

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

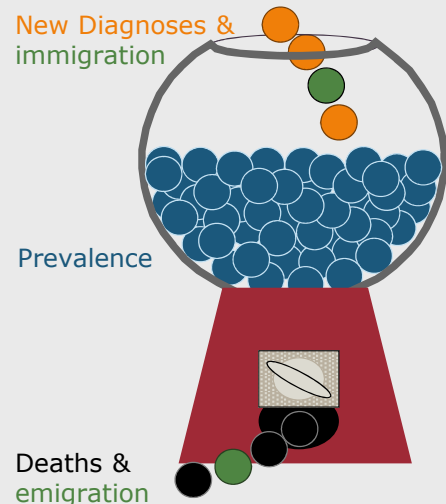
New Diagnoses: The number of cases newly diagnosed over a given period of time, usually a year. In HIV surveillance new diagnoses do not necessarily represent new infections as newly diagnosed persons may have been infected for many years.

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 number of persons diagnosed plus the estimated number of undiagnosed persons. The latter is calculated using the national estimate: 14%. The sum of diagnosed and undiagnosed 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).

Overview

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

Viral Suppression (VL Supp) Rate: The proportion virally suppressed ($\leq 200c/mL$) 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.

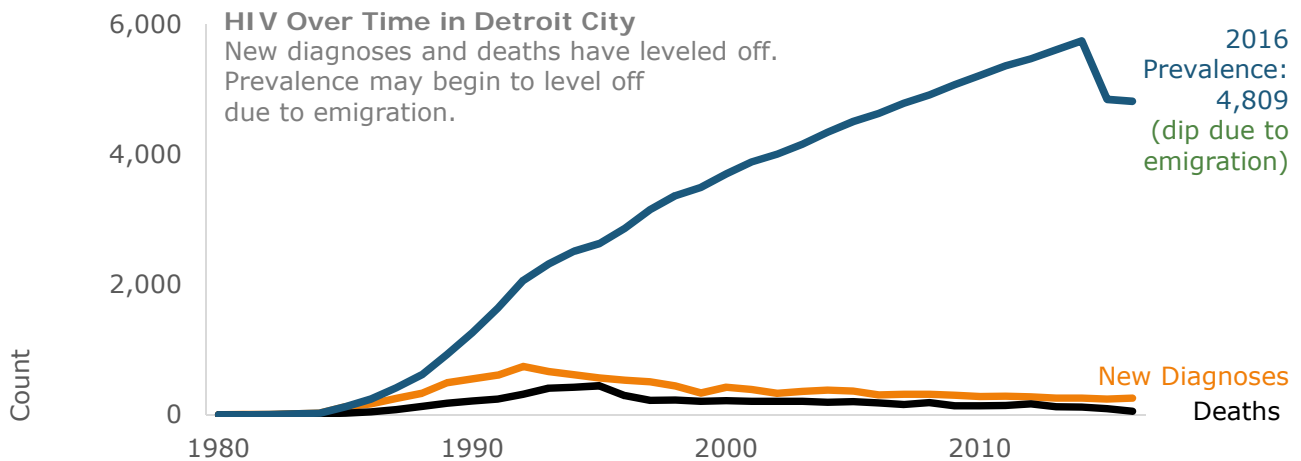


Table 1. New Diagnoses, Deaths, and Prevalence of HIV Infection by Year

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	165	44	240	74	41	67
1987	249	79	410	140	74	133
1988	326	124	612	212	122	223
1989	489	175	926	301	167	357
1990	547	212	1,261	345	203	499
1991	608	237	1,632	416	224	691
1992	740	311	2,061	581	294	978
1993	660	404	2,317	512	379	1,111
1994	613	423	2,507	482	393	1,200
1995	561	444	2,624	470	407	1,263
1996	529	292	2,861	379	273	1,369
1997	506	222	3,145	332	196	1,505
1998	443	223	3,365	319	194	1,630
1999	332	205	3,492	292	180	1,742
2000	420	216	3,696	326	183	1,885
2001	389	206	3,879	250	174	1,961
2002	327	206	4,000	270	179	2,052
2003	356	204	4,152	275	168	2,159
2004	376	192	4,336	270	162	2,267
2005	363	198	4,501	306	164	2,409
2006	301	178	4,624	228	145	2,492
2007	311	154	4,781	213	136	2,569
2008	313	186	4,908	229	145	2,653
2009	296	137	5,067	194	109	2,738
2010	279	135	5,211	204	119	2,823
2011	284	140	5,355	189	109	2,903
2012	275	164	5,466	146	130	2,919
2013	256	119	5,603	177	100	2,996
2014	252	118	5,737	128	86	3,038
2015	237	93	4,839	130	77	2,684
2016	252	51	4,809	134	35	2,654
Total	12,215	6,133		8,599	5,409	

The current reported prevalence of HIV infection in Detroit is 4,809 cases. The prevalence of stage 3 HIV infection, which is a subset of the overall HIV infection prevalence, is 2,654 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.

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		Rate per 100,000	Count	%
		Count	%	Count	%	Count	%			
Total	5,530	2,155	100%	2,654	100%	4,809	100%	668.8	719,096	100%
Race/Ethnicity										
Black	4,920	1,894	88%	2,380	90%	4,274	89%	759.2	562,949	78%
Hispanic	200	79	4%	87	3%	166	3%	326.0	50,917	7%
White	300	137	6%	119	4%	256	5%	423.8	60,407	8%
Other	130	45	2%	68	3%	113	2%	252.1	44,823	6%
Asian/NH/PI	20	7	<1%	5	<1%	12	<1%	142.0	8,452	1%
Am Indian/AN	10	4	<1%	1	<1%	5	<1%	--	2,417	<1%
Multi/Other	120	34	2%	62	2%	96	2%	282.7	33,954	5%
Gender & Race										
Male	4,110	1,596	74%	1,974	74%	3,570	74%	1044.2	341,880	48%
Black	3,620	1,387	64%	1,753	66%	3,140	65%	1201.7	261,301	36%
Hispanic	160	64	3%	67	3%	131	3%	503.7	26,009	4%
White	250	109	5%	103	4%	212	4%	661.8	32,035	4%
Other	110	36	2%	51	2%	87	2%	386.1	22,535	3%
Female	1,340	515	24%	644	24%	1,159	24%	307.3	377,216	52%
Black	1,220	465	22%	595	22%	1,060	22%	351.4	301,648	42%
Hispanic	40	14	<1%	19	<1%	33	<1%	132.5	24,908	3%
White	50	27	1%	15	<1%	42	<1%	148.0	28,372	4%
Other	30	9	<1%	15	<1%	24	<1%	107.7	22,288	3%
Transgender	100	44	2%	36	1%	80	2%	--	N/A	N/A
Black	90	42	2%	32	1%	74	2%	--	N/A	N/A
Hispanic	10	1	<1%	1	<1%	2	<1%	--	N/A	N/A
White	10	1	<1%	1	<1%	2	<1%	--	N/A	N/A
Other	10	0	0%	2	<1%	2	<1%	--	N/A	N/A
Risk										
MSM	2,690	1,097	51%	1,238	47%	2,335	49%	--	N/A	N/A
PWID	530	140	6%	313	12%	453	9%	--	N/A	N/A
MSM/PWID	170	53	2%	88	3%	141	3%	--	N/A	N/A
Heterosexual	1,110	410	19%	548	21%	958	20%	--	N/A	N/A
Males	230	75	3%	120	5%	195	4%	--	N/A	N/A
Females	880	335	16%	428	16%	763	16%	--	N/A	N/A
Blood Products	10	1	<1%	3	<1%	4	<1%	--	N/A	N/A
Perinatal	70	27	1%	33	1%	60	1%	--	N/A	N/A
Undetermined	990	427	20%	431	16%	858	18%	--	N/A	N/A
Current Age (in years)										
0-12	20	8	<1%	2	<1%	10	<1%	8.0	124,403	17%
13-19	70	43	2%	13	<1%	56	1%	67.7	82,696	11%
20-24	390	257	12%	75	3%	332	7%	536.9	61,842	9%
25-29	660	363	17%	204	8%	567	12%	1213.1	46,741	6%
30-39	990	432	20%	424	16%	856	18%	1008.8	84,853	12%
40-49	1,300	451	21%	671	25%	1,122	23%	1200.2	93,482	13%
50-59	1,410	398	18%	826	31%	1,224	25%	1260.8	97,078	14%
60+	740	203	9%	438	17%	641	13%	500.8	127,999	18%

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Table 3. Demographic Information and Care and Viral Suppression (VL) 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	VL Supp Rate	Count	Care Rate	VL Supp Rate	Count	Care Rate	VL Supp Rate	Count	Care Rate	VL Supp Rate	Count	Care Rate	VL Supp Rate
Total	10	70%	86%	56	65%	50%	332	81%	69%	567	77%	70%	856	78%	76%
Male	7	.	.	42	64%	50%	281	80%	73%	466	76%	71%	628	79%	78%
Race															
Black	5	.	.	40	62%	46%	265	79%	72%	421	76%	69%	542	78%	77%
Hispanic	0	.	.	0	.	.	8	.	.	18	80%	100%	30	83%	87%
White	1	.	.	0	.	.	4	.	.	16	88%	93%	33	85%	95%
Other	1	.	.	1	.	.	4	.	.	11	64%	86%	23	74%	75%
Risk															
MSM	N/A	N/A	N/A	34	79%	55%	240	82%	75%	388	79%	74%	487	83%	77%
PWID	N/A	N/A	N/A	0	.	.	0	.	.	2	.	.	2	.	.
Heterosexual	N/A	N/A	N/A	0	.	.	4	.	.	6	.	.	21	65%	69%
Other/Unk	7	.	.	8	.	.	37	68%	57%	70	65%	58%	118	63%	84%
Female	3	.	.	10	60%	67%	43	85%	59%	79	86%	65%	209	75%	70%
Race															
Black	3	.	.	9	.	.	40	84%	58%	70	89%	65%	187	76%	71%
Hispanic	0	.	.	1	.	.	1	.	.	2	.	.	11	64%	71%
White	0	.	.	0	.	.	1	.	.	6	.	.	6	.	.
Other	0	.	.	0	.	.	1	.	.	1	.	.	5	.	.
Risk															
PWID	N/A	N/A	N/A	0	.	.	0	.	.	2	.	.	10	70%	17%
Heterosexual	N/A	N/A	N/A	2	.	.	26	91%	67%	51	86%	70%	159	75%	71%
Other/Unk	3	.	.	8	.	.	17	76%	46%	26	85%	59%	40	76%	76%
Transgender	0	.	.	4	.	.	8	.	.	22	67%	69%	19	68%	69%
Race															
Black	0	.	.	4	.	.	8	.	.	20	68%	69%	18	67%	75%
Hispanic	0	.	.	0	.	.	0	.	.	1	.	.	0	.	.
White	0	.	.	0	.	.	0	.	.	0	.	.	0	.	.
Other	0	.	.	0	.	.	0	.	.	1	.	.	1	.	.
Risk															
Sex with Male	N/A	N/A	N/A	4	.	.	8	.	.	22	67%	69%	18	67%	67%
Other/Unk	0	.	.	0	.	.	0	.	.	0	.	.	1	.	.



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

Gender & Race/Risk	Current Age											
	40-49			50-59			60+			Total*		
	Count	Care Rate	VL Supp Rate	Count	Care Rate	VL Supp Rate	Count	Care Rate	VL Supp Rate	Count	Care Rate	VL Supp Rate
Total	1,122	79%	83%	1,224	80%	86%	641	77%	91%	4,808	79%	81%
Male	772	78%	84%	911	81%	85%	463	76%	90%	3,570	79%	81%
Race												
Black	665	80%	83%	796	81%	85%	406	76%	89%	3,140	79%	80%
Hispanic	31	62%	94%	28	78%	100%	15	67%	100%	131	74%	94%
White	58	70%	88%	69	81%	92%	31	87%	96%	212	80%	92%
Other	18	72%	100%	18	89%	69%	11	73%	63%	87	77%	78%
Risk												
MSM	530	81%	84%	512	84%	87%	222	87%	90%	2,413	83%	82%
PWID	18	72%	64%	110	72%	81%	130	62%	86%	262	67%	82%
Heterosexual	65	76%	78%	65	83%	79%	34	73%	92%	195	77%	78%
Other/Unk	159	70%	87%	224	78%	84%	77	71%	93%	700	70%	82%
Female	337	80%	80%	302	77%	88%	175	80%	94%	1,158	79%	81%
Race												
Black	319	80%	80%	272	78%	88%	159	80%	94%	1,059	79%	81%
Hispanic	6	.	.	7	.	.	5	.	.	33	73%	75%
White	8	.	.	14	57%	83%	7	.	.	42	62%	85%
Other	4	.	.	9	.	.	4	.	.	24	87%	68%
Risk												
PWID	48	66%	66%	75	65%	81%	56	75%	95%	191	69%	78%
Heterosexual	235	84%	84%	179	83%	91%	98	84%	94%	750	82%	83%
Other/Unk	54	78%	74%	48	74%	85%	21	76%	94%	217	76%	74%
Transgender	13	90%	67%	11	73%	100%	3	.	.	80	73%	69%
Race												
Black	12	90%	67%	10	80%	100%	2	.	.	74	74%	69%
Hispanic	1	.	.	0	.	.	0	.	.	2	.	.
White	0	.	.	1	.	.	1	.	.	2	.	.
Other	0	.	.	0	.	.	0	.	.	2	.	.
Risk												
Sex with Male	12	90%	67%	9	.	.	3	.	.	76	74%	67%
Other/Unk	1	.	.	2	.	.	0	.	.	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 metro area averages (80% in care and 86% VS).

Compared to the Detroit averages, transgender persons are in care and achieving VS less often.

All 13-19 year olds have low care and VS rates, and 20-29 year olds have low VS rates. Females 30-39 are also less likely to be in care and VS.

Heterosexual males 30-39 have low care and VS rates, and PWID over 40 are in care less often.

White males 40-49, white females, and all Latino(a)s have low care rates. Latinas and males of other races also achieve VS less often than the city average.

*One black female has unknown age and is not included in this table; Care and vl rates not shown for frequencies <10

During 2016

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	252	100%	35.0	719,096	100%	146	3%
Race/Ethnicity							
Black	219	87%	38.9	562,949	78%	131	3%
Hispanic	12	5%	23.6	50,917	7%	7	4%
White	17	7%	28.1	60,407	8%	5	2%
Other	4	2%	--	44,823	6%	3	3%
Asian/NH/PI	0	0%	--	8,452	1%	0	0%
Am Indian/AN	0	0%	--	2,417	<1%	0	0%
Multi/Other	4	2%	--	33,954	5%	3	3%
Gender & Race							
Male	202	80%	59.1	341,880	48%	113	3%
Black	175	69%	67.0	261,301	36%	100	3%
Hispanic	11	4%	42.3	26,009	4%	6	5%
White	13	5%	40.6	32,035	4%	4	2%
Other	3	1%	--	22,535	3%	3	3%
Female	41	16%	10.9	377,216	52%	29	3%
Black	36	14%	11.9	301,648	42%	27	3%
Hispanic	0	0%	--	24,908	3%	1	3%
White	4	2%	--	28,372	4%	1	2%
Other	1	<1%	--	22,288	3%	0	0%
Transgender	9	4%	--	N/A	N/A	4	5%
Black	8	3%	--	N/A	N/A	4	5%
Hispanic	1	<1%	--	N/A	N/A	0	0%
White	0	0%	--	N/A	N/A	0	0%
Other	0	0%	--	N/A	N/A	0	0%
Risk							
MSM	153	61%	--	N/A	N/A	73	3%
PWID	3	1%	--	N/A	N/A	2	0%
MSM/PWID	6	2%	--	N/A	N/A	6	4%
Heterosexual	44	17%	--	N/A	N/A	30	3%
Males	8	3%	--	N/A	N/A	11	6%
Females	36	14%	--	N/A	N/A	19	2%
Blood Products	0	0%	--	N/A	N/A	0	0%
Perinatal	1	<1%	--	N/A	N/A	4	7%
Undetermined	45	18%	--	N/A	N/A	31	4%
Age (in years)							
<13	1	<1%	--	124,403	17%	1	10%
13-19	19	8%	23.0	82,696	11%	6	11%
20-24	61	24%	98.6	61,842	9%	12	4%
25-29	51	20%	109.1	46,741	6%	22	4%
30-39	46	18%	54.2	84,853	12%	40	5%
40-49	36	14%	38.5	93,482	13%	26	2%
50-59	31	12%	31.9	97,078	14%	27	2%
60+	7	3%	--	127,999	18%	12	2%

New stage 3 includes persons who progressed to stage 3 last year. Individuals diagnosed last year with both HIV and stage 3 are included in both "New HIV Diagnoses" and "New Stage 3", but most were diagnosed before last year and not included in "New HIV Diagnoses". The "% of HIV prevalence" is the proportion of that demographic who progressed to stage 3. The denominator is from table 2 (e.g. of PLWH in 2016, 3% progressed to stage 3).

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	Linkage Rate	Count	Linkage Rate	Count	Linkage Rate	Count	Linkage Rate	Count	Linkage Rate	Count	Linkage Rate	Count	Linkage Rate	Count	Linkage Rate
Total	19	42%	61	56%	51	31%	46	48%	36	36%	31	35%	7	.	252	43%
Male	17	41%	57	56%	40	33%	31	58%	22	36%	28	36%	7	.	202	45%
Race																
Black	16	38%	55	55%	36	31%	23	57%	16	38%	24	38%	5	.	175	45%
Hispanic	1	.	1	.	3	.	2	.	2	.	2	.	0	.	11	45%
White	0	.	1	.	1	.	6	.	3	.	1	.	1	.	13	62%
Other	0	.	0	.	0	.	0	.	1	.	1	.	1	.	3	.
Risk																
MSM	17	41%	52	62%	30	30%	20	60%	12	42%	16	50%	5	.	152	49%
PWID	0	.	0	.	0	.	0	.	0	.	1	.	0	.	1	.
Heterosexual	0	.	0	.	0	.	1	.	4	.	2	.	1	.	8	.
Unknown	0	.	5	.	10	40%	10	50%	6	.	9	.	1	.	41	29%
Female	0	.	1	.	10	30%	15	27%	11	45%	3	.	0	.	41	37%
Race																
Black	0	.	1	.	10	30%	11	27%	10	50%	3	.	0	.	36	39%
Hispanic	0	.	0	.	0	.	0	.	0	.	0	.	0	.	0	.
White	0	.	0	.	0	.	3	.	1	.	0	.	0	.	4	.
Other	0	.	0	.	0	.	1	.	0	.	0	.	0	.	1	.
Risk																
PWID	0	.	0	.	0	.	1	.	1	.	0	.	0	.	2	.
Heterosexual	0	.	1	.	10	30%	12	25%	10	50%	2	.	0	.	35	37%
Unknown	0	.	0	.	0	.	2	.	0	.	1	.	0	.	4	.
Transgender	2	.	3	.	1	.	0	.	3	.	0	.	0	.	9	.
Race																
Black	2	.	3	.	1	.	0	.	2	.	0	.	0	.	8	.
Hispanic	0	.	0	.	0	.	0	.	1	.	0	.	0	.	1	.
White	0	.	0	.	0	.	0	.	0	.	0	.	0	.	0	.
Other	0	.	0	.	0	.	0	.	0	.	0	.	0	.	0	.
Risk																
Sex with Male	2	.	3	.	1	.	0	.	2	.	0	.	0	.	8	.
Unknown	0	.	0	.	0	.	0	.	1	.	0	.	0	.	1	.

The linkage rate is the proportion of those newly diagnosed who received a CD4, vI, or genotype between 8 days and and 1 month following diagnosis. <13 years of age is not listed due to small sample size - in 2016 1 black female <13 years old with unknown risk was diagnosed and linked to care.