

STI Trends in Michigan, 2011 - 2020

All data as of June 1, 2021

Surveillance & Epidemiology Section
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Bureau of Infectious Disease
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 sexually transmitted infections. 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. In this report, counts of symptomatic syphilis (primary and secondary) are included, as latent syphilis trends are more reflective of screening than of incidence.

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 specimen collection 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. 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. Following these symptomatic stages, syphilis is considered latent but still can be infectious and can have long term health consequences, but for the purposes of surveillance reports, symptomatic syphilis (P&S) is used for annual statistics and year-to-year comparisons.

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 ($\text{count/pop} \times 100,000$ or $\text{count/est pop} \times 100,000$).
- % 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.

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Methods

Case counts of sexually transmitted infections (STIs) were aggregated by diagnosis year from the Michigan Diseases Surveillance System (MDSS). Population estimates come 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 2011, **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 saw a decrease in cases. Since 2016, there has been a stronger trend of increasing reports.

Over that same time period, **Chlamydia** rates have, on average, not changed.

Since 2011, **gonorrhea** rates have increased **7 percent (95% CI 4% - 11%)** annually, with most of the increases occurring in the last 5 years. This average annual 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)



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By Age

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
Less than 15 years	count	668	658	562	449	418	445	436	412	414	328	-5.9%
	rate	18	18	15	12	12	12	12	12	12	9	(-7.6%--4.2%)
15-19 years	count	18816	16873	14873	13693	14001	14884	15408	15216	14436	12263	No significant change
	rate	1313	1202	1079	1008	1040	1111	1164	1166	1120	968	No significant change
20-24 years	count	18363	18789	18469	18540	19059	19112	19790	19044	18661	16911	No significant change
	rate	1313	1299	1252	1247	1299	1331	1402	1372	1369	1258	No significant change
25-29 years	count	5839	6184	6291	6864	8139	8521	9381	9430	9307	8166	3.2%
	rate	497	527	531	565	648	650	690	679	666	595	(1.6%-4.8%)
30-39 years	count	3626	3738	3641	4011	4508	4729	5098	5283	5669	5379	5.0%
	rate	156	162	157	173	193	200	214	220	234	219	(4.0%-5.9%)
40-49 years	count	857	945	910	1006	1174	1178	1241	1237	1391	1209	7.0%
	rate	31	35	35	39	47	48	51	52	59	52	(5.4%-8.6%)
50-59 years	count	230	272	238	326	335	361	399	476	462	439	9.9%
	rate	8	9	8	11	12	13	14	17	17	17	(8.0%-11.8%)
60+ years	count	104	96	144	91	115	104	125	116	139	135	No significant change
	rate	3	2	3	2	3	2	3	2	3	3	No significant change

By Race/Sex

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
Am Indian/AN Female	count	155	163	168	165	149	156	160	188	135	150	No significant change
	rate	559	586	602	589	531	554	565	663	474	524	No significant change
Am Indian/AN Male	count	42	56	52	52	45	62	67	59	59	50	No significant change
	rate	153	203	188	188	162	223	240	211	210	178	No significant change
Asian/NH/PI Female	count	136	174	163	194	211	266	241	218	263	187	No significant change
	rate	104	127	114	130	137	166	146	129	155	110	No significant change
Asian/NH/PI Male	count	49	63	67	59	86	98	107	114	128	90	5.6%
	rate	40	49	50	42	59	64	67	69	77	54	(2.4%-8.9%)
Black Female	count	14207	13918	12648	12355	11773	12036	13172	12726	12394	11697	-1.3%
	rate	1950	1912	1742	1704	1628	1666	1822	1760	1715	1621	(-2.3%--0.3%)
Black Male	count	6009	6238	5845	5778	5911	6503	7503	7543	7678	6961	3.2%
	rate	914	949	891	882	904	995	1148	1155	1177	1073	(1.8%-4.6%)
Hispanic Female	count	916	936	928	1064	1193	1260	1435	1362	1441	1341	3.6%
	rate	416	414	402	452	498	514	572	531	549	503	(2.1%-5.1%)
Hispanic Male	count	310	380	373	431	423	512	569	597	635	490	4.8%
	rate	137	163	157	178	171	202	220	225	234	178	(2.4%-7.2%)
Multi/Other Female*	count	451	387	404	437	534	916	1091	1566	1607	1521	17.7%
	rate	469	392	400	422	505	846	984	1377	1383	1279	(12.9%-22.6%)
Multi/other Male*	count	131	136	173	166	181	296	450	718	781	810	23.8%
	rate	142	144	178	166	176	281	416	647	688	695	(18.8%-28.9%)
White Female	count	8830	9754	9257	10154	10352	10948	11524	11567	10562	9454	2.0%
	rate	231	255	243	267	273	289	304	306	280	252	(0.4%-3.6%)
White Male	count	2581	2919	2953	3447	3701	4194	4589	4496	4246	3415	5.5%
	rate	69	79	79	93	100	113	124	122	115	93	(2.6%-8.4%)

*multi/other racial categories include patients who report multiple racial identities or mark "Other"

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

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By residence at diagnosis (local health jurisdiction)

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
<i>*rates displayed per 100,000 population</i>												
Allegan County	count	270	264	315	294	323	360	430	388	411	327	3.7%
	rate	243	237	281	259	283	313	369	331	348	275	(1.3%-6.1%)
Barry-Eaton	count	427	437	469	565	575	651	573	605	595	584	3.5%
	rate	256	262	280	336	342	385	337	354	347	339	(1.6%-5.5%)
Bay County	count	333	301	308	316	321	344	416	419	390	331	3.2%
	rate	310	281	288	298	305	329	400	404	379	323	(1.2%-5.3%)
Benzie-Leelanau	count	84	79	59	77	80	83	104	81	66	46	No significant change
	rate	216	204	152	197	205	213	265	206	167	116	No significant change
Berrien County	count	1046	948	801	795	847	831	875	972	863	784	No significant change
	rate	667	605	513	509	546	538	567	632	563	512	No significant change
Branch-Hillsdale-St. Joseph	count	294	371	312	382	446	401	421	466	409	393	3.4%
	rate	194	246	207	254	297	267	281	311	273	262	(1.2%-5.7%)
Calhoun County	count	889	779	756	908	913	942	995	1064	947	712	No significant change
	rate	658	578	561	673	679	701	742	795	708	533	No significant change
Central Michigan District	count	465	438	446	444	409	470	595	560	589	518	3.4%
	rate	244	230	236	235	216	249	315	297	313	275	(1.4%-5.4%)
Chippewa County	count	89	105	134	94	105	116	104	84	60	68	-4.2%
	rate	229	269	347	246	276	307	276	224	161	184	(-8.0%--0.3%)
Delta-Menominee	count	99	123	96	133	130	162	132	170	169	77	No significant change
	rate	163	203	159	221	217	273	224	289	289	132	No significant change
Detroit City	count	15493	14098	12328	10804	11556	11600	11595	10973	11145	9933	-3.0%
	rate	2197	2013	1782	1582	1701	1712	1718	1629	1662	1493	(-4.3%--1.7%)
Dickinson-Iron	count	69	83	54	66	90	87	77	93	98	68	No significant change
	rate	182	220	144	177	243	237	211	255	269	188	No significant change
District 2	count	69	72	79	101	122	113	155	124	92	112	6.3%
	rate	104	109	121	155	188	174	240	192	142	172	(1.7%-11.1%)
District 4	count	91	100	123	125	104	134	149	121	133	113	3.1%
	rate	117	129	160	163	136	176	196	159	176	149	(0.4%-5.9%)
District 10	count	532	641	531	679	809	728	730	704	756	572	No significant change
	rate	203	246	204	260	310	278	277	266	285	215	No significant change
Genesee County	count	3204	3195	2547	2924	2773	2681	2825	2754	2953	2784	No significant change
	rate	759	764	613	708	675	655	693	677	728	688	No significant change
Grand Traverse County	count	244	243	249	285	277	278	287	275	273	245	No significant change
	rate	276	272	276	314	302	302	312	297	293	262	No significant change
Huron County	count	47	35	47	57	64	57	57	67	50	59	4.3%
	rate	143	108	146	178	202	181	182	215	162	192	(1.2%-7.4%)

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By residence at diagnosis (local health jurisdiction)

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
<i>*rates displayed per 100,000 population</i>												
Ingham County	<i>count</i>	1924	1784	1833	1719	1766	2013	1941	1925	1812	1679	No significant change
	<i>rate</i>	680	629	645	602	615	695	665	661	622	578	
Ionia County	<i>count</i>	127	132	131	140	181	170	220	230	174	194	6.1%
	<i>rate</i>	199	207	205	218	282	265	342	358	269	301	(3.2%-9.0%)
Jackson County	<i>count</i>	677	748	633	804	895	927	854	948	925	696	2.7%
	<i>rate</i>	424	468	396	504	562	585	538	598	584	444	(0.1%-5.5%)
Kalamazoo County	<i>count</i>	1753	1832	1856	2059	2136	2180	2303	2357	2332	1927	2.0%
	<i>rate</i>	694	717	721	795	822	833	874	889	878	724	(0.4%-3.6%)
Kent County	<i>count</i>	3475	3508	3760	3665	3825	3536	4229	3968	3625	3341	No significant change
	<i>rate</i>	571	570	602	580	600	549	651	607	552	507	
Lapeer County	<i>count</i>	122	138	156	140	165	143	163	187	178	148	3.0%
	<i>rate</i>	138	156	177	159	187	162	185	213	203	169	(0.9%-5.0%)
Lenawee County	<i>count</i>	205	217	207	215	284	290	306	290	266	245	3.7%
	<i>rate</i>	206	219	209	218	289	294	311	296	270	250	(1.2%-6.3%)
Livingston County	<i>count</i>	248	290	267	274	367	386	381	372	351	299	2.9%
	<i>rate</i>	136	159	145	148	196	205	201	195	183	155	(0.1%-5.7%)
Luce-Mack-Alger-School	<i>count</i>	38	38	52	39	38	73	79	65	56	46	5.9%
	<i>rate</i>	107	107	148	112	110	214	230	190	164	135	(0.4%-11.7%)
Macomb County	<i>count</i>	1945	2376	2600	2424	2726	3228	3561	3572	3578	3038	5.8%
	<i>rate</i>	230	280	303	281	315	372	409	410	410	349	(3.6%-8.1%)
Marquette County	<i>count</i>	145	168	217	221	212	277	270	316	240	207	5.7%
	<i>rate</i>	215	248	320	326	315	416	406	476	360	314	(1.9%-9.7%)
Midland County	<i>count</i>	192	143	166	174	160	213	222	197	194	163	4.5%
	<i>rate</i>	229	171	198	208	191	255	266	236	233	195	(2.4%-6.6%)
Mid-Michigan District	<i>count</i>	342	440	433	438	493	549	536	596	581	495	2.0%
	<i>rate</i>	189	243	238	242	272	302	293	325	316	270	(0.8%-3.1%)
Monroe County	<i>count</i>	346	336	360	350	409	398	369	380	412	401	No significant change
	<i>rate</i>	228	223	240	233	274	267	247	253	274	266	

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By residence at diagnosis (local health jurisdiction)

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
<i>*rates displayed per 100,000 population</i>												
Muskegon County	<i>count</i>	1215	1343	1198	1238	1344	1309	1424	1311	1336	1339	No significant change
	<i>rate</i>	714	789	695	718	779	755	819	755	769	770	
Northwest MI Com Hlth Agency	<i>count</i>	211	247	184	195	190	237	286	211	218	179	No significant change
	<i>rate</i>	199	232	173	183	179	222	267	196	203	166	
Oakland County	<i>count</i>	3655	3471	3556	3615	3942	4186	4268	4461	4443	3925	2.1% (1.0%-3.3%)
	<i>rate</i>	301	284	288	291	317	334	340	355	353	313	
Ottawa County	<i>count</i>	574	755	733	706	854	855	981	918	804	799	No significant change
	<i>rate</i>	215	279	267	254	304	301	342	317	276	271	
Saginaw County	<i>count</i>	1497	1236	1190	1222	1264	1137	1340	1484	1306	1241	No significant change
	<i>rate</i>	753	623	604	626	654	590	698	778	686	654	
Sanilac County	<i>count</i>	46	74	64	83	95	86	96	81	73	72	No significant change
	<i>rate</i>	108	175	153	199	229	208	233	196	177	177	
Shiawassee County	<i>count</i>	165	159	148	207	199	205	217	197	246	168	3.4% (0.6%-6.3%)
	<i>rate</i>	236	229	215	301	290	299	317	289	361	248	
St Clair County	<i>count</i>	420	445	441	413	401	444	479	497	463	363	No significant change
	<i>rate</i>	260	277	275	258	251	278	301	312	291	228	
Tuscola County	<i>count</i>	104	97	121	114	127	146	147	136	121	114	3.0% (0.4%-5.6%)
	<i>rate</i>	188	177	223	211	236	274	278	258	231	218	
Van Buren-Cass	<i>count</i>	325	292	337	367	374	384	442	467	488	372	4.5% (2.3%-6.7%)
	<i>rate</i>	254	230	265	289	296	303	348	367	383	293	
Washtenaw County	<i>count</i>	1396	1397	1369	1437	1648	1778	1696	1725	1805	1565	2.2% (0.9%-3.6%)
	<i>rate</i>	399	396	384	399	453	485	459	466	490	427	
Wayne County	<i>count</i>	3588	3533	3430	3632	3671	4061	4461	4314	4330	3957	3.0% (1.8%-4.2%)
	<i>rate</i>	327	322	315	334	338	375	412	399	401	368	
Western UP District	<i>count</i>	91	91	84	97	107	116	121	109	133	134	6.1% (3.9%-8.3%)
	<i>rate</i>	129	130	120	140	156	170	178	162	202	206	

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By Age

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
Less than 15 years	<i>count</i>	0	0	0	0	0	0	2	2	1	0	No significant change
	<i>rate</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	
15-19 years	<i>count</i>	16	18	39	23	27	31	39	29	33	28	6.2%
	<i>rate</i>	1.1	1.3	2.8	1.7	2.0	2.3	2.9	2.2	2.6	2.2	(0.9%-11.8%)
20-24 years	<i>count</i>	63	91	157	125	79	95	103	129	103	122	No significant change
	<i>rate</i>	4.5	6.3	10.6	8.4	5.4	6.6	7.3	9.3	7.6	9.1	
25-29 years	<i>count</i>	48	62	97	95	111	94	107	158	165	175	10.6%
	<i>rate</i>	4.1	5.3	8.2	7.8	8.8	7.2	7.9	11.4	11.8	12.8	(7.3%-14.0%)
30-39 years	<i>count</i>	72	64	109	97	97	72	105	170	190	223	12.3%
	<i>rate</i>	3.1	2.8	4.7	4.2	4.2	3.1	4.4	7.1	7.8	9.1	(7.6%-17.3%)
40-49 years	<i>count</i>	50	37	52	60	46	41	77	94	106	119	14.6%
	<i>rate</i>	1.8	1.4	2.0	2.3	1.8	1.7	3.2	3.9	4.5	5.1	(10.1%-19.5%)
50-59 years	<i>count</i>	26	16	33	25	33	30	36	53	64	86	17.9%
	<i>rate</i>	0.9	0.5	1.1	0.9	1.1	1.0	1.3	1.9	2.4	3.2	(12.7%-23.4%)
60+ years	<i>count</i>	3	6	6	6	4	12	11	20	24	30	25.7%
	<i>rate</i>	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.4	0.5	0.6	(17.0%-35.0%)

By Race/Sex

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
Am Indian/AN Female	<i>count</i>	0	0	0	0	0	0	0	1	1	2	No significant change
	<i>rate</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	3.5	7.0	
Am Indian/AN Male	<i>count</i>	0	0	2	0	1	1	2	3	3	4	33.6%
	<i>rate</i>	0.0	0.0	7.2	0.0	3.6	3.6	7.2	10.7	10.7	14.2	(8.7%-64.4%)
Asian/NH/PI Female	<i>count</i>	0	0	0	0	0	0	1	0	0	0	No significant change
	<i>rate</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	
Asian/NH/PI Male	<i>count</i>	0	2	4	0	4	4	5	11	7	7	20.7%
	<i>rate</i>	0.0	1.6	3.0	0.0	2.7	2.6	3.1	6.7	4.2	4.2	(7.5%-35.7%)
Black Female	<i>count</i>	22	20	25	22	26	19	18	38	49	70	13.2%
	<i>rate</i>	3.0	2.7	3.4	3.0	3.6	2.6	2.5	5.3	6.8	9.7	(6.6%-20.2%)
Black Male	<i>count</i>	154	181	312	239	206	168	209	308	322	401	7.5%
	<i>rate</i>	23.4	27.5	47.6	36.5	31.5	25.7	32.0	47.2	49.4	61.8	(2.6%-12.7%)
Hispanic Female	<i>count</i>	0	1	1	0	0	2	0	6	7	4	42.7%
	<i>rate</i>	0.0	0.4	0.4	0.0	0.0	0.8	0.0	2.3	2.7	1.5	(13.2%-79.8%)
Hispanic Male	<i>count</i>	6	7	15	16	15	26	34	28	39	30	16.3%
	<i>rate</i>	2.6	3.0	6.3	6.6	6.1	10.3	13.1	10.6	14.4	10.9	(9.6%-23.4%)
Multi/Other Female	<i>count</i>	0	0	0	0	0	0	0	2	0	0	No significant change
	<i>rate</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	
Multi/other Male	<i>count</i>	2	1	3	2	6	2	4	8	7	17	27.0%
	<i>rate</i>	2.2	1.1	3.1	2.0	5.9	1.9	3.7	7.2	6.2	14.6	(13.6%-41.9%)
White Female	<i>count</i>	5	6	5	8	8	11	14	23	38	36	31.3%
	<i>rate</i>	0.1	0.2	0.1	0.2	0.2	0.3	0.4	0.6	1.0	1.0	(23.0%-40.1%)
White Male	<i>count</i>	87	76	126	144	131	138	192	226	209	209	11.9%
	<i>rate</i>	2.3	2.0	3.4	3.9	3.5	3.7	5.2	6.1	5.7	5.7	(8.7%-15.1%)

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By Transmission Risk (population denominators not available)

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
Het Male	count	38	33	63	64	49	42	63	111	167	214	20.3%
	(Men who have sex with women only)											(13.3%-27.8%)
Het Female	count	25	20	26	24	30	31	26	58	82	100	19.1%
	(Women who have sex with men)											(12.7%-25.9%)
MSM	count	193	200	354	284	271	269	338	401	347	364	6.4%
	(Men who have sex with men)											(2.9%-10.0%)
PWID	count	3	6	4	7	4	5	7	16	25	16	24.0%
	(People who inject drugs)											(13.3%-35.8%)

*multi/other racial categories include patients who report multiple racial identities or mark "Other"

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

By residence at diagnosis (local health jurisdiction)

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
<i>*rates displayed per 100,000 population</i>												
Allegan County	count	1	0	2	4	1	1	4	1	2	2	No significant change
	rate	0.9	0.0	1.8	3.5	0.9	0.9	3.4	0.9	1.7	1.7	
Barry-Eaton	count	1	1	2	1	0	1	3	3	9	7	34.8%
	rate	0.6	0.6	1.2	0.6	0.0	0.6	1.8	1.8	5.2	4.1	
Bay County	count	0	0	2	1	4	0	5	6	1	2	No significant change
	rate	0.0	0.0	1.9	0.9	3.8	0.0	4.8	5.8	1.0	2.0	
Benzie-Leelanau	count	0	1	0	0	0	0	0	2	0	0	No significant change
	rate	0.0	2.6	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	
Berrien County	count	0	0	3	5	3	0	3	8	2	3	No significant change
	rate	0.0	0.0	1.9	3.2	1.9	0.0	1.9	5.2	1.3	2.0	
Branch-Hillsdale-St. Joseph	count	0	0	2	4	1	2	4	1	2	1	No significant change
	rate	0.0	0.0	1.3	2.7	0.7	1.3	2.7	0.7	1.3	0.7	
Calhoun County	count	2	1	4	4	0	1	3	1	6	7	No significant change
	rate	1.5	0.7	3.0	3.0	0.0	0.7	2.2	0.7	4.5	5.2	
Central Michigan District	count	4	1	2	2	1	1	3	11	6	3	No significant change
	rate	2.1	0.5	1.1	1.1	0.5	0.5	1.6	5.8	3.2	1.6	
Chippewa County	count	0	0	0	0	0	0	0	2	4	1	No significant change
	rate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	10.7	2.7	
Delta-Menominee	count	3	0	0	0	0	0	0	0	0	0	No significant change
	rate	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	count	100	136	214	147	115	105	118	218	251	303	9.3%
	rate	14.2	19.4	30.9	21.5	16.9	15.5	17.5	32.4	37.4	45.5	
Dickinson-Iron	count	0	0	0	0	0	0	0	0	0	0	No significant change
	rate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
District 2	count	0	0	0	0	0	0	1	0	0	1	No significant change
	rate	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	1.5	
District 4	count	1	0	0	0	0	1	0	3	2	1	No significant change
	rate	1.3	0.0	0.0	0.0	0.0	1.3	0.0	3.9	2.6	1.3	
District 10	count	2	0	0	3	5	2	3	4	2	4	No significant change
	rate	0.8	0.0	0.0	1.2	1.9	0.8	1.1	1.5	0.8	1.5	

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By residence at diagnosis (local health jurisdiction)

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
<i>*rates displayed per 100,000 population</i>												
Genesee County	count	6	3	14	9	12	16	21	9	24	26	17.3%
	rate	1.4	0.7	3.4	2.2	2.9	3.9	5.2	2.2	5.9	6.4	(9.2%-26.0%)
Grand Traverse County	count	1	0	2	2	0	1	2	0	6	4	23.1%
	rate	1.1	0.0	2.2	2.2	0.0	1.1	2.2	0.0	6.4	4.3	(1.6%-49.1%)
Huron County	count	0	0	0	0	1	1	0	0	0	1	No significant change
	rate	0.0	0.0	0.0	0.0	3.1	3.2	0.0	0.0	0.0	3.3	
Ingham County	count	7	6	10	9	11	14	29	28	26	33	21.3%
	rate	2.5	2.1	3.5	3.1	3.8	4.8	9.9	9.6	8.9	11.4	(14.6%-28.4%)
Ionia County	count	0	1	0	0	2	1	0	1	5	2	32.9%
	rate	0.0	1.6	0.0	0.0	3.1	1.6	0.0	1.6	7.7	3.1	(4.0%-69.8%)
Jackson County	count	2	5	3	6	5	3	8	9	5	9	11.7%
	rate	1.3	3.1	1.9	3.8	3.1	1.9	5.0	5.7	3.2	5.7	(1.6%-22.8%)
Kalamazoo County	count	17	17	6	8	7	5	8	12	20	29	No significant change
	rate	6.7	6.7	2.3	3.1	2.7	1.9	3.0	4.5	7.5	10.9	
Kent County	count	9	7	10	9	17	26	34	31	25	37	18.8%
	rate	1.5	1.1	1.6	1.4	2.7	4.0	5.2	4.7	3.8	5.6	(11.9%-26.1%)
Lapeer County	count	1	0	1	1	2	0	1	2	1	2	No significant change
	rate	1.1	0.0	1.1	1.1	2.3	0.0	1.1	2.3	1.1	2.3	
Lenawee County	count	2	0	1	1	2	0	4	5	1	1	No significant change
	rate	2.0	0.0	1.0	1.0	2.0	0.0	4.1	5.1	1.0	1.0	
Livingston County	count	1	0	2	4	3	4	2	2	2	5	No significant change
	rate	0.5	0.0	1.1	2.2	1.6	2.1	1.1	1.0	1.0	2.6	
Luce-Mack-Alger-School	count	0	0	0	0	0	1	1	0	0	0	No significant change
	rate	0.0	0.0	0.0	0.0	0.0	2.9	2.9	0.0	0.0	0.0	
Macomb County	count	26	20	34	30	38	27	44	73	54	80	14.2%
	rate	3.1	2.4	4.0	3.5	4.4	3.1	5.1	8.4	6.2	9.2	(9.2%-19.6%)
Marquette County	count	0	0	0	0	2	0	0	0	1	0	No significant change
	rate	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	1.5	0.0	
Midland County	count	1	0	1	1	0	1	1	0	3	1	No significant change
	rate	1.2	0.0	1.2	1.2	0.0	1.2	1.2	0.0	3.6	1.2	
Mid-Michigan District	count	2	2	1	0	1	2	3	3	3	4	No significant change
	rate	1.1	1.1	0.6	0.0	0.6	1.1	1.6	1.6	1.6	2.2	

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By residence at diagnosis (local health jurisdiction)

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
<i>*rates displayed per 100,000 population</i>												
Monroe County	<i>count</i>	1	3	2	1	5	6	10	6	4	1	No significant change
	<i>rate</i>	0.7	2.0	1.3	0.7	3.3	4.0	6.7	4.0	2.7	0.7	
Muskegon County	<i>count</i>	4	0	1	5	1	2	4	0	1	3	No significant change
	<i>rate</i>	2.4	0.0	0.6	2.9	0.6	1.2	2.3	0.0	0.6	1.7	
Northwest MI Com Hlth Agency	<i>count</i>	0	0	0	0	2	1	4	2	3	0	No significant change
	<i>rate</i>	0.0	0.0	0.0	0.0	1.9	0.9	3.7	1.9	2.8	0.0	
Oakland County	<i>count</i>	32	41	71	73	64	64	62	87	88	77	7.4%
	<i>rate</i>	2.6	3.4	5.7	5.9	5.1	5.1	4.9	6.9	7.0	6.1	(3.4%-11.7%)
Ottawa County	<i>count</i>	3	0	0	5	4	5	1	5	3	8	14.6%
	<i>rate</i>	1.1	0.0	0.0	1.8	1.4	1.8	0.3	1.7	1.0	2.7	(0.1%-31.2%)
Saginaw County	<i>count</i>	1	1	4	4	3	2	2	2	4	4	No significant change
	<i>rate</i>	0.5	0.5	2.0	2.0	1.6	1.0	1.0	1.0	2.1	2.1	
Sanilac County	<i>count</i>	0	0	0	0	0	2	0	0	1	1	No significant change
	<i>rate</i>	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	2.4	2.5	
Shiawassee County	<i>count</i>	1	0	1	0	1	0	1	2	0	6	31.6%
	<i>rate</i>	1.4	0.0	1.5	0.0	1.5	0.0	1.5	2.9	0.0	8.9	(0.7%-71.9%)
St Clair County	<i>count</i>	2	4	2	3	2	3	2	5	4	7	No significant change
	<i>rate</i>	1.2	2.5	1.2	1.9	1.3	1.9	1.3	3.1	2.5	4.4	
Tuscola County	<i>count</i>	0	0	0	0	0	0	0	0	0	1	No significant change
	<i>rate</i>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	
Van Buren-Cass	<i>count</i>	0	1	0	0	0	1	1	1	2	4	47.3%
	<i>rate</i>	0.0	0.8	0.0	0.0	0.0	0.8	0.8	0.8	1.6	3.1	(9.7%-97.9%)
Washtenaw County	<i>count</i>	10	9	22	25	27	17	27	25	24	30	8.2%
	<i>rate</i>	2.9	2.6	6.2	6.9	7.4	4.6	7.3	6.7	6.5	8.2	(3.0%-13.7%)
Wayne LHD*	<i>count</i>	35	36	74	64	54	56	61	85	89	71	8.1%
	<i>rate</i>	3.2	3.3	6.8	5.9	5.0	5.2	5.6	7.9	8.2	6.6	(3.6%-12.9%)
Western UP District	<i>count</i>	0	0	0	0	1	0	0	0	0	1	No significant change
	<i>rate</i>	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	1.5	

* 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, 2011 - 2020 - Gonorrhea

By Age

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
Less than 15 years	count	161	172	103	109	84	115	110	110	96	114	No significant change
	rate	4.3	4.6	2.8	3.0	2.3	3.2	3.1	3.1	2.7	3.3	
15-19 years	count	4121	3468	2729	2259	2277	2798	3265	3488	3489	4060	No significant change
	rate	287.5	247.1	197.9	166.3	169.1	208.9	246.6	267.2	270.7	320.4	
20-24 years	count	4339	4556	3989	3609	3757	4178	4679	4957	5404	6804	5.2%
	rate	310.2	314.9	270.4	242.7	256.1	291.0	331.5	357.2	396.5	506.2	(2.1%-8.4%)
25-29 years	count	1769	1939	1770	1696	2144	2858	3389	3650	4126	5295	11.0%
	rate	150.7	165.3	149.4	139.7	170.6	217.9	249.2	263.0	295.4	386.0	(8.3%-13.8%)
30-39 years	count	1445	1462	1321	1275	1494	2045	2458	2987	3333	4754	13.9%
	rate	62.2	63.3	57.1	54.9	64.0	86.7	103.3	124.3	137.3	193.3	(10.2%-17.8%)
40-49 years	count	546	620	495	472	527	695	891	1080	1141	1479	14.4%
	rate	19.8	22.9	18.8	18.4	21.1	28.4	36.9	45.3	48.4	63.6	(10.6%-18.4%)
50-59 years	count	234	239	179	201	277	320	429	486	516	680	15.6%
	rate	8.0	8.1	6.1	6.8	9.5	11.2	15.3	17.7	19.1	25.6	(11.5%-19.9%)
60+ years	count	86	62	83	60	84	89	138	151	206	225	11.8%
	rate	2.2	1.5	2.0	1.4	1.9	2.0	2.9	3.1	4.2	4.5	(7.2%-16.6%)

By Race/Sex

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
Am Indian/AN Female	count	18	22	19	15	9	21	22	32	27	35	7.7%
	rate	65.0	79.1	68.1	53.6	32.1	74.6	77.7	112.9	94.7	122.3	(2.3%-13.5%)
Am Indian/AN Male	count	6	5	6	7	10	20	16	24	26	31	23.7%
	rate	21.8	18.1	21.7	25.3	36.1	71.8	57.3	85.8	92.6	110.1	(16.3%-31.6%)
Asian/NH/PI Female	count	16	27	25	13	18	29	24	25	33	30	No significant change
	rate	12.2	19.7	17.5	8.7	11.7	18.1	14.5	14.8	19.4	17.6	
Asian/NH/PI Male	count	5	17	20	15	23	29	48	56	53	37	16.9%
	rate	4.1	13.2	14.8	10.6	15.7	18.8	30.0	34.1	32.0	22.3	(9.3%-25.0%)
Black Female	count	3869	4011	3344	3013	2951	3518	4076	4261	4636	5982	4.5%
	rate	531.0	551.0	460.6	415.6	408.0	486.9	564.0	589.4	641.4	829.1	(1.3%-7.9%)
Black Male	count	3284	3516	2828	2840	3103	3790	4752	5269	5805	7303	9.8%
	rate	499.3	534.7	431.2	433.4	474.3	579.6	727.2	807.1	890.2	1125.5	(6.5%-13.3%)
Hispanic Female	count	122	149	123	119	161	200	235	240	303	425	12.0%
	rate	55.4	65.9	53.3	50.6	67.2	81.5	93.7	93.6	115.5	159.4	(8.6%-15.4%)
Hispanic Male	count	52	84	79	104	113	161	215	247	266	299	18.3%
	rate	22.9	36.0	33.2	42.8	45.7	63.5	83.0	93.2	98.1	108.5	(15.6%-21.0%)
Multi/Other Female	count	86	95	76	72	61	90	191	265	327	494	19.8%
	rate	89.3	96.3	75.3	69.5	57.7	83.1	172.2	233.1	281.5	415.4	(11.8%-28.2%)
Multi/other Male	count	46	40	48	51	58	85	163	321	408	577	34.2%
	rate	49.9	42.3	49.3	51.0	56.6	80.7	150.7	289.4	359.3	494.8	(26.3%-42.7%)
White Female	count	1050	1103	914	918	1016	1374	1745	2144	2101	2867	12.9%
	rate	13.9	14.6	12.1	12.2	13.5	18.3	23.3	28.7	28.2	38.6	(9.1%-16.9%)
White Male	count	470	533	716	707	874	1202	1483	1613	1580	1901	17.8%
	rate	12.6	14.3	19.3	19.0	23.6	32.4	40.0	43.6	42.8	51.8	(15.4%-20.2%)

*multi/other racial categories include patients who report multiple racial identities or mark "Other"

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

Annual Review of STI Trends in Michigan, 2011 - 2020 - Gonorrhea

By residence at diagnosis (local health jurisdiction)

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
<i>*rates displayed per 100,000 population</i>												
Allegan County	<i>count</i>	33	18	40	30	33	41	62	77	110	109	18.6%
	<i>rate</i>	29.7	16.1	35.7	26.5	28.9	35.6	53.3	65.7	93.2	91.7	(13.3%-24.2%)
Barry-Eaton	<i>count</i>	59	58	61	79	98	144	110	155	141	216	15.3%
	<i>rate</i>	35.4	34.7	36.4	47.0	58.3	85.2	64.6	90.7	82.2	125.4	(11.6%-19.0%)
Bay County	<i>count</i>	29	24	30	23	49	52	108	91	106	99	21.9%
	<i>rate</i>	27.0	22.4	28.1	21.7	46.5	49.8	103.8	87.8	102.9	96.7	(15.3%-28.8%)
Benzie-Leelanau	<i>count</i>	2	2	1	3	4	3	2	7	7	5	16.3%
	<i>rate</i>	5.2	5.2	2.6	7.7	10.3	7.7	5.1	17.8	17.7	12.6	(3.1%-31.2%)
Berrien County	<i>count</i>	222	238	184	109	206	276	285	383	303	407	8.7%
	<i>rate</i>	141.5	151.9	117.8	69.8	132.8	178.7	184.7	248.9	197.6	266.0	(3.2%-14.3%)
Branch-Hillsdale-St. Joseph	<i>count</i>	24	21	21	13	24	45	54	119	165	218	34.1%
	<i>rate</i>	15.8	13.9	13.9	8.6	16.0	30.0	36.0	79.3	110.1	145.4	(24.4%-44.5%)
Calhoun County	<i>count</i>	122	212	226	189	173	225	362	432	471	473	15.0%
	<i>rate</i>	90.3	157.3	167.7	140.2	128.7	167.5	269.9	322.7	352.0	354.1	(10.6%-19.7%)
Central Michigan District	<i>count</i>	54	31	37	20	30	41	66	67	96	125	13.8%
	<i>rate</i>	28.3	16.3	19.6	10.6	15.9	21.7	35.0	35.5	51.0	66.5	(6.2%-21.9%)
Chippewa County	<i>count</i>	0	1	4	1	1	2	3	5	4	7	No significant change
	<i>rate</i>	0.0	2.6	10.4	2.6	2.6	5.3	8.0	13.4	10.7	18.9	No significant change
Delta-Menominee	<i>count</i>	4	7	4	6	8	11	9	7	9	5	No significant change
	<i>rate</i>	6.6	11.6	6.6	10.0	13.4	18.5	15.3	11.9	15.4	8.6	No significant change
Detroit City	<i>count</i>	6207	5740	4331	3430	3505	4263	4806	5142	5839	6993	No significant change
	<i>rate</i>	880.2	819.7	625.9	502.4	515.8	629.3	712.0	763.3	870.9	1051.0	No significant change
Dickinson-Iron	<i>count</i>	2	5	4	0	1	11	7	3	6	4	No significant change
	<i>rate</i>	5.3	13.2	10.7	0.0	2.7	30.0	19.1	8.2	16.5	11.1	No significant change
District 2	<i>count</i>	3	4	2	2	5	7	14	16	9	13	23.0%
	<i>rate</i>	4.5	6.1	3.1	3.1	7.7	10.8	21.7	24.7	13.9	20.0	(11.5%-35.6%)
District 4	<i>count</i>	10	10	9	3	0	3	7	11	17	16	No significant change
	<i>rate</i>	12.8	12.9	11.7	3.9	0.0	3.9	9.2	14.5	22.5	21.2	No significant change
District 10	<i>count</i>	27	32	19	33	48	64	67	84	88	151	22.0%
	<i>rate</i>	10.3	12.3	7.3	12.7	18.4	24.5	25.5	31.7	33.2	56.7	(17.5%-26.8%)
Genesee County	<i>count</i>	904	1282	916	759	888	991	965	886	1103	1710	No significant change
	<i>rate</i>	214.2	306.5	220.3	183.8	216.3	242.3	236.7	217.9	271.9	422.4	No significant change
Grand Traverse County	<i>count</i>	5	8	9	7	10	13	21	40	39	41	28.8%
	<i>rate</i>	5.7	9.0	10.0	7.7	10.9	14.1	22.8	43.2	41.9	43.8	(21.2%-36.9%)
Huron County	<i>count</i>	0	1	1	1	5	3	8	3	4	10	31.1%
	<i>rate</i>	0.0	3.1	3.1	3.1	15.7	9.5	25.6	9.6	12.9	32.6	(13.9%-50.9%)

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By residence at diagnosis (local health jurisdiction)

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
<i>*rates displayed per 100,000 population</i>												
Ingham County	count	348	392	432	410	474	675	563	590	536	923	8.6%
	rate	123.0	138.2	152.0	143.5	165.0	233.1	193.0	202.6	183.9	317.6	(5.5%-11.9%)
Ionia County	count	6	7	13	9	16	15	23	18	32	55	25.4%
	rate	9.4	11.0	20.3	14.0	25.0	23.4	35.8	28.0	49.5	85.2	(17.9%-33.3%)
Jackson County	count	80	48	57	53	82	66	154	225	252	374	23.4%
	rate	50.1	30.0	35.7	33.2	51.5	41.7	97.1	141.9	159.1	238.3	(15.7%-31.7%)
Kalamazoo County	count	346	263	288	658	657	655	851	1026	1093	1226	17.6%
	rate	137.0	103.0	111.9	254.0	252.9	250.4	323.1	387.0	411.6	460.9	(13.0%-22.4%)
Kent County	count	718	616	650	864	757	772	1121	1362	1287	1949	11.0%
	rate	118.0	100.0	104.1	136.8	118.8	119.8	172.5	208.4	196.0	295.9	(7.5%-14.6%)
Lapeer County	count	16	17	9	8	12	13	27	27	33	41	15.2%
	rate	18.2	19.3	10.2	9.1	13.6	14.7	30.6	30.7	37.6	46.8	(7.9%-22.9%)
Lenawee County	count	35	33	21	11	18	52	47	44	83	111	16.1%
	rate	35.2	33.3	21.2	11.1	18.3	52.7	47.7	44.8	84.2	113.5	(6.8%-26.3%)
Livingston County	count	13	17	23	25	35	25	44	48	46	67	16.4%
	rate	7.1	9.3	12.5	13.5	18.7	13.3	23.2	25.1	24.0	34.8	(11.9%-21.1%)
Luce-Mack-Alger-School	count	5	2	7	1	0	3	10	8	10	1	No significant change
	rate	14.1	5.7	19.9	2.9	0.0	8.8	29.2	23.4	29.2	2.9	No significant change
Macomb County	count	497	528	591	483	518	814	922	1097	1174	1437	12.9%
	rate	58.9	62.1	68.9	56.0	59.9	93.7	105.9	125.8	134.6	165.0	(9.6%-16.2%)
Marquette County	count	10	2	7	18	8	8	8	6	7	11	No significant change
	rate	14.8	2.9	10.3	26.5	11.9	12.0	12.0	9.0	10.5	16.7	No significant change
Midland County	count	14	20	10	11	11	26	46	26	40	40	16.4%
	rate	16.7	23.9	11.9	13.2	13.1	31.1	55.1	31.2	48.0	47.9	(11.0%-22.0%)
Mid-Michigan District	count	41	49	31	36	38	67	69	86	101	156	15.7%
	rate	22.6	27.0	17.1	19.9	21.0	36.9	37.7	46.8	54.9	85.0	(7.4%-24.6%)
Monroe County	count	64	71	79	50	54	72	81	99	114	173	10.0%
	rate	42.2	47.1	52.6	33.4	36.1	48.2	54.2	65.9	75.8	114.9	(5.2%-15.2%)

Annual Review of STI Trends in Michigan, 2011 - 2020 - Gonorrhea

By residence at diagnosis (local health jurisdiction)

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% annual change
<i>*rates displayed per 100,000 population</i>												
Muskegon County	<i>count</i>	215	349	205	264	411	495	560	608	577	681	13.4%
	<i>rate</i>	126.4	205.1	119.0	153.2	238.3	285.6	322.2	350.0	332.3	391.6	(9.0%-17.9%)
Northwest MI Com Hlth Agency	<i>count</i>	20	9	16	6	10	4	11	19	12	24	No significant change
	<i>rate</i>	18.8	8.5	15.0	5.6	9.4	3.8	10.3	17.7	11.2	22.3	
Oakland County	<i>count</i>	996	825	877	622	733	1026	1154	1315	1291	1713	7.0%
	<i>rate</i>	82.1	67.4	71.0	50.0	58.9	82.0	91.8	104.6	102.6	136.7	(2.9%-11.3%)
Ottawa County	<i>count</i>	66	75	94	82	82	114	136	181	161	200	12.3%
	<i>rate</i>	24.7	27.7	34.3	29.5	29.2	40.2	47.5	62.5	55.2	67.9	(9.5%-15.1%)
Saginaw County	<i>count</i>	201	248	270	336	362	410	392	549	723	749	16.1%
	<i>rate</i>	101.0	125.0	137.2	172.0	187.2	212.8	204.2	287.7	379.6	394.5	(14.0%-18.2%)
Sanilac County	<i>count</i>	3	4	0	4	4	4	9	9	4	11	17.9%
	<i>rate</i>	7.0	9.5	0.0	9.6	9.6	9.7	21.8	21.8	9.7	27.0	(6.6%-30.4%)
Shiawassee County	<i>count</i>	17	14	7	16	20	20	26	24	21	56	14.9%
	<i>rate</i>	24.3	20.2	10.2	23.2	29.2	29.2	38.0	35.3	30.9	82.7	(7.5%-22.8%)
St Clair County	<i>count</i>	56	64	55	30	35	74	56	72	89	142	9.5%
	<i>rate</i>	34.7	39.8	34.3	18.7	21.9	46.4	35.2	45.2	55.9	89.1	(2.9%-16.6%)
Tuscola County	<i>count</i>	8	7	15	7	8	13	21	19	18	18	12.1%
	<i>rate</i>	14.4	12.8	27.7	13.0	14.9	24.4	39.8	36.1	34.4	34.4	(5.5%-19.1%)
Van Buren-Cass	<i>count</i>	48	46	46	40	53	48	121	143	128	154	17.8%
	<i>rate</i>	37.5	36.2	36.2	31.5	41.9	37.9	95.4	112.4	100.4	121.2	(11.8%-24.2%)
Washtenaw County	<i>count</i>	234	298	230	259	345	416	569	524	574	619	12.1%
	<i>rate</i>	66.8	84.5	64.5	71.8	94.9	113.4	153.9	141.4	155.9	168.9	(9.1%-15.2%)
Wayne County	<i>count</i>	954	826	749	686	813	1017	1382	1248	1383	1875	9.4%
	<i>rate</i>	86.9	75.4	68.8	63.0	74.9	93.9	127.6	115.3	128.1	174.4	(5.6%-13.3%)
Western UP District	<i>count</i>	3	3	5	6	11	9	11	10	7	6	9.3%
	<i>rate</i>	4.3	4.3	7.2	8.7	16.1	13.2	16.2	14.9	10.7	9.2	(0.7%-18.8%)

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

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<i>Michigan</i>	9,883,053	9,898,289	9,914,802	9,932,033	9,934,483	9,954,117	9,976,752	9,987,286	9,984,795	9,966,555
Allegan County	111,167	111,506	112,020	113,361	114,122	115,018	116,393	117,137	118,045	118,927
Barry-Eaton	166,848	167,038	167,382	167,973	168,135	169,021	170,168	170,879	171,600	172,209
Bay County	107,423	106,980	106,817	106,073	105,271	104,421	104,085	103,674	102,964	102,387
Benzie-Leelanau	38,808	38,699	38,815	39,062	39,019	39,031	39,263	39,410	39,459	39,595
Berrien County	156,911	156,669	156,205	156,074	155,136	154,451	154,264	153,892	153,352	153,025
Branch-Hillsdale-St. Joseph	151,591	151,047	150,707	150,684	150,338	150,001	149,879	149,991	149,818	149,930
Calhoun County	135,111	134,755	134,782	134,845	134,377	134,343	134,127	133,858	133,806	133,580
Central Michigan District	190,935	190,029	189,156	188,900	189,030	188,862	188,838	188,567	188,273	188,104
Chippewa County	38,904	39,006	38,587	38,275	37,998	37,724	37,699	37,423	37,287	36,958
Delta-Menominee	60,816	60,576	60,540	60,127	59,925	59,434	58,914	58,795	58,516	58,220
Detroit City	705,202	700,289	691,986	682,746	679,562	677,379	675,031	673,658	670,442	665,369
Dickinson-Iron	37,836	37,745	37,530	37,262	37,002	36,699	36,565	36,525	36,389	36,178
District 2	66,443	65,956	65,512	65,158	64,838	64,757	64,608	64,684	64,948	64,936
District 4	78,002	77,512	76,929	76,808	76,219	76,050	75,859	75,968	75,628	75,605
District 10	261,870	261,077	260,711	260,852	261,013	261,623	263,174	264,613	265,426	266,442
Genesee County	422,062	418,243	415,713	412,950	410,574	409,054	407,673	406,626	405,702	404,794
Grand Traverse County	88,362	89,238	90,149	90,908	91,610	92,076	91,914	92,587	93,032	93,592
Huron County	32,765	32,449	32,251	32,034	31,761	31,471	31,304	31,193	30,904	30,653
Ingham County	282,828	283,592	284,226	285,760	287,255	289,633	291,678	291,267	291,426	290,609
Ionia County	63,865	63,890	64,001	64,246	64,073	64,215	64,293	64,290	64,654	64,553
Jackson County	159,666	159,988	159,672	159,464	159,325	158,345	158,653	158,594	158,357	156,920
Kalamazoo County	252,634	255,413	257,399	259,063	259,816	261,584	263,387	265,120	265,531	265,988
Kent County	608,543	615,871	624,409	631,464	637,333	644,219	649,722	653,636	656,800	658,708
Lapeer County	88,095	88,200	88,299	88,202	88,376	88,227	88,218	87,987	87,808	87,635
Lenawee County	99,370	99,041	98,850	98,774	98,432	98,595	98,511	98,118	98,519	97,808
Livingston County	182,052	182,805	184,238	185,567	187,221	188,585	189,923	191,259	192,058	192,335
Luce-Mack-Alger-School	35,528	35,349	35,211	34,906	34,628	34,135	34,292	34,238	34,232	34,084
Macomb County	844,159	849,761	857,146	862,914	865,031	868,329	870,867	872,089	872,389	870,791
Marquette County	67,462	67,840	67,792	67,798	67,357	66,563	66,524	66,406	66,689	65,834
Midland County	83,825	83,743	83,683	83,534	83,706	83,485	83,442	83,447	83,412	83,441
Mid-Michigan District	181,287	181,246	181,559	181,255	181,148	181,564	183,081	183,665	184,004	183,512
Monroe County	151,511	150,835	150,193	149,919	149,439	149,278	149,523	150,218	150,412	150,568
Muskegon County	170,056	170,191	172,312	172,304	172,506	173,342	173,804	173,719	173,645	173,883
Northwest MI Com Hlth Agency	106,294	106,300	106,423	106,464	106,395	106,634	107,127	107,429	107,562	107,661
Oakland County	1,212,718	1,223,723	1,235,656	1,243,076	1,244,895	1,251,563	1,256,478	1,257,472	1,257,726	1,253,459
Ottawa County	266,918	270,868	274,394	277,888	280,907	283,686	286,452	289,578	291,460	294,635
Saginaw County	198,929	198,409	196,859	195,317	193,384	192,636	192,002	190,841	190,484	189,868
Sanilac County	42,704	42,306	41,902	41,663	41,463	41,438	41,257	41,233	41,220	40,747
Shiawassee County	70,006	69,345	68,927	68,841	68,538	68,589	68,422	68,064	68,065	67,738
St Clair County	161,586	160,637	160,312	160,103	159,757	159,477	159,130	159,186	159,339	159,293
Tuscola County	55,400	54,705	54,214	53,921	53,723	53,260	52,817	52,692	52,355	52,289
Van Buren-Cass	128,151	127,127	126,936	126,836	126,457	126,609	126,830	127,207	127,441	127,058
Washtenaw County	350,072	352,685	356,474	360,523	363,555	366,960	369,703	370,548	368,242	366,473
Wayne County	1,097,801	1,095,508	1,088,145	1,088,880	1,085,304	1,083,456	1,082,843	1,082,210	1,079,651	1,075,254
Western UP District	70,537	70,097	69,778	69,259	68,529	68,295	68,015	67,293	65,723	64,907