

STI Diagnoses and Re-infections in Michigan, 2023

All data as of July 25, 2024

Quality, Evaluation and Epidemiology Section
Bureau of HIV and STI Programs
Michigan Department of Health and Human Services



[HIV & STIs in Michigan](#)

[STI/HIV Operations and
Resource System \(SHOARS\)](#)

Overview

Michigan's STI Surveillance Program collects, interprets, and disseminates population level data regarding persons with sexually transmitted infections (STIs). Data are collected in the Michigan Disease Surveillance System (MDSS), where reports from laboratories, private providers, and local public health give information about diagnosis, demographics, and patient behaviors. The most commonly reported STIs are chlamydia, gonorrhea, and syphilis. For the purposes of this report, counts of early stage and symptomatic syphilis (primary and secondary syphilis) are separated from latent diagnoses.

Key Definitions

The Basics

- New Diagnoses:** The number of cases newly diagnosed over a given period of time, usually a year. The date assigned to an STI report is the onset date, or if that is missing, then the diagnosis date is used. If both dates are missing, the referral date, or the date the report was referred to MDHHS, is used.
- Diagnosis Rate:** For every 100,000 people in a population, the number who were newly diagnosed. This is used to compare groups.
- Re-infection %:** For the purposes of this report, re-infection is measured as being diagnosed with the same infection at least 30 days after a prior diagnosis, but no more than 12 months after the prior diagnosis. Re-infections may be transmitted by partners who were not treated when the original patient was first diagnosed. *Re-infection is shown as a percentage of all cases who meet re-infection definition.*

The following measures are displayed in this report:

- Count:** The number of persons newly diagnosed during the given year.
- Pop:** The total population (census) during the given year.
- Rate:** The new diagnosis rate per 100,000 persons in the specified population during the given year (count/pop x 100,000 or count/est pop x 100,000).

Exposure Factor Categories and Hierarchy

- MSM:** Men who have sex with men.
- PWID:** Persons who inject drugs.
- Heterosexual:** Males: men who are not MSM or a PWID and reported sex with a female.
Females: females who are not a PWID and reported sex with a male

STI Diagnoses by Characteristics, 2023

Includes confirmed and probable cases

Race/Ethnicity	Chlamydia			Gonorrhea			P&S Syphilis ¹		Latent Syphilis		2023 Population ²
	Count	Rate	Re-infected %	Count	Rate	Re-infected %	Count	Rate	Count	Rate	
Am Indian/AN	262	458.6	8%	40	70.0	3%	4	7.0	8	14.0	57,127
Asian/NH/PI	352	98.8	8%	87	24.4	9%	10	2.8	23	6.5	356,418
Black	20,142	1,461.4	11%	9,484	688.1	10%	424	30.8	1,181	85.7	1,378,307
Hispanic	2,656	442.6	8%	712	118.6	10%	64	10.7	220	36.7	600,102
White	11,914	161.2	7%	3,218	43.5	8%	323	4.4	644	8.7	7,392,902
Multi/Other	2,100	832.0	8%	553	219.1	4%	11	4.4	47	18.6	252,405
Unknown	5,531	-	-	1,183	-	-	9	-	55	-	-
Race/Ethnicity by Sex at Birth³											
Male	15,521	312.1	6%	8,517	171.2	10%	665	13.4	1,485	29.9	4,973,541
Black	7,859	1,197.8	8%	5,427	827.1	12%	337	51.4	839	127.9	656,126
Hispanic	804	263.2	5%	354	115.9	9%	56	18.3	151	49.4	305,483
White	3,622	98.4	4%	1,573	42.7	9%	243	6.6	404	11.0	3,681,408
Other	1,026	310.4	6%	407	123.1	5%	20	6.1	56	16.9	330,524
Unknown	2,210	-	3%	756	-	3%	9	-	35	-	-
Female	27,436	541.8	10%	6,760	133.5	8%	180	3.6	693	13.7	5,063,720
Black	12,283	1,700.8	13%	4,057	561.8	9%	87	12.0	342	47.4	722,181
Hispanic	1,852	628.6	10%	358	121.5	10%	8	2.7	69	23.4	294,619
White	8,292	223.4	8%	1,645	44.3	7%	80	2.2	240	6.5	3,711,494
Other	1,688	503.2	9%	273	81.4	4%	5	1.5	22	6.6	335,426
Unknown	3,321	-	7%	427	-	2%	-	-	20	-	-
Unknown Sex	-	-	-	-	-	-	-	-	-	-	-
Exposure Factors⁴											
MSM	1,367	-	10%	1,407	-	13%	284	98.5	347	120.3	288,465*
MSM/PWID	2	-	0%	4	-	0%	14	-	8	-	-
PWID	58	-	7%	28	-	18%	11	-	29	-	-
Heterosexual	16,411	-	9%	6,676	-	9%	364	-	578	-	-
Males	4,452	-	5%	2,678	-	9%	212	-	169	-	-
Females	11,959	-	10%	3,998	-	8%	152	-	409	-	-
Undetermined	25,119	-	9%	7,162	-	9%	172	-	1,216	-	-
Age at Diagnosis											
Unknown Age	-	-	-	-	-	-	-	-	-	-	-
Less than 15 years	410	23.8	10%	140	8.1	6%	-	-	-	-	1,721,137
15-19 years	11,676	1,804.3	12%	3,184	492.0	11%	32	4.9	61	9.4	647,110
20-24 years	14,897	2,234.2	9%	3,975	596.2	9%	112	16.8	309	46.3	666,771
25-29 years	7,291	1,141.9	7%	2,782	435.7	9%	167	26.2	373	58.4	638,502
30-39 years	6,337	489.4	6%	3,354	259.0	8%	304	23.5	812	62.7	1,294,851
40-49 years	1,619	137.7	4%	1,195	101.7	7%	135	11.5	337	28.7	1,175,587
50-59 years	543	42.5	4%	467	36.6	6%	73	5.7	201	15.7	1,276,490
60+ years	184	7.0	5%	180	6.9	6%	22	0.8	85	3.2	2,616,813
Total	42,957	428.0	9%	15,277	152.2	9%	845	8.4	2,178	21.7	10,037,261

1 - P&S: Primary and Secondary Syphilis

2 - Rate per 100,000 based on annual Census Bureau estimates from the American Community Survey (ACS)

3 - Am Indian/AN, Asian/NH/PI, Multi/Other included in 'Other' category

4 - MSM Census estimate is 5.8% of the male population in Michigan (Lieb S, et al 2011. Statewide Estimation of Racial/Ethnic Populations of Men Who Have Sex with Men in the U.S.)

STI Diagnoses by Local Health Jurisdiction, 2023

Includes confirmed and probable cases

	Chlamydia			Gonorrhea			P&S Syphilis ¹		Latent Syphilis		2023 Population ²
	Count	Rate	Re-infected %	Count	Rate	Re-infected %	Count	Rate	Count	Rate	
Allegan County	251	205.8	7%	80	65.6	6%	2	1.6	11	9.0	121,939
Barry-Eaton	410	237.5	7%	144	83.4	10%	13	7.5	25	14.5	172,628
Bay County	252	245.9	8%	42	41.0	5%	4	3.9	6	5.9	102,500
Benzie-Leelanau	49	118.2	2%	10	24.1	0%	1	2.4	2	4.8	41,460
Berrien County	833	547.1	9%	185	121.5	9%	3	2.0	16	10.5	152,261
Branch-Hillsdale-St. Joseph	428	282.2	6%	102	67.2	5%	9	5.9	7	4.6	151,680
Calhoun County	841	630.6	11%	288	215.9	12%	12	9.0	31	23.2	133,366
Central Michigan District	415	226.0	5%	71	38.7	7%	2	1.1	3	1.6	183,625
Chippewa County	115	317.1	3%	4	11.0	0%	2	5.5	3	8.3	36,264
Delta-Menominee	65	108.8	2%	10	16.7	0%	1	1.7	3	5.0	59,735
Dickinson-Iron	47	124.6	4%	3	8.0	0%	-	0.0	-	0.0	37,722
District 2	72	110.1	3%	6	9.2	0%	-	0.0	3	4.6	65,397
District 4	98	125.8	6%	5	6.4	0%	1	1.3	2	2.6	77,915
District 10	594	221.6	6%	87	32.5	0%	4	1.5	13	4.8	268,104
Genesee County	2,429	604.9	11%	897	223.4	11%	42	10.5	114	28.4	401,522
Grand Traverse County	200	207.4	4%	22	22.8	5%	-	0.0	3	3.1	96,421
Huron County	38	122.9	5%	4	12.9	0%	-	0.0	-	0.0	30,927
Ingham County	1,522	534.7	8%	623	218.9	9%	34	11.9	67	23.5	284,637
Ionia County	160	241.5	6%	17	25.7	0%	3	4.5	4	6.0	66,262
Jackson County	745	467.3	6%	202	126.7	5%	28	17.6	119	74.6	159,424
Kalamazoo County	1,764	672.7	10%	710	270.8	11%	72	27.5	83	31.7	262,215
Kent County	3,660	553.4	8%	1,237	187.0	9%	69	10.4	152	23.0	661,354
Lapeer County	108	121.4	9%	13	14.6	0%	4	4.5	7	7.9	88,977
Lenawee County	198	203.0	3%	63	64.6	5%	4	4.1	12	12.3	97,520
Livingston County	254	129.1	3%	45	22.9	4%	6	3.0	7	3.6	196,757
Luce-Mack-Alger-School	51	149.2	2%	8	23.4	0%	-	0.0	3	8.8	34,192
Macomb County	3,150	360.0	9%	1,068	122.0	9%	76	8.7	159	18.2	875,101
Marquette County	150	223.9	2%	28	41.8	11%	2	3.0	3	4.5	66,999
Midland County	173	205.9	5%	19	22.6	5%	3	3.6	3	3.6	84,039
Mid-Michigan District	424	224.1	6%	101	53.4	7%	4	2.1	14	7.4	189,242
Monroe County	340	219.3	8%	69	44.5	4%	2	1.3	9	5.8	155,045
Muskegon County	1,290	730.6	11%	641	363.0	10%	11	6.2	25	14.2	176,564
Northwest MI Com Hlth Agency	184	166.6	3%	16	14.5	6%	4	3.6	5	4.5	110,438
Oakland County	3,755	295.6	7%	1,313	103.4	9%	85	6.7	204	16.1	1,270,426
Ottawa County	720	237.3	5%	168	55.4	9%	9	3.0	18	5.9	303,372
Saginaw County	1,049	558.6	11%	488	259.9	10%	7	3.7	26	13.8	187,782
Sanilac County	44	109.0	5%	5	12.4	0%	-	0.0	2	5.0	40,368
Shiawassee County	110	161.7	6%	19	27.9	0%	3	4.4	3	4.4	68,025
St Clair County	349	218.3	5%	82	51.3	16%	10	6.3	16	10.0	159,874
Tuscola County	90	170.4	7%	11	20.8	0%	-	0.0	1	1.9	52,826
Van Buren-Cass	384	301.3	7%	84	65.9	4%	2	1.6	14	11.0	127,440
Washtenaw County	1,283	351.0	9%	369	100.9	6%	24	6.6	78	21.3	365,536
Wayne LHD ³	3,744	365.2	8%	1,269	123.8	8%	59	5.8	215	21.0	1,025,166
Detroit LHD ⁴	10,043	1383.3	11%	4,639	639.0	9%	227	31.3	682	93.9	726,003
Western UP District	76	111.4	0%	10	14.7	10%	1	1.5	5	7.3	68,211
Total	42,957	428.0	9%	15,277	152.2	9%	845	8.4	2,178	21.7	10,037,261

1 - P&S: Primary and Secondary Syphilis

2 - Rate per 100,000 based on annual Census Bureau estimates from the American Community Survey (ACS)

3 - Excludes the City of Detroit

4 - Detroit LHD refers to Detroit City and Hamtramck, Highland Park, the Grosse Points, and Harper Woods. Detroit LHD population estimate is from 2022, the most recently available complete data from the Census Bureau

STI Diagnoses by County, 2023

Includes confirmed and probable cases

	Chlamydia			Gonorrhea			P&S Syphilis ¹		Latent Syphilis		2023
	Count	Rate	Re-infected %	Count	Rate	Re-infected %	Count	Rate	Count	Rate	Population ²
Alcona County	4	38.1	0%	-	0.0		-	0.0	-	0.0	10,489
Alger County	11	125.6	0%	1	11.4	0%	-	0.0	1	11.4	8,757
Allegan County	251	205.8	7%	80	65.6	6%	2	1.6	11	9.0	121,939
Alpena County	32	110.7	3%	2	6.9	0%	1	3.5	-	0.0	28,904
Antrim County	34	139.3	3%	2	8.2	0%	-	0.0	-	0.0	24,409
Arenac County	30	198.1	13%	5	33.0	0%	-	0.0	-	0.0	15,145
Baraga County	12	144.4	0%	-	0.0		-	0.0	1	12.0	8,310
Barry County	121	189.6	6%	27	42.3	7%	2	3.1	5	7.8	63,808
Bay County	252	245.9	8%	42	41.0	5%	4	3.9	6	5.9	102,500
Benzie County	22	119.3	0%	3	16.3	0%	-	0.0	-	0.0	18,441
Berrien County	833	547.1	9%	185	121.5	9%	3	2.0	16	10.5	152,261
Branch County	111	245.5	5%	27	59.7	4%	3	6.6	1	2.2	45,215
Calhoun County	841	630.6	11%	288	215.9	12%	12	9.0	31	23.2	133,366
Cass County	157	304.0	9%	27	52.3	0%	1	1.9	3	5.8	51,642
Charlevoix County	46	175.8	7%	4	15.3	0%	1	3.8	3	11.5	26,159
Cheboygan County	45	172.8	4%	2	7.7	0%	-	0.0	-	0.0	26,048
Chippewa County	115	317.1	3%	4	11.0	0%	2	5.5	3	8.3	36,264
Clare County	46	146.9	4%	6	19.2	0%	-	0.0	-	0.0	31,316
Clinton County	168	210.7	7%	59	74.0	8%	3	3.8	7	8.8	79,720
Crawford County	21	155.1	5%	2	14.8	0%	-	0.0	-	0.0	13,538
Delta County	46	125.0	2%	9	24.5	0%	1	2.7	1	2.7	36,790
Dickinson County	35	134.7	3%	2	7.7	0%	-	0.0	-	0.0	25,982
Eaton County	289	265.6	7%	117	107.5	11%	11	10.1	20	18.4	108,820
Emmet County	54	158.3	0%	5	14.7	0%	2	5.9	-	0.0	34,123
Genesee County	2,429	604.9	11%	897	223.4	11%	42	10.5	114	28.4	401,522
Gladwin County	50	193.4	6%	7	27.1	0%	-	0.0	1	3.9	25,853
Gogebic County	30	210.9	0%	4	28.1	0%	1	7.0	3	21.1	14,224
Grand Traverse County	200	207.4	4%	22	22.8	5%	-	0.0	3	3.1	96,421
Gratiot County	89	215.1	8%	10	24.2	10%	-	0.0	2	4.8	41,368
Hillsdale County	97	212.8	6%	31	68.0	3%	4	8.8	5	11.0	45,587
Houghton County	26	69.2	0%	5	13.3	20%	-	0.0	1	2.7	37,599
Huron County	38	122.9	5%	4	12.9	0%	-	0.0	-	0.0	30,927
Ingham County	1,522	534.7	8%	623	218.9	9%	34	11.9	67	23.5	284,637
Ionia County	160	241.5	6%	17	25.7	0%	3	4.5	4	6.0	66,262
Iosco County	28	110.4	4%	-	0.0		-	0.0	1	3.9	25,373
Iron County	12	102.2	8%	1	8.5	0%	-	0.0	-	0.0	11,740
Isabella County	196	305.7	4%	41	63.9	10%	2	3.1	1	1.6	64,118
Jackson County	745	467.3	6%	202	126.7	5%	28	17.6	119	74.6	159,424
Kalamazoo County	1,764	672.7	10%	710	270.8	11%	72	27.5	83	31.7	262,215
Kalkaska County	36	194.7	3%	4	21.6	0%	-	0.0	-	0.0	18,490
Kent County	3,660	553.4	8%	1,237	187.0	9%	69	10.4	152	23.0	661,354
Keweenaw County	3	138.1	0%	-	0.0		-	0.0	-	0.0	2,172
Lake County	29	227.7	0%	2	15.7	0%	1	7.9	-	0.0	12,734
Lapeer County	108	121.4	9%	13	14.6	0%	4	4.5	7	7.9	88,977
Leelanau County	27	117.3	4%	7	30.4	0%	1	4.3	2	8.7	23,019
Lenawee County	198	203.0	3%	63	64.6	5%	4	4.1	12	12.3	97,520
Livingston County	254	129.1	3%	45	22.9	4%	6	3.0	7	3.6	196,757
Luce County	3	46.6	0%	-	0.0		-	0.0	-	0.0	6,435

STI Diagnoses by County, 2023

Includes confirmed and probable cases

	Chlamydia			Gonorrhea			P&S Syphilis ¹		Latent Syphilis		2023
	Count	Rate	Re-infected %	Count	Rate	Re-infected %	Count	Rate	Count	Rate	Population ²
Mackinac County	30	276.5	3%	6	55.3	0%	-	0.0	2	18.4	10,851
Macomb County	3,150	360.0	9%	1,068	122.0	9%	76	8.7	159	18.2	875,101
Manistee County	29	113.4	10%	2	7.8	0%	-	0.0	1	3.9	25,562
Marquette County	150	223.9	2%	28	41.8	11%	2	3.0	3	4.5	66,999
Mason County	59	202.3	8%	2	6.9	0%	1	3.4	2	6.9	29,159
Mecosta County	131	318.7	5%	30	73.0	0%	1	2.4	4	9.7	41,099
Menominee County	19	82.8	0%	1	4.4	0%	-	0.0	2	8.7	22,945
Midland County	173	205.9	5%	19	22.6	5%	3	3.6	3	3.6	84,039
Missaukee County	28	182.9	4%	4	26.1	0%	-	0.0	-	0.0	15,311
Monroe County	340	219.3	8%	69	44.5	4%	2	1.3	9	5.8	155,045
Montcalm County	167	245.0	5%	32	47.0	3%	1	1.5	5	7.3	68,154
Montmorency County	12	124.0	25%	1	10.3	0%	-	0.0	2	20.7	9,678
Muskegon County	1,290	730.6	11%	641	363.0	10%	11	6.2	25	14.2	176,564
Newaygo County	122	238.7	7%	19	37.2	0%	1	2.0	3	5.9	51,108
Oakland County	3,755	295.6	7%	1,313	103.4	9%	85	6.7	204	16.1	1,270,426
Oceana County	63	233.5	2%	12	44.5	0%	-	0.0	1	3.7	26,981
Ogemaw County	29	138.2	3%	5	23.8	0%	-	0.0	2	9.5	20,990
Ontonagon County	5	84.7	0%	1	16.9	0%	-	0.0	-	0.0	5,906
Osceola County	57	244.3	4%	12	51.4	8%	-	0.0	1	4.3	23,330
Oscoda County	11	128.7	0%	1	11.7	0%	-	0.0	-	0.0	8,545
Otsego County	50	194.2	4%	5	19.4	20%	1	3.9	2	7.8	25,747
Ottawa County	720	237.3	5%	168	55.4	9%	9	3.0	18	5.9	303,372
Presque Isle County	9	67.7	0%	-	0.0	-	-	0.0	-	0.0	13,285
Roscommon County	36	150.9	3%	-	0.0	-	-	0.0	-	0.0	23,863
Saginaw County	1,049	558.6	11%	488	259.9	10%	7	3.7	26	13.8	187,782
Sanilac County	44	109.0	5%	5	12.4	0%	-	0.0	2	5.0	40,368
Schoolcraft County	7	85.9	0%	1	12.3	0%	-	0.0	-	0.0	8,149
Shiawassee County	110	161.7	6%	19	27.9	0%	3	4.4	3	4.4	68,025
St. Clair County	349	218.3	5%	82	51.3	16%	10	6.3	16	10.0	159,874
St. Joseph County	220	361.4	6%	44	72.3	7%	2	3.3	1	1.6	60,878
Tuscola County	90	170.4	7%	11	20.8	0%	-	0.0	1	1.9	52,826
Van Buren County	227	299.5	6%	57	75.2	5%	1	1.3	11	14.5	75,798
Washtenaw County	1,283	351.0	9%	369	100.9	6%	24	6.6	78	21.3	365,536
Wayne County	3,858	376.3	8%	1,370	133.6	8%	72	7.0	248	24.2	1,025,166
Detroit City	9,929	1367.6	11%	4,538	625.1	9%	214	29.5	649	89.4	726,003
Wexford County	76	222.7	8%	10	29.3	0%	-	0.0	2	5.9	34,122
Total	42,957	428.0	9%	15,277	152.2	9%	845	8.4	2,178	21.7	10,037,261

1 - P&S: Primary and Secondary Syphilis

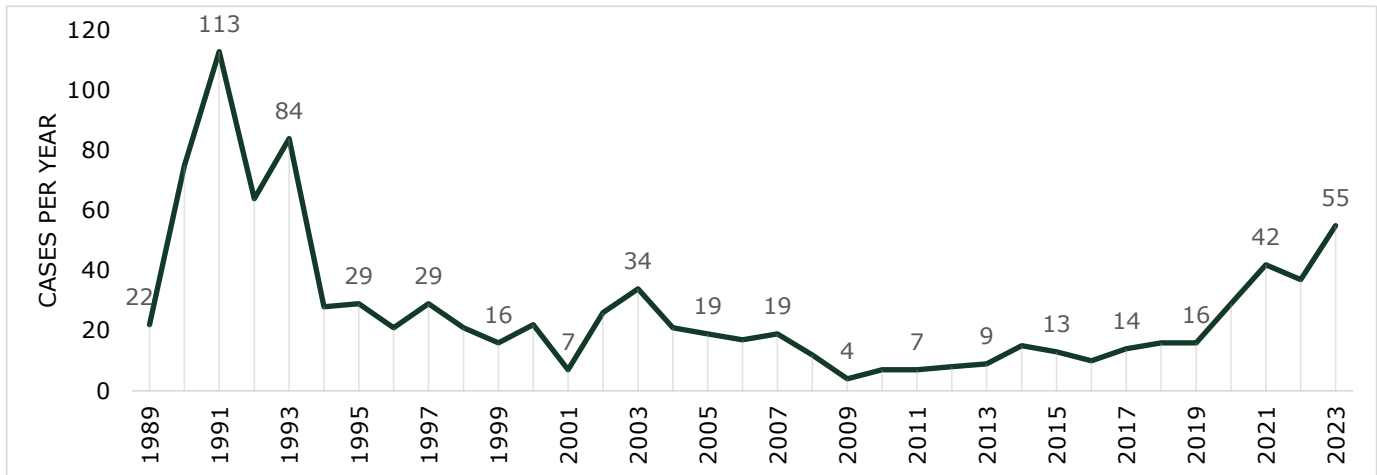
2 - Rate per 100,000 based on annual Census Bureau estimates from the American Community Survey (ACS)

Congenital Syphilis Diagnoses, 2023

Congenital syphilis, or vertical transmission from mother to infant, can be prevented by timely diagnosis and complete treatment of pregnant women. There were **55** reported cases of congenital syphilis in Michigan during 2023. Among the mothers, **65%** had [no or inadequate prenatal care](#). There were **6 deaths** among congenital syphilis cases, including **4 stillbirths**. Among these babies born with congenital syphilis, **31%** were born with low birth weight (2,500 grams or less) and **40%** were born premature (before 37 weeks gestation). **31%** had signs or symptoms of congenital syphilis (rash, abnormal cerebrospinal fluid labs, bone involvement, etc.). Common barriers to syphilis treatment were lack of prenatal care, substance use disorder, transportation, housing insecurity, domestic violence, and mental health challenges.

Congenital Syphilis Cases Over Time, 2019 - 2023

Birth Year	2019	2020	2021	2022	2023
Number of CS diagnoses	16	29	42	37	55



2023 Congenital Syphilis Reports by Local Health Jurisdiction

	count	rate per 100,000	live births*
Allegan County	1	82.1	1,218
Calhoun County	1	75.9	1,317
Detroit City	22	286.4	7,681
Genesee County	4	100.8	3,969
Ingham County	1	38.7	2,585
Kalamazoo County	5	196.1	2,550
Kent County	2	25.6	7,817
Macomb County	4	46.9	8,521
Oakland County	2	16.7	11,995
Sanilac County	1	276.2	362
Shiawassee County	1	155.8	642
Van Buren-Cass	1	132.3	756
Washtenaw County	4	130.1	3,075
Wayne County	5	40.6	12,301
Western UP District	1	181.2	552

*Births data from MDHHS vital records