

STI Trends in Michigan, 2013 - 2022

All data as of June 8, 2023

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



www.michigan.gov/hivsti

Overview

Michigan's STI Surveillance Program collects, interprets, and disseminates population level data regarding persons with diagnosed sexually transmitted infections (STI). Data is 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 sexually transmitted infections are chlamydia, gonorrhea, and syphilis. Many STIs are asymptomatic and go undiagnosed, and these are not included in surveillance data or this report, which represents diagnoses but not full incidence of infection.

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 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.
- P&S Syphilis:** Primary and secondary, or the earliest stages of syphilis infection, are used to reflect incident rather than prevalent infection. During primary syphilis, symptoms appear where syphilis entered the body and last 3-6 weeks. In the following phase, secondary syphilis, symptoms typically manifest with body rash and last 2-10 weeks.
- Latent Syphilis:** Following these symptomatic stages, syphilis is considered latent but still can be infectious and can have long term health consequences. Latent infection lasts through successful treatment.

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).
- % change (95CI):** Average annual percent change and 95% confidence interval. This measure is only displayed when statistically significant changes are observed ($p < 0.05$). Average annual percent change is calculated by assessing the count offset by the underlying population. *This represents an average change over a one-year period.*

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

Annual Review of STI Trends in Michigan, 2013 - 2022

Methods

Case counts of sexually transmitted infections (STIs) were aggregated by diagnosis year from the Michigan Diseases Surveillance System (MDSS). Population estimates are drawn from the American Community Survey (ACS). Test of trend was calculated using negative binomial regression and trends with $p < 0.05$ were considered statistically significant. Percent annual change and 95% confidence intervals were calculated from this model offset by population.

Overview

Since 2013, **P&S Syphilis** rates have increased annually statewide by **11 percent (95% CI 7% - 14%)**. This, and all percent changes presented in this report, is an *average annual* change. In 2013, Michigan experienced a localized outbreak of primary and secondary syphilis in the Detroit area, but in the following years the city and state saw a decrease in cases. Since 2016, there has been a strong trend of increasing reports.

Over that same time 10-year period, **Chlamydia** rates have, on average, not changed significantly.

Since 2013, **Gonorrhea** rates have, on average, increased **9 percent (95% CI 6% - 13%)** annually, but this average includes a drop since 2020. The Michigan increase matches a national trend of increasing gonorrhea diagnoses in the United States.

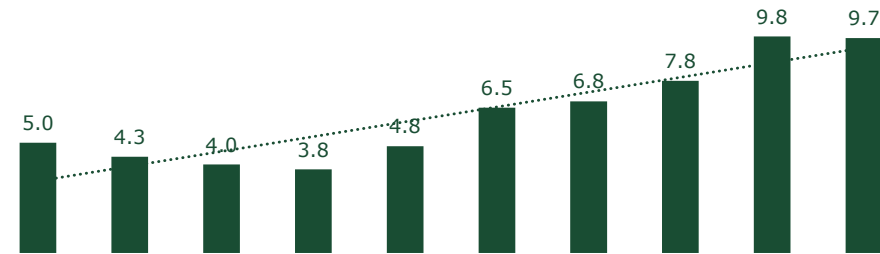
More information:

Additional trend tables follow which stratify by reported demographic and geographic variables.

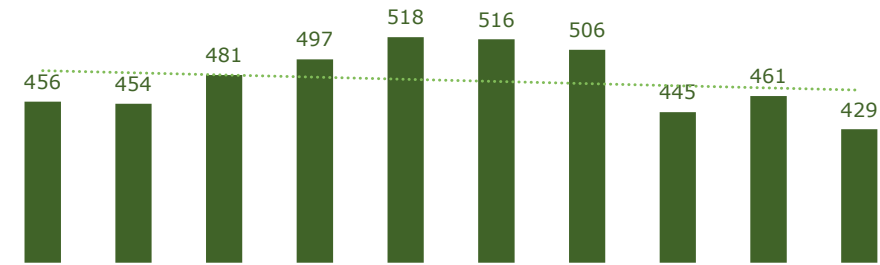
For more interactive data, visit MDHHS Data & Statistics at michigan.gov/hivsti

Overall trends in rates (per 100,000 population)

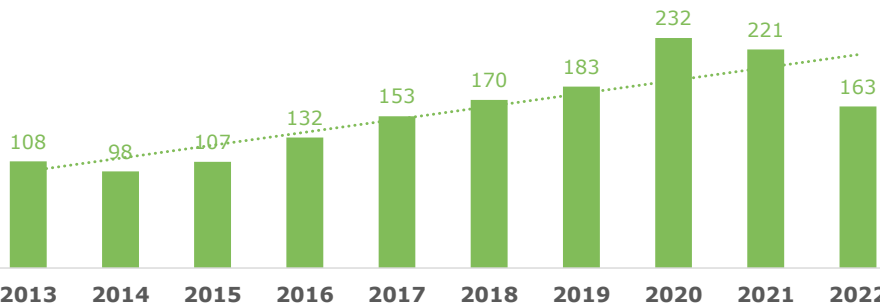
P&S Syphilis Rate



Chlamydia Rate



Gonorrhea Rate



Annual Review of STI Trends in Michigan, 2013 - 2022 - Chlamydia

<i>rates displayed per 100,000 population</i>		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Michigan Total	<i>count</i>	45184	45043	47819	49429	51682	51513	50487	44851	46265	43035	
	<i>rate</i>	456	454	481	497	518	516	506	446	461	429	No significant change
By Age												
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Less than 15 years	<i>count</i>	562	449	418	445	436	412	414	328	328	343	-4.4%
	<i>rate</i>	30	25	23	25	24	23	23	19	19	20	(-5.8%--2.8%)
15-19 years	<i>count</i>	14873	13694	14002	14901	15338	15302	14437	12264	11979	11359	No significant change
	<i>rate</i>	2157	2016	2079	2225	2317	2345	2240	1836	1878	1779	
20-24 years	<i>count</i>	18471	18542	19059	19137	19700	19153	18659	16920	17398	15531	No significant change
	<i>rate</i>	2504	2494	2599	2666	2792	2760	2738	2442	2497	2217	
25-29 years	<i>count</i>	6292	6866	8139	8534	9340	9479	9306	8170	8385	7592	No significant change
	<i>rate</i>	1062	1131	1295	1301	1374	1366	1333	1209	1266	1168	
30-39 years	<i>count</i>	3641	4011	4508	4736	5073	5312	5669	5382	6147	6042	4.4%
	<i>rate</i>	315	345	386	401	426	442	467	433	487	473	(3.3%-5.6%)
40-49 years	<i>count</i>	910	1006	1174	1180	1238	1240	1391	1210	1377	1467	5.7%
	<i>rate</i>	69	79	94	96	103	104	118	102	118	126	(4.0%-7.3%)
50-59 years	<i>count</i>	238	326	335	361	398	478	462	439	497	537	9.0%
	<i>rate</i>	16	22	23	25	28	35	34	32	37	41	(7.0%-11.0%)
60+ years	<i>count</i>	144	91	115	104	126	116	139	135	154	164	No significant change
	<i>rate</i>	7	4	5	5	5	5	6	5	6	6	
By Race/Sex												
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Am Indian/AN Female	<i>count</i>	168	165	149	156	159	190	135	163	161	173	No significant change
	<i>rate</i>	602	589	531	554	562	670	474	573	565	605	
Am Indian/AN Male	<i>count</i>	52	52	45	62	67	59	59	56	69	69	No significant change
	<i>rate</i>	188	188	162	223	240	211	210	198	243	242	
Asian/NH/PI Female	<i>count</i>	163	194	211	266	240	215	262	198	226	221	No significant change
	<i>rate</i>	114	130	137	166	145	128	154	115	131	125	
Asian/NH/PI Male	<i>count</i>	67	59	86	98	107	113	128	96	119	125	4.4%
	<i>rate</i>	50	42	59	64	67	69	77	56	70	72	(1.8%-7.1%)
Black Female	<i>count</i>	12649	12355	11773	12044	13126	12636	12399	12050	12021	11496	No significant change
	<i>rate</i>	1742	1704	1628	1667	1816	1748	1715	1654	1657	1590	
Black Male	<i>count</i>	5845	5778	5911	6509	7468	7510	7681	7086	7245	7010	2.8%
	<i>rate</i>	891	882	904	995	1143	1150	1178	1063	1093	1064	(1.2%-4.4%)
Hispanic Female	<i>count</i>	928	1064	1193	1260	1430	1345	1443	1400	1757	1743	4.2%
	<i>rate</i>	402	452	498	514	570	524	550	521	642	622	(2.8%-5.6%)
Hispanic Male	<i>count</i>	373	431	423	512	567	594	635	500	644	723	4.1%
	<i>rate</i>	157	178	171	202	219	224	234	178	225	247	(2.0%-6.3%)
Multi/Other Female*	<i>count</i>	404	437	534	917	1082	1565	1607	1475	1629	1331	15.5%
	<i>rate</i>	400	422	505	847	975	1376	1383	1232	1337	1071	(9.1%-22.1%)
Multi/other Male*	<i>count</i>	173	166	181	296	447	715	781	806	957	795	22.1%
	<i>rate</i>	178	166	176	281	413	645	688	682	795	646	(15.8%-28.7%)
White Female	<i>count</i>	9257	10155	10353	10973	11470	11591	10565	9672	10106	8966	No significant change
	<i>rate</i>	243	267	273	289	303	307	280	258	271	241	
White Male	<i>count</i>	2955	3448	3701	4201	4570	4500	4251	3494	3853	3820	No significant change
	<i>rate</i>	80	93	100	113	123	122	115	93	104	103	

Note: cases with missing data for characteristics were omitted from the respective analyses

Annual Review of STI Trends in Michigan, 2013 - 2022 - Chlamydia

By residence at diagnosis (local health jurisdiction)

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Allegan County	<i>count</i>	315	294	323	360	429	389	411	324	317	292	No significant change
	<i>rate</i>	281	259	283	313	369	332	348	269	262	241	
Barry-Eaton	<i>count</i>	469	565	575	651	573	605	595	578	505	437	No significant change
	<i>rate</i>	280	336	342	385	337	354	347	336	293	253	
Bay County	<i>count</i>	308	316	321	344	416	419	390	332	395	280	No significant change
	<i>rate</i>	288	298	305	329	400	404	379	320	383	272	
Benzie-Leelanau	<i>count</i>	59	77	80	85	104	81	66	43	68	55	No significant change
	<i>rate</i>	152	197	205	218	265	206	167	107	166	134	
Berrien County	<i>count</i>	801	795	847	831	875	972	863	784	913	859	No significant change
	<i>rate</i>	513	509	546	538	567	632	563	508	595	562	
Branch-Hillsdale-St. Joseph	<i>count</i>	312	383	446	405	421	466	409	394	431	391	No significant change
	<i>rate</i>	207	254	297	270	281	311	273	260	284	259	
Calhoun County	<i>count</i>	756	908	913	944	995	1064	947	710	893	750	No significant change
	<i>rate</i>	561	673	679	703	742	795	708	529	667	563	
Central Michigan District	<i>count</i>	446	444	409	471	596	561	588	518	511	470	2.5% (0.1%-4.8%)
	<i>rate</i>	236	235	216	249	316	298	312	284	280	256	
Chippewa County	<i>count</i>	134	94	105	117	104	84	60	68	79	80	-5.6% (-8.5%--2.6%)
	<i>rate</i>	347	246	276	310	276	224	161	185	220	220	
Delta-Menominee	<i>count</i>	96	133	130	162	132	171	169	77	83	91	No significant change
	<i>rate</i>	159	221	217	273	224	291	289	128	138	152	
Detroit City*	<i>count</i>	12328	10804	11556	11600	11573	11000	11145	9947	10005	9474	-1.6% (-2.4%--0.7%)
	<i>rate</i>	1575	1402	1510	1530	1535	1464	1489	1334	1378	1305	
Dickinson-Iron	<i>count</i>	54	66	90	90	77	93	97	68	87	59	No significant change
	<i>rate</i>	144	177	243	245	211	255	279	181	233	157	
District 2	<i>count</i>	79	101	122	113	155	124	92	111	97	82	No significant change
	<i>rate</i>	121	155	189	176	240	192	142	172	150	126	
District 4	<i>count</i>	123	125	104	134	149	121	133	112	131	95	No significant change
	<i>rate</i>	160	163	136	176	196	159	176	146	170	122	
District 10	<i>count</i>	531	680	809	729	729	707	756	574	603	565	No significant change
	<i>rate</i>	204	261	310	279	277	267	285	219	228	212	
Genesee County	<i>count</i>	2548	2924	2773	2681	2823	2757	2953	2787	2686	2386	No significant change
	<i>rate</i>	613	708	675	655	692	678	728	687	664	594	
Grand Traverse County	<i>count</i>	249	285	277	278	287	276	273	248	231	278	No significant change
	<i>rate</i>	276	314	302	302	312	298	293	260	241	288	
Huron County	<i>count</i>	47	57	64	57	57	67	50	59	57	49	No significant change
	<i>rate</i>	146	178	202	181	182	215	162	188	182	157	

* Detroit LHD refers to Detroit City and Hamtramck, Highland Park, the Grosse Points, and Harper Woods. Wayne LHD covers Western Wayne County for STIs.

Annual Review of STI Trends in Michigan, 2013 - 2022 - Chlamydia

By residence at diagnosis (local health jurisdiction)

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
<i>rates displayed per 100,000 population</i>												
Ingham County	<i>count</i>	1833	1719	1766	2014	1921	1946	1812	1676	1783	1675	No significant change
	<i>rate</i>	645	602	615	695	659	668	622	589	657	590	
Ionia County	<i>count</i>	131	140	181	170	220	230	174	192	201	181	No significant change
	<i>rate</i>	205	218	282	265	342	358	269	287	301	271	
Jackson County	<i>count</i>	633	804	895	930	846	958	925	692	822	877	No significant change
	<i>rate</i>	396	504	562	587	533	604	584	432	513	548	
Kalamazoo County	<i>count</i>	1856	2059	2136	2181	2303	2356	2332	1931	1895	1673	No significant change
	<i>rate</i>	721	795	822	834	874	889	878	738	727	641	
Kent County	<i>count</i>	3760	3665	3825	3538	4180	4018	3625	3340	3831	3710	No significant change
	<i>rate</i>	602	580	600	549	643	615	552	507	581	563	
Lapeer County	<i>count</i>	156	140	165	143	163	186	178	148	169	141	No significant change
	<i>rate</i>	177	159	187	162	185	211	203	167	191	159	
Lenawee County	<i>count</i>	207	215	284	300	309	290	266	245	240	225	No significant change
	<i>rate</i>	209	218	289	304	314	296	270	247	242	228	
Livingston County	<i>count</i>	267	274	367	386	379	375	351	299	315	232	No significant change
	<i>rate</i>	145	148	196	205	200	196	183	154	161	118	
Luce-Mack-Alger-School	<i>count</i>	52	39	39	73	79	65	56	46	57	46	No significant change
	<i>rate</i>	148	112	113	214	230	190	165	139	172	138	
Macomb County	<i>count</i>	2600	2424	2726	3232	3548	3590	3578	3046	3306	3102	2.6% (0.2%-5.0%)
	<i>rate</i>	303	281	315	372	407	412	410	346	377	355	
Marquette County	<i>count</i>	217	221	212	277	268	320	240	208	190	145	No significant change
	<i>rate</i>	320	326	315	416	403	482	360	315	289	218	
Mid-Michigan District	<i>count</i>	433	438	493	550	536	596	581	501	527	463	No significant change
	<i>rate</i>	238	242	272	303	293	325	316	267	280	246	
Midland County	<i>count</i>	166	174	160	214	221	198	195	164	152	155	No significant change
	<i>rate</i>	198	208	191	256	265	237	234	196	182	185	
Monroe County	<i>count</i>	360	350	409	400	369	380	412	407	333	378	No significant change
	<i>rate</i>	240	233	274	268	247	253	274	263	214	243	

Annual Review of STI Trends in Michigan, 2013 - 2022 - Chlamydia

By residence at diagnosis (local health jurisdiction)

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
<i>rates displayed per 100,000 population</i>												
Muskegon County	<i>count</i>	1198	1239	1344	1310	1425	1312	1336	1336	1364	1253	No significant change
	<i>rate</i>	695	719	779	756	820	755	769	760	772	710	
Northwest MI Com Hlth Agency	<i>count</i>	184	195	190	238	284	214	218	178	207	212	No significant change
	<i>rate</i>	173	183	179	223	265	199	203	164	189	196	
Oakland County	<i>count</i>	3556	3616	3942	4198	4214	4526	4443	3924	3956	3699	No significant change
	<i>rate</i>	288	291	317	335	335	360	353	308	311	291	
Ottawa County	<i>count</i>	733	706	854	855	974	924	804	808	1006	770	No significant change
	<i>rate</i>	267	254	304	301	340	319	276	272	337	256	
Saginaw County	<i>count</i>	1190	1222	1264	1137	1340	1484	1306	1243	1249	1198	No significant change
	<i>rate</i>	604	626	654	590	698	778	686	655	659	636	
Sanilac County	<i>count</i>	64	83	95	86	96	81	73	72	51	43	-4.8% (-8.7%--0.6%)
	<i>rate</i>	153	199	229	208	233	196	177	178	126	106	
Shiawassee County	<i>count</i>	148	207	199	210	217	197	246	170	156	131	No significant change
	<i>rate</i>	215	301	290	306	317	289	361	250	229	193	
St Clair County	<i>count</i>	443	413	401	444	479	498	463	364	336	361	No significant change
	<i>rate</i>	276	258	251	278	301	313	291	227	209	225	
Tuscola County	<i>count</i>	121	114	127	148	147	136	121	114	98	93	No significant change
	<i>rate</i>	223	211	236	278	278	258	231	214	185	176	
Van Buren-Cass	<i>count</i>	337	367	374	384	442	467	488	373	396	377	No significant change
	<i>rate</i>	265	289	296	303	348	385	383	300	311	297	
Washtenaw County	<i>count</i>	1369	1438	1648	1778	1693	1727	1804	1567	1452	1397	No significant change
	<i>rate</i>	384	399	453	485	458	466	490	421	398	381	
Wayne County	<i>count</i>	3430	3632	3671	4063	4412	4373	4330	3939	3956	3708	No significant change
	<i>rate</i>	344	363	367	405	440	435	432	378	378	360	
Western UP District	<i>count</i>	84	97	107	118	122	109	133	134	125	97	3.2% (0.2%-6.2%)
	<i>rate</i>	120	140	156	173	179	162	205	198	184	143	

Annual Review of STI Trends in Michigan, 2013 - 2022 - Gonorrhea

<i>rates displayed per 100,000 population</i>		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Michigan Total	<i>count</i>	10687	9704	10656	13115	15309	16977	18306	23411	22166	16374	9.4%
	<i>rate</i>	107.8	97.7	107.3	131.8	153.4	170.1	183.4	232.6	220.8	163.2	(6.1%-12.8%)
By Age												
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Less than 15 years	<i>count</i>	103	109	84	115	108	112	96	113	121	117	2.2%
	<i>rate</i>	5.6	6.0	4.6	6.4	6.0	6.3	5.4	6.4	6.9	6.8	(0.1%-4.4%)
15-19 years	<i>count</i>	2730	2259	2277	2800	3241	3510	3487	4063	3665	3076	5.9%
	<i>rate</i>	396.0	332.6	338.2	418.1	489.7	537.8	541.0	608.2	574.7	481.8	(3.1%-8.9%)
20-24 years	<i>count</i>	3989	3609	3757	4181	4667	4971	5403	6802	6123	4340	6.9%
	<i>rate</i>	540.7	485.4	512.3	582.5	661.4	716.4	792.8	981.5	878.8	619.5	(3.6%-10.4%)
25-29 years	<i>count</i>	1770	1697	2145	2859	3377	3663	4124	5292	4785	3178	10.7%
	<i>rate</i>	298.8	279.6	341.4	436.0	496.7	527.8	590.6	783.4	722.2	488.9	(6.5%-15.0%)
30-39 years	<i>count</i>	1321	1275	1494	2045	2450	2997	3330	4752	5008	3707	16.4%
	<i>rate</i>	114.2	109.8	128.0	173.3	205.9	249.5	274.4	382.3	396.8	290.3	(12.6%-20.2%)
40-49 years	<i>count</i>	495	472	527	696	889	1084	1143	1480	1588	1187	16.8%
	<i>rate</i>	37.6	36.9	42.2	56.9	73.7	90.9	97.0	124.8	135.7	101.8	(12.9%-20.9%)
50-59 years	<i>count</i>	179	201	277	320	428	487	515	680	643	549	17.4%
	<i>rate</i>	12.2	13.7	19.0	22.3	30.4	35.4	38.1	50.3	48.3	42.1	(13.3%-21.6%)
60+ years	<i>count</i>	83	60	84	89	138	152	206	226	233	219	14.2%
	<i>rate</i>	3.9	2.8	3.8	3.9	5.9	6.3	8.4	9.1	9.2	8.5	(10.5%-18.1%)
By Race/Sex												
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Am Indian/AN Female	<i>count</i>	19	15	9	21	22	32	27	44	49	40	14.8%
	<i>rate</i>	68.1	53.6	32.1	74.6	77.7	112.9	94.7	154.7	172.1	140.0	(9.6%-20.3%)
Am Indian/AN Male	<i>count</i>	6	7	10	20	16	24	28	34	48	35	21.7%
	<i>rate</i>	21.7	25.3	36.1	71.8	57.3	85.8	99.8	120.1	168.9	122.7	(15.0%-28.8%)
Asian/NH/PI Female	<i>count</i>	25	13	18	29	24	25	33	31	32	29	No significant change
	<i>rate</i>	17.5	8.7	11.7	18.1	14.5	14.8	19.4	18.1	18.5	16.4	
Asian/NH/PI Male	<i>count</i>	20	15	23	29	48	56	53	40	65	63	12.6%
	<i>rate</i>	14.8	10.6	15.7	18.8	30.0	34.1	32.0	23.5	38.1	36.1	(7.4%-18.1%)
Black Female	<i>count</i>	3345	3013	2952	3519	4064	4237	4645	6109	5635	4218	7.1%
	<i>rate</i>	460.7	415.6	408.1	487.1	562.3	586.1	642.6	838.3	776.5	583.5	(4.1%-10.3%)
Black Male	<i>count</i>	2828	2840	3103	3791	4733	5242	5830	7432	6813	5477	11.6%
	<i>rate</i>	431.2	433.4	474.3	579.8	724.3	803.0	894.0	1114.7	1027.6	831.3	(8.3%-15.1%)
Hispanic Female	<i>count</i>	123	119	161	200	233	236	303	440	448	362	14.2%
	<i>rate</i>	53.3	50.6	67.2	81.5	92.9	92.0	115.5	163.7	163.7	129.2	(10.8%-17.7%)
Hispanic Male	<i>count</i>	79	104	113	161	213	245	268	306	336	326	15.0%
	<i>rate</i>	33.2	42.8	45.7	63.5	82.2	92.5	98.9	108.7	117.3	111.2	(11.7%-18.3%)
Multi/Other Female	<i>count</i>	76	72	61	91	188	265	327	485	436	244	24.0%
	<i>rate</i>	75.3	69.5	57.7	84.0	169.5	233.1	281.5	405.0	357.8	196.4	(14.8%-33.9%)
Multi/other Male	<i>count</i>	48	51	58	85	162	320	406	562	547	328	34.3%
	<i>rate</i>	49.3	51.0	56.6	80.7	149.7	288.5	357.6	475.4	454.3	266.5	(23.8%-45.8%)
White Female	<i>count</i>	914	918	1016	1376	1740	2140	2104	2887	2990	2045	15.2%
	<i>rate</i>	12.1	12.2	13.5	18.4	23.2	28.6	28.2	38.6	40.2	27.5	(10.8%-19.7%)
White Male	<i>count</i>	716	707	874	1203	1472	1618	1584	1932	2039	1682	13.0%
	<i>rate</i>	19.3	19.0	23.6	32.5	39.7	43.8	43.0	51.7	54.9	45.4	(9.3%-16.7%)

Note: cases with missing data for characteristics were omitted from the respective analyses

Annual Review of STI Trends in Michigan, 2013 - 2022 - Gonorrhea

By residence at diagnosis (local health jurisdiction)

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Allegan County	<i>count</i>	40	30	33	41	62	77	110	109	106	95	15.6%
	<i>rate</i>	35.7	26.5	28.9	35.6	53.3	65.7	93.2	90.3	87.6	78.4	(10.3%-21.2%)
Barry-Eaton	<i>count</i>	61	79	98	144	110	155	141	218	196	166	12.0%
	<i>rate</i>	36.4	47.0	58.3	85.2	64.6	90.7	82.2	126.9	113.8	96.2	(7.7%-16.5%)
Bay County	<i>count</i>	30	23	49	52	108	91	106	99	136	84	17.9%
	<i>rate</i>	28.1	21.7	46.5	49.8	103.8	87.8	102.9	95.4	131.7	81.7	(9.7%-26.7%)
Benzie-Leelanau	<i>count</i>	1	3	4	3	2	7	7	5	17	11	25.1%
	<i>rate</i>	2.6	7.7	10.3	7.7	5.1	17.8	17.7	12.4	41.6	26.7	(12.8%-38.7%)
Berrien County	<i>count</i>	184	109	206	276	285	383	303	407	531	462	14.9%
	<i>rate</i>	117.8	69.8	132.8	178.7	184.7	248.9	197.6	264.0	346.2	302.2	(10.3%-19.8%)
Branch-Hillsdale-St. Joseph	<i>count</i>	21	13	24	46	54	119	165	218	242	98	37.6%
	<i>rate</i>	13.9	8.6	16.0	30.7	36.0	79.3	110.1	143.9	159.6	64.8	(24.4%-52.4%)
Calhoun County	<i>count</i>	226	189	173	225	362	432	471	471	537	363	12.5%
	<i>rate</i>	167.7	140.2	128.7	167.5	269.9	322.7	352.0	351.0	401.1	272.3	(7.1%-18.1%)
Central Michigan District	<i>count</i>	37	20	30	41	66	67	96	125	116	92	20.2%
	<i>rate</i>	19.6	10.6	15.9	21.7	35.0	35.5	51.0	68.6	63.5	50.1	(13.6%-27.1%)
Chippewa County	<i>count</i>	4	1	1	2	3	5	4	7	12	9	25.0%
	<i>rate</i>	10.4	2.6	2.6	5.3	8.0	13.4	10.7	19.0	33.5	24.8	(11.9%-39.5%)
Delta-Menominee	<i>count</i>	4	6	8	11	9	7	9	5	4	4	No significant change
	<i>rate</i>	6.6	10.0	13.4	18.5	15.3	11.9	15.4	8.3	6.6	6.7	No significant change
Detroit City	<i>count</i>	4331	3430	3505	4263	4795	5149	5831	7001	6152	4384	6.5%
	<i>rate</i>	553.5	445.0	458.1	562.4	635.8	685.4	779.0	938.8	847.4	603.9	(2.9%-10.2%)
Dickinson-Iron	<i>count</i>	4	0	1	11	7	3	6	4	6	4	No significant change
	<i>rate</i>	10.7	0.0	2.7	30.0	19.1	8.2	17.3	10.7	16.1	10.7	No significant change
District 2	<i>count</i>	2	2	5	7	14	16	9	13	11	4	No significant change
	<i>rate</i>	3.1	3.1	7.8	10.9	21.7	24.7	13.9	20.2	17.0	6.1	No significant change
District 4	<i>count</i>	9	3	0	3	7	11	17	16	14	7	15.1%
	<i>rate</i>	11.7	3.9	0.0	3.9	9.2	14.5	22.5	20.9	18.2	9.0	(0.2%-32.3%)
District 10	<i>count</i>	19	33	48	64	67	83	89	151	167	101	21.8%
	<i>rate</i>	7.3	12.7	18.4	24.5	25.5	31.4	33.5	57.5	63.1	37.8	(15.0%-28.9%)
Genesee County	<i>count</i>	916	759	888	991	965	888	1102	1710	1721	1270	8.2%
	<i>rate</i>	220.3	183.8	216.3	242.3	236.7	218.4	271.6	421.4	425.3	315.9	(4.6%-12.0%)
Grand Traverse County	<i>count</i>	9	7	10	13	21	1	39	41	48	27	22.6%
	<i>rate</i>	10.0	7.7	10.9	14.1	22.8	1.1	41.9	43.0	50.0	28.0	(7.4%-39.9%)
Huron County	<i>count</i>	1	1	5	3	8	3	4	10	8	7	17.6%
	<i>rate</i>	3.1	3.1	15.7	9.5	25.6	9.6	12.9	31.9	25.5	22.4	(6.1%-30.2%)

* Detroit LHD refers to Detroit City and Hamtramck, Highland Park, the Grosse Points, and Harper Woods. Wayne LHD covers Western Wayne County for STIs.

Annual Review of STI Trends in Michigan, 2013 - 2022 - Gonorrhea

By residence at diagnosis (local health jurisdiction)

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
<i>rates displayed per 100,000 population</i>												
Ingham County	<i>count</i>	432	410	474	676	557	596	536	921	977	781	9.2%
	<i>rate</i>	152.0	143.5	165.0	233.4	191.0	204.6	183.9	323.6	359.9	274.9	(5.6%-12.9%)
Ionia County	<i>count</i>	13	9	16	15	23	18	32	54	90	31	23.0%
	<i>rate</i>	20.3	14.0	25.0	23.4	35.8	28.0	49.5	80.8	134.7	46.4	(13.0%-34.0%)
Jackson County	<i>count</i>	57	53	82	66	148	232	251	375	426	277	28.7%
	<i>rate</i>	35.7	33.2	51.5	41.7	93.3	146.3	158.5	234.0	265.8	173.1	(21.1%-36.8%)
Kalamazoo County	<i>count</i>	288	658	657	655	851	1026	1093	1226	1085	856	11.1%
	<i>rate</i>	111.9	254.0	252.9	250.4	323.1	387.0	411.6	468.4	416.2	327.8	(5.4%-17.1%)
Kent County	<i>count</i>	650	864	757	772	1108	1375	1286	1947	1826	1358	11.4%
	<i>rate</i>	104.1	136.8	118.8	119.8	170.5	210.4	195.8	295.7	277.1	206.0	(7.4%-15.5%)
Lapeer County	<i>count</i>	9	8	12	13	27	27	33	41	38	16	17.1%
	<i>rate</i>	10.2	9.1	13.6	14.7	30.6	30.7	37.6	46.3	42.8	18.0	(7.0%-28.2%)
Lenawee County	<i>count</i>	21	11	18	54	47	44	83	112	74	96	23.9%
	<i>rate</i>	21.2	11.1	18.3	54.8	47.7	44.8	84.2	112.8	74.6	97.4	(14.9%-33.5%)
Livingston County	<i>count</i>	23	25	35	25	44	49	46	67	49	42	8.8%
	<i>rate</i>	12.5	13.5	18.7	13.3	23.2	25.6	24.0	34.5	25.1	21.4	(3.7%-14.1%)
Luce-Mack-Alger-School	<i>count</i>	7	1	0	3	10	8	10	1	6	5	No significant change
	<i>rate</i>	19.9	2.9	0.0	8.8	29.2	23.4	29.5	3.0	18.1	15.0	No significant change
Macomb County	<i>count</i>	592	483	518	814	920	1103	1174	1434	1401	973	11.7%
	<i>rate</i>	69.1	56.0	59.9	93.7	105.6	126.5	134.6	162.9	159.7	111.3	(7.1%-16.6%)
Marquette County	<i>count</i>	7	18	8	8	8	6	7	12	17	7	No significant change
	<i>rate</i>	10.3	26.5	11.9	12.0	12.0	9.0	10.5	18.2	25.8	10.5	No significant change
Mid-Michigan District	<i>count</i>	31	36	38	67	69	86	100	156	162	92	19.1%
	<i>rate</i>	17.1	19.9	21.0	36.9	37.7	46.8	54.3	83.2	86.1	48.9	(12.6%-25.9%)
Midland County	<i>count</i>	10	11	11	26	46	26	40	40	35	31	15.1%
	<i>rate</i>	11.9	13.2	13.1	31.1	55.1	31.2	48.0	47.9	42.0	37.0	(5.7%-25.3%)
Monroe County	<i>count</i>	79	50	54	72	82	99	114	173	70	81	No significant change
	<i>rate</i>	52.6	33.4	36.1	48.2	54.8	65.9	75.8	111.7	45.0	52.1	No significant change

Annual Review of STI Trends in Michigan, 2013 - 2022 - Gonorrhea

By residence at diagnosis (local health jurisdiction)

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
<i>rates displayed per 100,000 population</i>												
Muskegon County	<i>count</i>	205	264	411	496	560	608	577	680	775	522	11.8%
	<i>rate</i>	119.0	153.2	238.3	286.1	322.2	350.0	332.3	386.7	438.8	295.6	(6.4%-17.5%)
Northwest MI Com Hlth Agency	<i>count</i>	16	6	10	4	10	20	12	23	31	17	11.5%
	<i>rate</i>	15.0	5.6	9.4	3.8	9.3	18.6	11.2	21.2	28.3	15.7	(2.0%-21.9%)
Oakland County	<i>count</i>	877	622	734	1026	1142	1327	1293	1709	1531	1235	8.8%
	<i>rate</i>	71.0	50.0	59.0	82.0	90.9	105.5	102.8	134.3	120.4	97.3	(4.9%-12.9%)
Ottawa County	<i>count</i>	94	82	82	115	135	182	160	201	258	152	10.8%
	<i>rate</i>	34.3	29.5	29.2	40.5	47.1	62.9	54.9	67.7	86.5	50.5	(6.2%-15.6%)
Saginaw County	<i>count</i>	270	336	362	410	392	547	724	749	655	659	12.4%
	<i>rate</i>	137.2	172.0	187.2	212.8	204.2	286.6	380.1	394.5	345.5	349.9	(9.1%-15.7%)
Sanilac County	<i>count</i>	0	4	4	4	9	9	4	11	20	6	22.8%
	<i>rate</i>	0.0	9.6	9.6	9.7	21.8	21.8	9.7	27.2	49.3	14.8	(7.6%-40.1%)
Shiawassee County	<i>count</i>	7	16	20	20	26	24	21	56	68	26	19.0%
	<i>rate</i>	10.2	23.2	29.2	29.2	38.0	35.3	30.9	82.3	100.0	38.2	(9.3%-29.6%)
St Clair County	<i>count</i>	55	30	35	74	56	72	89	142	158	61	14.1%
	<i>rate</i>	34.3	18.7	21.9	46.4	35.2	45.2	55.9	88.5	98.5	38.1	(5.7%-23.1%)
Tuscola County	<i>count</i>	15	7	8	13	21	19	18	18	11	11	No significant change
	<i>rate</i>	27.7	13.0	14.9	24.4	39.8	36.1	34.4	33.8	20.7	20.8	
Van Buren-Cass	<i>count</i>	46	40	53	48	121	143	127	155	141	174	18.9%
	<i>rate</i>	36.2	31.5	41.9	37.9	95.4	117.8	99.7	124.8	110.8	136.9	(12.5%-25.6%)
Washtenaw County	<i>count</i>	230	260	345	416	569	524	574	619	528	436	8.9%
	<i>rate</i>	64.5	72.1	94.9	113.4	153.9	141.4	155.9	166.5	144.7	119.0	(4.0%-14.1%)
Wayne County	<i>count</i>	749	686	813	1018	1373	1260	1386	1873	1699	1233	10.4%
	<i>rate</i>	75.1	68.5	81.3	101.5	136.8	125.4	138.4	179.5	162.3	119.6	(6.3%-14.7%)
Western UP District	<i>count</i>	5	6	11	9	10	11	7	6	11	9	No significant change
	<i>rate</i>	7.2	8.7	16.1	13.2	14.7	16.3	10.8	8.9	16.2	13.3	

Annual Review of STI Trends in Michigan, 2013 - 2022 - P&S Syphilis

<i>rates displayed per 100,000 population</i>		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Michigan Total	<i>count</i>	493	431	397	375	480	654	683	782	980	972	10.7%
	<i>rate</i>	5.0	4.3	4.0	3.8	4.8	6.6	6.8	7.8	9.8	9.7	(7.2%-14.2%)
By Age												
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Less than 15 years	<i>count</i>	0	0	0	0	2	2	1	0	1	0	No significant change
	<i>rate</i>	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	No significant change
15-19 years	<i>count</i>	39	23	27	31	39	29	33	29	41	48	4.7%
	<i>rate</i>	5.7	3.4	4.0	4.6	5.9	4.4	5.1	4.3	6.4	7.5	(0.8%-8.8%)
20-24 years	<i>count</i>	157	125	79	95	103	129	102	121	168	129	No significant change
	<i>rate</i>	21.3	16.8	10.8	13.2	14.6	18.6	15.0	17.5	24.1	18.4	No significant change
25-29 years	<i>count</i>	97	95	111	94	107	158	164	175	185	166	7.4%
	<i>rate</i>	16.4	15.7	17.7	14.3	15.7	22.8	23.5	25.9	27.9	25.5	(4.7%-10.1%)
30-39 years	<i>count</i>	109	97	97	72	105	169	190	223	306	328	15.2%
	<i>rate</i>	9.4	8.4	8.3	6.1	8.8	14.1	15.7	17.9	24.2	25.7	(10.4%-20.2%)
40-49 years	<i>count</i>	52	60	46	41	77	94	105	119	146	160	17.3%
	<i>rate</i>	3.9	4.7	3.7	3.3	6.4	7.9	8.9	10.0	12.5	13.7	(14.0%-20.7%)
50-59 years	<i>count</i>	33	25	33	30	36	53	64	85	88	97	19.0%
	<i>rate</i>	2.2	1.7	2.3	2.1	2.6	3.9	4.7	6.3	6.6	7.4	(15.4%-22.8%)
60+ years	<i>count</i>	6	6	4	12	11	20	24	30	45	44	27.7%
	<i>rate</i>	0.3	0.3	0.2	0.5	0.5	0.8	1.0	1.2	1.8	1.7	(20.7%-35.2%)
By Race/Sex												
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Am Indian/AN Female	<i>count</i>	0	0	0	0	0	2	1	2	2	1	39.9%
	<i>rate</i>	0.0	0.0	0.0	0.0	0.0	7.1	3.5	7.0	7.0	3.5	(2.6%-91.0%)
Am Indian/AN Male	<i>count</i>	2	0	1	1	2	3	3	4	3	2	No significant change
	<i>rate</i>	7.2	0.0	3.6	3.6	7.2	10.7	10.7	14.1	10.6	7.0	No significant change
Asian/NH/PI Female	<i>count</i>	0	0	0	0	1	0	0	0	1	0	No significant change
	<i>rate</i>	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.6	0.0	No significant change
Asian/NH/PI Male	<i>count</i>	4	0	4	4	5	11	7	8	14	9	16.1%
	<i>rate</i>	3.0	0.0	2.7	2.6	3.1	6.7	4.2	4.7	8.2	5.2	(6.0%-27.0%)
Black Female	<i>count</i>	25	22	26	19	17	38	49	70	126	114	24.1%
	<i>rate</i>	3.4	3.0	3.6	2.6	2.4	5.3	6.8	9.6	17.4	15.8	(16.2%-32.0%)
Black Male	<i>count</i>	312	239	206	168	210	306	320	398	499	436	8.1%
	<i>rate</i>	47.6	36.5	31.5	25.7	32.1	46.9	49.1	59.7	75.3	66.2	(3.2%-13.0%)
Hispanic Female	<i>count</i>	1	0	0	2	0	6	7	4	4	7	29.6%
	<i>rate</i>	0.4	0.0	0.0	0.8	0.0	2.3	2.7	1.5	1.5	2.5	(8.7%-54.0%)
Hispanic Male	<i>count</i>	15	16	15	26	34	31	39	30	37	54	11.1%
	<i>rate</i>	6.3	6.6	6.1	10.3	13.1	11.7	14.4	10.7	12.9	18.4	(6.6%-16.0%)
Multi/Other Female	<i>count</i>	0	0	0	0	0	2	0	0	3	1	No significant change
	<i>rate</i>	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	2.5	0.8	No significant change
Multi/other Male	<i>count</i>	3	2	6	2	4	8	7	17	14	10	18.9%
	<i>rate</i>	3.1	2.0	5.9	1.9	3.7	7.2	6.2	14.4	11.6	8.1	(8.0%-31.0%)
White Female	<i>count</i>	5	8	8	11	14	21	38	36	70	82	39.0%
	<i>rate</i>	0.1	0.2	0.2	0.3	0.4	0.6	1.0	1.0	1.9	2.2	(32.2%-46.0%)
White Male	<i>count</i>	126	144	131	138	192	226	209	210	200	241	7.3%
	<i>rate</i>	3.4	3.9	3.5	3.7	5.2	6.1	5.7	5.6	5.4	6.5	(4.8%-10.0%)

Note: cases with missing data for characteristics were omitted from the respective analyses

Annual Review of STI Trends in Michigan, 2013 - 2022 - P&S Syphilis

By Transmission Risk (population denominators not available)

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Het Female	count	26	24	30	31	25	56	83	100	177	170	26.9%
	(Women who have sex with men)											(19.8%-34.5%)
Het Male	count	63	64	49	42	63	110	166	214	277	258	23.9%
	(Men who have sex with women only)											(16.7%-31.4%)
MSM	count	354	284	271	269	337	396	344	387	376	379	5.0%
	(Men who have sex with men)											(1.9%-8.2%)
PWID	count	4	7	4	5	7	16	25	16	12	18	22.5%
	(People who inject drugs)											(12.9%-32.9%)

By residence at diagnosis (local health jurisdiction)

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Allegan County	count	2	4	1	1	4	1	2	3	6	8	16.0%
	rate	1.8	3.5	0.9	0.9	3.4	0.9	1.7	2.5	5.0	6.6	(1.7%-31.0%)
Barry-Eaton	count	2	1	0	1	3	3	8	7	8	7	28.0%
	rate	1.2	0.6	0.0	0.6	1.8	1.8	4.7	4.1	4.6	4.1	(13.0%-45.0%)
Bay County	count	2	1	4	0	5	6	1	2	3	3	No significant change
	rate	1.9	0.9	3.8	0.0	4.8	5.8	1.0	1.9	2.9	2.9	
Benzie-Leelanau	count	0	0	0	0	0	2	0	0	0	0	No significant change
	rate	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0	
Berrien County	count	3	5	3	0	3	8	2	3	4	2	No significant change
	rate	1.9	3.2	1.9	0.0	1.9	5.2	1.3	1.9	2.6	1.3	
Branch-Hillsdale-St. Joseph	count	2	4	1	2	4	1	2	1	5	9	No significant change
	rate	1.3	2.7	0.7	1.3	2.7	0.7	1.3	0.7	3.3	6.0	
Calhoun County	count	4	4	0	1	3	1	5	7	12	13	27.0%
	rate	3.0	3.0	0.0	0.7	2.2	0.7	3.7	5.2	9.0	9.8	(14.0%-42.0%)
Central Michigan District	count	2	2	1	1	3	11	6	3	5	4	No significant change
	rate	1.1	1.1	0.5	0.5	1.6	5.8	3.2	1.6	2.7	2.2	
Chippewa County	count	0	0	0	0	0	2	4	1	1	1	No significant change
	rate	0.0	0.0	0.0	0.0	0.0	5.3	10.7	2.7	2.8	2.8	
Delta-Menominee	count	0	0	0	0	0	0	0	0	1	0	No significant change
	rate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	
Detroit City	count	214	147	115	105	118	218	249	302	357	337	12.0%
	rate	27.3	19.1	15.0	13.9	15.6	29.0	33.3	40.5	49.2	46.4	(5.2%-18.0%)
Dickinson-Iron	count	0	0	0	0	0	0	0	0	1	1	No significant change
	rate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.7	
District 2	count	0	0	0	0	1	0	0	1	0	0	No significant change
	rate	0.0	0.0	0.0	0.0	1.5	0.0	0.0	1.6	0.0	0.0	
District 4	count	0	0	0	1	0	3	2	1	0	1	No significant change
	rate	0.0	0.0	0.0	1.3	0.0	3.9	2.6	1.3	0.0	1.3	
District 10	count	0	3	5	2	3	4	2	4	5	12	21.0%
	rate	0.0	1.2	1.9	0.8	1.1	1.5	0.8	1.5	1.9	4.5	(7.3%-36.0%)

* Detroit LHD refers to Detroit City and Hamtramck, Highland Park, the Grosse Points, and Harper Woods. Wayne LHD covers Western Wayne County for STIs.

Annual Review of STI Trends in Michigan, 2013 - 2022 - P&S Syphilis

By residence at diagnosis (local health jurisdiction)

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
<i>rates displayed per 100,000 population</i>												
Genesee County	<i>count</i>	14	9	12	16	21	10	23	26	18	41	13.0%
	<i>rate</i>	3.4	2.2	2.9	3.9	5.2	2.5	5.7	6.4	4.4	10.2	(6.5%-21.0%)
Grand Traverse County	<i>count</i>	2	2	0	1	2	0	6	4	1	1	No significant change
	<i>rate</i>	2.2	2.2	0.0	1.1	2.2	0.0	6.4	4.2	1.0	1.0	
Huron County	<i>count</i>	0	0	1	1	0	0	0	1	1	0	No significant change
	<i>rate</i>	0.0	0.0	3.1	3.2	0.0	0.0	0.0	3.2	3.2	0.0	
Ingham County	<i>count</i>	10	9	11	14	29	28	26	33	21	22	12.0%
	<i>rate</i>	3.5	3.1	3.8	4.8	9.9	9.6	8.9	11.6	7.7	7.7	(4.4%-20.0%)
Ionia County	<i>count</i>	0	0	2	1	0	1	5	2	3	2	23.0%
	<i>rate</i>	0.0	0.0	3.1	1.6	0.0	1.6	7.7	3.0	4.5	3.0	(0.7%-50.0%)
Jackson County	<i>count</i>	3	6	5	3	8	9	6	9	4	9	No significant change
	<i>rate</i>	1.9	3.8	3.1	1.9	5.0	5.7	3.8	5.6	2.5	5.6	
Kalamazoo County	<i>count</i>	6	8	7	5	8	12	20	29	67	44	34.0%
	<i>rate</i>	2.3	3.1	2.7	1.9	3.0	4.5	7.5	11.1	25.7	16.8	(23.2%-47.0%)
Kent County	<i>count</i>	10	9	17	26	34	29	25	37	64	51	19.0%
	<i>rate</i>	1.6	1.4	2.7	4.0	5.2	4.4	3.8	5.6	9.7	7.7	(13.0%-26.0%)
Lapeer County	<i>count</i>	1	1	2	0	1	2	1	2	1	3	No significant change
	<i>rate</i>	1.1	1.1	2.3	0.0	1.1	2.3	1.1	2.3	1.1	3.4	
Lenawee County	<i>count</i>	1	1	2	0	4	5	1	1	2	3	No significant change
	<i>rate</i>	1.0	1.0	2.0	0.0	4.1	5.1	1.0	1.0	2.0	3.0	
Livingston County	<i>count</i>	2	4	3	4	2	1	2	5	3	3	No significant change
	<i>rate</i>	1.1	2.2	1.6	2.1	1.1	0.5	1.0	2.6	1.5	1.5	
Luce-Mack-Alger-School	<i>count</i>	0	0	0	1	1	0	0	0	0	0	No significant change
	<i>rate</i>	0.0	0.0	0.0	2.9	2.9	0.0	0.0	0.0	0.0	0.0	
Macomb County	<i>count</i>	34	30	38	27	44	73	55	79	91	74	13.0%
	<i>rate</i>	4.0	3.5	4.4	3.1	5.1	8.4	6.3	9.0	10.4	8.5	(8.6%-18.0%)
Marquette County	<i>count</i>	0	0	2	0	0	0	1	0	0	4	No significant change
	<i>rate</i>	0.0	0.0	3.0	0.0	0.0	0.0	1.5	0.0	0.0	6.0	
Mid-Michigan District	<i>count</i>	1	0	1	2	3	3	3	4	3	7	25.0%
	<i>rate</i>	0.6	0.0	0.6	1.1	1.6	1.6	1.6	2.1	1.6	3.7	(7.5%-45.0%)
Midland County	<i>count</i>	1	1	0	1	1	0	3	1	0	4	No significant change
	<i>rate</i>	1.2	1.2	0.0	1.2	1.2	0.0	3.6	1.2	0.0	4.8	

Annual Review of STI Trends in Michigan, 2013 - 2022 - P&S Syphilis

By residence at diagnosis (local health jurisdiction)

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
<i>rates displayed per 100,000 population</i>												
Monroe County	<i>count</i>	2	1	5	6	10	6	4	1	3	5	No significant change
	<i>rate</i>	1.3	0.7	3.3	4.0	6.7	4.0	2.7	0.6	1.9	3.2	
Muskegon County	<i>count</i>	1	5	1	2	4	0	1	3	5	20	23.0% (2.7%-46.0%)
	<i>rate</i>	0.6	2.9	0.6	1.2	2.3	0.0	0.6	1.7	2.8	11.3	
Northwest MI Com Hlth Agency	<i>count</i>	0	0	2	1	4	2	3	0	2	2	No significant change
	<i>rate</i>	0.0	0.0	1.9	0.9	3.7	1.9	2.8	0.0	1.8	1.9	
Oakland County	<i>count</i>	71	73	64	64	62	87	88	77	120	115	6.0% (3.1%-10.0%)
	<i>rate</i>	5.7	5.9	5.1	5.1	4.9	6.9	7.0	6.1	9.4	9.1	
Ottawa County	<i>count</i>	0	5	4	5	1	6	3	7	8	4	No significant change
	<i>rate</i>	0.0	1.8	1.4	1.8	0.3	2.1	1.0	2.4	2.7	1.3	
Saginaw County	<i>count</i>	4	4	3	2	2	2	4	4	8	14	19.0% (5.5%-34.0%)
	<i>rate</i>	2.0	2.0	1.6	1.0	1.0	1.0	2.1	2.1	4.2	7.4	
Sanilac County	<i>count</i>	0	0	0	2	0	0	1	1	0	0	No significant change
	<i>rate</i>	0.0	0.0	0.0	4.8	0.0	0.0	2.4	2.5	0.0	0.0	
Shiawassee County	<i>count</i>	1	0	1	0	1	2	0	6	1	3	No significant change
	<i>rate</i>	1.5	0.0	1.5	0.0	1.5	2.9	0.0	8.8	1.5	4.4	
St Clair County	<i>count</i>	2	3	2	3	2	5	4	7	9	7	19.0% (6.2%-32.0%)
	<i>rate</i>	1.2	1.9	1.3	1.9	1.3	3.1	2.5	4.4	5.6	4.4	
Tuscola County	<i>count</i>	0	0	0	0	0	0	0	1	0	0	No significant change
	<i>rate</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	
Van Buren-Cass	<i>count</i>	0	0	0	1	1	1	2	4	3	4	44.0% (14.8%-80.0%)
	<i>rate</i>	0.0	0.0	0.0	0.8	0.8	0.8	1.6	3.2	2.4	3.1	
Washtenaw County	<i>count</i>	22	25	27	17	28	25	24	31	35	41	6.0% (1.7%-11.0%)
	<i>rate</i>	6.2	6.9	7.4	4.6	7.6	6.7	6.5	8.3	9.6	11.2	
Wayne LHD*	<i>count</i>	74	64	54	56	60	85	89	71	99	87	5.0% (1.4%-8.0%)
	<i>rate</i>	7.4	6.4	5.4	5.6	6.0	8.5	8.9	6.8	9.5	8.4	
Western UP District	<i>count</i>	0	0	1	0	0	0	0	1	0	4	No significant change
	<i>rate</i>	0.0	0.0	1.5	0.0	0.0	0.0	0.0	1.5	0.0	5.9	

Annual Review of STI Trends in Michigan, 2013 - 2022 - Latent Syphilis

<i>rates displayed per 100,000 population</i>		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Michigan Total	<i>count</i>	581	678	694	766	810	1036	1213	1234	1661	1822	13.6%
	<i>rate</i>	5.9	6.8	7.0	7.7	8.1	10.4	12.2	12.3	16.5	18.2	(11.9%-15.2%)
By Age												
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Less than 15 years	<i>count</i>	0	1	0	0	0	1	0	2	0	1	No significant change
	<i>rate</i>	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	No significant change
15-19 years	<i>count</i>	31	23	26	39	32	45	46	36	54	61	10.1%
	<i>rate</i>	4.5	3.4	3.9	5.8	4.8	6.9	7.1	5.4	8.5	9.6	(6.4%-14.1%)
20-24 years	<i>count</i>	131	138	144	126	118	150	157	162	246	244	8.7%
	<i>rate</i>	17.8	18.6	19.6	17.6	16.7	21.6	23.0	23.4	35.3	34.8	(5.5%-12.0%)
25-29 years	<i>count</i>	97	114	117	168	165	209	293	235	297	365	14.2%
	<i>rate</i>	16.4	18.8	18.6	25.6	24.3	30.1	42.0	34.8	44.8	56.2	(11.7%-16.8%)
30-39 years	<i>count</i>	118	162	189	179	232	296	348	384	595	620	18.7%
	<i>rate</i>	10.2	13.9	16.2	15.2	19.5	24.6	28.7	30.9	47.1	48.5	(16.4%-21.1%)
40-49 years	<i>count</i>	138	145	139	152	161	198	199	232	244	287	10.3%
	<i>rate</i>	10.5	11.3	11.1	12.4	13.3	16.6	16.9	19.6	20.8	24.6	(8.5%-12.1%)
50-59 years	<i>count</i>	55	80	68	80	81	102	126	137	155	172	14.4%
	<i>rate</i>	3.7	5.4	4.7	5.6	5.8	7.4	9.3	10.1	11.6	13.2	(11.9%-16.9%)
60+ years	<i>count</i>	11	15	11	22	21	35	44	46	70	72	22.8%
	<i>rate</i>	0.5	0.7	0.5	1.0	0.9	1.5	1.8	1.8	2.8	2.8	(17.8%-28.0%)
By Race/Sex												
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Am Indian/AN Female	<i>count</i>	0	0	0	0	0	0	2	1	1	8	132.1%
	<i>rate</i>	0.0	0.0	0.0	0.0	0.0	0.0	7.0	3.5	3.5	28.0	(41.1%-281.7%)
Am Indian/AN Male	<i>count</i>	2	1	2	4	1	3	3	6	3	5	No significant change
	<i>rate</i>	7.2	3.6	7.2	14.4	3.6	10.7	10.7	21.2	10.6	17.5	No significant change
Asian/NH/PI Female	<i>count</i>	3	5	3	3	4	4	2	4	1	4	No significant change
	<i>rate</i>	2.1	3.4	1.9	1.9	2.4	2.4	1.2	2.3	0.6	14.0	No significant change
Asian/NH/PI Male	<i>count</i>	6	8	6	11	9	11	10	7	17	12	No significant change
	<i>rate</i>	4.5	5.7	4.1	7.1	5.6	6.7	6.0	4.1	10.0	42.1	No significant change
Black Female	<i>count</i>	102	126	119	84	103	118	173	171	255	273	11.6%
	<i>rate</i>	14.0	17.4	16.5	11.6	14.3	16.3	23.9	23.5	35.1	955.4	(7.1%-16.3%)
Black Male	<i>count</i>	285	304	298	361	365	465	519	498	668	716	11.4%
	<i>rate</i>	43.5	46.4	45.6	55.2	55.9	71.2	79.6	74.7	100.7	2509.5	(9.8%-13.1%)
Hispanic Female	<i>count</i>	5	12	7	4	12	9	16	22	23	36	20.4%
	<i>rate</i>	2.2	5.1	2.9	1.6	4.8	3.5	6.1	8.2	8.4	126.0	(13.1%-28.1%)
Hispanic Male	<i>count</i>	18	25	31	33	49	62	67	72	75	92	14.9%
	<i>rate</i>	7.6	10.3	12.5	13.0	18.9	23.4	24.7	25.6	26.2	322.4	(11.3%-18.6%)
Multi/Other Female	<i>count</i>	6	4	4	5	0	0	6	6	12	12	No significant change
	<i>rate</i>	5.9	3.9	3.8	4.6	0.0	0.0	5.2	5.0	9.8	42.0	No significant change
Multi/other Male	<i>count</i>	9	10	11	8	5	15	11	14	44	32	15.8%
	<i>rate</i>	9.2	10.0	10.7	7.6	4.6	13.5	9.7	11.8	36.5	112.2	(6.1%-26.4%)
White Female	<i>count</i>	28	28	32	30	37	51	79	100	167	198	29.1%
	<i>rate</i>	0.7	0.7	0.8	0.8	1.0	1.3	2.1	2.7	4.5	692.9	(23.4%-35.1%)
White Male	<i>count</i>	111	143	167	210	211	297	316	315	355	387	14.0%
	<i>rate</i>	3.0	3.9	4.5	5.7	5.7	8.0	8.6	8.4	9.6	1356.4	(11.6%-16.4%)

Note: cases with missing data for characteristics were omitted from the respective analyses

Annual Review of STI Trends in Michigan, 2013 - 2022 - Latent Syphilis

By Transmission Risk (population denominators not available)

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Het Female	count	98	110	109	96	118	145	194	214	325	387	16.7%
	(Women who have sex with men)											(12.6%-20.9%)
Het Male	count	85	87	78	100	100	127	157	180	174	228	11.5%
	(Men who have sex with women only)											(9.2%-13.9%)
MSM	count	227	259	290	341	383	487	532	445	522	483	12.4%
	(Men who have sex with men)											(9.8%-15.1%)
PWID	count	4	5	10	7	9	23	38	34	24	25	27.5%
	(People who inject drugs)											(17.6%-38.1%)

By residence at diagnosis (local health jurisdiction)

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
Allegan County	count	2	1	5	6	4	6	5	8	7	12	16.9%
	rate	1.8	0.9	4.4	5.2	3.4	5.1	4.2	6.6	5.8	9.9	(6.0%-29.0%)
Barry-Eaton	count	1	3	4	2	6	11	18	11	15	11	25.2%
	rate	0.6	1.8	2.4	1.2	3.5	6.4	10.5	6.4	8.7	6.4	(11.7%-40.0%)
Bay County	count	1	2	2	2	4	8	3	1	9	5	16.8%
	rate	0.9	1.9	1.9	1.9	3.8	7.7	2.9	1.0	8.7	4.9	(1.8%-34.0%)
Benzie-Leelanau	count	0	1	0	0	0	0	0	3	2	0	No significant change
	rate	0.0	2.6	0.0	0.0	0.0	0.0	0.0	7.4	4.9	0.0	
Berrien County	count	5	7	6	5	14	17	7	6	8	16	No significant change
	rate	3.2	4.5	3.9	3.2	9.1	11.0	4.6	3.9	5.2	10.5	
Branch-Hillsdale-St. Joseph	count	1	1	1	5	5	5	6	2	1	13	20.6%
	rate	0.7	0.7	0.7	3.3	3.3	3.3	4.0	1.3	0.7	8.6	(2.6%-42.0%)
Calhoun County	count	6	8	2	8	5	6	14	13	17	18	17.4%
	rate	4.5	5.9	1.5	6.0	3.7	4.5	10.5	9.7	12.7	13.5	(9.0%-26.0%)
Central Michigan District	count	4	4	2	3	2	3	2	10	5	14	18.2%
	rate	2.1	2.1	1.1	1.6	1.1	1.6	1.1	5.5	2.7	7.6	(4.7%-33.0%)
Chippewa County	count	0	1	0	0	1	7	4	2	2	3	No significant change
	rate	0.0	2.6	0.0	0.0	2.7	18.7	10.7	5.4	5.6	8.3	
Delta-Menominee	count	0	0	0	0	0	0	2	1	1	3	75.1%
	rate	0.0	0.0	0.0	0.0	0.0	0.0	3.4	1.7	1.7	5.0	(11.7%-174.0%)
Detroit City	count	236	292	271	281	308	370	441	453	598	595	12.2%
	rate	30.2	37.9	35.4	37.1	40.8	49.3	58.9	60.7	82.4	82.0	(10.2%-14.0%)
Dickinson-Iron	count	0	0	0	0	0	1	0	2	3	1	59.3%
	rate	0.0	0.0	0.0	0.0	0.0	2.7	0.0	5.3	8.0	2.7	(7.5%-136.0%)
District 2	count	0	2	0	0	0	1	1	0	1	0	No significant change
	rate	0.0	3.1	0.0	0.0	0.0	1.5	1.5	0.0	1.5	0.0	
District 4	count	0	0	2	1	2	0	1	0	0	0	No significant change
	rate	0.0	0.0	2.6	1.3	2.6	0.0	1.3	0.0	0.0	0.0	
District 10	count	0	5	5	3	2	6	13	18	21	11	30.0%
	rate	0.0	1.9	1.9	1.1	0.8	2.3	4.9	6.9	7.9	4.1	(15.0%-47.0%)

* Detroit LHD refers to Detroit City and Hamtramck, Highland Park, the Grosse Points, and Harper Woods. Wayne LHD covers Western Wayne County for STIs.

Annual Review of STI Trends in Michigan, 2013 - 2022 - Latent Syphilis

By residence at diagnosis (local health jurisdiction)

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
<i>rates displayed per 100,000 population</i>												
Genesee County	<i>count</i>	24	25	25	26	29	25	36	42	43	77	0.0%
	<i>rate</i>	5.8	6.1	6.1	6.4	7.1	6.1	8.9	10.4	10.6	19.2	(0.0%-0.0%)
Grand Traverse County	<i>count</i>	1	0	0	0	0	3	2	2	3	6	43.0%
	<i>rate</i>	1.1	0.0	0.0	0.0	0.0	3.2	2.1	2.1	3.1	6.2	(15.0%-78.0%)
Huron County	<i>count</i>	0	2	0	0	0	0	0	0	0	2	No significant change
	<i>rate</i>	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	No significant change
Ingham County	<i>count</i>	19	17	11	15	28	57	53	48	60	50	18.9%
	<i>rate</i>	6.7	5.9	3.8	5.2	9.6	19.6	18.2	16.9	22.1	17.6	(10.8%-27.0%)
Ionia County	<i>count</i>	0	1	3	0	3	2	5	0	3	5	No significant change
	<i>rate</i>	0.0	1.6	4.7	0.0	4.7	3.1	7.7	0.0	4.5	7.5	No significant change
Jackson County	<i>count</i>	8	14	5	10	8	17	28	33	44	92	32.1%
	<i>rate</i>	5.0	8.8	3.1	6.3	5.0	10.7	17.7	20.6	27.5	57.5	(22.0%-43.0%)
Kalamazoo County	<i>count</i>	12	9	12	19	22	23	25	32	67	62	24.9%
	<i>rate</i>	4.7	3.5	4.6	7.3	8.4	8.7	9.4	12.2	25.7	23.7	(18.4%-32.0%)
Kent County	<i>count</i>	27	40	36	58	70	67	80	105	96	103	14.0%
	<i>rate</i>	4.3	6.3	5.6	9.0	10.8	10.3	12.2	15.9	14.6	15.6	(10.7%-17.0%)
Lapeer County	<i>count</i>	2	1	1	1	0	3	1	7	1	2	No significant change
	<i>rate</i>	2.3	1.1	1.1	1.1	0.0	3.4	1.1	7.9	1.1	2.3	No significant change
Lenawee County	<i>count</i>	0	1	3	2	2	10	0	5	7	6	23.8%
	<i>rate</i>	0.0	1.0	3.0	2.0	2.0	10.2	0.0	5.0	7.1	6.1	(2.5%-49.0%)
Livingston County	<i>count</i>	1	1	1	3	3	3	9	3	7	12	29.6%
	<i>rate</i>	0.5	0.5	0.5	1.6	1.6	1.6	4.7	1.5	3.6	6.1	(14.6%-46.0%)
Luce-Mack-Alger-School	<i>count</i>	0	0	0	2	1	0	2	2	0	2	No significant change
	<i>rate</i>	0.0	0.0	0.0	5.9	2.9	0.0	5.9	6.1	0.0	6.0	No significant change
Macomb County	<i>count</i>	44	47	70	52	61	69	81	82	137	130	12.7%
	<i>rate</i>	5.1	5.4	8.1	6.0	7.0	7.9	9.3	9.3	15.6	14.9	(9.0%-17.0%)
Marquette County	<i>count</i>	1	0	0	1	0	0	2	1	2	2	No significant change
	<i>rate</i>	1.5	0.0	0.0	1.5	0.0	0.0	3.0	1.5	3.0	3.0	No significant change
Mid-Michigan District	<i>count</i>	2	3	2	3	4	2	6	14	11	10	24.5%
	<i>rate</i>	1.1	1.7	1.1	1.7	2.2	1.1	3.3	7.5	5.8	5.3	(12.4%-38.0%)
Midland County	<i>count</i>	0	1	0	1	2	2	3	1	2	3	21.3%
	<i>rate</i>	0.0	1.2	0.0	1.2	2.4	2.4	3.6	1.2	2.4	3.6	(0.1%-47.0%)

Annual Review of STI Trends in Michigan, 2013 - 2022 - Latent Syphilis

By residence at diagnosis (local health jurisdiction)

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ave. Annual Change
<i>rates displayed per 100,000 population</i>												
Monroe County	<i>count</i>	3	6	3	7	5	5	5	7	9	12	11.7%
	<i>rate</i>	2.0	4.0	2.0	4.7	3.3	3.3	3.3	4.5	5.8	7.7	(2.2%-22.0%)
Muskegon County	<i>count</i>	3	7	9	9	9	18	12	8	15	39	20.2%
	<i>rate</i>	1.7	4.1	5.2	5.2	5.2	10.4	6.9	4.5	8.5	22.1	(10.0%-31.0%)
Northwest MI Com Hlth Agency	<i>count</i>	1	0	1	1	3	3	3	7	4	3	22.2%
	<i>rate</i>	0.9	0.0	0.9	0.9	2.8	2.8	2.8	6.4	3.6	2.8	(5.4%-42.0%)
Oakland County	<i>count</i>	90	76	86	104	85	127	149	138	196	181	10.6%
	<i>rate</i>	7.3	6.1	6.9	8.3	6.8	10.1	11.8	10.8	15.4	14.3	(7.7%-14.0%)
Ottawa County	<i>count</i>	0	2	6	7	5	8	11	16	18	19	27.5%
	<i>rate</i>	0.0	0.7	2.1	2.5	1.7	2.8	3.8	5.4	6.0	6.3	(17.0%-39.0%)
Saginaw County	<i>count</i>	7	3	4	8	4	7	8	6	10	33	20.3%
	<i>rate</i>	3.6	1.5	2.1	4.2	2.1	3.7	4.2	3.2	5.3	17.5	(8.1%-34.0%)
Sanilac County	<i>count</i>	0	3	0	0	2	0	2	0	0	1	No significant change
	<i>rate</i>	0.0	7.2	0.0	0.0	4.8	0.0	4.9	0.0	0.0	2.5	No significant change
Shiawassee County	<i>count</i>	1	2	0	0	0	0	2	4	9	4	37.3%
	<i>rate</i>	1.5	2.9	0.0	0.0	0.0	0.0	2.9	5.9	13.2	5.9	(9.5%-72.0%)
St Clair County	<i>count</i>	2	4	5	5	5	4	6	5	9	10	13.1%
	<i>rate</i>	1.2	2.5	3.1	3.1	3.1	2.5	3.8	3.1	5.6	6.2	(2.8%-24.0%)
Tuscola County	<i>count</i>	0	0	0	0	0	1	0	1	1	1	No significant change
	<i>rate</i>	0.0	0.0	0.0	0.0	0.0	1.9	0.0	1.9	1.9	1.9	No significant change
Van Buren-Cass	<i>count</i>	0	0	3	3	2	4	4	9	7	1	24.1%
	<i>rate</i>	0.0	0.0	2.4	2.4	1.6	3.3	3.1	7.2	5.5	0.8	(2.2%-51.0%)
Washtenaw County	<i>count</i>	17	19	27	32	27	28	52	30	39	69	12.8%
	<i>rate</i>	4.8	5.3	7.4	8.7	7.3	7.6	14.1	8.1	10.7	18.8	(7.1%-19.0%)
Wayne LHD*	<i>count</i>	60	66	79	79	73	107	109	95	168	179	12.5%
	<i>rate</i>	6.0	6.6	7.9	7.9	7.3	10.7	10.9	9.1	16.0	17.4	(9.0%-16.0%)
Western UP District	<i>count</i>	0	1	1	1	4	0	0	1	3	4	No significant change
	<i>rate</i>	0.0	1.4	1.5	1.5	5.9	0.0	0.0	1.5	4.4	5.9	No significant change

Appendix: LHD Population Estimates (from the Census Bureau's annual American Community Survey)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<i>Michigan</i>	9,914,802	9,932,033	9,934,069	9,953,694	9,976,752	9,981,516	9,982,097	10,066,693	10,037,504	10,031,783
Allegan County	112,020	113,361	114,122	115,018	116,393	117,137	118,045	120,647	121,010	121,210
Barry-Eaton	167,382	167,973	168,135	169,021	170,168	170,879	171,600	171,774	172,200	172,546
Bay County	106,817	106,073	105,271	104,421	104,085	103,674	102,964	103,733	103,251	102,821
Benzie-Leelanau	38,815	39,062	39,019	39,031	39,263	39,410	39,459	40,309	40,866	41,167
Berrien County	156,205	156,074	155,136	154,451	154,264	153,892	153,352	154,183	153,377	152,900
Branch-Hillsdale-St. Joseph	150,707	150,684	150,338	150,001	149,879	149,991	149,818	151,532	151,661	151,167
Calhoun County	134,782	134,845	134,377	134,343	134,127	133,858	133,806	134,184	133,878	133,289
Central Michigan District	189,156	188,900	189,030	188,862	188,838	188,567	188,273	182,097	182,800	183,598
Chippewa County	38,587	38,275	37,998	37,724	37,699	37,423	37,287	36,781	35,867	36,293
Delta-Menominee	60,540	60,127	59,925	59,434	58,914	58,795	58,516	60,310	60,157	60,007
Detroit City	782,493	770,734	765,137	757,990	754,183	751,228	748,559	745,712	726,003	726,003
Dickinson-Iron	37,530	37,262	37,002	36,699	36,565	36,525	34,758	37,526	37,371	37,496
District 2	65,512	65,158	64,424	64,334	64,608	64,684	64,948	64,392	64,785	65,312
District 4	76,929	76,808	76,219	76,050	75,859	75,968	75,628	76,625	77,126	77,717
District 10	260,711	260,852	261,013	261,623	263,174	264,613	265,426	262,444	264,704	266,951
Genesee County	415,713	412,950	410,574	409,054	407,673	406,626	405,702	405,757	404,662	401,983
Grand Traverse County	90,149	90,908	91,610	92,076	91,914	92,587	93,032	95,411	96,013	96,464
Huron County	32,251	32,034	31,761	31,471	31,304	31,193	30,904	31,371	31,354	31,248
Ingham County	284,226	285,760	287,255	289,633	291,678	291,267	291,426	284,640	271,427	284,108
Ionia County	64,001	64,246	64,073	64,215	64,293	64,290	64,654	66,855	66,797	66,809
Jackson County	159,672	159,464	159,325	158,345	158,653	158,594	158,357	160,225	160,266	160,066
Kalamazoo County	257,399	259,063	259,816	261,584	263,387	265,120	265,531	261,767	260,688	261,173
Kent County	624,409	631,464	637,333	644,219	649,722	653,636	656,800	658,460	659,000	659,083
Lapeer County	88,299	88,202	88,376	88,227	88,218	87,987	87,808	88,572	88,686	88,780
Lenawee County	98,850	98,774	98,432	98,595	98,511	98,118	98,519	99,320	99,202	98,567
Livingston County	184,238	185,567	187,221	188,585	189,923	191,259	192,058	193,971	195,277	196,161
Luce-Mack-Alger-School	35,211	34,906	34,628	34,135	34,292	34,238	33,894	33,050	33,085	33,266
Macomb County	857,146	862,914	865,031	868,329	870,867	872,089	872,389	880,176	877,385	874,195
Marquette County	67,792	67,798	67,357	66,563	66,524	66,406	66,689	66,012	65,800	66,661
Midland County	83,683	83,534	83,706	83,485	83,442	83,447	83,412	83,481	83,426	83,674
Mid-Michigan District	181,559	181,255	181,148	181,564	183,081	183,665	184,004	187,472	188,226	188,281
Monroe County	150,193	149,919	149,439	149,278	149,523	150,218	150,412	154,893	155,646	155,609
Muskegon County	172,312	172,304	172,506	173,342	173,804	173,719	173,645	175,848	176,612	176,565
Northwest MI Com Hlth Agency	106,423	106,464	106,395	106,634	107,127	107,429	107,562	108,735	109,730	108,019
Oakland County	1,235,656	1,243,076	1,244,895	1,251,563	1,256,478	1,257,472	1,257,726	1,272,413	1,271,891	1,269,431
Ottawa County	274,394	277,888	280,907	283,686	286,452	289,578	291,460	296,889	298,317	300,873
Saginaw County	196,859	195,317	193,384	192,636	192,002	190,841	190,484	189,860	189,590	188,330
Sanilac County	41,902	41,663	41,463	41,438	41,257	41,233	41,220	40,502	40,604	40,657
Shiawassee County	68,927	68,841	68,538	68,589	68,422	68,064	68,065	68,006	67,998	68,022
St Clair County	160,312	160,103	159,757	159,477	159,130	159,186	159,339	160,375	160,384	160,151
Tuscola County	54,214	53,921	53,723	53,260	52,817	52,692	52,355	53,310	53,046	52,945
Van Buren-Cass	126,936	126,836	126,457	126,609	126,830	121,437	127,441	124,242	127,204	127,095
Washtenaw County	356,474	360,523	363,555	366,960	369,703	370,548	368,242	371,817	364,998	366,376
Wayne County	997,638	1,000,892	999,729	1,002,845	1,003,691	1,004,640	1,001,534	1,043,417	1,047,070	1,031,040
Western UP District	69,778	69,259	68,529	68,295	68,015	67,293	64,994	67,597	68,064	67,674

* Complete city population estimates are released by the Census Bureau on a different schedule than county estimates, and the 2022 population estimate shown for Detroit LHD is not yet available, so 2021 data is used.