	1,350	521	24%	643	24%	1,164	24%	313.5	371,318	53%
Black	1,220	475	21%	584	22%	1,059	22%	362.0	292,535	41%
Hispanic	50	17	<1%	23	<1%	40	<1%	159.6	25,065	4%
White	50	20	<1%	16	<1%	36	<1%	115.6	31,155	4%
Other	40	9	<1%	20	<1%	29	<1%	128.5	22,563	3%
Transgender	110	49	2%	43	2%	92	2%	--	N/A	N/A
Black	110	48	2%	39	1%	87	2%	--	N/A	N/A
Hispanic	10	0	0%	2	<1%	2	<1%	--	N/A	N/A
White	10	0	0%	1	<1%	1	<1%	--	N/A	N/A
Other	10	1	<1%	1	<1%	2	<1%	--	N/A	N/A
Risk										
MSM	2,780	1,159	52%	1,250	48%	2,409	50%	--	N/A	N/A
PWID	480	119	5%	293	11%	412	9%	--	N/A	N/A
MSM/PWID	170	52	2%	90	3%	142	3%	--	N/A	N/A
Heterosexual	1,140	435	20%	550	21%	985	20%	--	N/A	N/A
Males	230	83	4%	116	4%	199	4%	--	N/A	N/A
Females	910	352	16%	434	17%	786	16%	--	N/A	N/A
Blood Products	10	1	<1%	4	<1%	5	<1%	--	N/A	N/A
Perinatal	70	29	1%	31	1%	60	1%	--	N/A	N/A
Undetermined	950	415	19%	410	16%	825	17%	--	N/A	N/A
Current Age (in years)*										
0-12	20	7	<1%	3	<1%	10	<1%	7.7	130,608	18%
13-19	80	55	2%	11	<1%	66	1%	91.7	71,938	10%
20-24	340	230	10%	60	2%	290	6%	477.8	60,696	9%
25-29	730	417	19%	217	8%	634	13%	1,203.2	52,693	7%
30-39	1,080	491	22%	439	17%	930	19%	1,089.5	85,363	12%
40-49	1,220	413	19%	645	25%	1,058	22%	1,214.7	87,101	12%
50-59	1,390	403	18%	798	30%	1,201	25%	1,369.0	87,728	12%
60+	750	194	9%	455	17%	649	13%	497.5	130,448	18%

These data may be found by county in the Michigan Statewide HIV Surveillance Report (Table 4)

https://www.michigan.gov/mdhhs/0,5885,7-339-71550_2955_2982_46000_46003-35962--,00.html#current

on January 1, 2018

Table 3. Demographic Information and Care and Viral Suppression (VS) Rates of City of Detroit Residents Living with HIV

Gender & Race/Risk	Current Age														
	<13 yrs			13-19			20-24			25-29			30-39		
	Count	Care Rate	VS Rate	Count	Care Rate	VS Rate	Count	Care Rate	VS Rate	Count	Care Rate	VS Rate	Count	Care Rate	VS Rate
Total	10	90%	89%	66	76%	74%	290	80%	78%	634	76%	74%	930	78%	78%
Male	7	.	.	52	84%	72%	241	79%	79%	517	75%	75%	685	77%	80%
Race															
Black	5	.	.	50	83%	74%	230	79%	79%	468	75%	74%	585	77%	78%
Hispanic	0	.	.	1	.	.	3	.	.	15	71%	90%	38	76%	93%
White	1	.	.	0	.	.	4	.	.	19	79%	93%	38	84%	93%
Other	1	.	.	1	.	.	4	.	.	15	80%	58%	24	74%	87%
Risk															
MSM	N/A	N/A	N/A	43	92%	77%	212	81%	82%	424	78%	77%	540	80%	80%
PWID	N/A	N/A	N/A	0	.	.	0	.	.	1	.	.	3	.	.
Heterosexual	N/A	N/A	N/A	0	.	.	4	.	.	14	50%	83%	21	63%	90%
Other/Unk	7	.	.	9	.	.	25	72%	56%	78	64%	61%	121	66%	80%
Female	3	.	.	12	50%	100%	38	86%	71%	94	82%	71%	215	81%	71%
Race															
Black	3	.	.	11	56%	100%	35	85%	71%	86	83%	71%	187	81%	71%
Hispanic	0	.	.	1	.	.	0	.	.	3	.	.	9	.	.
White	0	.	.	0	.	.	2	.	.	4	.	.	11	100%	60%
Other	0	.	.	0	.	.	1	.	.	1	.	.	8	.	.
Risk															
PWID	N/A	N/A	N/A	0	.	.	0	.	.	3	.	.	13	82%	22%
Heterosexual	N/A	N/A	N/A	3	.	.	24	91%	70%	58	84%	75%	168	82%	74%
Other/Unk	3	.	.	9	.	.	14	79%	73%	33	78%	64%	34	73%	71%
Transgender	0	.	.	2	.	.	11	64%	67%	23	86%	67%	30	83%	74%
Race															
Black	0	.	.	2	.	.	11	64%	67%	21	84%	69%	28	81%	71%
Hispanic	0	.	.	0	.	.	0	.	.	1	.	.	1	.	.
White	0	.	.	0	.	.	0	.	.	0	.	.	0	.	.
Other	0	.	.	0	.	.	0	.	.	1	.	.	1	.	.
Risk															
Sex with Male	N/A	N/A	N/A	2	.	.	11	64%	67%	23	86%	67%	29	82%	77%
Other/Unk	0	.	.	0	.	.	0	.	.	0	.	.	1	.	.



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Care and VS rates not shown for frequencies <10

Care and VS data may be found by county and select city in the Michigan Statewide HIV Surveillance Report (Table 5)

https://www.michigan.gov/mdhhs/0,5885,7-339-71550_2955_2982_46000_46003-35962--,00.html#current

on January 1, 2018

Table 3. Demographic Information and Care and Viral Suppression (VS) Rates of City of Detroit Residents Living with HIV

Gender & Race/Risk	Current Age									Total*		
	40-49			50-59			60+			Count	Care Rate	VS Rate
	Count	Care Rate	VS Rate	Count	Care Rate	VS Rate	Count	Care Rate	VS Rate			
Total	1,058	82%	83%	1,201	83%	88%	649	80%	92%	4,838	80%	83%
Male	722	82%	85%	884	83%	87%	474	80%	91%	3,582	80%	84%
Race												
Black	610	82%	84%	773	84%	87%	408	79%	90%	3,129	80%	83%
Hispanic	30	69%	100%	27	73%	89%	18	72%	92%	132	73%	92%
White	57	87%	87%	61	80%	94%	36	88%	93%	216	84%	92%
Other	25	72%	89%	23	91%	74%	12	100%	92%	105	82%	80%
Risk												
MSM	497	85%	85%	527	86%	88%	231	88%	93%	2,474	83%	84%
PWID	17	75%	75%	85	84%	80%	123	66%	84%	229	73%	82%
Heterosexual	61	76%	87%	64	79%	86%	35	77%	89%	199	74%	87%
Other/Unk	147	73%	84%	208	76%	88%	85	79%	91%	680	72%	82%
Female	323	81%	80%	308	81%	89%	171	81%	95%	1,164	81%	82%
Race												
Black	300	81%	79%	281	81%	90%	156	82%	94%	1,059	81%	82%
Hispanic	13	100%	92%	7	.	.	7	.	.	40	75%	86%
White	7	.	.	8	.	.	4	.	.	36	82%	73%
Other	3	.	.	12	75%	67%	4	.	.	29	79%	76%
Risk												
PWID	40	74%	63%	71	70%	83%	56	71%	95%	183	72%	78%
Heterosexual	232	84%	84%	195	87%	90%	95	86%	96%	775	85%	84%
Other/Unk	51	74%	69%	42	74%	94%	20	85%	88%	206	75%	77%
Transgender	13	92%	90%	9	.	.	4	.	.	92	83%	77%
Race												
Black	13	92%	90%	9	.	.	3	.	.	87	82%	77%
Hispanic	0	.	.	0	.	.	0	.	.	2	.	.
White	0	.	.	0	.	.	1	.	.	1	.	.
Other	0	.	.	0	.	.	0	.	.	2	.	.
Risk												
Sex with Male	12	91%	89%	8	.	.	3	.	.	88	83%	77%
Other/Unk	1	.	.	1	.	.	1	.	.	4	.	.

Virally suppressed individuals have a better prognosis and are less likely to transmit the virus compared to unsuppressed individuals. Receiving routine care is the first step in achieving viral suppression (VS). The following groups struggle to obtain care, achieve VS, or both:

Overall, Detroit residents are in care and achieve VS less often than the state averages (80% in care and 83% VS compared to 82% and 89%).

Compared to the Detroit averages, Latinxs (Hispanic men and women) have low care rates. Those in care, however, achieve VS at higher than average rates. Care needs to improve to increase community VS.

Other groups with low care rates include PWID, heterosexual men, black men 20-39, transgender persons 20-24, and 13-19 year old women. 13-19 year old men were frequently out of care in the past, but care rates increased sharply. VS still needs to catch up for this group. 20-39 year olds of every race, gender, and risk have low VS rates.

Care and VS rates not shown for frequencies <10

Care and VS data may be found by county and select city in the Michigan Statewide HIV Surveillance Report (Table 5)

https://www.michigan.gov/mdhhs/0,5885,7-339-71550_2955_2982_46000_46003-35962--,00.html#current

During 2017

Table 4. Demographic Information of City of Detroit Residents Newly Diagnosed with HIV

Demographic Group	New HIV Diagnoses			2016 Census Estimates		New Stage 3	
	Count	% of Total	Rate per 100,000	Count	% of Total	Count	% of HIV Prevalence
Total	228	100%	32.3	706,574	100%	102	2%
Race/Ethnicity							
Black	206	90%	37.8	544,427	77%	91	2%
Hispanic	5	2%	--	51,177	7%	1	1%
White	15	7%	23.0	65,232	9%	10	4%
Other	2	<1%	--	45,738	6%	0	0%
Asian/NH/PI	1	<1%	--	9,744	1%	0	0%
Am Indian/AN	0	0%	--	2,428	<1%	0	0%
Multi/Other	1	<1%	--	33,566	5%	0	0%
Gender & Race							
Male	169	74%	50.4	335,256	47%	69	2%
Black	151	66%	59.9	251,892	36%	63	2%
Hispanic	4	2%	--	26,112	4%	1	1%
White	12	5%	35.2	34,077	5%	5	2%
Other	2	<1%	--	23,175	3%	0	0%
Female	51	22%	13.7	371,318	53%	27	2%
Black	48	21%	16.4	292,535	41%	22	2%
Hispanic	1	<1%	--	25,065	4%	0	0%
White	2	<1%	--	31,155	4%	5	14%
Other	0	0%	--	22,563	3%	0	0%
Transgender	8	4%	--	N/A	N/A	6	7%
Black	7	3%	--	N/A	N/A	6	7%
Hispanic	0	0%	--	N/A	N/A	0	0%
White	1	<1%	--	N/A	N/A	0	0%
Other	0	0%	--	N/A	N/A	0	0%
Risk							
MSM	128	56%	--	N/A	N/A	43	2%
PWID	9	4%	--	N/A	N/A	10	2%
MSM/PWID	3	1%	--	N/A	N/A	2	1%
Heterosexual	52	23%	--	N/A	N/A	33	3%
Males	10	4%	--	N/A	N/A	13	7%
Females	42	18%	--	N/A	N/A	20	3%
Blood Products	0	0%	--	N/A	N/A	0	0%
Perinatal	0	0%	--	N/A	N/A	2	3%
Undetermined	36	16%	--	N/A	N/A	12	1%
Age (in years)							
<13	0	0%	--	130,608	18%	0	0%
13-19	20	9%	27.8	71,938	10%	4	6%
20-24	35	15%	57.7	60,696	9%	8	3%
25-29	66	29%	125.3	52,693	7%	13	2%
30-39	44	19%	51.5	85,363	12%	26	3%
40-49	38	17%	43.6	87,101	12%	21	2%
50-59	20	9%	22.8	87,728	12%	20	2%
60+	5	2%	--	130,448	18%	10	1%

New stage 3 includes persons who progressed to stage 3 last year. Newly diagnosed individuals who progressed to Stage 3 in the same year are counted in "New HIV Diagnoses" and "New Stage 3", however most only fall into one group. The "% of HIV prevalence" is the proportion of the demographic who progressed to stage 3 (denominator from table 2 - e.g. of PLWH in 2017, 2% progressed to stage 3).

These data may be found by county in the Michigan Statewide HIV Surveillance Report (Table 8)

https://www.michigan.gov/mdhhs/0,5885,7-339-71550_2955_2982_46000_46003-35962--,00.html#current

Table 5. Demographic Information and Linkage to Care Rates of City of Detroit Residents Newly Diagnosed with HIV

Demographic Info Gender & Race/Risk	Age at HIV Diagnosis														Total Linkage	
	13-19		20-24		25-29		30-39		40-49		50-59		60+			
	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate
Total	20	60%	35	34%	66	42%	44	45%	38	32%	20	40%	5	.	228	41%
Male	17	71%	32	31%	55	45%	28	39%	24	29%	10	30%	3	.	169	41%
Race																
Black	16	75%	29	34%	53	45%	24	38%	19	37%	9	.	1	.	151	44%
Hispanic	0	.	0	.	1	.	1	.	1	.	1	.	0	.	4	.
White	1	.	2	.	1	.	2	.	4	.	0	.	2	.	12	25%
Other	0	.	1	.	0	.	1	.	0	.	0	.	0	.	2	.
Risk																
MSM	16	69%	31	29%	39	46%	16	44%	14	29%	5	.	3	.	124	42%
PWID	0	.	0	.	0	.	0	.	2	.	1	.	0	.	3	.
Heterosexual	0	.	1	.	3	.	4	.	1	.	1	.	0	.	10	50%
Unknown	1	.	0	.	13	46%	8	.	7	.	3	.	0	.	32	34%
Female	2	.	2	.	9	.	14	57%	12	33%	10	50%	2	.	51	43%
Race																
Black	2	.	2	.	8	.	13	54%	11	36%	10	50%	2	.	48	42%
Hispanic	0	.	0	.	0	.	0	.	1	.	0	.	0	.	1	.
White	0	.	0	.	1	.	1	.	0	.	0	.	0	.	2	.
Other	0	.	0	.	0	.	0	.	0	.	0	.	0	.	0	.
Risk																
PWID	0	.	0	.	1	.	2	.	0	.	3	.	0	.	6	.
Heterosexual	2	.	2	.	8	.	10	50%	10	30%	7	.	2	.	41	39%
Unknown	0	.	0	.	0	.	2	.	2	.	0	.	0	.	4	.
Transgender	1	.	1	.	2	.	2	.	2	.	0	.	0	.	8	.
Race																
Black	1	.	1	.	2	.	1	.	2	.	0	.	0	.	7	.
Hispanic	0	.	0	.	0	.	0	.	0	.	0	.	0	.	0	.
White	0	.	0	.	0	.	1	.	0	.	0	.	0	.	1	.
Other	0	.	0	.	0	.	0	.	0	.	0	.	0	.	0	.
Risk																
Sex with Male	1	.	1	.	2	.	2	.	2	.	0	.	0	.	8	.
Unknown	0	.	0	.	0	.	0	.	0	.	0	.	0	.	0	.

The linkage rate is the proportion of those newly diagnosed who received a CD4, viral load, or genotype 9-30 days following diagnosis. <13 years of age is not listed due to small sample size.

Linkage data by county and select city may be found in the Michigan Statewide HIV Surveillance Report (Table 9)

https://www.michigan.gov/mdhhs/0,5885,7-339-71550_2955_2982_46000_46003-35962--,00.html#current

The Michigan Statewide HIV Surveillance Report also includes information regarding:

- 1) County and select city level data for reported prevalence, estimated prevalence, care rate, and viral suppression rate.
- 2) Number of acute diagnoses by county. An acute diagnosis indicates a person was diagnosed shortly after infection
- 3) Pediatric Diagnoses for the past 5 years.

Follow the link to reach these data

https://www.michigan.gov/mdhhs/0,5885,7-339-71550_2955_2982_46000_46003-35962--,00.html#current