New York State Prevention Agenda Community Service Plan

2022 -2024

Montefiore | St. Luke's Cornwall

Office of Community Relations

70 Dubois Street

Newburgh, NY 12550

Submitted By:

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December 30, 2022

Montefiore | St. Luke's Cornwall

New York State Prevention Agenda Community Service Plan

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This document is submitted as the requirement for the 2022-2024 Community Service Plan through the New York State Department of Health on behalf of Montefiore St. Luke's Cornwall. Throughout this document, the health needs for Orange County, New York are assessed.

The Montefiore St. Luke's Cornwall ***2022-2024 Community Health Needs Assessment*** has been compiled utilizing data that derived from the Mid-Hudson Region Community Health Assessment 2022-2024 and the 2022-2024 Orange County Community Health Assessment. The regional health assessment covers the seven counties included in the MidHudson Region, which consist of Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester Counties. Of note, MSLC specifically focuses on our targeted population in Orange County as a focus throughout these documents.

Furthermore, the Orange County Department of Health deployed the Community Asset Survey (CAS) in which residents of Orange County were asked to indicate the greatest strengths of the community and to identify where community efforts should be focused to improve quality of life, and lastly, what the most important health issues are. MSLC participated in the June 28th Orange County Community Health Summit, which included 100 community partners, specifically hospitals and health care providers, community-based organizations, and members of academia. These groups came together to review the most current Community Health Assessment data; identify and discuss the forces that impact the health of the residents; provide input on which two Prevention Agenda Priorities for the 2022-2024 CHIP should be chosen; and to participate in breakout groups to discuss current efforts, assets, and barriers in each of the five priority areas.

The Orange County Department of Health contact for this information is Jackie Lawler, Epidemiologist (jlawler@orangecountygov.com). This report covers the entities of Montefiore St. Luke's Cornwall, with main campuses in Newburgh and Cornwall, along with additional outpatient sites in Fishkill, New York. The point of contact for this report Kate Dabroski, Vice President of Marketing, Public and Community Relations, at Montefiore St. Luke's Cornwall. This report was completed in coordination with the Orange County Department of Health workplan.

EXECUTIVE SUMMARY

Montefiore St. Luke's Cornwall (MSLC) is located in Orange County, New York with main campuses in Cornwall (12518) and Newburgh (12550), along with several outpatient facilities including locations in Fishkill, NY (12524). MSLC is a member of the Montefiore Health System and provides care to more than 250,000 patients annually. MSLC is a 242-bed acute care hospital, with a geographic coverage area that serves a population of 400,000 people. As a result of its location in the heart of the City of Newburgh, MSLC serves a patient base residing in what is designated as a Medically Underserved Area, deeming the hospital a Vital Access and Safety Net Provider.

The Montefiore St. Luke's Cornwall 2022-2024 Community Health Needs Assessment has been compiled utilizing data that derived from the Mid-Hudson Region Community Health Assessment 2022-2024 and the Orange County Community Health Assessment, 2022-2024. MSLC has used this data, along with ongoing collaborative discussion with the Orange County Department of Health to determine which of the Prevention Agenda Areas MSLC, along with all other hospitals in Orange County in partnership with our LHD would focus on collectively.

Going forward, MSLC, along with our hospital and community partners in Orange County, the local health department and other summit participants in each priority area will work collaboratively on the necessary ongoing strategic planning and implementation. All efforts of each group will be co-led by the Orange County Department of Health. The groups will report on a quarterly basis and at large, the annual health summit.

The Orange County Community Health Needs Assessment identified the top 5 leading causes of death in the county include:

1. Heart Disease
2. Cancer
3. Unintentional Injury
4. Chronic Lower Respiratory Disease (CLRD)
5. Alzheimer's Disease

The Top Three issues that affect health in Orange County include:

1. Housing
2. Mental Health
3. Public Transportation

The Top Three Barriers in Achieving Health in Orange County are:

1. Drug and Alcohol Abuse
2. Knowledge of Existing Resources
3. Health Literacy

The 2022- 2024 Orange County Community Health Assessment concluded the Emerging Issues are:

- Food insecurity
- Residents struggling with mental health
- Outbreaks of vaccine preventable diseases and emerging infectious diseases
- Affordable housing

These emerging issues will be a primary focus of both the Montefiore St. Luke's Cornwall and Orange County Community Service Plans and will be factored into our collaborative efforts to address the community health needs of the populations we serve. As a result of the above data points, MSLC has selected the following:

The Two Prevention Agenda Priorities Selected for the MSLC 2022-2024 Community Service Plan:

Prevent Chronic Disease

Focus Area 1: Healthy Eating and Food Security

Goal 1.3 Increase food security

**MSLC will specifically focus on Goal 1.3 only, while the Orange County Department of Health and other community partners will address 1.1 additionally.

OBJECTIVE #1: By December 31, 2024, decrease the percentage of adults who are unable to get food when they really need it by 10% from 12% to 10.8%.

OBJECTIVE #2: By December 31, 2024, decrease the percentage of adults who make less than $25,000 who are unable to get food when they really need it by 10% from 27% to 24.3%.

Focus Area 4: Preventative Care and Management

Goal 4.1 Increase cancer screening rates for breast, cervical and colorectal cancer

OBJECTIVE #1: By December 31, 2024, increase the percentage of adults receiving breast cancer, cervical, and colorectal cancer screenings based on the most recent screening guidelines for Breast Cancer Screening by 5% from 78.8% to 82.7%; for Cervical Cancer Screening by 5% from 88.8% to 93.2% and for Colorectal Cancer Screening by 5% from 61.7% to 64.8%.

Promote Well-Being and Prevent Mental Health and Substance Use Disorders

Focus Area 2: Mental and Substance Use Disorders Prevention

Goal 2.2. Prevent Opioid and other Substance Misuse and Deaths

MSLC will take a lead role on the implementation efforts of this goal

OBJECTIVE #1: By December 31, 2024, reduce the age-adjusted overdose death involving any opioid by 7% from 22.5 to 20.9 per 100,000 population.

Date source: NYSDOH Vital Statistics, 2019

Each individual focus group will meet quarterly to report data and discuss necessary revisions. There will be representation from the LHD as well as MSLC among other community partners within each of these groups.

Montefiore St. Luke's Cornwall Overview

Montefiore St. Luke's Cornwall (MSLC) is a not-for-profit community hospital with campuses in Cornwall and Newburgh, New York, along with an outpatient facility located in Fishkill, New York. MSLC is a member of the Montefiore Health System and provides care to more than 250,000 patients annually. MSLC is a 242-bed acute care hospital, with a geographic coverage area that serves a population of 400,000 people. As a result of its location in the heart of the City of Newburgh, MSLC serves a patient base residing in what is designated as a Medically Underserved Area, deeming the hospital a Vital Access and Safety Net Provider.

MSLC's Newburgh campus is inclusive of the Main Inpatient Hospital and is located in the heart of the City of Newburgh which includes a Level III Trauma Center, Level II Neonatal Intensive Care Unit, Cardiac Catheterization Unit and Interventional Radiology, and Birthing Center along with general medical/ surgical units.

The Cornwall Campus is an entirely outpatient facility providing Radiation Oncology, Rehabilitative Medicine, Pain Management, Wound Care, Imaging, and Sleep Medicine. Additionally, the Medical Group at Montefiore St. Luke's Cornwall is a hospital-employed Primary and Specialty Care Group serving the medical needs of our community. This practice is certified as a patient centered medical home with a direct focus on the continuum of care required to keep those residing in MSLC's Primary and Secondary Service Area, healthy.

Definition of Community Served

Montefiore St. Luke's Cornwall is located in the Hudson Valley, with both main campuses located within Orange County. MSLC's patient population is divided amongst its primary and secondary service areas, which represent the zip codes in which 80% of the hospitals discharged patients reside.

MSLC's PSA accounts for 60% of the discharged patients and the organizations SSA represents the remaining 20%. As shown in the Table 1, there are three zip codes within MSLC's PSA which include Newburgh, New Windsor, and Beacon, and the nine zip codes in our SSA- inclusive of Wallkill, Cornwall, Cornwall-on-Hudson, and Monroe, amongst others.

Zip	City
12550	Newburgh
12553	New Windsor
12508	Beacon
12589	Wallkill
12586	Walden
12518	Cornwall
10992	Washingtonville
10928	Highland Falls
12542	Marlboro
12549	Montgomery
12520	Cornwall on Hudson
10950	Monroe

Throughout the Community Health Needs Assessment Process, MSLC has partnered with the Orange County Department of Health to obtain Orange County specific data. With MSLC serving an underserved population, with limited access to transportation and a variety of socioeconomic factors that create barriers to receiving healthcare, the City of Newburgh within MSLC's PSA is a primary focus of the organization's efforts going forward throughout our Community Service Plan and Community Health Improvement Plan.

As noted in the 2022-2024 Orange County Health Assessment, Orange County is located approximately 40 miles north of New York City. The following demographic summary is extracted directly from the Orange County Health Assessment, 2022- 2024. The County is positioned between the Hudson River in the east and the Delaware River in the west, the only county in New York State to border both rivers. Ulster and Sullivan Counties border Orange County on the north, and Rockland County is located to the south. The states of New Jersey and Pennsylvania are located on the southwest borders of the County. Orange County is 839 square miles and is a diverse mix of rural farmland, suburban, and urban areas. Orange County communities include three cities, 20 towns, and 19 villages. Nearly 18% of the County's total population resides in its three cities of Middletown, Newburgh, and Port Jervis. Orange County has 19 public school districts and is the home to three colleges and universities.

Description of the Community and Population Served

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Figure 1

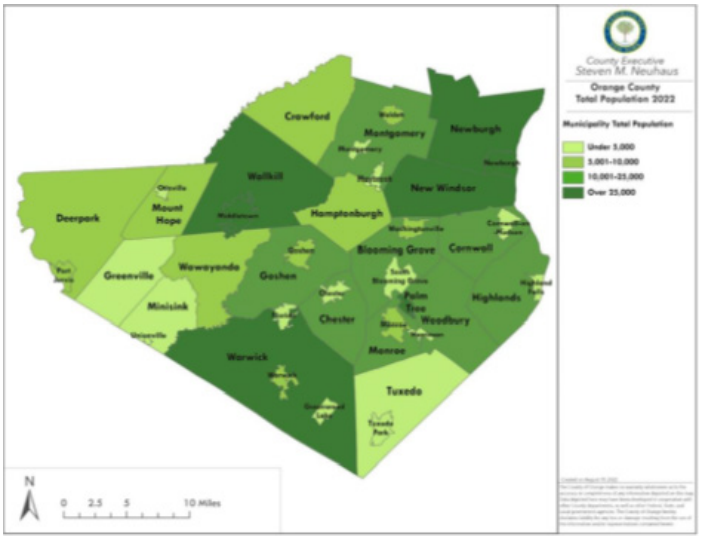


Figure 2F

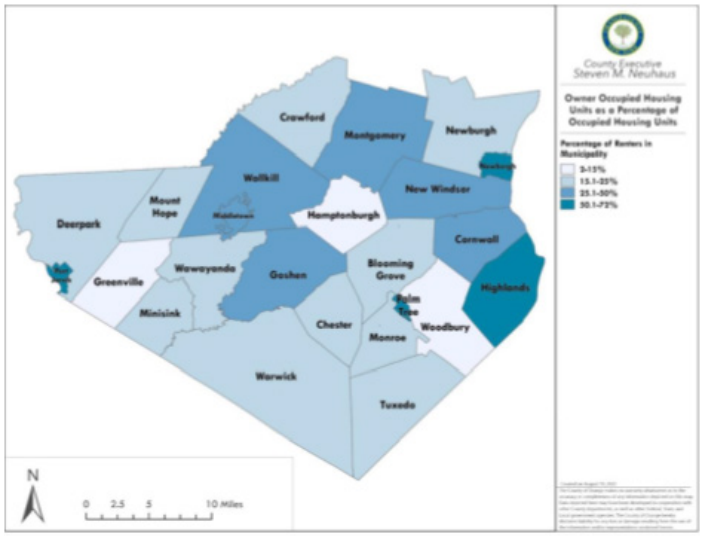


Figure 3

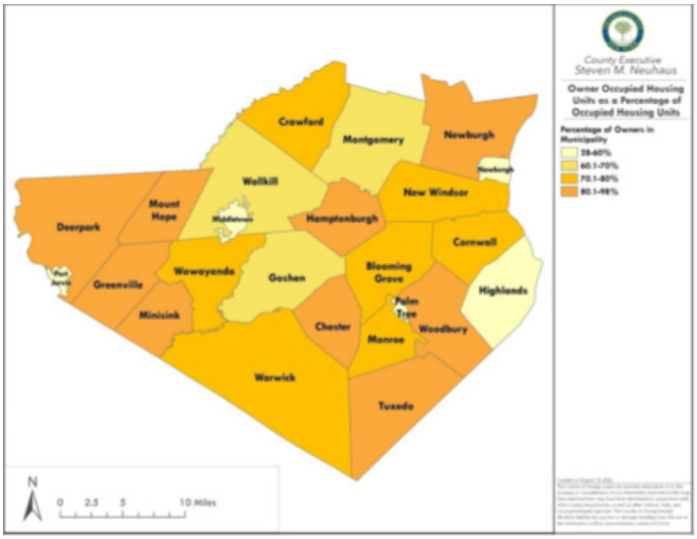


Figure 4

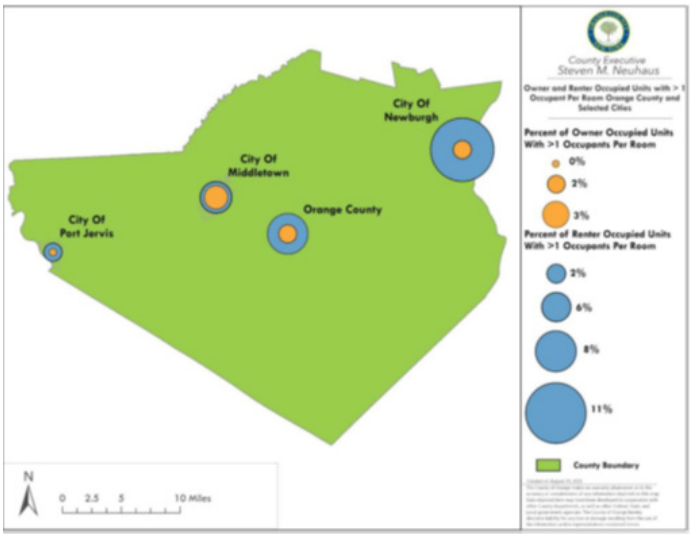


Table 1

Orange County Demographic Summary by Municipality, 2015-2019 5-Year Population Estimates								
Geographic Area	Population	Age				Gender		
	Total	0-17	18-24	25-64	65+	Male	Female	Median Age
Orange County	**380,085**	**97,292**	40,018	190,824	51,951	190,453	189,632	37.0
Blooming Grove town	17,606	4,199	1,933	9,334	2,140	8,996	8,610	40.5
South Blooming Grove village	3,148	860	319	1,436	533	1,642	1,506	37.2
Washingtonville village	5,746	1,292	771	2,882	801	2,889	2,857	41.4
Chester town	12,023	2,444	1,504	6,454	1,621	5,799	6,224	39.0
Chester village	4,011	654	485	2,280	592	1,811	2,200	40.1
Cornwall town	12,445	2,879	1,206	6,532	2,008	5,633	6,812	42.6
Cornwall-on-Hudson village	2,926	622	357	1,464	483	1,389	1,537	43.0
Crawford town	9,202	2,137	644	4,909	1,512	4,623	4,579	41.4
Deerpark town	7,742	1,518	517	4,341	1,366	3,773	3,969	44.6
Goshen town	13,991	2,746	1,245	7,154	2,846	7,387	6,604	43.9
Goshen village	5,344	1,083	451	2,631	1,179	2,486	2,858	43.0
Greenville town	4,689	1,178	410	2,596	505	2,170	2,519	36.8
Hamptonburgh town	5,516	1,374	701	2,674	767	2,818	2,698	40.9
Highlands town	12,165	2,738	3,597	4,907	923	7,045	5,120	23.5
Highland Falls village	3,841	791	318	1,609	520	1,950	1,891	41.7
Middletown city	27,963	6,956	2,841	14,279	3,887	13,584	14,379	35.6
Minisink town	4,492	1,196	486	2,187	623	2,263	2,229	40.5
Unionville village	524	107	49	234	134	229	295	45.6
Monroe town	19,799	5,363	2,041	10,368	2,027	9,906	9,893	36.1
Harriman village (total)*	3,007	886	242	1,610	269	1,524	1,483	35.2
Monroe village	8,586	2,600	755	4,483	748	4,267	4,319	32.7
Montgomery town	23,827	5,565	2,221	12,712	3,329	11,385	12,442	38.0
Maybrook village	3,511	653	382	2,041	435	1,601	1,910	37.7
Montgomery village	4,527	985	581	2,124	837	2,247	2,280	41.1
Walden village	6,724	1,941	763	3,482	538	3,247	3,477	34.2
Mount Hope town	6,731	1,224	545	4,156	806	4,067	2,664	42.0
Otisville village	1,238	316	98	673	151	594	644	38.9
Newburgh city	28,255	8,372	3,525	13,437	2,921	13,789	14,466	30.7
Newburgh town	30,095	6,020	2,294	17,535	5,056	14,899	16,006	42.4
New Windsor town	27,296	6,131	2,803	14,309	4,053	14,108	13,188	38.4
Palm Tree town	24,666	15,156	3,215	5,753	542	12,864	11,802	13.8
Kiryas Joel village	24,571	15,096	3,202	5,731	542	12,828	11,743	13.8
Port Jervis city	8,595	1,848	447	4,810	1,490	4,317	4,278	44.0
Tuxedo town	3,534	725	290	1,841	678	1,779	1,755	45.1
Tuxedo Park village	545	114	12	282	137	295	250	52.2
Wallkill town	28,588	6,181	2,834	14,962	4,611	14,293	14,295	40.8
Warwick town	31,217	6,592	2,540	16,249	5,836	15,413	15,804	46.0
Florida village	2,866	700	175	1,531	460	1,409	1,457	41.7
Greenwood Lake village	3,091	574	242	1,826	449	1,668	1,423	43.6
Warwick village	6,769	1,480	346	3,264	1,679	3,128	3,641	46.0
Wawayanda town	7,268	1,763	966	3,589	950	3,542	3,726	40.3
Woodbury town	11,570	2,987	1,393	5,736	1,454	6,000	5,570	39.1
Woodbury village	10,810	2,754	1,333	5,347	1,376	5,636	5,174	40.0

Note: Town totals include Village totals: The Village of Harriman population is included entirely within the Town of Monroe for this Table*
https://data.census.gov/cedsci/table?q=S0101&g=0500000US36071&tid=ACSST5Y2020.S0101

Table 2

Population of Orange County and Municipalities, 1970-2020						
Geographic Area	**Population**					
	1970	**1980**	**1990**	**2000**	**2010**	**2020**
Orange County	**221,657**	**259,603**	**307,647**	**341,367**	**372,813**	**401,310**
Blooming Grove town	8,813	12,339	16,673	17,351	18,028	18,811
South Blooming Grove village	n/a	n/a	n/a	n/a	3,234	3,973
Washingtonville village	1,887	2,380	4,906	5,851	5,899	5,657
Chester town	4,767	6,850	9,138	12,140	11,981	12,646
Chester village	1,627	1,910	3,270	3,445	3,969	3,993
Cornwall town	9,672	10,774	11,270	12,307	12,646	12,884
Cornwall-on-Hudson village	3,131	3,164	3,093	3,058	3,018	3,075
Crawford town	3,896	4,910	6,394	7,875	9,316	9,130
Deerpark town	4,370	5,633	7,832	7,858	7,901	7,509
Goshen town	8,393	10,463	11,500	12,913	13,687	14,571
Goshen village	4,342	4,874	5,255	5,676	5,454	5,777
Greenville town	1,379	2,085	3,120	3,800	4,616	4,689
Hamptonburgh town	2,204	2,945	3,910	4,686	5,561	5,489
Highlands town	14,661	14,004	13,667	12,484	12,492	12,939
Highland Falls village	4,638	4,187	3,937	3,678	3,900	3,684
Middletown city	22,607	21,454	24,160	25,388	28,086	30,345
Minisink town	1,942	2,488	2,981	3,585	4,490	4,621
Unionville village	576	574	548	536	612	592
Monroe town	9,190	14,948	23,035	31,407	39,912	21,387
Harriman village (total)*	955	796	2,288	2,252	2,424	2,714
Monroe village	4,439	5,996	6,672	7,780	8,364	9,343
Montgomery town	13,995	16,576	18,501	20,891	22,606	23,322
Maybrook village	1,536	2,007	2,802	3,084	2,958	3,150
Montgomery village	1,533	2,316	2,696	3,636	3,814	3,834
Walden village	5,277	5,659	5,836	6,164	6,978	6,818
Mount Hope town	2,966	4,398	5,971	6,639	7,018	6,537
Otisville village	933	953	1,078	989	1,068	989
Newburgh city	26,219	23,438	26,454	28,259	28,866	28,856
Newburgh town	21,593	22,747	24,058	27,568	29,801	31,985
New Windsor town	16,650	19,534	22,937	22,866	25,244	27,805
Palm Tree town	n/a	n/a	n/a	n/a	n/a	32,954
Kiryas Joel village	n/a	2,088	7,437	13,138	20,175	32,954
Port Jervis city	8,852	8,699	9,060	8,860	8,828	8,775
Tuxedo town	2,967	3,069	3,023	3,334	3,624	3,811
Tuxedo Park village	861	809	706	731	623	645
Wallkill town	11,518	20,481	23,016	24,659	27,426	30,486
Warwick town	16,956	20,976	27,193	30,764	32,065	32,027
Florida village	1,674	1,947	2,497	2,571	2,833	2,888
Greenwood Lake village	2,262	2,809	3,208	3,411	3,154	2,994
Warwick village	3,604	4,320	5,984	6,412	6,731	6,652
Wawayanda town	3,408	4,298	5,518	6,273	7,266	7,534
Woodbury town	4,639	6,494	8,236	9,460	11,353	12,197
Woodbury village	n/a	n/a	n/a	n/a	10,686	11,526

*Note: Town totals include Village totals *: The Village of Harriman population is included entirely within the Town of Monroe for this*

Table Note: Village of Kiryas Joel was incorporated in 1977; Villages of South Blooming Grove and Woodbury were incorporated in 2006; Town of Palm Tree was incorporated in 2017 and made coterminous to the Village of Kiryas Joel thereafter. Prior to incorporation of Town of Palm Tree, the Village of Kiryas Joel was incorporated within the boundaries of the Town of Monroe.Source: United States Census Bureau, 2020 Decennial Rediscricting Data (PL 94-171) https://data.census.gov/cedsci/table?q=population&g=0500000US36071&tid=DECENNIALPL2020.P1

Table 3

Orange County Population Growth, 2000-2020

Geographic Area	Total Population			Percent Change		
	2000	2010	2020	2000-2010	2010-2020	2000-2020
Orange County	**341,367**	**372,813**	**401,310**	9.21%	7.64%	17.56%
Blooming Grove town	17,351	18,028	18,811	3.90%	4.34%	8.41%
South Blooming Grove village	n/a	3,234	3,973	n/a	22.85%	n/a
Washingtonville village	5,851	5,899	5,657	0.82%	-4.10%	-3.32%
Chester town	12,140	11,981	12,646	-1.31%	5.55%	4.17%
Chester village	3,445	3,969	3,993	15.21%	0.60%	15.91%
Cornwall town	12,307	12,646	12,884	2.75%	1.88%	4.69%
Cornwall-on-Hudson village	3,058	3,018	3,075	-1.31%	1.89%	0.56%
Crawford town	7,875	9,316	9,130	18.30%	-2.00%	15.94%
Deerpark town	7,858	7,901	7,509	0.55%	-4.96%	-4.44%
Goshen town	12,913	13,687	14,571	5.99%	6.46%	12.84%
Goshen village	5,676	5,454	5,777	-3.91%	5.92%	1.78%
Greenville town	3,800	4,616	4,689	21.47%	1.58%	23.39%
Hamptonburgh town	4,686	5,561	5,489	18.67%	-1.29%	17.14%
Highlands town	12,484	12,492	12,939	0.06%	3.58%	3.64%
Highland Falls village	3,678	3,900	3,684	6.04%	-5.54%	0.16%
Middletown city	25,388	28,086	30,345	10.63%	8.04%	19.52%
Minisink town	3,585	4,490	4,621	25.24%	2.92%	28.90%
Unionville village	536	612	592	14.18%	-3.27%	10.45%
Monroe town	31,407	39,912	21,387	27.08%	-46.41%	-31.90%
Harriman village (total)*	2,252	2,424	2,714	7.64%	11.96%	20.52%
Monroe village	7,780	8,364	9,343	7.51%	11.70%	20.09%
Montgomery town	20,891	22,606	23,322	8.21%	3.17%	11.64%
Maybrook village	3,084	2,958	3,150	-4.09%	6.49%	2.14%
Montgomery village	3,636	3,814	3,834	4.90%	0.52%	5.45%
Walden village	6,164	6,978	6,818	13.21%	-2.29%	10.61%
Mount Hope town	6,639	7,018	6,537	5.71%	-6.85%	-1.54%
Otisville village	989	1,068	989	7.99%	-7.40%	0.00%
Newburgh city	28,259	28,866	28,856	2.15%	-0.03%	2.11%
Newburgh town	27,568	29,801	31,985	8.10%	7.33%	16.02%
New Windsor town	22,866	25,244	27,805	10.40%	10.14%	21.60%
Palm Tree town	n/a	n/a	32,954	n/a	n/a	n/a
Kiryas Joel village	13,138	20,175	32,954	53.56%	63.34%	150.83%
Port Jervis city	8,860	8,828	8,775	-0.36%	-0.60%	-0.96%
Tuxedo town	3,334	3,624	3,811	8.70%	5.16%	14.31%
Tuxedo Park village	731	623	645	-14.77%	3.53%	-11.76%
Wallkill town	24,659	27,426	30,486	11.22%	11.16%	23.63%
Warwick town	30,764	32,065	32,027	4.23%	-0.12%	4.11%
Florida village	2,571	2,833	2,888	10.19%	1.94%	12.33%
Greenwood Lake village	3,411	3,154	2,994	-7.53%	-5.07%	-12.23%
Warwick village	6,412	6,731	6,652	4.98%	-1.17%	3.74%
Wawayanda town	6,273	7,266	7,534	15.83%	3.69%	20.10%
Woodbury town	9,460	11,353	12,197	20.01%	7.43%	28.93%
Woodbury village	n/a	10,686	11,526	n/a	7.86%	n/a

Note: Town totals include Village totals

**: The Village of Harriman population is included entirely within the Town of Monroe for this Table*
Note: Villages of South Blooming Grove and Woodbury were incorporated in 2006; Town of Palm Tree was incorporated in 2017 and made coterminous to the Village of Kiryas Joel thereafter. Prior to incorporation of Town of Palm Tree, the Village of Kiryas Joel was incorporated within the boundaries of the Town of Monroe.

Source: United States Census Bureau, 2020 Decennial Redistricting Data (PL 94-171) https://data.census.gov/cedsci/table?q=population&g=0500000US36071&tid=DECENNIALPL2020.P1

Table 4

Orange County Population by Gender and Age, 2015-2019 5-Year Population Estimates

Geographic Area	Total Population			Population Under 18			Population Age 15-44			Population 65+		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Orange County	**380,085**	**190,453**	**189,632**	**97,292**	**50,953**	**46,853**	**148,816**	**77,391**	**71,425**	**51,951**	**24,471**	**30,823**
Blooming Grove town	17,606	8,996	8,610	4,199	2,242	1,957	6,552	3,464	3,088	2,140	885	1,255
South Blooming Grove village	3,148	1,642	1,506	860	456	404	1,185	582	603	533	272	261
Washingtonville village	5,746	2,889	2,857	1,292	679	613	2,250	1,201	1,049	801	260	541
Chester town	12,023	5,799	6,224	2,444	1,111	1,333	4,934	2,526	2,408	1,621	636	985
Chester village	4,011	1,811	2,200	654	204	450	1,732	970	762	592	185	407
Cornwall town	12,445	5,633	6,812	2,879	1,307	1,572	4,454	2,048	2,406	2,008	834	1,174
Cornwall-on-Hudson village	2,926	1,389	1,537	622	280	342	1,118	537	581	483	209	274
Crawford town	9,202	4,623	4,579	2,137	1,123	1,014	3,367	1,707	1,660	1,512	809	703
Deerpark town	7,742	3,773	3,969	1,518	697	821	2,847	1,438	1,409	1,366	634	732
Goshen town	13,991	7,387	6,604	2,746	1,664	1,082	4,945	2,782	2,163	2,846	1,271	1,575
Goshen village	5,344	2,486	2,858	1,083	618	465	1,891	969	922	1,179	427	752
Greenville town	4,689	2,170	2,519	1,178	640	538	1,790	699	1,091	505	220	285
Hamptonburgh town	5,516	2,818	2,698	1,374	773	601	1,873	946	927	767	359	408
Highlands town	12,165	7,045	5,120	2,738	1,356	1,382	6,526	4,089	2,437	923	480	443
Highland Falls village	3,841	1,950	1,891	791	354	437	1,432	729	703	520	286	234
Middletown city	27,963	13,584	14,379	6,956	3,735	3,221	11,524	5,660	5,864	3,887	1,532	2,355
Minisink town	4,492	2,263	2,229	1,196	611	585	1,663	823	840	623	285	338
Unionville village	524	229	295	107	70	37	161	53	108	134	42	92
Monroe town	19,799	9,906	9,893	5,363	2,929	2,434	7,847	3,830	4,017	2,027	906	1,121
Harriman village (total)*	3,007	1,524	1,483	886	541	345	1,382	647	735	269	98	171
Monroe village	8,586	4,267	4,319	2,600	1,342	1,258	3,398	1,701	1,697	748	334	414
Montgomery town	23,827	11,385	12,442	5,565	2,534	3,031	9,224	4,542	4,682	3,329	1,411	1,918
Maybrook village	3,511	1,601	1,910	653	231	422	1,565	765	800	435	192	243
Montgomery village	4,527	2,247	2,280	985	480	505	1,512	927	585	837	286	551
Walden village	6,724	3,247	3,477	1,941	928	1,013	2,850	1,391	1,459	538	224	314
Mount Hope town	6,731	4,067	2,664	1,224	552	672	2,647	1,736	911	806	468	338
Otisville village	1,238	594	644	316	146	170	464	227	237	151	74	77
Newburgh city	28,255	13,789	14,466	8,372	4,432	3,940	12,047	5,743	6,304	2,921	1,304	1,617
Newburgh town	30,095	14,899	16,006	6,020	3,036	2,984	11,695	5,843	5,852	5,056	2,195	2,861
New Windsor town	27,296	14,108	13,188	6,131	3,382	2,749	10,773	5,973	4,800	4,053	1,774	2,279
Palm Tree town	24,666	12,864	11,802	15,156	7,765	7,391	9,907	5,370	4,537	542	238	304
Kiryas Joel village	24,571	12,828	11,743	15,096	7,740	7,356	9,894	5,370	4,524	542	238	304
Port Jervis city	8,595	4,317	4,278	1,848	1,055	793	2,915	1,534	1,381	1,490	652	838
Tuxedo town	3,534	1,779	1,755	725	440	285	1,222	650	572	678	318	360
Tuxedo Park village	545	295	250	114	69	45	105	64	41	137	71	66
Wallkill town	28,588	14,293	14,295	6,181	3,034	3,087	10,767	5,713	5,054	4,611	2,092	2,519
Warwick town	31,217	15,413	15,804	6,592	3,015	3,577	9,790	5,223	4,567	5,836	2,602	3,234
Florida village	2,866	1,409	1,457	700	307	393	990	573	417	460	192	268
Greenwood Lake village	3,091	1,668	1,423	574	314	260	1,054	577	477	449	313	136
Warwick village	6,785	3,181	3,604	1,218	540	678	2,104	1,104	1,000	1,865	683	1,182
Wawayanda town	7,268	3,542	3,726	1,763	855	908	2,867	1,574	1,293	950	408	542
Woodbury town	11,570	6,000	5,570	2,987	1,711	1,276	4,386	2,378	2,008	1,454	619	835
Woodbury village	10,810	5,636	5,174	2,754	1,581	1,173	4,040	2,227	1,813	1,376	593	783

Note: Town totals include Village totals

**: The Village of Harriman population is included entirely within the Town of Monroe for this Table*
Source: United States Census Bureau, American Community Survey 2015-19 5-Year Estimates, Table S0101 Age and Sex https://data.census.gov/cedsci/table?q=S0101&g=0500000US36071&tid=ACSST5Y2020.S0101

Table 5

Orange County Municipality Population by Race and Ethnicity, 2020

Geographic Area	Total Pop	White Alone	Black Alone	American Indian/ Alaska Native Alone	Asian Alone	Native Hawaiian / Pacific Islander Alone	Some Other Race Alone	Two or More Races	Hispanic or Latino	Not Hispanic or Latino
Orange County	**401,310**	**248,085**	**45,543**	**2,949**	**12,025**	**185**	**52,023**	**40,500**	**89,744**	**311,566**
Blooming Grove town	18,811	12,738	1,539	121	416	7	1,784	2,206	3,913	14,898
South Blooming Grove village	3,973	2,786	311	25	52	5	484	310	555	3,418
Washingtonville village	5,657	3,555	630	26	131	1	590	724	1,466	4,191
Chester town	12,646	8,574	1,188	53	513	2	984	1,332	2,446	10,200
Chester village	3,993	2,287	611	33	212	2	417	431	912	3,081
Cornwall town	12,884	10,225	466	37	412	5	585	1,154	1,664	11,220
Cornwall-on-Hudson village	3,075	2,598	82	9	51	3	65	267	277	2,798
Crawford town	9,130	7,187	390	38	152	1	439	923	1,370	7,760
Deerpark town	7,509	6,083	240	37	334	3	188	624	657	6,852
Goshen town	14,571	10,315	1,026	68	491	3	1,196	1,472	3,133	11,438
Goshen village	5,777	4,230	303	31	185	2	509	517	1,205	4,572
Greenville town	4,689	3,828	164	17	55	0	229	396	626	4,063
Hamptonburgh town	5,489	4,274	189	20	204	0	227	575	797	4,692
Highlands town	12,939	8,655	1,435	137	613	31	893	1,175	2,066	10,873
Highland Falls village	3,684	2,100	561	54	110	3	441	415	947	2,737
Middletown city	30,345	9,983	7,116	424	1,165	14	7,284	4,359	13,243	17,102
Minisink town	4,621	3,829	177	8	49	0	188	370	618	4,003
Unionville village	592	505	27	0	4	0	23	33	53	539
Monroe town	21,387	13,246	1,685	137	1,221	6	2,833	2,259	5,342	16,045
Harriman village (total)*	2,714	1,247	495	9	258	5	364	336	783	1,931
Monroe village	9,343	5,528	699	64	530	0	1,544	978	2,790	6,553
Montgomery town	23,322	16,894	1,842	117	414	6	1,562	2,487	4,320	19,002
Maybrook village	3,150	1,930	461	11	43	0	286	419	803	2,347
Montgomery village	3,834	2,896	275	9	61	0	181	412	620	3,214
Walden village	6,818	4,533	680	55	130	5	588	827	1,596	5,222
Mount Hope town	6,537	4,474	824	28	312	0	387	512	1,143	5,394
Otisville village	969	719	52	3	72	0	34	89	159	810
Newburgh city	28,856	6,554	8,167	656	260	24	9,737	3,458	15,085	13,771
Newburgh town	31,985	19,719	4,462	281	948	5	3,084	3,486	7,066	24,919
New Windsor town	27,805	15,819	4,346	194	1,084	21	3,109	3,232	7,100	20,705
Palm Tree town	32,954	23,305	58	20	18	14	8,803	736	465	32,489
Kiryas Joel village	32,954	23,305	58	20	18	14	8,803	736	465	32,489
Port Jervis city	8,775	6,201	803	47	187	2	606	929	1,311	7,464
Tuxedo town	3,811	2,948	186	3	193	0	183	298	466	3,345
Tuxedo Park village	645	535	7	0	47	0	6	50	41	604
Wallkill town	30,486	14,858	6,244	250	1,320	16	4,025	3,773	8,492	21,994
Warwick town	32,027	25,384	1,377	141	643	7	1,643	2,832	4,429	27,598
Florida village	2,888	2,116	236	18	71	0	166	281	510	2,378
Greenwood Lake village	2,994	2,452	50	11	41	4	130	306	413	2,581
Warwick village	6,652	5,568	182	36	94	0	247	525	826	5,826
Wawayanda town	7,534	5,546	498	22	194	0	567	707	1,335	6,199
Woodbury town	12,197	7,446	1,121	93	827	18	1,487	1,205	2,657	9,540
Woodbury village	11,526	7,226	942	92	720	15	1,389	1,142	2,458	9,068

Note: Town totals include Village totals
**: The Village of Harriman population is included entirely within the Town of Monroe for this Table*
Source: United States Census Bureau 2020 Decennial Census, PL94-171 Data Release https://data.census.gov/cedsci/table?q=population&g=0500000US36071&tid=DECENNIALPL2020.P1

Table 6

Demographic Profile of Public-School Districts in Orange County, 2020-2021

School District	Racial/ Ethnic Origin of Students Enrolled				Drop-Out and Four-Year Graduation Rate	
	Asian or Native Hawaiian/ Pacific Islander # (%)	Non-Hispanic Black # (%)	Hispanic # (%)	Non-Hispanic White # (%)	Drop-Out # (%)	Four-Year Graduation Rate # (%)
Chester Union	47 (5%)	106 (11%)	331 (35%)	435 (46%)	1 (1%)	99 (95%)
Cornwall Central	170 (6%)	195 (6%)	647 (22%)	1882 (63%)	7 (2%)	284 (96%)
Florida Union	22 (3%)	43 (6%)	217 (29%)	444 (60%)	2 (3%)	54 (90%)
Goshen Central	114 (4%)	138 (5%)	425 (15%)	2092 (74%)	4 (2%)	220 (94%)
Greenwood Lake Union*	15 (3%)	11 (2%)	120 (27%)	284 (64%)	n/a	n/a
Highland Falls Central	11 (1%)	96 (10%)	255 (27%)	526 (56%)	7 (7%)	92 (86%)
Kyrias Joel Village*	156 (100%)	0 (0%)	0 (0%)	0 (0%)	2 (40%)	0 (0%)
Middletown City	204 (3%)	1638 (23%)	4259 (59%)	862 (12%)	44 (7%)	538 (88%)
Minisink Valley Central	73 (2%)	159 (5%)	649 (19%)	2503 (74%)	6 (2%)	310 (93%)
Monroe-Woodbury Central	464 (7%)	624 (9%)	2436 (37%)	2911 (44%)	19 (3%)	580 (91%)
Newburgh City	247 (2%)	2251 (21%)	5946 (56%)	1728 (16%)	85 (10%)	662 (76%)
Pine Bush	91 (2%)	462 (10%)	756 (16%)	3304 (70%)	9 (2%)	407 (925)
Port Jervis City	41 (2%)	199 (8%)	432 (18%)	1535 (64%)	15 (7%)	156 (77%)
Tuxedo Union	9 (4%)	21 (9%)	57 (25%)	134 (60%)	0 (0%)	16 (100%)
Valley Central (Montgomery)	65 (2%)	341 (8%)	1072 (27%)	2354 (58%)	12 (3%)	336 (91%)
Warwick Valley	81 (2%)	133 (4%)	589 (16%)	2651 (74%)	1 (0%)	325 (96%)
Washingtonville	86 (2%)	352 (9%)	1060 (28%)	2117 (57%)	10 (3%)	326 (94%)

**: Kyrias Joel Village and Greenwood Lake Union Free School Districts do not have high schools Source: New York State Education Department, School Report Card for School Year 2020-2021 https://data.nysed.gov/*

Table 7

English Language Learners and Economically Disadvantaged Students by School District, Orange County, 2020-2021

School District	Total Students (#)	English Language Learners # (%)	Economically Disadvantaged # (%)
Chester Union	951	54 (6%)	365 (38%)
Cornwall Central	3,005	62 (2%)	709 (25%)
Florida Union	744	47 (6%)	260 (35%)
Goshen Central	2,823	118 (4%)	802 (28%)
Greenwood Lake Union	446	10 (2%)	138 (31%)
Highland Falls Central	940	63 (7%)	391 (42%)
Kyrias Joel Village	156	128 (82%)	131 (84%)
Middletown City	7,235	840 (12%)	5453 (75%)
Minisink Valley Central	3,391	88 (3%)	1050 (31%)
Monroe-Woodbury Central	6,658	413 (6%)	2313 (35%)
Newburgh City	10,634	1719 (16%)	6710 (63%)
Pine Bush	4,715	159 (3%)	2547 (54%)
Port Jervis City	2,393	35 (1%)	1375 (57%)
Tuxedo Union	225	17 (8%)	68 (30%)
Valley Central (Montgomery)	3,195	90 (3%)	995 (31%)
Warwick Valley	3,578	55 (2%)	721 (20%)
Washingtonville	3,724	107 (3%)	1171 (31%)

Source: New York State Education Department, School Report Card for School Year 2020-2021 https://data.nysed.gov/

Of note in table 7, The Newburgh Enlarged City School District, inclusive of more than 10,000 students has 63% of its students identifying as Economically Disadvantaged. The city of Newburgh has the third highest incidence of Economically Disadvantaged Students by School District in the County, with the village of Kiryas Joel at 84%, and City of Middletown at 75%.

Table 8

Orange County Municipality Population by Race and Ethnicity, 2020

Geographic Area	Level of Schooling Achieved														
	Total Population Age 25+	< 9th Grade		9-12th Grade, No Diploma		High School Graduate		Some College, No Degree		Associate's Degree		Bachelor's Degree		Graduate/ Professional Degree	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
Orange County															
Blooming Grove town															
South Blooming Grove village	1969	33	1.7%	114	5.8%	690	35.0%	496	25.2%	142	7.2%	274	13.9%	220	11.2%
Washingtonville village	3683	93	2.5%	229	6.2%	958	26.0%	837	22.7%	444	12.1%	735	20.0%	387	10.5%
Chester town															
Chester village	2872	119	4.1%	225	7.8%	901	31.4%	664	23.1%	223	7.8%	490	17.1%	250	8.7%
Cornwall town															
Cornwall-on-Hudson village															
Crawford town															
Deerpark town															
Goshen town															
Goshen village	3810	170	4.5%	201	5.3%	858	22.5%	635	16.7%	386	10.1%	868	22.8%	692	18.2%
Greenville town															
Hamptonburgh town															
Highlands town															
Highland Falls village	2732	45	1.6%	164	6.0%	724	26.5%	406	14.9%	196	7.2%	665	24.3%	532	19.5%
Middletown city															
Minisink town															
Unionville village	368	8	2.2%	15	4.1%	132	35.9%	51	13.9%	66	17.9%	52	14.1%	44	12.0%
Monroe town															
Harriman village (total)*	1879	51	2.7%	88	4.7%	529	28.2%	343	18.3%	277	14.7%	428	22.8%	163	8.7%
Monroe village	5231	362	6.9%	369	7.1%	1005	19.2%	837	16.0%	484	9.3%	1386	26.5%	788	15.1%
Montgomery town															
Maybrook village	2476	131	5.3%	139	5.6%	680	27.5%	585	23.6%	372	15.0%	403	16.3%	166	6.7%
Montgomery village	2961	91	3.1%	171	5.8%	1037	35.0%	550	18.6%	235	7.9%	599	20.2%	278	9.4%
Walden village	4020	92	2.3%	318	7.9%	1406	35.0%	791	19.7%	419	10.4%	473	11.8%	521	13.0%
Mount Hope town															
Otisville village	824	7	0.8%	71	8.6%	234	28.4%	178	21.6%	107	13.0%	135	16.4%	92	11.2%
Newburgh city															
Newburgh town															
New Windsor town															
Palm Tree town															
Kiryas Joel village	6273	361	5.8%	1781	28.4%	2679	42.7%	842	13.4%	249	4.0%	337	5.4%	24	0.4%
Port Jervis city															
Tuxedo town															
Tuxedo Park village	419	10	2.4%	2	0.5%	25	6.0%	60	14.3%	13	3.1%	178	42.5%	131	31.3%
Wallkill town															
Warwick town															
Florida village	1991	25	1.3%	71	3.6%	696	35.0%	486	24.4%	214	10.7%	325	16.3%	174	8.7%
Greenwood Lake village	2275	71	3.1%	299	13.1%	583	25.6%	570	25.1%	291	12.8%	293	12.9%	168	7.4%
Warwick village	5209	67	1.3%	264	5.1%	1656	31.8%	945	18.1%	436	8.4%	926	17.8%	915	17.6%
Wawayanda town															
Woodbury town															
Woodbury village	6723	136	2.0%	225	3.3%	1231	18.3%	1439	21.4%	795	11.8%	1618	24.1%	1279	19.0%

Note: Town totals include Village totals: The Village of Harriman population is included entirely within the Town of Monroe for this Table*
Note: The category "High School Diploma" includes those who have received a GED or other equivalent document

Source: United States Census Bureau, American Community Survey 2015-19 5-Year Estimates, Table S1501 Educational Attainment https://data.census.gov/cedsci/table?q=S1501&g=0500000US36071

Prioritized Health Needs to Be Addressed:

Throughout the development of the 2022-2024 Community Needs Assessment process, Montefiore St. Luke's Cornwall worked collaboratively with the Orange County Department of Health among many other community partners as mentioned above, to determine the main health challenges that the communities in which MSLC serves, include. This community specifically includes Orange County, New York.

The top five leading causes of death in Orange County are:

1. Heart Disease
2. Cancer
3. Unintentional Injury
4. Chronic Lower Respiratory Disease (CLRD)
5. Alzheimer's Disease

According to the Orange County Community Health Assessment 2022-2024, morbidity measures illness and is defined in terms of incidence or prevalence. Incidence is the number of new cases of a disease divided by the number of people at risk for the disease. Prevalence is the total number of cases of disease existing in a population during a specific period of time. Mortality is another term for death. A mortality rate is the number of deaths due to a disease divided by the total population. Table 9 lists the top five causes of mortality in Orange County, as well as New York State and New York State excluding New York City. In 2019, the leading cause of death in both Orange County and New York State was heart disease. The second leading cause of death in Orange County was Cancer, followed by unintentional injury, Chronic Lower Respiratory Disease (CLRD), and Alzheimer's Disease. When looking within specific age groups, the leading causes of death differ. For example, accidents are the leading cause of death for those aged <45, whereas malignant neoplasms and diseases of the heart take over as the leading cause for those 45 and older. Cause of death also differs by gender. For example, deaths from accidents and heart disease are consistently more common among males than females, and malignant neoplasms are more common amongst females. See Table 10 and Table 11 for a breakdown of the leading causes of death ranked within age groups by gender.

Table 9

Top Five Leading Causes of Death in the Mid-Hudson Region Counties and NYS, 2019 (Rate per 100,000 population)

	Total Deaths	#1 Cause of Death	#2 Cause of Death	#3 Cause of Death	#4 Cause of Death	#5 Cause of Death
Orange		**Heart Disease**	**Cancer**	**Unintentional Injury**	**CLRD**	**Alzheimer's**
	No.: 2,773	No.: 636	No.: 621	No.: 164	No.: 144	No.: 112
	Rate: 675.2	Rate: 154.7	Rate: 145.6	Rate: 43.9	Rate: 34.5	Rate: 28.0
NYS		**Heart Disease**	**Cancer**	**Unintentional Injury**	**CLRD**	**Stroke**
	No.: 156,405	No.: 43,472	No.: 33,418	No.: 7,308	No.: 7,065	No.: 6,125
	Rate: 622.4	Rate: 167.1	Rate: 133.6	Rate: 33.8	Rate: 27.7	Rate: 23.9
NYS excl NYS		**Heart Disease**	**Cancer**	**CLRD**	**Unintentional Injury**	**Stroke**
	No.: 102,334	No.: 25,602	No.: 21,782	No.: 5,255	No.: 4,832	No.: 4,225
	Rate: 673.5	Rate: 161.3	Rate: 143.1	Rate: 33.7	Rate: 39.6	Rate: 27.0

**: Kyrias Joel Village and Greenwood Lake Union Free School Districts do not have high schools*
Source: New York State Education Department, School Report Card for School Year 2020-2021 https://data.nysed.gov/

Table 10

Number of Deaths from Leading Causes by Gender, 2016-2019

	Number of Deaths		
Cause of Death	**Male**	**Female**	**Total**
All Causes	**5464**	**5375**	**10839**
Disease of the heart	1345	1225	2570
Malignant Neoplasms	1210	1237	2447
Accident	483	205	688
CLRD	259	312	571
Cerebrovascular disease	175	232	407
Alzheimer's Disease	124	267	391
Dementia	111	272	383
Diabetes	136	127	263
Pneumonia	122	138	260
Septicemia	102	134	236
Suicide	115	25	140
Cirrhosis of liver	80	42	122
Other	1202	1159	2361

**: Kyrias Joel Village and Greenwood Lake Union Free School Districts do not have high schools*
Source: New York State Education Department, School Report Card for School Year 2020-2021 https://data.nysed.gov/

Table 11

Number of Deaths from Leading Causes, Ranked within Age Groups by Gender, 2016-2019

		Number of Deaths		
Age	**Cause of Death**	**Male**	**Female**	**Total**
<10	**All Causes**	**40**	**34**	**83**
	Total Accidents	s	s	s
	Extreme Immaturity of Newborn	s	s	s
	Malignant Neoplasms	s	s	s
	Unknown Cause	s	s	s
	Condition Perinatal Period	0	s	s
	SIDS	s	0	s
	Cerebrovascular	s	s	s
	Other	27	23	50

		Number of Deaths		
Age	**Cause of Death**	**Male**	**Female**	**Total**
45-54	**All Causes**	**361**	**243**	**604**
	Malignant Neoplasms	76	101	177
	Diseases of the Heart	77	29	106
	Total Accidents	62	25	87
	Suicide	27	s	31
	Cirrhosis of the liver	14	s	17
	Diabetes	10	s	16
	COPD/CLRD	s	s	13
	Pneumonia	s	s	12
	Cerebrovascular	s	s	10
	Septicemia	s	s	s
	Homicide	s	s	s
	Other	72	50	122

Table 11 (continued)

10--19	**All Causes**	**29**	**20**	**49**	55-64	**All Causes**	**815**	**560**	**1375**
	Total Accidents	12	s	14		Malignant Neoplasms	218	253	471
	Homicide	s	s	s		Diseases of the Heart	184	83	267
	Suicide	s	s	s		Total Accidents	70	23	93
	Malignant Neoplasms	s	s	s		Cirrhosis of the liver	33	14	47
	Cerebrovascular	s	0	s		COPD/CLRD	25	21	46
	Pneumonia	0	s	s		Diabetes	25	15	40
	Other	11	12	23		Suicide	29	s	35
						Cerebrovascular Disease	19	12	31
						Septicemia	14	17	31
						Pneumonia	13	11	24
						Other	185	105	290
20-24	**All Causes**	**66**	**21**	**87**	65-74	**All Causes**	**1125**	**858**	**1983**
	Total Accidents	37	s	45		Malignant Neoplasms	387	311	698
	Suicide	s	s	10		Diseases of the Heart	262	160	422
	Homicide	s	s	s		COPD/CLRD	66	78	144
	Malignant Neoplasms	s	s	5		Total Accidents	39	26	65
	COPD/CLRD	s	0	s		Cerebrovascular Disease	31	27	58
	Diseases of the Heart	s	0	s		Diabetes	37	18	55
	Other	12	s	19		Pneumonia	24	20	44
						Septicemia	21	21	42
						AD/D	23	22	45
						Cirrhosis of the Liver	16	s	23
						Suicide	15	s	19
						Other	204	164	368
25-34	**All Causes**	**190**	**65**	**255**	75-84	**All Causes**	**1319**	**1253**	**2572**
	Total Accidents	130	24	154		Malignant Neoplasms	308	314	622
	Suicide	16	s	18		Diseases of the Heart	347	263	610
	Malignant Neoplasms	s	s	12		COPD/CLRD	74	90	164
	Diseases of the Heart	s	s	11		Cerebrovascular Disease	62	78	140
	Homicide and Legal Intervention	s	0	s		Alzheimer's	43	53	96
	Diabetes	s	0	s		Dementia	31	55	86
	Septicemia	0	s	s		Pneumonia	39	29	68
	COPD/CLRD	0	s	s		Diabetes	34	34	68
	Substance Abuse	0	s	s		Septicemia	33	35	68
	Other	23	24	47		Total Accidents	33	27	60
						Other	315	275	590
35-44	**All Causes**	**177**	**116**	**293**	85+	**All Causes**	**1342**	**2205**	**3547**
	Total Accidents	72	27	99		Diseases of the Heart	450	672	1122
	Malignant Neoplasms	12	39	51		Malignant Neoplasms	197	206	403
	Diseases of the Heart	19	11	30		Dementia	68	205	273
	Suicide	12	s	17		Alzheimer's	65	200	265
	Homicide/Legal	s	s	10		COPD/CLRD	87	115	202
	Diabetes	s	s	s		Cerebrovascular Disease	55	107	162
	Cirrhosis of the Liver	s	s	s		Pneumonia	40	70	110
	Septicemia	s	s	s		Septicemia	26	54	80
	Cerebrovascular	s	s	s		Diabetes	22	53	75
	Pneumonia	0	s	s		Total Accidents	24	38	62
	Other	38	26	64		Other	308	485	793

2018-2019 data does not include Orange County deaths recorded in NYC COPD/CLRD: Chronic Obstructive Pulmonary Disease/ Chronic Lower Respiratory Diseases: Data are suppressed. The data do not meet the criteria for confidentiality
Source: NYS Department of Health, Bureau of Vital Statistics and the NYC DOHMH, Office of Vital Statistics. Created by the School of Public Health, University at Albany, 2021

All-Cause Mortality

When considering all causes of death, Orange County had an average crude mortality rate of 723.2 per 100,000 population from 2016-2019 and an age-adjusted rate of 680.5 from 2017-2019. When adjusting for age, the all-cause mortality rate in Orange County exceeds that of NYS exclude New York City. Unsurprisingly, the all-cause mortality rate is the highest for those aged 85+. The rate for most age groups has not changed much over time, but for those aged 75-84, the rate has slightly increased and for those aged 65-74, slightly decreased. When stratifying by race/ethnicity the crude all-cause mortality rate is consistently highest for the non-Hispanic White population and lowest for the Hispanic and "Other" populations. However, when adjusting for age, the non-Hispanic Black population faces the highest mortality rate, and the Asian/Pacific Islander population has the lowest. Those who live in the 12771-zip code suffer the highest all-cause mortality rates in the county, followed by those who live in 10940. Zip code 10950 has the lowest all-cause mortality rate. This trend has remained consistent over time [See Table 12, Figure 5, Figure 6].

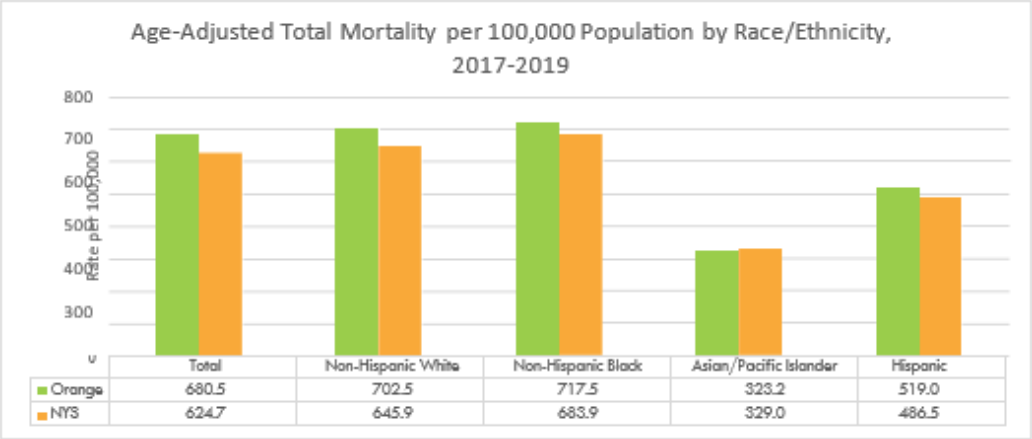
Table 12

All-Cause Mortality per 100,000 Population by Age, Race/Ethnicity, and Zip Code 2016-2019

	2016		2017		2018		2019		Total 2016-2019	
Region	#	Rate	#	Rate	#	Rate	#	Rate	Total #	Avg. Rate
Orange County Total	2765	734.9	2743	725.3	2754	728.1	2677	704.3	10,939	723.2
NYS excl. NYC	98,974	880.9	100,587	895.0	101,494	908.2	101,132	906.8	402,187	897.7
Age Intervals										
<1	24	504.2	15	308.3	16	362.2	15	332.4	70	376.8
1-9	27	56.4	13	27.6	19	40.4	15	31.7	74	39.0
10-19	13	22.9	12	21.0	17	29.8	7	12.3	49	21.5
20-24	18	62.9	21	73.0	18	62.6	30	104.8	87	75.8
25-34	51	121.3	74	172.6	70	162.0	60	136.4	255	148.1
35-44	85	182.1	72	156.5	68	150.3	68	150.7	293	159.9
45-54	166	294.5	153	274.5	153	280.3	132	246.4	604	273.9
55-64	351	764.4	361	771.1	330	695.6	333	691.6	1375	730.7
65-74	535	1939.6	513	1780.3	484	1623.9	451	1470.8	1983	1703.6
75-84	603	4661.8	641	4783.2	665	4727.0	663	4560.1	2572	4683.0
85+	892	13387.4	868	12774.1	914	13892.7	873	12937.2	3547	13247.8
Race/Ethnicity										
Non-Hispanic White	2259	909.6	2229	901.5	2254	917.7	2130	872.3	8872	900.3
Non-Hispanic Black	245	690.6	213	582.1	246	660.5	233	613.3	937	636.6
Hispanic	208	285.4	237	317.5	223	294.6	232	297.9	900	298.8
Other	53	271.2	64	325.3	31	157.6	82	409.3	230	290.8
Zip Code										
10940	401	815.1	395	794.9	395	805.0	414	862.1	1605	819.3
10950	174	350.0	195	386.9	167	328.1	162	317.8	698	345.7
12550	426	780.0	393	715.4	395	718.3	412	747.1	1626	740.2
12771	151	1073.9	151	1063.3	161	1091.0	151	1021.1	614	1062.3

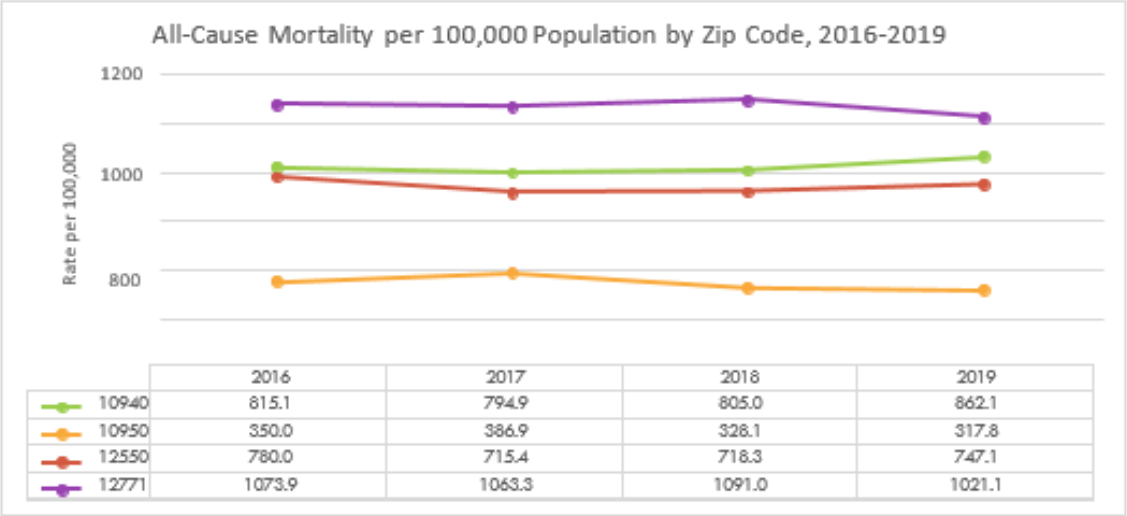
2018-2019 data does not include Orange County births or deaths recorded in NYC All rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics. Created by the School of Public Health, University at Albany, 2021

Figure 5



Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022 https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Figure 6



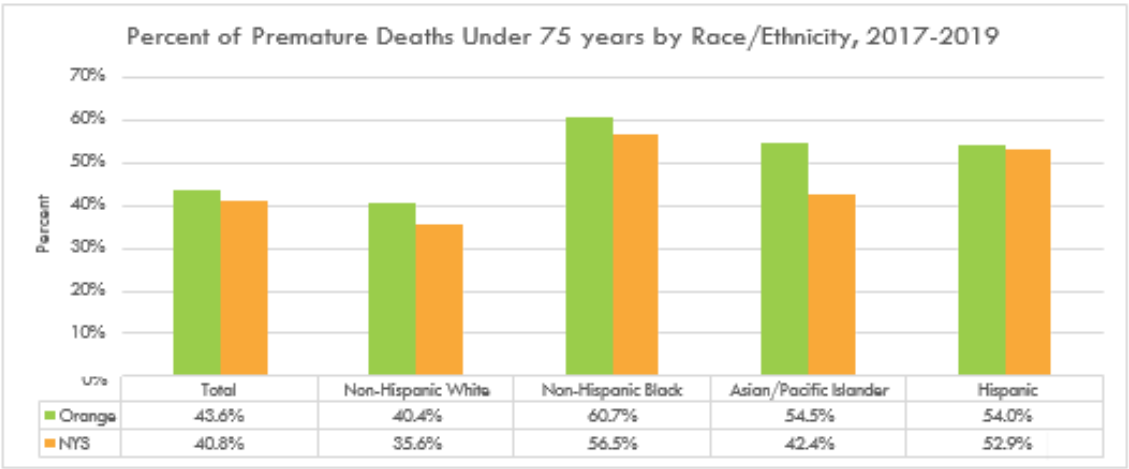
	2016	2017	2018	2019
10940	815.1	794.9	805.0	862.1
10950	350.0	386.9	328.1	317.8
12550	780.0	715.4	718.3	747.1
12771	1073.9	1063.3	1091.0	1021.1

2018-2019 data does not include Orange County births or deaths recorded in NYC Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
Source: School of Public Health, University at Albany, 2021 Original Data Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics

Premature Death

The percentage of premature deaths for those younger than 75 years of age in Orange County is 43.6%, slightly higher than the total New York State rate of 40.8%. When stratifying across race/ethnicity, non-Hispanic Black populations face the largest percentage of premature deaths, followed by Asian/Pacific Islander and Hispanic populations [see Figure 7].

Figure 7



	Total	Non-Hispanic White	Non-Hispanic Black	Asian/Pacific Islander	Hispanic
Orange	43.6%	40.4%	60.7%	54.5%	54.0%
NYS	40.8%	35.6%	56.5%	42.4%	52.9%

Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

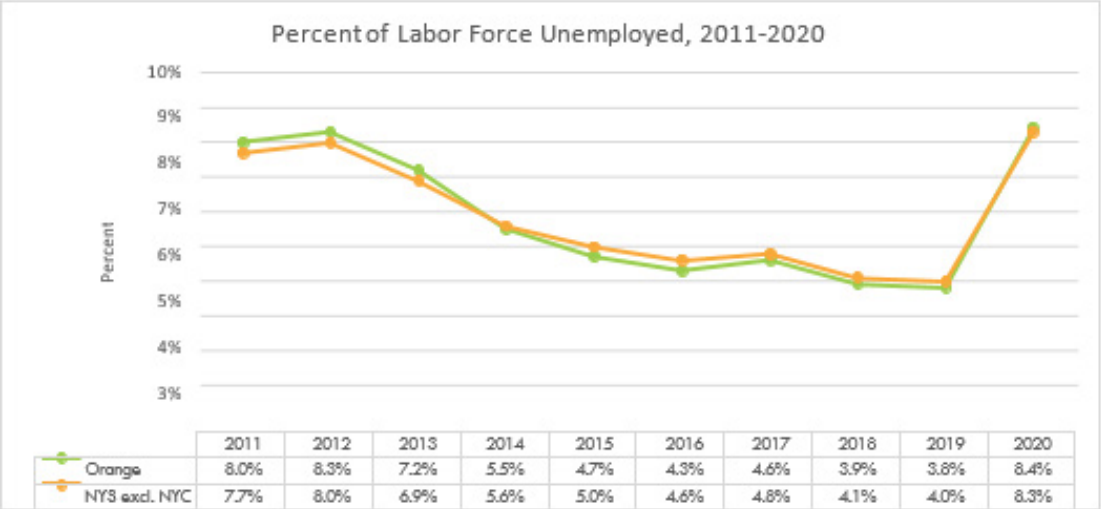
Economic Stability:

Employment

Occupation and employment affect health through many avenues. Those who are continuously employed tend to have better health outcomes in both mental and physical health conditions than those who are unemployed. Even within employed populations, there can be disparities between those with high-paying and low-paying jobs. Income can affect where a family is able to live, the kind of food they eat, insurance coverage and almost every other social determinant of health. Unemployment rates in Orange County saw an overall decrease from 2011 to 2019, dropping from 8.0% to 3.8%. From 2019 to 2020, the percentage of the labor force unemployed increased dramatically up to 8.4%, the highest it has been in the 9-year span. The percentage of the labor force unemployed in NY State exclude New York City has followed the same trend over time [see Figure 8].

5 Robert Wood Johnson Foundation, March 2013, https://www.rwjf.org/en/library/research/2012/12/how-does-employment--or-unemployment--affect-health-.html, accessed July 2022

Figure 8



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Orange	8.0%	8.3%	7.2%	5.5%	4.7%	4.3%	4.6%	3.9%	3.8%	8.4%
NYS excl. NYC	7.7%	8.0%	6.9%	5.6%	5.0%	4.6%	4.8%	4.1%	4.0%	8.3%

Note: Single-year estimates for both Orange County and NYS excl. NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022 https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Ng97&cos=33#pagetitle
Original Data Source: United States Department of Labor, Updated as of July 2021

Poverty

The U.S. Census Bureau defines a family, and every individual in it, as being in poverty when their income is less than the family's threshold. See Table 13 for the defined thresholds, which do not vary geographically.

Table 13

Poverty Threshold for 2020 by Size of Family and Number of Related Children Under 18 Years

Size of family unit	Related children under 18 years								
	None	One	Two	Three	Four	Five	Six	Seven	Eight or more
One person (unrelated individual):									
Under age 65	$13,465								
Aged 65 and older	$12,413								
Two people:									
Householder under age 65	$17,331	$17,839							
Householder aged 65 and older	$15,644	$17,771							
Three people	$20,244	$20,832	$20,852						
Four people	$26,695	$27,131	$26,246	$26,338					
Five people	$32,193	$32,661	$31,661	$30,887	$30,414				
Six people	$37,027	$37,174	$36,408	$35,674	$34,582	$33,935			
Seven people	$42,605	$42,871	$41,954	$41,314	$40,124	$38,734	$37,210		
Eight people	$47,650	$48,071	$47,205	$46,447	$45,371	$44,006	$42,585	$42,224	
Nine people or more	$57,319	$57,597	$56,831	$56,188	$55,132	$53,679	$52,366	$52,040	$50,035

Source: U.S. Census Bureau, Updated as of May 2022
https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html

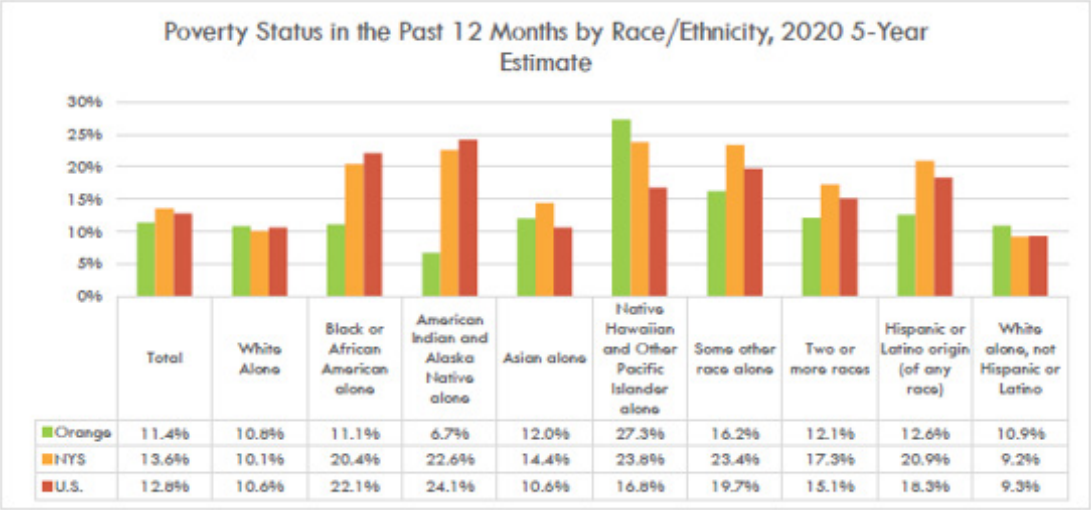
Poverty and health are closely linked, with those in poverty often shown to have an increased risk of chronic and mental health conditions, mortality, and lower life expectancies.

"New York State Community Action Association's Annual Poverty Report (2019) breaks down poverty rates and statistics by each county. "

Over 11% (11.4%) of people in Orange County during 2020 had poverty status, which is slightly lower than New York State and national rates. There were disparities in poverty between racial/ethnic groups in the county. Native Hawaiian/Other Pacific Islander populations faced the highest rates of poverty, at 27.3%. This group also has the highest rates of poverty in New York State (23.8%). American Indian/Alaska Native populations had the lowest poverty rates in Orange County (6.7%), much lower than the poverty status rate for American Indian/Alaskan Native populations statewide (22.6%) and nationally (24.1%). Family poverty status follows a similar trend. Native Hawaiian/Other Pacific Islander populations had the highest percentage of families with poverty status in Orange County, while American Indian/Alaska Native families had the lowest [see Figure 9, Figure 10].

https://www.nyscommunityaction.org/assets/docs/PovRep2021/Poverty%20Report_21_web.pdf

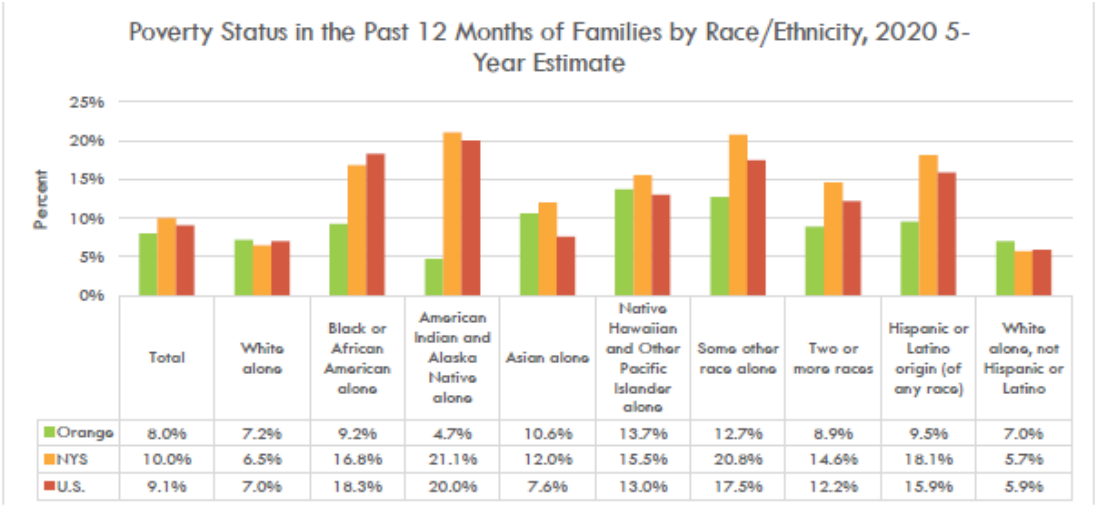
Figure 9



	Total	White Alone	Black or African American alone	American Indian and Alaska Native alone	Asian alone	Native Hawaiian and Other Pacific Islander alone	Some other race alone	Two or more races	Hispanic or Latino origin (of any race)	White alone, not Hispanic or Latino
Orange	11.4%	10.8%	11.1%	6.7%	12.0%	27.3%	16.2%	12.1%	12.6%	10.9%
NYS	13.6%	10.1%	20.4%	22.6%	14.4%	23.8%	23.4%	17.3%	20.9%	9.2%
U.S.	12.8%	10.6%	22.1%	24.1%	10.6%	16.8%	19.7%	15.1%	18.3%	9.3%

Source: U.S. Census Bureau, 2015-2020 American Community Survey, 5-Year Estimates
https://data.census.gov/cedsci/table?q=Poverty&g=0100000US_0400000US36_0500000US36071&tid=ACSST5Y2020.S1701

Figure 10

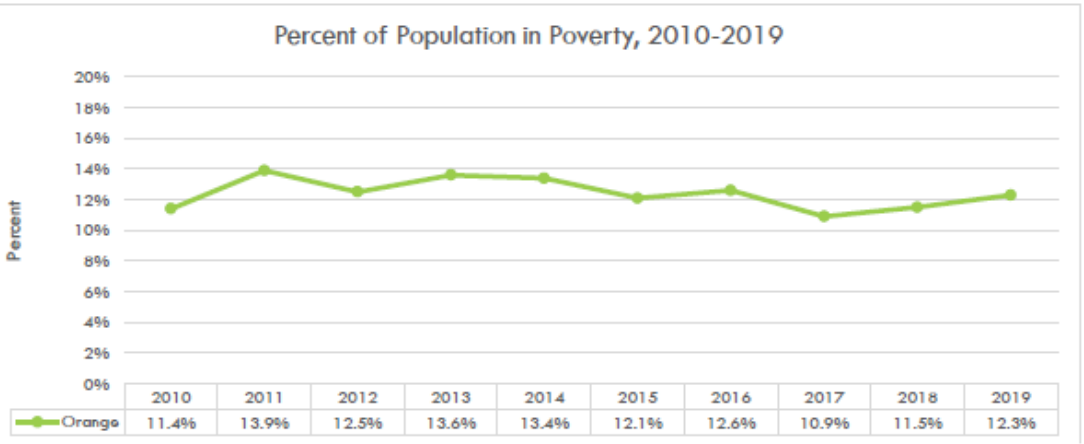


	Total	White alone	Black or African American alone	American Indian and Alaska Native alone	Asian alone	Native Hawaiian and Other Pacific Islander alone	Some other race alone	Two or more races	Hispanic or Latino origin (of any race)	White alone, not Hispanic or Latino
Orange	8.0%	7.2%	9.2%	4.7%	10.6%	13.7%	12.7%	8.9%	9.5%	7.0%
NYS	10.0%	6.5%	16.8%	21.1%	12.0%	15.5%	20.8%	14.6%	18.1%	5.7%
U.S.	9.1%	7.0%	18.3%	20.0%	7.6%	13.0%	17.5%	12.2%	15.9%	5.9%

Source: U.S. Census Bureau, 2015-2020 American Community Survey, 5-Year Estimates
https://data.census.gov/cedsci/table?q=Poverty&g=0100000US_0400000US36_0500000US36071&tid=ACSST5Y2020.S1702

Poverty rates have fluctuated in Orange County from 2010-2019. From 2011 – 2017, there was an overall decrease in poverty. However, these rates increased from 2017-2019. See figure 11. The percentage of children (aged <18 years) below poverty has followed the same trend. There was an overall decreasing trend until 2017, and since then the percentage or children below the poverty level has steadily increased (see figure 12).

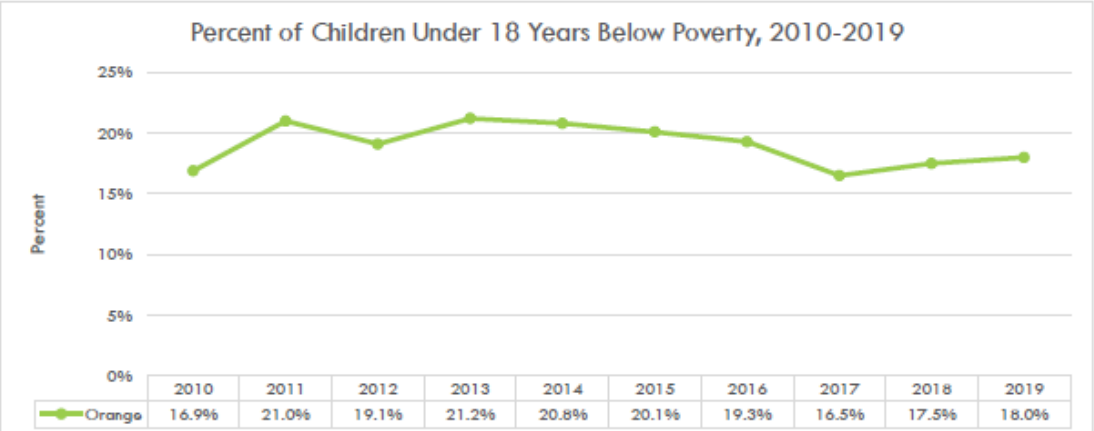
Figure 11



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Orange	11.4%	13.9%	12.5%	13.6%	13.4%	12.1%	12.6%	10.9%	11.5%	12.3%

Note: Single-year estimates are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), updated as of February 2022 https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Ng98&cos=33#pagetitle

Figure 12



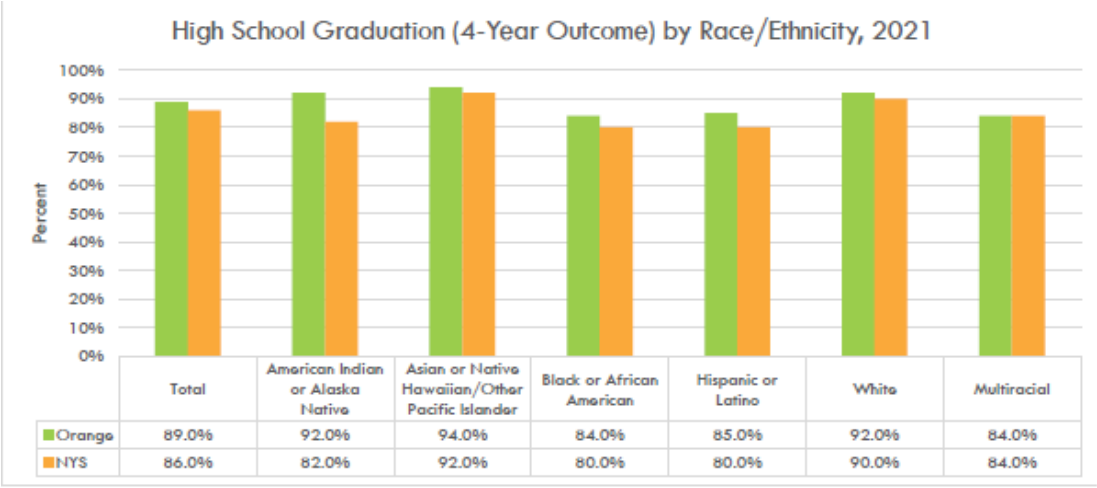
Note: Single-year estimates are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Ng99&cos=33#pagetitle
Original Data Source: U.S. Census Bureau, Updated as of December 2020

Education:

High School Graduation

Obtaining a high school diploma is tied with higher lifetime earnings, as well as better health outcomes. Those who have dropped out of high school before graduating have an increased risk of premature death and are more likely to report at least one chronic health condition, and are more likely to be in poverty, when compared to those who have graduated.
In Orange County, the total high school graduation rate was 89.0% in 2021. This is slightly higher than the high school graduation rate in all of NY state, which is 86.0%. Disparities in graduation rates exist between racial and ethnic groups. The Asian or Native Hawaiian/Other Pacific Islander population in Orange County had the highest high school graduation rate in 2021 (94.0%), followed by the American Indian/Alaskan Native and non-Hispanic White populations, which both had a rate of 84.0%. This trend was similar to that in NY state, except those American Indian/Alaska Native students had a much lower graduation rate at the state level (82.0%) [see Figure 13].

Figure 13



Source: New York State Education Department, Updated as of August 2021
https://data.nysed.gov/gradrate.php?year=2021&state=yes

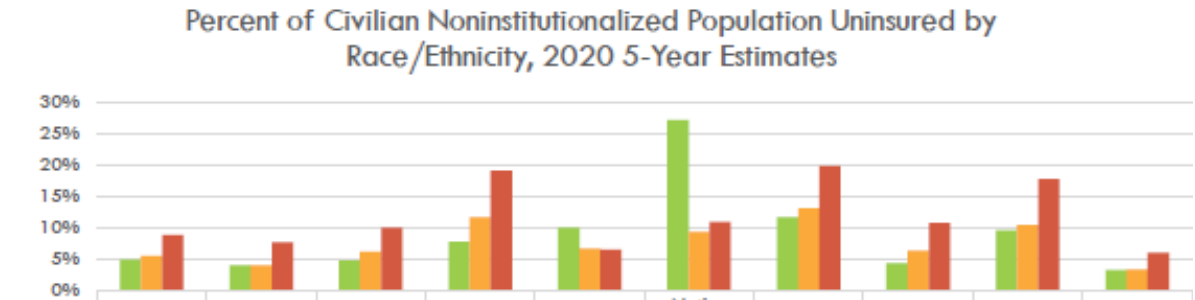
Health Care Access and Usage

Health Insurance Coverage

Insurance coverage is one of the largest factors affecting health care access. People without health insurance are less likely to access medical services than those who are insured. Having health insurance increases health care access and health monitoring which prevents entrance into the medical system when conditions have gotten more severe and expensive. Several government programs, such as Medicaid and the Children's Health Insurance Program help provide low and no-cost insurance to children who qualify. This helps lower the rates of uninsured children.

4.8% of the civilian noninstitutionalized population in Orange County is uninsured. This is lower than the percent of uninsured in both NY State and the U.S. (5.4% and 8.7%, respectively). When stratifying by race/ethnicity, there are large inequities in insurance coverage in Orange County. Native Hawaiian/Other Pacific Islander populations have a strikingly higher percent of uninsured individuals (27.1%) when compared to other races/ethnicities. This is also much higher than the percent of uninsured for the Native Hawaiian/Other Pacific Islander population at the NY State and national levels (9.3% and 10.8%, respectively). Non-Hispanic White populations have the lowest percent of uninsured in Orange County, at 3.2% [see Figure 14].

Figure 14



	Total	White Alone	Black or African American alone	American Indian and Alaska Native alone	Asian alone	Native Hawaiian and Other Pacific Islander alone	Some other race alone	Two or more races	Hispanic or Latino origin (of any race)	White alone, not Hispanic or Latino
Orange	4.8%	3.9%	4.7%	7.7%	9.9%	27.1%	11.6%	4.3%	9.5%	3.2%
NYS	5.4%	3.9%	6.1%	11.6%	6.6%	9.3%	13.0%	6.2%	10.3%	3.3%
U.S.	8.7%	7.6%	9.9%	19.0%	6.4%	10.8%	19.8%	10.7%	17.7%	5.9%

Source: U.S. Census Bureau, 2015-2020 American Community Survey, 5-Year Estimates
https://data.census.gov/cedsci/table?q=health%20insurance&g=0100000US_0400000US36_0500000US36071&tid=ACSST5Y2020.S2701

Neighborhood and Built Environment

Lead Poisoning

Lead affects every system of the body, and there is no safe blood lead level. Children are especially vulnerable to the negative impacts of lead exposure which can lead to slowed growth and development; damage to the brain and nervous system; behavioral problems; and hearing and speech problems.

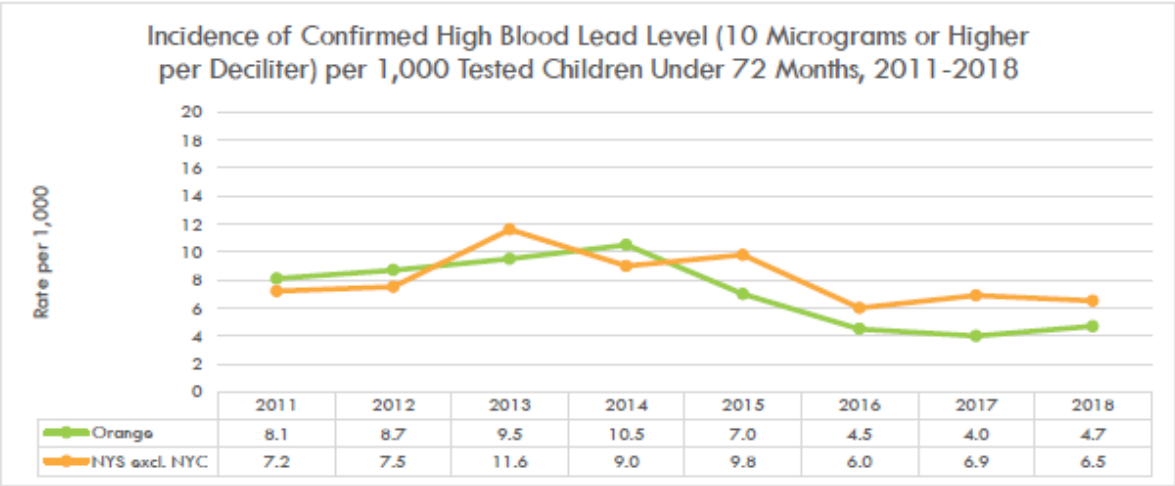
Lead exposure can occur through air, food, water, and dust. Sources of lead can include gasoline, consumer products, and solder. For children, lead based paint is the most common source of lead exposure.

Certain groups of children are at a higher risk for lead exposure than others, often due to the types of housing they live in. These groups include children in low-income households, racial/ethnic minorities, recent immigrants, and those whose parents are exposed to lead through their work.

New York State requires health care providers to test all children for lead exposure at age one and again at age two. From 2010-2019, the incidence of confirmed high blood lead level (10 micrograms or higher per deciliter) in children younger than 72 months has fluctuated in both Orange County and NY State. The high blood level incidence levels in the county steadily decreased from 2014-2017, but since 2017 there has been a slight increase [see Figure 15].

10 Office of Disease Prevention and Health Promotion, June 2019, https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants- health/interventions-resources/high-school-graduation, accessed June
11 Institute of Medicine (US) Committee on the Consequences of Uninsurance, 2002, https://www.ncbi.nlm.nih.gov/books/NBK220639/, accessed August 2022

Figure 15



	2011	2012	2013	2014	2015	2016	2017	2018
Orange	8.1	8.7	9.5	10.5	7.0	4.5	4.0	4.7
NYS excl. NYC	7.2	7.5	11.6	9.0	9.8	6.0	6.9	6.5

Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS) Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Cg28&cos=33#pagetitle
Original Data Source: 2016-2019 NYS Child Health Lead Poisoning Prevention Program

Prevent Chronic Diseases

Chronic Lower Respiratory Diseases

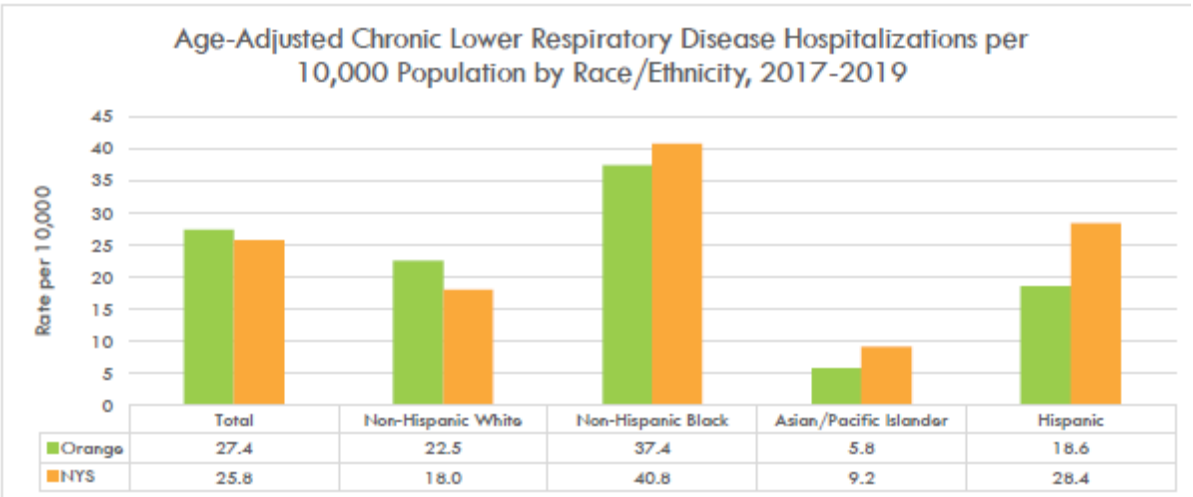
Chronic Lower Respiratory Diseases (CLRD) is a classification of diseases that affect the lungs and the respiratory tract. Some diseases include emphysema, bronchitis, asthma, and other chronic obstructive pulmonary diseases (COPD). Symptoms of CLRD include airflow constriction, leading to difficulty breathing.

From 2017-2019, Orange County had a chronic lower respiratory disease hospitalization rate of 27.4 per 10,000 population. This is slightly higher than the New York State rate of 25.8 per 10,000. Disparities were identified when stratifying CLRD hospitalization rates by race/ethnicity. Non-Hispanic Black adults had the highest CLRD hospitalization rate in the county at 37.4 per 10,000. In contrast, Asian/Pacific Islander adults had a much lower CLRD hospitalization rate than any other racial/ethnic group in the county at 5.8 per 10,000.

These rates are consistent with the New York State trends [see Figure 16].

COPD/CLRD mortality in Orange County from 2016-2019 averaged at 37.7 deaths per 100,000 population, and consistently remained lower than that in NYS excluding New York City during this time. There were also disparities in mortality rates from COPD/CLRD, however the disparities differ from hospitalizations. The non-Hispanic White population faced a much higher death rate from COPD/CLRD compared to non-Hispanic Black and Hispanic populations, at 52.1 compared to 17.7 and 8.6, respectively. Females had a slightly higher risk of both being discharged for and dying from COPD/CLRD than males. When looking within zip codes, 12771 had a significantly higher rate of COPD/CLRD mortality compared to other zip codes, averaging at 83.0 deaths per 100,000 [see Table 15, Figure 17, Figure 18, Figure 19].

Figure 16



	Total	Non-Hispanic White	Non-Hispanic Black	Asian/Pacific Islander	Hispanic
Orange	27.4	22.5	37.4	5.8	18.6
NYS	25.8	18.0	40.8	9.2	28.4

Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

12 CDC, October 2021, cdc.gov/nceh/lead/prevention/populations.htm, accessed June 2022
13 NYS Department of Health, July 2021, https://www.health.ny.gov/environmental/lead/, accessed June 202

Table 14

COPD Discharges per 10,000 Population by Gender, 2014-2017				
	Male		Female	
Region	#	Rate	#	Rate
Orange County Total	20	0.3	37	0.5
Mid-Hudson Region	218	0.5	329	0.7
NYS excl. NYC	740	0.3	974	0.4

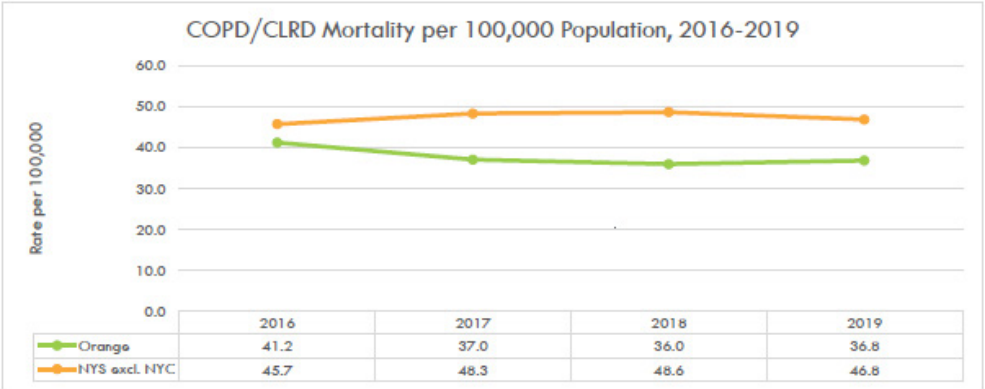
Rates are calculated using ACS 5-year population estimates
Source: 2014-2017 SPARCS DATA
Created by the School of Public Health, University at Albany, 2021

Table 15

COPD/CLRD Mortality per 100,000 Population by Gender, Race/Ethnicity, Age and Cip Code, 2016-2019										
	2016		2017		2018		2019		Total 2016-2019	
Region	#	Rate	#	Rate	#	Rate	#	Rate	Total #	Avg. Rate
Orange County Total	155	41.2	140	37.0	136	36.0	140	36.8	571	37.7
NYS excl. NYC	5,132	45.7	5,424	48.3	5,430	48.6	5,222	46.8	18,208	40.6
Age Intervals										
<1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1-9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
10-19	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
20-24	s	s	0	0.0	0	0.0	0	0.0	s	s
25-34	0	0.0	0	0.0	0	0.0	s	s	s	s
35-44	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
45-54	s	s	s	s	s	s	s	s	13	5.9
55-64	12	26.1	s	s	s	s	15	31.2	46	24.4
65-74	40	145.0	33	114.5	39	130.9	32	104.4	144	123.2
75-84	44	340.2	40	298.5	39	277.2	41	282.0	164	298.5
85+	52	780.4	55	809.4	45	684.0	50	741.0	202	754.2
Gender										
Males	75	39.8	57	30.1	61	32.2	66	34.7	259	34.2
Females	80	42.6	83	44.0	75	39.7	74	39.0	312	41.3
Race/Ethnicity										
Non-Hispanic White	142	57.2	124	50.1	122	49.7	125	51.2	513	52.1
Non-Hispanic Black	s	s	s	s	s	s	s	s	26	17.7
Hispanic	s	s	s	s	s	s	s	s	26	8.6
Other	0	0.0	s	s	s	s	s	s	s	s
Zip Code										
10940	26	52.9	14	28.2	20	40.8	26	54.1	86	43.9
10950	s	s	s	s	11	21.6	s	s	31	15.3
12550	13	23.8	21	38.2	14	25.5	17	30.8	65	29.6
12771	16	113.8	s	s	11	74.5	14	94.7	48	83.0

2018-2019 data do not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off crude live births in Orange Countys: Data are suppressed. The data do not meet the criteria for confidentiality.
Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics Created by the School of Public Health, University at Albany, 2021

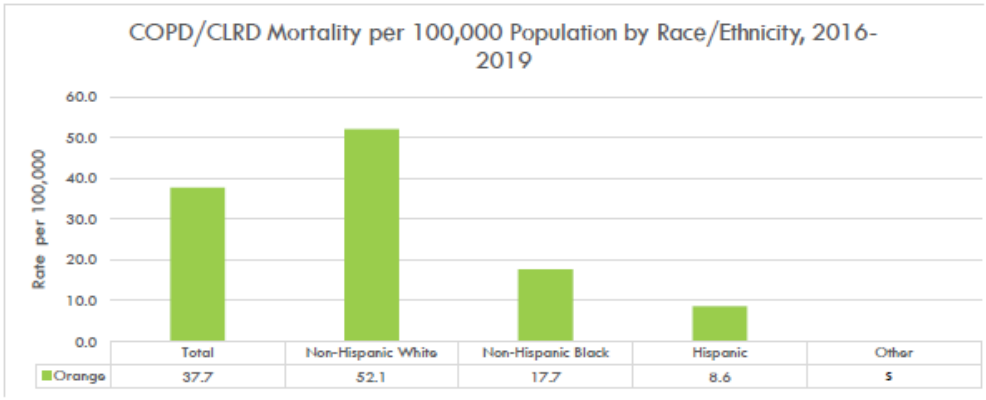
Figure 17



2018-2019 data do not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
Source: School of Public Health, University at Albany, 2021
Original Data Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics

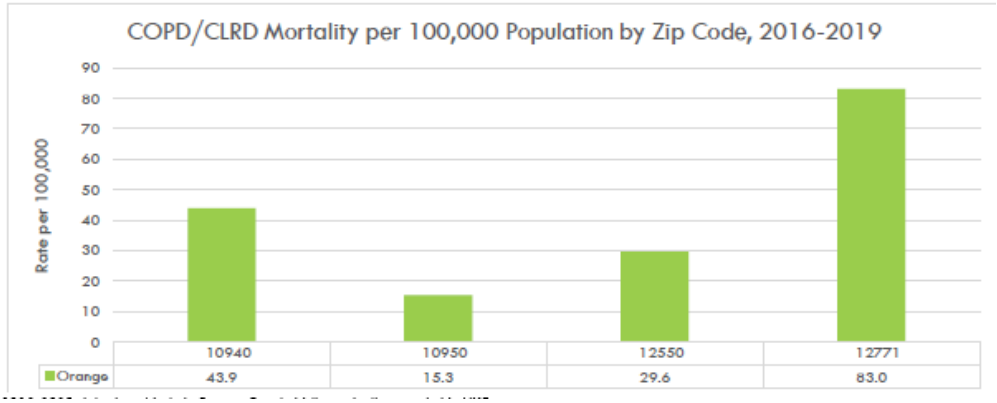
14 CDC, February 2022, https://www.cdc.gov/nchs/fastats/copd.htm, accessed June 2022

Figure 18



2018-2019 data do not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: School of Public Health, University at Albany, 2021
Original Data Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics

Figure 19



2018-2019 data do not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
Source: School of Public Health, University at Albany, 2021
Original Data Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics

Asthma

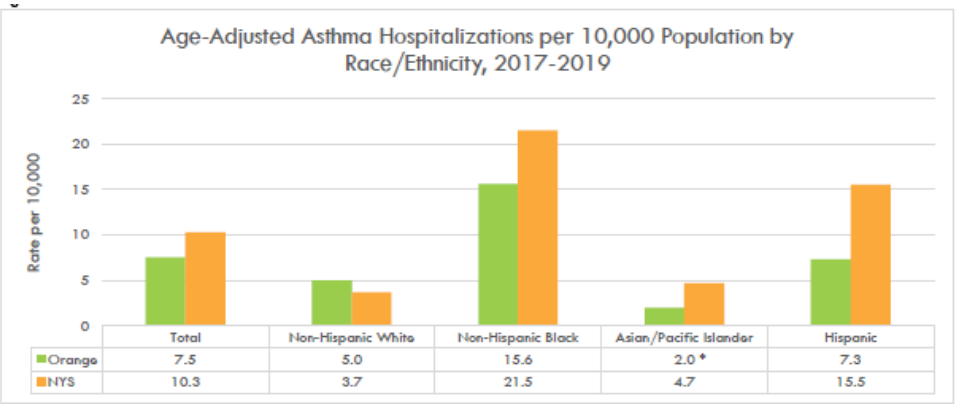
Asthma is caused by airway restriction in the lungs resulting in difficulty breathing, wheezing, chest tightness, and coughing. It is one of the most common diseases found among children, but the onset can also occur during adulthood. It can be caused by a variety of factors that may be genetic, environmental, or stress related. In many cases, people are unaware they have asthma and there is no definitive cure for the disease. However, there are ways to manage it with medical care by avoiding triggers, such as allergens, intense physical activity, tobacco smoke, and air pollution. It is important that intervention starts in early childhood to avoid increased medical costs and fatal consequences.

From the most recent data in 2017-2019, Orange County had an asthma hospitalization rate of 7.5 per 10,000 population. This is lower than the New York State rate of 10.3 per 10,000. There were large disparities in asthma hospitalizations across racial and ethnic groups in the county. Non-Hispanic Black adults by far had the highest rates of asthma hospitalizations, at 15.6 per 10,000 population. Though this was the highest rate in Orange County, it is lower than the rate for Non-Hispanic Black populations across New York State (21.5 per 10,000). Similarly, Hispanic adults had a much lower asthma hospitalization rate in Orange County compared to New York State (7.3 and 15.5 per 10,000, respectively) [see Figure 20].

Asthma discharge rates for adults (18+) decreased substantially in the County from 2014-2017, dropping from 15.7 per 10,000 in 2014 to 5.5 per 10,000 in 2017. New York State excluding New York City and the rest of the Mid-Hudson Region followed a similar trend [see Table 16, Figure 21]. Asthma discharge rates increase as age increases and is higher for males in the county compared to females. Asthma Discharges also varied by race. Where known, the rate of discharges was highest for the non-Hispanic Black population. Those in zip code 10940 also suffered the highest asthma discharge rates [see Table 16, Figure 22, Figure 23].

15 CDC, February, 2022, https://www.cdc.gov/asthma/, accessed June 2022

Figure 20



**: Fewer than 10 events in the numerator, therefore, the rate is unstable.*
Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022 https://www.health.ny.gov/statistics/community/minority/county/orange.htm

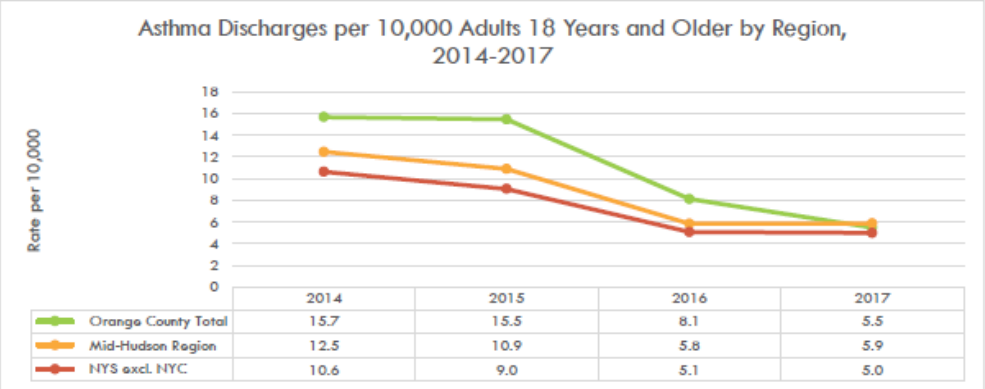
Table 16

Asthma Discharges per 10,000 Adults 18 Years and Older by Age, Gender, Race/Ethnicity, and Zip Code, 2014-2017

	2014		2015		2016		2017		Total 2014-2017	
Region	**#**	**Rate**	**#**	**Rate**	**#**	**Rate**	**#**	**Rate**	**Total #**	**Avg. Rate**
Orange County Total	431	15.7	428	15.5	226	8.1	154	5.5	1,239	11.2
Mid-Hudson Region	2,195	12.5	1,930	10.9	1,039	5.8	1,051	5.9	6,215	8.7
NYS excl. NYC	9301	10.6	7948	9.0	4462	5.1	4406	5.0	26117	7.4
Age Intervals										
18-19	s	s	s	s	0	0.0	0	0.0	19	4.1
20-24	12	4.5	19	6.8	20	7.0	9	3.1	60	5.4
25-34	39	9.4	34	8.1	33	7.8	15	3.5	121	7.2
35-44	62	12.6	37	7.7	29	6.2	23	5.0	151	8.0
45-54	87	15.1	84	14.7	49	8.7	35	6.3	255	11.3
55-64	104	23.5	116	25.7	57	12.4	31	6.6	308	16.9
65-74	60	23.9	67	25.5	25	9.1	23	8.0	175	16.2
75-84	34	26.7	43	33.7	0	0.0	0	0.0	77	14.9
85+	27	43.3	22	34.0	0	0.0	0	0.0	49	18.7
Gender										
Males	134	9.8	136	9.9	72	5.2	50	3.6	392	7.1
Females	297	21.4	292	20.9	154	11.0	104	7.4	847	15.1
Race/Ethnicity										
Non-Hispanic White	277	14.6	253	13.3	114	6.0	88	4.6	732	9.6
Non-Hispanic Black	81	27.3	87	29.3	59	19.9	29	9.8	256	21.5
Hispanic	34	6.8	47	9.4	33	6.6	22	4.4	136	6.8
Other	39	36.6	41	38.5	20	18.8	15	14.1	115	27.0
Zip Code										
10940	104	28.1	89	24.0	67	17.7	32	8.3	292	19.4
10950	23	8.0	18	4.9	11	2.9	11	2.9	63	4.4
12550	71	17.7	59	14.8	34.0	8.5	24.0	6.0	188.0	11.8
12771	12	11.3	31	28.6	s	s	s	s	56	13.1

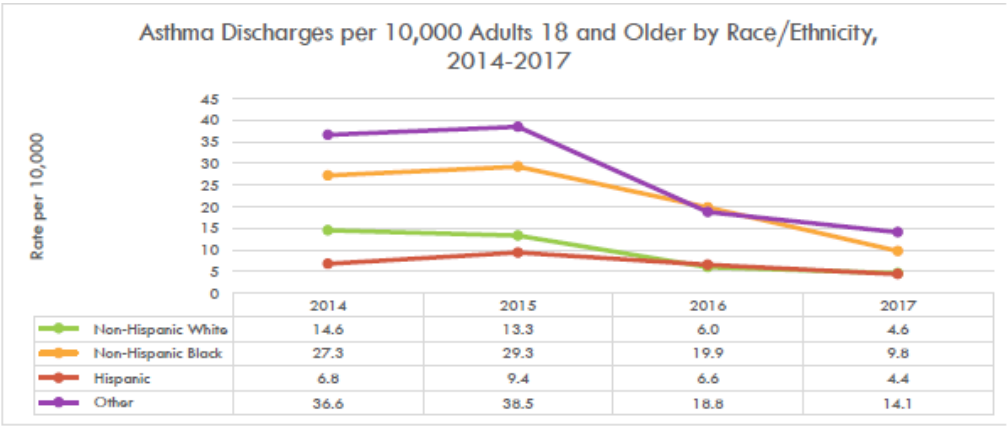
Rates are calculated using ACS 5-year population estimates
Note: Rates by Race/Ethnicity are calculated using 2017 ACS 5-year population estimates only s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: 2014-2017 SPARCS Data
Created by the School of Public Health, University at Albany, 20

Figure 21



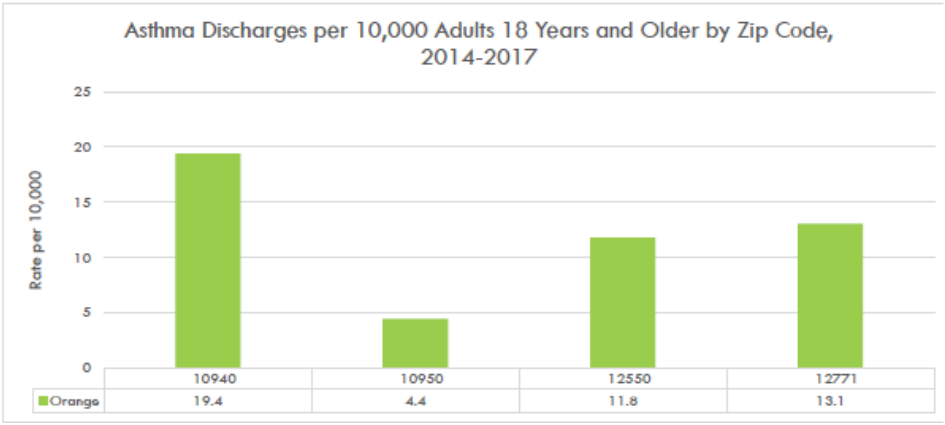
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
Source: School of Public Health, University at Albany, 2021
Original Data Source: 2014-2017 SPARCS Data

Figure 22



Rates are calculated using ACS 5-year population estimates
Note: Rates by Race/Ethnicity are calculated using 2017 ACS 5-year population estimates only
Source: 2014-2017 SPARCS Data
Original Data Source: 2014-2017 SPARCS Data

Figure 23



Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
Source: School of Public Health, University at Albany, 2021
Original Data Source: 2014-2017 SPARCS Data
Where the asthma discharge rate for adults decreased in Orange County over time, that of children has increased, from a rate of 6.1 per 10,000 children aged 5-17 in 2016 to 8.7 in 2019. This is in contrast with the NYS excl. rate, which decreased from 2016 to 2019 [see Table 17, Figure 24]. Children aged 5-9 suffered the highest discharge rates, and the rate improved as the ages increased up to 17. The discharge rates for both males and females increased until 2016, where the rate continued to increase for females but decreased slightly for males. When stratifying by race/ethnicity, Black children suffered the highest average rate of asthma discharge from 2014-2017, where known [see Table 17, Figure 25, Figure 26, Figure 27]

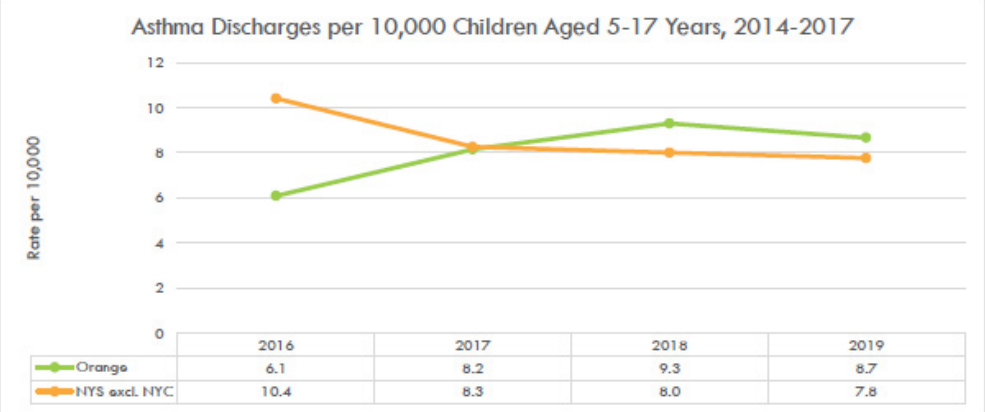
Where the asthma discharge rate for adults decreased in Orange County over time, that of children has increased from a rate of 6.1 per 10,000 children aged 5-17 in 2016 to 8.7 in 2019. This is in contrast with the New York State excluding rate, which decreased from 2016 to 2019 [see Table 17, Figure 24]. Children aged 5-9 suffered the highest discharge rates, and the rate improved as the ages increased up to 17. The discharge rates for both males and females increased until 2016, where the rate continued to increase for females but decreased slightly for males. When stratifying by race/ethnicity, Black children suffered the highest average rate of asthma discharge from 2014-2017, where known [see Table 17, Figure 25, Figure 26, Figure 27].

Table 17

Asthma Discharges per 10,000 Children Aged 5-17 Years by Age, Gender, Race/Ethnicity, and Zip Code, 2014-2017										
	2014		2015		2016		2017		Total 2014-2017	
Region	#	Rate	#	Rate	#	Rate	#	Rate	Total #	Avg. Rate
Orange County Total	45	6.1	60	8.2	68	9.3	63	8.7	236	8.0
NYS excl. NYC	1,939	10.4	1,518	8.3	1,455	8.0	1,391	7.8	6,303	8.6
Age Intervals										
5-9	27	9.9	32	11.6	38	13.6	30	11.1	127	11.6
10-14	13	4.5	22	7.7	20	7.2	28	10.0	83	7.3
15-17	s	s	s	s	s	s	s	s	26	3.7
Gender										
Males	29	7.6	32	8.4	34	9.0	29	7.7	124	8.2
Females	16	4.5	28	7.8	34	9.6	34	9.7	112	7.9
Race/Ethnicity										
Non-Hispanic White	13	3.0	22	5.1	16	3.7	21	4.8	72	4.1
Non-Hispanic Black	11	13.3	13	15.7	20	24.2	16	19.3	60	18.1
Hispanic	s	s	11	6.0	18	9.8	20	10.9	57	7.8
Other	13	47.3	14	50.9	14	50.9	s	s	47	42.7
Zip Code										
10940	12	14.2	s	s	15	17.4	21	23.8	57	16.4
10950	s	s	s	s	s	s	s	s	12	2.1
12550	s	s	14	12.4	s	s	s	s	29	6.5
12771	s	s	s	s	s	s	0	0.0	s	s

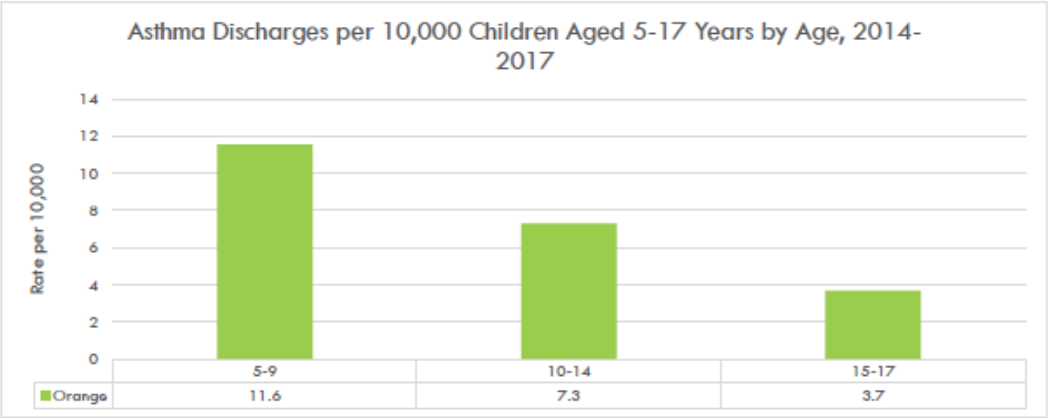
2018-2019 data does not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 2017 5-year population estimates
Note: Rates for Race/Ethnicity are calculated using ACS 2017 5-year population estimates only
Source: 2014-2017 SPARCS Data
Created by the School of Public Health, University at Albany, 2021

Figure 24



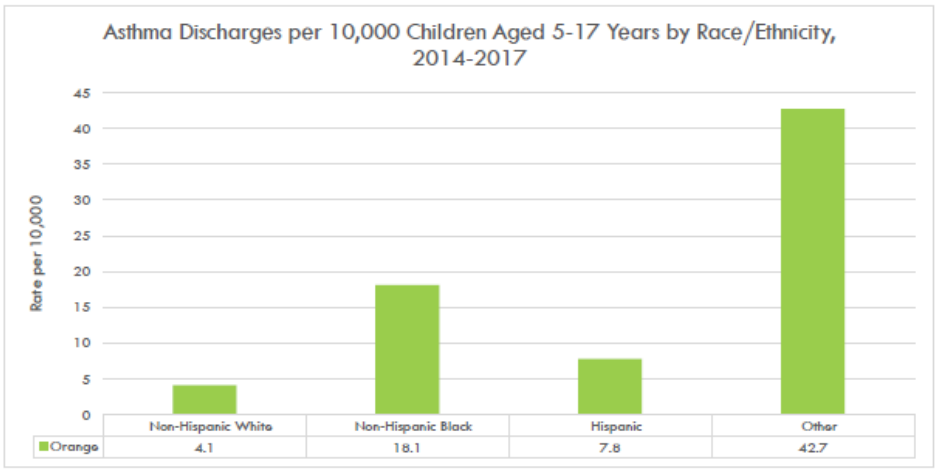
2018-2019 data does not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 2017 5-year population estimates
Source: School of Public Health, University at Albany, 2021
Original Source: 2014-2017 SPARCS Data

Figure 25



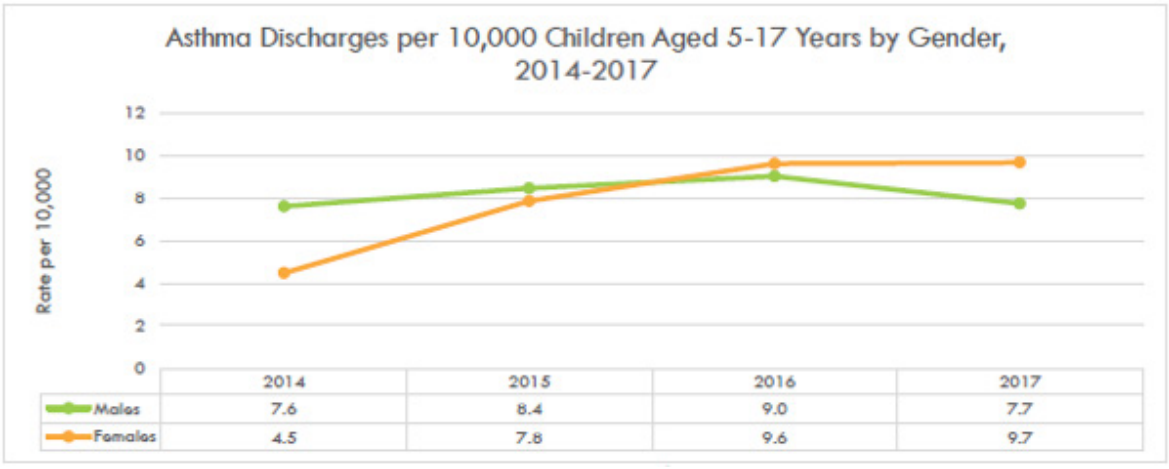
2018-2019 data does not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 2017 5-year population estimates
Source: School of Public Health, University at Albany, 2021
Original Source: 2014-2017 SPARCS Data

Figure 26



2018-2019 data does not include Orange County births or deaths recorded in NYC
Note: Rates for Race/Ethnicity are calculated using ACS 2017 5-year population estimates only
Source: School of Public Health, University at Albany, 2021
Original Source: 2014-2017 SPARCS Data

Figure 27



2018-2019 data does not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 2017 5-year population estimates
Source: School of Public Health, University at Albany, 2021
Original Source: 2014-2017 SPARCS Data

Pneumonia

Pneumonia is an infection that causes inflammation in the air sacs in one or both lungs. Pneumonia can be caused by bacteria, viruses, or fungi. It can lead to serious consequences in young children, as well as people over the age of 65. Symptoms of pneumonia include fever, cough, chest pain, and shortness of breath. Hospitalization, tobacco use, or having a weakened immune system can put people at a greater risk of developing pneumonia.

From 2016-2019, the average mortality from pneumonia in Orange County was 17.2 per 100,000 population, which is lower than the rate for New York State excluding New York City of 20.6. Pneumonia mortality decreased in the county from 2016-2018 but increased from 2018-2019 [see Table 18, Figure 28]. Pneumonia mortality risk increases with age, with those 85 and older suffering the highest death rate, at 410.7 per 100,000. The non-Hispanic White population is more likely to suffer pneumonia mortality compared to the non-Hispanic Black and Hispanic populations in the county. The three major cities in the county (zip code 10940, 12550, and 12771) have similar rates of pneumonia mortality and are much higher than the rate in 10950 [see Table 18, Figure 29, Figure 30].

Table 18

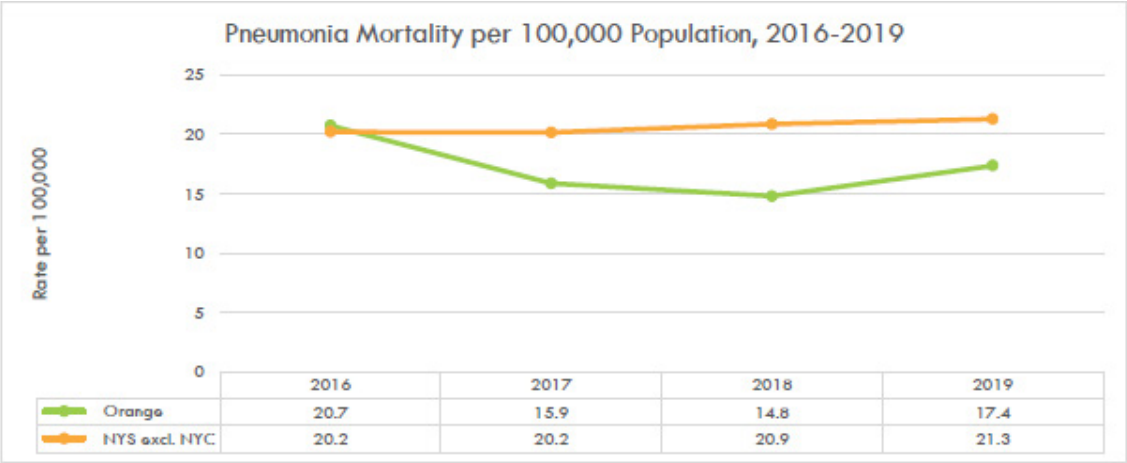
Pneumonia Mortality per 100,000 Population by Age, Race/Ethnicity, and Zip Code, 2016-2019

	2016		2017		2018		2019		Total 2016-2019	
Region	**#**	**Rate**	**#**	**Rate**	**#**	**Rate**	**#**	**Rate**	**Total #**	**Avg. Rate**
Orange County Total	78	20.7	60	15.9	56	14.8	66	17.4	260	17.2
NYS excl. NYC	2,270	20.2	2,265	20.2	2,330	20.9	2,373	21.3	9,238	20.6
Age Intervals										
<1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1-9	0	0.0	0	0.0	s	s	0	0.0	0	0.0
10-19	0	0.0	0	0.0	s	s	0	0.0	s	s
20-24	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
25-34	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
35-44	0	0.0	s	s	0	0.0	0	0.0	s	s
45-54	s	s	s	s	s	s	s	s	12	5.4
55-64	s	s	s	s	s	s	s	s	24	12.7
65-74	20	72.5	s	s	s	s	s	s	44	37.6
75-84	14	108.2	23	171.6	14	99.5	17	116.9	68	123.8
85+	31	465.3	24	353.2	22	334.4	33	489.0	110	410.7
Race/Ethnicity										
Non-Hispanic White	69	27.8	45	18.2	47	19.1	56	22.9	217	22.0
Non-Hispanic Black	s	s	s	s	s	s	s	s	19	12.9
Hispanic	s	s	s	s	s	s	s	s	22	7.3
Other	0	0.0	s	s	s	s	0	0.0	s	s
Zip Code										
10940	14	28.5	0	0.0	s	s	15	31.2	42	21.4
10950	s	s	s	s	0	0.0	s	s	19	9.4
12550	13	23.8	s	s	10	18.2	11	19.9	40	18.2
12771	s	s	s	s	s	s	s	s	12	20.8

2018 -2019 data do not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics Created by the School of Public Health, University at Albany, 2021

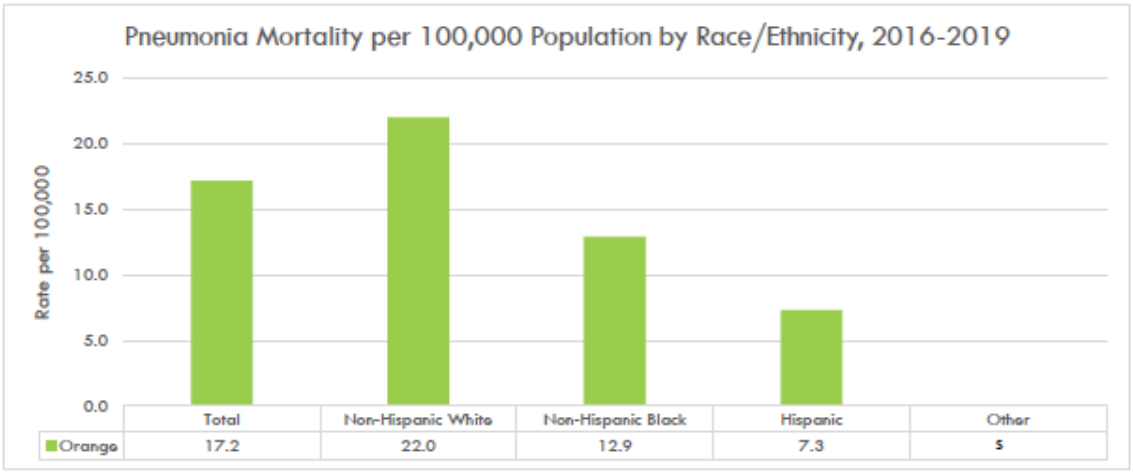
16 Mayo Clinic, June 2020, https://www.mayoclinic.org/diseases-conditions/pneumonia/symptoms-causes/syc-20354204, accessed August 2022

Figure 28



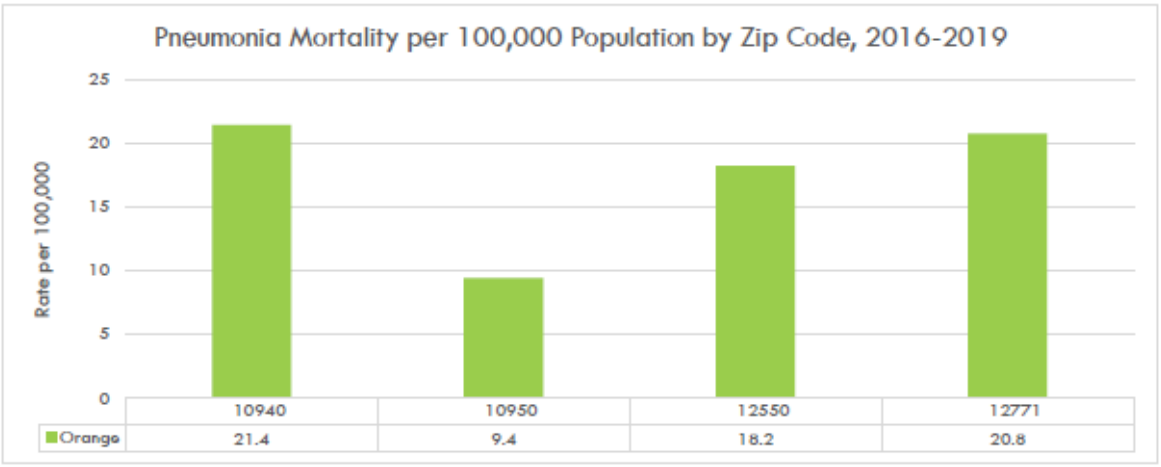
2018 -2019 data do not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
Source: School of Public Health, University at Albany, 2021
Original Data Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics

Figure 29



2018 -2019 data do not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: School of Public Health, University at Albany, 2021
Original Data Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics

Figure 30



2018 -2019 data do not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
Source: School of Public Health, University at Albany, 2021
Original Data Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics

Cardiovascular Disease

Cardiovascular disease (CVD), or heart disease, is the leading cause of death in the U.S., killing more than 650,000 people each year. CVD refers to several conditions that affect the heart and other components of the circulatory system. It involves blocked or hardened blood vessels (otherwise known as atherosclerosis) that can lead to diseases, including (but not limited to) congestive heart failure, cerebrovascular disease or stroke, coronary artery disease, or a heart attack.

Some risk factors for CVD include genetics, age (as you get older, the risk for CVD becomes higher), unhealthy lifestyle behaviors (unhealthy diet, decreased physical activity, tobacco use, alcohol use), stress, and other health conditions (high blood pressure, high cholesterol, diabetes, and obesity).
Discharge rates for CVD in Orange County from 2014-2017 were lower than those in New York State excluding New York City but higher than those in the rest of the Mid-Hudson Region. In all of NYS, including Orange County, CVD discharge rates were higher among males than females [see Table 19].

The average CVD mortality rate in the county from 2016-2019 was 213.2 per 100,000, and the rate didn't fluctuate much in that time frame. The county rate was consistently lower than that of NYS excluding NYC from 2016- 2019 [see Table 20, Figure 31]. There are disparities in CVD mortality by age, gender, race/ethnicity, and zip code. Those who are older and male face a higher risk of death from CVD. The non-Hispanic White population suffers a much higher CVD mortality rate compared to other races/ethnicities in the county, as well as those who live in zip code 12771 [see Table 20, Figure 32, Figure 33, Figure 34].

Table 19

Cardiovascular Disease Discharges per 10,000 Population by Gender, 2014-2017

	Male		Female	
Region	#	Rate	#	Rate
Orange County Total	12077	160.4	10143	135.0
Mid-Hudson Region	69618	152.7	58386	121.0
NYS excl. NYC	405007	183.3	336158	147.0

All rates are calculated using ACS 5-year population estimates
Source: 2014-2017 SPARCS DATA
Created by the School of Public Health, University at Albany, 2021

Table 20

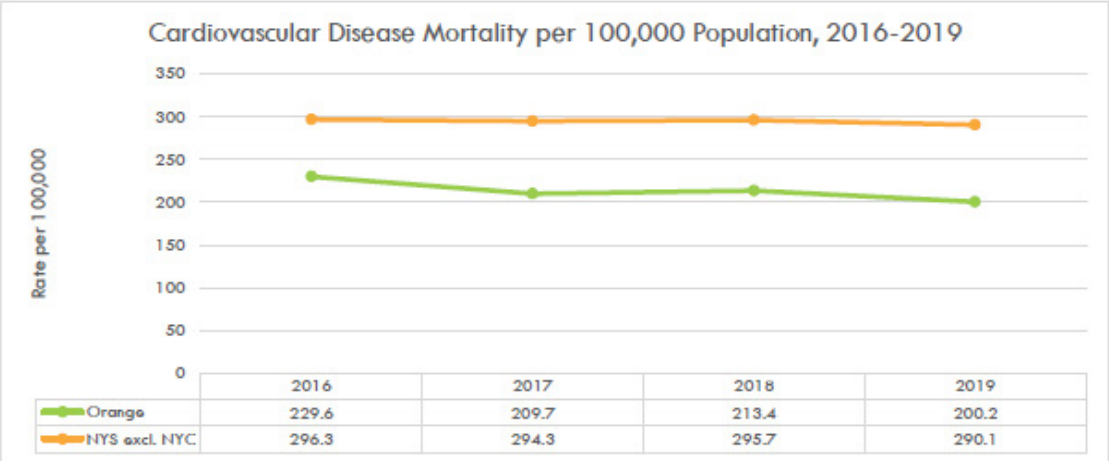
Cardiovascular Disease Mortality per 100,000 Population by Age, Gender, Race/Ethnicity, and Zip Code, 2016-2019

	2016		2017		2018		2019		Total 2016-2019	
Region	#	Rate	#	Rate	#	Rate	#	Rate	Total #	Avg. Rate
Orange County Total	864	229.6	793	209.7	807	213.4	761	200.2	3,225	213.2
NYS excl. NYC	33,294	296.3	33,078	294.3	33,045	295.7	32,354	290.1	131,771	294.1
Age Intervals										
<1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1-9	s	s	0	0.0	s	s	s	s	s	s
10-19	0	0.0	0	0.0	0	0.0	s	s	s	s
20-24	0	0.0	s	s	s	s	0	0.0	s	s
25-34	s	s	s	s	s	s	s	s	14	8.1
35-44	13	27.8	s	s	s	s	s	s	34	18.6
45-54	40	71.0	28	50.2	33	60.5	27	50.4	128	58.1
55-64	96	209.1	82	175.2	79	166.5	70	145.4	327	173.6
65-74	152	551.1	138	478.9	111	372.4	120	391.3	521	445.8
75-84	194	1499.8	193	1440.2	218	1549.6	212	1458.1	817	1487.0
85+	365	5478.0	338	4974.2	353	5365.6	323	4786.6	1379	5148.4
Gender										
Males	448	237.9	396	209.0	415	219.0	383	201.1	1642	216.7
Females	416	221.3	397	210.3	392	207.7	378	199.3	1583	209.6
Race/Ethnicity										
Non-Hispanic White	724	291.5	669	270.6	666	271.2	621	254.3	2680	272.0
Non-Hispanic Black	70	197.3	63	172.2	74	198.7	68	179.0	275	186.7
Hispanic	49	67.2	46	61.6	59	77.9	52	66.8	206	68.4
Other	21	107.4	15	76.2	s	s	20	99.8	64	81.1
Zip Code										
10940	124	252.1	112	225.4	108	220.1	101	210.3	445	227.1
10950	54	108.6	55	109.1	50	98.2	52	102.0	211	104.5
12550	122	223.4	107	194.8	117	212.8	129	233.9	475	216.2
12771	52	369.8	48	338.0	54	365.9	35	236.7	189	327.0

2018-2019 data does not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics
Created by the School of Public Health, University at Albany, 20

17 CDC, February 2022, https://www.cdc.gov/heartdisease/facts.htm, accessed June 2022

Figure 31



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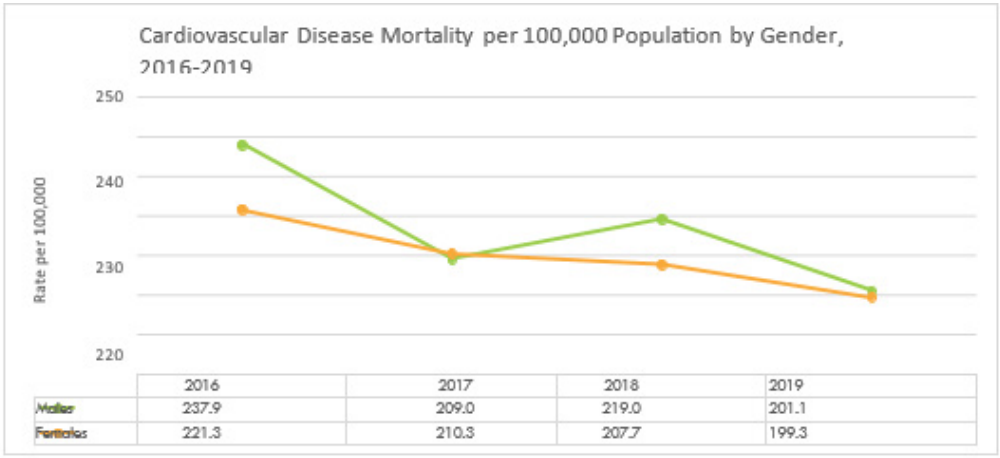
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics

Figure 32



2018-2019 data does not include Orange County births or deaths recorded in NYC
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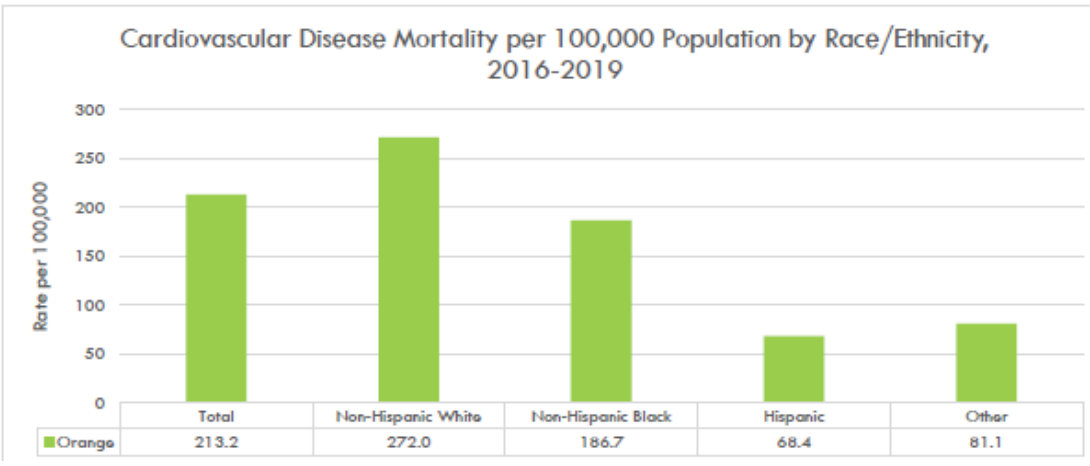
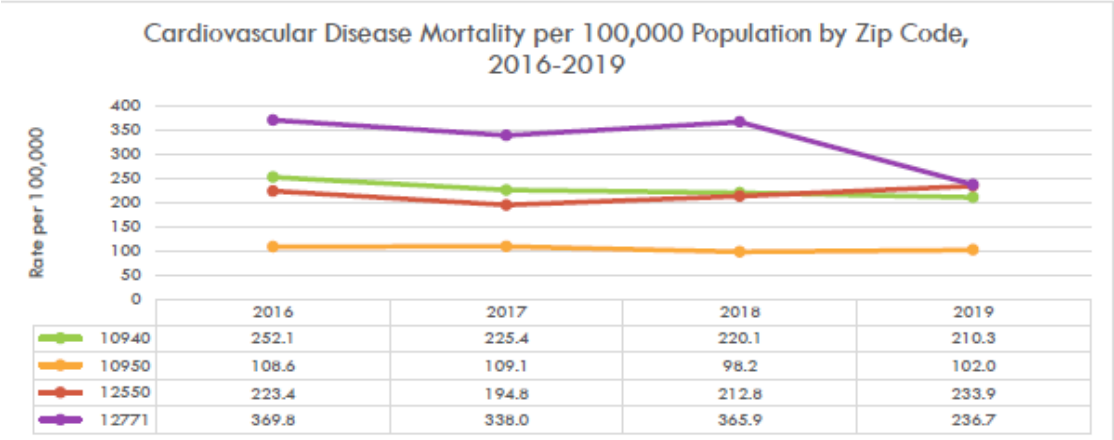
Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics

Figure 33



2018-2019 data does not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics

Figure 34



	2016	2017	2018	2019
10940	252.1	225.4	220.1	210.3
10950	108.6	109.1	98.2	102.0
12550	223.4	194.8	212.8	233.9
12771	369.8	338.0	365.9	236.7

2018-2019 data does not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics

Disease of the Heart

The average crude diseases of the heart mortality in Orange County from 2016-2019 was 169.9 per 100,000 population. Over time the mortality rate slightly decreased, from 183.7 in 2016 to 157.6 in 2019, and over that time span remained lower than the mortality rate in NYS excl. NYC [Table 20, Figure 35]. Deaths from diseases of the heart increase with age and are higher for males than females. There are also disparities in mortality by race/ethnicity. When adjusting for age, the non-Hispanic Black population had the highest diseases of the heart mortality rate of 176.9 per 100,000 and Asian/Pacific Islander populations had the lowest, at 64.2 per 100,000. CVD mortality also differs by zip code in the county, with those who live in 12771 suffering the highest rate among major cities in the county [see Table 21, Figure 36, Figure 37].

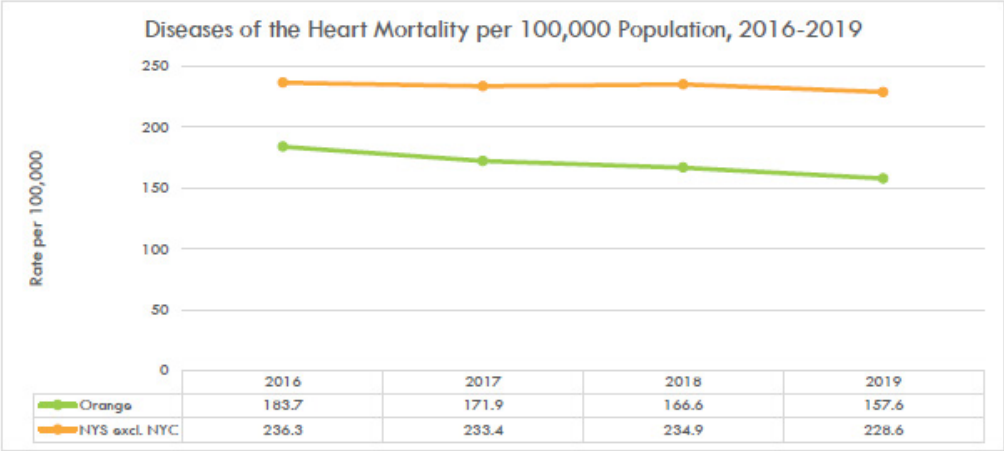
Table 21

Diseases of the Heart Mortality per 100,000 Population by Age, Gender, Race/Ethnicity, and Zip Code, 2016-2019

	2016		2017		2018		2019		Total 2016-2019	
Region	#	Rate	#	Rate	#	Rate	#	Rate	Total #	Avg. Rate
Orange County Total	691	183.7	650	171.9	630	166.6	599	157.6	2570	169.9
NYS excl. NYC	26,548	236.3	26,225	233.4	26,251	234.9	25,495	228.6	104,519	233.3
Age Intervals										
<1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1-9	0	0.0	0	0.0	s	s	0	0.0	s	s
10-19	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
20-24	0	0.0	0	0.0	s	s	0	0.0	s	s
25-34	s	s	s	s	s	s	s	s	36	20.9
35-44	12	25.7	s	s	s	s	s	s	30	16.4
45-54	35	62.1	22	39.5	28	51.3	21	39.2	106	48.1
55-64	80	174.2	71	151.7	64	134.9	52	108.0	267	141.8
65-74	124	449.6	123	426.8	82	275.1	93	303.3	422	361.1
75-84	154	1190.6	140	1044.7	156	1108.9	160	1100.5	610	1110.2
85+	285	4277.4	283	4164.8	289	4392.8	265	3927.1	1122	4188.9
Gender										
Males	370	196.5	328	173.1	348	183.7	299	157.0	1345	177.5
Females	321	170.8	322	170.6	282	149.4	300	158.2	1225	162.2
Race/Ethnicity										
Non-Hispanic White	576	231.9	551	222.8	523	212.9	495	202.7	2145	217.7
Non-Hispanic Black	58	163.5	51	139.4	58	155.7	51	134.2	218	148.0
Hispanic	39	53.5	38	50.9	42	55.5	40	51.4	159	52.8
Other	18	92.1	10	50.8	s	s	13	64.9	48	60.8
Zip Code										
10940	106	215.5	87	175.1	82	167.1	81	168.7	356	181.7
10950	38	76.4	45	89.3	40	78.6	41	80.4	164	81.2
12550	92	168.5	88	160.2	81	147.3	92	166.8	353	160.7
12771	41	291.6	45	316.9	43	291.4	30	202.9	159	275.1

2018-2019 data does not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics
Created by the School of Public Health, University at Albany, 2021

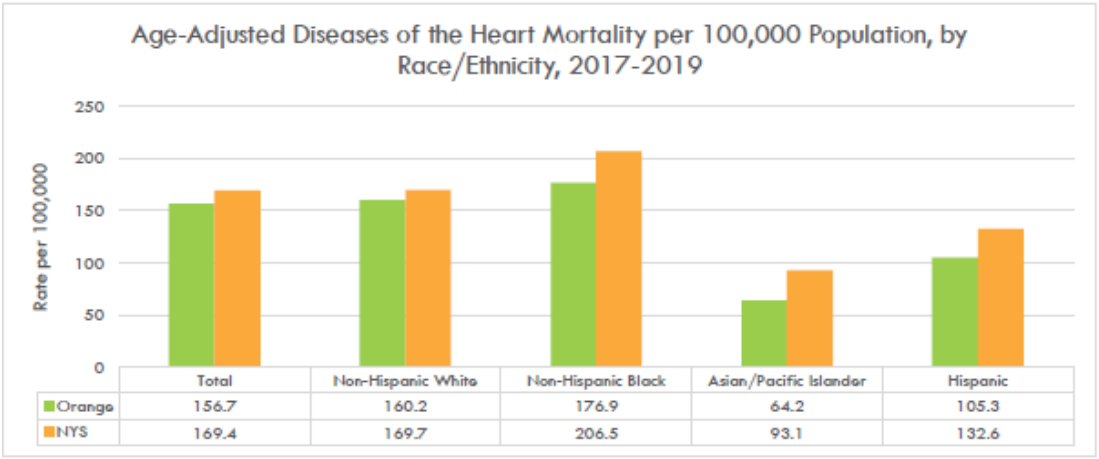
Figure 35



	2016	2017	2018	2019
Orange	183.7	171.9	166.6	157.6
NYS excl. NYC	236.3	233.4	234.9	228.6

2018-2019 data does not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics

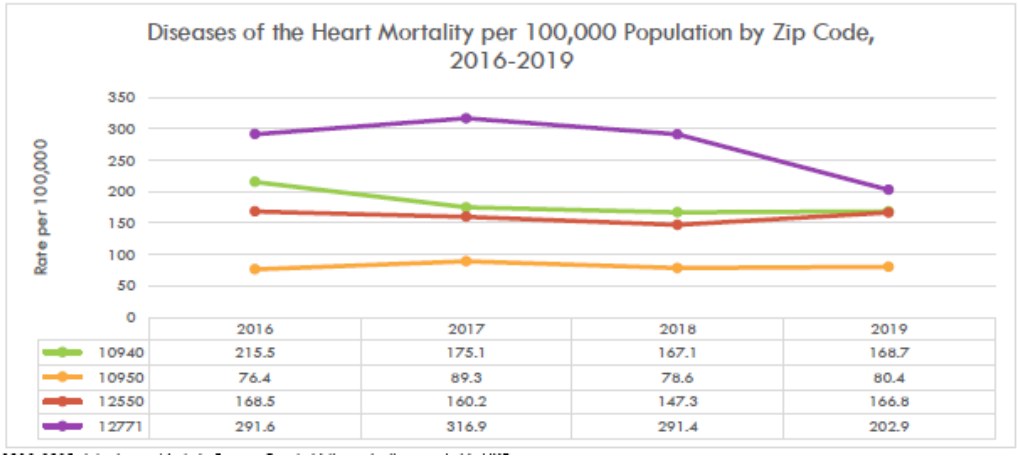
Figure 36



	Total	Non-Hispanic White	Non-Hispanic Black	Asian/Pacific Islander	Hispanic
Orange	156.7	160.2	176.9	64.2	105.3
NYS	169.4	169.7	206.5	93.1	132.6

Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Figure 37



	2016	2017	2018	2019
10940	215.5	175.1	167.1	168.7
10950	76.4	89.3	78.6	80.4
12550	168.5	160.2	147.3	166.8
12771	291.6	316.9	291.4	202.9

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Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics

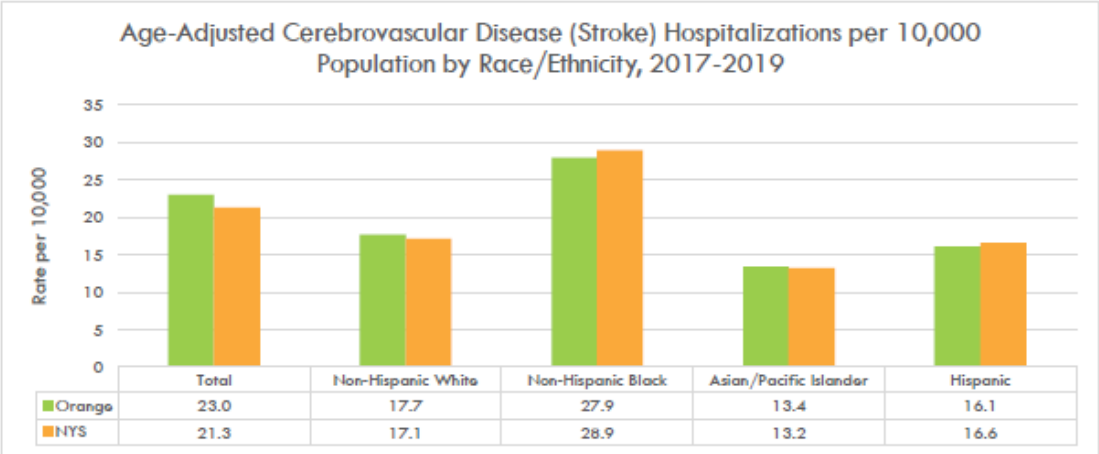
Cerebrovascular Disease

Cerebrovascular disease, also called a stroke, occurs when blood supply to the brain is blocked, which can lead to extensive damage to the brain and even death. It is important to recognize the signs and symptoms of a stroke in order for action to be taken quickly. Signs of a stroke include numbness in the face or extremities, often on one side of the body; confusion or difficulty speaking; vision problems; loss of balance or lack of coordination; or a severe headache. Some risk factors for a stroke include lifestyle behaviors (unhealthy diet, decreased physical activity, use of illicit drugs) and other medical conditions, including high blood pressure, high cholesterol, diabetes, other types of cardiovascular diseases, family history, and being aged 55 years and older.

When adjusting for age, stroke hospitalizations in Orange County are slightly higher than that of NYS excluding NYC, and there are disparities in rates by race/ethnicity. When adjusting for age, non-Hispanic Black populations had higher rates of stroke hospitalization (27.9 per 10,000) compared to other racial/ethnic groups in the county.
Asian/Pacific Islander populations had the lowest rate of 13.4 per 10,000. Stroke hospitalization trends across race/ethnicity in Orange County are consistent with those at the state level [see Figure 38].

Mortality from strokes has averaged at 26.9 per 100,000 population in Orange County from 2016-2019, which is lower than the rate for NYS excluding NYC (37.8) [see Table 22, Figure 39]. The frequency of stroke mortality increases with age and is higher for males than females. Like stroke hospitalizations, there are also disparities in stroke mortality when stratifying by race/ethnicity. However, in this case the mortality rate is highest for the non-Hispanic White population (33.1) compared to the non-Hispanic Black (25.1), Hispanic (10.3), and "Other" (16.5) populations. Those who live in the zip code 12550 suffer a higher rate of stroke mortality compared to other zip codes in the county [see Table 22, Figure 40, Figure 41].

Figure 38



Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022 https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Table 22

Cerebrovascular Disease (Stroke) Mortality per 100,000 Population by Age, Gender, Race/Ethnicity, and Zip Code, 2016-2019

	2016		2017		2018		2019		Total 2016-2019	
Region	**#**	**Rate**	**#**	**Rate**	**#**	**Rate**	**#**	**Rate**	**Total #**	**Avg. Rate**
Orange County Total	115	30.6	90	23.8	102	27.0	100	26.3	407	26.9
NYS excl. NYC	4,289	38.2	4,234	37.7	4,233	37.9	4,188	37.6	16,944	37.8
Age Intervals										
<1	s	s	0	0.0	s	s	0	0.0	s	s
1-9	s	s	0	0.0	s	s	0	0.0	s	s
10-19	0	0.0	0	0.0	0	0.0	s	s	s	s
20-24	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
25-34	s	s	0	0.0	0	0.0	0	0.0	s	s
35-44	0	0.0	s	s	s	s	0	0.0	s	s
45-54	s	s	s	s	s	s	s	s	s	s
55-64	11	24.0	s	s	s	s	s	s	31	16.5
65-74	17	61.6	12	41.6	15	50.3	14	45.7	58	49.6
75-84	31	239.7	35	261.2	39	277.2	35	240.7	140	254.8
85+	51	765.4	34	500.4	35	532.0	42	622.4	162	604.8

18 Mayo Clinic, January 2022, https://www.mayoclinic.org/diseases-conditions/stroke/symptoms-causes/syc-20350113, accessed June 2

Table 22 (continued)

Gender										
Males	53	28.1	39	20.6	37	19.5	46	24.2	175	23.1
Females	62	33.0	51	27.0	65	34.4	54	28.5	232	30.7
Race/Ethnicity										
Non-Hispanic White	94	37.9	77	31.1	77	31.4	78	31.9	326	33.1
Non-Hispanic Black	11	31.0	s	s	11	29.5	s	s	37	25.1
Hispanic	s	s	s	s	13	17.2	s	s	31	10.3
Other	s	s	s	s	s	s	s	s	13	16.5
Zip Code										
10940	12	24.4	16	32.2	16	32.6	14	29.2	58	29.6
10950	11	22.1	s	s	s	s	s	s	29	14.4
12550	21	38.5	10	18.2	26	47.3	25	45.3	82	37.3
12771	s	s	s	s	s	s	s	s	15	25.9

2018 -2019 data do not include Orange County births or deaths recorded in NYC
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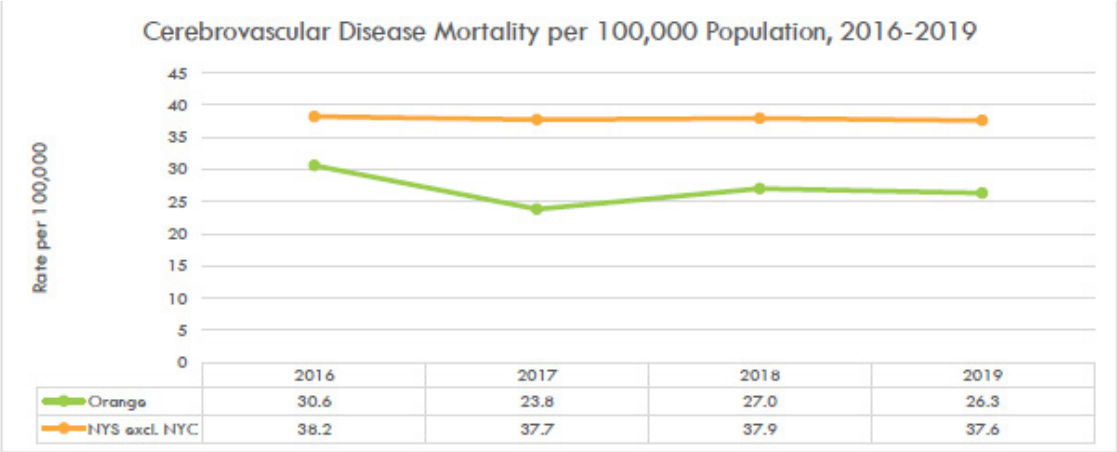
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics
Created by the School of Public Health, University at Albany, 2021

Figure 39



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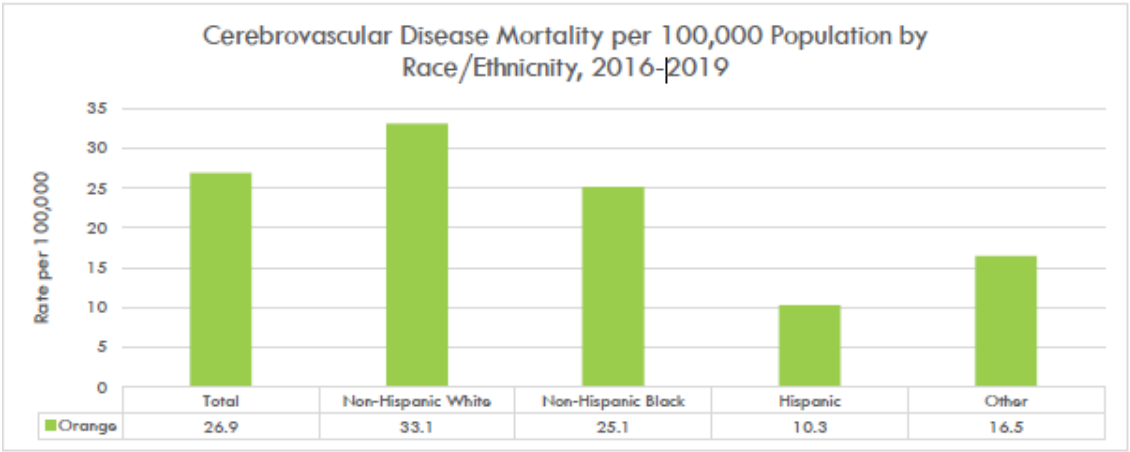
Source: School of Public Health, University at Albany, 2021
Original Data Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics

Figure 40



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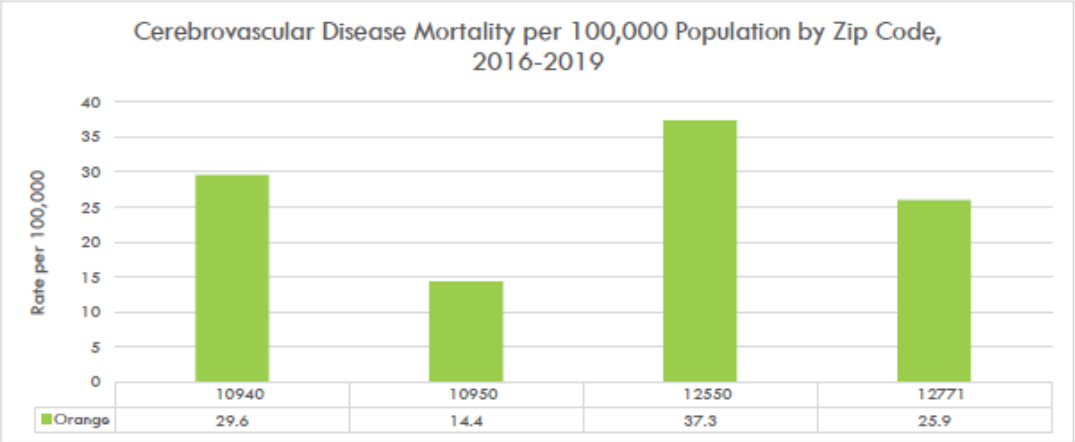
Source: School of Public Health, University at Albany, 2021
Original Data Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics

Figure 41



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Source: School of Public Health, University at Albany, 2021
Original Data Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics

Diabetes

In the U.S., diabetes is the seventh leading cause of death. It is a chronic condition that alters how the body breaks down glucose (sugar) for energy. Diabetes can be classified into two primary forms: insulin-dependent diabetes mellitus (type 1 diabetes) and non-insulin-dependent diabetes mellitus (type 2 diabetes). Type 1 diabetes occurs when the body attacks itself and does not make enough insulin, which is a hormone released from the pancreas to help break down glucose. Alternatively, type 2 diabetes occurs when the body is unable to use existing insulin to help control the amount of glucose released into the blood stream. According to the CDC, about 90%-95% of people with diabetes have type 2 diabetes.

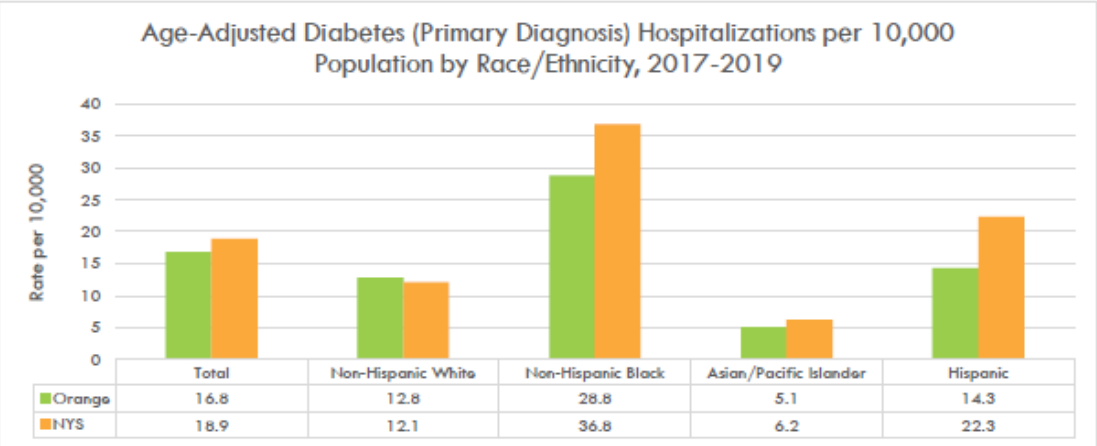
Before people are diagnosed with diabetes, they are usually tested for prediabetes, which is when a person's blood sugar level is higher than normal, thereby putting them at a greater risk of developing diabetes. According to the NYSDOH, 15-30% of the population in New York State with prediabetes will develop type 2 diabetes within five years, if they do not change their lifestyle behaviors.

From 2017-2019, the average diabetes hospitalization rate (age-adjusted) in Orange County was 16.8 per 10,000 population, which is lower than the NYS rate of 18.9 per 10,000. There were large disparities in diabetes hospitalization rates across race/ethnicity. Non-Hispanic Black populations had the highest hospitalization rate at 28.8, and Asian/Pacific Islander had the lowest at 5.1 [see Figure 42]. There were also disparities in diabetes discharge rates by gender, with males having a much higher discharge rate than females [see Table 23].

Similarly, to diabetes hospitalizations, diabetes mortality was slightly lower in Orange County compared to NYS excluding NYC, with an average of 16.2 diabetes deaths per 100,000 compared to17.6. While the mortality rate in NYS excluding NYC consistently increased from 2016-2019, that in Orange County has remained more stable over time [see Table 24, Figure 43]. The rate of diabetes mortality increases with age, and just as with diabetes hospitalizations, non-Hispanic Black populations faced the highest diabetes mortality rate in both the county and NYS excluding NYC when compared to other racial/ethnic groups [see Table 24, Figure 44].

19 NYSDOH, October 2020, https://www.health.ny.gov/diseases/conditions/diabetes/, accessed June, 2022
20 CDC, December 2022, https://www.cdc.gov/diabetes/index.html, accessed June, 2022

Figure 42



Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Table 23

Diabetes Discharges per 10,000 Population by Gender, 2014-2017

	Male		Female	
Region	**#**	**Rate**	**#**	**Rate**
Orange County Total	1289	17.1	950	12.6
Mid-Hudson Region	7554	16.6	5333	11.1
NYS excl. NYC	43200	19.6	31738	13.9

All rates are calculated using ACS 5-year population estimates
Source: 2014-2017 SPARCS DATA
Created by the School of Public Health, University at Albany, 2021

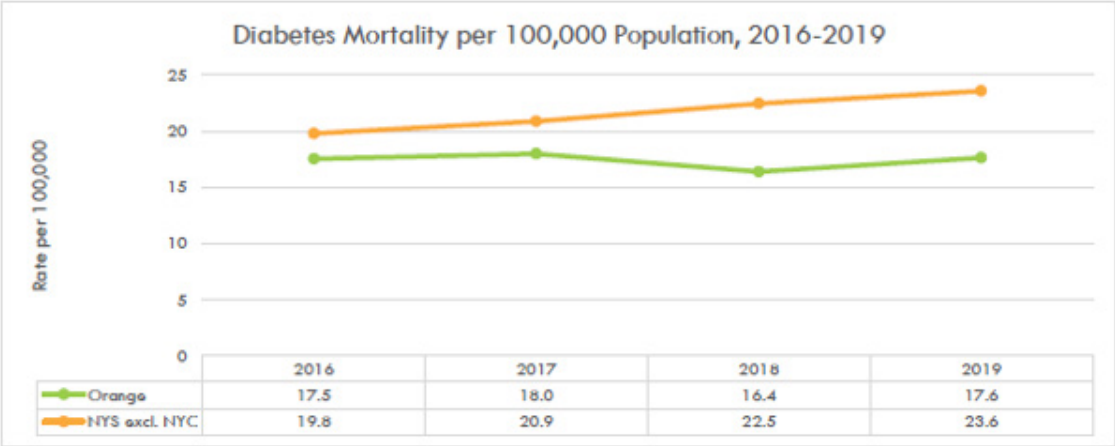
Table 24

Diabetes Mortality per 100,000 Population by Age and Race/Ethnicity, 2016-2019

	2016		2017		2018		2019		Total 2016-2019	
Region	**#**	**Rate**	**#**	**Rate**	**#**	**Rate**	**#**	**Rate**	**Total #**	**Avg. Rate**
Orange County Total	66	17.5	68	18.0	62	16.4	67	17.6	263	17.4
NYS excl. NYC	2,224	19.8	2,346	20.9	2,510	22.5	2,630	23.6	9,710	21.7
Age Intervals										
<1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1-9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
10-19	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
20-24	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
25-34	0	0.0	0	0.0	s	s	s	s	s	s
35-44	0	0.0	s	s	s	s	0	0.0	s	s
45-54	s	s	s	s	s	s	s	s	16	7.3
55-64	s	s	10	21.4	10	21.1	11	22.8	40	21.2
65-74	16	58.0	14	48.6	11	36.9	14	45.7	55	47.1
75-84	20	154.6	19	141.8	14	99.5	15	103.2	68	123.8
85+	18	270.1	15	220.8	19	288.8	23	340.8	75	280.0
Race/Ethnicity										
Non-Hispanic White	50	20.1	48	19.4	42	17.1	50	20.5	190	19.3
Non-Hispanic Black	11	31.0	s	s	s	s	s	s	37	25.1
Hispanic	s	s	s	s	11	14.5	s	s	29	9.6
Other	s	s	s	s	s	s	s	s	s	s

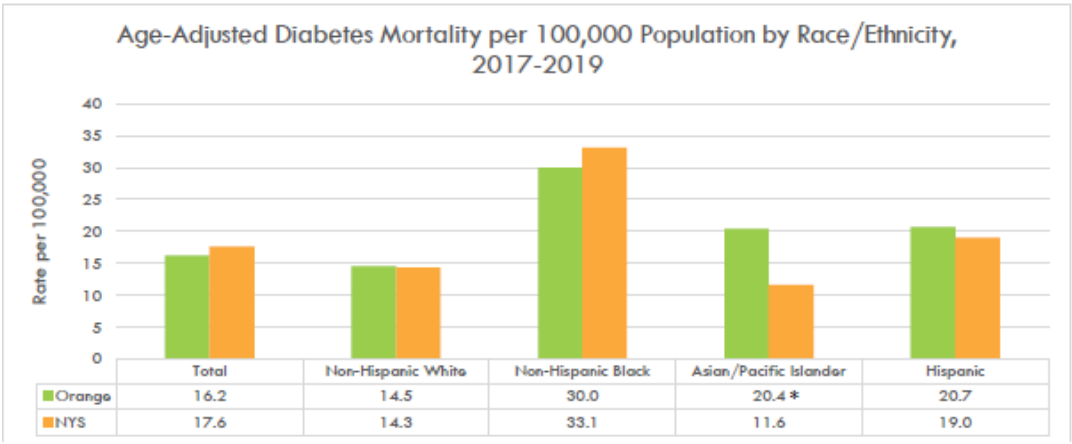
2018-2019 data do not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics
Created by the School of Public Health, University at Albany, 2021

Figure 43



2018-2019 data do not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics

Figure 44



**: Fewer than 10 events in the numerator, therefore, the rate is unstable.*
Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.h

Cirrhosis Of The Liver

Cirrhosis is a condition in which the liver experiences fibrosis (scarring) that can lead to permanent damage. In the U.S., it is included in the top ten leading causes of death. Causes of cirrhosis include (but are not limited to) chronic alcohol abuse, viral hepatitis (more commonly hepatitis B and C), and fatty liver disease. Symptoms also include fatigue, bleeding, edema (swelling) in lower extremities, and hepatic encephalopathy (loss of brain function due to the liver's inability to remove toxins from the blood).

From 2016-2019, mortality from cirrhosis of the liver averaged at 8.1 deaths per 100,000 population. Mortality rates increase with age and are higher among males and the non-Hispanic White population in the county [see Table 25, Figure 46]. Discharge rates for cirrhosis of the liver were also higher among males than females in the county, which follows the trend seen at the state level (excluding NYC) [see Table 26].

Age-adjusted cirrhosis mortality in Orange County started to decrease in 2013, but in 2015, it started increasing again, reaching a high of 7.5 per 100,000 in 2018. This increase beginning in 2015 is also seen at the state level, though the rates for Orange County have remained below those of the state over time [see Figure 45].

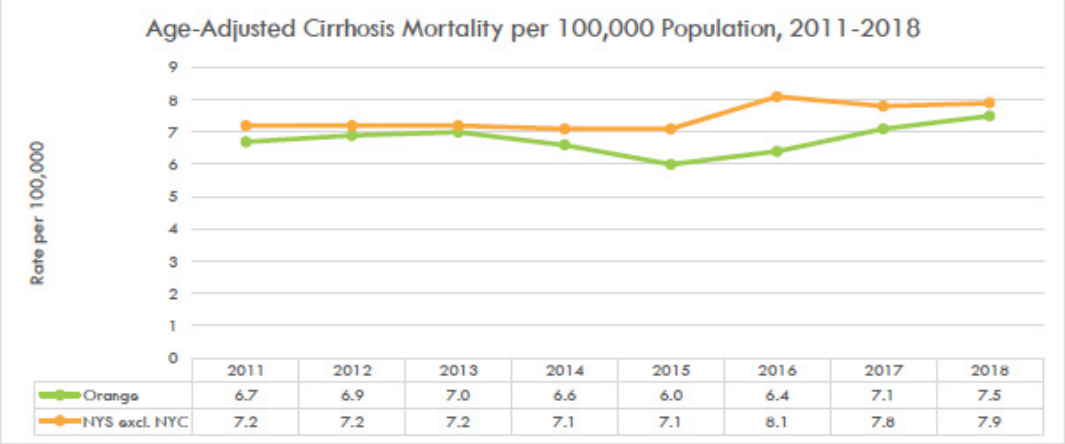
21 World Journal of Gastroenterology, May 2014, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4017060/, accessed August 2022
22 Mayo Clinic, February 2021, https://www.mayoclinic.org/diseases-conditions/cirrhosis/symptoms-causes/syc-20351487, accessed August 2022

Table 25

Cirrhosis of the Liver Mortality per 100,000 Population by Age, Gender, and Race/Ethnicity, 2016-2019										
	2016		2017		2018		2019		Total 2016-2019	
Region	#	Rate	#	Rate	#	Rate	#	Rate	Total #	Avg. Rate
Orange County Total	28	7.4	30	7.9	32	8.5	32	8.4	122	8.1
NYS excl. NYC	1,108	9.9	1,075	9.6	1,092	9.8	1,137	10.2	4,412	9.8
Age Intervals										
20-24	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
25-34	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
35-44	s	s	s	s	s	s	s	s	s	s
45-54	s	s	s	s	s	s	s	s	17	7.7
55-64	15	32.7	12	25.6	12	25.3	s	s	47	25.0
65-74	s	s	s	s	s	s	13	42.4	23	19.7
75-84	s	s	s	s	s	s	s	s	20	36.4
85+	s	s	s	s	s	s	s	s	s	s
Gender										
Males	20	10.6	17	9.0	22	11.6	21	11.0	80	10.6
Females	s	s	13	6.9	s	s	11	5.8	42	5.6
Race/Ethnicity										
Non-Hispanic White	18	7.2	27	10.9	25	10.2	30	12.3	100	10.1
Non-Hispanic Black	s	s	s	s	s	s	0	0.0	s	s
Hispanic	s	s	s	s	s	s	s	s	17	5.6
Other	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

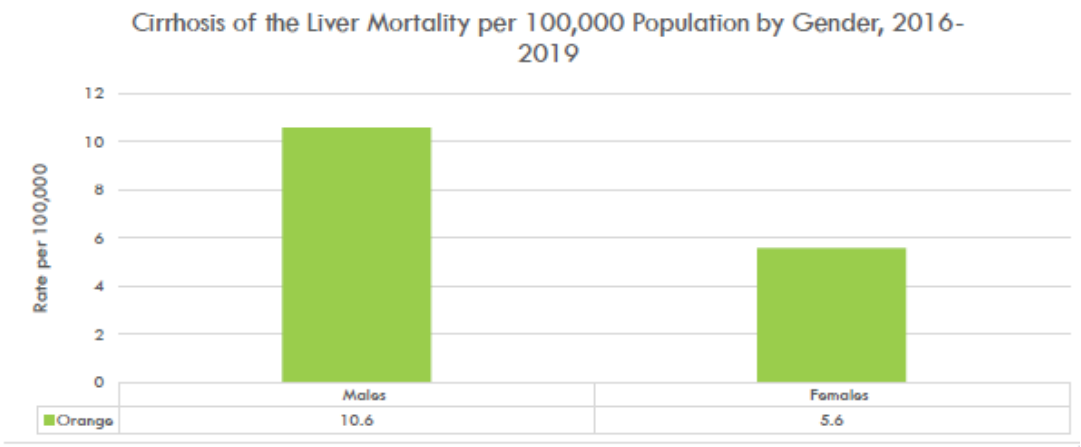
2018-2019 data does not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: NYS Department of Health, Bureau of Vital Statistics and NYS DOHMH, Office of Vital Statistics
Created by the School of Public Health, University at Albany, 2021

Figure 45



Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above
Source: New York State Department of Health, Community Health Indicator Reports (CHIRS), Updated February 2022 https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Dd21&cos=33
Original Source: Vital Statistics, Updated as of January 2022

Figure 46



2018-2019 data does not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates
Source: School of Public Health, University at Albany, 2021
Original Data Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics

Table 26

Cirrhosis of the Liver Discharges per 10,000 Population by Gender, 2014-2017

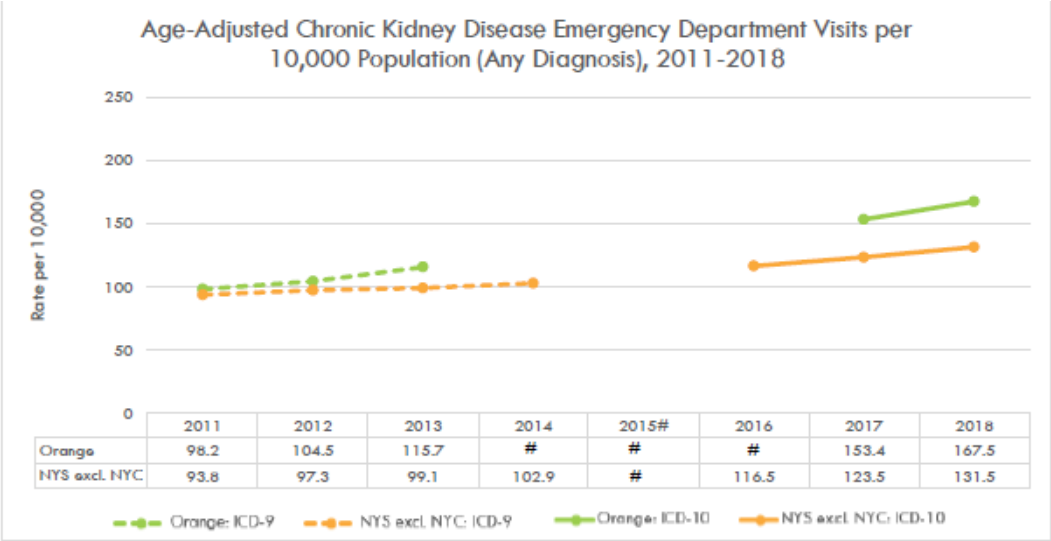
	Male		Female	
Region	**#**	**Rate**	**#**	**Rate**
Orange County Total	292	3.9	184	2.4
Mid-Hudson Region	974	2.1	1684	3.5
NYS excl. NYC	9155	4.1	5321	2.3

All rates are calculated using ACS 5-year population estimates
Source: 2014-2017 SPARCS DATA
Created by the School of Public Health, University at Albany, 2021

Chronic Kidney Disease

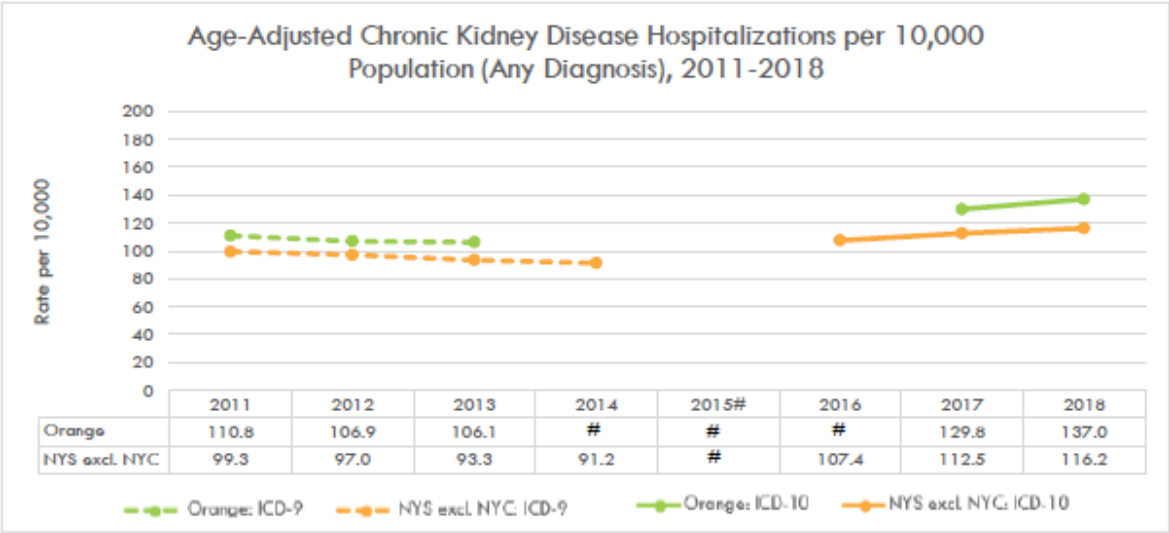
Chronic kidney disease emergency department visit rates have increased in both Orange County and NYS (exclude NYC) since 2011. The rate for Orange County has consistently been higher than that of NYS over time. While Emergency Department visits had been increasing, chronic kidney disease hospitalization rate had been decreasing in the county from 2011-2013. However, the rates increased from 2017-2018. Similarly to Emergency Department visit rates, the hospitalization rate for chronic kidney disease in Orange County has remained higher than that of NYS (excluding NYC) over time [see Figure 47, Figure 48].

Figure 47



#: The rate for 2015 is excluded due to SPARCS data transitioning on October 1, 2015 from ICD-9-CM to ICD-10-CM diagnosis codes. Due to this transition, data for 2016-and-forward should not be compared with data for 2014-and-prior.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022 https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=De3a&cos=33#pagetitle
Original Data Source: SPARCS, Updated as of November 2021

Figure 48



	2011	2012	2013	2014	2015#	2016	2017	2018
Orange	110.8	106.9	106.1	#	#	#	129.8	137.0
NYS excl. NYC	99.3	97.0	93.3	91.2	#	107.4	112.5	116.2

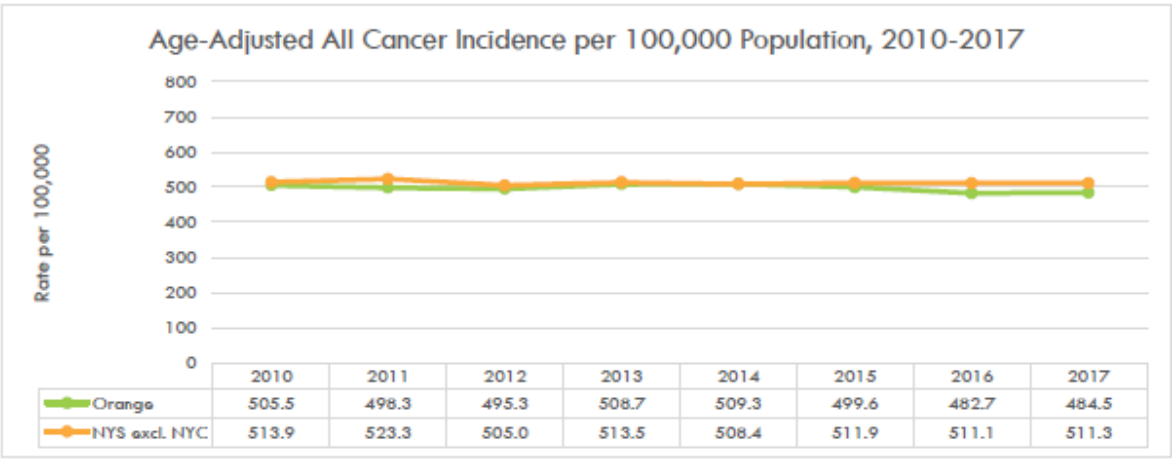
#: The rate for 2015 is excluded due to SPARCS data transitioning on October 1, 2015 from ICD-9-CM to ICD-10-CM diagnosis codes. Due to this transition, data for 2016-and-forward should not be compared with data for 2014-and-prior.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022 https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Dh50a&cos=33#pagetitle
SPARCS, Updated as of November 2021

Cancer

Cancer is a disease in which the cells of the body grow out of control and invade tissues in the body. Cancer can metastasize, or spread, from one part of the body to another. These masses of cells that spread are called malignant neoplasms, or tumors. There are a variety of risk factors for cancer, including genetics, environment, and health behaviors. These include smoking, drinking alcohol, diet, and physical activity.

Cancer is one of the leading causes of death across all seven counties in the Mid-Hudson Region. From 2014- 2018 Orange County had an average yearly cancer incidence rate (age-adjusted) of 496.2 per 100,000 population. This rate has remained relatively stable over time in both Orange County and NYS excluding NYC [see Figure 49]. When stratifying by race/ethnicity, the White non-Hispanic population in the county had the highest cancer incidence with a rate of 513.0 per 100,000. This number is slightly below the NYS incidence rate but well above the U.S. national rate. The Asian/Pacific Islander population has the lowest cancer incidence at 338.0 per 100,000 population [see Figure 50]. The discharge rate for malignant neoplasms (cancerous tumors) was much lower in Orange County than in the rest of the Mid-Hudson Region and NYS excluding NYC for both males and females from 2014-2017. Males in Orange County had a slightly higher rate than females, at 17.1 per 10,000 compared to 12.6. This contrasts the trend in the rest of the Mid-Hudson Region and NYS excluding NYC, where females tend to have higher malignant neoplasm discharge rates [see Table 27].

Figure 49

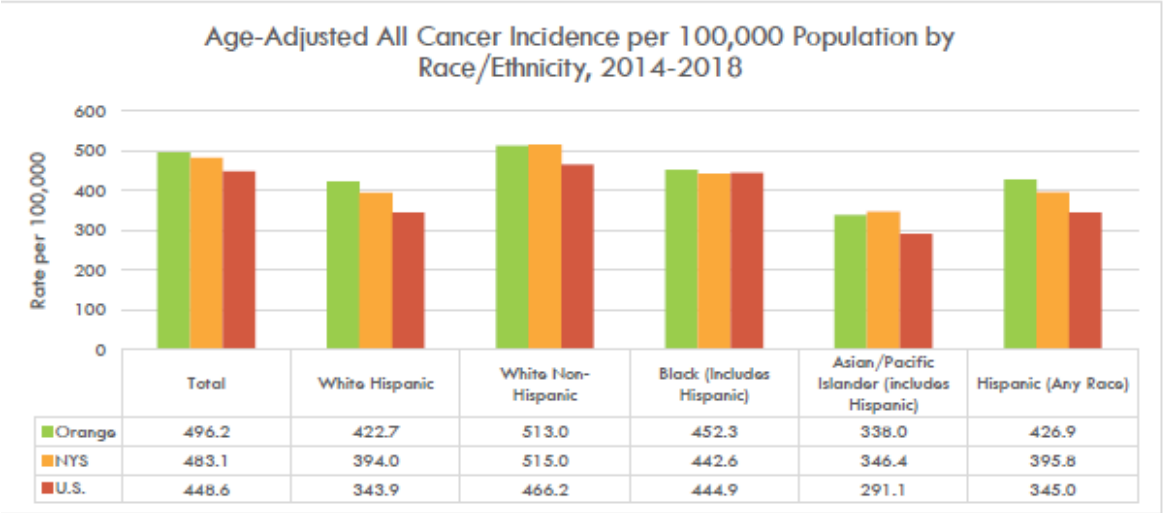


	2010	2011	2012	2013	2014	2015	2016	2017
Orange	505.5	498.3	495.3	508.7	509.3	499.6	482.7	484.5
NYS excl. NYC	513.9	523.3	505.0	513.5	508.4	511.9	511.1	511.3

Note: Three-year averages for Orange County and single-year estimates for NYS excl. NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Ag1a&cos=33#pagetitle
Original Data Source: Cancer Registry Data, Updated as of 2020

23 National Cancer Institute, May 2021, https://www.cancer.gov/about-cancer/understanding/what-is-cancer, Accessed August 2022

Figure 50



Source: NIH National Cancer Institute: State Cancer Profiles, Updated as of November 2020
https://statecancerprofiles.cancer.gov/incidencerates/index.php

Table 27

Malignant Neoplasm Discharges per 10,000 Population by Gender, 2014-2017

	Male		Female	
Region	**#**	**Rate**	**#**	**Rate**
Orange County Total	1289	17.1	950	12.6
Mid-Hudson Region	18558	40.7	20656	42.8
NYS excl. NYC	104597	47.3	110182	48.2

Rates are calculated using ACS 5-year population estimates
Source: 2014-2017 SPARCS Data
Created by the School of Public Health, University at Albany, 2021

From 2015-2019, the average age-adjusted mortality from malignant neoplasms (cancerous tumors) was 151.8 per 100,000 population. This is slightly lower than the overall U.S. rate, but higher than that of NYS excluding NYC [see Figure 53]. The rate of death from malignant neoplasms increases with age and is higher for those who live in zip code 12771 [see Table 28, Figure 52]. When stratifying by race/ethnicity, malignant neoplasm mortality (both crude and age-adjusted) is highest among non-Hispanic Whites in the county and lowest among Hispanic, Asian/Pacific Islander and "Other" racial/ethnic groups. This has consistently been the trend over time [see Table 28, Figure 51, Figure 53].

When looking at rates over time, all cancer mortality rate (age-adjusted) followed a steady trend similar to all cancer incidences until 2014, where mortality in the county began to markedly increase. This differs from NY State, where all cancer mortality continued to decrease over time [Figure 54].

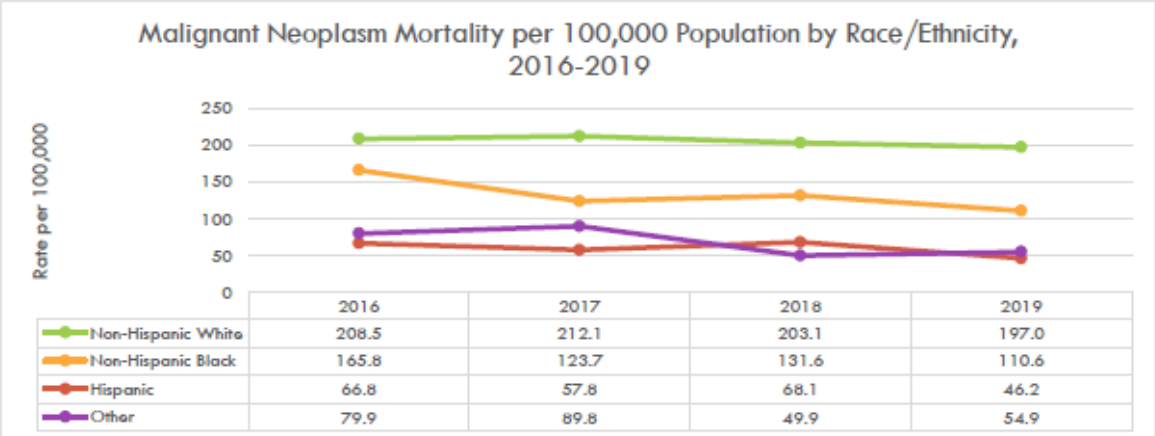
Table 28

Malignant Neoplasm Mortality per 100,000 Population by Age, Race/Ethnicity, and Zip Code, 2016-2019

Region	2016		2017		2018		2019		Total 2016-2019	
	#	Rate	#	Rate	#	Rate	#	Rate	Total #	Avg. Rate
Orange County Total	640	170.1	628	166.1	609	161.0	570	150.0	2,447	161.8
NYS excl. NYC	21,738	193.5	21,518	191.5	21,254	190.2	21,011	188.4	85,521	190.9
Age Intervals										
<1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1-9	s	s	0	0.0	s	s	s	s	s	s
10-19	0	0.0	0	0.0	s	s	0	0.0	s	s
20-24	0	0.0	s	s	s	s	s	s	s	s
25-34	s	s	s	s	s	s	s	s	12	7.0
35-44	15	32.1	16	34.8	s	s	11	24.4	42	22.9
45-54	55	97.6	47	84.3	46	84.3	29	54.1	177	80.4
55-64	115	250.4	132	282.0	107	225.5	117	243.0	471	250.1
65-74	193	699.7	179	621.2	170	570.4	156	508.7	698	597.3
75-84	149	1151.9	149	1111.9	173	1229.7	151	1038.6	622	1132.1
85+	104	1560.9	102	1501.1	97	1474.4	100	1481.9	403	1504.6
Race/Ethnicity										
Non-Hispanic White	509	205.0	518	209.5	496	202.0	481	197.0	2004	203.4
Non-Hispanic Black	63	177.6	47	128.5	50	134.2	42	110.6	202	137.1
Hispanic	52	71.4	45	60.3	53	70.0	36	46.2	186	61.8
Other	16	81.9	18	91.5	10	50.8	11	54.9	55	69.7
Zip Code										
10940	90	182.9	81	163.0	90	183.4	86	179.1	347	177.1
10950	51	102.6	48	95.2	34	66.8	27	53.0	160	79.2
12550	104	190.4	85	154.7	93	169.1	83	150.5	365	166.1
12771	32	227.6	36	253.5	33	223.6	29	196.1	130	224.9

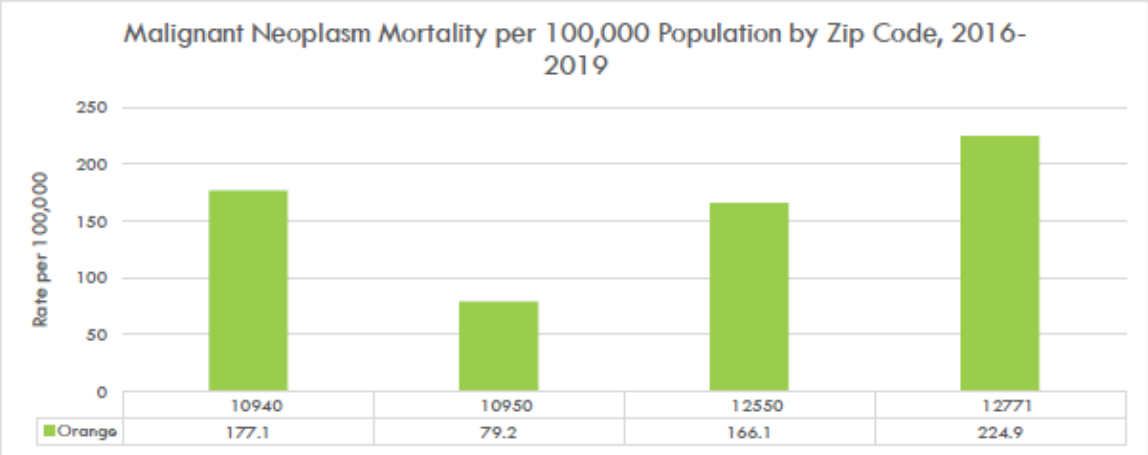
2018-2019 data do not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics
Created by the School of Public Health, University at Albany, 2021

Figure 51



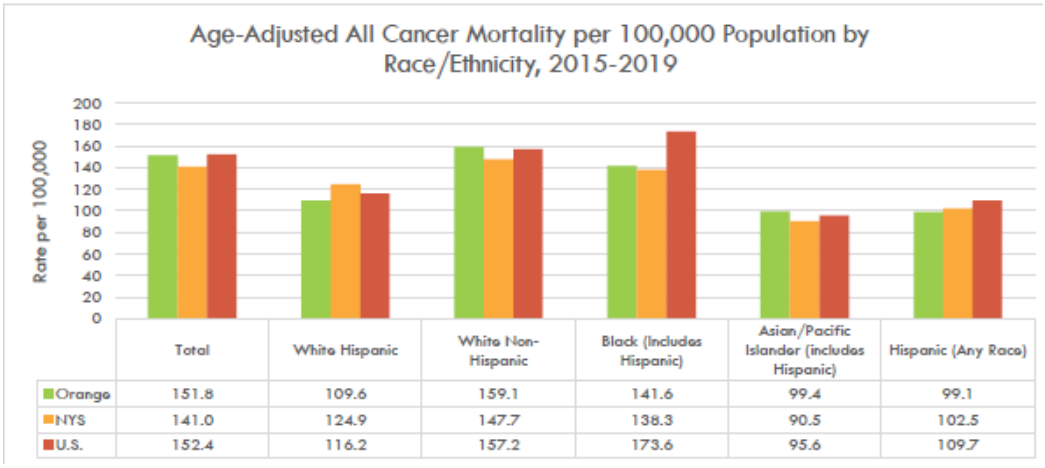
2018-2019 data do not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates
Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics
Created by the School of Public Health, University at Albany, 2021

Figure 52



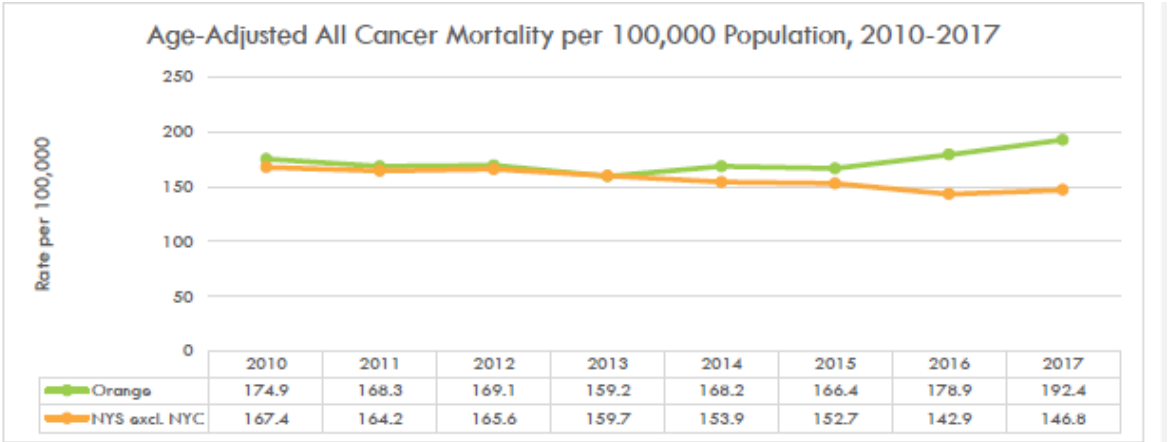
2018-2019 data do not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistic

Figure 53



Source: NIH National Cancer Institute: State Cancer Profiles, Updated as of November 2020
https://statecancerprofiles.cancer.gov/deathrates/index.php

Figure 54



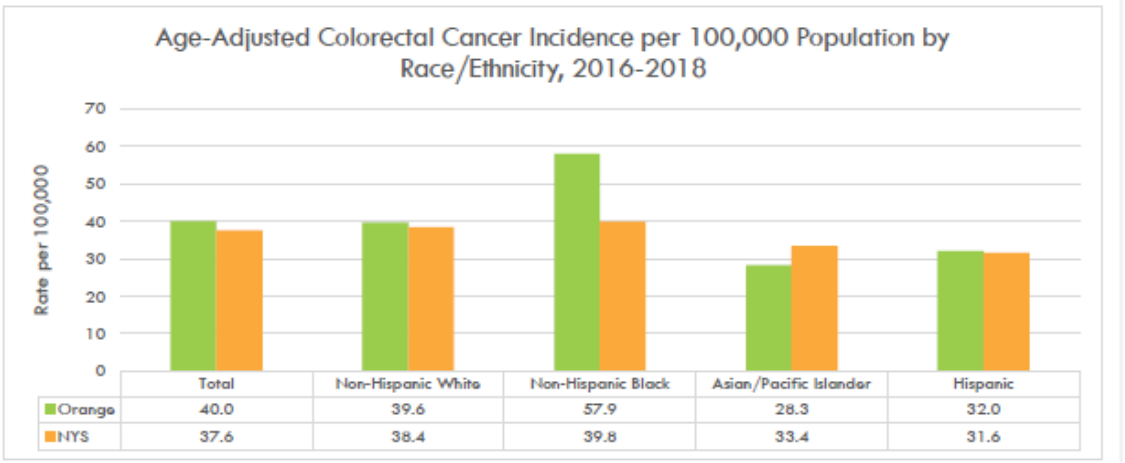
Note: Three-year averages for Orange County and single-year estimates for NYS excl. NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022 https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Ag2a&cos=33#pagetitle
Original Data Source: Cancer Registry Data, Updated as of 2020

Colorectal Cancer

Colorectal cancer is a cancer that occurs in the colon or rectum. Some symptoms include blood in the stool, abdominal pains or aches, fatigue, and abnormal weight loss. From 2016-2018, Orange County had an average colorectal cancer incidence rate of 40.0 per 100,000, which is slightly above the NYS rate. When looking over time, colorectal cancer incidence has slightly decreased in the county as well as in NYS [Figure 55, Figure 56].

There are stark disparities in colorectal cancer incidence by race/ethnicity in the county. The Non-Hispanic Black population had the highest rate at 57.9 per 100,000, compared to the non-Hispanic White, Hispanic, and Asian/Pacific Islander populations [see Figure 55].

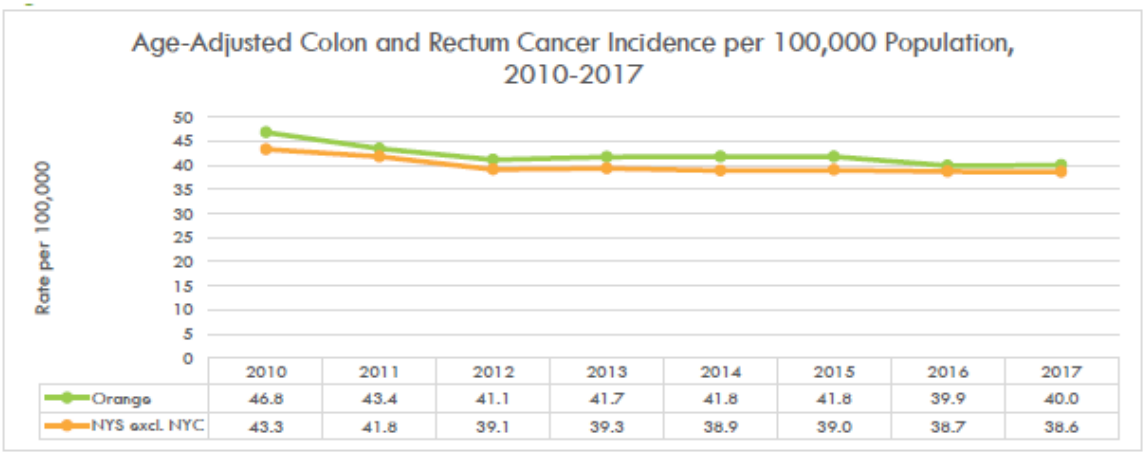
Figure 55



	Total	Non-Hispanic White	Non-Hispanic Black	Asian/Pacific Islander	Hispanic
Orange	40.0	39.6	57.9	28.3	32.0
NYS	37.6	38.4	39.8	33.4	31.6

Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022 https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Figure 56



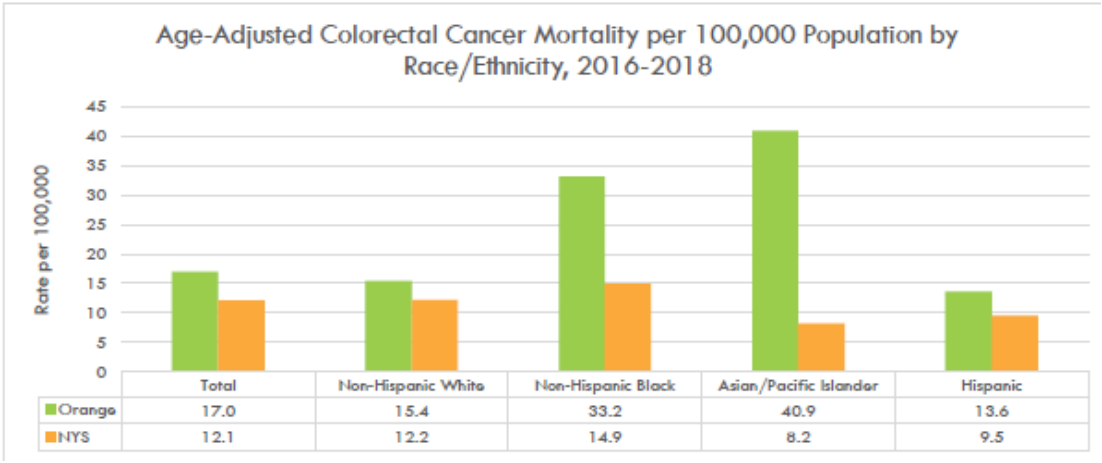
	2010	2011	2012	2013	2014	2015	2016	2017
Orange	46.8	43.4	41.1	41.7	41.8	41.8	39.9	40.0
NYS excl. NYC	43.3	41.8	39.1	39.3	38.9	39.0	38.7	38.6

Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022 https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Ag5a&cos=33#pagetitle
Original Data Source: Cancer Registry Data, Updated as of 2020

Orange County has a colorectal cancer mortality rate of 17 per 100,000, higher than the NYS rate of 12.1. When looking over time, colon and rectum cancer mortality rates have decreased for NYS. However, Orange County's mortality rates appear to fluctuate annually, decreasing one year and increasing the next. This pattern continued until 2016, where colon and rectum cancer mortality rate began to steadily increase, reaching its highest point yet in 2017, at 17.0 per 100,000 [see Figure 57, Figure 58].

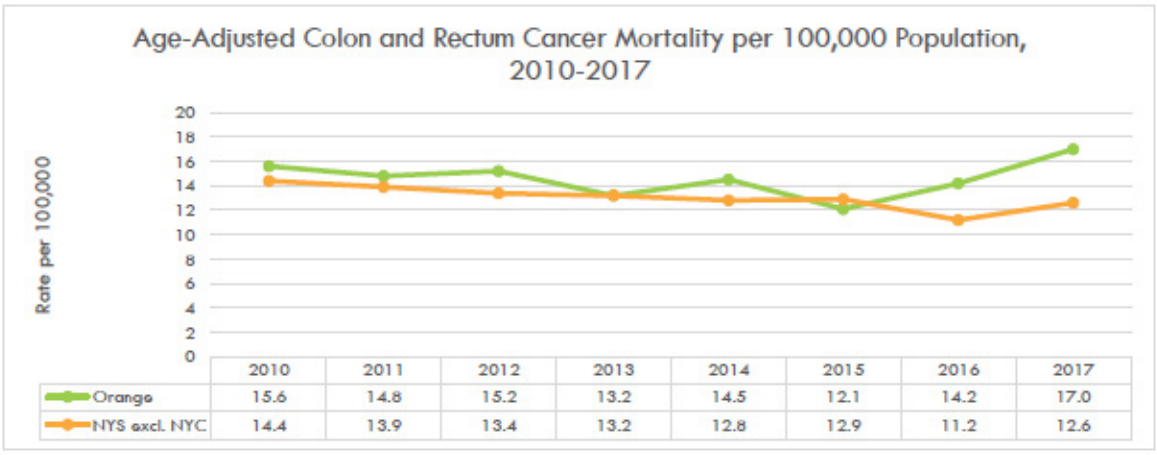
There are clear disparities when looking at mortality rates by race/ethnicity. Similar to the colorectal cancer incidence, colorectal cancer mortality is higher for the non-Hispanic Black population compared to those who are non-Hispanic White and Hispanic. However, the Asian/Pacific Islander population has the highest mortality rate by far at 40.9 per 100,000, despite the populations low incidence of colorectal cancer [see Figure 57].

Figure 57



Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Figure 58



Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Ag6a&cos=33#pagetitle

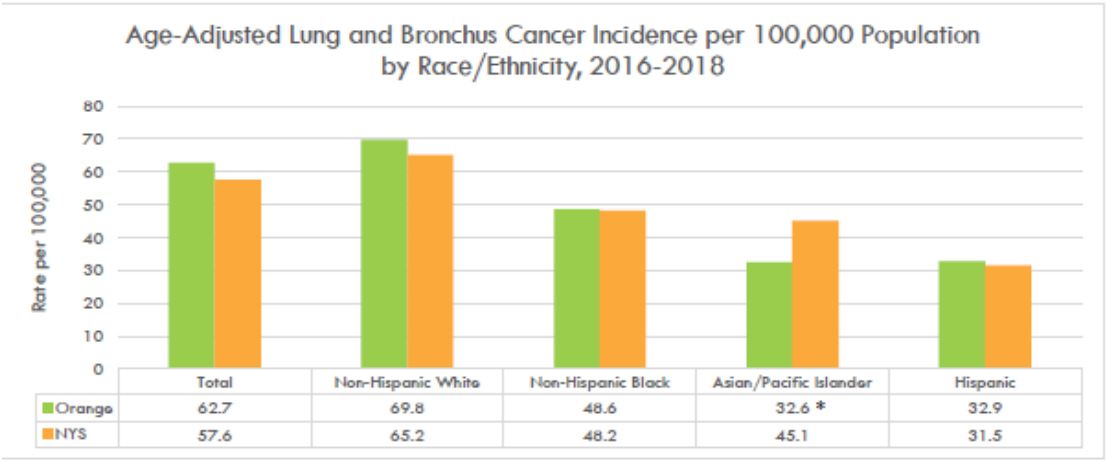
Lung and Bronchus Cancer

Lung cancer is the primary cause of cancer deaths, for both males and females, in all the Mid-Hudson Region and New York State. Some symptoms of lung cancer include chest pain, coughing (sometimes with blood), shortness of breath, and/or wheezing. The leading risk factor for lung cancer is tobacco use. According to the NYSDOH, smoking is responsible for 80% of lung cancers. Another risk factor for lung cancer is radon exposure. Radon is a colorless, radioactive gas that comes from the decay of elements such as uranium, which is found in soil and rock. Radon is in the surrounding air, so it is not possible to completely avoid it. However, preventive measures can be taken to lower exposure, such as utilization of radon detection kits in the home or office.

Between 2016-2018, Orange County had a Lung and Bronchus Cancer incidence rate (age-adjusted) of 62.7 per 100,000 population, which exceeds the NY state rate. When looking over time, the incidence of lung and bronchus cancer has not changed much in the county and the state (excluding NYC). Lung and bronchus cancer incidence differs between racial/ethnic groups, with non-Hispanic Whites in the county having the highest rate or 69.8 per 100,000 [see Figure 59, Figure 60].

The lung and bronchus cancer mortality rate remained relatively stable in Orange County, until 2016-2017, where there was a slight increase. This differed from NY State excluding NYC, where there was a decrease in lung and bronchus cancer mortality over time [Figure 61].

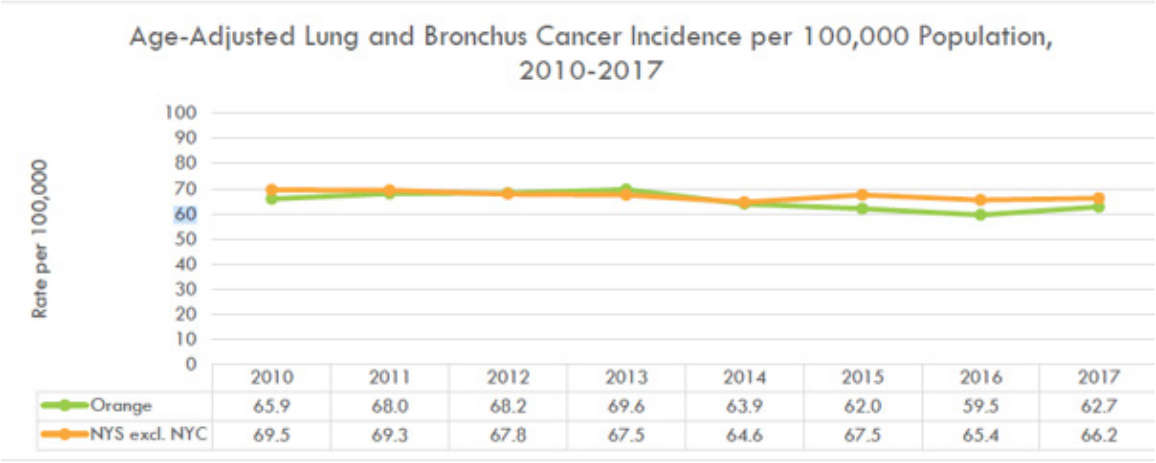
Figure 59



	Total	Non-Hispanic White	Non-Hispanic Black	Asian/Pacific Islander	Hispanic
Orange	62.7	69.8	48.6	32.6 *	32.9
NYS	57.6	65.2	48.2	45.1	31.5

**: Fewer than 10 events in the numerator, therefore, the rate is unstable.*
Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

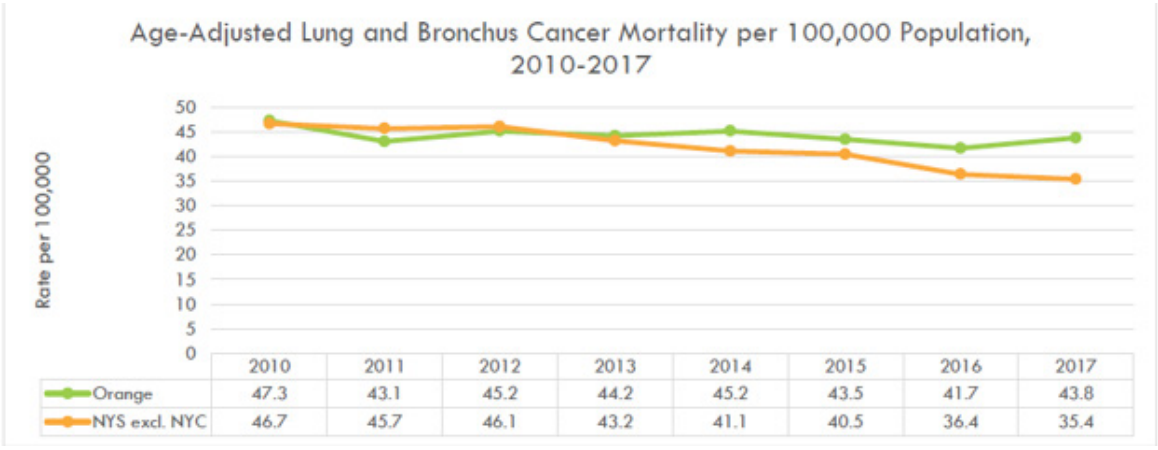
Figure 60



	2010	2011	2012	2013	2014	2015	2016	2017
Orange	65.9	68.0	68.2	69.6	63.9	62.0	59.5	62.7
NYS excl. NYC	69.5	69.3	67.8	67.5	64.6	67.5	65.4	66.2

Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Ag7a&cos=33#pagetitle
Original Data Source: Cancer Registry Data, Updated as of 2020

Figure 61



	2010	2011	2012	2013	2014	2015	2016	2017
Orange	47.3	43.1	45.2	44.2	45.2	43.5	41.7	43.8
NYS excl. NYC	46.7	45.7	46.1	43.2	41.1	40.5	36.4	35.4

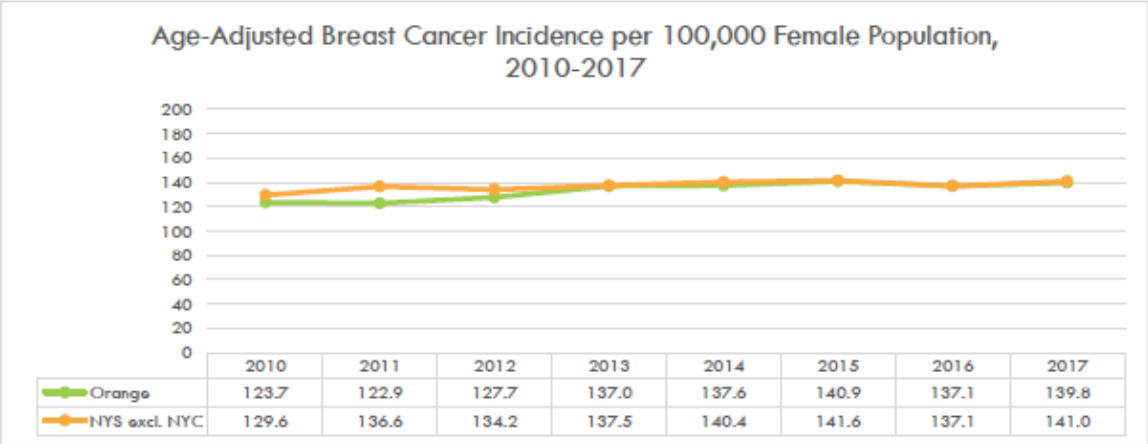
Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Ag8a&cos=33#pagetitle
Original Data Source: Cancer Registry Data, Updated as of 2020

Female Breast Cancer

Breast cancer is one of the most prevalent cancers in American women. The most common symptom of breast cancer is a lump or mass found in the breast. The average risk of a woman in the U.S. developing breast cancer in her lifetime is about 12%.

As of the most recent data in 2017, the incidence rate of breast cancer (age-adjusted) in Orange County was 139.8 per 100,000 female population, which has been a slight increase from what the rate was back in 2010 (123.7) [see Figure 62]. Late-stage breast cancer incidence in the county (age-adjusted) averaged at 45.7 per 100,000 female population from 2016-2018, slightly above the NYS rate of 41.4. When stratifying by race, it is clear that non-Hispanic Black women suffer a much higher rate (59.2) of late-stage breast cancer incidence than other race/ethnicity in the county [see Figure 63].

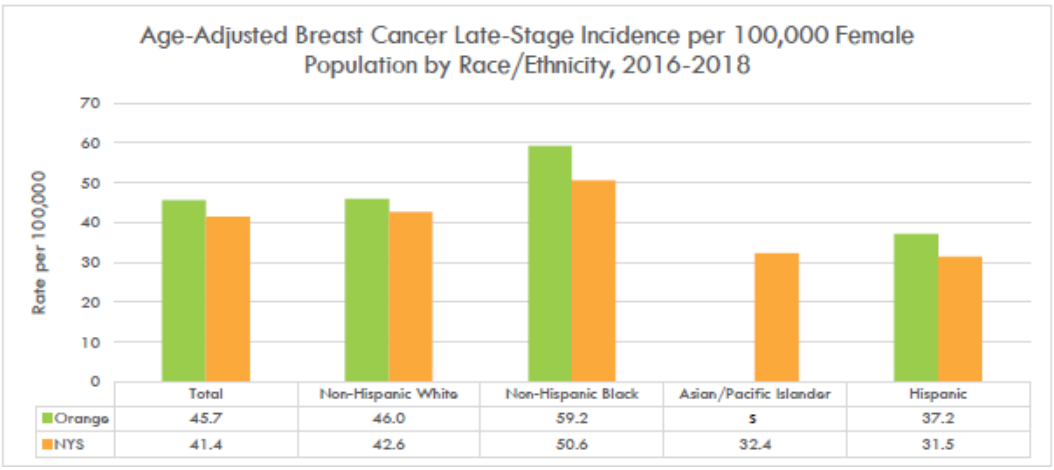
Figure 62



	2010	2011	2012	2013	2014	2015	2016	2017
Orange	123.7	122.9	127.7	137.0	137.6	140.9	137.1	139.8
NYS excl. NYC	129.6	136.6	134.2	137.5	140.4	141.6	137.1	141.0

Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Ag9a&cos=33#pagetitle
Original Data Source: Cancer Registry Data, Updated as of 2020

Figure 63



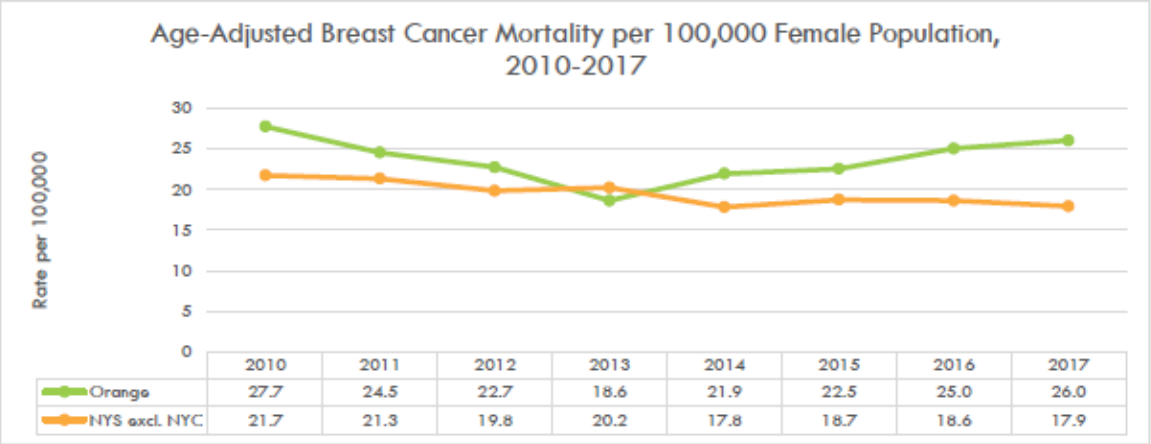
	Total	Non-Hispanic White	Non-Hispanic Black	Asian/Pacific Islander	Hispanic
Orange	45.7	46.0	59.2	s	37.2
NYS	41.4	42.6	50.6	32.4	31.5

s: Data are suppressed. The data do not meet the criteria for confidentiality.
Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Breast cancer mortality (age-adjusted) has been rising in Orange County since 2013 and has surpassed that of NYS, climbing from a rate of 18.6 per 100,000 female population in 2013 to 26.0 in 2017 [see Figure 64].

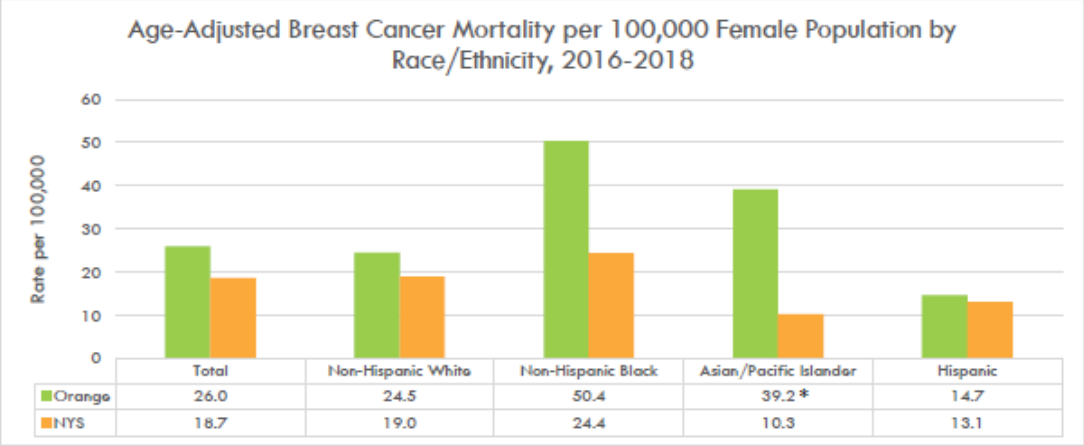
Similar to the breast cancer incidence, there are disparities in breast cancer mortality by race/ethnicity. Non- Hispanic Black women face the highest rate of breast cancer mortality, at 50.4 per 100,000 female population, which is double the rate for non-Hispanic Whites. The Asian/Pacific Islander rate is also disproportionately high at 39.2 per 100,000 [see Figure 65].

Figure 64



Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Ag10a&cos=33#pagetitle
Original Data Source: Cancer Registry Data, Updated as of 2020

Figure 65

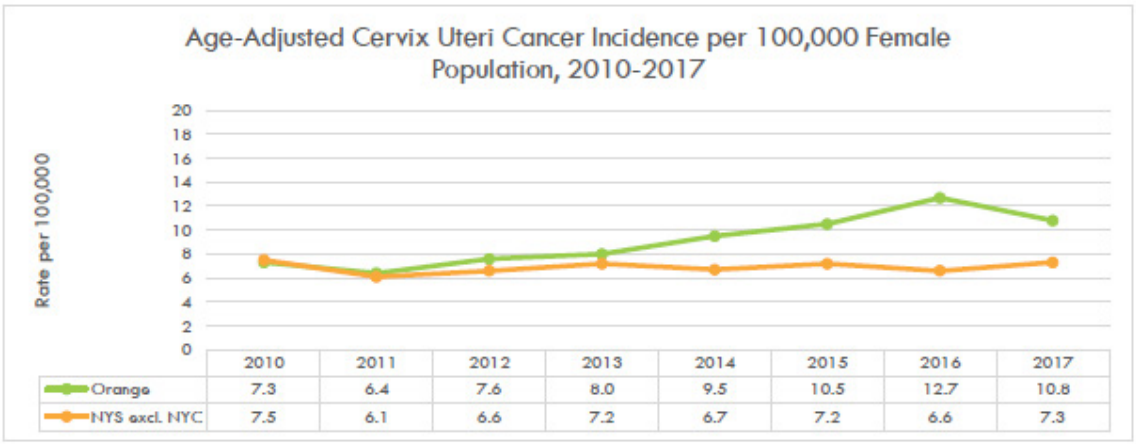


**: Fewer than 10 events in the numerator, therefore, the rate is unstable.*
Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Cervix Uteri Cancer

Cervical cancer/cervix uteri cancer occurs in the lower part of the uterus, or cervix. Most cases of cervical cancer are related to infection with human papillomavirus (HPV). The cervix uteri cancer incidence in Orange County has seen an increasing trend since 2010 and is higher than that of NYS excluding NYC. The mortality rate of cervix uteri cancer is also higher in Orange County than NYS excluding NYC, and it has been increasing since 2015 [see Figure 66, Figure 67].

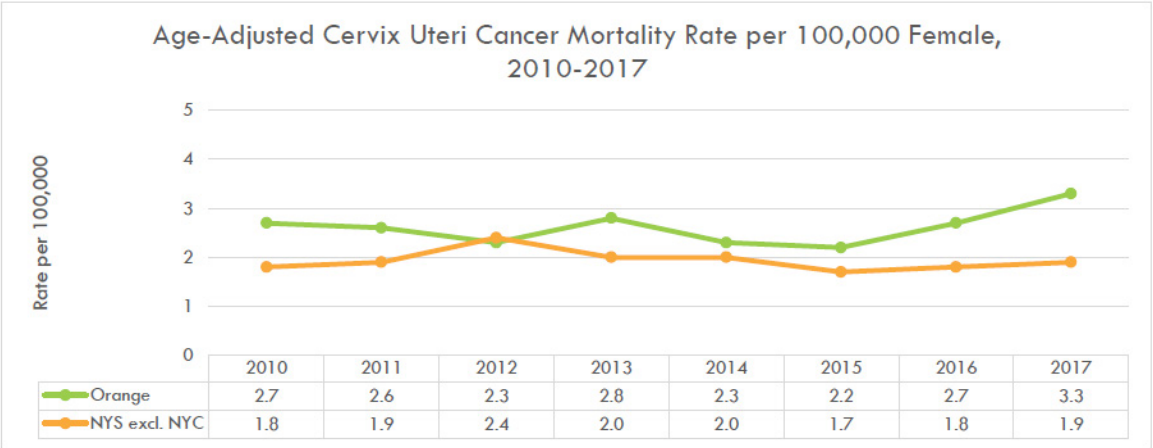
Figure 66



Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022 https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Ag12a&cos=33#pagetitle

24 Mayo Clinic, June 2021, https://www.mayoclinic.org/diseases-conditions/cervical-cancer/symptoms-causes/syc- 20352501#:~:text=Cervical%20cancer%20is%20a%20type,in%20causing%20most%20cervical%20cancer, accessed August 2022

Figure 67



	2010	2011	2012	2013	2014	2015	2016	2017
Orange	2.7	2.6	2.3	2.8	2.3	2.2	2.7	3.3
NYS excl. NYC	1.8	1.9	2.4	2.0	2.0	1.7	1.8	1.9

Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022 https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Ag13a&cos=33#pagetitle
Cancer Registry Data, Updated as of 2020

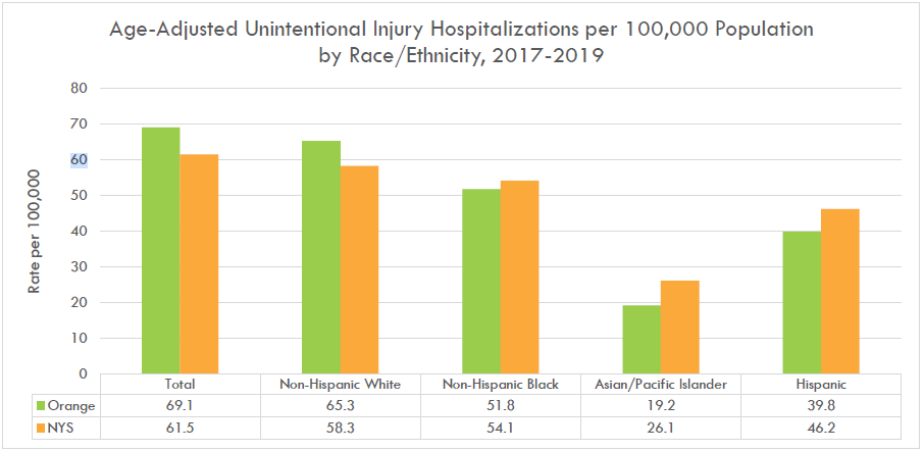
Promote A Healthy And Safe Environment

Safety Injury

Injury is one of the leading causes of death in New York State, killing more than 7,250 New Yorkers each year. For New Yorkers aged 1-44 years, injury is the number one cause of death. According to the NYSDOH, "Injuries occur in predictable patterns, with recognizable risk factors, and among identifiable populations." Beyond death, consequences from injuries include financial burden, disability, poor mental health, and lost productivity. Injury is often broken out into two categories: intrapersonal violence and unintentional injuries. Unintentional injury may include traffic injuries, falls, drownings, and poisonings.

From 2019-2019, hospitalizations from unintentional injuries in Orange County occurred at a rate of 69.1 per 100,000 population, which is above the New York State rate. When stratifying by race/ethnicity, the non- Hispanic population has the highest rate at 65.3 per 100,000, and the Asian/Pacific Islander population has the lowest at 19.2 [see Figure 68].

Figure 68



	Total	Non-Hispanic White	Non-Hispanic Black	Asian/Pacific Islander	Hispanic
Orange	69.1	65.3	51.8	19.2	39.8
NYS	61.5	58.3	54.1	26.1	46.2

Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022 https://www.health.ny.gov/statistics/community/minority/county/orange.htm

The average mortality rate for accidents in Orange County from 2016-2019 was 45.5 per 100,000 population, which is similar to that of NYS excluding NYC. Mortality from accidents is highest among individuals 75 and older.
Among those younger than 75, 25–34-year-olds have the highest accidents mortality rate. When stratifying by race/ethnicity, non-Hispanic Whites die more from accidents than other groups. All racial/ethnic groups in the county saw a lower rate of accident mortality in 2019 compared to 2018, except for the Hispanic group which the rate slightly increased. Zip code seems to also be associated with accident mortality rate, with those living in in 12771 having a much higher rate of accident mortality than other zip codes in Orange County [see Table 29, Figure 69, Figure 70].

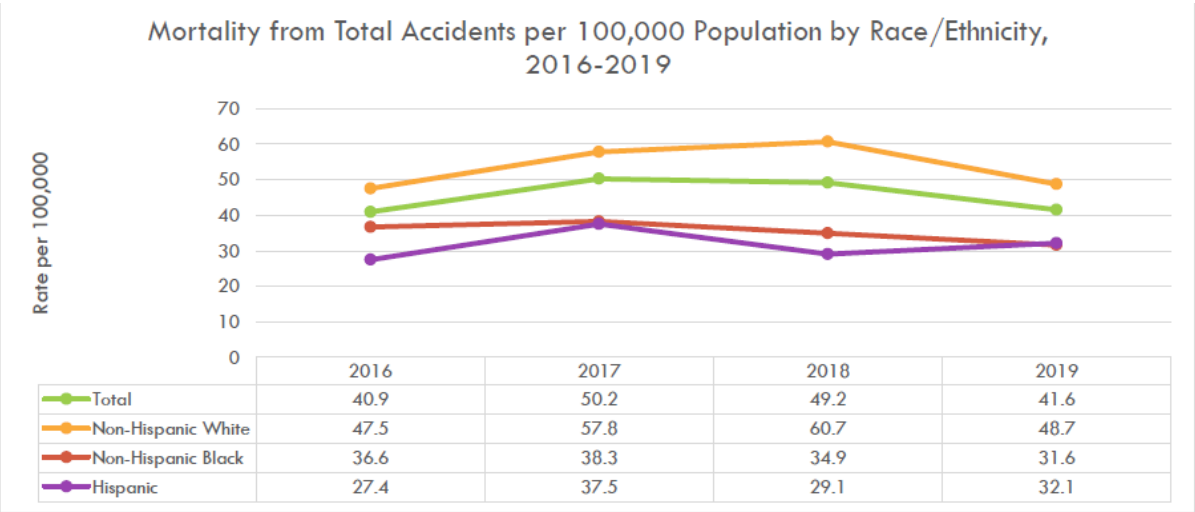
Table 29

Mortality from Total Accidents per 100,000 Population by Age, Race/Ethnicity, and Zip Code, 2016-2019

	2016		2017		2018		2019		Total 2016-2019	
Region	#	Rate	#	Rate	#	Rate	#	Rate	Total #	Avg. Rate
Orange County Total	154	40.9	190	50.2	186	49.2	158	41.6	688	45.5
NYS excl. NYC	5,127	45.6	5,372	47.8	5,052	45.2	4,872	43.7	20,423	45.6
Age Intervals										
<1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1-9	s	s	s	s	s	s	s	s	s	s
10-19	s	s	s	s	s	s	s	s	s	s
20-24	11	38.4	12	41.7	s	s	13	45.4	45	41.9
25-34	29	68.9	42	98.0	46	106.5	37	84.1	154	89.4
35-44	28	60.0	24	52.2	21	46.4	26	57.6	99	54.0
45-54	11	19.5	27	48.4	33	60.5	16	29.9	87	39.6
55-64	22	47.9	24	51.3	26	54.8	21	43.6	93	49.4
65-74	12	43.5	18	62.5	15	50.3	19	62.0	64	54.6
75-84	18	139.2	17	126.9	10	71.1	15	103.2	60	110.1
85+	15	225.1	19	279.6	19	288.8	s	s	62	264.5
Race/Ethnicity										
Non-Hispanic White	118	47.5	143	57.8	149	60.7	119	48.7	529	53.7
Non-Hispanic Black	13	36.6	14	38.3	13	34.9	12	31.6	52	35.3
Hispanic	20	27.4	28	37.5	22	29.1	25	32.1	95	31.5
Other	s	s	s	s	s	s	s	s	s	s
Zip Code										
10940	22	44.7	34	68.4	27	55.0	22	45.8	105	53.5
10950	12	24.1	17	33.7	12	23.6	14	27.5	55	27.2
12550	24	43.9	20	36.4	24	43.6	23	41.7	91	41.4
12771	s	s	s	s	s	s	11	74.4	34	74.4

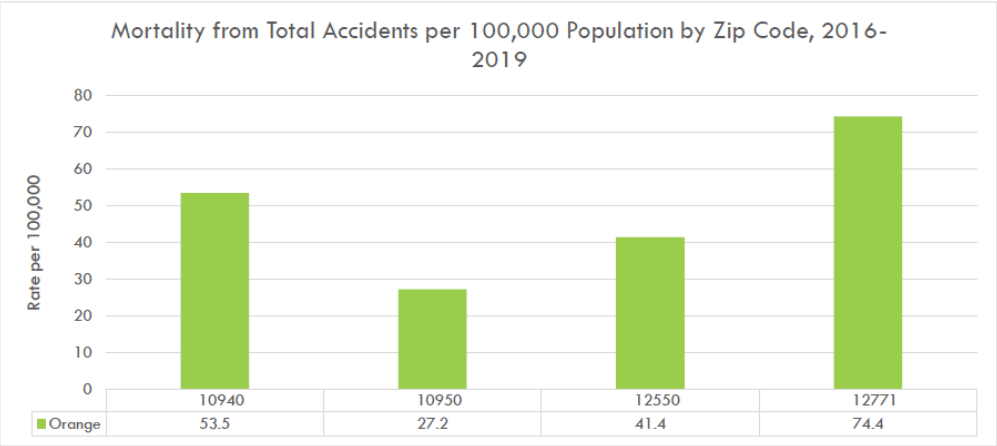
2018-2019 data does not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics Created by the School of Public Health, University at Albany 2021

Figure 69



2018-2019 data does not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
Source: School of Public Health, University at Albany, 2021
Original Data Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics

Figure 70



2018-2019 data does not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
Source: School of Public Health, University at Albany, 2021
Original Data Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics

Vital Statistics, Office Of Vital Statistics Falls

Falls account for a significant risk of injury for all age groups. Older adults aged 65 years and older are at the greatest risk for falls with more than one out of four experiencing a fall each year.
Consequences of falls:

- Cause 95% of hip fractures
- Cause fear, which can lead to decreased physical activity
- Commonly cause traumatic brain injury
- Account for $50 billion in medical costs, 75% of which were covered by Medicare and Medicaid

Risk factors:

- Lower body weakness
- Certain medications
- Poor vision
- Environmental hazards, such as broken steps, throw-rugs, and clutter
- Vitamin D deficiency

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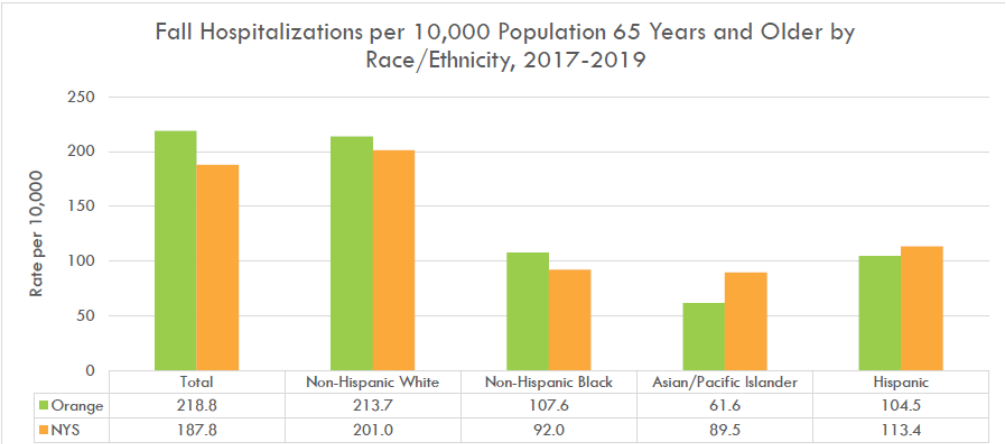
From 2017-2019 the average fall hospitalization rate in Orange County was 218.8 per 10,000, which exceeds NY state's rate. Further, certain racial/ethnic groups are disproportionately affected by fall hospitalizations. The Non-Hispanic white population has the highest rate at 213.7 per 10,000, while the Asian/Pacific Islander population has the lowest, at 61.6 [see Figure 71].

Figure 71



Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022 https://www.health.ny.gov/statistics/community/minority/county/orange.htm

25 CDC, August 2021, https://www.cdc.gov/homeandrecreationalsafety/falls/adultfalls.html, accessed July 2022

Promote Healthy Women, Infants, And Children

Births

There was a total of 18,555 births in Orange County from 2016-2019. The average annual rate of births was 66.0 per 1,000 females aged 15-44. Most births were given by women aged 25-44, closely followed by those aged 20-24. A small proportion of births in the county were given by teen mothers (aged 15-19). Birth rates have remained relatively steady over time, but have been consistently highest for non-Hispanic White and Hispanic populations, and the 10950 zip code [see Table 30, Figure 72, Figure 73, Figure 74].

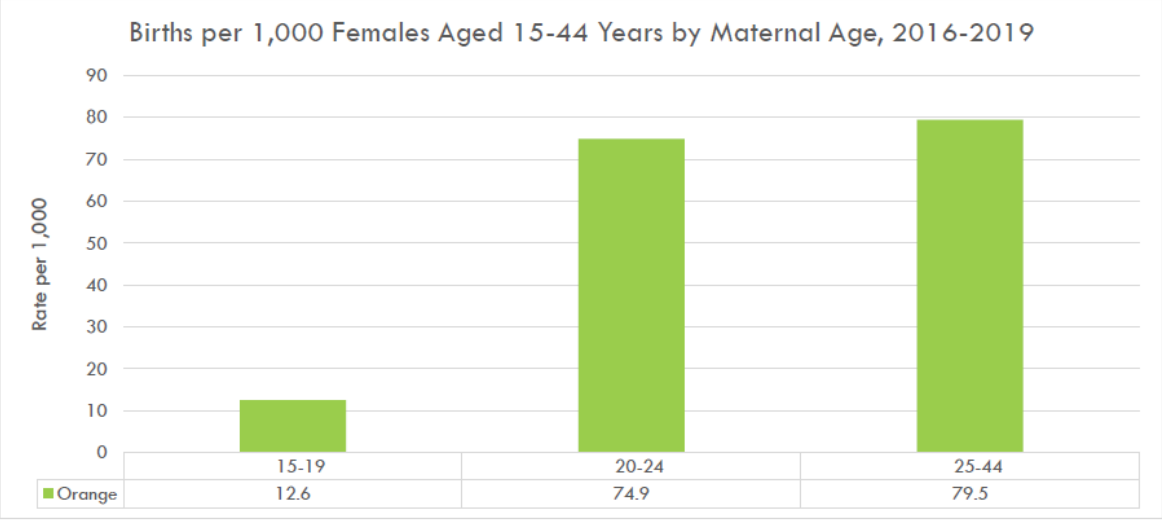
Table 30

Births per 1,000 Females Aged 15-44 Years by Maternal Age, Race/Ethnicity, and Zip Code, 2016-2019

	2016		2017		2018		2019		Total 2016-2019	
	#	Rate	#	Rate	#	Rate	#	Rate	Total #	Avg. Rate
Orange County Total	4760	67.5	4866	69.2	4417	63.1	4512	64.2	18,555	66.0
Age Intervals										
15-19	186	13.7	198	14.7	135	10.0	162	12.0	681	12.6
20-24	1015	82.3	922	74.7	877	70.8	890	71.8	3704	74.9
25-44	3546	79.6	3728	83.8	3394	76.8	3448	77.6	14116	79.5
Race/Ethnicity										
Non-Hispanic White	3068	74.8	3094	75.5	2690	65.6	2765	67.4	11617	70.8
Non-Hispanic Black	427	48.1	414	46.7	440	49.6	434	48.9	1715	48.3
Hispanic	1121	64.8	1199	69.4	1128	65.2	1158	67.0	4606	66.6
Other	144	39.9	159	44.0	159	44.0	155	42.9	617	42.7
Zip Code										
10940	602	58.9	630	61.9	573	58.6	588	61.4	2393	60.2
10950	1492	164.0	1515	166.6	1249	134.6	1342	141.7	5598	151.5
12550	741	65.7	747	66.2	696	63.5	651	57.6	2835	63.3
12771	161	67.3	149	61.3	153	58.2	167	61.4	630	61.9

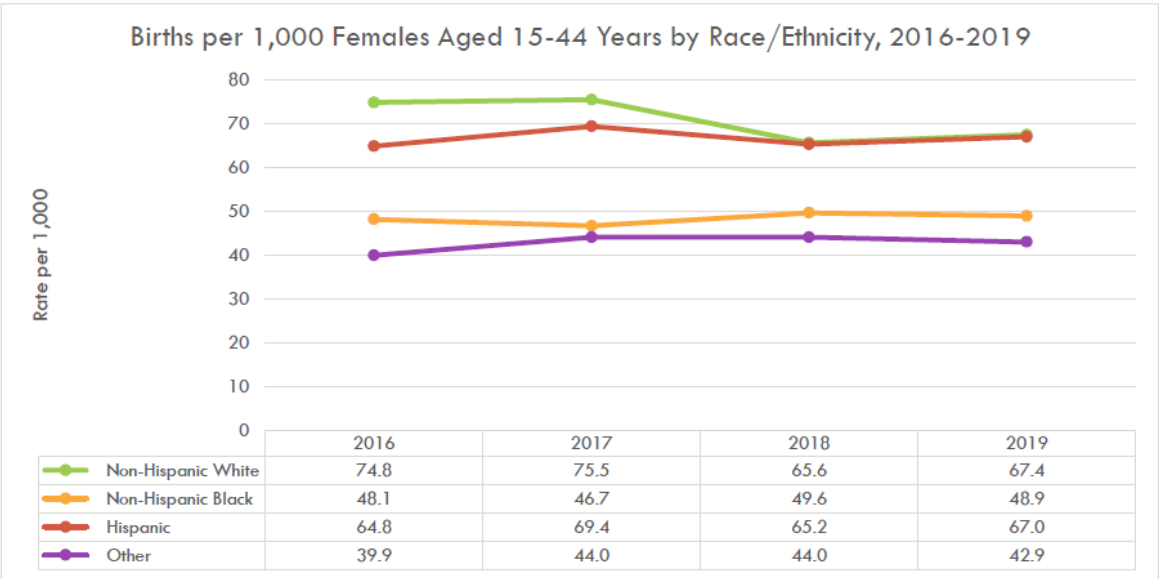
2018-2019 data does not include Orange County births recorded in NYC
All rates are calculated using ACS 5-year population estimates
Note: Rates for Race/Ethnicity calculated using ACS 2019 5-year population estimates only
Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics
Created by the School of Public Health, University at Albany, 2021

Figure 72



2018-2019 data does not include Orange County births recorded in NYC
All rates are calculated using ACS 5-year population estimates
Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics

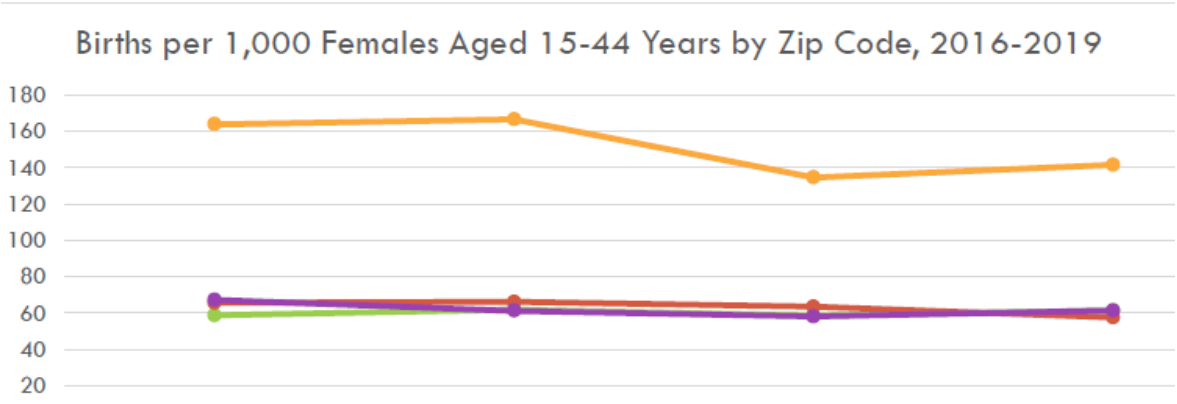
Figure 73



	2016	2017	2018	2019
Non-Hispanic White	74.8	75.5	65.6	67.4
Non-Hispanic Black	48.1	46.7	49.6	48.9
Hispanic	64.8	69.4	65.2	67.0
Other	39.9	44.0	44.0	42.9

2018-2019 data does not include Orange County births recorded in NYC
Note: Rates for Race/Ethnicity calculated using ACS 2019 5-year population estimates only
Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics

Figure 74



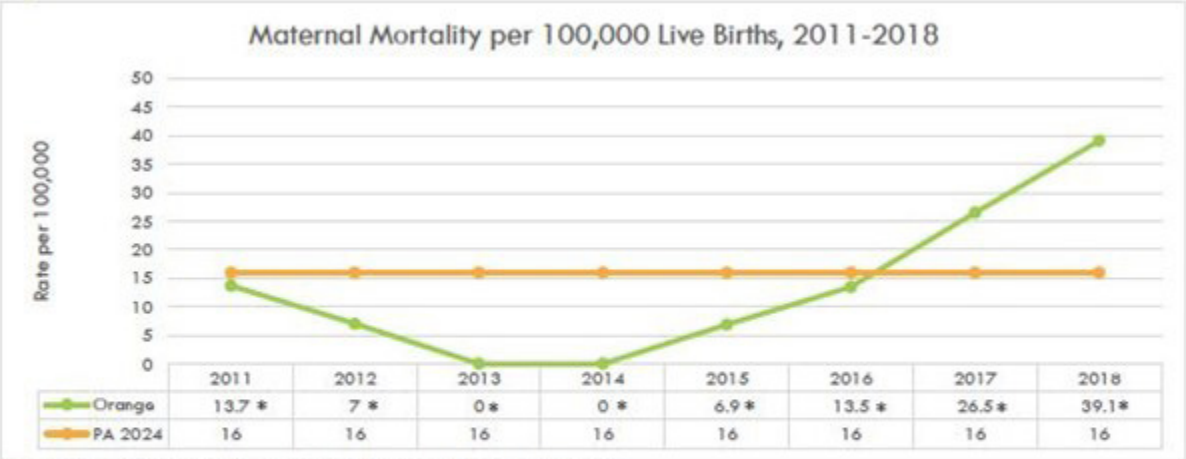
	2016	2017	2018	2019
10940	58.9	61.9	58.6	61.4
10950	164.0	166.6	134.6	141.7
12550	65.7	66.2	63.5	57.6
12771	67.3	61.3	58.2	61.4

2018-2019 data does not include Orange County births recorded in NYC
All rates are calculated using ACS 5-year population estimates
Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics

Maternal Health

Maternal mortality refers to the death of a person while they are pregnant, in delivery, or soon after giving birth. Maternal mortality and morbidity are key indicators of the overall health of a society. In the U.S., maternal mortality rates have doubled in the past decade, and these deaths are plagued with racial and ethnic disparities. In NYS in particular, black women are three times more likely to die from pregnancy-related complications than white women. In Ora nge County, the rates of maternal mortality have steeply increased from 2014 onward, reaching a rate of 39.1 per 100,000 live births in 2018. This rate far exceeds the PA 2024 goal of 16 per 100,000. [see Figure 75].

Figure 75



	2011	2012	2013	2014	2015	2016	2017	2018
Orange	13.7 *	7 *	0 *	0 *	6.9 *	13.5 *	26.5 *	39.1 *
PA 2024	16	16	16	16	16	16	16	16

* Fewer than 10 events in the numerator, therefore the rate is unstable.
Note: Three-year averages for Orange County are graphed above.
Source: New York State Prevention Agenda 2019-2024 Dashboard, Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/dashboard/pa_dashboard&p=ctr&ind_id=pa53_0%20&cos=33
Original Data Source: Vital Records, Updated as of January 2022

Prenatal Care

Prenatal care is the health care received from medical providers during pregnancy, including checkups, physicals, and prenatal testing. Getting early and regular prenatal care in the first trimester can help keep mothers and their babies healthy, as it lets medical providers identify and treat health problems early. Of the mothers who do not get prenatal care, their babies are three times more likely to have a low birth weight and five times more likely to die.

From 2016-2019, an average of 69.1% of births in Orange County had early (first trimester) prenatal care. There were disparities in prenatal care by age of the mother, and race/ethnicity. Births given to younger mothers were less likely to have prenatal care compared to births to older mothers [Table 31, Figure 76]. Non- Hispanic White births were more likely to have early prenatal care than non-Hispanic Black and Hispanic Births, and births of "other" races/ethnicities were the least likely to have early prenatal care. While most demographics in the county experienced an increase in births with prenatal care from 2018 to 2019, births to mothers aged 15-17, Hispanic births, and "other "raced births continued to decrease in their early care coverage from [see Table 31, Figure 77]. Further, early prenatal care coverage has been decreasing consistently in zip code 12550 since 2017, while all other zip codes experienced a slight increase from 2018- 2019 [Table 31, Figure 78].

Mothers were less likely to have prenatal care compared to births to older mothers. Non- Hispanic White births were more likely to have early prenatal care than non-Hispanic Black and Hispanic Births, and births of "other" races/ethnicities were the least likely to have early prenatal care. While most demographics in the county experienced an increase in births with prenatal care from 2018 to 2019, births to mothers aged 15-17, Hispanic births, and "other"-raced births continued to decrease in their early care coverage from [see Table 31]. Further, early prenatal care coverage has been decreasing consistently in zip code 12550 since 2017, while all other zip codes experienced a slight increase from 2018- 2019.

[26] NYS Taskforce on Maternal Mortality and Disparate Racial Outcomes, March 2019, https://www.health.ny.gov/community/adults/women/task_force_maternal_mortality/docs/maternal_mortality_report.pdf, accessed August 2022

[27] Office on Women's Health, February 2021, https://www.womenshealth.gov/a-z-topics/prenatal-care, accessed July 2022

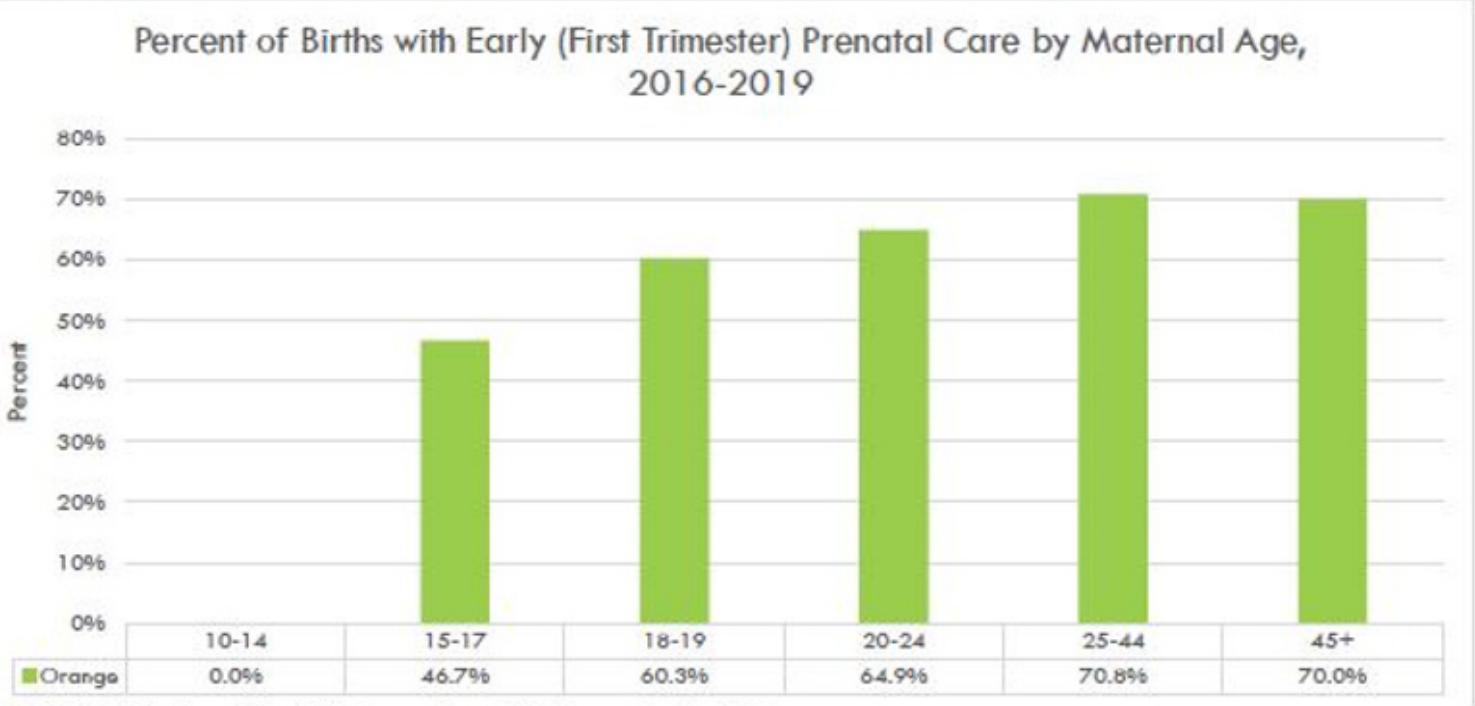
Table 31

Percent of Births with Early (First Trimester) Prenatal Care by Age, Race/Ethnicity, and Zip Code, 2016-2019										
	2016		2017		2018		2019		Total 2016-2019	
	# Births		# Births		# Births		# Births		Total # Births	
Orange County Total Births	4760		4866		4417		4512		18555	
	# w/ Early Care	%	# w/ Early Care	%	# w/ Early Care	%	# w/ Early Care	%	Total # w/ Early Care	Avg. %
Orange County Births with Early Prenatal Care	3444	72.4%	3464	71.2%	2782	63.0%	3136	69.5%	12826	69.1%
Age Intervals										
10-14	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.0	0.0%
15-17	15	51.7%	19	52.8%	10	43.5%	13	38.2%	57	46.7%
18-19	110	70.1%	103	63.6%	55	49.1%	69	53.9%	337	60.3%
20-24	706	69.6%	625	67.8%	480	54.7%	594	66.7%	2405	64.9%
25-44	2605	73.5%	2705	72.6%	2229	65.7%	2453	71.1%	9992	70.8%
45+	s	s	12	70.6%	s	s	s	s	35	70.0%
Race/Ethnicity										
Non-Hispanic White	2313	75.4%	2276	73.6%	1728	64.2%	2082	75.3%	8399	72.3%
Non-Hispanic Black	277	64.9%	265	64.0%	274	62.3%	284	65.4%	1100	64.1%
Hispanic	753	67.2%	830	69.2%	692	61.3%	694	59.9%	2969	64.5%
Other	101	70.1%	93	58.5%	88	55.3%	76	49.0%	358	58.0%
Zip Code										
10940	396	65.8%	430	68.3%	369	64.4%	384	65.3%	1579	66.0%
10950**	1109	74.3%	1077	71.1%	671	53.7%	981	73.1%	3838	68.6%
12550	542	73.1%	560	75.0%	452	64.9%	374	57.5%	1928	68.0%
12771	99	61.5%	99	66.4%	88	57.5%	116	69.5%	402	63.8%

2018-2019 data does not include Orange County Births recorded in NYC

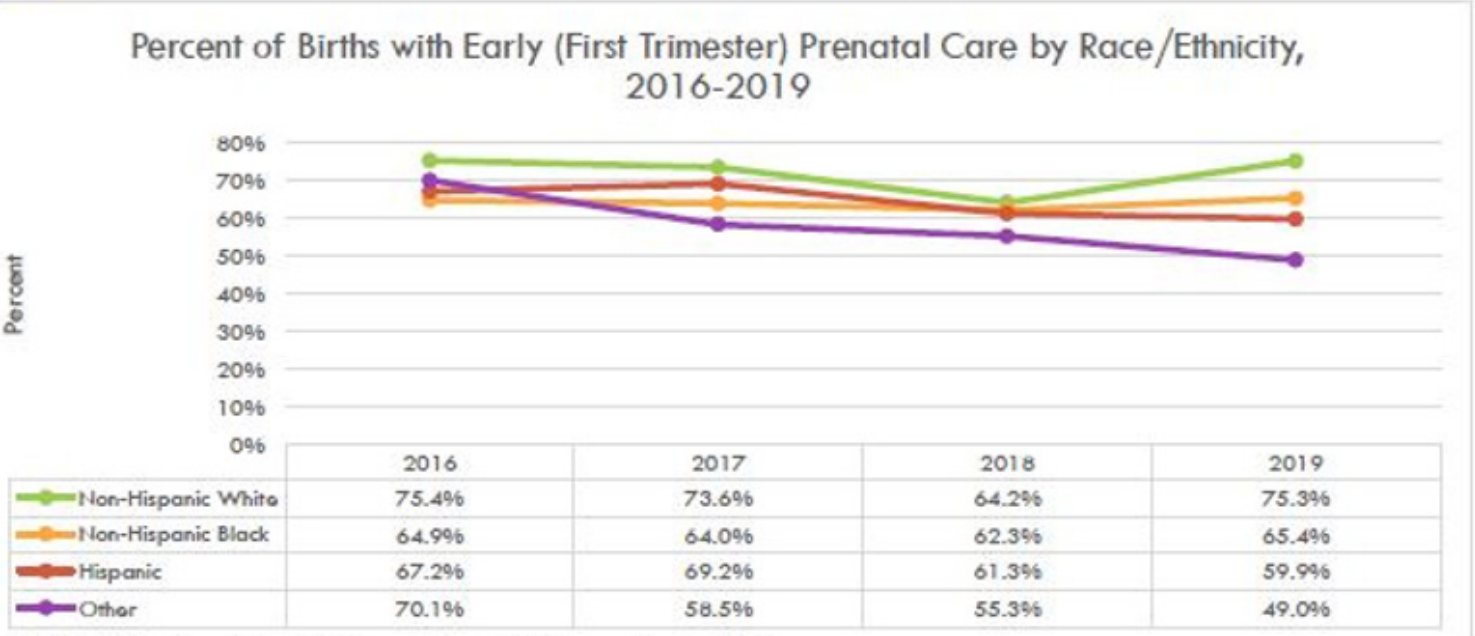
***: Higher percentage of missing data than other zip codes. Interpret rates with caution. s: Data are suppressed. The data do not meet the criteria for confidentiality*

Figure 76



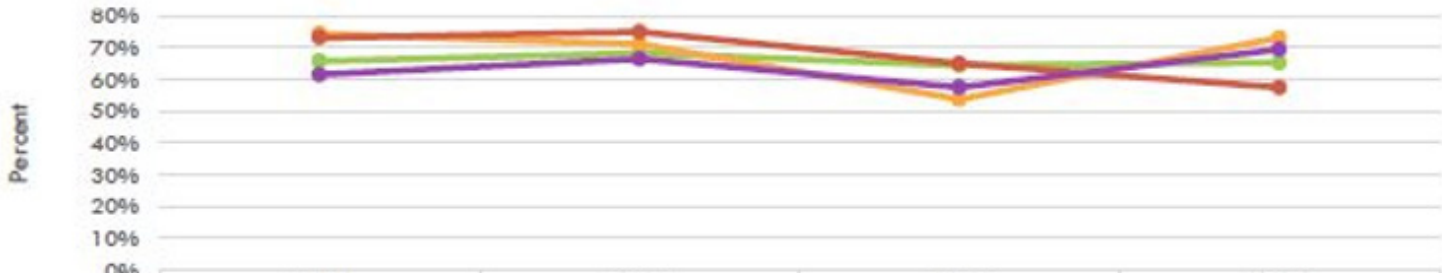
2018-2019 data does not include Orange County births recorded in NYC
Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH Office of Vital Statistics

Figure 77



2018-2019 data does not include Orange County births recorded in NYC
Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH Office of Vital Statistics

Figure 78

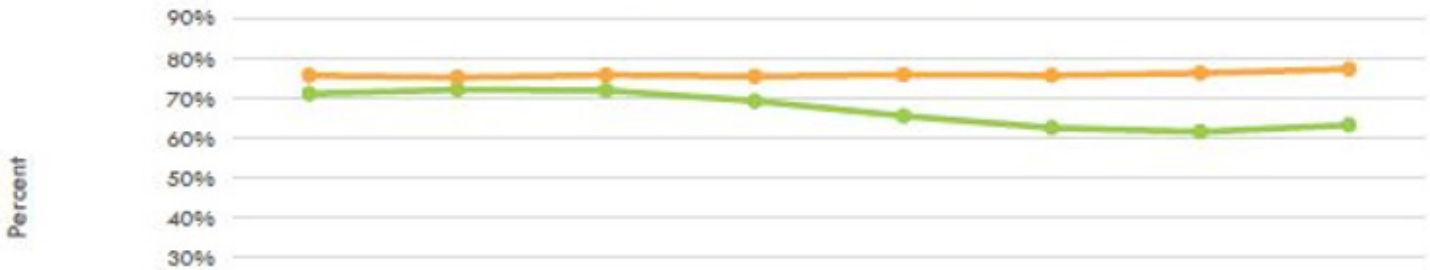


	2016	2017	2018	2019
10940	65.8%	68.3%	64.4%	65.3%
10950	74.3%	71.1%	53.7%	73.1%
12550	73.1%	75.0%	64.9%	57.5%
12771	61.5%	66.4%	57.5%	69.5%

2018-2019 data does not include Orange County births or deaths recorded in NYC
Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics
Created by the School of Public Health, University at Albany, 2021

Adequate prenatal care has decreased in Orange County from 2011 until 2018. In 2018, 63.2% of births in Orange County had adequate prenatal care. This is worse than NYS excl. NYC where 77.3% of births had adequate prenatal care. While this number is a slight improvement from the previous year's rate of 61.5%, Orange County is still worse than it was in 2011, when average was 71.1%. [see Figure 79].

Figure 79



	2011	2012	2013	2014	2015	2016	2017	2018
Orange	71.1%	72.1%	71.9%	69.3%	65.5%	62.5%	61.5%	63.2%
NYS excl. NYC	75.7%	75.2%	75.8%	75.5%	75.9%	75.7%	76.3%	77.3%

Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=lb23&cos=33#pagetitle
Original Data Source: Vital Statistics, Updated as of October 2021

From 2016-2019, an average of 5.1% of births in Orange County had late (last trimester) or no prenatal care. Births to younger mothers more frequently had late/no prenatal care. When stratifying be race/ethnicity, births of a race/ethnicity other than non-Hispanic White, non-Hispanic Black, or Hispanic were the most likely to have late/no prenatal care. Non-Hispanic Black and Hispanic births also more frequently had late/no prenatal care compared to non-Hispanic White births. When looking at zip codes, births given in zip code 10940 and 1771 had late or no prenatal care the most often [see Table 32, Figure 80, Figure 82 Figure 81].

Table 32

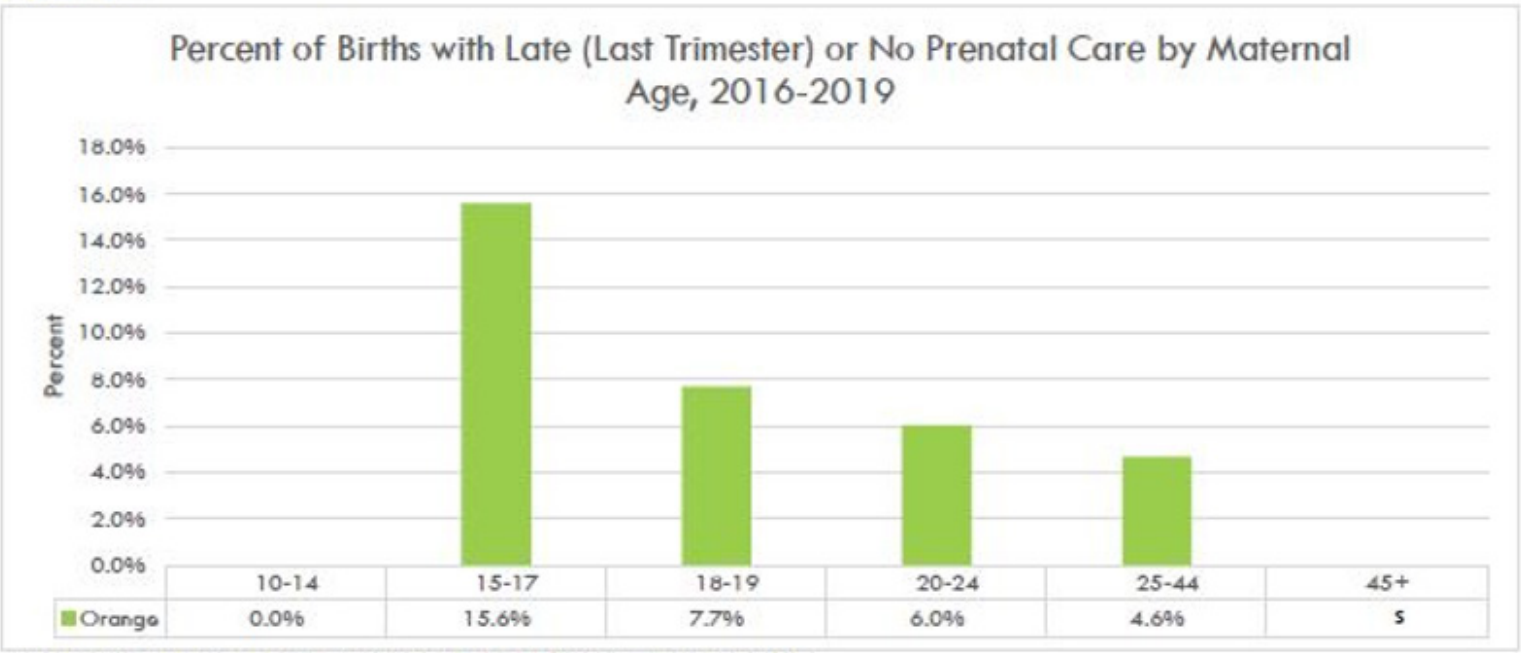
Percent of Births with Late (Last Trimester) or No Prenatal Care by Age, Race/Ethnicity, and Zip Code, 2016-2019										
	2016		2017		2018		2019		Total 2016-2019	
	# Births		# Births		# Births		# Births		Total # Births	
Orange County Total Births	4760		4866		4417		4512		18555	
	# w/ Early Care	%	# w/ Early Care	%	# w/ Early Care	%	# w/ Early Care	%	Total # w/ Early Care	Avg. %
Orange County Births with Late Prenatal Care	209	4.4%	236	4.8%	243	5.5%	255	5.7%	943	5.1%
Age Intervals										
10-14	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.0	0.0%
15-17	s	s	s	s	s	s	s	s	19	15.6%
18-19	s	s	12	7.4%	10	8.9%	12	9.4%	43	7.7%
20-24	56	5.5%	61	6.6%	53	6.0%	53	6.0%	223	6.0%
25-44	140	3.9%	157	4.2%	174	5.1%	184	5.3%	655	4.6%
45+	0	0.0%	s	s	s	s	0	0.0%	s	s
Race/Ethnicity										
Non-Hispanic White	84	2.7%	98	3.2%	98	3.6%	101	3.7%	381	3.3%
Non-Hispanic Black	35	8.2%	36	8.7%	44	10.0%	36	8.3%	151	8.8%
Hispanic	78	7.0%	84	7.0%	83	7.4%	97	8.4%	342	7.4%
Other	12	8.3%	18	11.3%	18	11.3%	21	13.5%	69	11.2%
Zip Code										
10940	49	8.1%	48	7.6%	45	7.9%	42	7.1%	184	7.7%
10950**	26	1.7%	43	2.8%	22	1.8%	41	3.1%	132	2.4%
12550	42	5.7%	32	4.3%	44	6.3%	63	9.7%	181	6.4%
12771	15	9.3%	s	s	16	10.5%	s	s	47	7.5%

2018-2019 data does not include Orange County Births recorded in NYC

***: Higher percentage of missing data than other zip codes. Interpret rates with caution. s: Data are suppressed. The data do not meet the criteria for confidentiality*

Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics Created by the School of Public Health, University at Albany, 2021

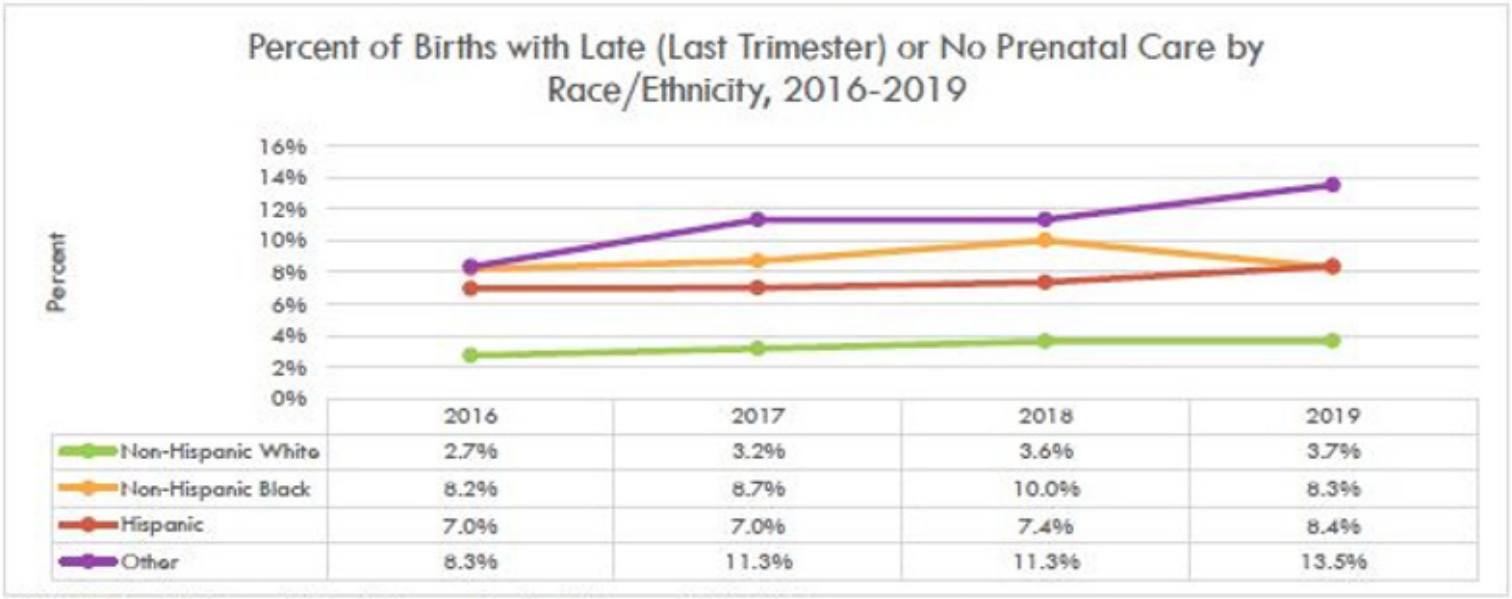
Figure 80



	10-14	15-17	18-19	20-24	25-44	45+
Orange	0.0%	15.6%	7.7%	6.0%	4.6%	s

2018-2019 data does not include Orange County Births recorded in NYC
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics
Created by the School of Public Health, University at Albany, 2021

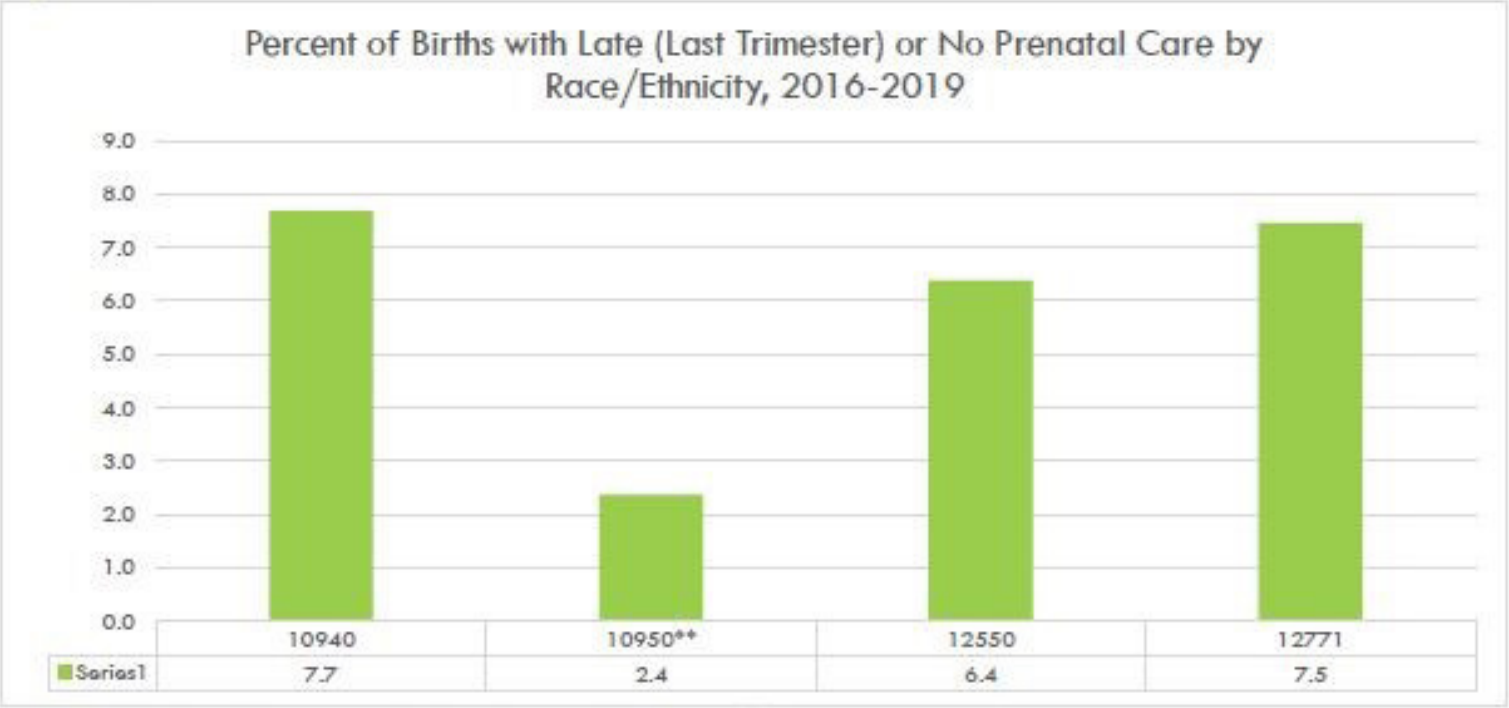
Figure 81



	2016	2017	2018	2019
Non-Hispanic White	2.7%	3.2%	3.6%	3.7%
Non-Hispanic Black	8.2%	8.7%	10.0%	8.3%
Hispanic	7.0%	7.0%	7.4%	8.4%
Other	8.3%	11.3%	11.3%	13.5%

2018-2019 data does not include Orange County Births recorded in NYC
Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics
Created by the School of Public Health, University at Albany, 2021

Figure 82



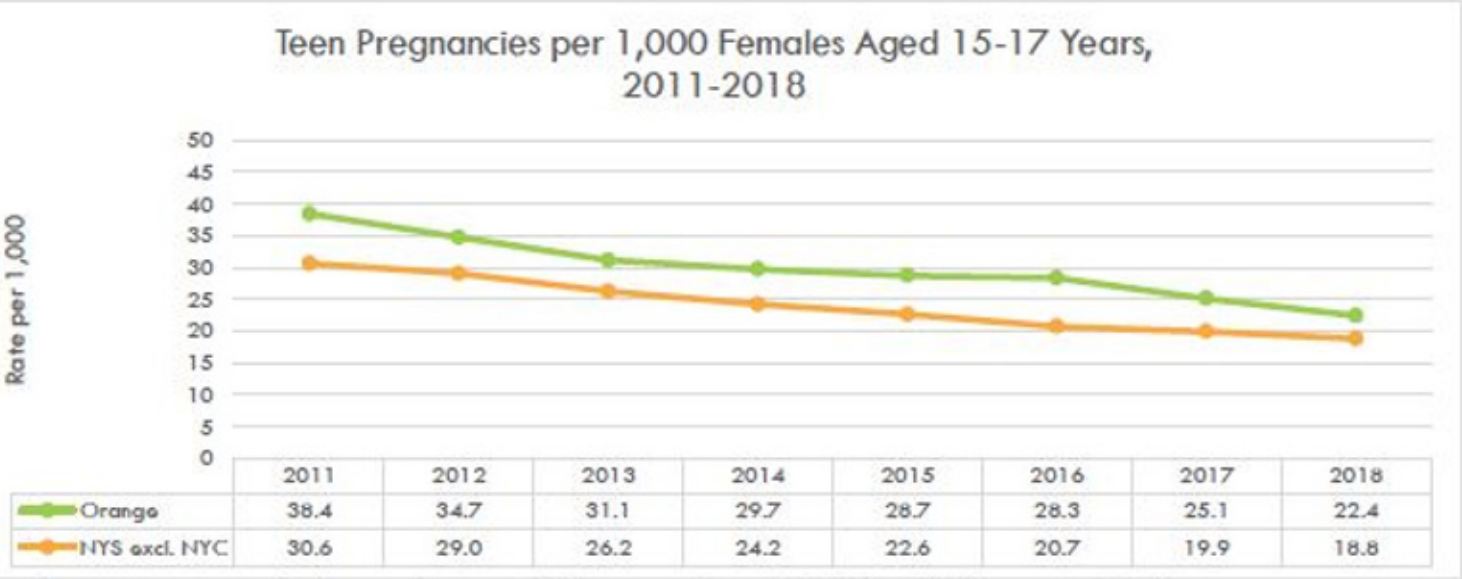
2018-2019 data does not include Orange County births recorded in NYC
***: Higher percentage of missing data than other zip codes. Interpret rates with caution.*
Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics
Created by the School of Public Health, University at Albany, 2021

Adolescent Pregnancy

Teen pregnancy is currently at historic lows in New York State, and progress is being made nationwide. Evidence suggests that this decline in New York State may be attributable to teens abstaining from sexual activity, and more sexually active teens are using birth control. Despite this progress, the teen pregnancy rate in the U.S. is substantially higher than any other western industrialized nation. Poorer socioeconomic status conditions, such as lower education and lower income level, may contribute to higher rates of teen pregnancy. Teens in child welfare systems are also more likely to experience teen pregnancy. Teen pregnancy is a significant contributor to high school dropout rates. In the U.S., 50% of teen mothers graduate high school by age 22, while 90% of women, who did not give birth during adolescence, received a high school diploma. The children of teenage mothers are more likely to have lower school achievement and drop out of high school; more health problems; become incarcerated at some point during adolescence; give birth as a teenager; and experience unemployment as an adult.

The rate of teen pregnancy in Orange County has been continuously decreasing since 2011. However, the current rate of 22.4 per 1,000 girls aged 15-17 years of age still exceeds the New York State excl NYC rate of 18.8 per 1,000 [see Figure 83]. From 2016-2019, an average of 0.7% of live births in Orange County were births given by teen mothers (17 years of age or younger) and this percentage fluctuated year by year. A majority of these teen births were by mothers aged 15-17. When stratifying by race, the largest percentage of teen births were to Hispanic mothers [see Figure 84, Table 33].

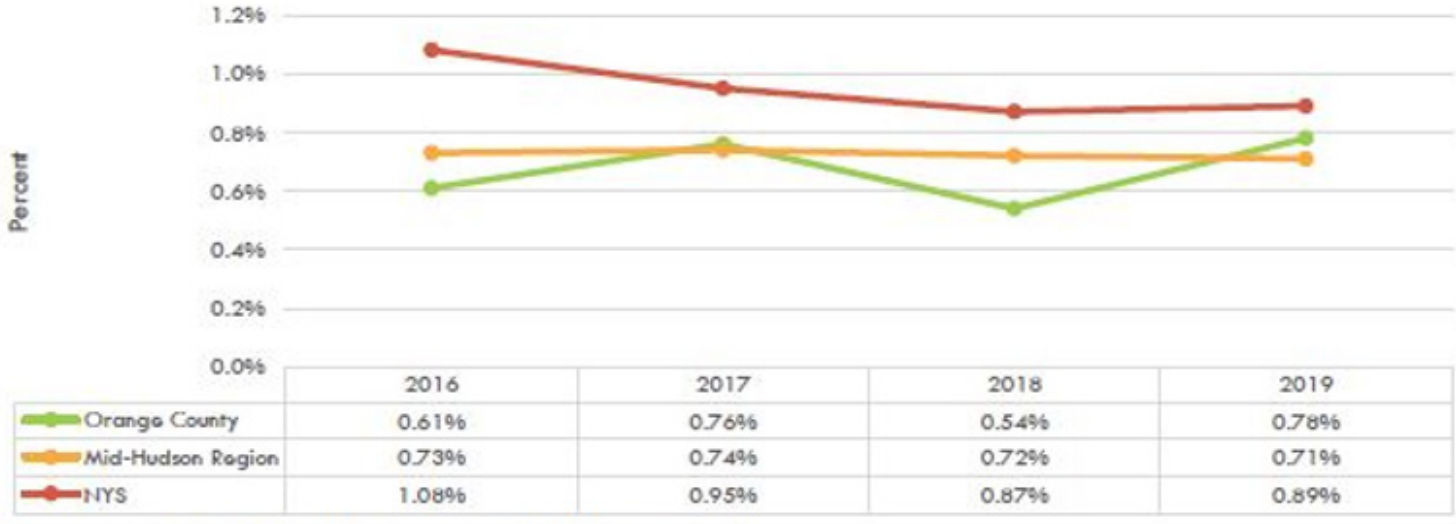
Figure 83



	2011	2012	2013	2014	2015	2016	2017	2018
Orange	38.4	34.7	31.1	29.7	28.7	28.3	25.1	22.4
NYS excl. NYC	30.6	29.0	26.2	24.2	22.6	20.7	19.9	18.8

Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Eb13&cos=33#pagetitle
Original Data Source: Vital Statistics, Updated as of October 2021

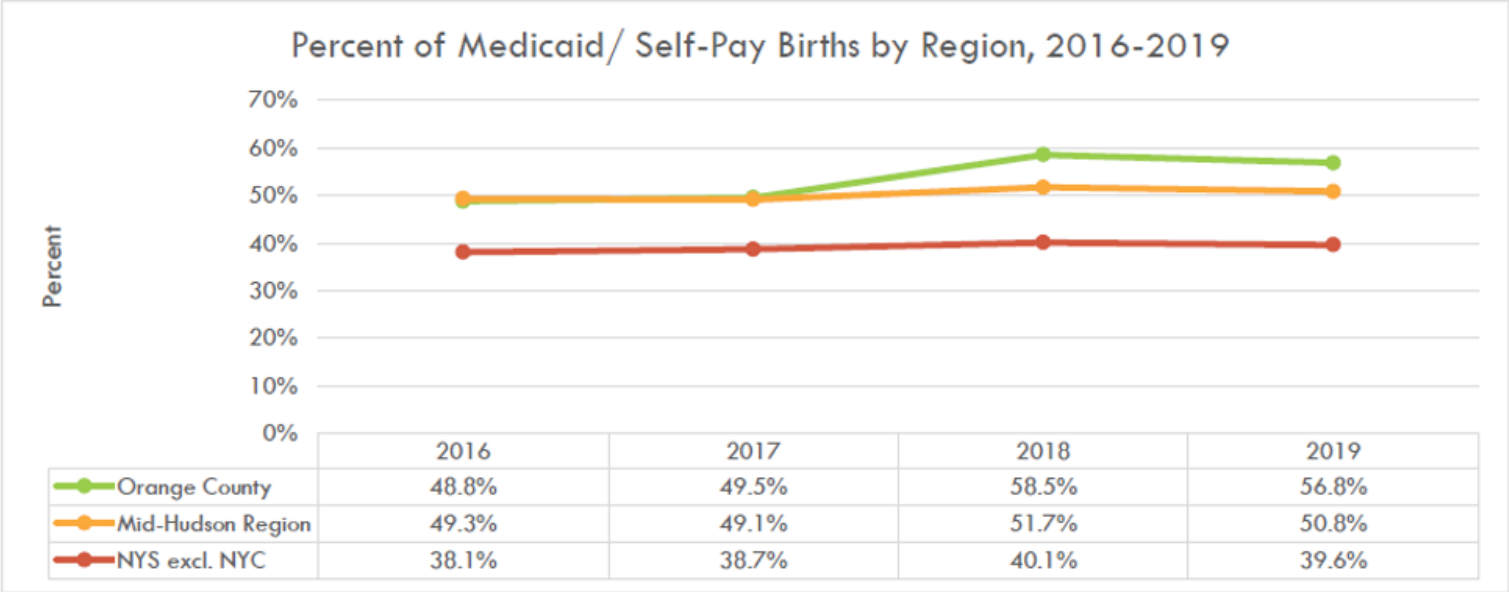
Figure 84



	2016	2017	2018	2019
Orange County	0.61%	0.76%	0.54%	0.78%
Mid-Hudson Region	0.73%	0.74%	0.72%	0.71%
NYS	1.08%	0.95%	0.87%	0.89%

2018-2019 data does not include Orange County Births recorded in NYC
Source: NYS Department of Health, Bureau of Vital Statistics and NYC DOHMH, Office of Vital Statistics
Created by the School of Public Health, University at Albany, 2021

Figure 85

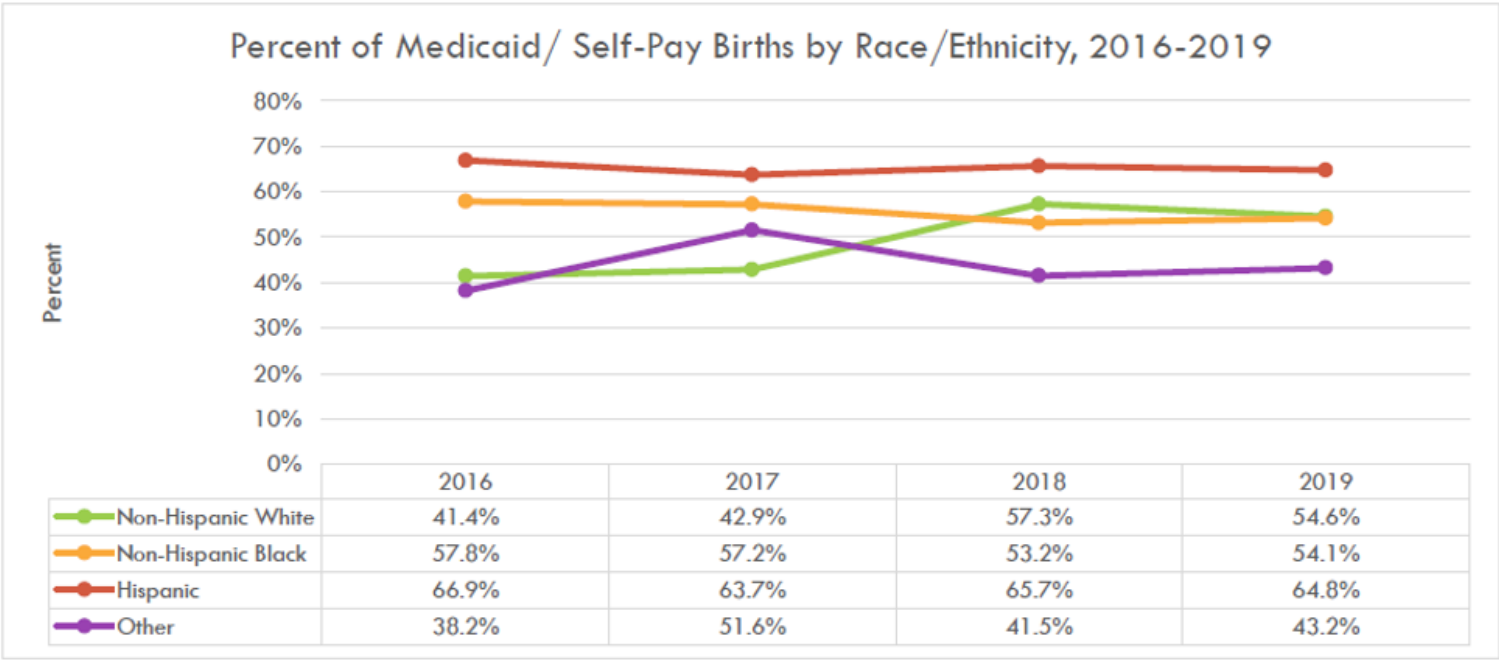


	2016	2017	2018	2019
Orange County	48.8%	49.5%	58.5%	56.8%
Mid-Hudson Region	49.3%	49.1%	51.7%	50.8%
NYS excl. NYC	38.1%	38.7%	40.1%	39.6%

2018-2019 data does not include Orange County Births recorded in NYC

Source: NYS Department of Health, Bureau of Vital Statistics Created by the School of Public Health, University at Albany, 2021

Figure 86



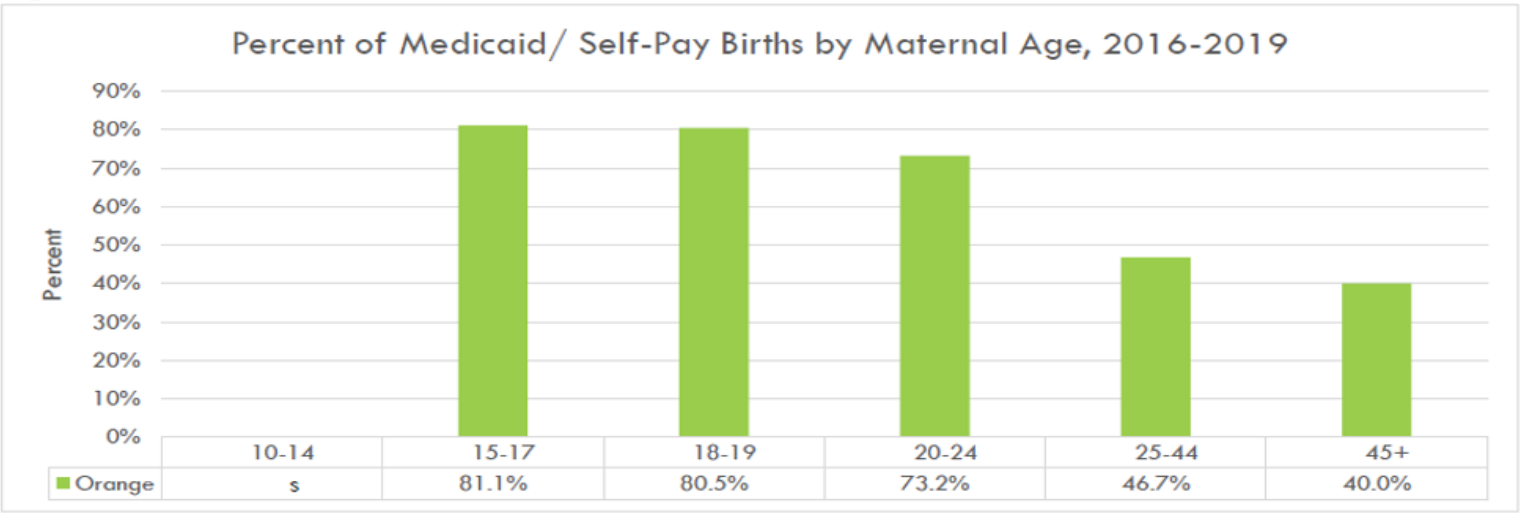
	2016	2017	2018	2019
Non-Hispanic White	41.4%	42.9%	57.3%	54.6%
Non-Hispanic Black	57.8%	57.2%	53.2%	54.1%
Hispanic	66.9%	63.7%	65.7%	64.8%
Other	38.2%	51.6%	41.5%	43.2%

2018-2019 data does not include Orange County Births recorded in NYC

Source: School of Public Health, University at Albany, 2021

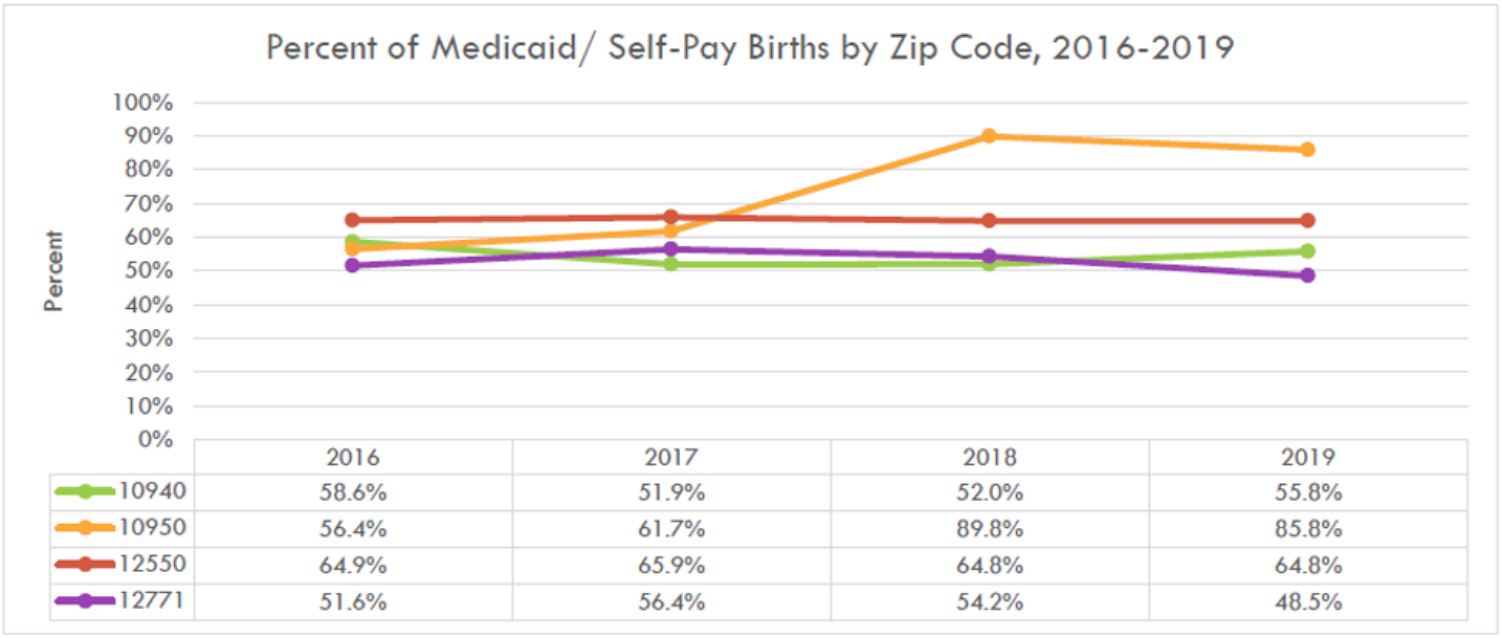
Original Source: NYS Department of Health, Bureau of Vital Statistics

Figure 87



2018-2019 data does not include Orange County Births recorded in NYC s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics

Figure 88



2018-2019 data does not include Orange County Births recorded in NYC
Source: NYS Department of Health, Bureau of Vital Statistics Created by the School of Public Health, University at Albany, 2021

Adverse Birth Outcomes

Preterm Births

Preterm birth is when a mother gives birth to a baby more than three weeks before its due date. Preterm babies, especially those born very early, often have medical complications. While these complications may vary, typically the more premature a baby is, the higher the risk for complications. Risk factors for premature birth include pregnancy with twins, triplets, or other multiples; conceiving through in vitro fertilization; smoking cigarettes or using illicit drugs; certain infections, especially those of the amniotic fluid and lower genital tract; certain chronic conditions, such as high blood pressure or diabetes; stressful life events; physical injury or trauma; and an interval of less than six months between pregnancies. Non-Hispanic Black women are more likely to experience premature birth than women of other races or ethnicities.

Short-term complications of premature birth may include problems with the blood, heart, brain, gastrointestinal system, and immune system. Additionally, there may be further complications with breathing, metabolism, and temperature control. Long-term complications of premature birth may include vision, hearing, dental, behavioral, and psychological problems. Additionally, complications may include cerebral palsy, impaired learning, and other chronic health issues.

From 2017-2019, an average of 8.1% of births in Orange County were premature. This is lower than the state average. However, there are disparities by race/ethnicity and zip code. When stratifying by race/ethnicity, the percentage of premature non-Hispanic Black births in Orange County far exceeds every other group and is also higher the state rate for that demographic. Further, there was a sharp increase in non-Hispanic Black premature births from 2018-2019 [Table 35, Figure 89, Figure 90]. Mothers who live in the three major cities in the county (12550, 12771, and 10940) have higher percentages of premature births than the 10950-zip code [see Table 35, Figure 91].

Table 35

Table 35

Percent of Births that are Premature (<37 Weeks Gestation) by Age, Race/Ethnicity, and Zip Code, 2016-2019

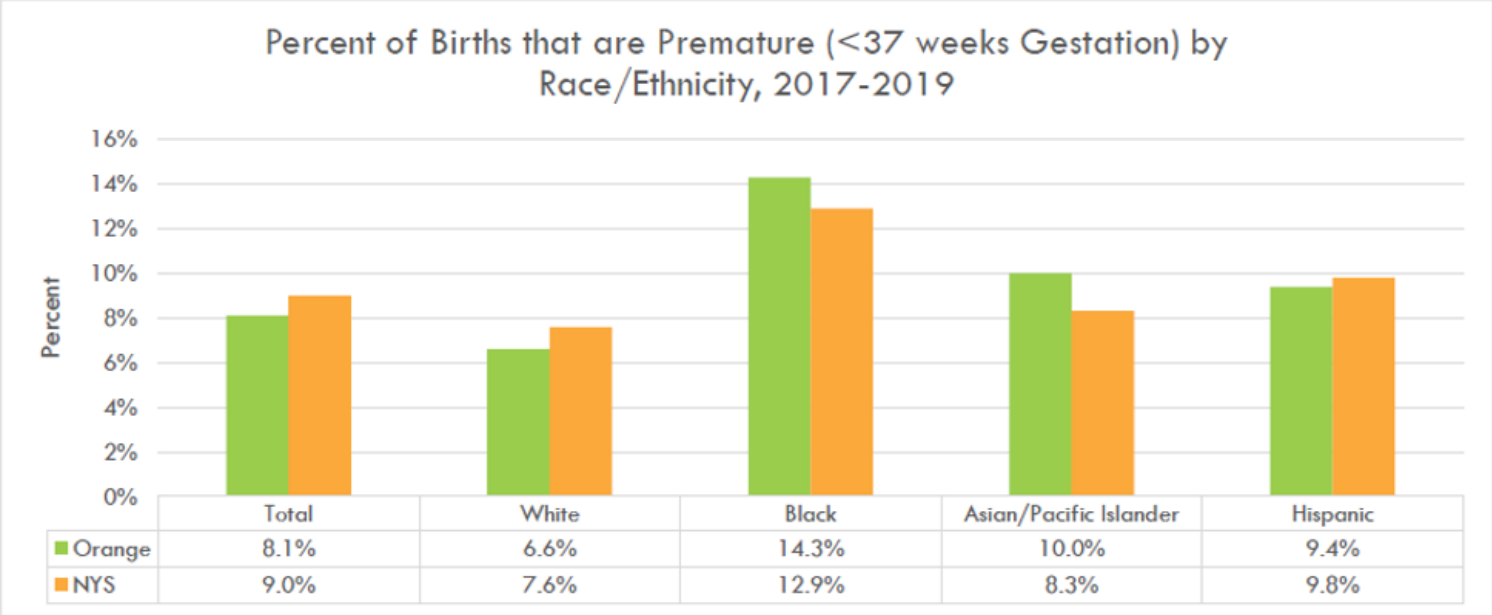
	2016		2017		2018		2019		Total 2016-2019	
	# Births		# Births		# Births		# Births		Total # Births	
Orange County Total Births	4760		4866		4417		4512		18555	
	# Premature	%	# Premature	%	# Premature	%	# Premature	%	Total # Premature	Avg. %
Orange County Premature Births	421	8.8%	400	8.2%	320	7.2%	365	8.1%	1506	8.1%
Age Intervals										
10-14	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.0	0.0%
15-17	s	s	s	s	s	s	s	s	s	s
18-19	13	8.3%	15	9.3%	5	4.5%	10	7.8%	43	7.7%
20-24	78	7.7%	53	5.7%	48	5.5%	45	5.1%	224	6.0%
25-44	325	9.2%	325	8.7%	262	7.7%	308	8.9%	1220	8.6%
45+	s	s	s	s	s	s	s	s	s	s

Table 35

Percent of Births that are Premature (<37 Weeks Gestation) by Age, Race/Ethnicity, and Zip Code, 2016-2019										
	2016		2017		2018		2019		Total 2016-2019	
	# Births		# Births		# Births		# Births		Total # Births	
Orange County Total Births	4760		4866		4417		4512		18555	
	# Premature	%	# Premature	%	# Premature	%	# Premature	%	Total # Premature	Avg. %
Orange County Premature Births	421	8.8%	400	8.2%	320	7.2%	365	8.1%	1506	8.1%
Age Intervals										
10-14	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.0	0.0%
15-17	s	s	s	s	s	s	s	s	s	s
18-19	13	8.3%	15	9.3%	5	4.5%	10	7.8%	43	7.7%
20-24	78	7.7%	53	5.7%	48	5.5%	45	5.1%	224	6.0%
25-44	325	9.2%	325	8.7%	262	7.7%	308	8.9%	1220	8.6%

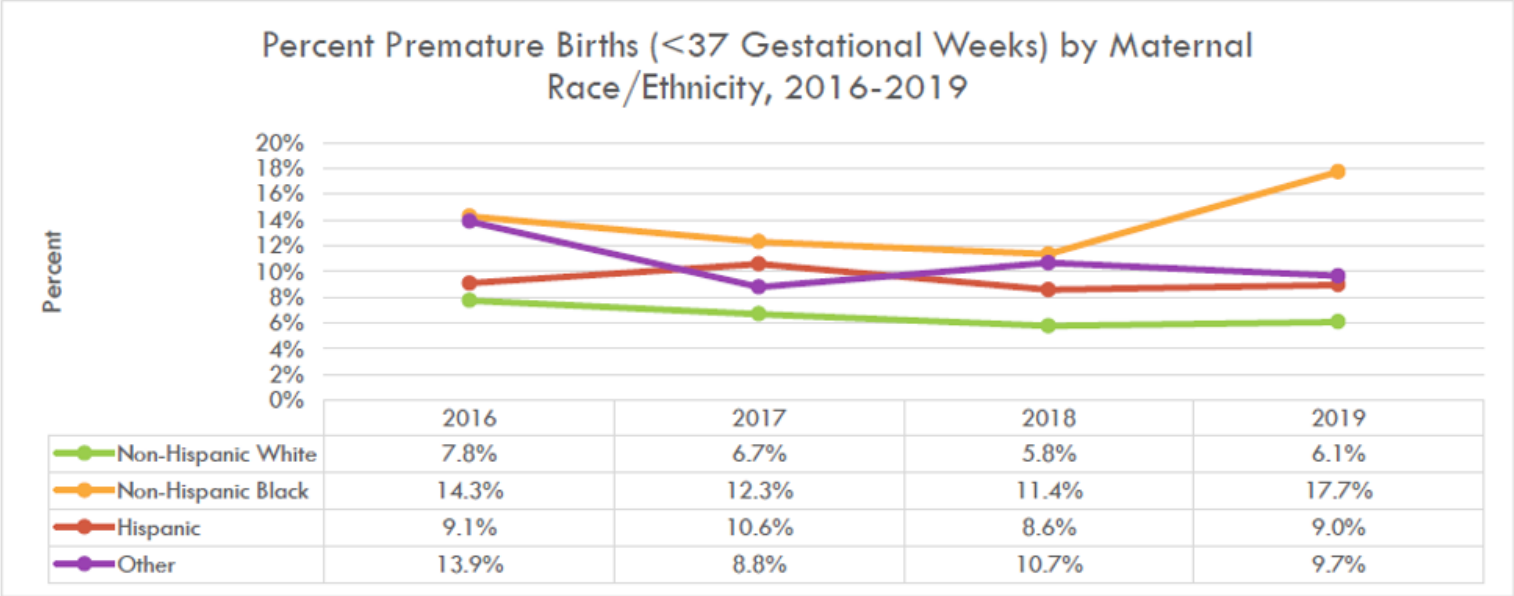
[29] Mayo Clinic, April 2021, https://www.mayoclinic.org/diseases-conditions/premature-birth/symptoms-causes/syc-20376730, accessed July 2022

Figure 89



Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Figure 90

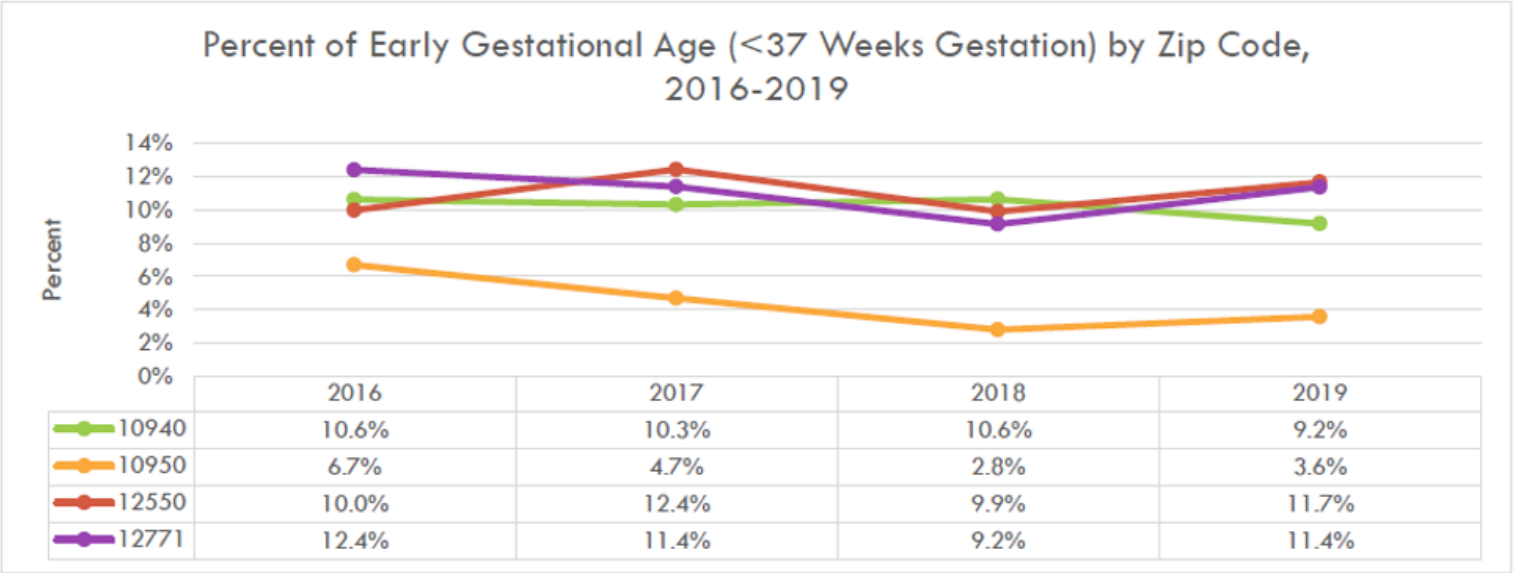


	2016	2017	2018	2019
Non-Hispanic White	7.8%	6.7%	5.8%	6.1%
Non-Hispanic Black	14.3%	12.3%	11.4%	17.7%
Hispanic	9.1%	10.6%	8.6%	9.0%
Other	13.9%	8.8%	10.7%	9.7%

2018-2019 data does not include Orange County Births recorded in NYC

Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics Created by the School of Public Health, University at Albany, 2021, Office of Vital Statistics Created by the School of Public Health, University at Albany, 2021

Figure 91



	2016	2017	2018	2019
10940	10.6%	10.3%	10.6%	9.2%
10950	6.7%	4.7%	2.8%	3.6%
12550	10.0%	12.4%	9.9%	11.7%
12771	12.4%	11.4%	9.2%	11.4%

2018-2019 data does not include Orange County Births recorded in NYC

Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics Created by the School of Public Health, University at Albany, 2021

Low birthweight describes babies born weighing less than 2.5 kg (5 pounds 8 ounces). Over 8% of all births in the U.S. are low birthweight, and this percentage is increasing. This is thought to be a result of an increased

Low Birthweight Births

Low birthweight describes babies born weighing less than 2.5 kg (5 pounds 8 ounces). Over 8% of all births in the U.S. are low birthweight, and this percentage is increasing. This is thought to be a result of an increased number of babies born prematurely in multiples. The primary cause of low birthweight is preterm birth. Preterm birth means a baby has less time in the mother's uterus to grow and gain weight.

Another cause of low birthweight is intrauterine growth restriction (IUGR). IUGR occurs when a baby does not grow adequately during pregnancy due to problems with the placenta, the mother's health, or the baby's condition. Babies with IUGR may be born at full term, but still have a low birthweight.

There are different risk factors that can contribute to a baby being born with low birthweight. Non-Hispanic Black babies are two times more likely to have low birthweight than non-Hispanic White babies. Babies born to teen mothers have a higher risk of having a low birthweight as well. Babies born in multiples are at an increased risk for low birthweight because they are often preterm. The health of the mother may also contribute to risk of low birthweight due to the mother's exposure to alcohol, cigarettes, and illicit drugs. Babies born to mothers of low socioeconomic status are also at a higher risk of being born with low birthweight due to poor nutrition, inadequate prenatal care, and pregnancy complications.

Babies with low birthweight have a higher risk of complications. They may have a harder time eating, gaining weight, controlling their body temperature, and fighting infections. Because many babies with low birthweight are also premature, it can be difficult to tell which problems are due to the premature birth and which problems are due to low birthweight. Generally, the lower the birthweight, the greater the risk for complications.

In Orange County an average of 6.6% of total births were low birth weight from 2016-2019, which is lower than the NY state average. However, both within Orange County and NY state, there are disparities in low birthweight births based on race/ethnicity, maternal age, and zip code. Non-Hispanic Black babies in Orange County face the highest percentage of low birthweight compared to non-Hispanic White, Hispanic, and babies of other races. This disparity has persisted over time. There was a decrease in low birthweight births for non-Hispanic black babies from 2016 to 2017, but the percentage has increased every year since, at a much steeper rate than that for other racial/ethnic groups [Table 36, Figure 92, Figure 93]. Babies that have a low birthweight are also more often born to mothers who are younger than 20. When looking at zip codes, low birthweight births are more common in the three major cities in Orange County (10940, 12550, and 12771) compared to the 10950 zip code [see Table 36, Figure 59, Figure 95].

Table 36

Percent of Low Birthweight (BW) Births (<2500 Grams) by Age, Race/Ethnicity, and Zip Code, 2016-2019

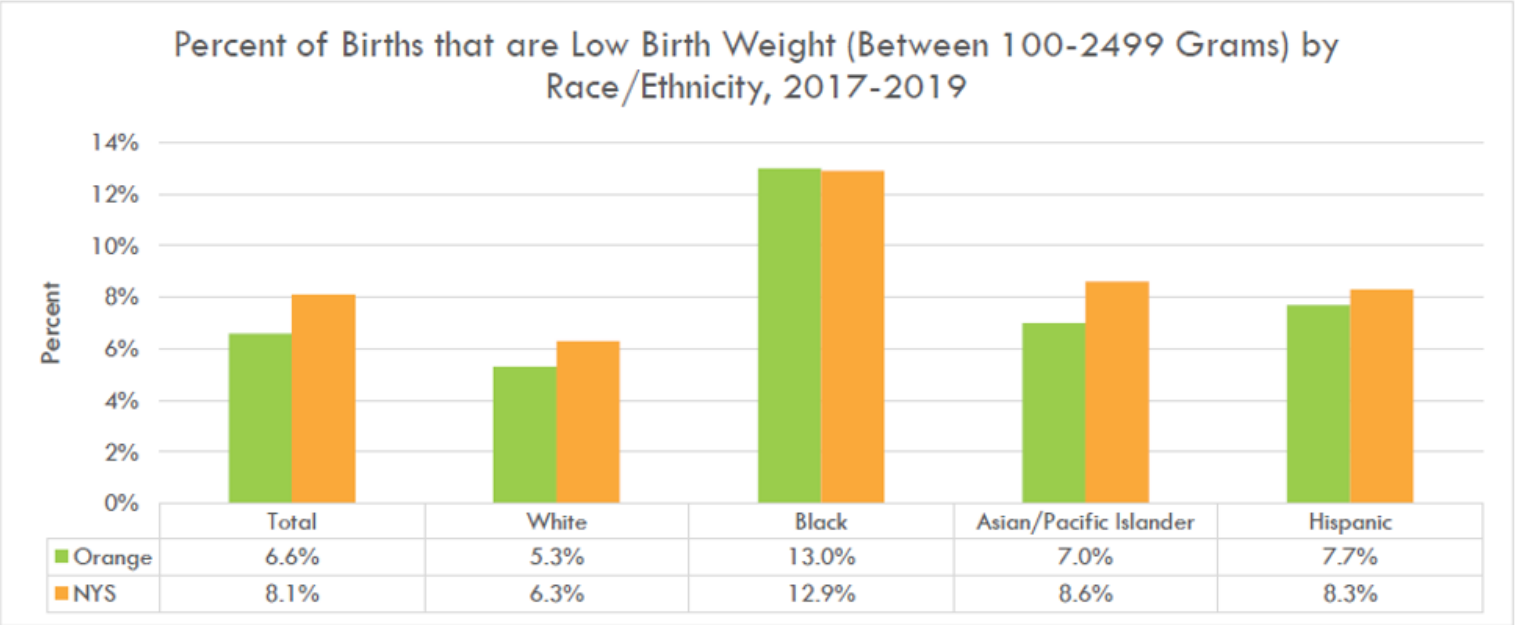
	2016		2017		2018		2019		Total 2016-2019	
	# Births		# Births		# Births		# Births		Total # Births	
Orange County Total Births	4760		4866		4417		4512		18555	
	# Low BW	%	# Low BW	%	# Low BW	%	# Low BW	%	Total # of Low BW	Avg. %
Orange County Low Birthweight (BW) Births	333	7.0%	296	6.1%	283	6.4%	304	6.7%	1216	6.6%
Age Intervals										
10-14	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.0	0.0%
15-17	s	s	s	s	s	s	s	s	11	9.0%
18-19	12	7.6%	14	8.6%	s	s	10	7.8%	40	7.2%
20-24	73	7.2%	45	4.9%	45	5.1%	41	4.6%	204	5.5%
25-44	245	6.9%	231	6.2%	230	6.8%	252	7.3%	958	6.8%
45+	0	0.0%	s	s	s	s	0	0.0%	s	s
Race/Ethnicity										
Non-Hispanic White	175	5.7%	147	4.8%	143	5.3%	129	4.7%	594	5.1%
Non-Hispanic Black	55	12.9%	40	9.7%	53	12.0%	69	15.9%	217	12.7%
Hispanic	86	7.7%	98	8.2%	75	6.6%	92	7.9%	351	7.6%
Other	17	11.8%	11	6.9%	12	7.5%	14	9.0%	54	8.8%
Zip Code										
10940	55	9.1%	52	8.3%	53	9.2%	46	7.8%	206	8.6%
10950	70	4.7%	54	3.6%	42	3.4%	42	3.1%	208	3.7%
12550	69	9.3%	62	8.3%	51	7.3%	64	9.8%	246	8.7%
12771	19	11.8%	13	8.7%	15	9.8%	15	9.0%	62	9.8%

2018-2019 data does not include Orange County Births recorded in NYC s: Data are suppressed. The data do not meet the criteria for confidentiality

Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics Created by the School of Public Health, University at Albany, 2021

[30] Children's Hospital of Philadelphia, https://www.chop.edu/conditions-diseases/low-birthweight, accessed July 2021

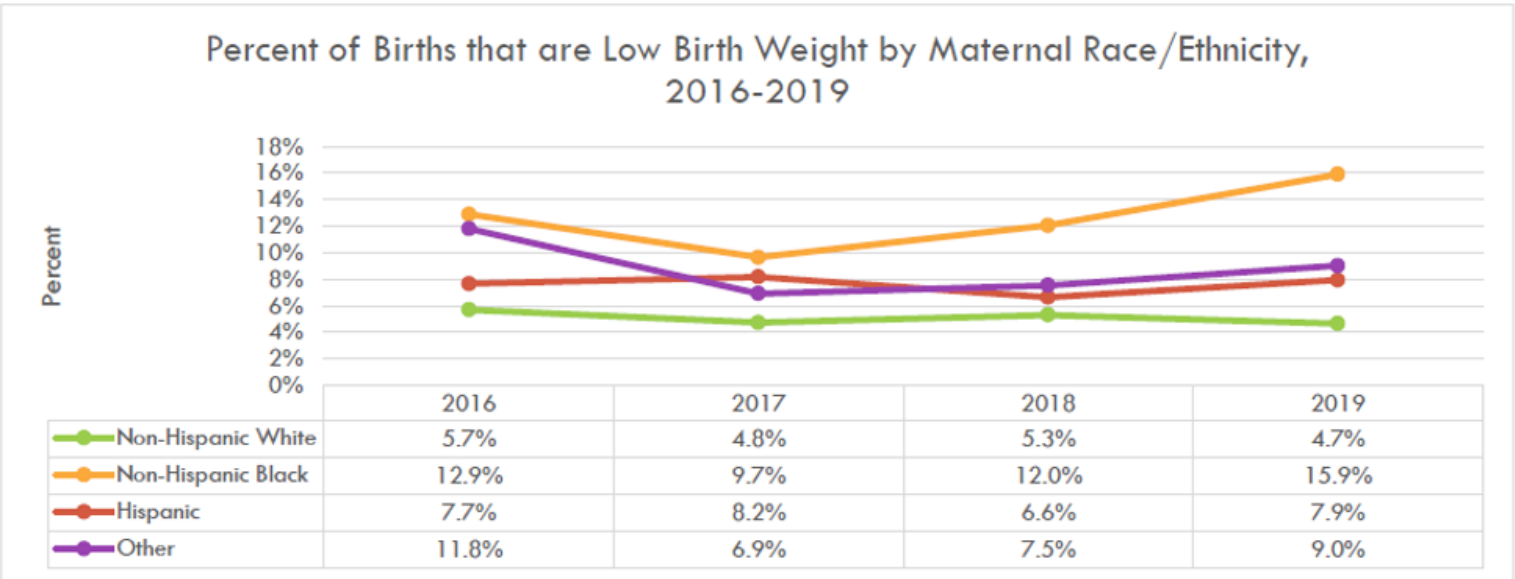
Figure 92



	Total	White	Black	Asian/Pacific Islander	Hispanic
Orange	6.6%	5.3%	13.0%	7.0%	7.7%
NYS	8.1%	6.3%	12.9%	8.6%	8.3%

Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022 https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Figure 93

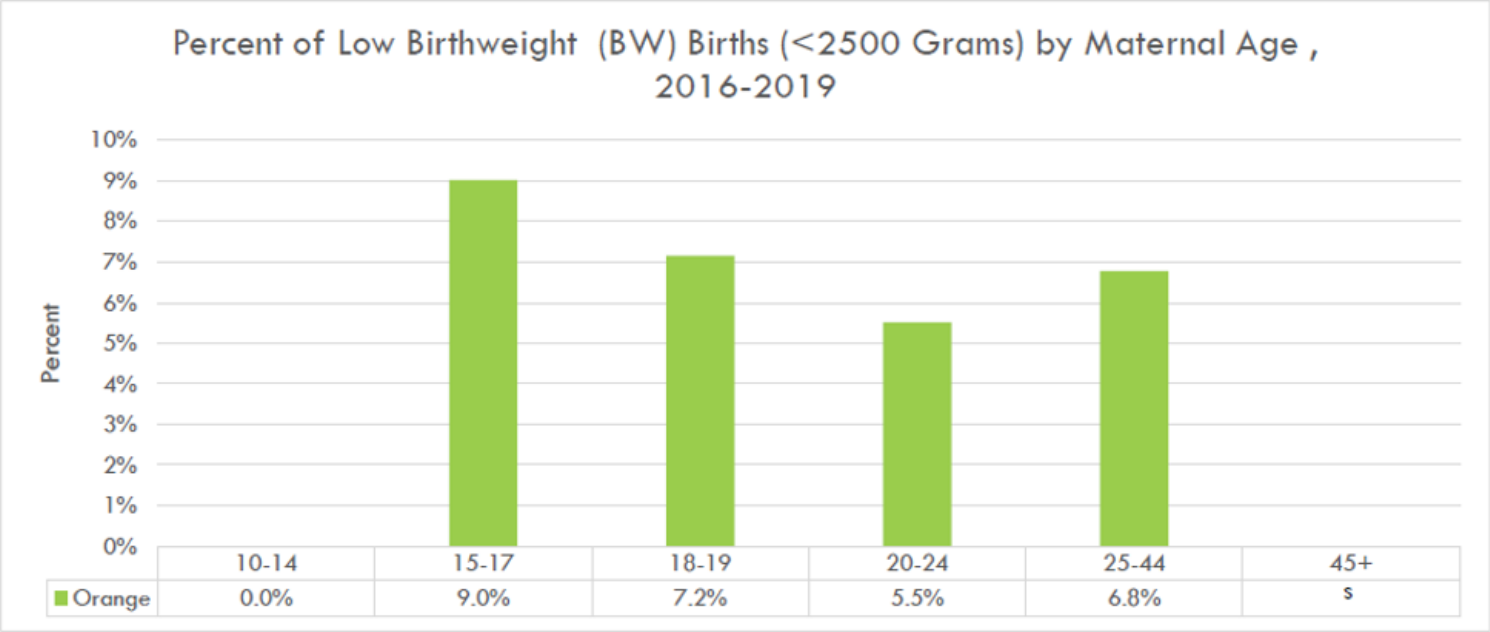


	2016	2017	2018	2019
Non-Hispanic White	5.7%	4.8%	5.3%	4.7%
Non-Hispanic Black	12.9%	9.7%	12.0%	15.9%
Hispanic	7.7%	8.2%	6.6%	7.9%
Other	11.8%	6.9%	7.5%	9.0%

2018-2019 data does not include Orange County Births recorded in NYC

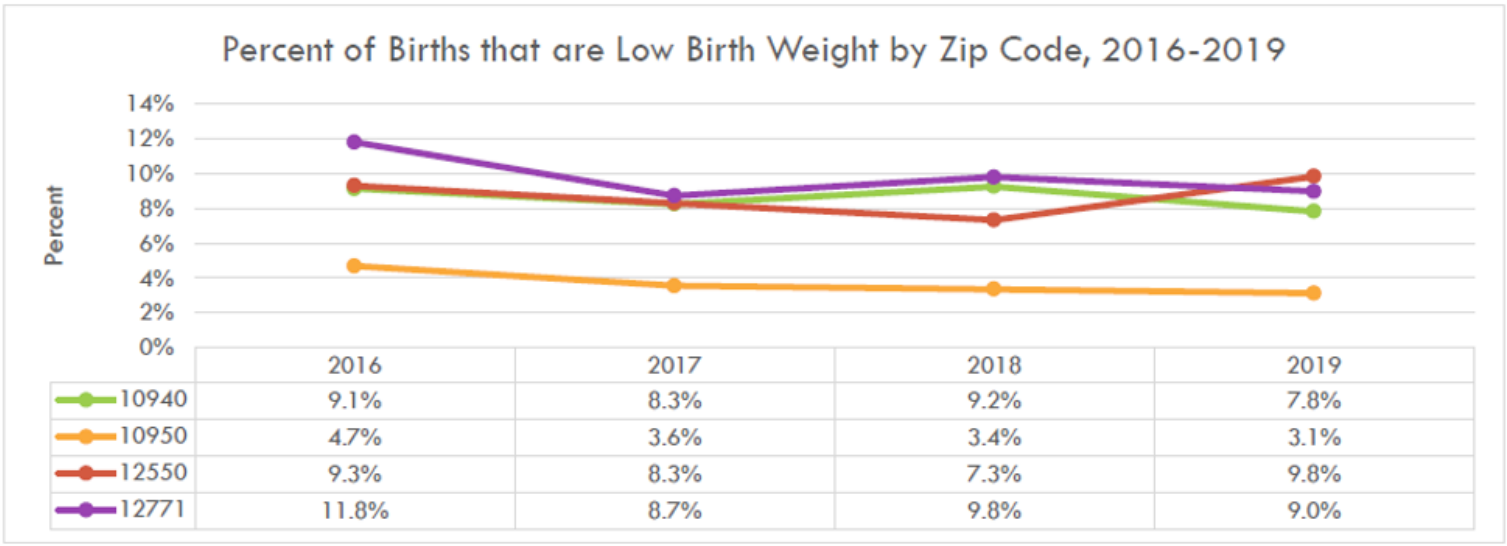
Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics Created by the School of Public Health, University at Albany, 2021

Figure 94



2018-2019 data does not include Orange County Births recorded in NYC s: Data are suppressed. The data do not meet the criteria for confidentiality Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics

Figure 95



2018-2019 data does not include Orange County Births recorded in NYC
Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics Created by the School of Public Health, University at Albany, 2021

Infant Mortality

Infant mortality is the death of an infant before their first birthday. It is an important indicator of both maternal and infant health, as well as the overall health of a society. The five leading causes of infant mortality in the

U.S. in 2020 were birth defects; preterm birth and low birthweight; Sudden Infant Death Syndrome (SIDS); injuries; and maternal pregnancy complications.

One of Healthy People 2020's objectives was to reduce the rate of all infant deaths to no more than six infant deaths per 1,000 live births. The risk of infant mortality can be reduced by increasing access to quality preconception, prenatal, and interconception care. Infant health is influenced by sociodemographic and behavioral variables, such as education, family income, and breastfeeding, but it is also associated with the physical and mental health of an infant's parents and caregivers.

Orange County had an average infant mortality rate of 3.6 per 1,000 live births from 2017-2019. This rate is better than the New York State rate; however, there is a large disparity amongst the non-Hispanic Black population which has a rate of 11.0 infant deaths per 1,000 live births, compared to 2.2 for non-Hispanic Whites. Though the infant mortality rate for all racial/ethnic groups decreased from 2015 to 2018, the rate for the black population remained much higher than all others [see Figure 96, Figure 97].

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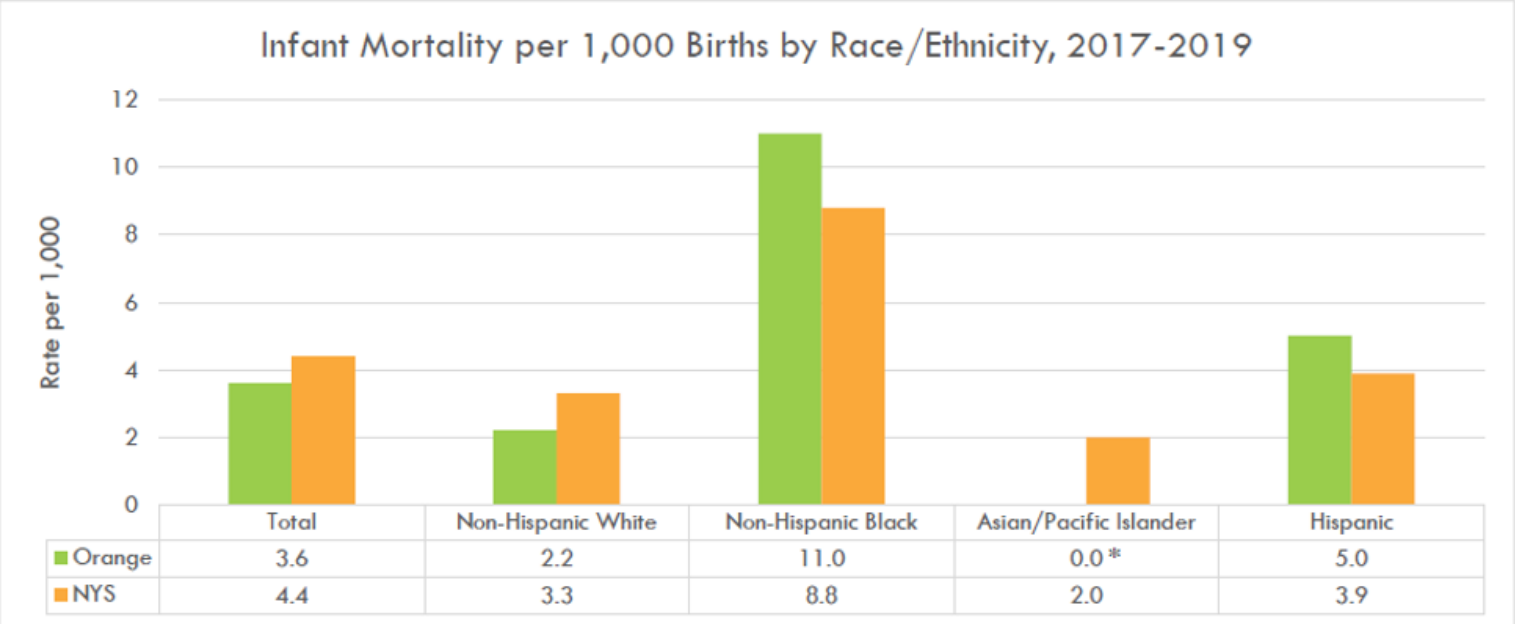
[32] CDC, June 2022, https://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm, accessed July 2022

[33] Healthy People 2020, February 2022, https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives,accessed July 2022

Figure 96

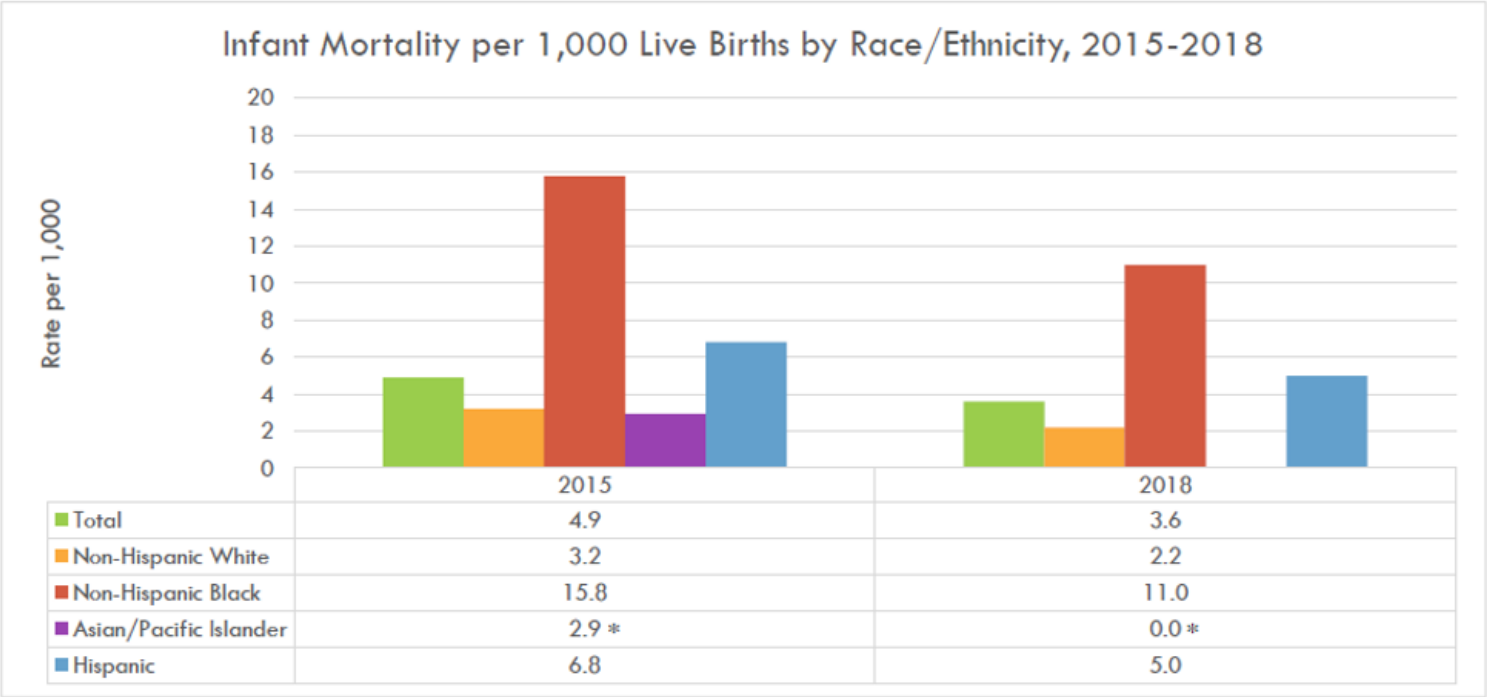


	Total	Non-Hispanic White	Non-Hispanic Black	Asian/Pacific Islander	Hispanic
Orange	3.6	2.2	11.0	0.0 *	5.0
NYS	4.4	3.3	8.8	2.0	3.9

**: Fewer than 10 events in the numerator, therefore, the rate is unstable.*

Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022 https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Figure 97



	2015	2018
Total	4.9	3.6
Non-Hispanic White	3.2	2.2
Non-Hispanic Black	15.8	11.0
Asian/Pacific Islander	2.9 *	0.0 *
Hispanic	6.8	5.0

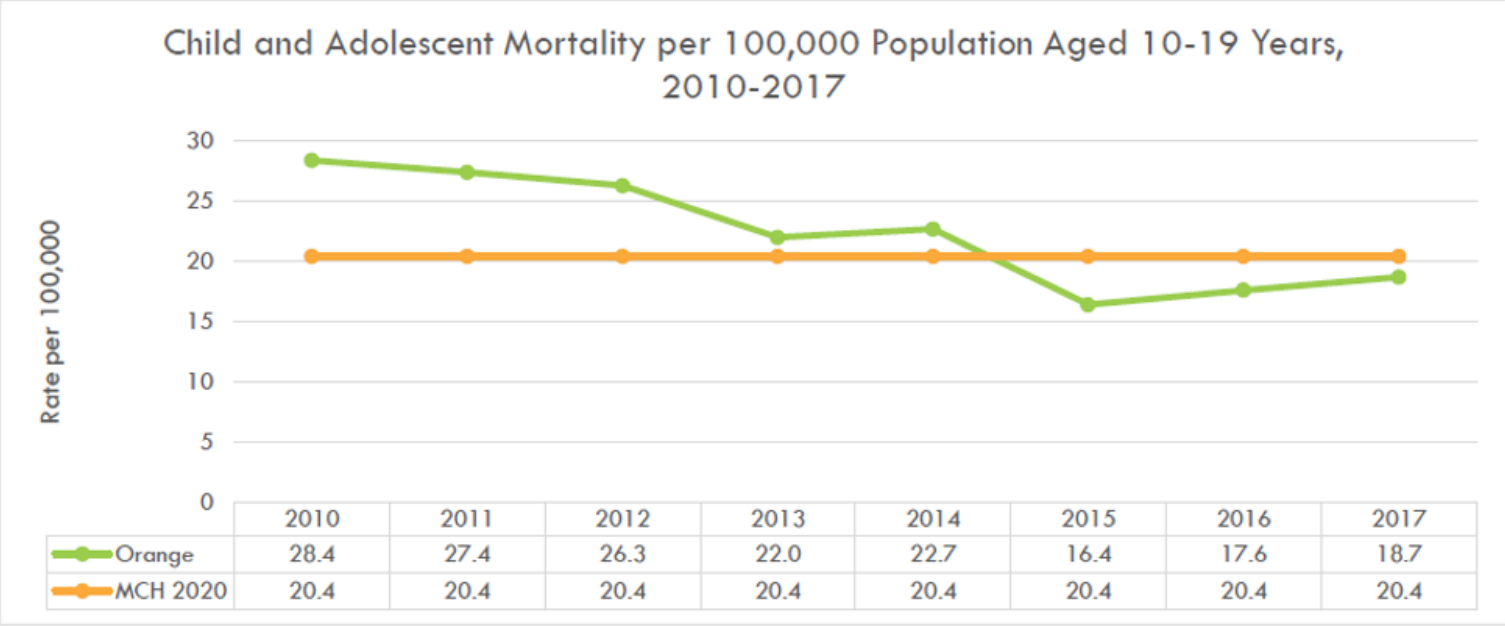
Note: Three-year averages for the years 2014-2016 and 2017-2019 are graphed above. Data are not available for 2016-2018.
**: Fewer than 10 events in the numerator, therefore, the rate is unstable.*

Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Child Health

Child and Adolescent Mortality in Orange County has, overall, decreased from 2010-2017. However, after a consistent decrease from 2010-2015 From 2014-2015, the rates started increasing again and have continued to do so. Despite this recent increase in child and adolescent mortality, the most recent 2017 rate of 18.7 per 10,000 still meets the MCH 2020 goal [see Figure 98].

Figure 98



	2010	2011	2012	2013	2014	2015	2016	2017
Orange	28.4	27.4	26.3	22.0	22.7	16.4	17.6	18.7
MCH 2020	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4

Note: Three-year averages for Orange County are graphed above
Source: New York State Maternal and Child Health (MCH) Dashboard, Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/mch_dashboard/mch_dashboard&p=ctr&ind_id=m39_0%20&cos=33
Original Data Source: NYS Vital Statistics Event Registry, Updated as of August 2020

PROMOTE WELL-BEING AND PREVENT MENTAL HEALTH SUBSTANCE USE DISORDERS

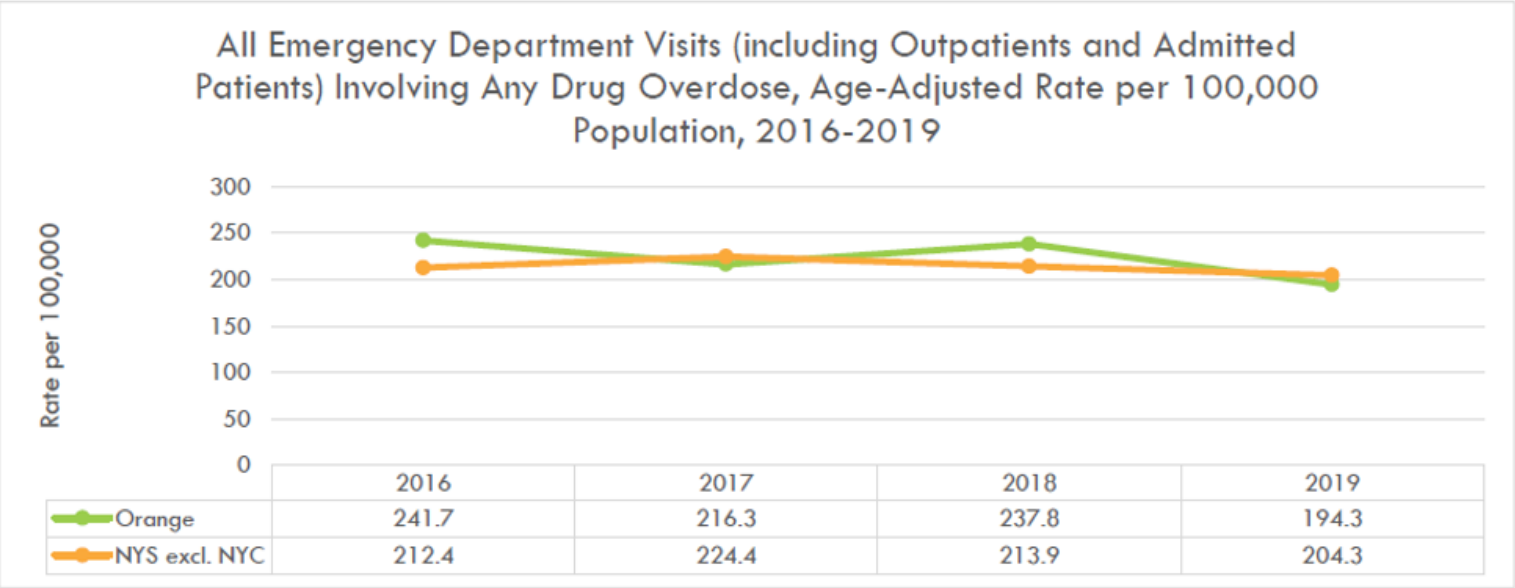
Mental Health

Substance Use

Substance use refers to the recurrent use of substances, such as nicotine, alcohol, and/or opioids. Drug addiction, also called substance use disorder, can affect a person's brain and behavior, and interfere with meeting responsibilities at school, work, or at home. It increases the risk of social, physical, and mental health problems. These include teenage pregnancy, HIV/AIDS, STIs, domestic violence, crime, homicide, and suicide. According to the National Survey on Drug Use and Health (NSDUH), 40.3 million Americans (aged 12 years and older) battled a substance use disorder in 2020.

The rate for All-Emergency Department visits involving any drug overdose in Orange County has fluctuated over time in Orange County. The most recent rate in 2019 was 194.3 per 100,000 population, which is slightly lower than the rate for New York State excl NYC [see Figure 99].

Figure 99



Note: Singe-year estimates are graphed above.
Source: New York State Opioid Data Dashboard, Updated as of January 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/opioid_dashboard/op_dashboard&p=ctr&ind_id=op19%20&cos=33
Original Data Source: SPARCS Data, Updated as of November 2021

Opioid Use

Opioids are a class of drugs that include illicit drugs, such as heroin; synthetic opioids, such as fentanyl; and prescription pain relievers, such as oxycodone, hydrocodone, and morphine. According to the CDC, in 2019, 70% of drug overdoses involved an opioid, and the amount of overdose deaths involving an opioid increased by over 6 percent from 2018.

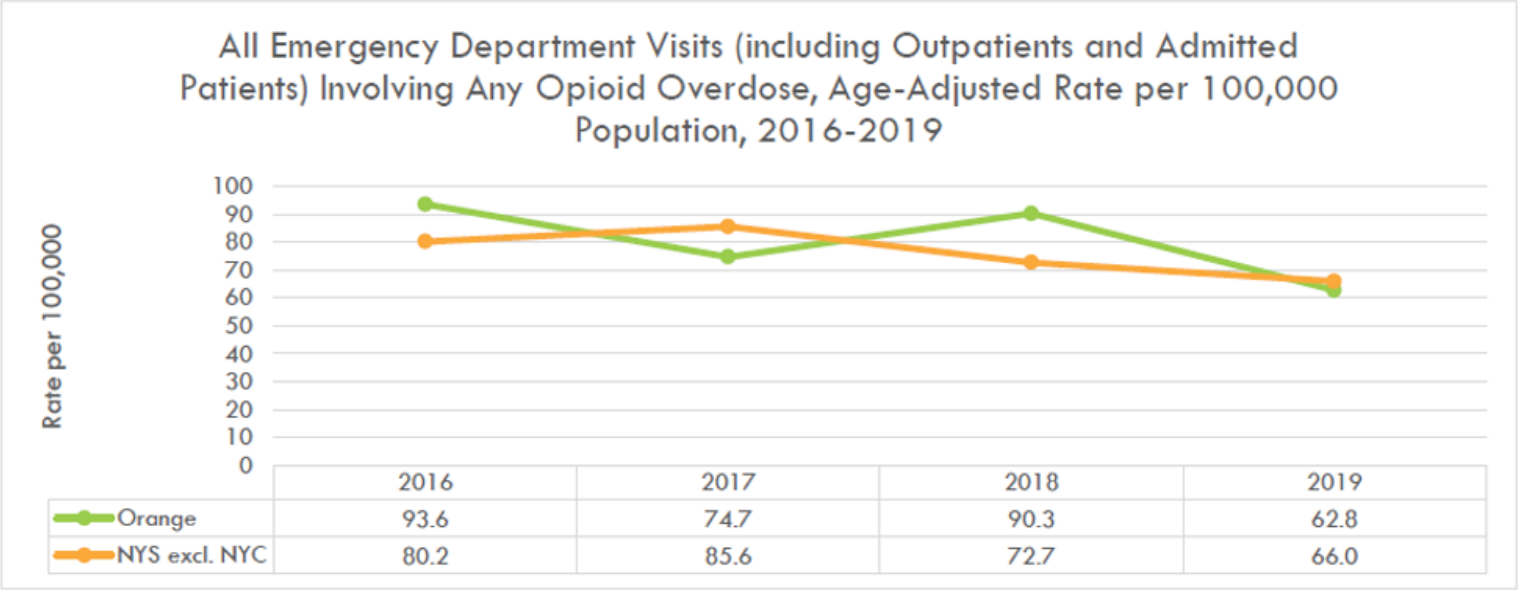
In 2019, the rate of all Emergency Department visits involving any opioid in Orange County was 62.8 per 100,000, which was an improvement from the previous year. It is also lower than the rate for New York State excluding NYC. [see Figure 100]. On the other hand, overdose deaths in the county have increased steadily over time, from 7.0 per 100,000 in 2010 to 29.5 in 2018. Despite Orange County seeing an improvement from 2018-2019, dropping down to 22.5 deaths per 100,000, the county's rate is still higher than that of NYS excl. NYC [see Figure 101].

[34] Healthy People 2020, February 2022, https://www.healthypeople.gov/2020/topics-objectives/topic/substance-abuse, accessed July 2021

[35] Substance Abuse and Mental Health Services Administration, 2021, https://www.samhsa.gov/data/, accessed July 2022

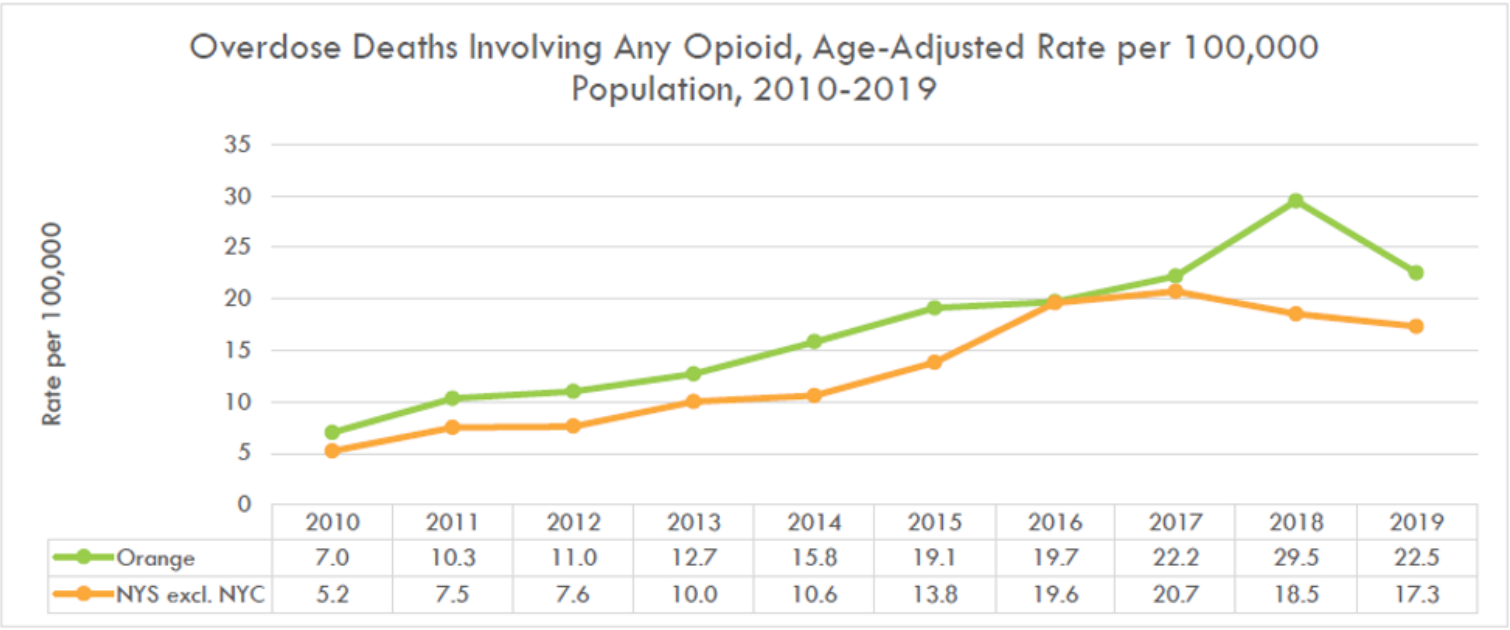
[36] CDC, March 2021, https://www.cdc.gov/drugoverdose/epidemic/index.html, accessed July 2022

Figure 100



Source: New York State Opioid Data Dashboard, Updated as of January 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/opioid_dashboard/op_dashboard&p=ctr&ind_id=op21%20&cos=33
Original Data Source: SPARCS Data, Updated as of November 2021

Figure 101

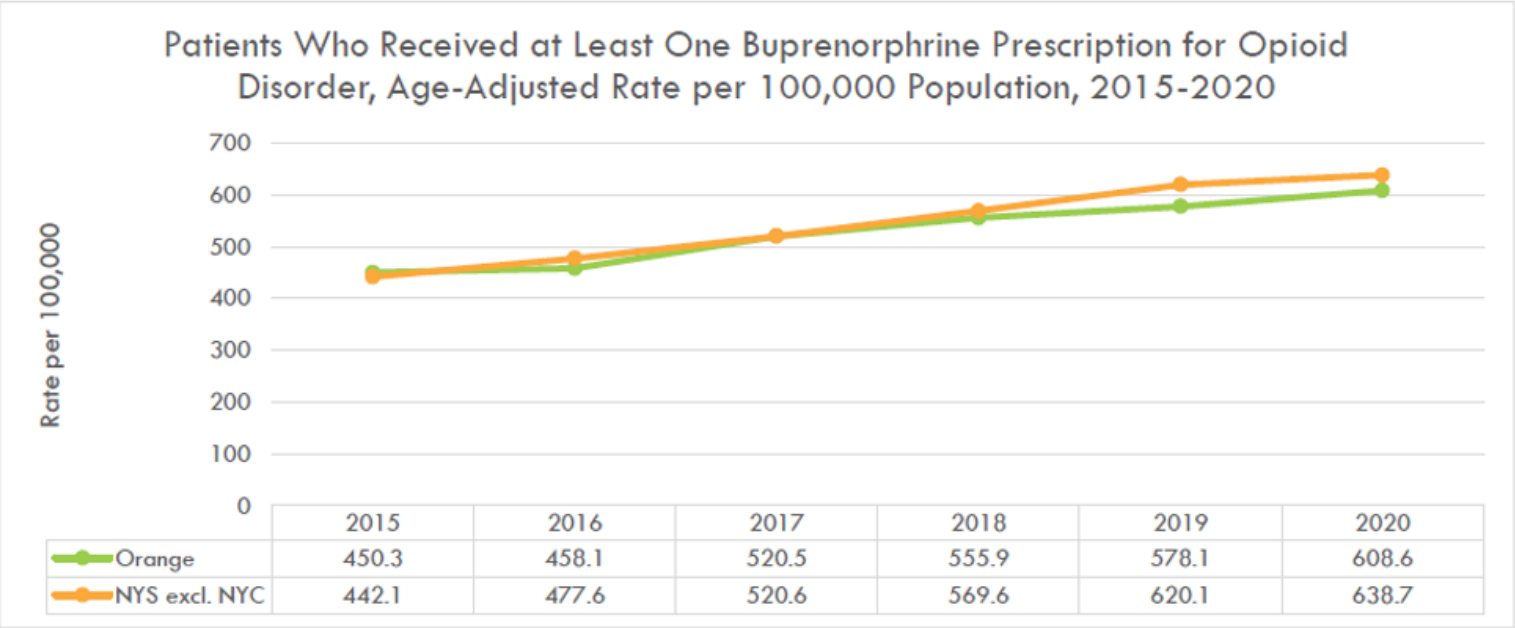


Source: New York State Opioid Data Dashboard, Updated as of January 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/opioid_dashboard/op_dashboard&p=ctr&ind_id=op9%20&cos=33
Vital Statistics Data, Updated as of November 2021

Buprenorphine is an opioid used to treat opioid addiction. It helps diminish the effects of withdrawal symptoms and lowers the risk of misuse. The opioid effects of buprenorphine increase with each dose until they level off, even when dosage increases.

From 2015-2020, the rate of buprenorphine prescription for opioid disorder has steadily increased in both Orange County and NY State. [see Figure 102].

Figure 102

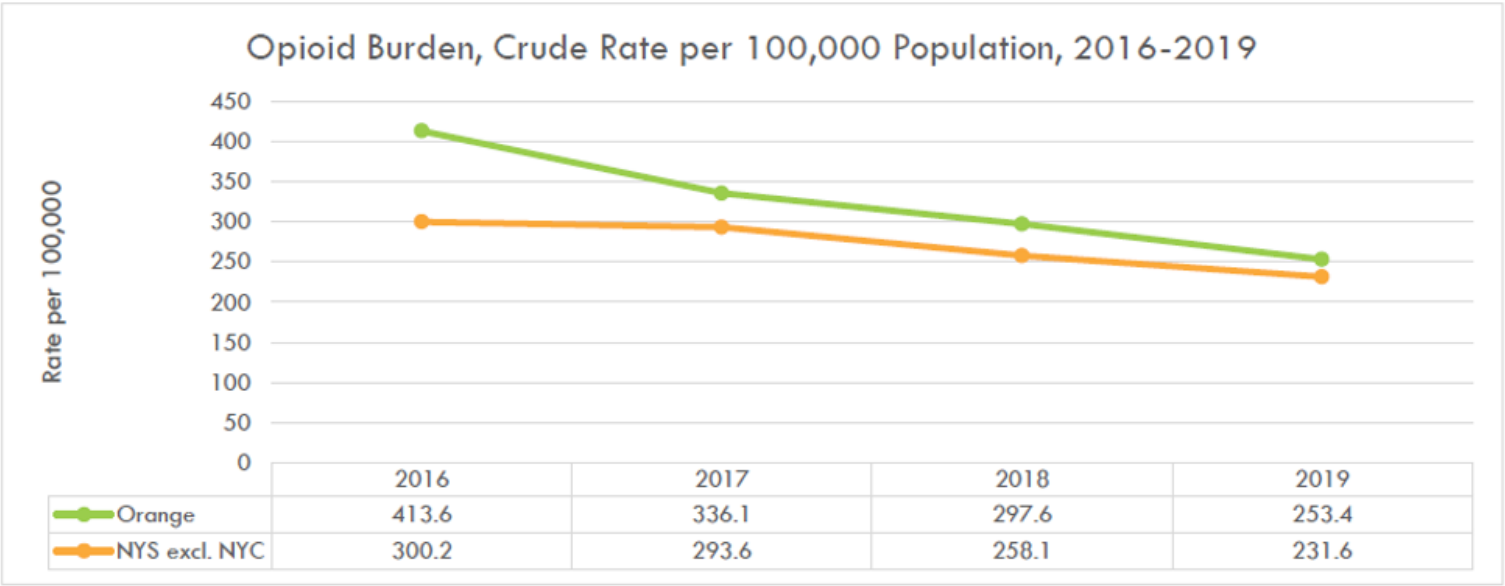


	2015	2016	2017	2018	2019	2020
Orange	450.3	458.1	520.5	555.9	578.1	608.6
NYS excl. NYC	442.1	477.6	520.6	569.6	620.1	638.7

Source: New York State Opioid Data Dashboard, Updated as of January 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/opioid_dashboard/op_dashboard&p=ctr&ind_id=op71%20&cos=33 Original Data Source: NYS PMP Data, Updated as of June 2021

The overall opioid burden, which includes outpatient Emergency Department visits and hospital discharges for non-fatal opioid overdose, abuse, dependence, and unspecified use; and opioid overdose deaths has continuously decreased since 2016 in both Orange County and in NY State. The most recent 2019 rate of opioid burden in Orange County was 253.4 per 100,000, which, even though lower than previous years, is still slightly higher than that of NY state excl NYC [see Figure 103].

Figure 103



	2016	2017	2018	2019
Orange	413.6	336.1	297.6	253.4
NYS excl. NYC	300.2	293.6	258.1	231.6

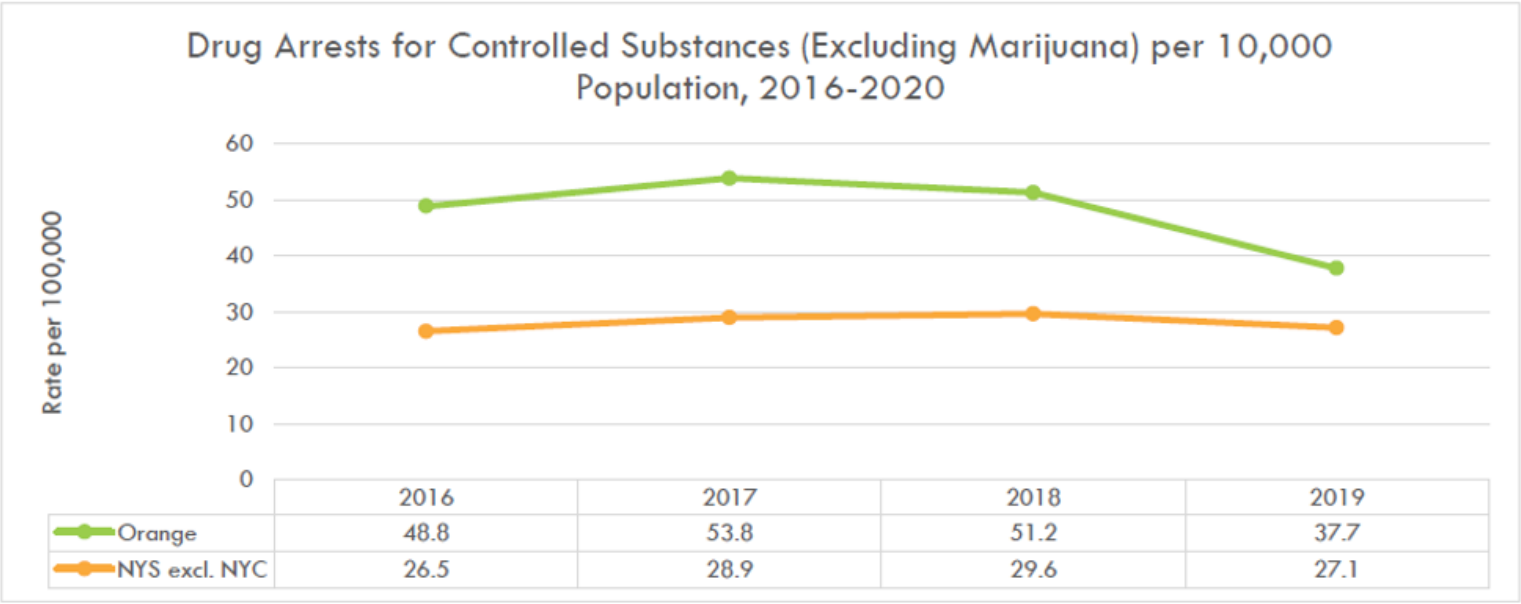
Note: Single-year estimates are graphed above
Source: New York State Opioid Data Dashboard, Updated as of January 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/opioid_dashboard/op_dashboard&p=ctr&ind_id=op56%20&cos=33
Original Data Source: Vital Statistics and SPARCS Data, Updated as of November 2021

[37] Substance Abuse and Mental Health Services Administration, April 2022, https://www.samhsa.gov/medication-assisted- treatment/treatment/buprenorphine, accessed July 2022

Drug-Related Arrests

The rate of drug arrest (Penal Law Article 220 for Controlled Substances, excluding Penal Law Article 221 for Marijuana) in Orange County was 37.7 per 100,000 in 2019, which is a decrease from the previous year's rate of 51.2. Over time, the drug arrest rate has been consistently higher in Orange County compared to the rest of NY stateS excl. NYC [see Figure 104].

Figure 104



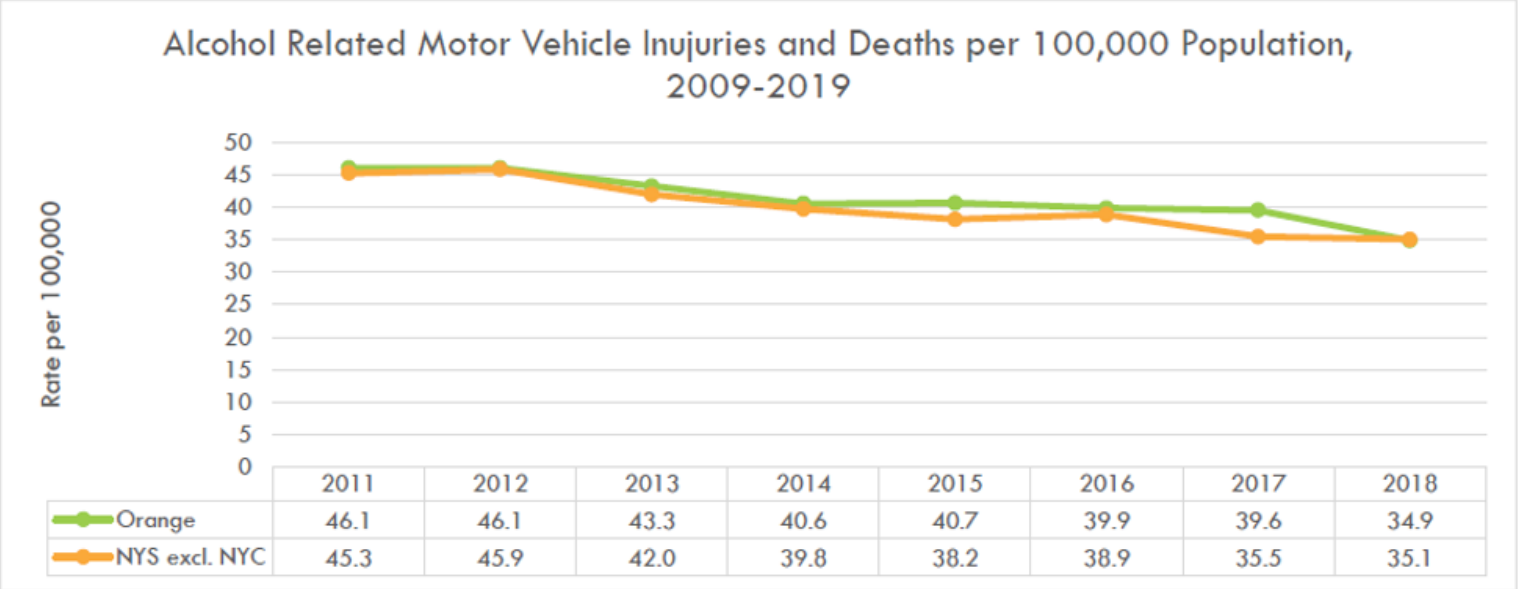
	2016	2017	2018	2019
Orange	48.8	53.8	51.2	37.7
NYS excl. NYC	26.5	28.9	29.6	27.1

*Note: Single-year estimates for both Orange County and NYS excl. NYC are graphed above Comment [MH11]: Not actually sure if these are single-year or three-year?
Source: New York State Division of Criminal Justice Services, report provided to OASAS by special request, June 2022. For public data sets, see: http://www.criminaljustice.ny.gov/crimnet/ojsa/arrests/index.htm

Alcohol

In Orange County, the most recently reported rate of alcohol-related motor vehicle injuries and deaths was 34.9 per 100,000, similar to the rate in NY stateS excl. NYC, of 35.1. From 2009-2019, the rates of alcohol-related motor vehicle injuries and deaths in both Orange County and NYS state excl. NYC have decreased [see Figure 105].

Figure 105

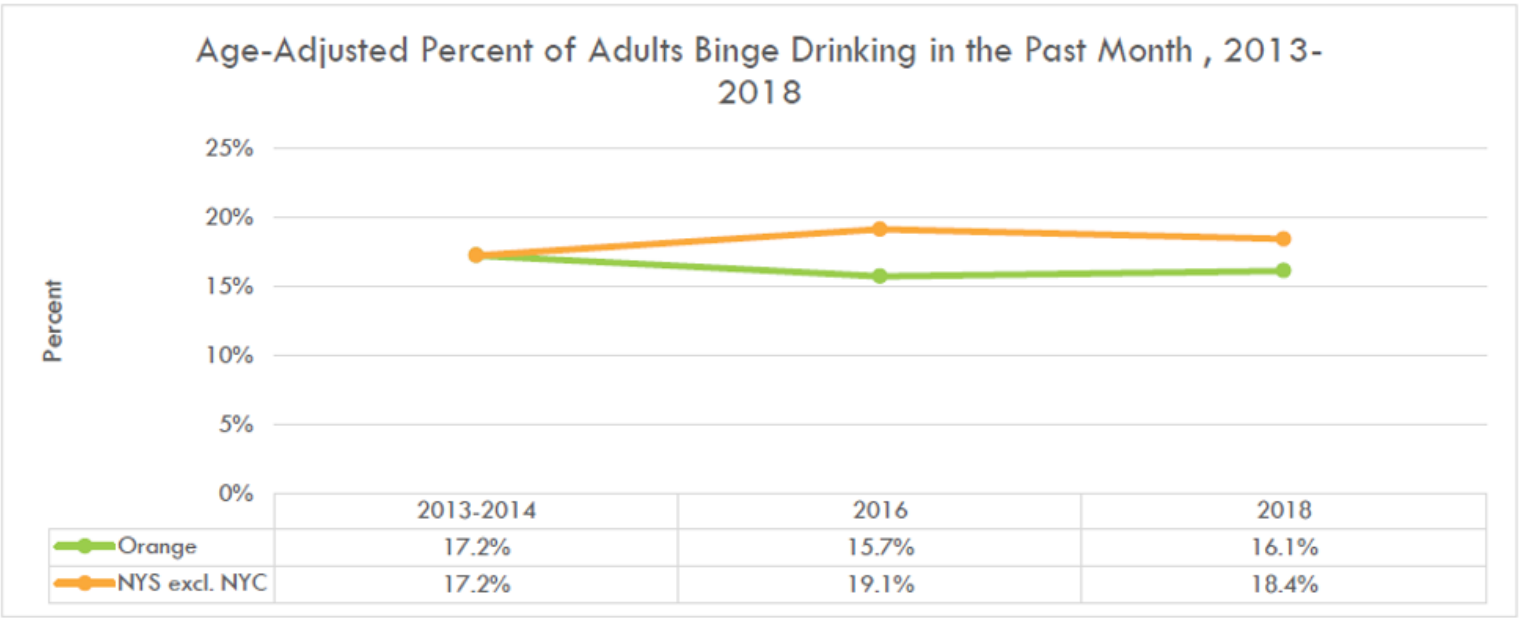


	2011	2012	2013	2014	2015	2016	2017	2018
Orange	46.1	46.1	43.3	40.6	40.7	39.9	39.6	34.9
NYS excl. NYC	45.3	45.9	42.0	39.8	38.2	38.9	35.5	35.1

Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above
New York State Department of Health, Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Og107&cos=33
Original Source: NYS Department of Motor Vehicles, Updated as of April 2021

Binge drinking is defined as drinking 5 or more drinks on an occasion for men or 4 or more drinks on an occasion for women. The percentage of adults in Orange County who reported binge drinking in the past month has decreased slightly over time, from 17.2% in 2013-2014 to 16.1% in 2018. The rates of self-reported adult binge drinking are slightly lower in Orange County than in the rest of NY the state (excl. NYC) [see Figure 106].

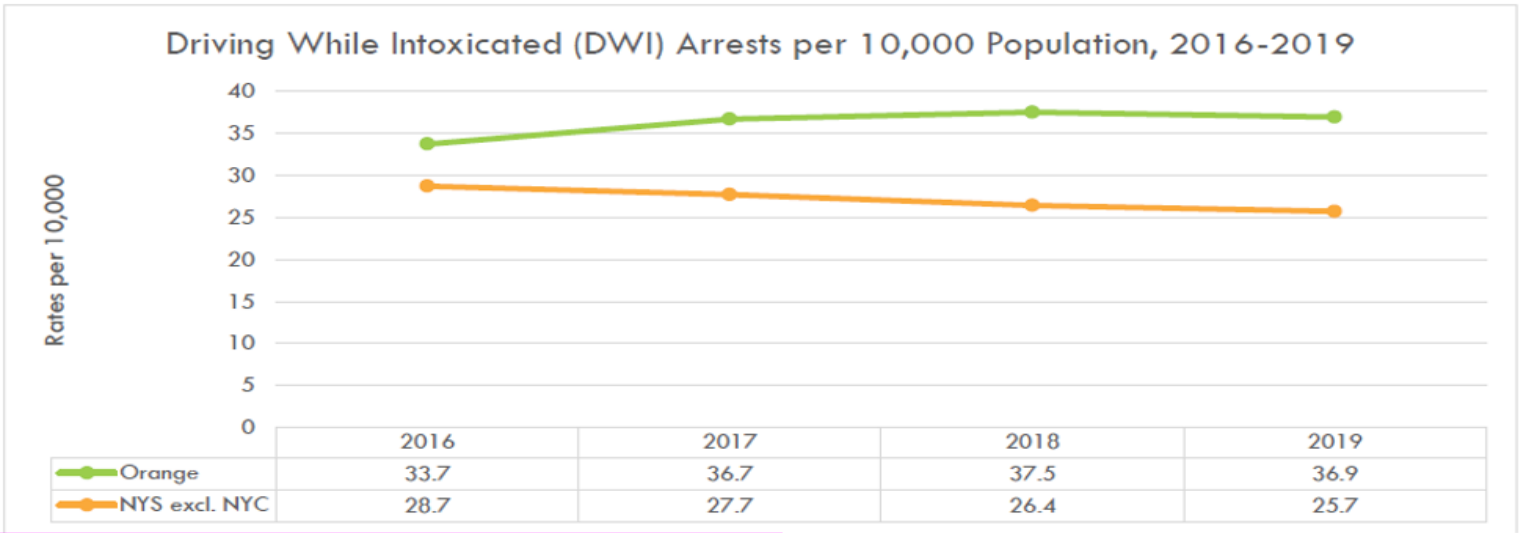
Figure 106



Note: Singe-year estimates for both Orange County and NYS excl. NYC are graphed above
Source: New York State Department of Health, Behavioral Risk Factor Surveillance System (BRFSS), Updated as of March 2022
https://health.data.ny.gov/Health/Behavioral-Risk-Factor-Surveillance-System-BRFSS-H/jsy7-eb4n

The rate of arrests for Driving While Intoxicated (DWI) has slightly increased over time in Orange County, from 33.7 per 10,000 in 2016 to 36.9 in 2019. This is opposite of the trend in NY state excl. NYC, where DWI arrests have decreased over time. From 2016-2019, the rate of DWI arrests in Orange County have been consistently higher than that in NY state excl. NYC [see Figure 107].

Figure 107



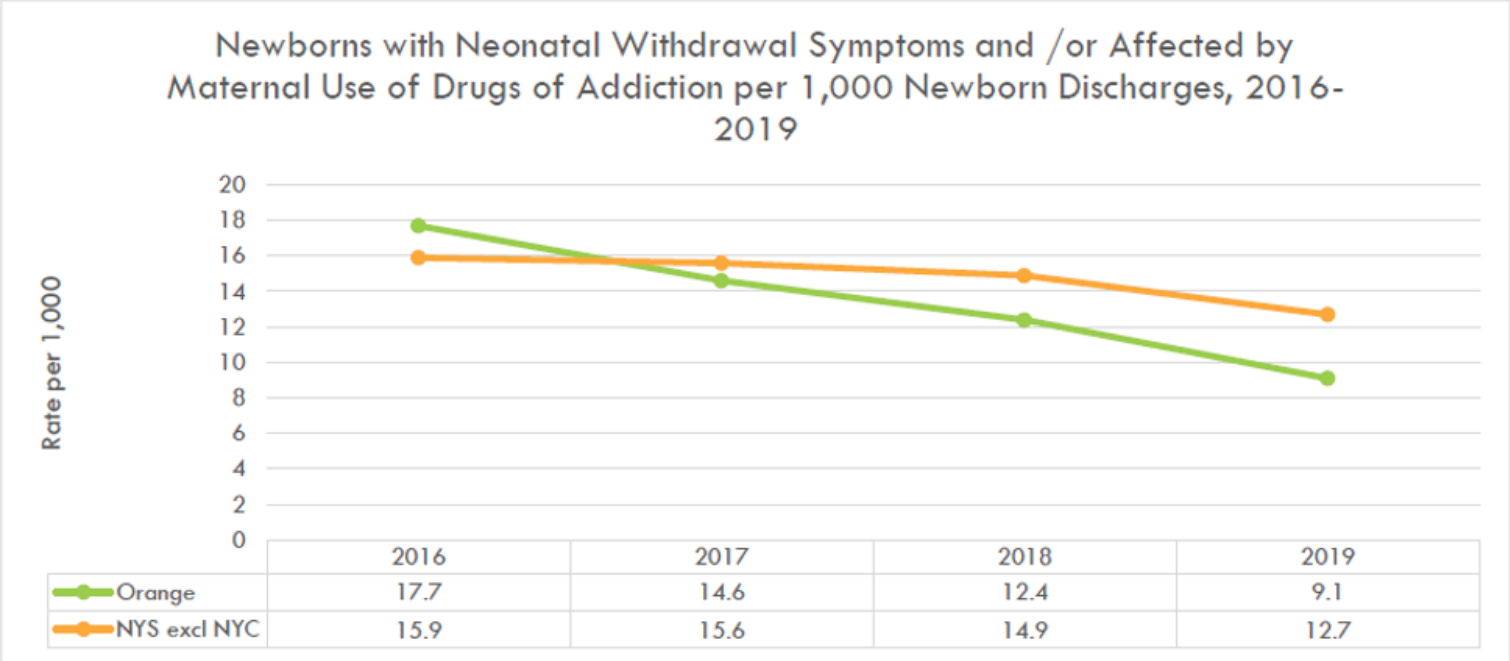
*Note: Single-year estimates for both Orange County and NYS excl. NYC are graphed above
Comment [MH11]: Not actually sure if these are single-year or three-year?
Source: New York State Division of Criminal Justice Services, report provided to OASAS by special request, June 2022. For public data sets, see:
https://www.criminaljustice.ny.gov/crimnet/ojsa/arrests/index.htm

Neonatal Withdrawl

Newborns who are exposed to certain substances during pregnancy, such as opioids, alcohol, and nicotine, may develop withdrawal symptoms post-birth, otherwise known as neonatal abstinence syndrome (NAS). NAS babies face significant risk of morbidity and mortality from neurodevelopmental effects. Long-term consequences include neurodevelopmental delays, behavioral issues, and when left untread, death.

In Orange County, the rate of newborns with neonatal withdrawal symptoms or affected by maternal use of drug addiction has dropped notably over time, from 17.7 per 1,000 newborn discharges in 2016 to 9.1 in 2019. Orange County's rate was higher than that of NY state excl. NYC in 2016 but dropped below it by 2017 and has since remained lower [see Figure 108].

Figure 108



Note: Single-year estimates for both Orange County and NYS excl. NYC are graphed above
Source: New York State Community Health Indicator Reports, Opioid Data Dashboard
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/opioid_dashboard/op_dashboard&p=ctr&ind_id=op34&cos=33

Suicide & Self-Inflicted Injury

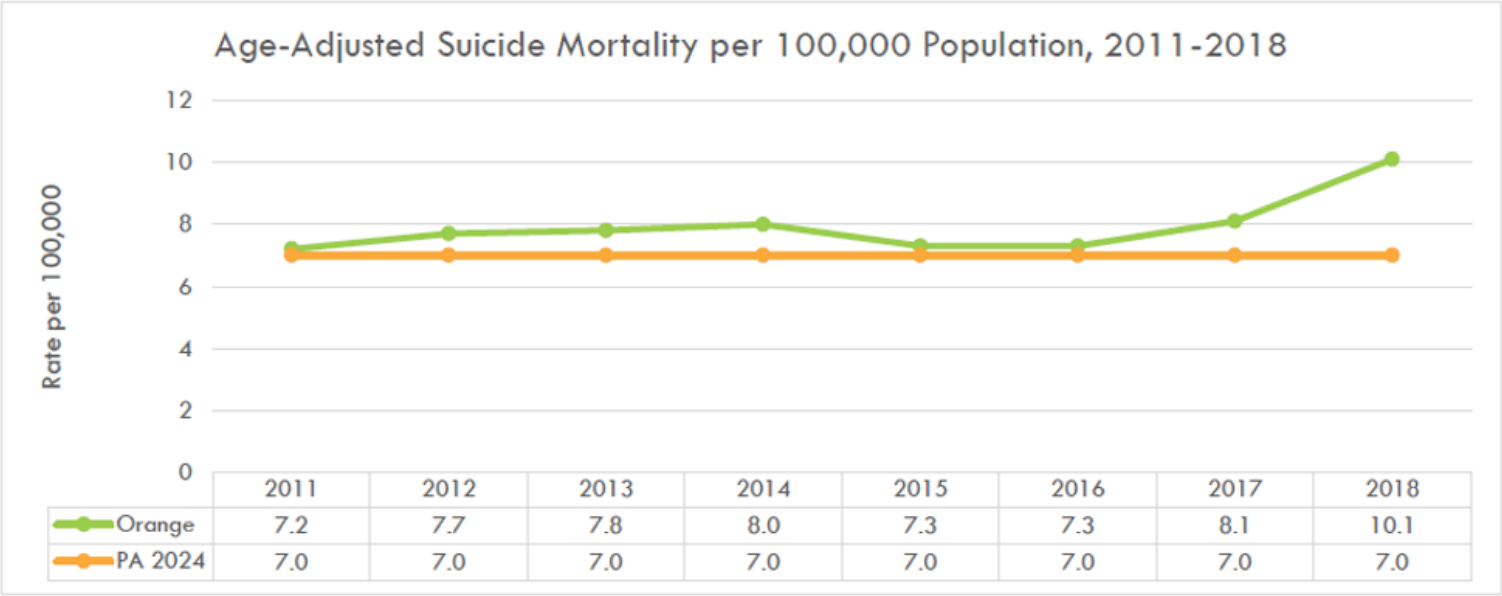
In the U.S., suicide is a serious health problem. It is associated with several risk factors, including those who have experienced bullying, sexual violence, and child abuse. In 2020, 12.2 million American adults considered attempting suicide, and 46,000 died by suicide. Protective factors, such as connectedness with family and friends, as well as access to health care services, can help prevent suicide.

Suicide mortality in Orange County remained relatively stable from 2011-2016, and it dropped to 7.3 in 2015, almost reaching the PA 2020 goal of 7.0 per 100,000. However, there has been a marked increase in suicide mortality beginning in 2016, reaching 10.0 per 100,000 in 2018, shifting the county far from its PA 2024 target goal [see Figure 109].

When looking specifically at youth suicides in the county, there was a steady increase in mortality from 2011-2014. From 2014-2016, suicide mortality decreased sharply, leveling out at a rate of 2.3 per 100,000 which met and surpassed the PA 2024 goal of 4.7 per 100,000 [see Figure 110].

[38] Anbalagan, Saminathan, and Magda D. Mendez, May 2022, https://www.ncbi.nlm.nih.gov/books/NBK551498/, accessed August 2022

Figure 109



	2011	2012	2013	2014	2015	2016	2017	2018
Orange	7.2	7.7	7.8	8.0	7.3	7.3	8.1	10.1
PA 2024	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0

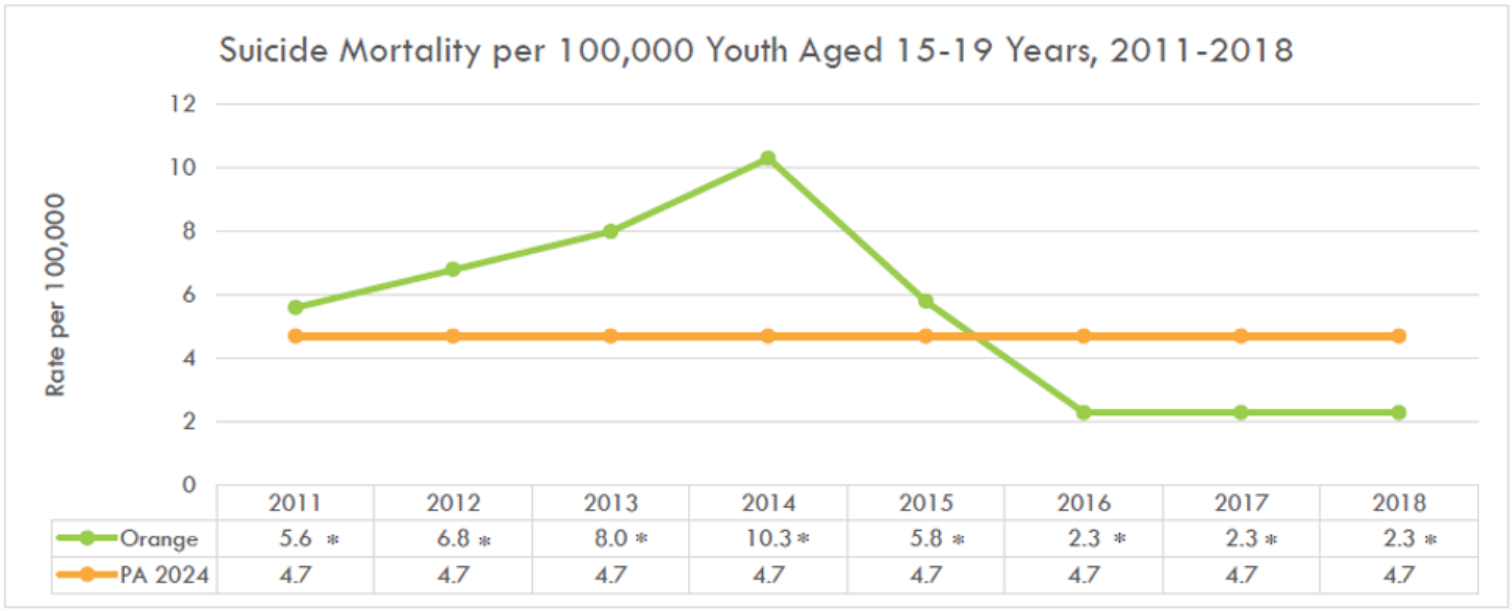
Note: Three-year averages for Orange County are graphed above

Source: New York State Prevention Agenda 2019-2024 Dashboard, Updated as of February 2022

https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/dashboard/pa_dashboard&p=ctr&ind_id=pa83_0%20&cos=33

Original Data Source: Vital Records, Updated as of January 2022

Figure 110



	2011	2012	2013	2014	2015	2016	2017	2018
Orange	5.6 *	6.8 *	8.0 *	10.3 *	5.8 *	2.3 *	2.3 *	2.3 *
PA 2024	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7

Note: Three-year averages for Orange County are graphed above.

* Fewer than 10 events in the numerator, therefore the rate/percentage is unstable.

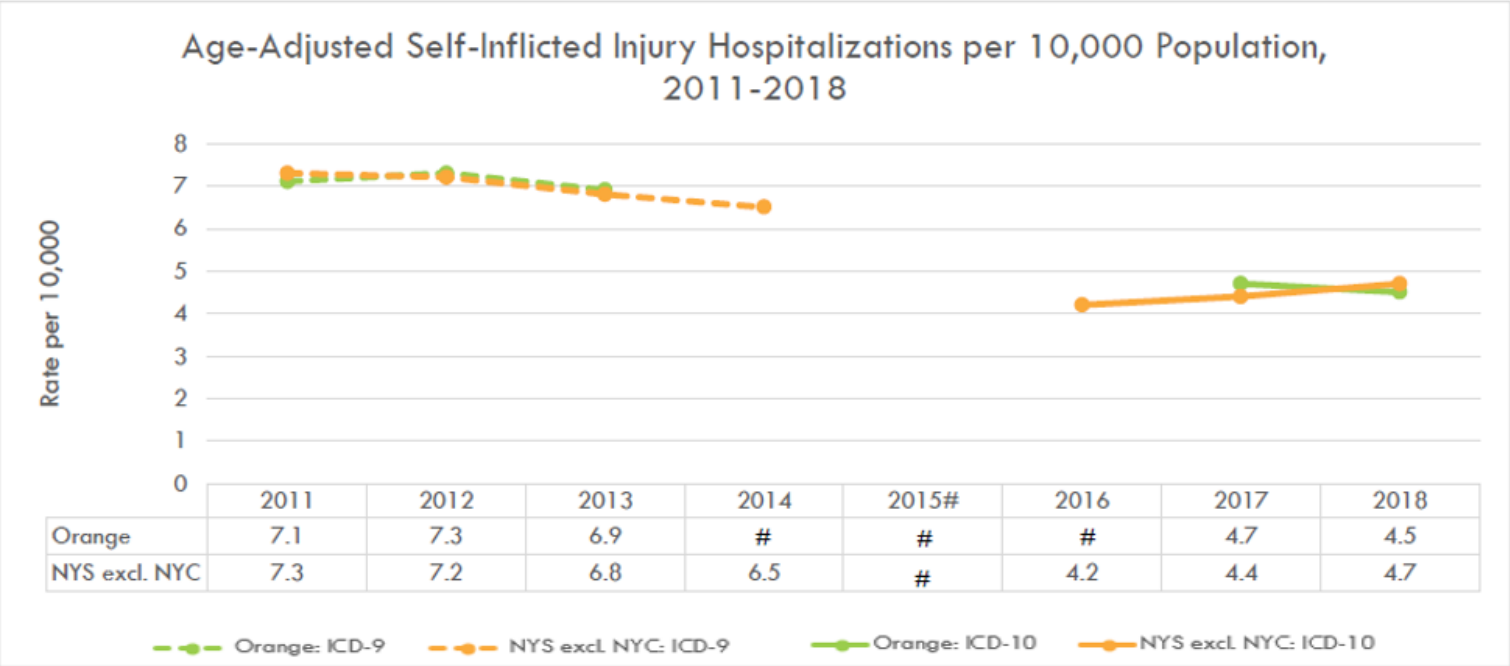
Data Source: New York State Prevention Agenda 2019-2024 Dashboard, Updated as of February 2022

https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/dashboard/pa_dashboard&p=ctr&ind_id=pa63_0%20&cos=33

Original Data Source: Vital Records, Updated as of November 2021

The overall self-inflicted injury hospitalization rate (age-adjusted) in Orange County was 4.5 per 10,000 in 2018, which is not a significant change from the previous year's rate of 4.7 and is similar to the rate in NYS excl. For teens aged 15-19, the rate of self-inflected injury was higher than that of the total population, at 7.1 per 10,000 in 2018. Though self-inflicted injuries for teens in Orange County are more frequent relative to the whole population, they were less frequent than self-inflicted injuries for teens at the state level (excl. NYC). Note that the rates from 2016 onward cannot be compared with the rates from 2014 and prior due to SPARCS data transitioning from ICD-9-CM to ICD-10-CM diagnosis codes [see Figure 111, Figure 112].

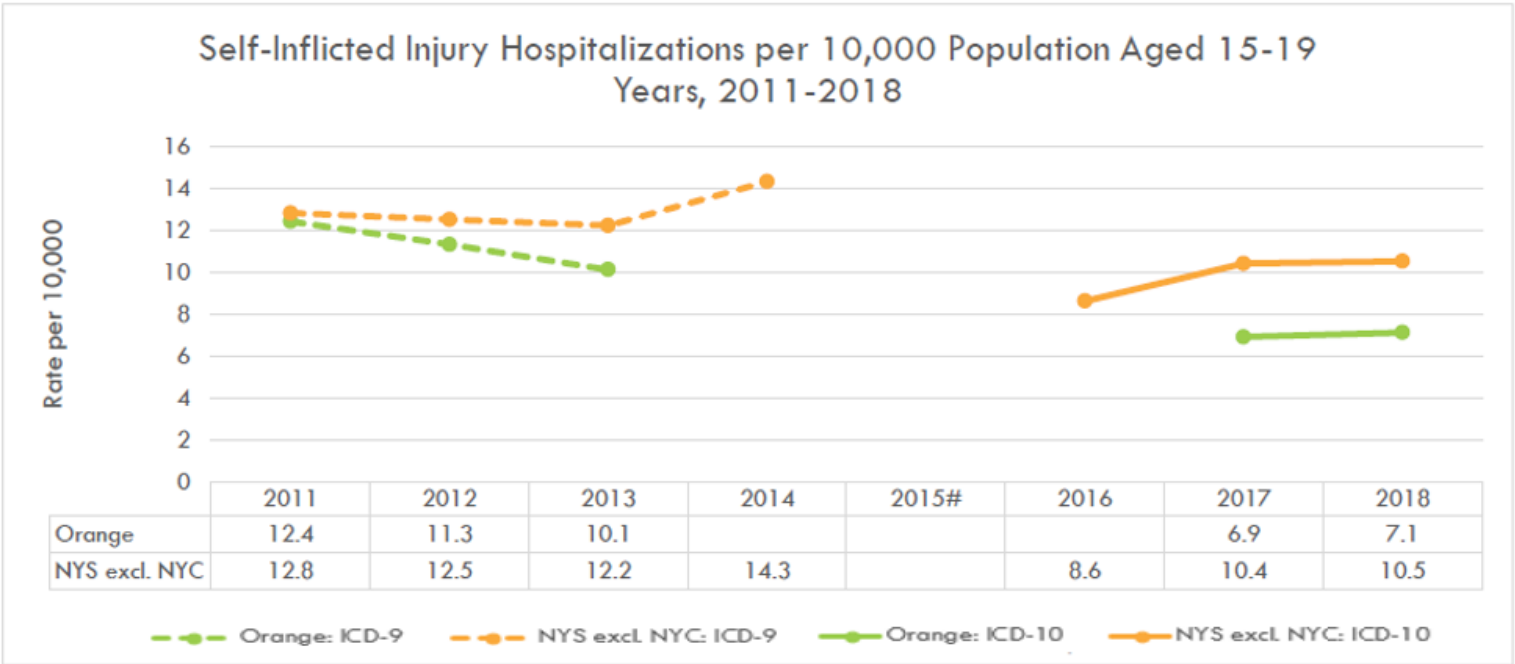
Figure 111



	2011	2012	2013	2014	2015#	2016	2017	2018
Orange	7.1	7.3	6.9	#	#	#	4.7	4.5
NYS excl. NYC	7.3	7.2	6.8	6.5	#	4.2	4.4	4.7

Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
#: The rate for 2015 is excluded due to SPARCS data transitioning on October 1, 2015 from ICD-9-CM to ICD-10-CM diagnosis codes. Due to this transition, data for 2016-and-forward should not be compared with data for 2014-and-prior.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Hh15a&cos=33#pagetitle
Original Data Source: SPARCS, Updated as of November 2021

Figure 112



	2011	2012	2013	2014	2015#	2016	2017	2018
Orange	12.4	11.3	10.1				6.9	7.1
NYS excl. NYC	12.8	12.5	12.2	14.3		8.6	10.4	10.5

Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
#: The rate for 2015 is excluded due to SPARCS data transitioning on October 1, 2015 from ICD-9-CM to ICD-10-CM diagnosis codes. Due to this transition, data for 2016-and-forward should not be compared with data for 2014-and-prior.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Hh16&cos=1#pagetitle
Original Data Source: SPARCS, Updated as of November 2021

[39]CDC, May 2022, https://www.cdc.gov/violenceprevention/suicide/fastfact.html, accessed August 2022

PREVENT COMMUNICABLE DISEASES

Sexually Transmitted Infections

HIV/AIDS

HIV (human immunodeficiency virus) is a virus that attacks the body's immune system and is spread through certain body fluids, including blood, vaginal and rectal secretions, semen, and breast milk. No effective cure for HIV exists, but the virus can be controlled with proper medical care. If left untreated, HIV can lead to AIDS (acquired immunodeficiency syndrome). It is estimated that 91% of new HIV infections in the U.S. are transmitted from undiagnosed people or those who have received a diagnosis but are not in care. People who are tested and learn they are HIV-positive can make changes to reduce the risk of transmitting it to their sexual or drug- using partners significantly. The only way to know whether you have HIV is to be tested for it.

HIV/AIDS infections continue to be a substantial public health issue in New York State and the U.S. as a whole. From 2014-2018, there were a total of 109 HIV infections in Orange County, at an annual average rate of 5.8 infections per 100,000 population. This is lower than the rate in the rest of the Mid-Hudson Region and NYS (excl. NYC). However, the rates have increased over time, from 3.5 per 100,000 in 2014 to 7.0 per 100,000 in 2018 [see Table 37]. When adjusting for age and stratifying by gender, age, and race, HIV/AIDS had disproportionate impacts. Males suffered higher incidence of both HIV and AIDS when compared to females. For HIV, the most frequently infected population was persons aged 50-59, closely followed by persons aged 25-29. For AIDS, however, the 50-59 population by far had the highest infection rate. Where data are available, the non-Hispanic Black population suffered the highest rates of both HIV and AIDS, followed by the Hispanic population. However, the highest proportion of persons living with diagnosed HIV/AIDS was for those who are a race/ethnicity "other" than non-Hispanic White, non-Hispanic Black, or Hispanic [see Table 38, Figure 113, Figure 114, Figure 115].

Most HIV transmission in Orange County occurs through sexual contact, including between men who have sex with men and sexual partners. The most common mode of transmission for AIDS infections in the county is heterosexual contact, followed by contact between men who have sex with men [Table 39, Figure 116].

There have been 10,046 deaths among persons diagnosed with HIV/AIDS from 2014-2018 in New York State, 76 of which have occurred in Orange County. The mortality rate for HIV/AIDS in Orange County was lower than in most other counties in the Mid-Hudson region, surpassing only the mortality rates Putnam and Rockland counties [see Table 40].

Table 37

HIV Case Count and Infection Rate per 100,000 Population by Region, 2014-2018

	2014		2015		2016		2017		2018		Total 2014-2018	
Region	# Cases	Rate	# Cases	Rate	# Cases	Rate	# Cases	Rate	# Cases	Rate	Total # Cases	Avg. Rate
Orange County	13	3.5	11	3.0	34	9.1	25	6.7	26	7.0	109	5.8
Mid-Hudson Region	213	9.3	146	6.4	203	8.9	195	8.5	157	6.9	914	8.0
NYS excl. NYC	844	7.5	739	6.6	739	6.6	703	6.3	592	5.3	3617	6.5

Note: All counts exclude individuals who were incarcerated at the time of diagnosis or at some point after

Rates are calculated using population estimates from the National Institute of Health's Surveillance, Epidemiology, and End Results Program (SEER)

Source: NYS DOH, AIDS Institute/BHAE, Updated as of June 2019 Created by the School of Public Health, University at Albany, 2021

[39]CDC, May 2022, https://www.cdc.gov/violenceprevention/suicide/fastfact.html, accessed August 2022

[40] Healthy People, 2020, February 2022, https://www.healthypeople.gov/2020/topics-objectives/topic/hiv, accessed August 2022

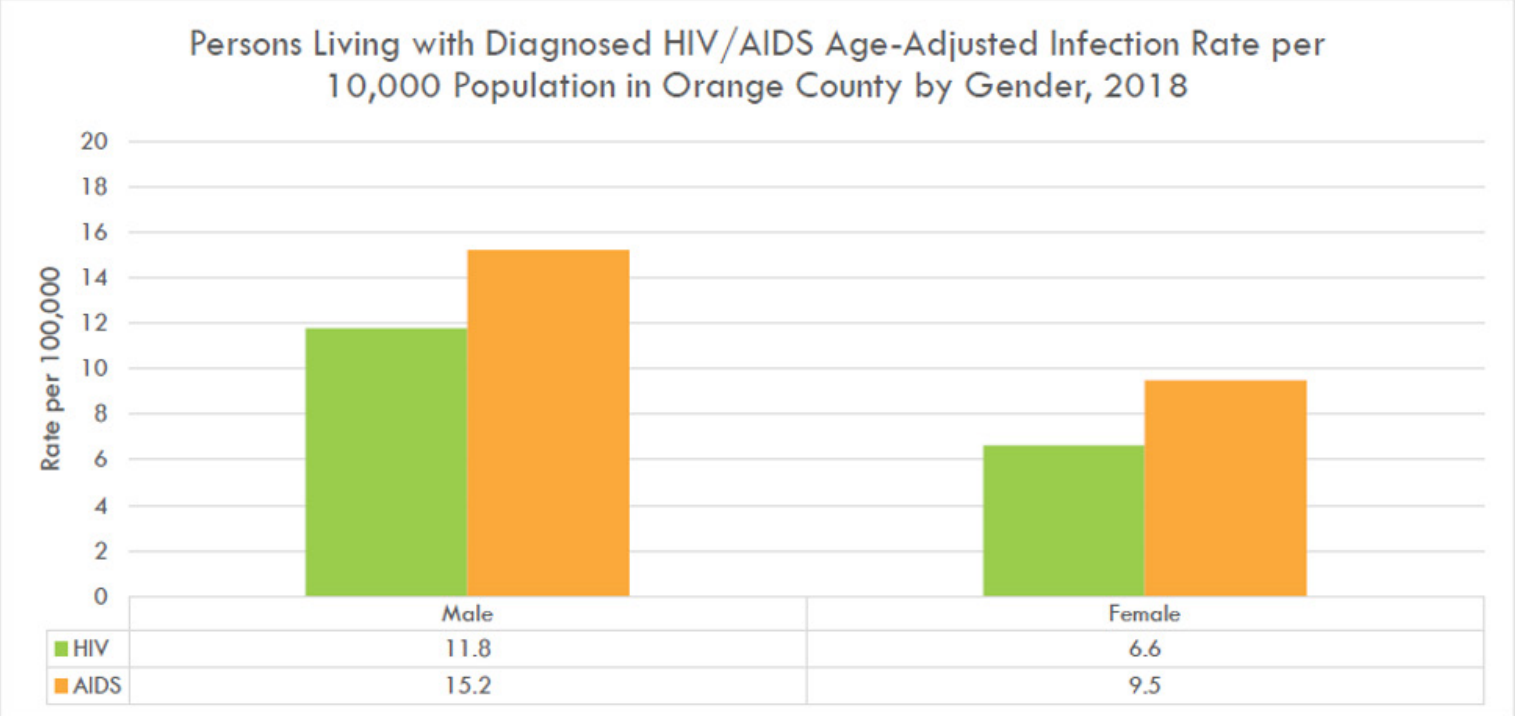
[41] CDC, June 2022, https://www.cdc.gov/hiv/basics/whatishiv.html, accessed August 2022

Table 38

Persons Living with Diagnosed HIV/AIDS Age-Adjusted Infection Rate per 10,000 Population by Region, Gender, Race/Ethnicity, and Age, 2018																		
	HIV						AIDS						Total (HIV+ AIDS)					
	Orange		Mid-Hudson Region		NYS excl. NYC		Orange		Mid-Hudson Region		NYS excl. NYC		Orange		Mid-Hudson Region		NYS excl. NYC	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Gender																		
Male	223	11.8	608	5.3	7347	n/a	288	15.2	870	7.6	9328	n/a	511	27.0	1478	12.9	16675	n/a
Female	125	6.6	300	2.5	3099	n/a	179	9.5	435	3.7	4180	n/a	304	16.1	735	6.2	7279	n/a
Age																		
<19	s	s	s	s	101	0.4	s	s	0	0.0	18	0.1	s	s	s	s	119	0.4
20-24	13	4.5	35	2.2	456	5.7	s	s	s	s	84	1.1	16	5.6	43	2.8	540	6.8
25-29	37	17.4	83	5.3	1021	14.6	16	7.5	31	2.0	359	5.1	53	24.9	114	7.3	1380	19.8
30-39	68	15.6	159	5.9	2186	16.9	34	7.8	104	3.8	1263	9.7	102	23.3	263	9.7	3449	26.6
40-49	65	12.7	184	5.8	2110	14.6	81	15.8	215	6.8	2589	17.9	146	28.5	399	12.7	4699	32.5
50-59	100	18.5	259	7.5	2776	16.5	192	35.6	555	16.0	5257	31.2	292	54.1	814	23.4	8033	47.7
60 Plus	59	8.4	177	3.5	1796	7.0	141	20.0	391	7.8	3937	15.3	200	28.4	568	11.3	5733	22.4
Race																		
Non-Hispanic White	99	4.0	315	2.1	3531	4.2	111	4.5	384	2.6	4234	5.1	210	8.5	699	4.7	7765	9.3
Non-Hispanic Black	88	21.9	229	9.1	2978	31.1	122	30.3	323	12.8	3812	39.8	210	52.2	552	22.0	6790	71.0
Hispanic	111	14.9	248	5.6	2624	21.3	167	22.4	395	8.9	3409	27.6	278	37.2	643	14.5	6033	48.9
Other	50	33.4	116	7.2	1313	18.2	67	44.8	203	12.6	2053	28.4	117	78.3	319	19.9	3366	46.6

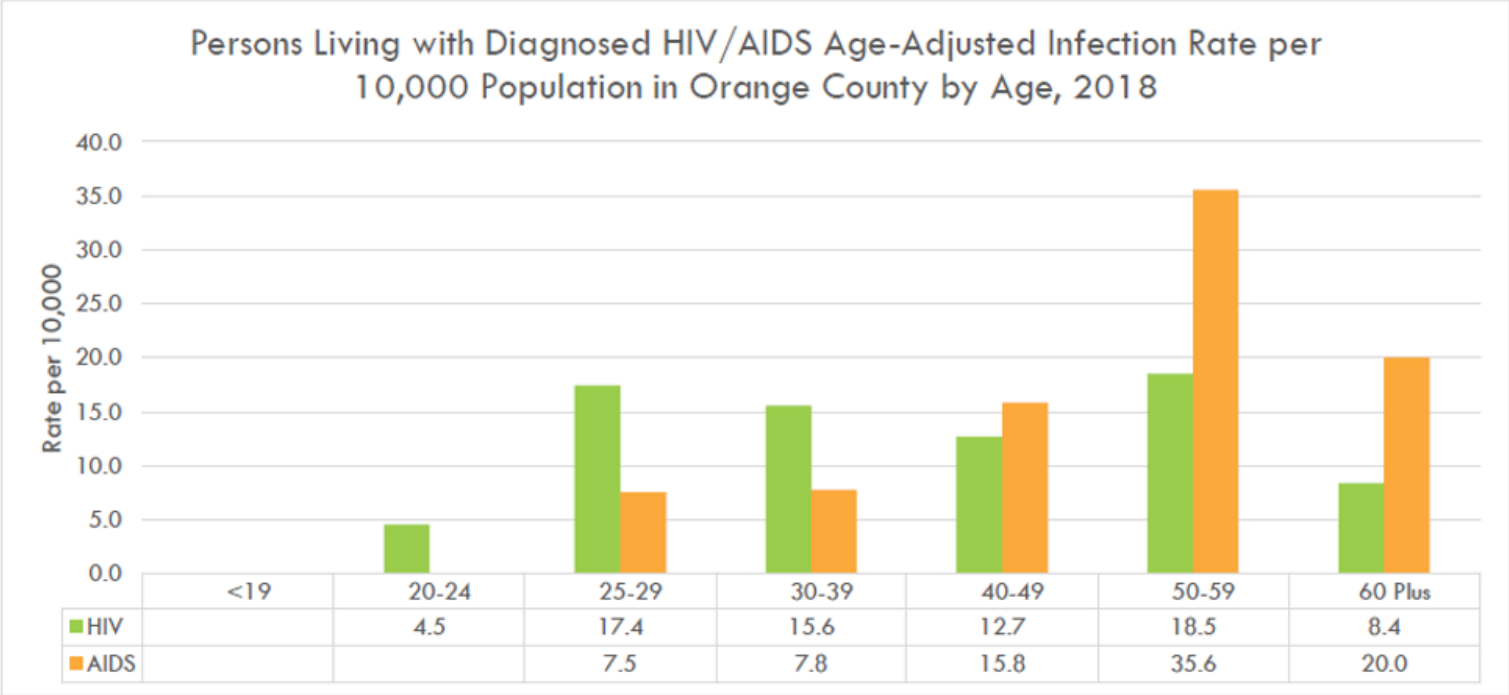
Rates are calculated using population estimates from the National Institute of Health's Surveillance, Epidemiology, and End Results Program (SEER)
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: NYS DOH AIDS Institute/BHAE
Created by the School of Public Health, University at Albany, 2021

Figure 113



Rates are calculated using population estimates from the National Institute of Health's Surveillance, Epidemiology, and End Results Program (SEER)
Source: School of Public Health, University at Albany, 2021 Original Source: NYS DOH AIDS Institute/BHAE

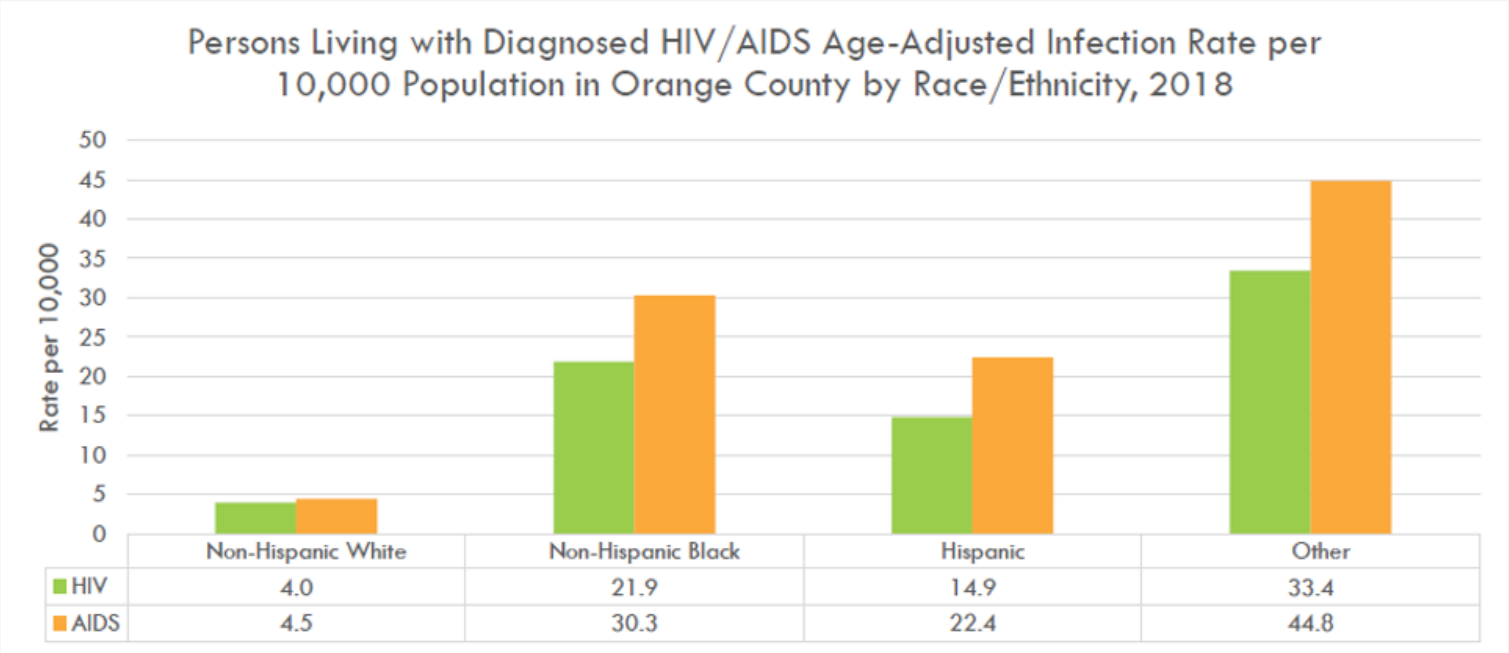
Figure 114



	<19	20-24	25-29	30-39	40-49	50-59	60 Plus
HIV		4.5	17.4	15.6	12.7	18.5	8.4
AIDS			7.5	7.8	15.8	35.6	20.0

Rates are calculated using population estimates from the National Institute of Health's Surveillance, Epidemiology, and End Results Program (SEER)
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: NYS DOH AIDS Institute/BHAE
Created by the School of Public Health, University at Albany, 2021

Figure 115



	Non-Hispanic White	Non-Hispanic Black	Hispanic	Other
HIV	4.0	21.9	14.9	33.4
AIDS	4.5	30.3	22.4	44.8

Rates are calculated using population estimates from the National Institute of Health's Surveillance, Epidemiology, and End Results Program (SEER)
Source: School of Public Health, University at Albany, 2021 Original Source: NYS DOH AIDS Institute/BHAE

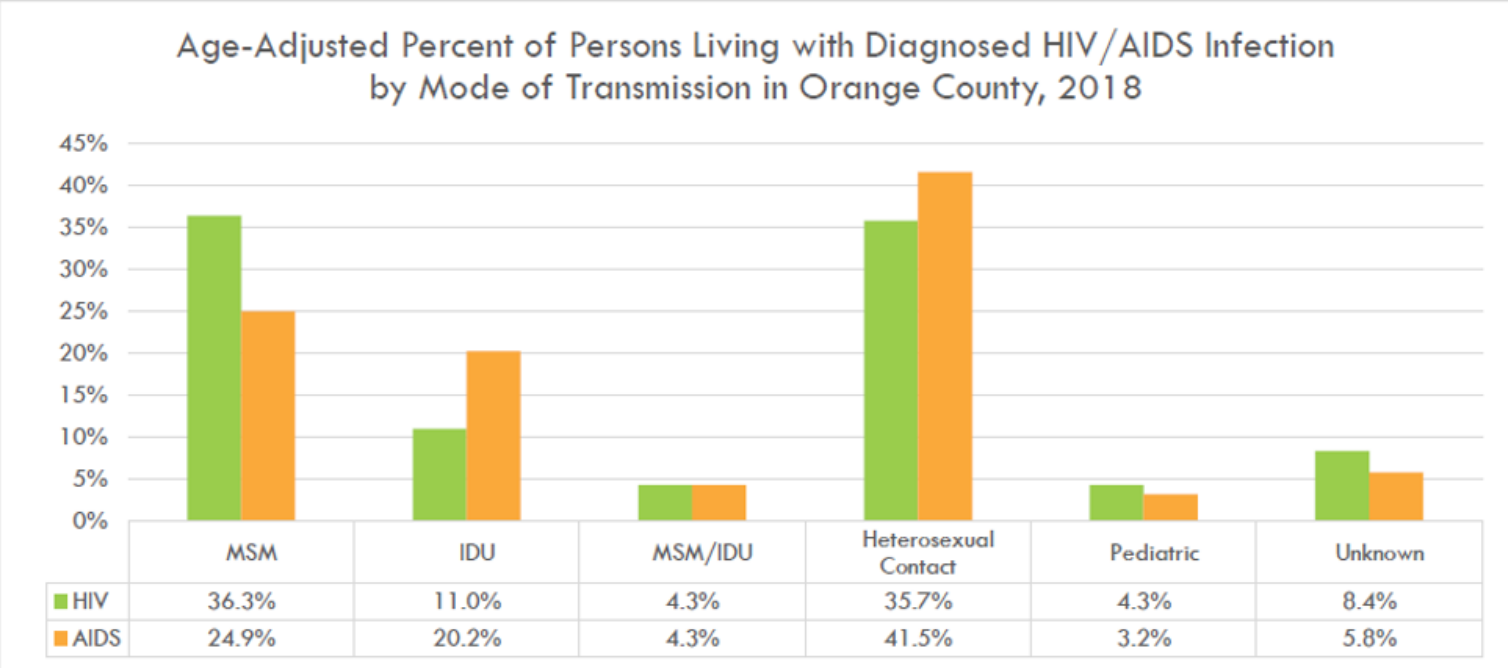
Table 39

Age-Adjusted Percent of Persons Living with Diagnosed HIV/AIDS Infection by Mode of Transmission, 2018

	HIV						AIDS						Total (HIV+ AIDS)					
	Orange		Mid-Hudson Region		NYS excl.NYC		Orange		Mid-Hudson Region		NYS excl. NYC		Orange		Mid-Hudson Region		NYS excl.NYC	
Mode of Transmission	#	Percent	#	Percent	#	Percent	#	Percent	#	Percent	#	Percent	#	Percent	#	Percent	#	Percent
MSM	126	36.3%	359	39.7%	4855	46.5%	116	24.9%	374	28.8%	4791	35.5%	242	29.8%	733	33.2%	9646	40.3%
IDU	38	11.0%	129	14.3%	934	8.9%	94	20.2%	284	21.8%	2268	16.8%	132	16.3%	413	18.7%	3202	13.4%
MSM/IDU	15	4.3%	39	4.3%	433	4.1%	20	4.3%	76	5.8%	892	6.6%	35	4.3%	115	5.2%	1325	5.5%
Heterosexual Contact	124	35.7%	279	30.8%	3109	29.8%	193	41.5%	441	33.9%	4114	30.5%	317	39.0%	720	32.7%	7223	30.2%
Blood Products	0	0.0%	0	0.0%	15	0.1%	0	0.0%	0	0.0%	63	0.5%	0	0.0%	0	0.0%	78	0.3%
Pediatric	15	4.3%	28	3.1%	221	2.1%	15	3.2%	36	2.8%	269	2.0%	30	3.7%	64	2.9%	490	2.0%
Unknown	29	8.4%	71	7.8%	879	8.4%	27	5.8%	89	6.8%	1111	8.2%	56	6.9%	160	7.3%	1990	8.3%
Total	347	100.0%	905	100.0%	10446	100.0%	465	100.0%	1300	100.0%	13508	100.0%	812	100.0%	2205	100.0%	23954	100.0%

s: Data are suppressed. The data do not meet the criteria for confidentiality IDU: Injecting Drug Users
MSM: men who have sex with men
Source: NYS DOH AIDS Institute/BHAE
Created by the School of Public Health, University at Albany, 2021

Figure 116



s: Data are suppressed. The data do not meet the criteria for confidentiality IDU: Injecting Drug Users
MSM: men who have sex with men
Source: NYS DOH AIDS Institute/BHAE
Created by the School of Public Health, University at Albany, 2021

Table 40

Deaths Among Persons with Diagnosed HIV/AIDS, 2014-2018							
	2014	2015	2016	2017	2018	2014-2018	2014-2018
	#	#	#	#	#	Total #	Avg. Rate
New York State	2151	2051	2107	1979	1758	10046	12.8
Mid-Hudson Region	125	91	124	108	88	536	13.8
Dutchess	19	11	17	16	11	74	6.3
Orange	17	15	14	14	16	76	5.0
Putnam	1	1	4	2	2	10	2.5
Rockland	9	7	16	7	10	49	3.8
Sullivan	7	5	5	5	5	27	8.9
Ulster	12	13	9	11	3	48	6.6
Westchester	60	39	59	53	41	252	6.5

Note: Mortality counts include persons who were incarcerated at time of diagnosis or sometime after. 2018 data is incomplete and does not represent a true decrease, but instead a lag in reporting.

Rates are calculated using ACS 5-year population estimates

Source: NYS DOH AIDS Institute/BHAE, Updated as of June 2019 Created by the School of Public Health, University at Albany, 2021

Gonorrhea

Gonorrhea is an STI that can infect individuals of all genders. Gonorrhea can cause infections in the genitals, rectum, and throat. Gonorrhea can affect people of all ages but is especially common among young people aged 15-24 years. Gonorrhea is spread by vaginal, anal, or oral sex with an infected partner. Pregnant women with gonorrhea can also pass the infection on to babies during childbirth.

Healthy People 2020 aimed to reduce gonorrhea rates among females aged 15-44 years to 251.9 cases per 100,000 population and to 194.8 new cases per 100,000 for males aged 15-44 years by the year 2020. Orange County met these goals, having a case rate of 77.8 per 100,000 population in 2019, 67.8 per 100,000 females, and 88.5 per 100,000 males [see Table 41]. Despite having net the Healthy People 2020 goal, the gonorrhea case rates in Orange County have overall increased, from 60.0 in 2013 to 77.8 in 2019. From 2018 to 2019, the case rate jumped by more than 10 per 100,000. There are also disparities in which populations are the most affected by gonorrhea. When stratifying by race/ethnicity, the non-Hispanic Black population in Orange County had the highest rates of gonorrhea from 2013-2019. Males also had a higher rate of gonorrhea than females, and those aged 20-24 had higher rates than any other age group [see Figure 117, Figure 118, Figure 119, Figure 120].

[42]CDC, April 2022, https://www.cdc.gov/std/gonorrhea/stdfact-gonorrhea.htm, accessed August 2022

[43] Healthy People, 2020, February 2022, https://www.healthypeople.gov/2020/topics-objectives/topic/sexually-transmitted-diseases, accessed August 2022

Table 41

Gonorrhea Case Counts and Age-Adjusted Rates per 100,000 Population by Gender, Race/Ethnicity, and Age, 2014-2019																		
	2014						2015						2016					
	Orange		Mid-Hudson Region		NYS excl. NYC		Orange		Mid-Hudson Region		NYS excl. NYC		Orange		Mid-Hudson Region		NYS excl. NYC	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Gender^																		
Male	95	50.4	511	47.1	3539	65.3	111	62.5	583	54.6	4678	86.8	155	85.7	779	72.4	5710	106.7
Female	108	63.2	466	45.0	3077	58.6	96	56.3	435	41.5	4041	77.1	69	39.9	388	37.1	4309	83.3
Both Genders	203	55.6	977	45.9	6616	61.8	207	58.6	1018	48.0	8719	81.8	224	62.9	1167	54.9	10019	94.9
Race/Ethnicity^																		
Non-Hispanic White	47	21.2	193	15.8	1689	22.5	36	17.2	173	14.1	2194	29.3	63	26.5	230	18.1	2762	37.3
Non-Hispanic Black	108	256.1	410	143.1	3423	291.1	89	211.8	414	146.9	4577	389.3	82	197.3	401	141.3	4819	416.3
Non-Hispanic American Indian/ Alaska Native	0	0.0	0	0.0	22	53.7	0	0.0	s	s	43	96.7	0	0.0	s	s	43	96.3
Non-Hispanic Asian/ Native Hawaiian/ Pacific Islander	s	s	s	s	47	8.9	0	0.0	s	s	63	12.0	s	s	17	15.1	101	18.8
Hispanic	36	43.9	151	31.5	635	45.9	24	29.1	135	27.7	814	58.0	35	43.2	191	39.0	899	63.6
Missing or Unknown Race and/or Ethnicity	10	0.0	218	0.0	800	0.0	58	0.0	290	0.0	1028	0.0	43	0.0	326	0.0	1395	0.0
All Races	203	55.6	977	45.9	6616	61.8	207	58.6	1018	48.0	8719	81.8	224	62.9	1167	54.9	10019	94.9
Age																		
0-14	s	s	s	s	63	3.2	0	0.0	s	s	92	4.7	s	s	s	ss	74	3.8
15-19	28	96.6	170	102.9	1361	173.7	25	86.5	160	97.5	1709	221.1	23	79.5	164	100.9	1836	240.6
20-24	74	255.8	310	199.6	2088	258.1	64	220.9	307	196.8	2745	343.1	52	179.5	324	207.7	2845	360.5
25-29	41	202.7	184	141.8	1285	186.9	39	187.5	197	150.2	1730	249.0	52	241.0	242	182.4	2039	291.6
30-34	27	126.3	121	92.1	727	111.6	26	122.1	133	101.2	938	143.7	35	162.4	173	131.0	1180	179.6
35-39	s	s	64	47.6	380	60.8	19	87.7	82	60.6	498	78.8	24	109.0	93	67.9	691	107.8
40-44	s	s	53	35.1	261	37.7	15	63.5	47	32.4	350	52.8	s	s	46	32.8	429	67.5
45-49	s	s	30	17.7	199	25.2	10	37.1	38	22.8	286	37.1	s	s	46	28.1	320	42.3
50-54	s	s	16	8.8	131	15.0	s	s	28	15.6	199	23.1	s	s	27	15.3	277	33.1
55-59	s	s	15	9.0	86	10.4	s	s	14	8.3	96	11.4	11	41.9	29	17.0	202	23.9
60+	s	s	s	s	35	1.4	s	s	s	s	76	3.0	s	s	14	2.7	124	4.8
All Ages	203	54.1	977	42.2	6616	59.0	207	55.0	1018	43.9	8719	77.9	224	59.3	1167	50.3	10019	89.7

Table 28 **continued:**

	2017						2018						2019					
	Orange		Mid-Hudson Region		NYS excl. NYC		Orange		Mid-Hudson Region		NYS excl. NYC		Orange		Mid-Hudson Region		NYS excl. NYC	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Gender																		
Male	184	98.5	998	92.6	6152	115.5	136	73.4	921	85.7	6456	121.5	169	88.5	1131	104.4	7055	133.1
Female	110	62.7	528	50.4	4468	86.8	105	59.7	531	50.8	4738	92.3	119	67.8	604	57.7	4868	95.1
Both Genders	294	80.3	1526	71.8	10620	101.1	241	66.0	1452	68.5	11194	106.9	288	77.8	1735	81.2	11923	114.1
Race/Ethnicity																		
Non-Hispanic White	58	27.0	330	27.1	2824	38.8	52	24.1	283	23.2	3104	42.7	56	25.5	346	28.0	3319	46.3
Non-Hispanic Black	127	283.5	495	173.8	4934	423.1	93	205.7	500	174.9	5146	439.9	117	248.2	671	232.9	5483	468.1
Non-Hispanic American Indian/ Alaska Native	0	0.0	s	s	30	73.6	0	0.0	0	0.0	32	74.6	0	0.0	0	0.0	39	90.5
Non-Hispanic Asian/ Native Hawaiian/ Pacific Islander	s	s	17	15.4	130	23.6	s	s	13	11.9	104	18.0	s	s	28	24.7	134	24.0
Hispanic	58	67.1	217	44.0	990	69.5	43	50.5	232	46.6	1103	76.4	64	74.1	336	67.2	1215	84.2
Missing or Unknown Race and/or Ethnicity	49	0.0	464	0.0	1712	0.0	52	0.0	424	0.0	1705	0.0	49	0.0	354	0.0	1733	0.0
All Races	294	80.3	1526	71.8	10620	101.1	241	66.0	1452	68.5	11194	106.9	288	77.8	1735	81.2	11923	114.1
Age																		
0-14	0	0.0	11	2.6	66	3.4	0	0.0	12	2.8	58	3.0	s	s	s	s	71	3.7
15-19	41	141.8	234	145.5	1850	245.8	36	124.7	186	116.5	1821	244.7	42	145.5	240	150.3	1854	249.2
20-24	101	350.8	458	295.1	3049	391.1	70	244.4	386	251.9	3253	423.6	84	293.2	473	308.7	3262	424.8
25-29	60	267.2	305	225.9	2209	313.8	50	216.6	339	245.6	2406	339.1	69	298.9	374	271.0	2622	369.6
30-34	28	129.2	180	135.6	1318	198.8	29	132.4	203	152.0	1361	203.1	24	109.6	209	156.5	1567	233.9
35-39	24	107.7	129	93.5	783	120.5	16	70.3	105	75.1	808	122.6	21	92.2	154	110.1	933	141.6
40-44	16	72.2	68	48.9	413	66.0	14	62.8	73	52.5	473	75.6	14	62.8	79	56.8	511	81.6
45-49	10	38.3	59	36.9	304	41.3	14	55.3	67	43.2	375	52.7	15	59.3	70	45.1	362	50.9
50-54	s	s	44	25.5	308	37.8	s	s	34	20.2	284	36.0	s	s	52	30.9	318	40.4
55-59	s	s	24	14.1	173	20.5	s	s	26	15.3	187	22.4	s	s	45	26.4	227	27.2
60+	s	s	14	2.7	144	5.4	s	s	21	3.9	166	6.1	s	s	27	5.0	192	7.0
All Ages	294	77.4	1526	65.8	10620	95.2	241	63.1	1452	62.5	11194	100.5	288	75.4	1735	74.7	11923	107.0

All rates are calculated using population estimates from the National Institute of Health's Surveillance, Epidemiology, and End Results Program (SEER)

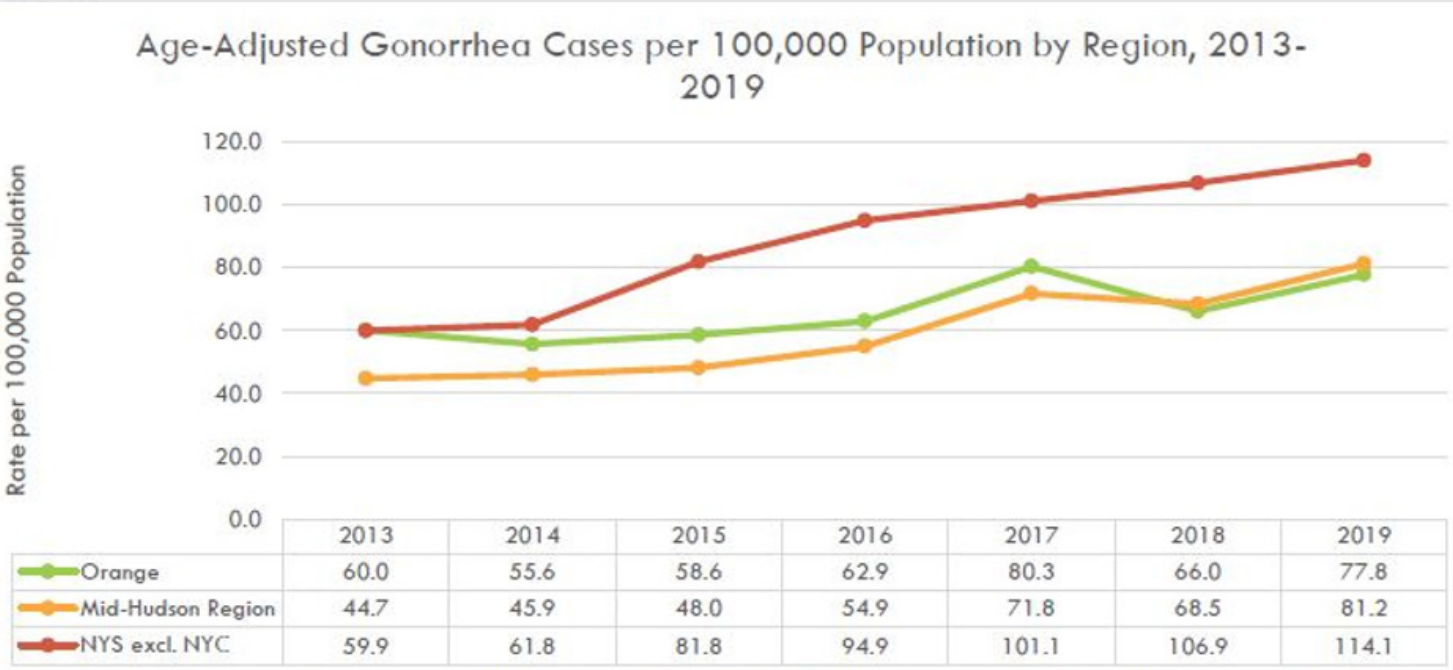
^: Rates are age-adjusted

s: Data are suppressed. The data do not meet the criteria for confidentiality

Source: 2014-2017 SPARCS Data

Created by the School of Public Health, University at Albany, 2021

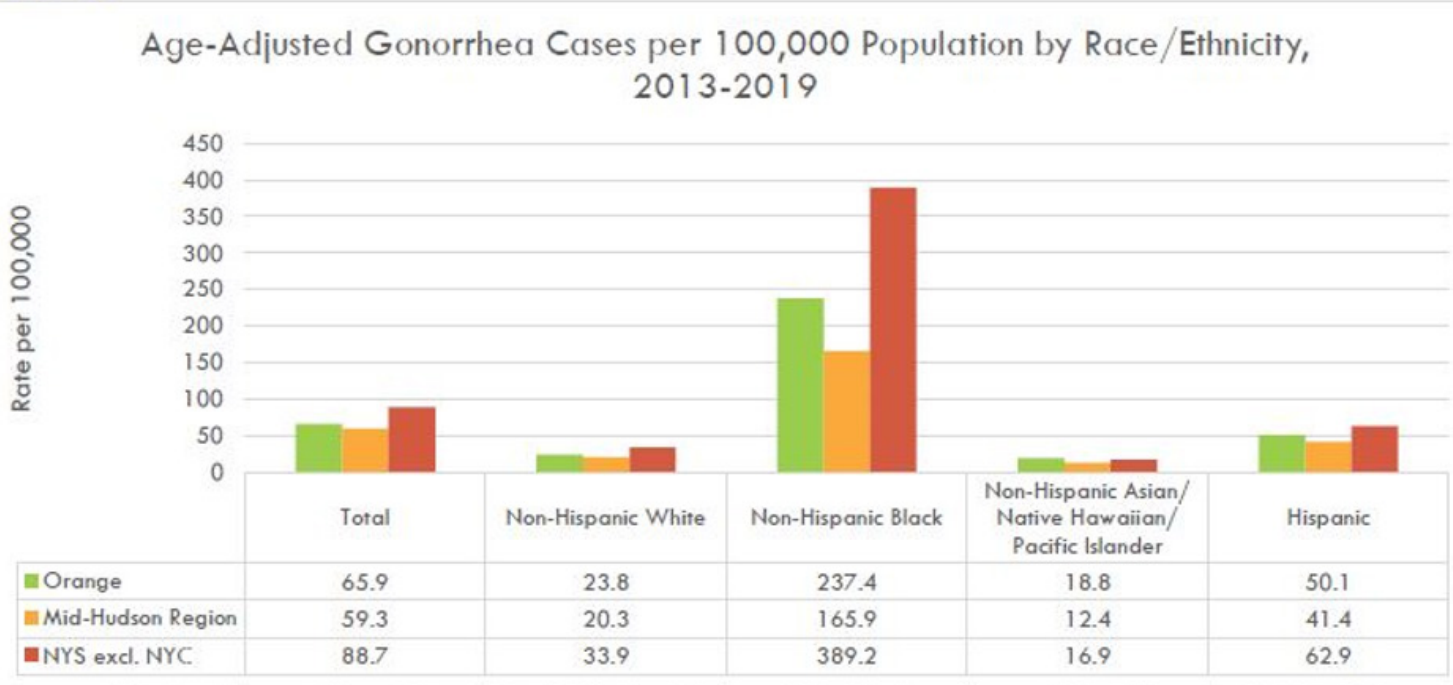
Figure 117



	2013	2014	2015	2016	2017	2018	2019
Orange	60.0	55.6	58.6	62.9	80.3	66.0	77.8
Mid-Hudson Region	44.7	45.9	48.0	54.9	71.8	68.5	81.2
NYS excl. NYC	59.9	61.8	81.8	94.9	101.1	106.9	114.1

Rates are calculated using population estimates from the National Institute of Health's Surveillance, Epidemiology, and End Results Program (SEER)
Source: School of Public Health, University at Albany, 2021
Original Data Source: 2014-2017 SPARCS Data

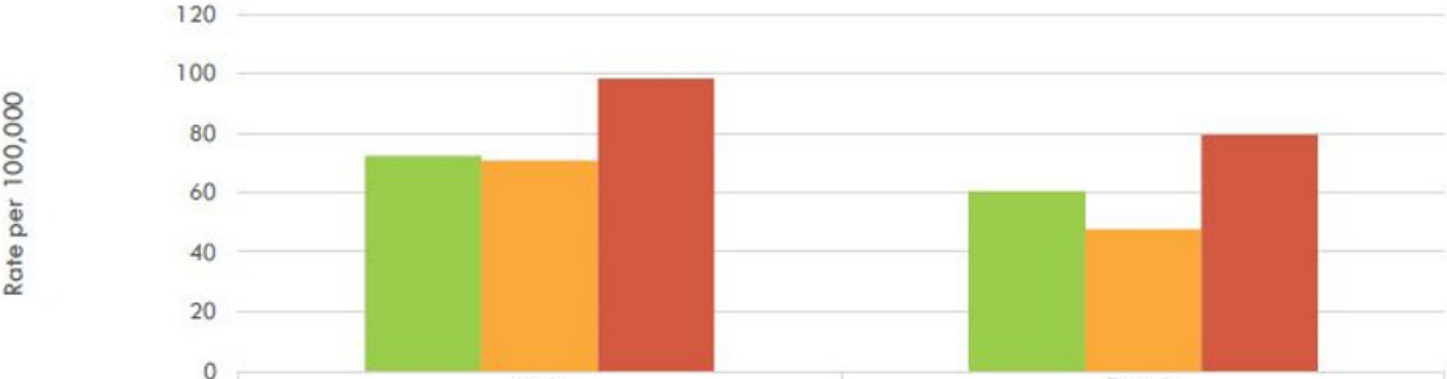
Figure 118



	Total	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Asian/ Native Hawaiian/ Pacific Islander	Hispanic
Orange	65.9	23.8	237.4	18.8	50.1
Mid-Hudson Region	59.3	20.3	165.9	12.4	41.4
NYS excl. NYC	88.7	33.9	389.2	16.9	62.9

Rates are calculated using population estimates from the National Institute of Health's Surveillance, Epidemiology, and End Results Program (SEER)
Source: School of Public Health, University at Albany, 2021
Original Data Source: 2014-2017 SPARCS Data

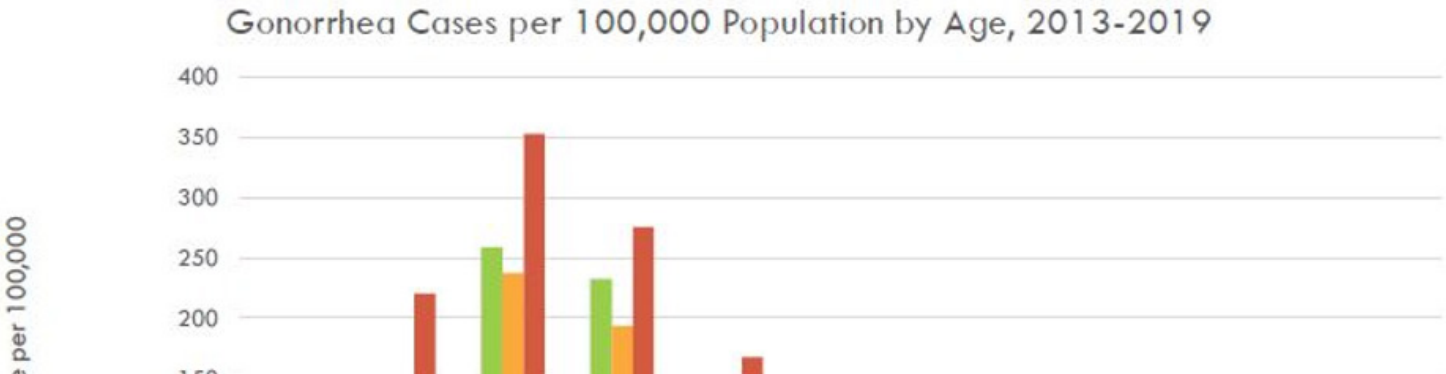
Figure 119



	Male	Female
Orange	72.4	60.4
Mid-Hudson Region	70.8	47.7
NYS excl. NYC	98.1	79.4

Rates are calculated using population estimates from the National Institute of Health's Surveillance, Epidemiology, and End Results Program (SEER)
Source: School of Public Health, University at Albany, 2021
Original Data Source: 2014-2017 SPARCS Data

Figure 120



	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+
Orange	0.9	118.8	258.8	232.4	126.5	78.1	52.6	36.5	23.6	15.3	3.4
Mid-Hudson Region	2.0	119.7	237.1	193.6	121.0	69.8	40.4	29.9	19.2	14.4	2.6
NYS excl. NYC	3.6	220.5	352.6	275.5	167.7	98.2	59.2	38.8	28.7	17.8	4.2

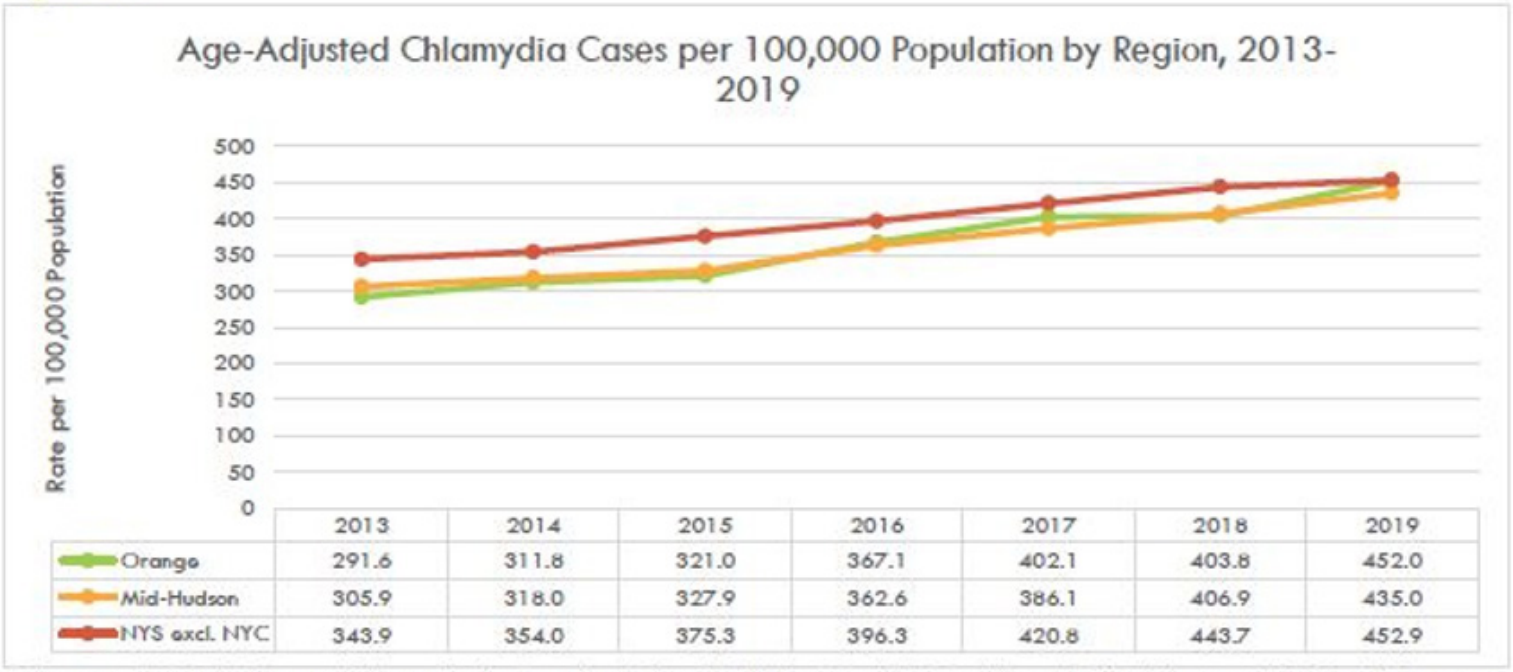
Rates are calculated using population estimates from the National Institute of Health's Surveillance, Epidemiology, and End Results Program (SEER)
Source: School of Public Health, University at Albany, 2021
Original Data Source: 2014-2017 SPARCS Data

Chlamydia

Chlamydia is a common STI that can infect people of all genders. While Chlamydia can be treated easily, it can cause serious damage to the reproductive system if left untreated. Chlamydia is spread by vaginal, anal, or oral sex with a partner who has Chlamydia. Someone who was treated for chlamydia in the past can still become infected again through unprotected sex with another person who has Chlamydia. Pregnant women can also pass Chlamydia on to their babies during childbirth.

Chlamydia case rates have been increasing consistently in Orange County since 2013, raising from 291.6 per 100,000 in 2013 to 452.0 in 2019 [see Figure 121]. The non-Hispanic Black population in the county has been the most affected by gonorrhea, with an annual average of 724.5 cases per 100,000 population from 2013- 2019. Chlamydia is much more common amongst females than males, at an annual average rate of 532.7 cases per 100,000 compared to 223.5, respectively. The case rates are highest for 20-24-year-olds. All these trends are consistent with those of NYS excl. NYC [see Figure 121, Figure 122, Figure 123, Figure 124].

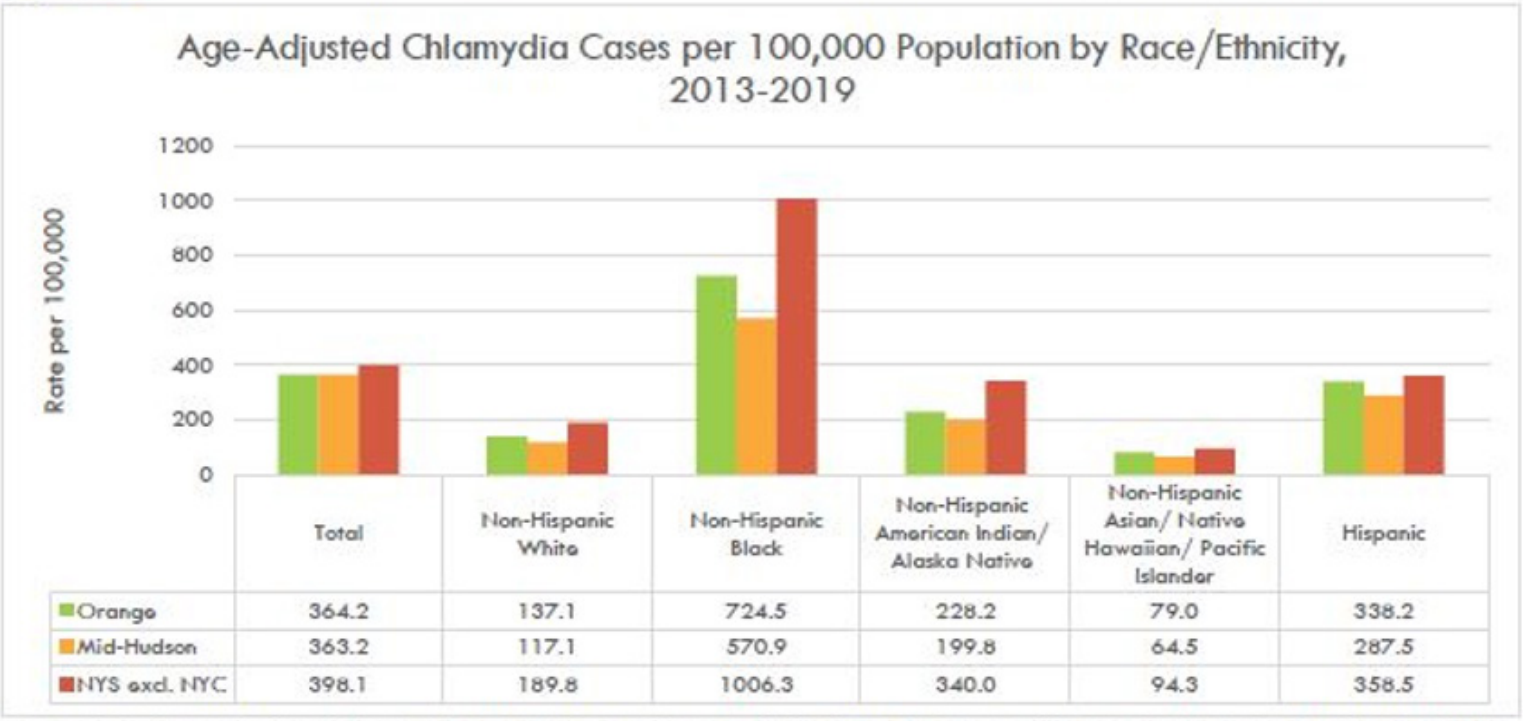
Figure 121



	2013	2014	2015	2016	2017	2018	2019
Orange	291.6	311.8	321.0	367.1	402.1	403.8	452.0
Mid-Hudson	305.9	318.0	327.9	362.6	386.1	406.9	435.0
NYS excl. NYC	343.9	354.0	375.3	396.3	420.8	443.7	452.9

Rates are calculated using population estimates from the National Institute of Health's Surveillance, Epidemiology, and End Results Program (SEER)
Source: School of Public Health, University at Albany, 2021
Original Data Source: 2014-2017 SPARCS Data

Figure 122



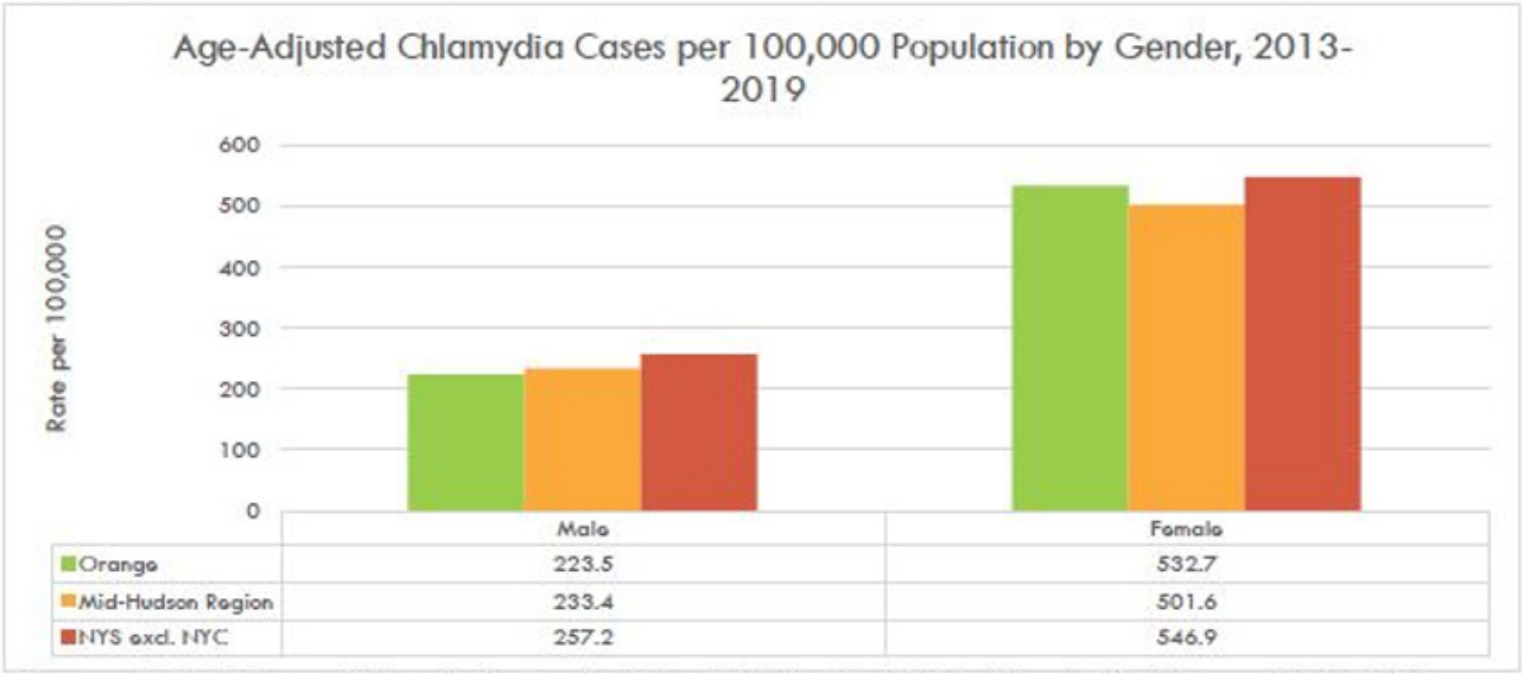
	Total	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic American Indian/ Alaska Native	Non-Hispanic Asian/ Native Hawaiian/ Pacific Islander	Hispanic
Orange	364.2	137.1	724.5	228.2	79.0	338.2
Mid-Hudson	363.2	117.1	570.9	199.8	64.5	287.5
NYS excl. NYC	398.1	189.8	1006.3	340.0	94.3	358.5

Rates are calculated using population estimates from the National Institute of Health's Surveillance, Epidemiology, and End Results Program (SEER)

Source: School of Public Health, University at Albany, 2021

Original Data Source: 2014-2017 SPARCS Data

Figure 123



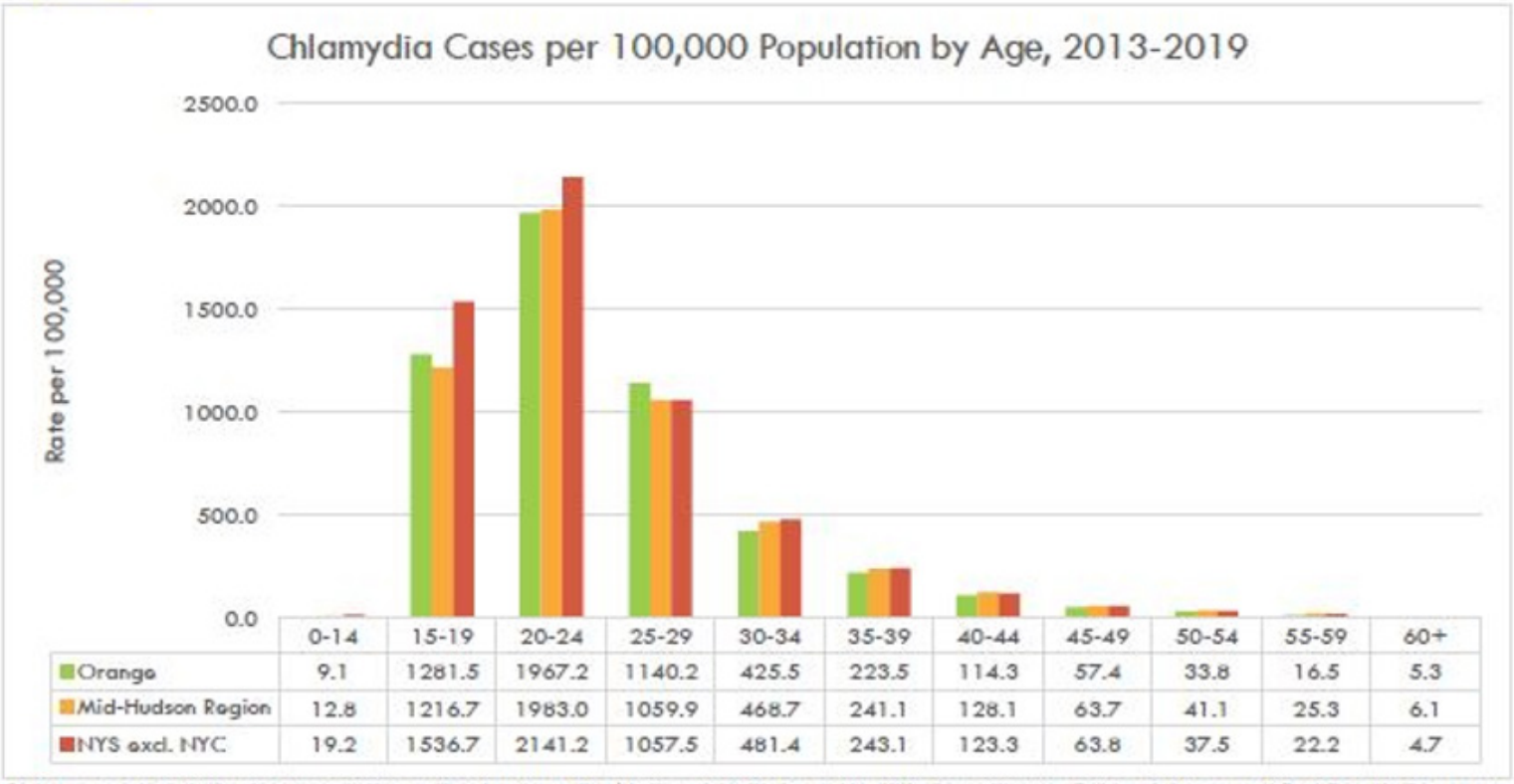
	Male	Female
Orange	223.5	532.7
Mid-Hudson Region	233.4	501.6
NYS excl. NYC	257.2	546.9

Rates are calculated using population estimates from the National Institute of Health's Surveillance, Epidemiology, and End Results Program (SEER)

Source: School of Public Health, University at Albany, 2021

Original Data Source: 2014-2017 SPARCS Data

Figure 124



	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+
Orange	9.1	1281.5	1967.2	1140.2	425.5	223.5	114.3	57.4	33.8	16.5	5.3
Mid-Hudson Region	12.8	1216.7	1983.0	1059.9	468.7	241.1	128.1	63.7	41.1	25.3	6.1
NYS excl. NYC	19.2	1536.7	2141.2	1057.5	481.4	243.1	123.3	63.8	37.5	22.2	4.7

Rates are calculated using population estimates from the National Institute of Health's Surveillance, Epidemiology, and End Results Program (SEER)

Source: School of Public Health, University at Albany, 2021

Original Data Source: 2014-2017 SPARCS Data

Table 42

Chlamydia Case Count and Infection Rate per 100,000 Population by Gender, Race/Ethnicity, and Age, 2014-2019																		
	2014						2015						2016					
	Orange		Mid-Hudson Region		NYS excl. NYC		Orange		Mid-Hudson Region		NYS excl. NYC		Orange		Mid-Hudson Region		NYS excl. NYC	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Gender^																		
Male	331	168.7	1975	178.5	11832	212.7	377	191.1	2176	197.2	12862	232.7	452	229.5	2521	229.3	13956	255.0
Female	845	481.4	4947	466.9	27013	503.6	839	475.4	4972	467.1	27998	525.9	958	533.9	5390	504.8	28845	545.6
Both Genders	1176	311.8	6922	318.0	38845	354.0	1216	321.0	7148	327.9	40860	375.3	1410	367.1	7911	362.6	42801	396.3
Race/Ethnicity^																		
Non-Hispanic White	320	133.6	1427	111.2	13803	178.4	332	141.2	1448	112.7	14224	186.4	311	129.9	1528	119.1	14666	194.6
Non-Hispanic Black	311	724.1	1498	514.8	11258	925.2	296	660.9	1605	552.9	11644	954.9	325	724.9	1719	589.3	11970	987.2
Non-Hispanic American Indian/ Alaska Native	s	s	s	s	143	296.6	s	s	s	s	175	359.9	s	281.9	17	305.9	141	303.2
Non-Hispanic Asian/ Native Hawaiian/ Pacific Islander	s	s	51	49.1	392	72.5	s	s	55	52.7	470	84.8	s	s	96	89.0	538	95.0
Hispanic	324	385.0	1433	290.5	4546	318.7	233	275.1	1256	254.0	4684	327.2	253	285.2	1662	332.4	5503	380.3
Missing or Unknown Race and/or Ethnicity	209	0.0	2506	0.0	8703	0.0	347	0.0	2776	0.0	9663	0.0	507	0.0	2889	0.0	9983	0.0
All Races	1176	311.8	6922	318.0	38845	354.0	1216	321.0	7148	327.9	40860	375.3	1410	367.1	7911	362.6	42801	396.3
Age																		
0-14	s	s	44	10.0	372	18.8	s	s	50	11.5	347	17.8	s	s	49	11.3	386	20.0
15-19	323	1,114.6	1769	1,071.2	10777	1,375.8	311	1,076.0	1723	1,050.2	11248	1,455.0	398	1,376.2	2002	1,231.2	11507	1,508.3
20-24	462	1,597.1	2668	1,718.0	15541	1,920.7	504	1,739.3	2847	1,824.8	16210	2,026.1	574	1,981.4	3117	1,998.0	16776	2,125.5
25-29	221	1,092.7	1281	987.2	6506	946.2	209	1,004.6	1261	961.6	6909	994.5	243	1,126.2	1387	1,045.6	7478	1,069.5
30-34	63	294.6	525	399.8	2825	433.8	87	408.5	564	429.0	2924	448.0	95	440.7	632	478.5	3217	489.5
35-39	43	201.7	269	200.0	1272	203.6	43	198.5	306	226.0	1485	235.0	44	199.8	324	236.5	1541	240.3
40-44	24	96.4	161	106.7	694	100.1	26	110.1	155	106.9	745	112.3	19	83.7	158	112.8	773	121.7
45-49	16	58.5	81	47.7	380	48.1	18	66.7	103	61.8	446	57.8	16	59.8	84	51.2	487	64.4
50-54	s	s	69	38.0	252	28.8	s	s	76	42.2	289	33.6	s	s	87	49.3	332	39.7
55-59	s	s	32	19.2	148	17.9	s	s	34	20.1	152	18.1	s	s	43	25.2	185	21.9
60+	s	s	23	4.7	78	3.1	s	s	29	5.8	105	4.1	s	s	27	5.2	114	4.4
All Ages	1176	313.4	6922	299.1	38845	346.2	1216	323.3	7148	308.6	40860	365.0	1410	373.0	7911	341.3	42801	383.3

Table 29 continued:

	2017						2018						2019					
	Orange		Mid-Hudson Region		NYS excl. NYC		Orange		Mid-Hudson Region		NYS excl. NYC		Orange		Mid-Hudson Region		NYS excl. NYC	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Gender																		
Male	518	259.3	2792	254.2	15240	279.7	518	253.5	3175	289.4	16375	303.0	595	295.3	3358	305.4	16914	313.0
Female	1024	574.5	5601	526.8	29913	569.8	1045	582.8	5648	531.9	30850	591.8	1143	640.0	6069	573.1	31270	600.4
Both Genders	1542	402.1	8393	386.1	45153	420.8	1563	403.8	8823	406.9	47225	443.7	1738	452.0	9427	435.0	48184	452.9
Race/Ethnicity																		
Non-Hispanic White	314	137.9	1511	120.4	14610	196.7	311	133.8	1481	117.9	14800	202.0	331	143.0	1735	138.0	14735	201.2
Non-Hispanic Black	343	727.1	1503	519.5	12329	1,013.4	341	709.4	1543	536.3	12710	1,051.6	425	879.7	2069	714.0	13706	1,131.9
Non-Hispanic American Indian/ Alaska Native	s	419.7	19	386.1	133	288.7	s	s	s	s	180	397.9	0	0.0	s	s	179	392.5
Non-Hispanic Asian/ Native Hawaiian/ Pacific Islander	20	160.0	77	71.1	640	111.5	11	81.4	54	49.8	584	97.6	8	56.7	89	81.9	700	117.3
Hispanic	306	345.3	1270	252.4	5437	373.3	337	371.9	1194	235.2	5584	377.8	357	395.9	1879	369.5	6377	431.7
Missing or Unknown Race and/or Ethnicity	554	0.0	4013	0.0	12004	0.0	561	0.0	4542	0.0	13367	0.0	617	0.0	3645	0.0	12487	0.0
All Races	1542	402.1	8393	386.1	45153	420.8	1563	403.8	8823	406.9	47225	443.7	1738	452.0	9427	435.0	48184	452.9
Age																		
0-14	s	s	56	13.0	331	17.2	s	s	59	13.8	339	17.8	s	s	69	16.1	383	20.1
15-19	416	1,439.2	2083	1,295.5	12180	1,618.2	460	1,593.1	2211	1,384.7	12774	1,716.6	403	1,395.7	2271	1,422.3	12556	1,687.4
20-24	611	2,122.4	3260	2,100.2	17573	2,254.0	636	2,220.2	3358	2,191.6	18047	2,350.0	712	2,485.5	3544	2,313.0	18466	2,404.5
25-29	293	1,305.1	1516	1,123.1	8003	1,137.0	231	1,000.8	1584	1,147.7	8398	1,183.7	332	1,438.4	1774	1,285.3	8511	1,199.6
30-34	99	456.7	634	477.4	3314	499.8	105	479.3	700	524.2	3607	538.3	135	616.3	809	605.9	3857	575.7
35-39	55	246.8	362	262.3	1676	258.0	61	267.9	393	281.0	1825	276.9	61	267.9	407	291.0	1970	298.9
40-44	31	139.9	213	153.3	853	136.4	33	148.1	232	166.7	953	152.2	40	179.5	233	167.4	986	157.5
45-49	15	57.5	119	74.5	529	71.9	11	43.5	122	78.6	540	75.9	15	59.3	132	85.0	583	82.0
50-54	s	s	72	41.7	333	40.9	s	s	61	36.3	327	41.5	16	59.0	79	47.0	411	52.2
55-59	s	s	43	25.2	216	25.7	s	s	63	37.0	235	28.1	s	s	57	33.4	255	30.5
60+	s	s	35	6.7	130	4.9	s	s	39	7.3	174	6.4	s	s	50	9.3	196	7.2
All Ages	1542	406.0	8393	361.7	45153	404.9	1563	409.2	8823	380.0	47225	423.8	1738	455.0	9427	406.0	48183	432.4

All rates are calculated using population estimates from the National Institute of Health's Surveillance, Epidemiology, and End Results Program (SEER)

^: Rates are age-adjusted

s: Data are suppressed. The data do not meet the criteria for confidentiality

Source: 2014-2017 SPARCS Data

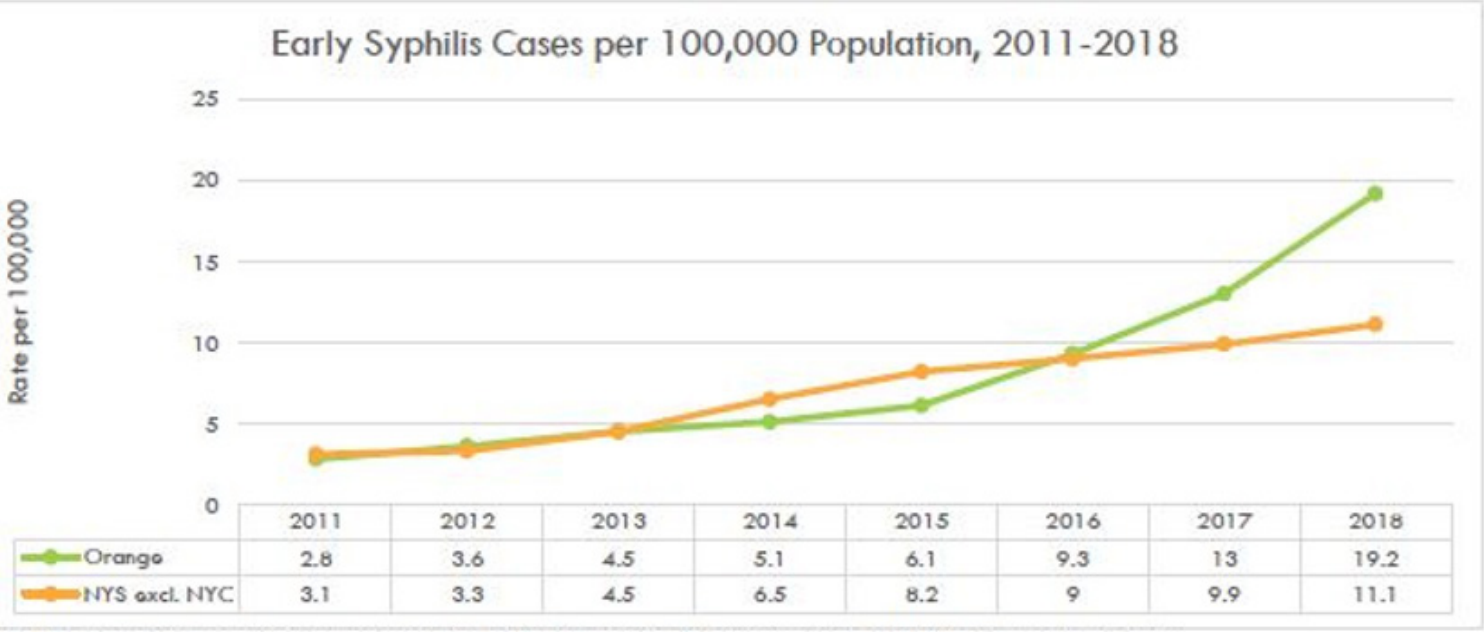
Created by the School of Public Health, University at Albany, 2021

Syphilis

Syphilis is a curable STI that can have very serious complications when left untreated. Syphilis is spread through direct contact with a syphilis sore during vaginal, anal, or oral sex. Sores may be located on or around the penis, vagina, anus, lips, in the mouth, or in the rectum. Syphilis can also spread from pregnant women to their babies. Syphilis is divided into primary, secondary, latent, and tertiary stages. Any sexually active person can contract syphilis through unprotected vaginal, anal, or oral sex. The CDC recommends all pregnant women be tested for syphilis at their first prenatal visit and during the third trimester.

Syphilis cases have been increasing dramatically in Orange County since 2011, rising from a rate of 2.8 per 100,000 in 2011 to 19.2 in 2018. Current rates of syphilis in the county surpass those of NYS excl. NYC [see Figure 125].

Figure 125



	2011	2012	2013	2014	2015	2016	2017	2018
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NYS excl. NYC	3.1	3.3	4.5	6.5	8.2	9	9.9	11.1

Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Gg45&cos=33#pagetitle
Office of Sexual Health and Epidemiology, Updated as of September 2021

PRIORITIZED NEEDS SPECIFIC TO MONTEFIORE ST. LUKE'S CORNWALL

Health Disparities and Inequities to be Addressed/Targeted

After reviewing the collective findings of each of the data sources, the following conclusions and identification of health inequities have been identified. Of note, this is a summary of inequities revealed during a thorough analysis of local, regional and internal data. The analysis stratified of data included the review of the Orange County Commuinty Health Assessment, the Mid-Hudon Region Commuinty Health Assessment, as well as Montefiore St. Luke's Cornwall specific data.

Health Condition/Outcome Metric	Description of Inequity
Colorectal Cancer	Orange County has the highest incidence rate in the non-Hispanic black population in the region (seven counties).[1]
	Mortality rates are increased in the non-Hispanic black & Asian/Pacific Islander populations in Orange County.[2]
	Orange County has one of the lowest colorectal cancer screening rates for adults aged 50-64 in the region.[1]
Breast Cancer	Late-Stage breast cancer incidence rates for non-Hispanic black population is increased in NYS and Orange County.[2]
	Increased breast cancer mortality rate for non-Hispanic black population in NYS & Orange County.[2]
Diabetes	Increased rates of hospitalizations in the non-Hispanic black population in NYS & Orange County.[2]
	Increased diabetes mortality in non-Hispanic black population in NYS & Orange County.[2]
Stroke	Increased rates of hospitalizations for stroke in non-Hispanic black population in NYS & Orange County.[1]
	Increased mortality rate in the non-Hispanic black population in NYS & Orange County.[1]
Maternal Health	In NYS, black women are three times more likely to die from pregnancy-related complications than white women.[2]
	Orange County has 2nd lowest rate of births with prenatal care in the 1st trimester in the region in the non-Hispanic black population.[2]
	There are higher rates of cesarean and primary cesarean births in African American population when compared to other races.[3]
Infant Health	The percentage of premature non-Hispanic Black births, low birth weight, and infant mortality in Orange County far exceeds every other race and is also higher than the state rate for non-Hispanic Black.[2]
Readmission to the Hospital	30-day readmission rates in the African American population are higher than those of other races.[3]
Pressure Ulcers	Increased rate of hospital acquired pressure ulcers in the non-Hispanic black population.[3]
Patient Perception	Patient perception scores for the ED and inpatient hospital stays are lower among African American survey respondents.[4]

Data Source Legend:
1 – Mid – Hudson Region Community Health Needs Assessment 2022-2024
2 – Orange County Community Health Needs Assessment 2022-2024
3 – Premier Data Analytics (Montefiore St. Luke's Cornwall Patient Specific Data)
4 – Press Ganey (Montefiore St. Luke's Cornwall Patient Specific Data)

The top issues that affect health in Orange County include:

- Housing
- Mental Health
- Public Transportation

The top barriers to achieving health in Orange County Include:

- Drug and Alcohol Abuse
- Knowledge of Existing Resources
- Health Literacy and others

As a result of the overall findings listed throughout the collaboratively developed Community Needs Assessment, specifically the Mid-Hudson Region Survey, the Orange County Assessment, Community Asset Survey, and various community events held across the county allowing residents to express their concerns to participate in a Rock Voting Exercise, which was organized by Orange County, the overarching themes include:

Strengths:

- Low Crime and Safe Neighborhoods
- Access to Good Education
- Parks and Recreation

Areas to Focus Resources:

- Better Jobs and Economy
- Access to Basic Healthcare
- Improve Public Transportation
- More Affordable Housing

Health Issues:

- Drug Use (prescription and illegal)
- Mental Health (depression, anxiety, stress)
- Aging Problems (Alzheimer's, arthritis, hearing/vision loss, etc.)

Social Determinants of Health:

As part of the Orange County Health summit on June 28, 2022, led by the Orange County Department of Health in which MSLC actively participated in, a Forces of Change Assessment (FOCA) was conducted for the first time. There were nearly 90 partners included in this brainstorming workshop.

According to the Orange County Assessment, the forces that were discussed included social, economic, environmental, ethical, political, legal, technological, scientific, and environmental. As each force was discussed, the group tried to identify opportunities and threats that can impact, either now or in the future, the health of our community.

Furthermore, as stated by the Orange County Assessment, forces can be trends, events, or elements. Trends are patterns over time. Examples are migration in and out of an area, decrease in in-person work force, or increased tele-health visits. Events are one-time occurrences. Examples included COVID pandemic, passage of new legislation, or a power outage due to weather. Discrete elements could be specific factors. Examples include proximity to transportation, a community's ethnic population, or rural setting.

During the session these questions were considered when thinking of what to discuss.

- What is occurring or might occur that affects the health of our community or the local public health system?
- Are there trends occurring that will impact the health of our community?
- What forces are occurring locally? Regionally? Nationally? Globally?
- What may occur in the foreseeable future that may impact our local public health system?
- What specific threats or opportunities are generated by these occurrences
- What may pose a barrier to achieving the shared vision of improving the health of our community?

Cross Cutting Issues	Opportunity Themes
Access to Transportation	Increased Advocacy
Equitable access to quality healthcare	Increased Education
Access to technology and influence of social media	Increased Coordination and Partnership
Food deserts and access to healthy and affordable food	
Increasing rates of STIs	
Aging population	

Tables

SOCIAL AND ECONOMIC FORCES		
FORCE	THREATS POSED	OPPORTUNITIES CREATED
Agency	• Encourage individuals to initiate health and wellness activities on their own behalf	• Increase collective agency to increase • opportunities for health and well-being • Increase opportunities for peer education and community engagement • Empower residents to take control over their health and well-being
Aging Population	• Increasing population over 65 • Inadequate housing specific to seniors • Limited in-home and affordable care options	• Promote healthcare careers • Identify needs specific to Seniors • Advocate for insurance reimbursement for non-traditional at home care
Anti-vaccination sentiments	• Decreased vaccination rates • Increase in vaccine preventable illness	• Create information campaigns • Work with providers to increase "catch-up" and maintain timely immunizations
Childcare Availability	• Increased cost of childcare	
Diversity and social justice	• Differences in access to care and resources based on identity (race, gender, sexuality, religion) • Unequal distribution of resources throughout the County (varies by ZIP Code) • Without access to insurance and primary care some residents are sicker when they do find a source of care	

	• No longer able to have fundamental conversations and lack of common ground	
Food Insecurity	• Food insecurity increased during the pandemic • Federal and State benefits expanded during the pandemic (not all permanent) • Food pantries and meal delivery services overwhelmed during pandemic	• Identify more food resources • Develop system for using "second change" foods from restaurants, food suppliers and grocery stores
Healthcare	• Increasing rates of STIs • Gaps in health care • Increased rate of co-pays	
Health Literacy	• Fear of talking with doctors • Understanding prescriptions • Patriarchal health care delivery system set up	• Education for residents • Health detailing of providers and healthcare workers to increase awareness of need for open communication • Patient centered care and treatment plans

SOCIAL AND ECONOMIC FORCES

Force	THREATS POSED	OPPORTUNITIES CREATED
Housing	• Rental market shrinking • Rental market shifting to short-term rentals (Airbnb) • Lack of affordable housing for all groups (seniors, families, low SES, those in cities)	• Increase advocacy for affordable housing options • Identify alternative housing programs • Increase legislation to ensure housing stock not removed for short term housing

Impact to Education System	• Pandemic related delays impacting students' academic achievement • Decreased parent engagement due to multiple jobs and other demands • Use of technology for remote learning • Safety concerns of students being fully remote	• Work with telecommunications partners to ensure wider access to broadband • Use of technology to engage parents • Ensure all students have access to technology for times when remote learning is required
Isolation	• Pandemic related and seniors in rural areas • Increased drug use, depression and anxiety related to isolation • Lack of transportation	
Safety and Violence	• Increase in crime • Stereotyping of certain populations	• Work with law enforcement • Encourage community conversations
Transportation	• Lack of personal transportation • Public transportation routes do not access entire County	• Improve partnerships with transportation agencies • Optimize and expand current transportation routes • Increased funding streams to expand transportation options
Workforce Issues	• Shrinking workforce pool • Worker burnout • Lack of funding • Wages for some sectors are not attracting employees • Lack of training for healthcare specific careers • Lack of professional development opportunities	• Partner with local colleges to develop • Education programs • Partner with local schools and colleges • Educate youth about career opportunities

ENVIRONMENTAL FORCES		
FORCE	THREATS POSED	OPPORTUNITIES CREATED
Climate Change	• Increased prevalence of communicable disease activity (ticks, mosquitos) • Impact to service delivery during natural disasters	• Raise awareness of vector and pathogen activity • Develop emergency response plans
Education	• Lack of funding for early childhood education • Ensure adequate education plans if return to virtual learning • Expand health education to include comprehensive education on STIs, drugs, alcohol, vaping, and well-being	
Food Deserts	• Increase in food deserts due to pandemic-related closing of businesses • Increased rate of chronic disease and obesity	• Support community gardens • Map transportation routes to supermarkets • Expand access to food benefits at farmers markets
Racism	• There is systemic oppression in our community • Disparities in morbidity and mortality rates • Racism impacts many facets of life	• Have community conversations to acknowledge disparities and identify actions for change • Provide sensitivity trainings
Sustainability of Resources	• We don't always know what is needed in our community • We have many resources but they are not always known by residents and partners • Ensure partners are aware of resources and are able to refer clients for all services they are in need of	• Ensure that all agencies within the local public health system are aware of who provides what services • Educate staff to know how to access service information to share with residents
Taboos Talking About Sex	• Limited access of health partners to youth population • Youth rely on social media to answer questions rather than trusted experts • Youth not comfortable talking about sex and STIs • Fear of talking to doctors	• Work with schools to provide education • Increased services for youth education • Work on improving health literacy of all ages

Transportation	• Transportation is a foundational need to ensure access to all services • Public transportation needs to be accessible for seniors, those with disabilities, low SES areas and rural areas • Vital service	
Violence	• Unsafe communities • Increased crime • Increased reports of domestic violence due to pandemic • Resources required for those experiencing domestic violence and child support issues	

POLITICAL AND LEGAL FORCES

FORCE	THREATS POSED	OPPORTUNITIES CREATED
Expansion of Government Funding for Healthcare and Social Services	• Potential for return to pre-pandemic coverage	• Advocate for coverage of those in need
Legalization of Marijuana Legislation	• Increased drug use • Potential increase in impaired driving • Increased morbidity and mortality issues associated with increased usage • Mixed perception that marijuana is safe due to legalization	• Increase education • Work with law enforcement on education campaigns
Senior Care	• Increased need for various levels of staffing for senior care • Need for more options for seniors that want to age in place	
Worker Burnout	• Healthcare workforce issues due to burn out during COVID-19	
Workforce Development	• Develop career paths for areas with workforce shortages • Develop workforce assessment and ensure professional development opportunities	• Work with local colleges

TECHNOLOGICAL AND SCIENTIFIC FORCES		
FORCE	THREATS POSED	OPPORTUNITIES CREATED
Addiction to technology	• Increasing addiction to social media and technology • Isolation due to increased use of technology, social media and gaming • Accessing unreliable health and well-being information on social media and the internet • Decreased physical activity due to technology use	• Provide education in K-12 and College communities • Educate on use of settings to limit use and disable notifications • Expand health literacy education to include use of social media and internet information usage
Medical advances	• Advances in mRNA vaccine that can be applied to other illnesses • Global collaboration during COVID with applications to other diseases • Rapid changes in understanding during pandemic leading to mistrust of science	• Develop broad networks for communication and education campaigns during crisis
Telehealth	• Expanded use of telehealth (particularly with behavioral health) during the pandemic • Increased need for technology access and literacy if using telehealth • Telehealth provides flexibility for those who work or have non-traditional schedules • Increases access for those in rural settings	• Provide educational opportunities to ensure all residents are comfortable with use of technology • Work with community service providers to ensure safety of this technology

ETHICAL FORCES		
FORCE	THREATS POSED	OPPORTUNITIES CREATED
Affordable Healthcare	• Knowledge of healthcare access is not always easy to follow • Shift to patient centered care plans that fit the needs of clients • Increasing copays limits use of healthcare • Transportation limits ability to access healthcare	• Continue to find opportunities to share enrollment information • Identify funding streams for additional non- traditional transportation solutions
Health Disparities and Cultural Competence	• OC is a diverse community and not all residents feel comfortable accessing services • Information should be shared in appropriate languages and accessible formats	
Housing Affordability and Scarcity	• Lack of affordable housing is decreasing household budgets • Shrinking rental market • Aging population with limited senior specific housing or age in place options	•
Livable Wages	• Salaries in the behavioral health field are low and lead to high turn over	•
Stigma of Sexual Health Conversations	• STIs are increasing and there is stigma surrounding open discussions of sex education • Need to have education campaigns specific to target audiences	• Continue to identify opportunities to educate parents, children, young adults, and other groups • Develop new community partnerships to expand educational opportunities

There is a need for prioritization from local leaders to address the social determinants of health such as poverty, housing, and transportation and develop strategic opportunities for communities to work together and to build community awareness of these issues.

Define the Process and Methods:

Montefiore St. Luke's Cornwall's Community Service Plan 2022-2024 has been developed in partnership with the Orange County Department of Health. Much like the process in 2019, MSLC once again participated in the Mid-Hudson Region Community Health Survey, which is described in the ***Orange County Community Needs Assessment 2022-2024*** as a service provider survey and subsequent focus groups were conducted in May and June 2022, in partnership with the Joint Membership of Health and Community Agencies (JMHCA) and Changing the Addition Treatment Ecosystem to collect data on underrepresented populations, including low-income, veterans, persons experiencing homelessness, the aging population, LGBTQ community, and those with a mental health diagnosis or those with a substance use disorder. A total of forty-five responses were collected and the following three underlying issues were identified as impacting the health of the populations served by their agencies:

1. Access to Affordable, Decent and Safe Housing
2. Access to Mental Health Providers
3. Access to affordable, Reliable Public and Personal Transportation

Additionally, the Orange County Department of Health (OCDOH) participated in the Mid-Hudson Region Community Health Survey, in partnership with the six other Mid-Hudson Region local health departments and the Siena College Research Institute to collect data on 996 residents to help better characterize the needs of the community. Key data points include the following:

- 43% of respondents with <$25K yearly income reported that their ability to afford housing worsened over the course of the COVID-19 pandemic, compared to 23% of Orange County respondents.
- 37% of renters in Orange County reported that their ability to obtain affordable, nutritious food worsened over the course of the COVID-19 pandemic, compared to only 20% of homeowners.
- 33% of respondents with <$25K yearly income reported being unable to access the internet in the past 12 months, compared to 17% of Orange County respondents.
- 32% of respondents with <$25K yearly income were unable to get transportation when needed in the previous 12 months, compared to only 17% of Orange County respondents.
- 31% of Orange County respondents aged 18-34 reported that their mental health has worsened over the course of the COVID-19 pandemic, compared to only 12% of those aged 55 and older.
- 41% of Orange County respondents in 2022 reported there are sufficient, quality mental health providers, which is a decrease from the 55% reported in 2018.
- Only 59% of Orange County respondents aged 18-34 reported having good or excellent mental health, compared to 75% of Orange County respondents and 85% of respondents aged 55+.
- 33% of Orange County respondents with <$25K yearly income reported that in the past 12 months, they or any other member of their household has been unable to get any healthcare including dental or vision compared to 21% of total Orange County respondents, and 9% of respondents with a $150k+ yearly income.
- 26% of Orange County respondents aged 18-34 reported that in the past 12 months, they did not visit primary care physician because they did not have insurance compared to 11% of respondents aged 55+.

This data was shared with hospital participants, including MSLC, to help drive the process forward in our Community Needs Assessment review.

Engaging the Community in the Assessment Process:

Furthermore, MSLC participated in the Community Asset Survey (CAS), which was developed and implemented by the Orange County Department of Health. MSLC helped to promote this survey to community residents in our Primary and Secondary Service area at community events, such as the Newburgh Illuminated Festival, which attracted more than 10,000 residents of our surrounding community. MSLC also shared this on social media and amongst our employees when feasible. MSLC communicated this to the thousands of members in the Orange County Chamber of Commerce Database via eblast in the month of June.

According to the Orange County Department of Health, the CAS was developed to ask residents to identify what the greatest strengths of the community are, where should community efforts be focused to improve quality of life, and what the most important health issues are.

The CAS resulted in 928 residents responding. The three areas identified to direct resources and attention to improve quality of life were the following:

1. More Affordable Housing
2. Better Jobs and Economy
3. Improving Public Transportation

The CAS also revealed that the three prominent health issues according to respondents were the following:

1. Drug Use
2. Mental Health, Specifically Depression and Anxiety
3. Aging Problems such as Alzheimer's disease, Arthritis, Hearing/Vision Loss, etc.

Throughout the survey, respondents were asked which health priorities the community should select for the upcoming Community Health Improvement Plan for 2022-2024. More than 1,500 individuals responded, and the top two priority areas voted on were the following:

1. Promote Well-Being and Preventing Mental Health and Substance Use
2. Promoting Healthy Women, Infants and Children

Following the CAS, the Orange County Department of Health provided a Community Health Assessment Data Review Guide, which included an analysis of more than 150 of the most up to date secondary data indicators available, which were then stratified by the New York State Department of Health Prevention Agenda Areas for both Orange County and New York State. This review guide included trends from prior years along with comparative data from New York State.

MSLC then attended the Orange County Health Summit, held on June 28, 2022, with 100 other community partners which included other area hospitals, health care providers, community organizations, and members of the academia realm. Collectively, members of our community health planning and clinical teams, reviewed the most recent Community Health Assessment data and with the result of a collaborative discussion, we identified and discussed the topics that most relevantly impact the health of the residents we collectively serve to decide on which two Prevention Agenda Priorities would be selected for the 2022-2024 Community Health Improvement Plan and MSLC's Community Service Plan. As a result of such collaboration, the following two areas were selected:

1. Preventing Chronic Disease
2. Promoting Well-Being and Preventing Mental Health and Substance Use

Community Partners Consulted in the Process:

Montefiore St. Luke's Cornwall is proud to work collaboratively with our local health department (Orange County Department of Health), which has been a guiding force in the Community Needs Assessment Process. Additionally, MSLC has received continuous guidance from Montefiore Health System through our partnership and as a member hospital of the System.

The Community Based Organizations and partners involved in this collective process ***(all of which have been led by the Orange County Department of Health and extracted from the 2022-2024 Orange County Community Needs Assessment)*** outlined above include the following: Partners: Access: Supports for Living, Action Towards Independence, ADAC of Orange County, Affinity by Molina, Alzheimer's Association, American Cancer Society, Bon Secours, Catholic Charities, CCCSOS, CCR&R, CDC Foundation, Children's Health Home of Upstate New York, CohnReznick, Community Service, Cornell Cooperative Extension, Cornerstone Family Healthcare, Department of Family Assistance, DFA, Division of Environmental Health (OCDOH), Esopus Medical, Ezra Choilim Health Center, Garnet Health, Hudson River Healthcare, Hudson Valley, Independent Living, Jewish Family Services of Orange County, KACH, MAA, Medicaid, MHA, MiSN CAPP Program, Montefiore St. Luke's Cornwall, NYSDOH, OC Legislature, OC Youth Bureau, Office for the Aging (Orange County Government), Orange County Department of Health (OCDOH), Orange County Department of Mental Health, Orange County District Attorney, Orange County Government Executives Office, Orange County Grants Department, Orange County Youth Bureau, Oxford House Inc., Planned Parenthood of Greater New York, Div. Community Engineer, PPGNY, RCLS, RCW-ATC, Resource Recovery Center of Orange County, St. Anthony Community Hospital, Sun River Health, The Emerald Peek Rehabilitation and Nursing, Tri-County Community Partnership, United Healthcare, USMS. Additionally, MSLC engaged our community partners. This was completed in part by sharing the Orange County Community Asset Survey at community events, as well as via eblast through the Orange County Chamber of Commerce, asking residents to provide their feedback.

MSLC maintains strong partnerships for community education and engagement which are an essential piece of this process. These include the following: Orange County Chamber of Commerce, The Newburgh Armory Unity Center, the Newburgh Enlarged City School District, SUNY Orange, Mount Saint Mary College, The Newburgh Free Library, Fearless! Hudson Valley, Safe Harbors of the Hudson, The Cornwall Public Library, Moffat Library, Newburgh Rotary Club.

MSLC and other summit participants will now work together in each priority area, as part of the ongoing strategic planning and implementation processes. Each focus area has an identified workgroup that is led in partnership with the Orange County Department of Health and hospital staff throughout Orange County. These workgroups will meet on a quarterly basis to report data and summary findings will be discussed at the annual Health Summit in late June to best drive our efforts moving forward.

MSLC has taken the data derived from both the Mid-Hudson Region Assessment, the Orange County Community Health Assessment, and the Community Asset Survey, and further compared it with the organization's specific discharge data for 2019, 2020, 2021, and 2022 Year to Date. As a result of our findings, MSLC has begun discussions with community and faith-based leaders to reach those facing significant health inequities, leading to poor health outcomes. A primary strategy of MSLC's Community Engagement Strategy for 2023, will include targeted educational presentations and screenings to our populations in need. The findings of such datapoints are outlined below.

Community Health Needs

Throughout the development of the 2022-2024 Community Needs Assessment process, Montefiore St. Luke's Cornwall worked collaboratively with the Orange County Department of Health among many other community partners as mentioned above, to determine the main health challenges that the communities in which MSLC serves, include. This community specifically includes Orange County, New York.

Additional Data Sources include the Public Health Summit Findings, in which MSLC was an active participant at this event. The summit was held on June 28, 2022 inclusive of approximately 100 community partners specifically local hospitals and healthcare provides, members of academia throughout the county, community based organizations. The discussion was led by the Orange County Health Department, with a focus on "A Collaborative Approach to Community Health Planning." The data reviewed included:

- Secondary data overview in each of the five NYSDOH Prevention Agenda areas
- Preliminary findings of the Community Asset Survey
- 2022 Community Partner Survey and focus groups with local human service providers data overview
- Preliminary results from resident's priority area choices though Rock Voting

Additionally, at this summit, and as referenced in the Orange County Community Needs Assessment, representative from the NYSDOH Center for Environmental Health provided an overview of the current science and advances in wastewater surveillance. Discussions of the current COVID-19 wastewater surveillance efforts across NYS with an emphasis on Orange County's robust program. Wastewater surveillance is an important tool to help predict trends in disease prevalence prior to receiving laboratory results. At the time of the summit, Orange County has six wastewater treatment facilities participating the statewide network.
Further referenced in this same document, a Forces of Change Assessment (FOCA) was also performed to identify the forces that impact the health of our residents and the local public health system's ability to operate. The FOCA was conducted for the first time at the Public Health Summit. Nearly 90 partners participated in the brainstorming session.

Following the FOCA, attendees had the opportunity to attend one of five health priority breakout sessions. Each breakout session discussed the following questions, as they pertain to the priority areas:

- *What are we currently doing in this area?*
- *What collation, task force or partner is working in this area?*
- *What do we need to do?*
- *Are there any evidence-based interventions that are currently being used or could be used?*
- *Who else needs to be involved?*

Prior to breakout group discussions, summit participants were asked to vote on the two priority areas the health departments, hospitals, and community should focus on for the next three years. The two priority areas identified were:

1. *Promote Well-Being and Prevent Mental and Substance Use Disorders*
2. *Promote Healthy Women, Infants, and Children*

Syphilis

Syphilis is a curable STI that can have very serious complications when left untreated. Syphilis is spread through direct contact with a syphilis sore during vaginal, anal, or oral sex. Sores may be located on or around the penis, vagina, anus, lips, in the mouth, or in the rectum. Syphilis can also spread from pregnant women to their babies. Syphilis is divided into primary, secondary, latent, and tertiary stages. Any sexually active person can contract syphilis through unprotected vaginal, anal, or oral sex. The CDC recommends all pregnant women be tested for syphilis at their first prenatal visit and during the third trimester.

Syphilis cases have been increasing dramatically in Orange County since 2011, rising from a rate of 2.8 per 100,000 in 2011 to 19.2 in 2018. Current rates of syphilis in the county surpass those of NYS excl. NYC [see Figure 125].

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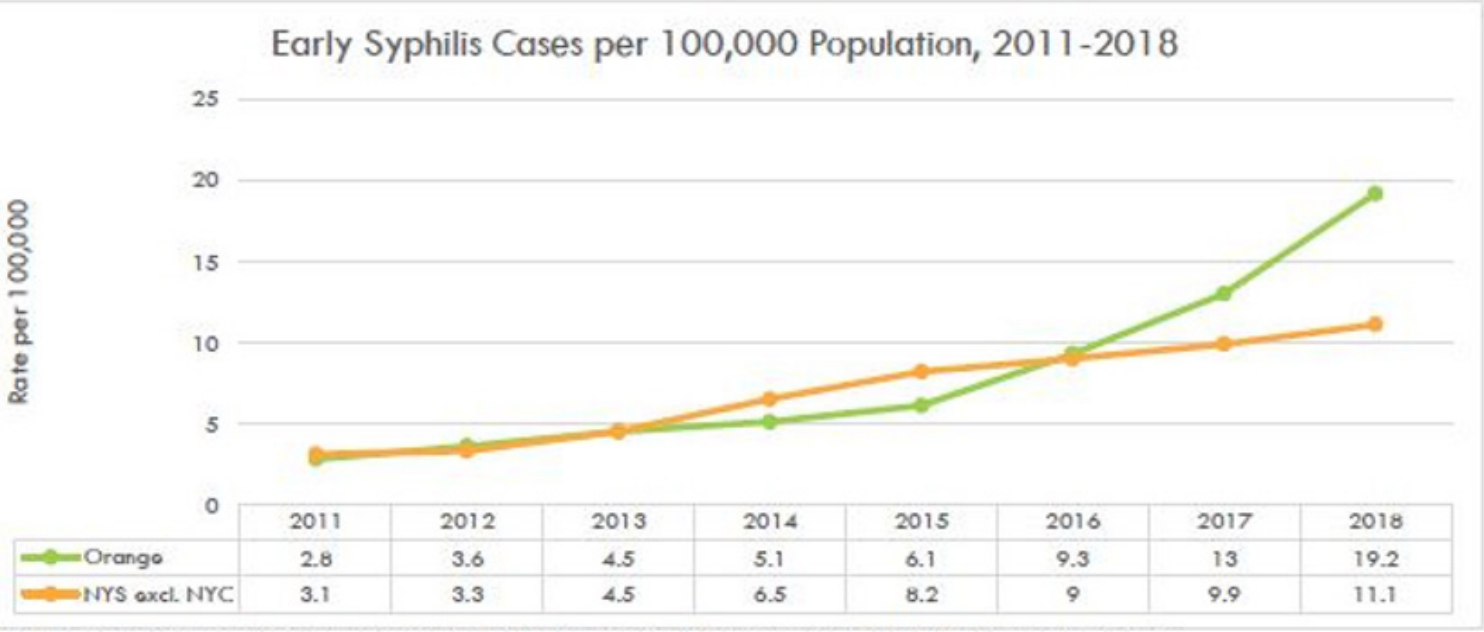

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Office of Sexual Health and Epidemiology, Updated as of September 2021

PRIORITIZED COMMUNITY HEALTH NEEDS

*Source includes extraction from the Orange County Community Needs Assessment:

As a result of the overall findings listed throughout this Community Needs Assessment inclusive of the Mid-Hudson Region Survey, the Orange County Assessment, Community Asset Survey, and various community events held across the county allowing residents to express their concerns to participate in a Rock Voting Exercise, which was organized by Orange County, the overarching themes include:

Strengths:

- Low Crime and Safe Neighborhoods
- Access to Good Education
- Parks and Recreation

Areas to Focus Resources:

- Better Jobs and Economy
- Access to Basic Healthcare
- Improve Public Transportation
- More Affordable Housing

Health Issues:

- Drug Use (prescription and illegal)
- Mental Health (depression, anxiety, stress)
- Aging Problems (Alzheimer's, arthritis, hearing/vision loss, etc.)

Public Health Summit Findings

The Orange County Public Health Summit was held on June 28th, 2022 with approximately 100 partners including hospitals, health care providers, community-based organizations, and academia to review the current state of health in Orange County; identify and discuss the forces that impact the health of residents; provide input on selecting the two Prevention Agenda Priorities for the 2022-2024 CHIP; and participate in breakout sessions to discuss current efforts, assets, and barriers in each of the five priority areas. MSLC was an active participant in this summit, with members of our clinical leadership teams in attendance to discuss MSLC's specific experiences and findings within our patient database.

This year's theme "A Collaborative Approach to Community Health Planning" emphasized the need to engage all segments of the community to improve health outcomes together.

An overview of the most recently available data was provided to participants covering:

- Secondary data overview in each of the five NYSDOH Prevention Agenda areas
- Preliminary findings of the Community Asset Survey
- 2022 Community Partner Survey and focus groups with local human service providers data overview
- Preliminary results from resident's priority area choices though Rock Voting

A representative from the NYSDOH Center for Environmental Health provided an overview of the current science and advances in wastewater surveillance. Discussions of the current COVID-19 wastewater surveillance efforts across NYS with an emphasis on Orange County's robust program. Wastewater surveillance is an important tool to help predict trends in disease prevalence prior to receiving laboratory results. At the time of the summit, Orange County has six wastewater treatment facilities participating the statewide network.

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Following the FOCA, attendees had the opportunity to attend one of five health priority breakout sessions. Each breakout session discussed the following questions, as they pertain to the priority areas:

- What are we currently doing in this area?
- What collation, task force or partner is working in this area?
- What do we need to do?
- Are there any evidence-based interventions that are currently being used or could be used?
- Who else needs to be involved?

Prior to breakout group discussions, summit participants were asked to vote on the two priority areas the health departments, hospitals, and community should focus on for the next three years. The two priority areas identified were:

1. Promote Well-Being and Prevent Mental and Substance Use Disorders
2. Promote Healthy Women, Infants, and Children

Priority Area	1st Choice Votes	2nd Choice Votes
Prevent Chronic Diseases	5	14
Promote a Healthy and Safe Environment	2	15
Promote Healthy Women, Infants, and Children	24	25
Promote Well-Being and Prevent Mental and Substance Use Disorders	29	23
Prevent Communicable Diseases	5	6

Breakout sessions' themes included:

- Preventing Chronic Diseases workgroup focused on needs for chronic disease treatment and prevention navigators and directories across the county, as well as connecting patients to providers that speak their native language.
- Promoting a Healthy and Safe Environment workgroup discussed decreasing water contamination, substance abuse, gang violence, mitigation of food insecurity, language barriers and senior concerns.
- Promoting Healthy Women, Infants, and Children workgroup discussed the importance of building community, systemic change, policy change, and implementing doula programs to decrease the maternal mortality rate amongst non-Hispanic Black and Hispanic women.
- Promoting Well-Being and Prevent Mental Health and Substance Use Disorder workgroup emphasized the importance of preventative mental health care, increased community engagement, partner accountability, language barriers, lack of funding, and focusing on advocacy.
- Preventing Communicable Diseases workgroup discussed the need for on-demand PrEP, substance abuse treatment and Hepatitis C testing, syringe exchange programs, needle exchange programs, sex worker support, and reducing hospital acquired infections.

Community Partner Focus Groups and Survey

Overview

Though the various Community Themes and Strengths Assessments gather information from a variety of sources and from various segments of the population, there are some groups that many not be fully accounted for. To ensure that all members of the local public health system and community are included in the CHA process, community partner focus groups and an online survey were created. Special focus was placed on agencies and partners that work with low-income, veterans, seniors, people experiencing homelessness, LGBTQ+ members, and residents with a mental health diagnosis. In order to ensure that the needs of these populations were met, focus groups were conducted with partners that serve these populations. The reason for doing focus groups with partners, rather than directly surveying the target population through convenience sampling, was that a convenience sample risks only accounting for those who are already accessing services and care. The hope in surveying partners was that they would have an idea of what obstacles and barriers these population face when accessing services. An online survey was also created so that partners that could not attend a focus group could also provide input.

The Orange County Department of Health conducted two focus groups. The first was with the Joint Membership of Health and Community Agencies (JMHCA). Their focus is on providing residents of Orange County with a welcoming, comprehensive, and seamless service delivery system for recovery, health, and wellness. The second was with the Changing the Orange County Addiction Treatment Ecosystem. Discussions were centered around the survey questions distributed prior to the focus groups. Focus group attendees included organizations such as Rehabilitation Support Services, Regional Economic Community Action Program (RECAP Inc.), Mental Health Association, Action Towards Independence, Fearless!, Orange County Department of Mental Health, and the American Lung Association. In addition, the survey was e-mailed out to human service providers throughout Orange County through the JMHCA, Changing the Ecosystem, and Resiliency Committee listservs.

The online survey was also shared, and 45 responses were collected from providers that serve various underserved populations including persons with disabilities, people with a substance use disorder, persons with a mental health diagnosis, persons experiencing homelessness, low-income individuals, and veterans.

The survey showed that the top three issues that affect health in Orange County were:

- Access to affordable, decent, and safe housing
- Access to mental health providers
- Access to affordable, reliable, personal, and public transportation

The survey also showed that the top three barriers to people achieving better health in Orange County were:

- Drug and/or alcohol use
- Knowledge of existing resources
- Health literacy

Issues highly impacting health in the communities as listed by survey respondents include:

- Mental health and substance abuse issues
- Maternal and child health issues
- Chronic disease
- Health disparities

The focus groups had similar findings and gave an opportunity for agency providers to expand upon these issues and barriers. Of note was the discussion about the surge in mental health needs and substance use specific to youth. The consensus was that Orange County needs to expand services specific to youth, implement prevention programs, and work with schools to expand education and prevention opportunities.

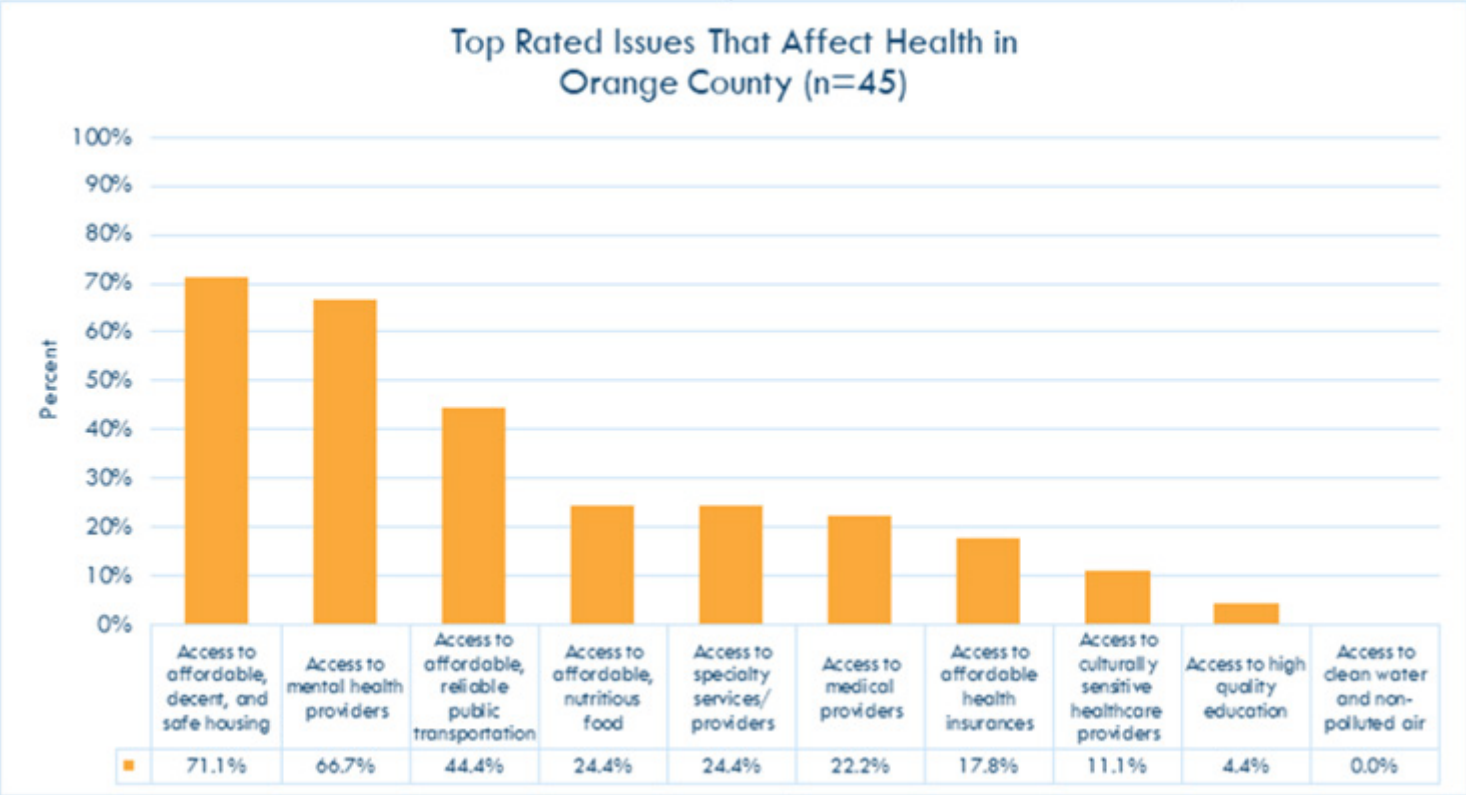
Major Survey Findings

A lack of affordable and/or consistent transportation is a major issue for many residents of Orange County. This includes lacking the financial means to get to and from appointments/work, a lack of available public transportation, and an absence of knowledge of the transportation options that are available (n=13).

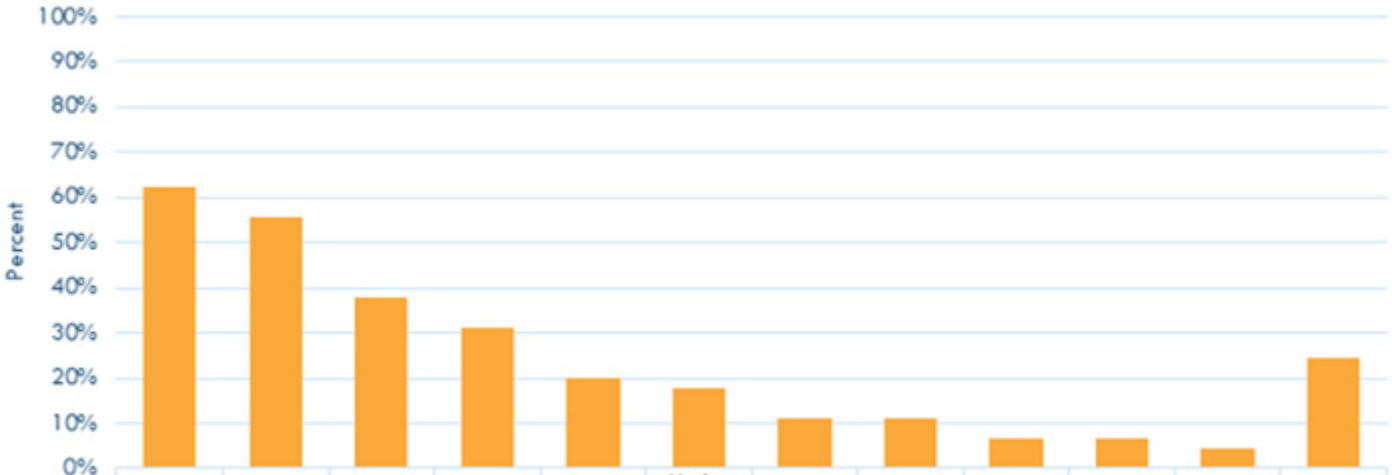
Affordable and safe housing is a challenge for many. This leaves many people homeless, or at the least, economically distressed (n=7) Language barriers between the residents and service providers exist which can cause confusion and lack of adequate care (n=4).

An overall lack of knowledge of the resources that are available to the community exists. While there are many programs in place to assist residents, they can only be utilized when there is a knowledge and understanding of these services (n=6).

Mental health/addiction issues continue to plague our communities. This is in the form of mental health stigma, lack of providers, and the large number of individuals who are facing active addiction (n=7).

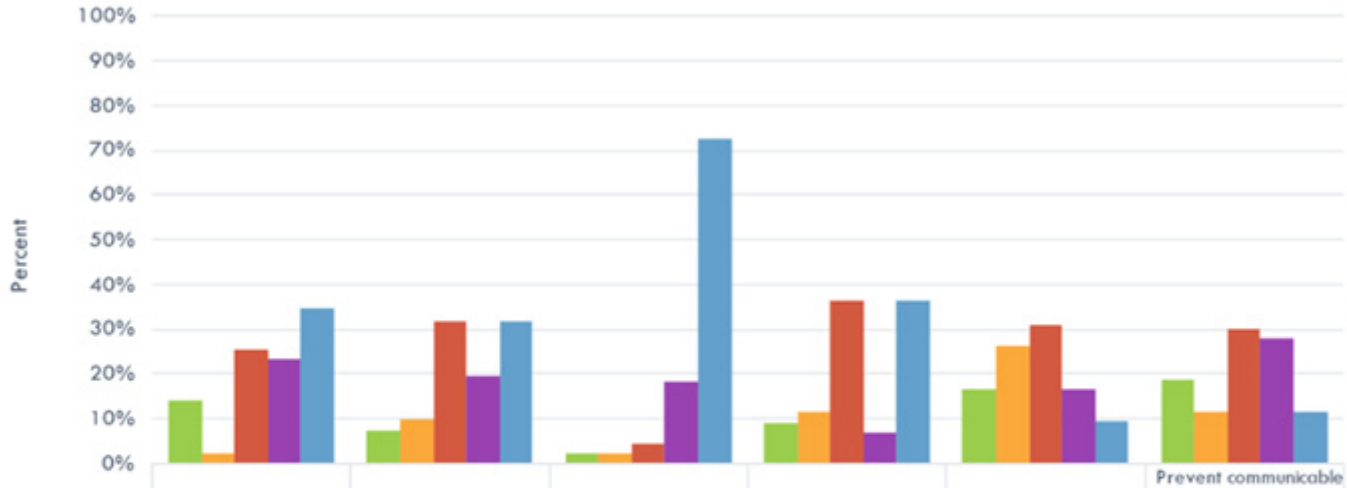


Top Rated Barriers to Achieving Better Health in Orange County (n=45)



	Drug and/or alcohol use	Knowledge of existing resources	Health literacy	Geographic location-living in a rural area	Having someone to help them understand insurance	Having someone to help them understand their medical condition	Attainment of education	Cultural customs	Geographic location-living in an urban area	Quality of education	Having a safe place to play and/or exercise	Other (please specify)
	62.2%	55.6%	37.8%	31.1%	20.0%	17.8%	11.1%	11.1%	6.7%	6.7%	4.4%	24.4%

The Impact of Health Issues in Orange County (n=45)



	Chronic Disease (heart disease, diabetes, asthma, obesity, etc.)	Health Disparities	Mental Health and Substance Use Issues	Maternal and Child Health Issues	Environmental Factors (built environment, air/water quality, injuries, etc.)	Prevent communicable diseases (sexually transmitted infections, hepatitis C, HIV, vaccine preventable diseases, hospital acquired infections, etc.)
1 (very little)	13.95%	7.32%	2.27%	9.09%	16.67%	18.60%
2	2.33%	9.76%	2.27%	11.36%	26.19%	11.63%
3	25.58%	31.71%	4.55%	36.36%	30.95%	30.23%
4	23.26%	19.51%	18.18%	6.82%	16.67%	27.91%
5 (highly impacted)	34.88%	31.71%	72.73%	36.36%	9.52%	11.63%

Impact of COVID-19

According to the Orange County Department of Health Findings, as a result of the COVID pandemic, some of the existing issues in mental health have worsened. Available mental health providers have declined while mental health issues among the community have increased (n=11).

The COVID pandemic has also opened the door to virtual appointments for healthcare. While this has its benefits, there are also drawbacks to the lack of face-to-face interaction that comes with an in-person visit. Many residents are hesitant to come in person due to COVID concerns and/or they enjoy the convenience of not having to leave home. Providers are also hesitant to bring too many people into the office for fear of spreading COVID, as well as entering the homes of their patients for in home care (n=30).

At MSLC, as referenced earlier in this document, Emergency Department visits significantly declined in 2020-2021, with volume beginning to trend up in recent months.

The Orange County Community Needs Assessment 2022-2024 references the following recommendations:

Holistic care management services dedicated to address the social determinants of health in every touch point in the systems where a client or patient may show up to address root causes of health issues.

Continuing to break down the silos of care for the complicated systems that patients/clients must navigate to address their health issues.

Expand availability of telehealth/tele-video services and broadband expansion for those that struggle with mental health issues, homelessness, and substance use.

There is a need for prioritization from local leaders to address the social determinants of health such as poverty, housing, and transportation and develop strategic opportunities for communities to work together and to build community awareness of these issues.

Community Asset Survey (CAS)

Overview

The Community Asset Survey (CAS) was developed by the Orange County DOH. It includes 5 questions with 2 demographic questions and 3 primary questions. The demographic questions ensure the respondent is an Orange County resident and asks what their ZIP Code is. The primary questions ask residents what the greatest strengths of the community are, where should community efforts be focused to improve quality of life, and what the most important health issues are.

Methodology

The survey was created and tested February 2022. The survey was tested with Orange County employees before community-wide dissemination. The survey was disseminated online and in-person via tablet at various community events. English and Spanish surveys were offered, and the majority of the responses were in English. The survey responses were anonymous.

A convenience sample was used. Previous online surveys have over-sampled women and those over 65 years old and under-sampled residents who are from lower socio-economic households. Orange County DOH Public Health Fellows went in person to venues that would ensure a broader sample of residents.

Some of the community events where residents were asked to complete the survey were: Orange County DOH community listening sessions (Port Jervis, Middletown, Blooming Grove, Chester, Cornwall, Pine Bush, Goshen and Newburgh), farmer's markets, libraries, Mount Saint Mary College Campus Desmond Center, Newburgh Illuminated, and National Night Out (Middletown, New Windsor, Newburgh, Warwick, Port Jervis, and the Town of Crawford).

Hospitals in Orange County shared the survey link with staff and residents. Two federally qualified health centers, Sun River Health and Ezras Choilim Health Center, shared the link with their staff and community. Orange County Government shared the link with employees. Orange County DOH shared the link on the Facebook page. Partner agencies shared the link with staff and customers. Flyers were distributed at events and libraries.

Results

Through the efforts of the Orange County DOH and partners, a total of 928 surveys were completed.

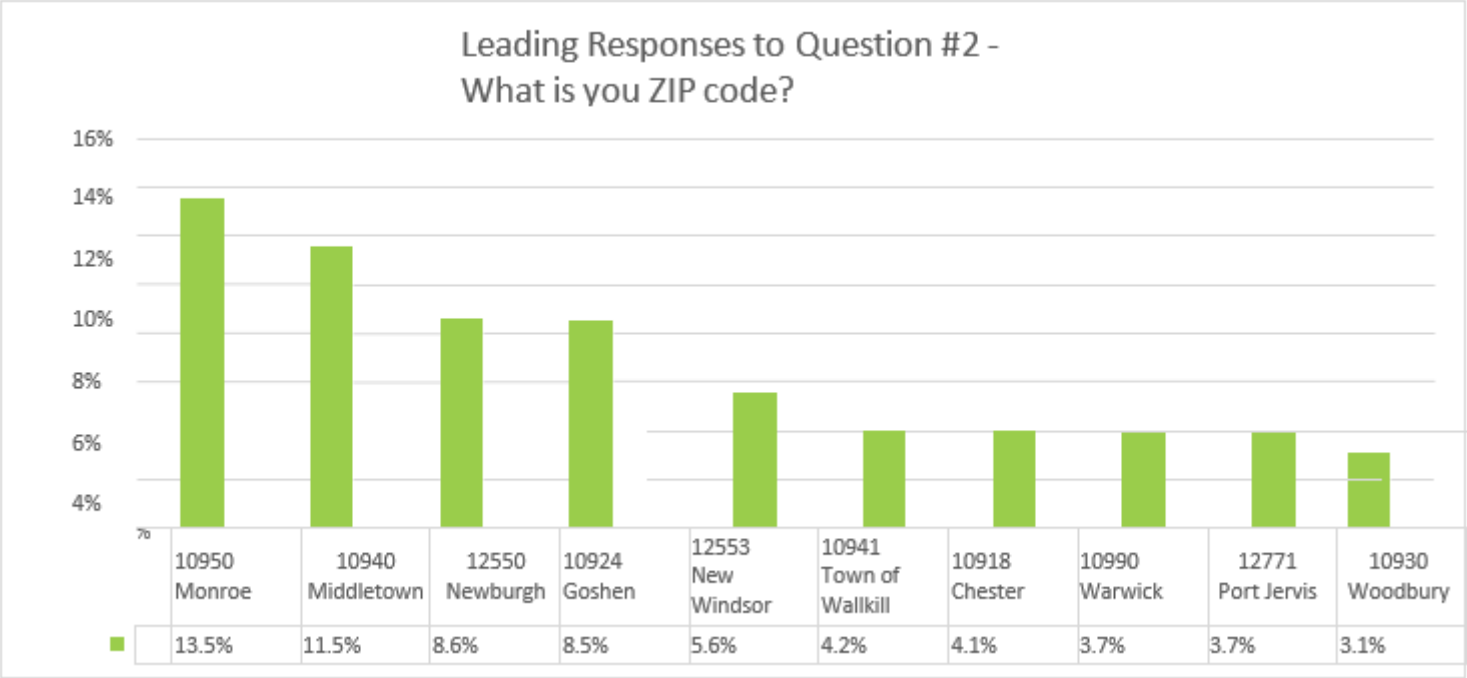
The first question, "Do you live in Orange County?" ensured that only residents of the county completed the survey.

The second question, "What is your ZIP code?" provided the Orange County DOH information to better focus outreach efforts and try to ensure a distribution of responses similar to the Orange County population. As surveys were gathered, responses were studied in an effort to conduct outreach in ZIP codes without any responses [see Table 1]. After XX months of effort, no responses were gathered from Arden (10910), Bellvale (10912), Middletown (10943), New Milford (10959), Southfields (10975), Sterling Forest (10979), Thompson Ridge (10985), West Point (10997) and Vails Gate (12584).

Responses to Question #2 - What is your ZIP code?

Response Choice	Percent of Responses	Number of Responses	Response Choice	Percent of Responses	Number of Responses
10950	13.5%	125	12575	0.4%	4
10940	11.5%	107	12589	0.4%	4
12550	8.6%	80	12780	0.4%	4
10924	8.5%	79	10915	0.3%	3
12553	5.6%	52	10953	0.3%	3
10941	4.2%	39	10981	0.3%	3
10918	4.1%	38	10987	0.3%	3
10990	3.7%	34	10987	0.3%	3
12771	3.7%	34	10988	0.3%	3
10930	3.1%	29	10933	0.2%	2
12586	2.7%	25	10969	0.2%	2
10992	2.6%	24	12542	0.2%	2
12549	2.5%	23	12729	0.2%	2
10916	2.3%	21	12729	0.2%	2
10998	1.9%	18	12746	0.2%	2
12566	1.9%	18	10914	0.1%	1
10921	1.8%	17	10917	0.1%	1
12518	1.7%	16	10932	0.1%	1
10958	1.6%	15	10996	0.1%	1
12520	1.5%	14	11797	0.1%	1
10928	1.3%	12	12785	0.1%	1
12577	1.2%	11	10910	0.0%	0
10963	0.9%	8	10912	0.0%	0
12543	0.9%	8	10943	0.0%	0
10973	0.8%	7	10959	0.0%	0
12721	0.7%	6	10975	0.0%	0
10922	0.5%	5	10979	0.0%	0
10925	0.5%	5	10985	0.0%	0
10926	0.5%	5	10997	0.0%	0
10919	0.4%	4	12584	0.0%	0

Figure 1 and Table 2 represent the percentage of responses and population from the ten leading ZIP codes with the highest survey response. Per the US Census, the ten leading ZIP codes represent 62.3% of the Orange County population and 66.5% of the survey responses. The majority of respondents (25.0%) lived in Monroe and Middletown, and this represents 23.2% of the Orange County population. The survey sample was overrepresented in these ten ZIP codes by 4.2%.

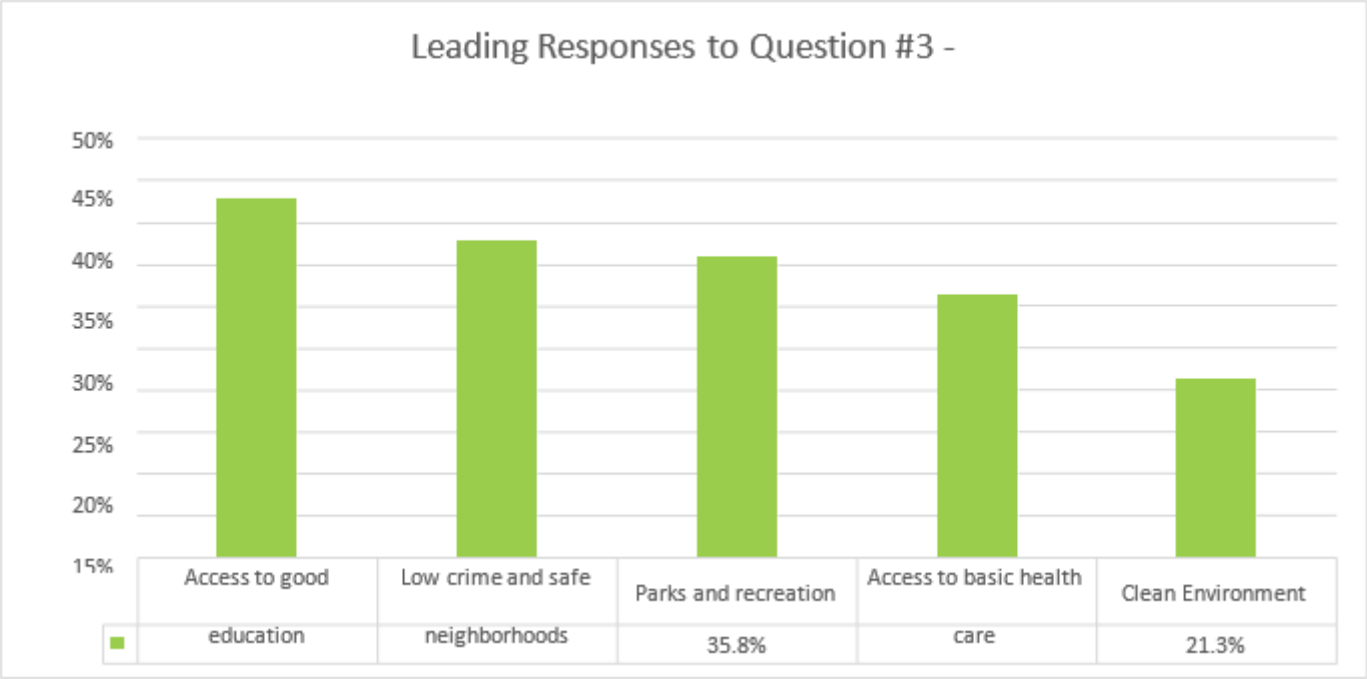


Top Ten Responses to Question #2 - What is you ZIP Code?

ZIP Code	Population in ZIP Code	Percent of Orange County Population	Percent of Survey Respondents
10950	47,226	11.5%	13.5%
10940	48418	11.7%	11.5%
12550	54,447	13.2%	8.6%
10924	13120	3.2%	8.5%
12553	24,438	5.9%	5.6%
10941	13779	3.3%	4.2%
10918	11,647	2.8%	4.1%
10990	20631	5.0%	3.7%
12771	14,511	3.5%	3.7%
10930	8958	2.2%	3.1%
Total	412,135	62.3%	66.5%

The third question was "What are the greatest strengths of our community?" and respondents were able to pick their top three choices.

The top five greatest strengths of our community in ascending order were: access to good education (42.9%), low crime and safe neighborhoods (37.8%), parks and recreation (35.8%), access to basic healthcare (31.4%) and clean environment (21.3%) [see Figure 2].



Note: Participants were allowed to choose up to three responses; therefore, total percentages will not add up to 100%.

Table 2 shows all responses ranked from highest to lowest with their corresponding percentages and number of responses. Responses from all five Prevention Agenda areas were represented as well as social determinants of health. Some of the other responses included: **TO BE ADDED**

Rock Voting Jars, Orange County Department of Health, 2022

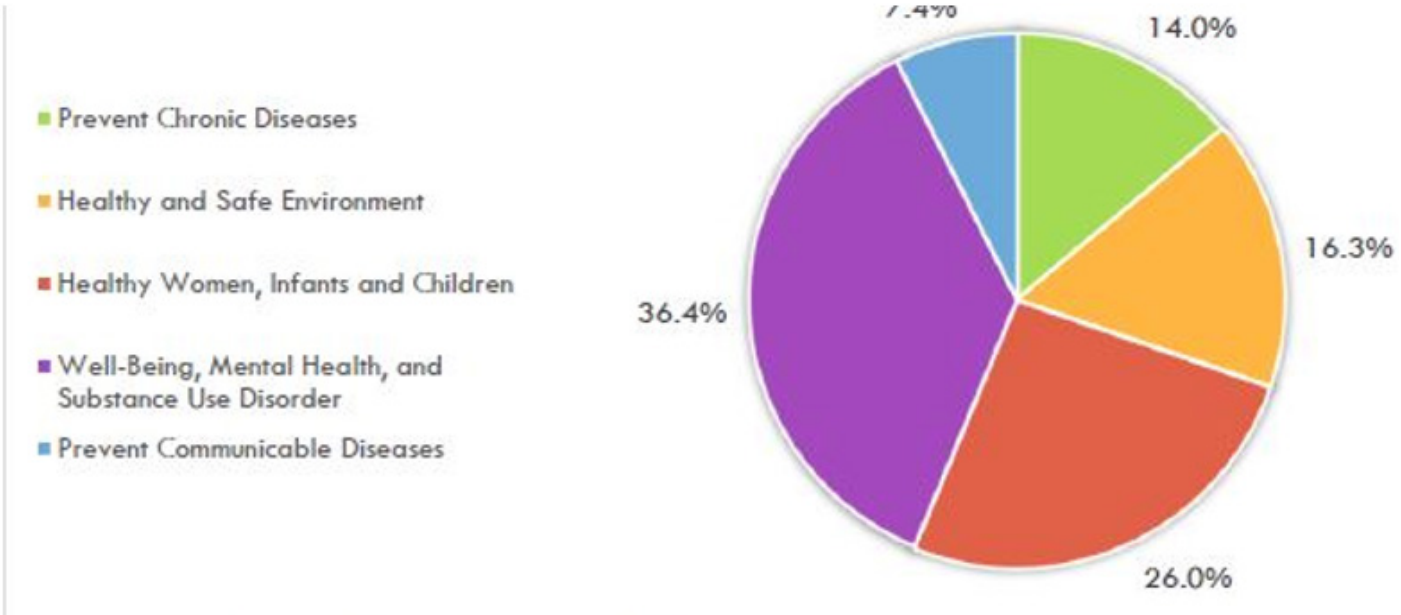
Rock Voting

The New York State Prevention Agenda outlines five priority areas in health improvement efforts: (1) Preventing Chronic Disease; (2) Promoting Well-Being and Preventing Mental Health and Substance Use Disorders; (3) Promoting a Safe and Healthy Environment; (4) Preventing Communicable Disease; and (5) Promoting Healthy Women, Infants, and Children. Local health departments and hospitals select two of these five priorities on which to focus their community health improvement plans, based on a variety of factors including demographic data, health and behavioral indicators, and community feedback. The Orange County Department of Health invited county residents to participate in "Rock Voting," an interactive method of assessing community perceptions of the highest priority prevention agenda areas. Each participant was given two rocks and presented with labeled jars representing the five priority areas. They were tasked with placing their rocks in the two areas they perceived as needing the most attention. Over 1,500 community members participated in the activity from April 2022 to August 2022. Survey locations included the Farmer's Markets of Goshen, Newburgh, Middletown, Port Jervis, and Warwick; Senior Health and Fitness Day; Yoga Events hosted by the Desmond Center; Freedom Fest; National Night Out in Newburgh, Middletown, Port Jervis, Wallkill, New Windsor, and Crawford; Deacon Jack Seymour Food Pantry in Newburgh; and Listening Sessions hosted by the Orange County Dept. of Health in Port Jervis, Middletown, Blooming Grove, Chester, Crawford, and Goshen.

Rock Voting at a Desmond Center Event, Mount St. Mary College, 2022

The top two priority areas that residents voted for were: Promoting Well-Being and Preventing Mental Health and Substance Use Disorders (36.4%) and Promoting Healthy Women, Infants, and Children (26.0%) [see Figure 126].

Figure 126



Orange County Department of Health, Updated August 2022

Listening Sessions

Background

Listening sessions were conducted by the Orange County Department of Health (OCDOH) at municipalities throughout the county to reintroduce the OCDOH to the public since the beginning of the COVID-19 pandemic; and to discuss current health concerns within each community as part of the Community Health Assessment process. OCDOH hosted listening sessions in Port Jervis, Middletown, Blooming Grove (Washingtonville), Chester, Newburgh, Cornwall, Crawford/Pine Bush, and Goshen, between April 2022 to June 2022. Listening sessions were advertised through various formats including social media platforms, street outreach, coalitions with community members including the faith-based community and posting flyers in heavily trafficked businesses including post offices, laundromats, libraries, and small businesses like foodservice, retail, and beauty shops.

During each listening session, a presentation about OCDOH's services was provided to attendees and the remaining time was spent discussing the community's health concerns. Attendees completed the Community Assessment Survey to help determine the most pressing issues in the county and participated in Rock Voting, to provide their opinion on the health priority areas to be addressed through the Community Health Improvement Plan. The former Commissioner of Health, Dr. Irina Gelman, was present at all listening sessions as well as staff from the Divisions of Epidemiology, Community Health Outreach, and Health Equity.

Town of Cornwall Listening Session, 2022

Findings

OCDOH was able to gather valuable information from community members during the open floor discussion. Although listening sessions were hosted in various parts of the county, main areas of concern were often similar. Common themes discussed include mental health, affordable housing, the need for increased OCDOH outreach efforts, and questions pertaining to communicable diseases.

Mental health was overwhelmingly an area of concern in most of the listening sessions. Middletown attendees discussed mental health decline amongst students and educators during and following the COVID-19 pandemic. Blooming Grove attendees discussed the need to receive assistance from OCDOH on how to discuss mental health, especially within primary school-aged students and parents.

Suicide prevention in schools was discussed by Chester attendees, suggesting there be a follow-up system for students who have attempted suicide in the past. Newburgh attendees emphasized the importance of mental health resources being made apparent and available in schools, such as therapy. Lack of mental health beds on the eastern side of Orange County was highlighted by Cornwall attendees, stating that the nearest adult inpatient mental health facility is Garnet Health Medical Center in Middletown and that there are no inpatient mental health facilities specifically for children in the county at all. Goshen attendees stressed the lack of health insurance coverage for mental health services and how this creates barriers in accessing professional help. Mental health concerns persist throughout all areas of Orange County.

Affordable housing was discussed in three of the eight listening sessions. Newburgh attendees mentioned how the current housing crisis is contributing to the mental health crisis. Cornwall attendees discussed the need for affordable housing programs in their town, with one attendee relaying a personal excerpt about a family who was struggling to keep their children enrolled in the Cornwall Central School District due to inflation of housing costs. Lack of affordable senior housing was discussed by Goshen attendees, stating that waitlists to get into current affordable senior housing can take about two to five years, and the quality of the current housing is poor. Affordable housing is a concern for all age groups and is related to other public health concerns, including mental health, homelessness, and poverty.

Many listening session attendees requested increased outreach efforts from OCDOH, including creating a better rapport with community members across the county. Port Jervis attendees discussed the disconnect between their community and OCDOH, stating that OCDOH methods of disseminating information and providing services does not necessarily align with older generations and people of all cultures. Middletown attendees requested that OCDOH become more involved in the school systems, especially with outreach pertaining to mental health.

Blooming Grove attendees discussed increasing contact between OCDOH and local business and associations, in order to normalize conversations about health within their community. If OCDOH, school districts, and local businesses work in concert, many health gaps in the county may be identified and addressed in a more productive manner.

Almost every listening session participated in discussions regarding communicable disease, such as COVID-19 and/or Monkeypox. Port Jervis attendees relayed their positive feedback for vaccination clinics within Orange County, and their hopes for them to continue. They also voiced their concerns with the availability of at-home COVID-19 tests and vaccine mandates for healthcare workers. Middletown attendees inquired about the decision-making process for school closings in response to an influx of COVID-19 infection in the county. COVID- 19 testing and travel questions were asked and answered during the Chester listening session. Goshen attendees asked about the next COVID-19 booster and when the most effective time to receive boosters. Crawford/Pine Bush and Goshen attendees requested clarification on Monkeypox and the impact in Orange County.

Town of Blooming Grove Listening Session, 2022

Future

As of August 2022, the Orange County Department of Health has been able to host eight listening sessions in 2022, with plans to host more throughout the county. Discussions held in each listening session were constructive and informative for both the public and OCDOH. An increase in listening session advertisement and outreach should ensure a larger audience, which may lead to more robust conversations. Overall, listening sessions have proven to be a conducive way for OCDOH and local community members to connect and discuss pertinent health concerns and elicit feedback for community input on Orange County's health needs.

Village of Chester Listening Session, 2022

Mid-Hudson Regional Community Health Survey

Overview and Methodology

The Siena College Research Institute (SCRI), on behalf of seven Hudson Valley Health Departments, conducted a public opinion survey of 5,699 Hudson Valley New York State residents from March 14 – May 22, 2022. The Hudson Valley is comprised of Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester Counties in New York. Residents aged 18 and older were interviewed from within those counties in New York State so as to ensure representative county-wide samples. The margin of error for the total sample of 5,699 is +/- 2.1% including the design effects resulting from weighting with a 95% confidence interval. This means that in 95 out of every 100 samples of the same size and type, the results we obtain would vary by no more than plus or minus 2.1 percentage points from the result we would get if we could interview every member of the population. The overall sample of 5,699 was weighted by age, gender, reported race/ethnicity, income and county using the 2015-2020 American Community Survey 5-year estimates to ensure statistical representativeness.

Respondents were contacted via landline telephone, cell phone, an online panel, and online recruitment from each county at various in-person events and other community partnerships to enhance representation and meet budget constraints. The design of the landline sample was conducted so as to ensure the selection of both listed and unlisted telephone numbers, using random digit dialing. The cell phone sample was drawn from a sample of dedicated wireless telephone exchanges from within New York State. Respondents were screened for residence in New York State and specified counties. Data from all four sources were combined and weighted as one universe to provide a representative sample of Hudson Valley residents.

Calls were made between the hours of 1pm and 9pm Monday through Thursday, and between 2pm and 8pm on Sundays. Landline telephone numbers were purchased from ASDE Survey Sampler. Cell phone telephone numbers were purchased from Dynata (formerly Survey Sampling International). Up to 7 calls were placed to each phone number to try to establish if the phone number was a working number. Telephone surveys were conducted in English or Spanish.

The online sample was provided by Lucid, a market research platform that runs an online exchange for survey respondents. The samples drawn from this exchange matched a set of demographic quotas on age, gender, and region. Respondents were sent from Lucid directly to survey software operated by the Siena College Research Institute. All respondents that took the survey online completed an attention check before taking the survey.

Additional attention checks were placed in the survey to ensure proper attention was being paid throughout the entire survey. Online panel surveys were conducted in English. The online recruitment from each county included distributing the survey URL to community partners, promoting the survey on social media and providing access to the survey at community events. The online recruitment survey was conducted in English and Spanish.

In 2018, SCRI conducted a similar survey for the counties of the Hudson Valley. In that iteration, respondent data was collected via RDD dual-frame telephone interviews and augmented through the use of the Lucid panel. In 2018, within each county oversamples of residents of the zip codes with the lowest levels of income were included in the unweighted samples.

In both 2018 and 2022, each county estimate was similarly weighted to the most current demographic estimates of the county's population by age, gender, reported race/ethnicity, and income. As such, and despite sampling design differences, the final weighted estimates by county and the final weighted regional estimates from 2018 and 2022 can be fairly compared to one another.

Major Findings

- 43% of respondents with <$25K yearly income reported that their ability to afford housing worsened over the course of the COVID-19 pandemic, compared to 23% of Orange County respondents.
- 37% of renters in Orange County reported that their ability to obtain affordable, nutritious food worsened over the course of the COVID-19 pandemic, compared to only 20% of homeowners.
- 33% of respondents with <$25K yearly income reported being unable to access the internet in the past 12 months, compared to 17% of Orange County respondents.
- 32% of respondents with <$25K yearly income were unable to get transportation when needed it in the previous 12 months, compared to only 17% of Orange County respondents
- 31% of Orange County respondents aged 18-34 reported that their mental health has worsened over the course of the COVID-19 pandemic, compared to only 12% of those aged 55 and older.
- 41% of Orange County respondents in 2022 reported there are sufficient, quality mental health providers, which is a decrease from 55% reported in 2018.
- Only 59% of Orange County respondents aged 18-34 reported having good or excellent mental health, compared to 75% of Orange County respondents and 85% of respondents aged 55+.
- 33% of Orange County respondents with <$25K yearly income reported that in the past 12 months, they or any other member of their household has been unable to get any healthcare including dental or vision compared to 21% of total Orange County respondents, and 9% of respondents $150k+ yearly income.
- 26% of Orange County respondents aged 18-34 reported that in the past 12 months, they did not visit primary care physician because they did not have insurance compared to 11% of respondents aged 55+.

Additional data can be found: https://orangecountynydoh.shinyapps.io/Siena-Survey/

Graphs and Tables

Overview

Forces of Change is a brainstorming session to identify the forces that impact the health of our residents and the local public health system's ability to operate. The Forces of Change Assessment (FOCA) was conducted for the first time at the Public Health Summit held on June 28, 2022. Nearly 90 partners participated in the brainstorming session.

Colorectal Cancer

Health Inequity

Colorectal Incidence & Mortality Rate in Non-Hispanic Black Population

Data Analysis:

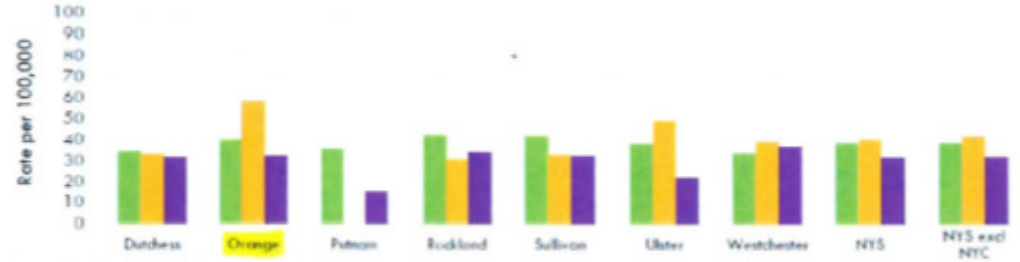
The age-adjusted colorectal cancer incidence rate in the non-Hispanic black population is the highest in the Mid-Hudson (seven county) Region. *(See Figure 228)*

Orange County has one of the lowest colorectal cancer screening rates for adults aged 50-64 in the region. *(See Figure 229)*

Colorectal cancer mortality is higher in the non-Hispanic Black population, compared to the non-Hispanic White and Hispanic populations. *(See Figure 57)*

Figure 228

Age-Adjusted Colorectal Cancer Incidence Rate per 100,000 by Race/Ethnicity, 2016-2018



	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS	NYS excl NYC
Non-Hispanic White	34.3	39.6	35.3	42.0	41.7	38.0	33.7	38.4	38.5
Non-Hispanic Black	33.1	57.9	s	30.5	32.6*	49.0	38.8	39.8	41.4
Hispanic	31.6	32.0	15.1*	34.0	32.1*	21.8*	36.3	31.6	31.7

*: *The rate or percentage is unstable.*
s: *Data are suppressed. The data do not meet the criteria for confidentiality.*
Note: Mortality rates stratified by race/ethnicity are not shown due to suppressed and/or unstable data in most counties.
Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), 2022
https://www.health.ny.gov/statistics/community/minority/county/county_list.htm

***Source**: Mid-Hudson Region Community Health Needs Assessment 2022-2024*

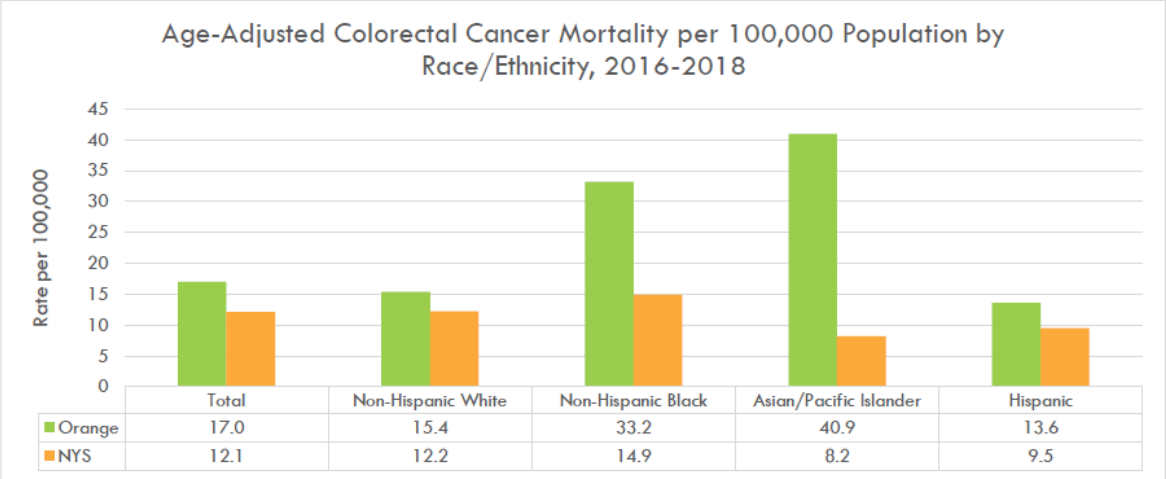
Figure 229

Adults Aged 50-64 Years Who Received a Colorectal Cancer Screening Based on the Most Recent Guidelines, 2018

	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Mid-Hudson	NYS	NYS excl NYC
	60.6%	61.7%	86.3%	62.3%*	58.8%*	68.8%	70.0%	64.1%	65.4%	66.3%

*: *Margin of error is greater than 10%, therefore the percentage is unstable.*
Source: NYS Prevention Agenda 2019-2024 Dashboard, 2020
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/dashboard/pa_dashboard&p=a&ind_id=pa340

Figure 57



Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Late Stage Breast Cancer

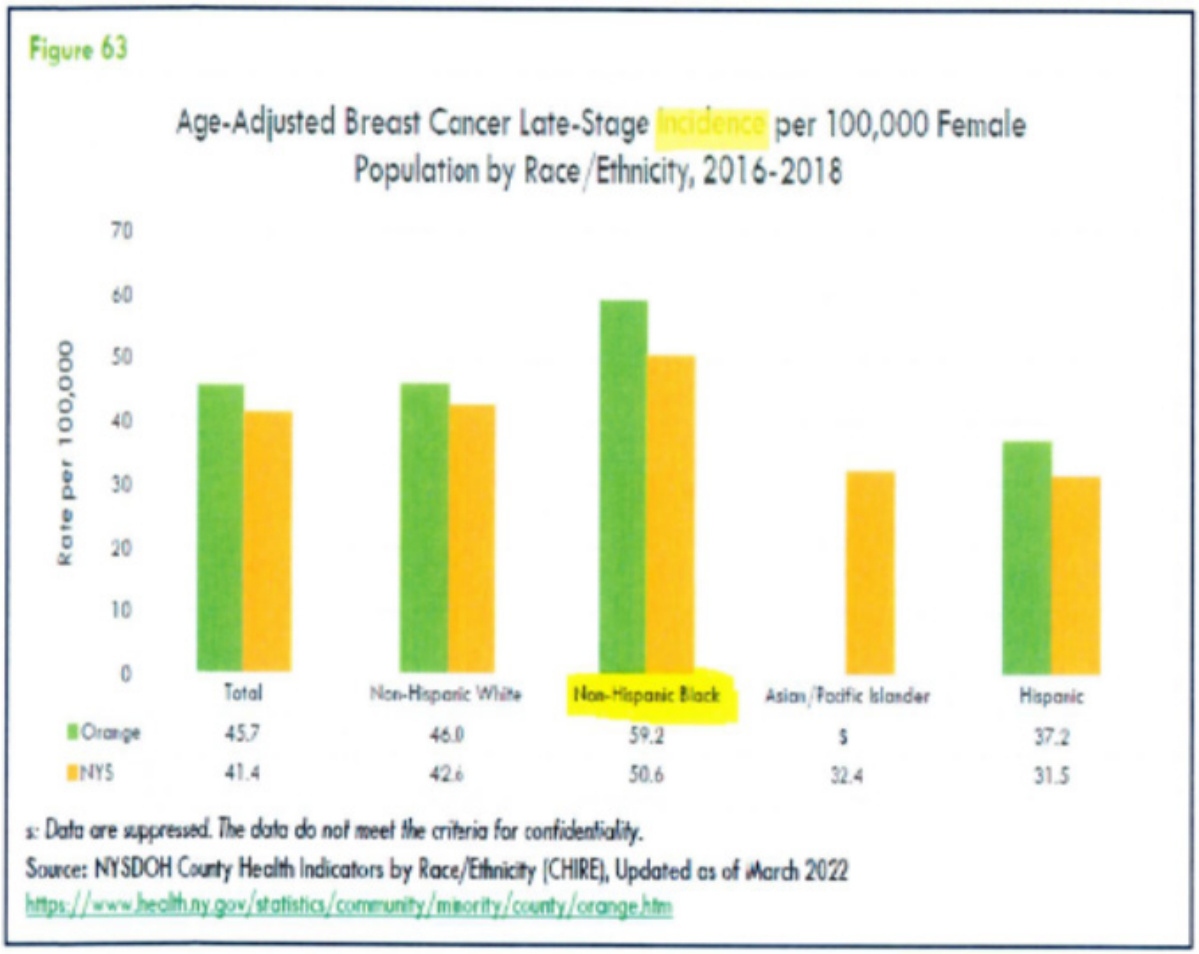
Health Inequity

Late-stage Breast CA Incidence & Mortality Rate in Non-Hispanic Black Women

Data Analysis:

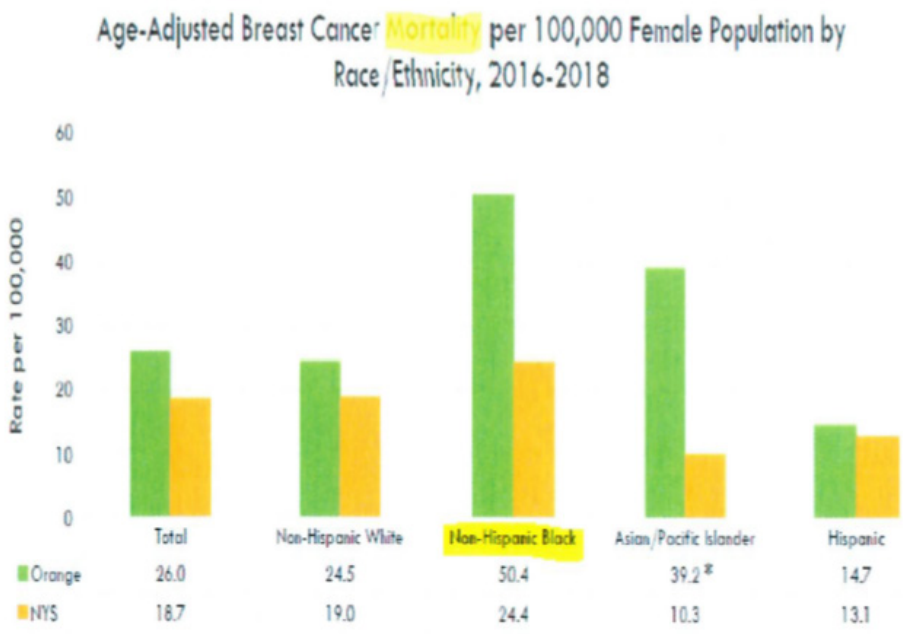
Non-Hispanic Black women face the highest incidence of late-stage breast cancer and breast cancer mortality in Orange County and the state of New York.

Figure 63



Source: Orange County Community Health Needs Assessment 2022-2024

Figure 65



Source: *Orange County Community Health Needs Assessment 2022-2024*

Diabetes

Health Inequity

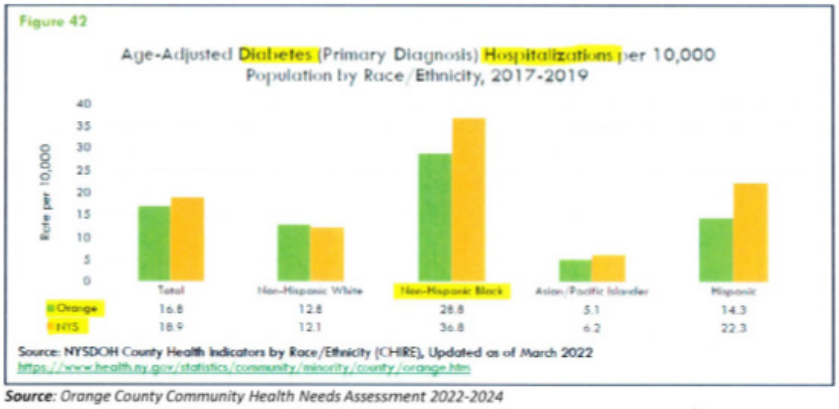
Diabetes Hospitalization and Mortality Rate in non-Hispanic Black

Data Analysis:

Non-Hispanic Black populations had the highest hospitalization rate at 28.8 *(See Figure 42)*.

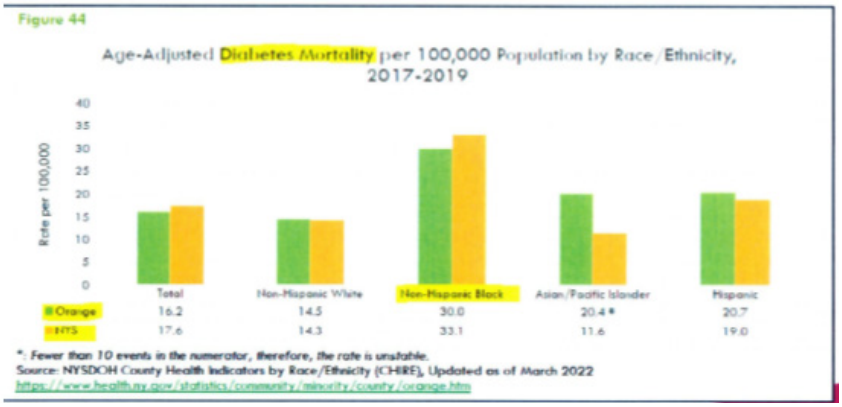
The rate of diabetes mortality increases with age, and just as with diabetes hospitalizations, non-Hispanic Black populations faced the highest diabetes mortality rate in both the county and NYS excl. NYC when compared to other racial/ethnic groups *(See Figure 44)*.

Figure 42



Source: *Orange County Community Health Needs Assessment 2022-2024*

Figure 44



Cerebrovascular Disease (Stroke)

Health Inequity

Hospitalization & Mortality Rates for Stroke in Non-Hispanic Black Population

Definition of Disparity

When adjusting for age, non-Hispanic Black populations had higher rates of stroke hospitalization (27.9 per 10,000) compared to other racial/ethnic groups in the county *(See Figure 38)*.

Stroke mortality rate was highest in the non-Hispanic Black population in the county according to the Mid-Hudson Region assessment, however, the Orange County assessment states that the highest mortality rate is in the non-Hispanic White population *(See Figures 40 & 199)*.

Figure 38

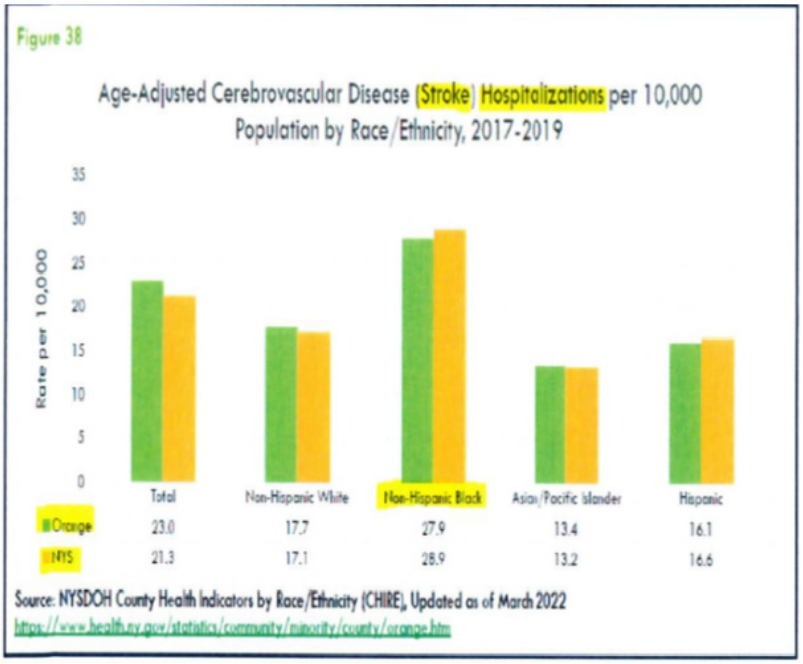
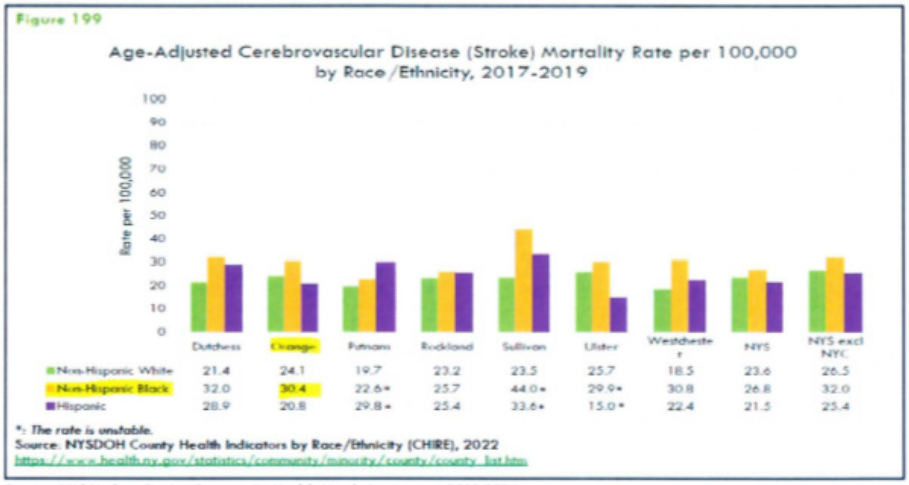
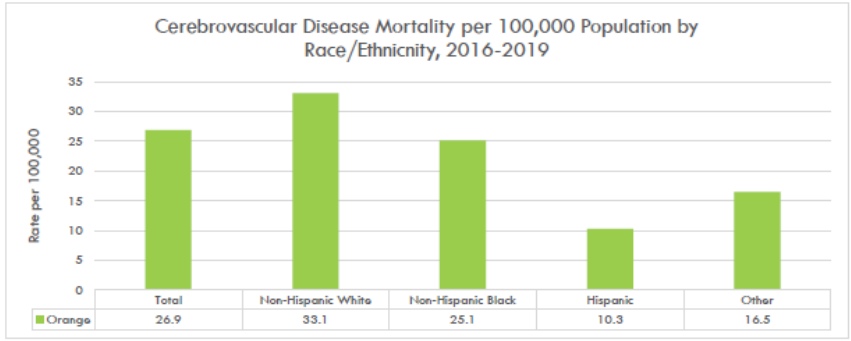


Figure 199



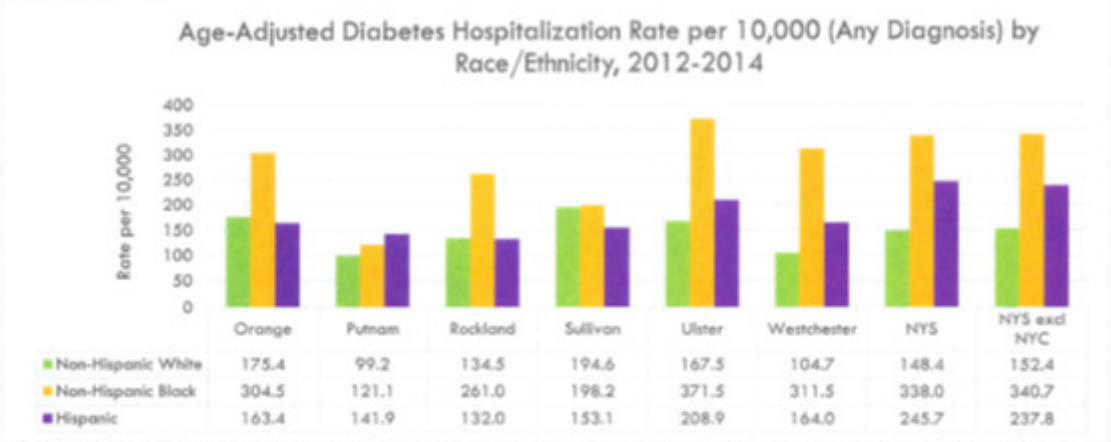
***Source**: Mid-Hudson Region Community Health Needs Assessment 2022-2024*

Figure 40



2018 -2019 data do not include Orange County births or deaths recorded in NYC
Rates are calculated using ACS 5-year population estimates except for the age intervals <1 and 1-9, which are based off of crude live births in Orange County
Source: School of Public Health, University at Albany, 2021
Original Data Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics

Figure 208

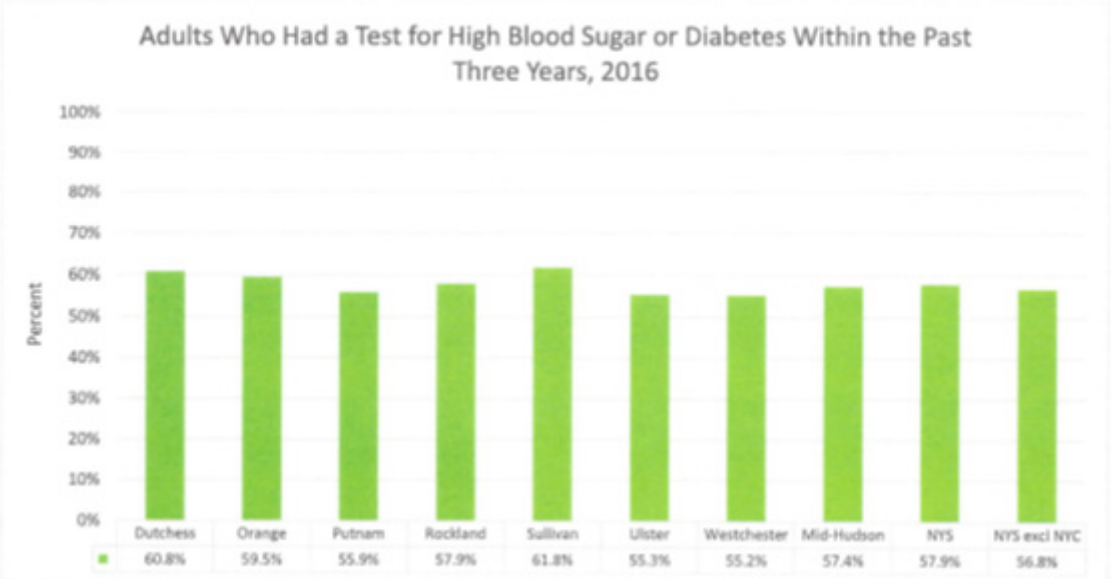


Note: Dutchess County is not shown as data either did not meet the criteria for statistical reliability or data quality, or data are not available.

Source: NYSDOH Statewide Planning and Research Cooperative System, 2017
NYSDOH County Health Indicators by Race/Ethnicity (CHIRE):
https://www.health.ny.gov/statistics/community/minority/county/county_list.htm

In order to avoid the consequences of uncontrolled diabetes, there are many adults who get their blood sugar tested by their medical provider. In 2016, the percentage of those who had a test for high blood sugar or diabetes within the past three years, was very similar across the Mid-Hudson Region, as well as New York State and New York State excluding New York City [see Figure 209174].

Figure 209



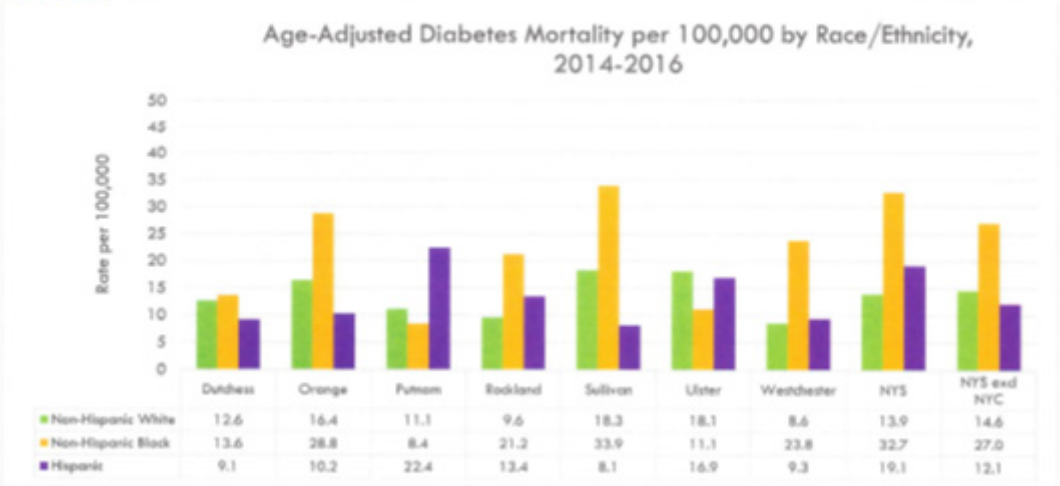
Source: NYSDOH Expanded Behavioral Risk Factor Surveillance System, 2016
https://health.data.ny.gov/Health/Expanded-Behavioral-Risk-Factor-Surveillance-Surve/jsy7-eb4n/data

Figure 211

Source: NYSDOH Community Health Indicator Reports (CHIRS), 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=i&ind_id=Dd22a

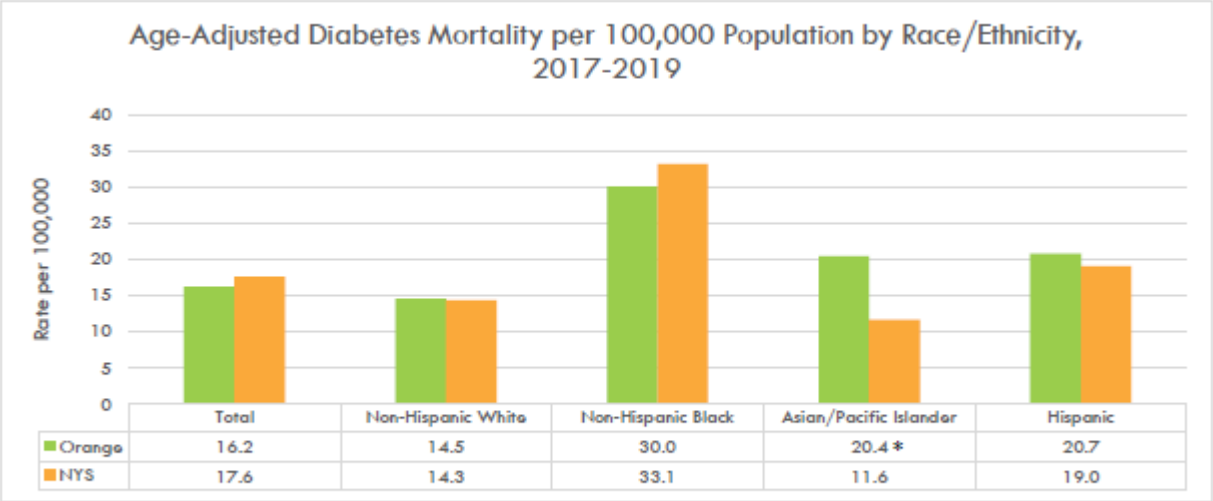
When stratifying data by race/ethnicity, diabetes mortality rates were highest among the non-Hispanic Black population in New York State, as well as New York State excluding New York City, and most of the counties in the Mid-Hudson Region. However, in Putnam County, Hispanic adults had the highest mortality rate (22.4 per 10,000 population). In addition, non-Hispanic White adults had the highest mortality rate in Ulster County (18.1%) [see Figure 212177].

Figure 212



Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE)
https://www.health.ny.gov/statistics/community/minority/county/index.htm

Figure 44



*: Fewer than 10 events in the numerator, therefore, the rate is unstable.
Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Cirrhosis of the Liver

Cirrhosis is a condition in which the liver experiences fibrosis (scarring) that can lead to permanent damage. In the U.S., it is included in the top ten leading causes of death. Causes of cirrhosis include (but are not limited to) chronic alcohol abuse, viral hepatitis (more commonly hepatitis B and C), and fatty liver disease. Symptoms also include fatigue, bleeding, edema (swelling) in lower extremities, and hepatic encephalopathy (loss of brain function due to the liver's inability to remove toxins from the blood).

From 2016-2019, mortality from cirrhosis of the liver averaged at 8.1 deaths per 100,000 population. Mortality rates increase with age and are higher among males and the non-Hispanic White population in the county [see Table 25, Figure 46]. Discharge rates for cirrhosis of the liver were also higher among males than females in the county, which follows the trend seen at the state level (excl. NYC) [see Table 26].

Age-adjusted cirrhosis mortality in Orange County started to decrease in 2013, but in 2015, it started increasing again, reaching a high of 7.5 per 100,000 in 2018. This increase beginning in 2015 is also seen at the state level, though the rates for Orange County have remained below those of the state over time [see Figure 45].

Table 25

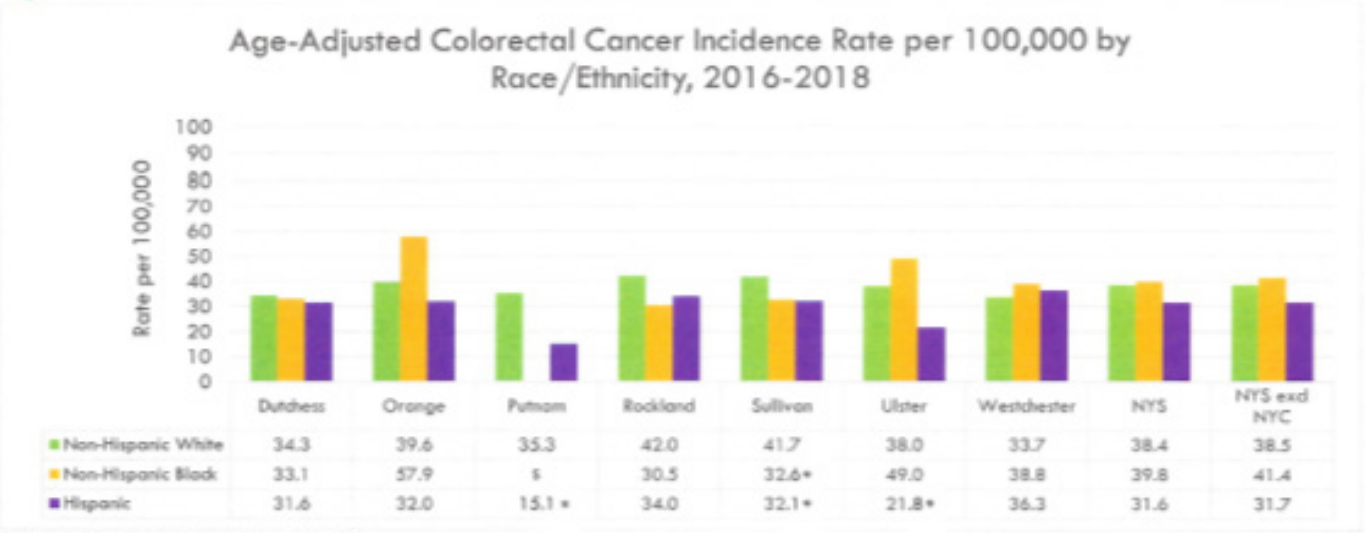
Cirrhosis of the Liver Mortality per 100,000 Population by Age, Gender, and Race/Ethnicity, 2016-2019										
	2016		2017		2018		2019		Total 2016-2019	
Region	#	Rate	#	Rate	#	Rate	#	Rate	Total #	Avg. Rate

[21] World Journal of Gastroenterology, May 2014, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4017060/, accessed August 2022

[22] Mayo Clinic, February 2021, https://www.mayoclinic.org/diseases-conditions/cirrhosis/symptoms-causes/syc-20351487, accessed August 2022

When stratifying this data by race/ethnicity, the rates differ in most of the counties. Like New York State and New York State excluding New York City, Orange, Ulster, and Westchester Counties' highest rates of colorectal cancer incidence were among the non-Hispanic Black population. Non-Hispanic White populations had the highest rates of Colorectal Cancer in Dutchess, Rockland, and Sullivan Counties [see Figure 228].

Figure 228



	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS	NYS excl NYC
Non-Hispanic White	34.3	39.6	35.3	42.0	41.7	38.0	33.7	38.4	38.5
Non-Hispanic Black	33.1	57.9	s	30.5	32.6*	49.0	38.8	39.8	41.4
Hispanic	31.6	32.0	15.1 *	34.0	32.1*	21.8*	36.3	31.6	31.7

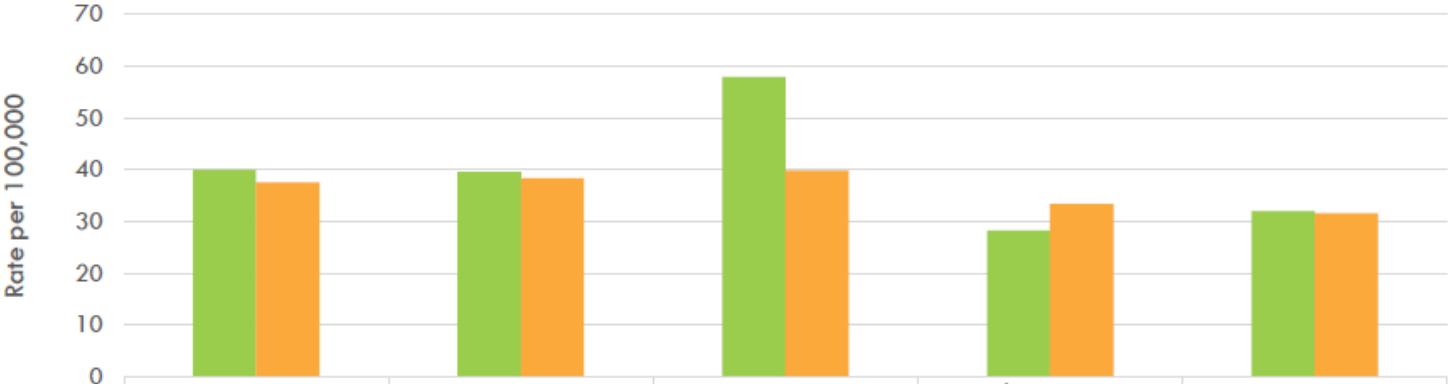
*: *The rate or percentage is unstable.*
s: *Data are suppressed. The data do not meet the criteria for confidentiality.*
Note: Mortality rates stratified by race/ethnicity are not shown due to suppressed and/or unstable data in most counties.
Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), 2022
https://www.health.ny.gov/statistics/community/minority/county/county_list.htm

The US Preventive Services Task Force recommends that adults aged 50-75 years receive screening for colorectal cancer. Some screening tests include colonoscopy; guaiac-based fecal occult blood test (gFOBT), which uses a chemical called guaiac to detect blood in the stool; or a fecal immunochemical test (FIT), which uses antibodies to look for blood in the stool.[184]

The New York State Prevention Agenda aims to have the percentage of adults who receive a colorectal cancer screening based on recent guidelines aged 50-64 years to be 66.3%. The Mid-Hudson Region fell below this target, with 64.1% of adults aged 50-64 years receiving a colorectal cancer screening test based on the most recent guidelines in 2018 [see Figure 229]. Putnam, Ulster, and Westchester Counties were the counties in the region that met or exceeded the Prevention Agenda target.

[184] US Preventive Services Task Force, May 2021, https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/colorectal-cancer-screening#fntbl1, accessed June 2022

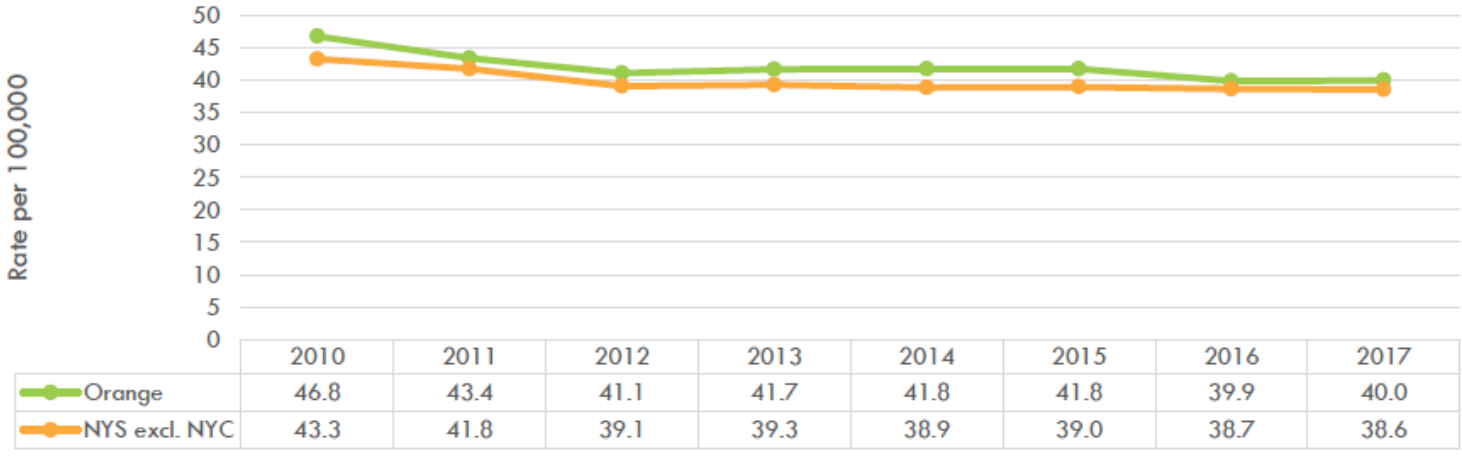
Figure 55



	Total	Non-Hispanic White	Non-Hispanic Black	Asian/Pacific Islander	Hispanic
Orange	40.0	39.6	57.9	28.3	32.0
NYS	37.6	38.4	39.8	33.4	31.6

Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Figure 56

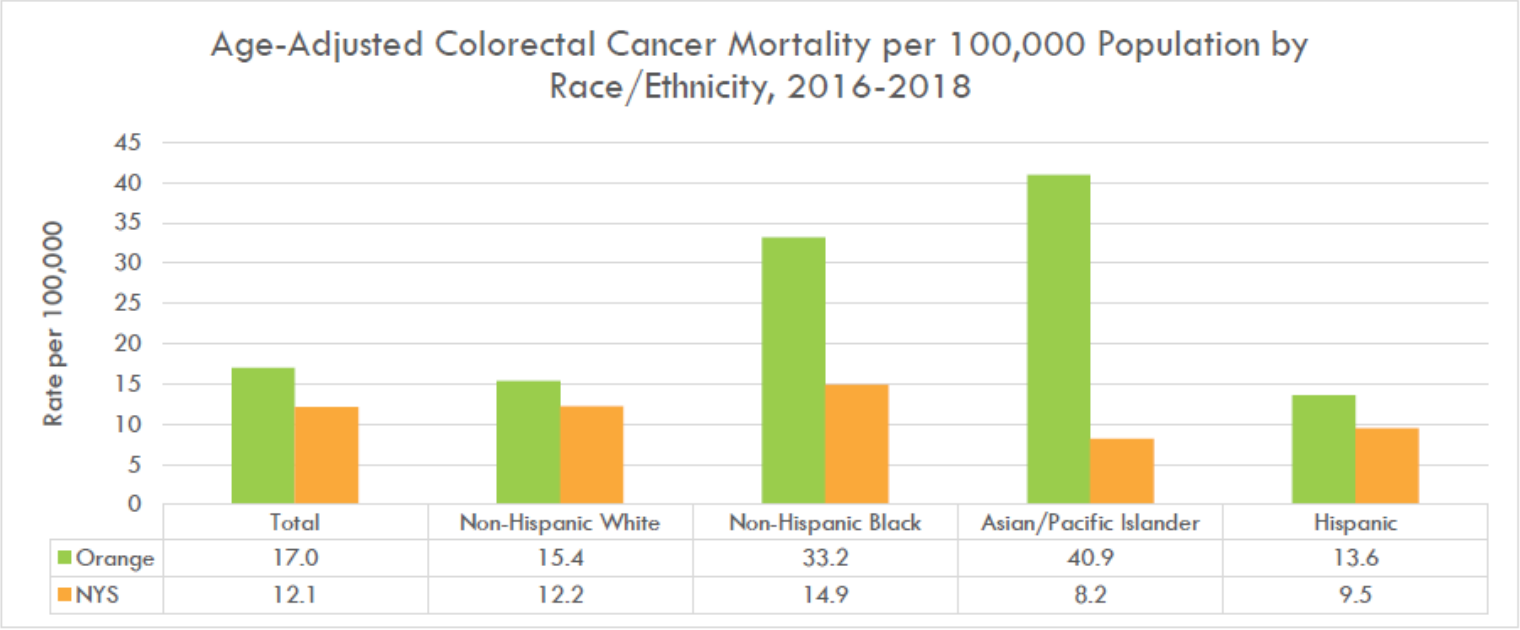


	2010	2011	2012	2013	2014	2015	2016	2017
Orange	46.8	43.4	41.1	41.7	41.8	41.8	39.9	40.0
NYS excl. NYC	43.3	41.8	39.1	39.3	38.9	39.0	38.7	38.6

Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Aq5a&cos=33#pagetitle
Original Data Source: Cancer Registry Data, Updated as of 2020

Orange County has a colorectal cancer mortality rate of 17 per 100,000, higher than the NYS rate of 12.1. When looking over time, colon and rectum cancer mortality rates have decreased for NY State. However, Orange County's mortality rates appear to fluctuate annually, decreasing one year and increasing the next. This pattern continued until 2016, where colon and rectum cancer mortality rate began to steadily increase, reaching its highest point yet in 2017, at 17.0 per 100,000 [see Figure 57, Figure 58].

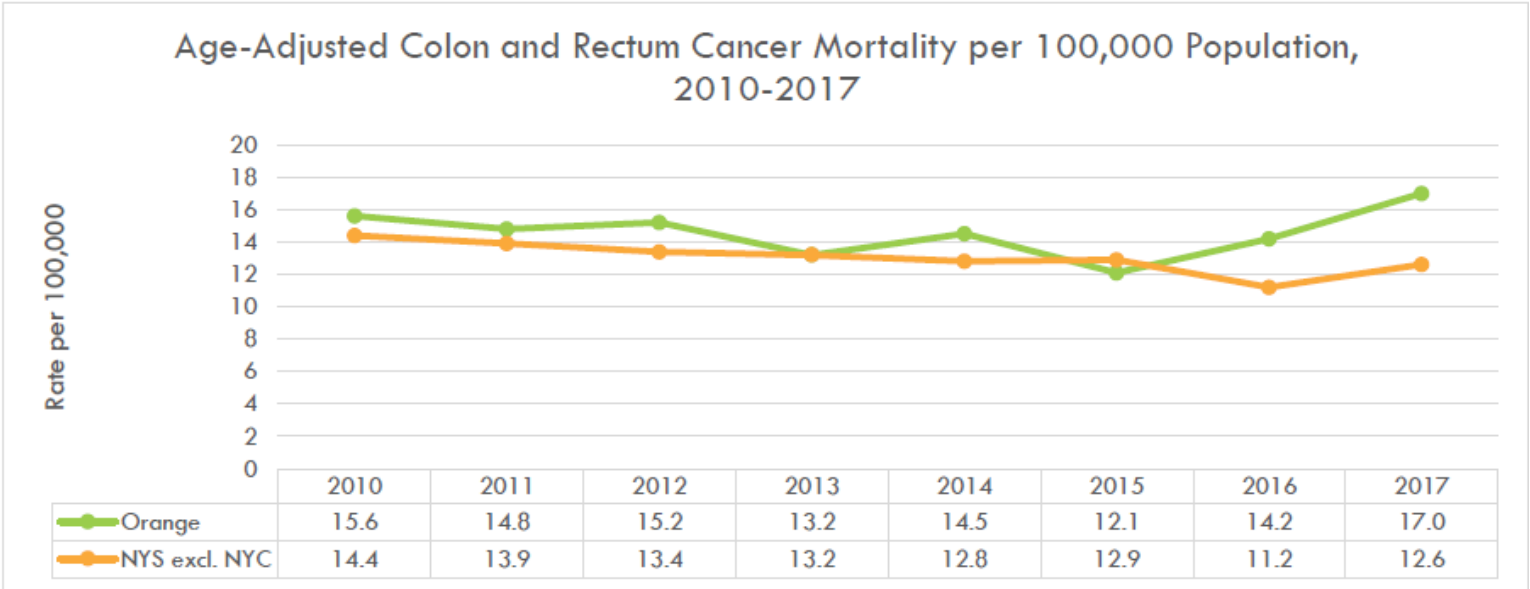
Figure 57



	Total	Non-Hispanic White	Non-Hispanic Black	Asian/Pacific Islander	Hispanic
Orange	17.0	15.4	33.2	40.9	13.6
NYS	12.1	12.2	14.9	8.2	9.5

Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

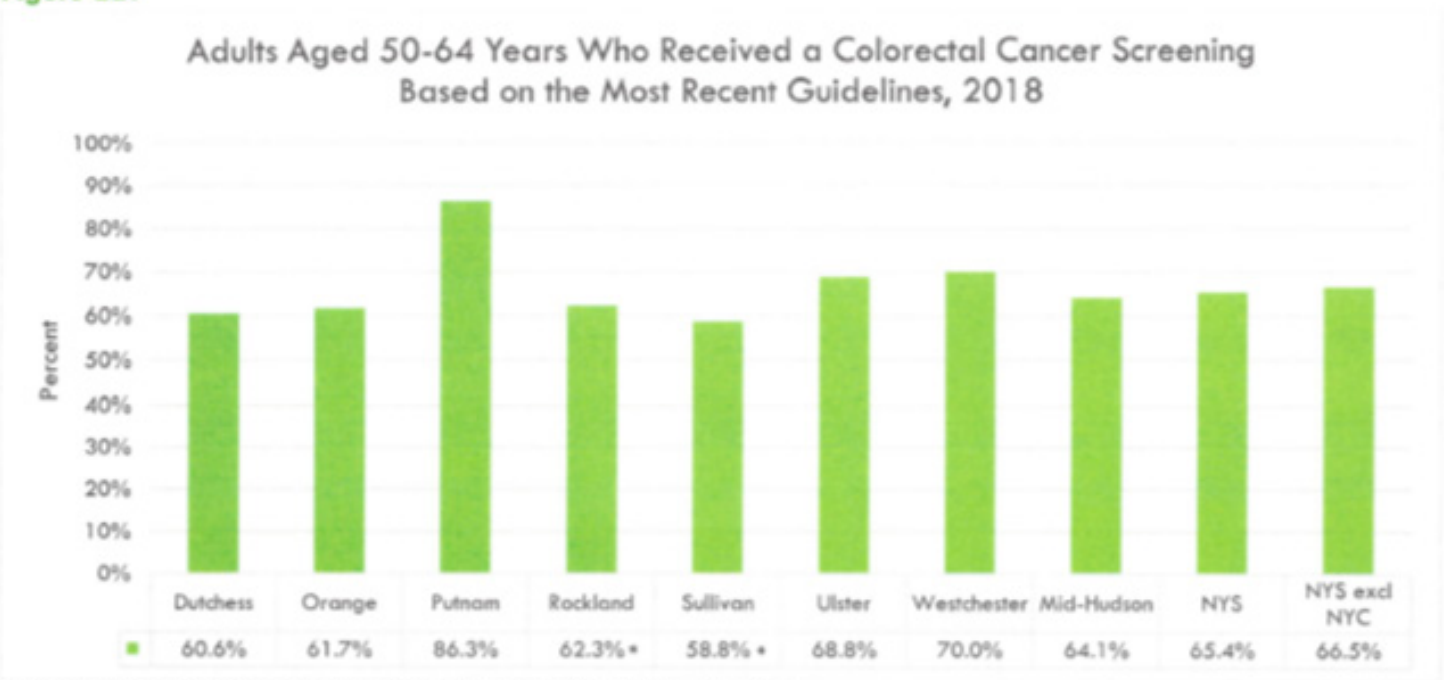
Figure 58



	2010	2011	2012	2013	2014	2015	2016	2017
Orange	15.6	14.8	15.2	13.2	14.5	12.1	14.2	17.0
NYS excl. NYC	14.4	13.9	13.4	13.2	12.8	12.9	11.2	12.6

Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Ag6a&cos=33#pagetitle
Original Data Source: Cancer Registry Data, Updated as of 2020

Figure 229



*: *Margin of error is greater than 10%, therefore the percentage is unstable.*
Source: NYS Prevention Agenda 2019-2024 Dashboard, 2020
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/dashboard/pa_dashboard&p=it&ind_id=pa340

LUNG CANCER

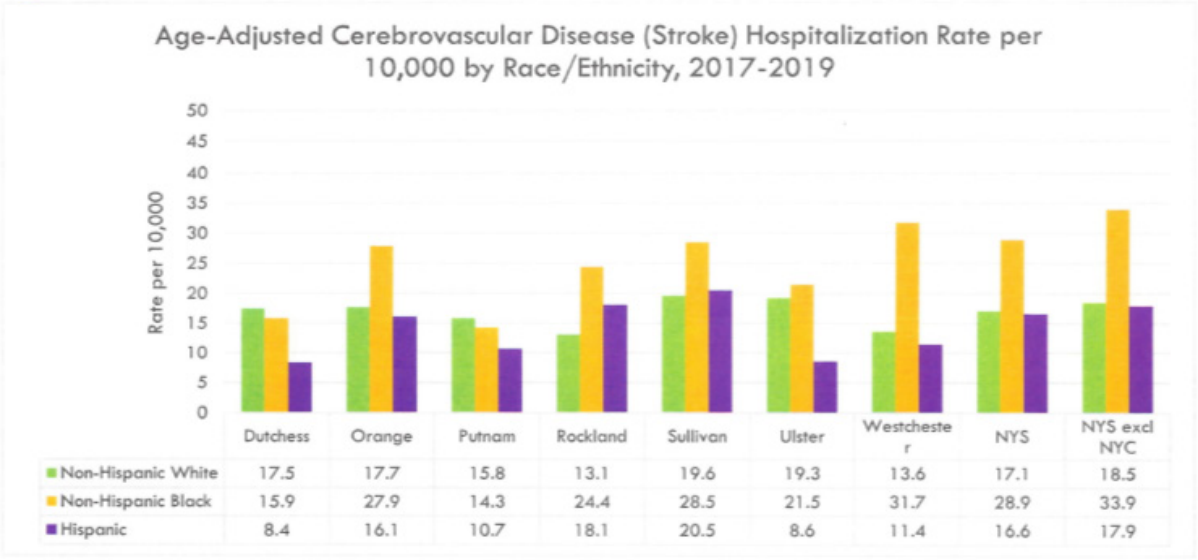
Lung cancer is the primary cause of cancer deaths, for both males and females, in all of the Mid-Hudson Region and New York State. Some symptoms of lung cancer include chest pain, coughing (sometimes with blood), shortness of breath, and/or wheezing. The leading risk factor for lung cancer is tobacco use. According to the NYSDOH, smoking is responsible for over 80% of lung cancers.[185] Another risk factor for lung cancer is radon exposure. Radon is a colorless, radioactive gas that comes from the decay of elements such as uranium, which is found in soil and rock.[186] Radon is in the surrounding air, so it is not possible to completely avoid it. However, preventive measures can be taken to lower exposure, such as utilization of radon detection kits in the home or office.

From 2015-2019, the highest rates of lung cancer incidence were in Putnam, Sullivan, and Ulster Counties (66.6, 65.0, and 64.6 per 100,000 population, respectively), which was higher than New York State but consistent with New York State excluding New York City (57.6 and 65.1 per 100,000 population, respectively) [see Figure 230195].

The Healthy People 2020 goal was to reduce lung cancer mortality to 45.5 deaths per 100,000 population. All of the counties in the Mid-Hudson Region, as well as New York State and New York State excluding New York City, met this target [see Figure 230195].

When stratifying data by race/ethnicity, non-Hispanic Black adults had higher rates of stroke hospitalization compared to other racial/ethnic groups in the majority of the counties in the Mid-Hudson Region, New York State, and New York State excluding New York City. This excludes Putnam County, where Hispanic adults had the highest hospitalization rates [see Figure 196161].

Figure 196

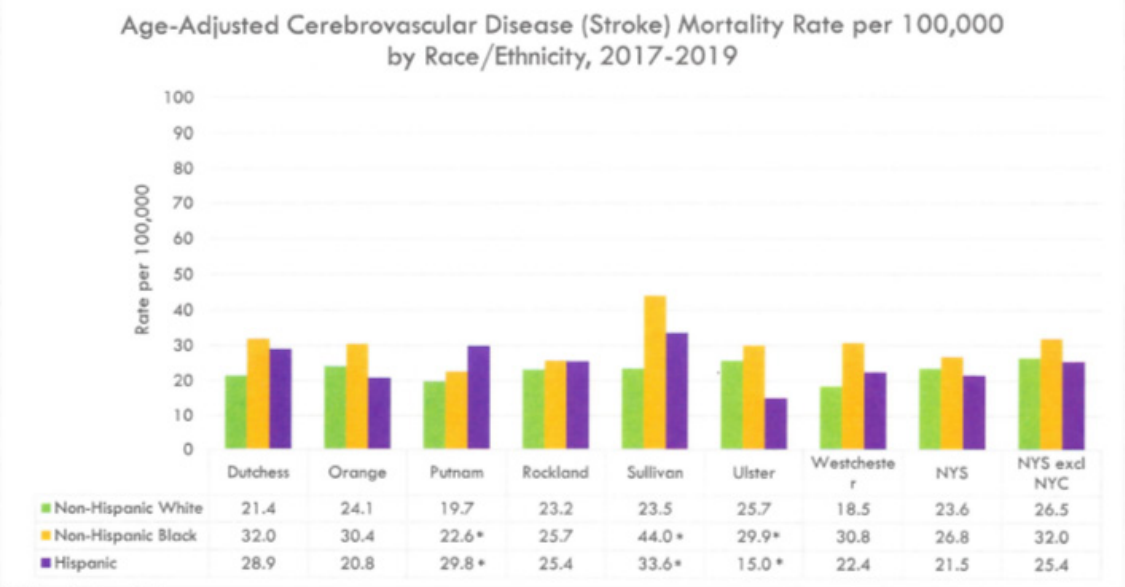


	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS	NYS excl NYC
Non-Hispanic White	17.5	17.7	15.8	13.1	19.6	19.3	13.6	17.1	18.5
Non-Hispanic Black	15.9	27.9	14.3	24.4	28.5	21.5	31.7	28.9	33.9
Hispanic	8.4	16.1	10.7	18.1	20.5	8.6	11.4	16.6	17.9

Note: The 2019 ED data in New York City may be incomplete and subject to change. Thus, the state rate may be underestimated and subject to change.
Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), 2021
https://www.health.ny.gov/statistics/community/minority/county/county_list.htm

When stratifying this data by race/ethnicity, the rates differ among each county. The majority of the counties in the Mid-Hudson Region had a higher rate of non-Hispanic Black adults who died from a stroke. Putnam County is an exception with the Hispanic adult population having a higher rate of stroke mortality, though the rate is statistically unstable [see Figure 199].

Figure 199



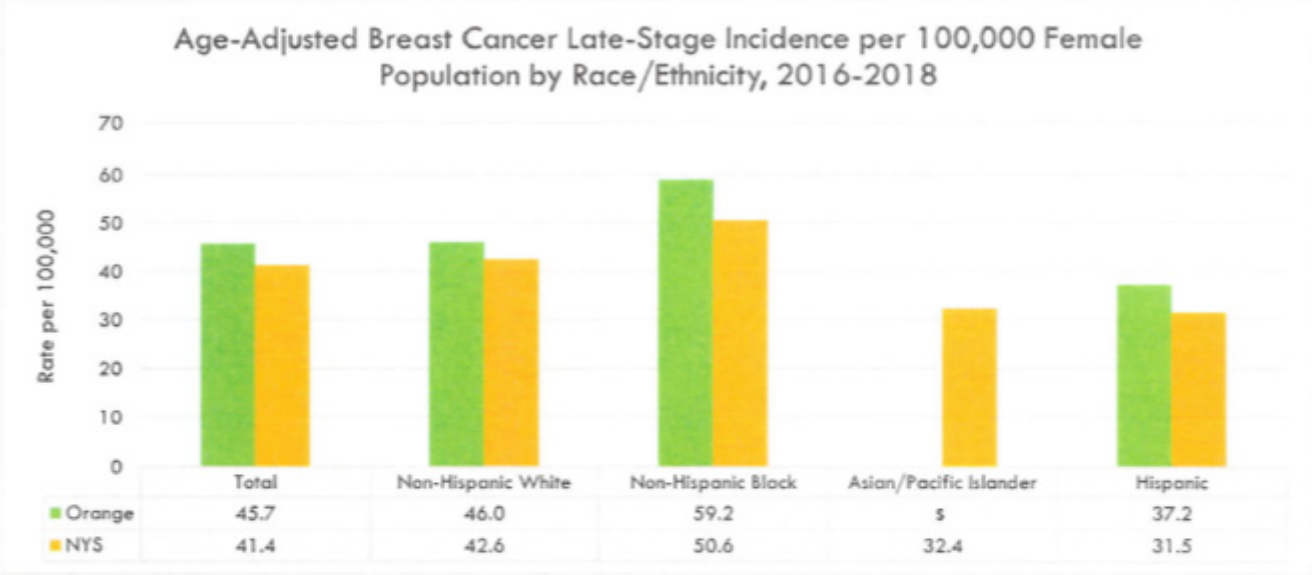
	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS	NYS excl NYC
Non-Hispanic White	21.4	24.1	19.7	23.2	23.5	25.7	18.5	23.6	26.5
Non-Hispanic Black	32.0	30.4	22.6*	25.7	44.0*	29.9*	30.8	26.8	32.0
Hispanic	28.9	20.8	29.8*	25.4	33.6*	15.0*	22.4	21.5	25.4

*: *The rate is unstable.*
Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), 2022
https://www.health.ny.gov/statistics/community/minority/county/county_list.htm

PREVENTABLE HEART FAILURE

Among the counties in the Mid-Hudson Region, potentially preventable heart failure hospitalization rates have only seen marginal variation in recent years—with Dutchess, Rockland, and Ulster counties experiencing slight increases and Orange, Putnam, Sullivan, and Westchester experiencing slight decreases. At the state level, overall slight increases in rates were seen from 2017-2019 [see Figure 200].

Figure 63

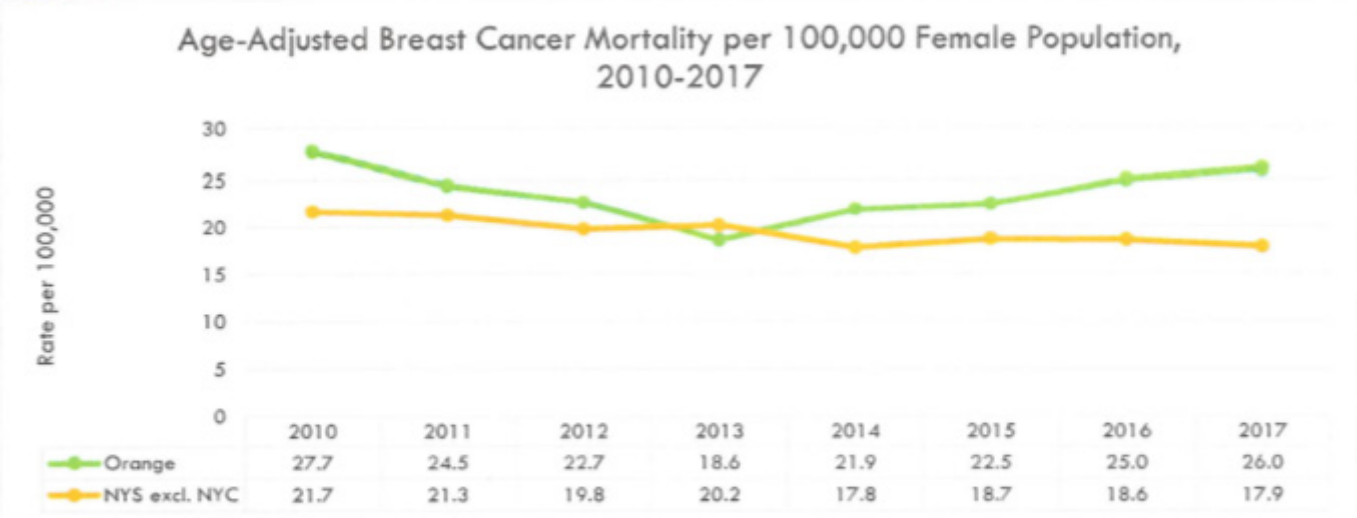


	Total	Non-Hispanic White	Non-Hispanic Black	Asian/Pacific Islander	Hispanic
Orange	45.7	46.0	59.2	s	37.2
NYS	41.4	42.6	50.6	32.4	31.5

s: Data are suppressed. The data do not meet the criteria for confidentiality.
Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Breast cancer mortality (age-adjusted) has been rising in Orange County since 2013 and has surpassed that of NYS, climbing from a rate of 18.6 per 100,000 female population in 2013 to 26.0 in 2017 [see Figure 64. Similar to breast cancer incidence, there are disparities in breast cancer mortality by race/ethnicity. Non-Hispanic Black women face the highest rate of breast cancer mortality, at 50.4 per 100,000 female population, double the rate for non-Hispanic Whites. The Asian/Pacific Islander rate is also disproportionately high at 39.2 per 100,000 [see Figure 65].

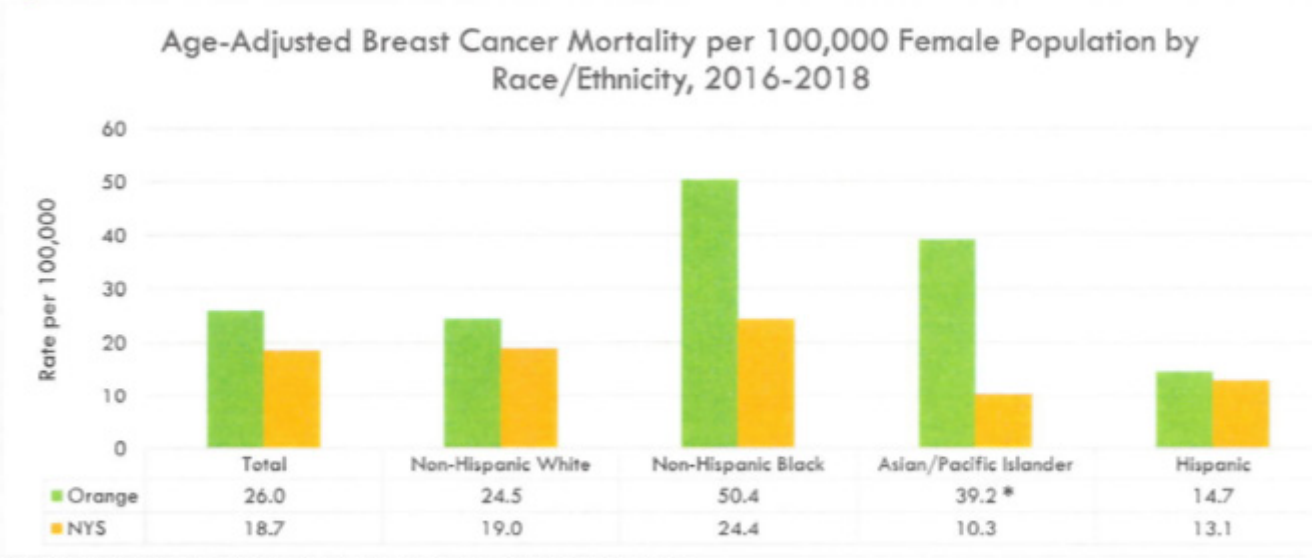
Figure 64



	2010	2011	2012	2013	2014	2015	2016	2017
Orange	27.7	24.5	22.7	18.6	21.9	22.5	25.0	26.0
NYS excl. NYC	21.7	21.3	19.8	20.2	17.8	18.7	18.6	17.9

Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=Ag10a&cos=33#pagetitle
Original Data Source: Cancer Registry Data, Updated as of 2020

Figure 65

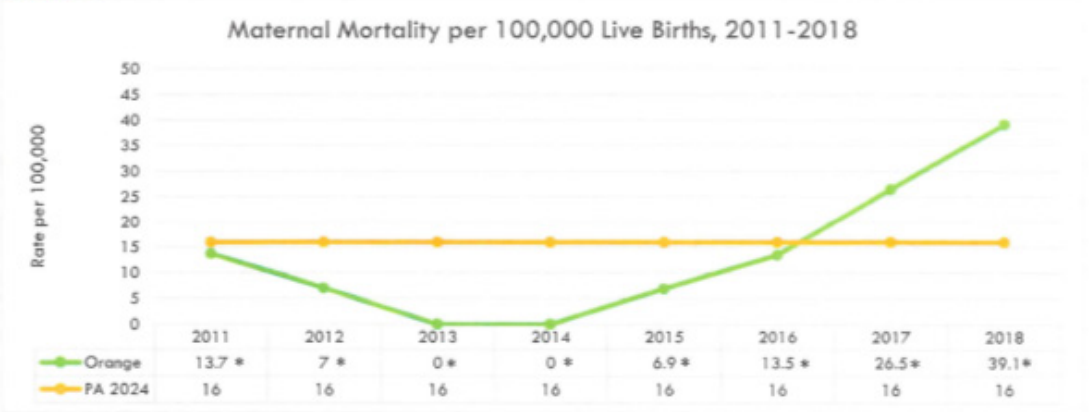


*: *Fewer than 10 events in the numerator, therefore, the rate is unstable.*
Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

MATERNAL HEALTH

Maternal mortality refers to the death of a person while they are pregnant, in delivery, or soon after giving birth. Maternal mortality and morbidity are key indicators of the overall health of a society. In the U.S., maternal mortality rates have doubled in the past decade, and these deaths are plagued with racial and ethnic disparities. In NYS in particular, black women are three times more likely to die from pregnancy-related complications than white women.[26] In Orange County, the rates of maternal mortality have steeply increased from 2014 onward, reaching a rate of 39.1 per 100,000 live births in 2018. This rate far exceeds the PA 2024 goal of 16 per 100,000. [see Figure 75].

Figure 75



* Fewer than 10 events in the numerator, therefore the rate is unstable.
Note: Three-year averages for Orange County are graphed above.
Source: New York State Prevention Agenda 2019-2024 Dashboard, Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/dashboard/pa_dashboard&p=ctr&ind_id=pa53_0%20&cos=33
Original Data Source: Vital Records, Updated as of January 2022

PRENATAL CARE

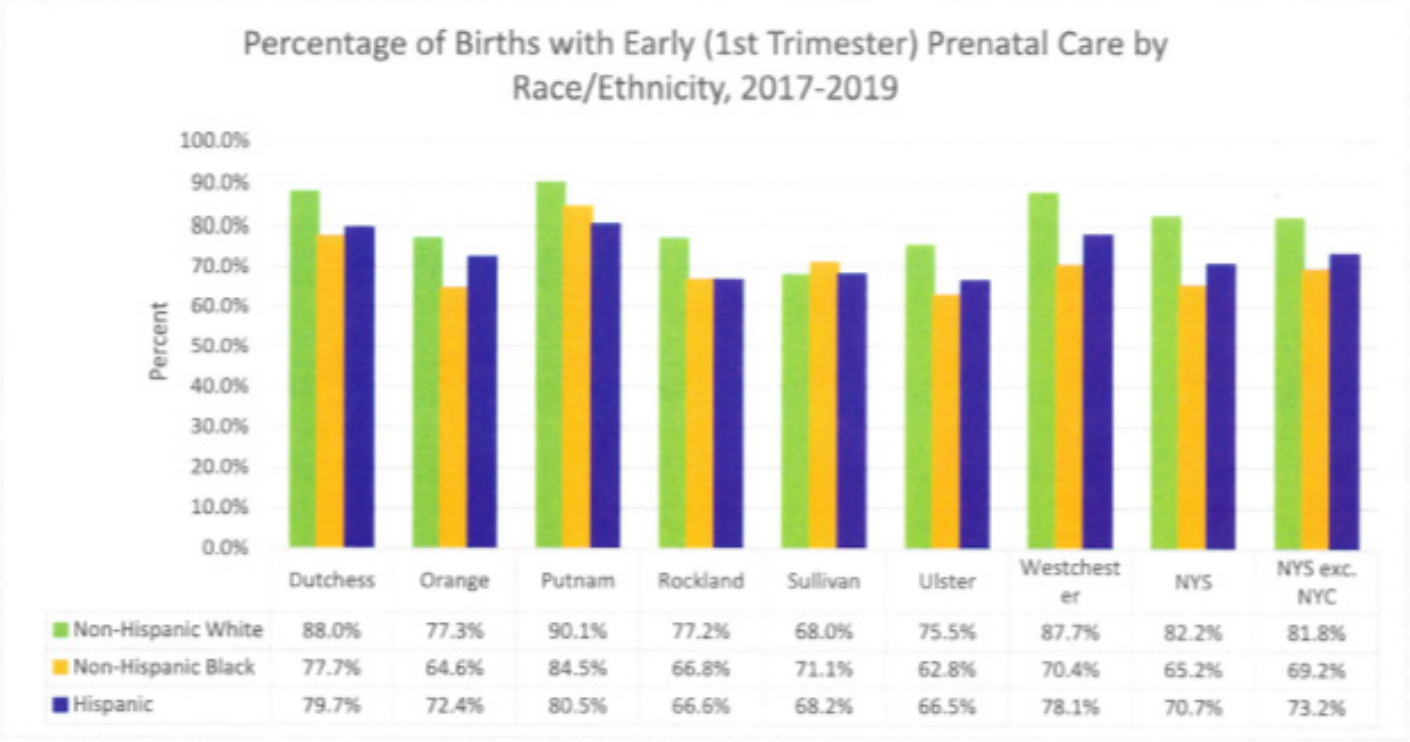
Prenatal care is the health care received from medical providers during pregnancy, including checkups, physicals, and prenatal testing. Getting early and regular prenatal care in the first trimester can help keep mothers and their babies healthy, as it lets medical providers identify and treat health problems early. Of the mothers who do not get prenatal care, their babies are three times more likely to have a low birth weight and five times more likely to die.[27]

From 2016-2019, an average of 69.1% of births in Orange County had early (first trimester) prenatal care. There were disparities in prenatal care by age of the mother, and race/ethnicity. Births given to younger

[26] NYS Taskforce on Maternal Mortality and Disparate Racial Outcomes, March 2019, https://www.health.ny.gov/community/adults/women/task_force_maternal_mortality/docs/maternal_mortality_report.pdf, accessed August 2022
[27] Office on Women's Health, February 2021, https://www.womenshealth.gov/a-z-topics/prenatal-care, accessed July 2022

There are racial and ethnic disparities surrounding prenatal care in the Mid-Hudson Region. Non-Hispanic White women had the highest percentage of early prenatal care in every county. Non-Hispanic Black and Hispanic women had slightly lower percentages of early prenatal care [see Figure 278].

Figure 278



	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	NYS	NYS exc. NYC
Non-Hispanic White	88.0%	77.3%	90.1%	77.2%	68.0%	75.5%	87.7%	82.2%	81.8%
Non-Hispanic Black	77.7%	64.6%	84.5%	66.8%	71.1%	62.8%	70.4%	65.2%	69.2%
Hispanic	79.7%	72.4%	80.5%	66.6%	68.2%	66.5%	78.1%	70.7%	73.2%

Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), 2022
https://www.health.ny.gov/statistics/community/minority/county/county_list.htm

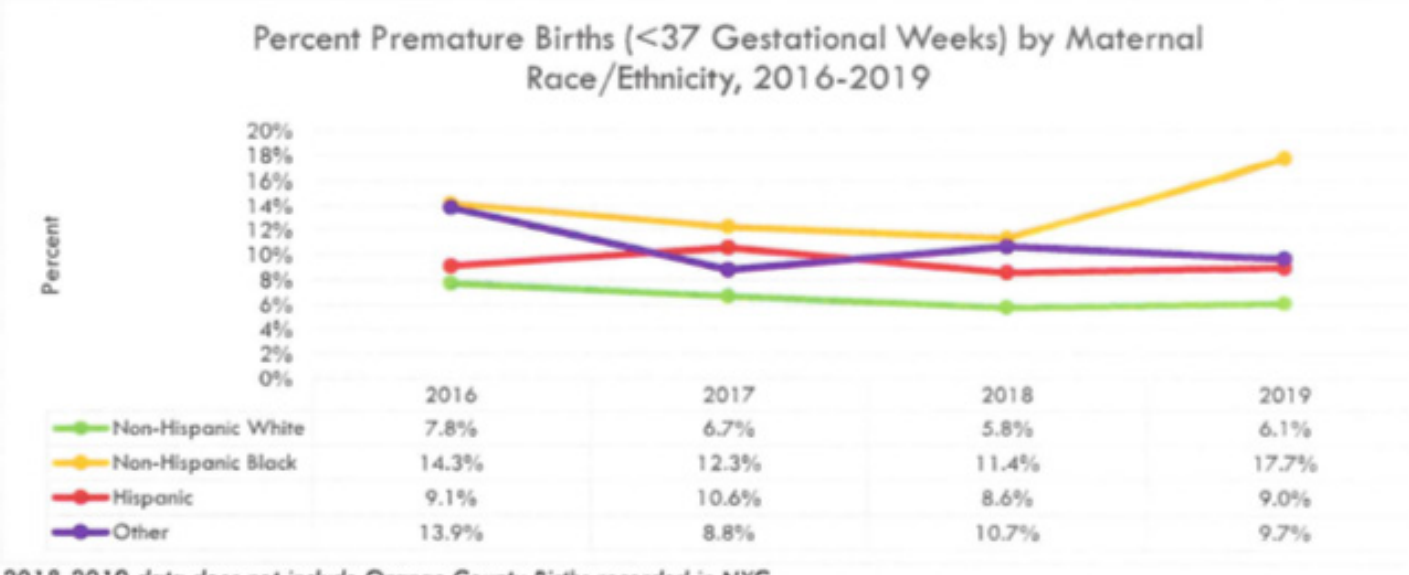
ALL PREGNANCIES BY AGE GROUP

Among women aged 15-44 years, the pregnancy rate in the Mid-Hudson Region was 78.1 per 1,000 females, which was lower than New York State (79.7 per 1,000 females). Rockland County had the highest pregnancy rate (104 per 1,000 females), followed by Sullivan County and Orange County (92.9 and 92.4 per 1,000 females respectively). The lowest pregnancy rate was in Putnam County (55.1 per 1,000 females). [See Figure 279].

Orange	71.1%	72.1%	71.9%	69.3%	65.5%	62.5%	61.5%	63.2%
NYS excl. NYC	75.7%	75.2%	75.8%	75.5%	75.9%	75.7%	76.3%	77.3%

Note: Three-year averages for Orange County and single-year estimates for NYS excl NYC are graphed above.
Source: New York State Community Health Indicator Reports (CHIRS), Updated as of February 2022
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=ctr&ind_id=lb23&cos=33#pagetitle
Original Data Source: Vital Statistics, Updated as of October 2021

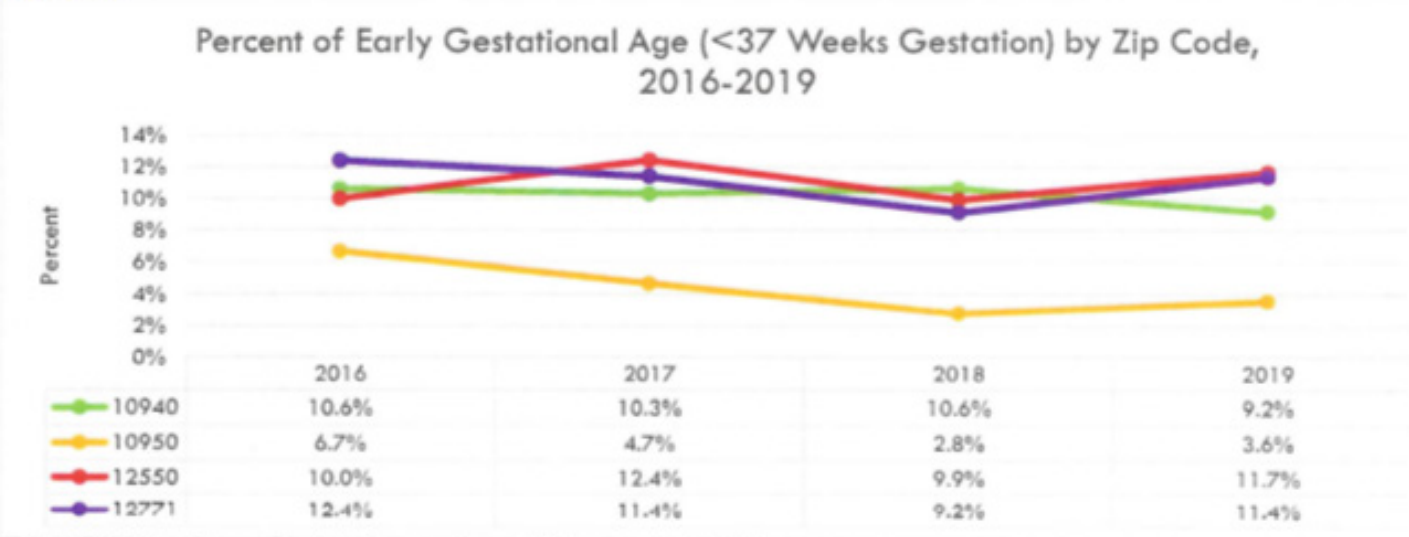
Figure 90



	2016	2017	2018	2019
Non-Hispanic White	7.8%	6.7%	5.8%	6.1%
Non-Hispanic Black	14.3%	12.3%	11.4%	17.7%
Hispanic	9.1%	10.6%	8.6%	9.0%
Other	13.9%	8.8%	10.7%	9.7%

2018-2019 data does not include Orange County Births recorded in NYC
Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics
Created by the School of Public Health, University at Albany, 2021

Figure 91



	2016	2017	2018	2019
10940	10.6%	10.3%	10.6%	9.2%
10950	6.7%	4.7%	2.8%	3.6%
12550	10.0%	12.4%	9.9%	11.7%
12771	12.4%	11.4%	9.2%	11.4%

2018-2019 data does not include Orange County Births recorded in NYC
Source: NYS Department of Health, Bureau of Vital Statistics, Office of Vital Statistics
Created by the School of Public Health, University at Albany, 2021

LOW BIRTHWEIGHT BIRTHS

Low birthweight describes babies born weighing less than 2.5 kg (5 pounds 8 ounces). Over 8% of all births in the U.S. are low birthweight, and this percentage is increasing.[30] This is thought to be a result of an increased

[30] Children's Hospital of Philadelphia, https://www.chop.edu/conditions-diseases/low-birthweight, accessed July 2022

Figure 96

*: *Fewer than 10 events in the numerator, therefore, the rate is unstable.*
Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

Figure 97

Note: Three-year averages for the years 2014-2016 and 2017-2019 are graphed above. Data are not available for 2016-2018.
*: *Fewer than 10 events in the numerator, therefore, the rate is unstable.*
Source: NYSDOH County Health Indicators by Race/Ethnicity (CHIRE), Updated as of March 2022
https://www.health.ny.gov/statistics/community/minority/county/orange.htm

2018-2019 data does not include Orange County Births recorded in NYC
s: Data are suppressed. The data do not meet the criteria for confidentiality
Source: School of Public Health, University at Albany, 2021
Original Source: NYS Department of Health, Bureau of Vital Statistics

Table 36

Top Five Leading Causes of Death in the Mid-Hudson Region Counties and NYS, 2019 (Age-Adjusted Rate per 100,000 Population)

	Total Deaths	#1 Cause of Death	#2 Cause of Death	#3 Cause of Death	#4 Cause of Death	#5 Cause of Death
Dutchess		**Heart Disease**	**Cancer**	**CLRD**	**Unintentional Injury**	**Cerebrovascular Disease**
	No.: 2,573	No.: 665	No.: 533	No.: 134	No.: 133	No.: 95
	Rate: 644.8	Rate: 161.4	Rate: 130.1	Rate: 32.3	Rate: 42.1	Rate: 24.0
Orange		**Heart Disease**	**Cancer**	**Unintentional Injury**	**CLRD**	**Alzheimer's Disease**
	No.: 2,773	No.: 636	No.: 621	No.: 164	No.: 144	No.: 112
	Rate: 675.2	Rate: 154.7	Rate: 145.6	Rate: 43.9	Rate: 34.5	Rate: 28.0
Putnam		**Heart Disease**	**Cancer**	**Unintentional Injury**	**Cerebrovascular Disease**	**CLRD**
	No.: 740	No.: 208	No.: 180	No.: 29	No.: 29	No.: 19
	Rate: 583.2	Rate: 160.7	Rate: 136.7	Rate: 30.3	Rate: 22.5	Rate: 14.6
Rockland		**Heart Disease**	**Cancer**	**Unintentional Injury**	**CLRD**	**Cerebrovascular Disease**
	No.: 2,296	No.: 603	No.: 481	No.: 134	No.: 97	No.: 96
	Rate: 558.2	Rate: 138.9	Rate: 121.6	Rate: 39.1	Rate: 23.8	Rate: 22.9
Sullivan		**Cancer**	**Heart Disease**	**Unintentional Injury**	**CLRD**	**Diabetes**
	No.: 772	No.: 167	No.: 166	No.: 60	No.: 51	No.: 23
	Rate: 790.3	Rate: 156.3	Rate: 164.4	Rate: 75.9	Rate: 48.8	Rate: 20.8
Ulster		**Heart Disease**	**Cancer**	**CLRD**	**Unintentional Injury**	**Cerebrovascular Disease**
	No.: 1,765	No.: 452	No.: 388	No.: 99	No.: 85	No.: 70
	Rate: 684.4	Rate: 166.6	Rate: 149.9	Rate: 36.9	Rate: 44.1	Rate: 26.6
Westchester		**Heart Disease**	**Cancer**	**CLRD**	**Cerebrovascular Disease**	**Unintentional Injury**
	No: 7,244	No.: 1,934	No.: 1,612	No.: 319	No.: 281	No.: 265
	Rate: 524.1	Rate: 132.0	Rate: 121.5	Rate: 22.4	Rate: 19.6	Rate: 24.3
NYS		**Heart Disease**	**Cancer**	**Unintentional Injury**	**CLRD**	**Cerebrovascular Disease**
	No.: 156,405	No.: 43,472	No.: 33,418	No.: 7,308	No.: 7,065	No.: 6,125
	Rate: 622.4	Rate: 167.1	Rate: 133.6	Rate: 33.8	Rate: 27.7	Rate: 23.9
NYS excl NYS		**Heart Disease**	**Cancer**	**CLRD**	**Unintentional Injury**	**Cerebrovascular Disease**
	No.: 102,344	No.: 25,602	No.: 21,782	No.: 5,255	No.: 4,832	No.: 4,225
	Rate: 673.5	Rate: 161.3	Rate: 143.1	Rate: 33.7	Rate: 39.6	Rate: 27.0

Note: Ranks are based on numbers of deaths, then on mortality rates.
Source: NYSDOH Vital Statistics, 2019
https://apps.health.ny.gov/public/tabvis/PHIG_Public/lcd/reports/#state
https://apps.health.ny.gov/public/tabvis/PHIG_Public/lcd/reports/#county

- Need for prioritization from local leaders to address the social determinants of health such as poverty, housing, and transportation and develop strategic opportunities for communities to work together and to build community awareness of these issues.

Figure 141

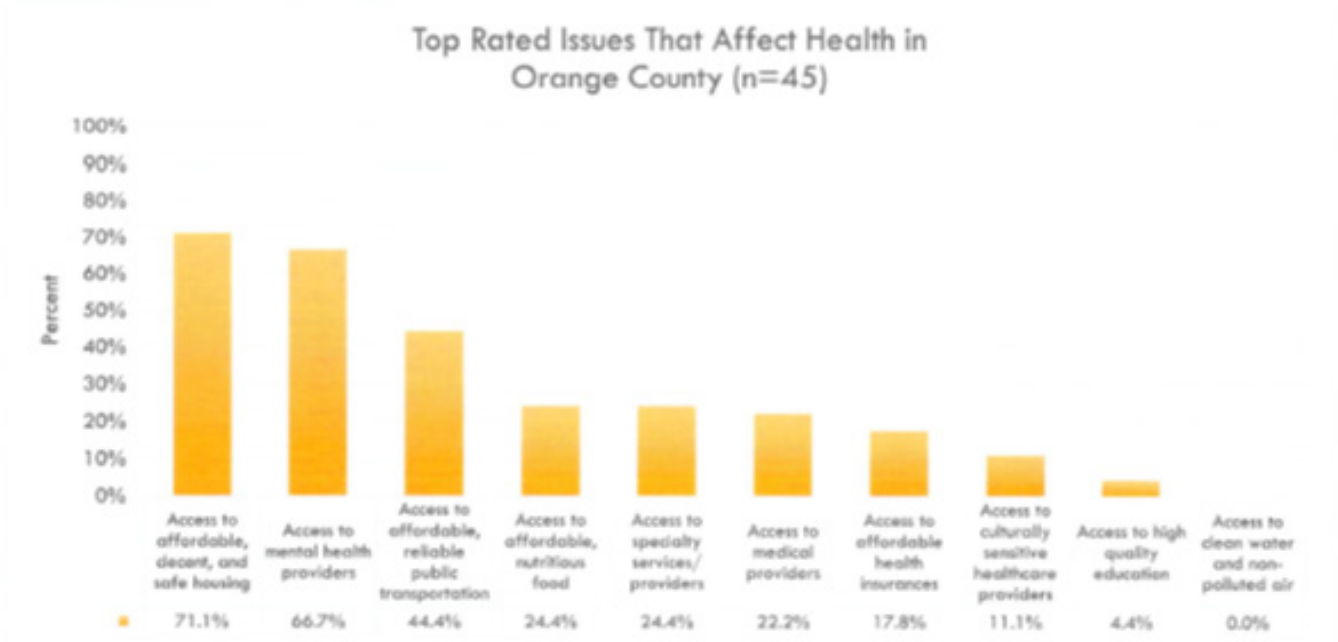
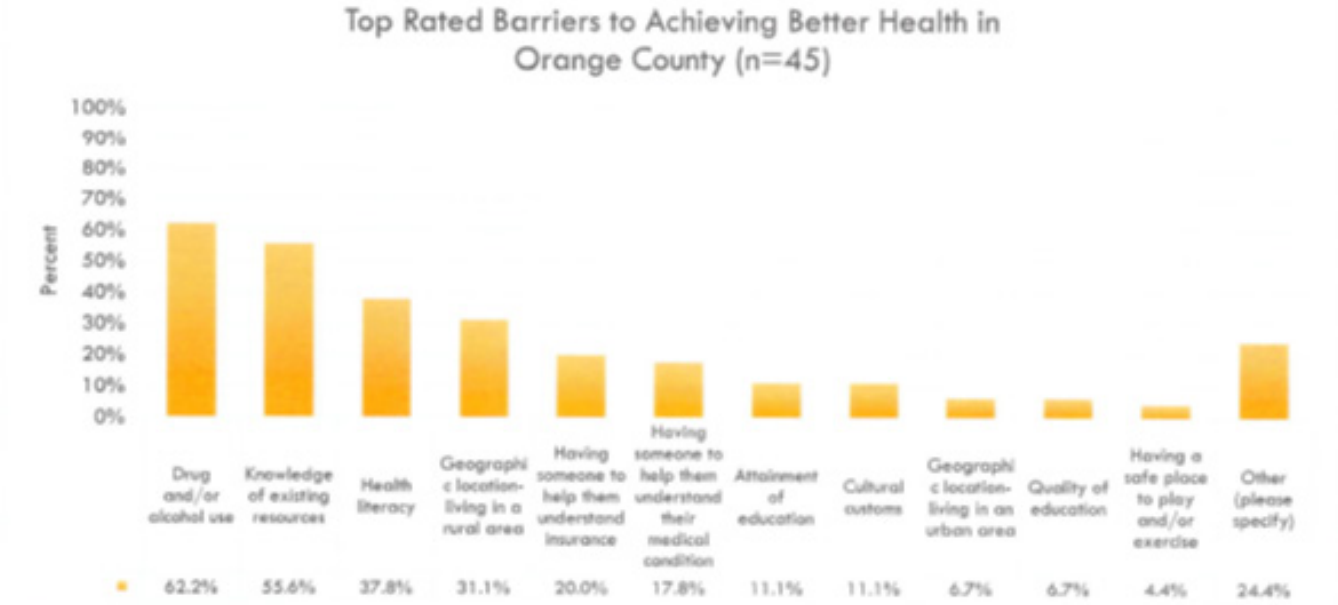
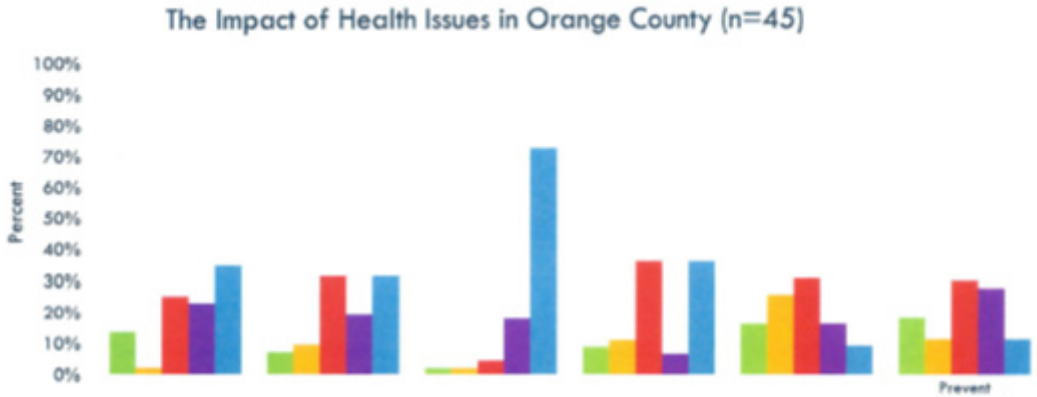


Figure 142



**Other (please specify): Some additional responses from participants include location of services, lack of financial resources, transportation, affordable housing, and service providers not being aware of biases they bring into marginalized communities.*

Figure 143



	Chronic Disease (heart disease, diabetes, asthma, obesity, etc.)	Health Disparities	Mental Health and Substance Use Issues	Maternal and Child Health Issues	Environmental Factors (built environment, air/water quality, injuries, etc.)	Prevent communicable diseases (sexually transmitted infections, hepatitis C, HIV, vaccine preventable diseases, hospital acquired infections, etc.)
1 (very little)	14.0%	7.3%	2.3%	9.1%	16.7%	18.6%
2	2.3%	9.8%	2.3%	11.4%	26.2%	11.6%
3	25.6%	31.7%	4.6%	36.4%	31.0%	30.2%
4	23.3%	19.5%	18.2%	6.8%	16.7%	27.9%
5 (highly impacted)	34.9%	31.7%	72.7%	36.4%	9.5%	11.6%

Implementation Plan

Montefiore St. Luke's Cornwall, in partnership with the Orange County Department of Health and our community partners, will work collaboratively to address the identified Community Health Need. MSLC's implementation strategy is developed in partnership with the following: OC Department of Health, with Bon Secours Hospital, Garnet Health Medical Center, Montefiore St. Luke's Cornwall Hospital, St. Anthony Community Hospital, and with the support of almost 100 other community organizations. The collective efforts are spearheaded by the Orange County Department of Health, with quarterly date recopied

The New York State Public Health and Health Planning Council's Ad Hoc Committee to Lead the Prevention Agenda created the Prevention Agenda Health Improvement Plan for 2019-2024. The Prevention Agenda establishes priority areas, goals for each priority area and defines indicators to measure progress toward achieving these goals, including reductions in health disparities among racial, ethnic, and socioeconomic groups and persons with disabilities. The five Prevention Agenda priority areas are:

- Prevent Chronic Diseases
- Promote a Healthy and Safe Environment
- Promote Healthy Women, Infants, and Children
- Promote Well-Being and Prevent Mental Health and Substance Use Disorders
- Prevent Communicable Diseases

As part of the required update to the CHIP, NYSDOH requires all health departments and hospitals to choose two priority areas and address at least one health disparity in their communities. To make significant strides towards improving the health of county residents, the priority areas, goals, and strategies are chosen collaboratively between OCDOH, Montefiore St. Luke's Cornwall, Bon Secours Hospital, Garnet Health Medical Center, and St. Anthony Community Hospital.

Orange County utilized a modified Mobilizing for Action through Planning and Partnerships (MAPP) strategic planning process with community partners and residents to determine the CHIP priorities. The MAPP process uses four unique assessments to determine community priorities: Community Themes and Strengths, Community Health Status, Forces of Change, and Local Public Health System Assessment. Orange County conducted three of the four assessments and will complete a comprehensive Local Public Health System Assessment in the future.

MSLC among many other community partners were engaged in several assessments and strategic planning activities. The Orange County Health Summit was held on June 28th, 2022 with approximately 100 partners including hospitals, health care providers, community-based organizations, and academia to review the most the current state of health in Orange County; identify and discuss the forces that impact the health of residents; provide input on the next two Prevention Agenda Priorities for the 2022-2024 CHIP; and participate in breakout groups to discuss current efforts, assets, and barriers in each of the five priority areas. This year's theme "A Collaborative Approach to Community Health Planning" emphasized the need to engage all segments of the community to improve health outcomes together.

An overview of the most recently available data was provided to participants covering:

- Secondary data in each of the five NYSDOH Prevention Agenda areas
- Preliminary findings of the Community Asset Survey
- Data from the 2022 Provider Survey and focus groups with local human service providers
- Health rankings utilizing the Modified Hanlon Method which utilizes objective data measures to prioritize health problems

A provider survey and subsequent focus groups were conducted in May and June 2022, in partnership with the Joint Membership of Health and Community Agencies (JMHCA) and Changing the Addition Treatment Ecosystem, to collect data on underrepresented populations, including low-income, veterans, persons experiencing homelessness, the aging population, LGBTQ community, and people with a mental health diagnosis or those with a substance use disorder. Community engagement participation was completed though the Community Asset Survey, Priority Rock Voting, Listening Sessions, and the Mid-Hudson Regional Community Health Survey. The Mid-Hudson Regional Community Health Survey and Larger Health Assessment were completed in conjunction with the six other Mid-Hudson County Health Departments and area hospitals in 2022. Priority areas were then selected utilizing data from the Regional and Community Health Status Assessments, Orange County Health Summit participant selections, and results from the aforementioned community survey tools.

The two overarching priority areas chosen were **Prevent Chronic Disease** and **Promote Well-Being and Prevent Mental Health and Substance Use Disorders.** Within each of the priorities' strategic plan, the reduction of health disparities will be addressed through the concentration of efforts in areas of the largest economic needs and in areas with minority majorities. Additional upstream contributors to the priority areas will also be addressed such as health insurance access, transportation barriers, increased connection with primary care providers, food instability, and advocacy around affordable housing.

Within the priority area of **Prevent Chronic Disease**, the following focus areas and goals were chosen (*numbers corresponding to the New York State Prevention Agenda)*:

Focus Area 1: Healthy Eating and Food Security
Goal 1.1 Increase access to healthy and affordable foods and beverages

Goal 1.3 Increase food security

**MSLC will specifically focus on Goal 1.3 only, while the Orange County Department of Health and other community partners will address 1.1 additionally.

GOAL 1.3: Increase Food Security
OBJECTIVE #1: By December 31, 2024, decrease the percentage of adults who are unable to get food when they really need it by 10% from 12% to 10.8%.

OBJECTIVE #2: By December 31, 2024, decrease the percentage of adults who make less than $25,000 who are unable to get food when they really need it by 10% from 27% to 24.3%.

(Date Source: Mid-Hudson Regional Health Survey, 2022)

DISPARITIES ADDRESSED: Persons with low SES, targeting communities with minority majority populations

Identified Available Hospital Resources: MSLC will continue to screen for food insecurity as part of our intake process. The is done in both the Emergency Department and again by Case Management upon discharge. Our team will work to connect those who screen positively for food insecurity with available community resources.

Identified Available Community Resources: MSLC will follow the guidance provided by the Orange County department of Health in addition to the following: CCE, Cornerstone, WIC programs, Orange County Office for the Aging (OFA), Orange County Department of Social Services (DSS), Sun River Health, SNAP-Ed New York

Focus Area 4: Preventative Care and Management
Goal 4.1 Increase cancer screening rates for breast, cervical and colorectal cancer

OBJECTIVE #1: By December 31, 2024, increase the percentage of adults receiving breast cancer, cervical, and colorectal cancer screenings based on the most recent screening guidelines for Breast Cancer Screening by 5% from 78.8% to 82.7%; for Cervical Cancer Screening by 5% from 88.8% to 93.2% and for Colorectal Cancer Screening by 5% from 61.7% to 64.8%.

(Data source: NYS Behavioral Risk Factor Surveillance Survey, 2018)

DISPARITIES ADDRESSED: Persons with low SES and targeting communities with minority majority populations

Identified Available Hospital Resources: MSLC will work collaboratively with members of our Oncology Leadership, Primary Care physicians employed by the Medical Group at Montefiore St. Luke's Cornwall to increase access to cancer screenings, using Primary Care as a gateway to connecting patients with available options. MSLC will also offer consistent community education on prevention and the importance of early
Detection.

Identified Available Community Resources: MSLC will work with our community partners including the Orange County Department of Health, : OCDOH, Chamber of Commerce Health Means Business Committee, Hudson Valley Cancer Services

Additionally, the MSLC team of clinical educators will also partner with community based organization including faith based organizations, the Newburgh Armory Unity Center, and many others to reach the populations identified in the 2022-2024 Community Health Needs Assessment- specifically the African American Population in Orange County.

Within the priority area of **Promote Well-Being and Prevent Mental Health and Substance Use Disorders**, the following focus areas and goals were chosen *(numbers corresponding to the New York State Prevention Agenda)*:

Focus Area 2: Mental and Substance Use Disorders Prevention
Goal 2.2. Prevent Opioid and other Substance Misuse and Deaths

MSLC will take a lead role on the implementation efforts of this goal

OBJECTIVE #1: By December 31, 2024, reduce the age-adjusted overdose death involving any opioid by 7% from 22.5 to 20.9 per 100,000 population.

Date source: NYSDOH Vital Statistics, 2019

DISPARITIES ADDRESSED: Targeting communities with minority majority populations

Identified Available Hospital Resources: This focus area will be co-led by Kathy Sheehan, Assistant Vice President of Patient Care Services and Assistant Chief Nursing Officer and members of Ms. Sheehan's team. MSLC will continue our efforts relating to the ongoing Medication Assisted Treatment Program offered both on the inpatient and outpatient side (via the Emergency Department) and will continue to connect patients with available community resources.

Identified Available Community Resources: MSLC will work collaboratively to connect patients to the Orange County Department of Mental Health, OCDOH, HEALing Communities Steering Committee, Changing the Addiction Treatment Ecosystem Taskforce

Please refer to the below workplan for the collaborative Community Health Improvement Plan developed in partnership with the Orange County Department of Health and our community partners.

CHRONIC DISEASE PRIORITY AREA LEADERS

Focus Area 1: Healthy Eating and Food Security

Meg Oakes, Orange County Department of Health
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Christina Torres, Orange County Department of Health
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ctorres@orangecountygov.com

Mary Decker, Bon Secours Community Hospital
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Focus Area 4: Preventative Care and Management

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Ava Marsich, Orange County Department of Health
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Moira Mencher, Orange County Department of Health
845-333-2632
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PROMOTE WELL-BEING AND PREVENT MENTAL HEALTH AND SUBSTANCE USE DISORDERS

Focus Area 2: Opioid and Other Substance Use Prevention

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Jackie Lawler, Orange County Department of Health
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Kathy Sheehan, Montefiore St. Luke's Cornwall
845-568-2694
ksheehan@montefioreslc.org

Montefiore St. Luke's Cornwall Board of Trustees Approval (Governing Board): The MSLC Governing Board Adopted this Plan on Wednesday, November 30, 2022

Date Report is Made Available to the Public:

The 2022 Community Health Assessment will be submitted on December 30, 2022, and will be posted on the hospital's website: www.Montefioreslc.org/community/. Additionally, copies will be readily available at the Main Information Desk of both the Newburgh and Cornwall campuses.