Town of LeRay

Health Equity Report

Town of LeRay

Jefferson County
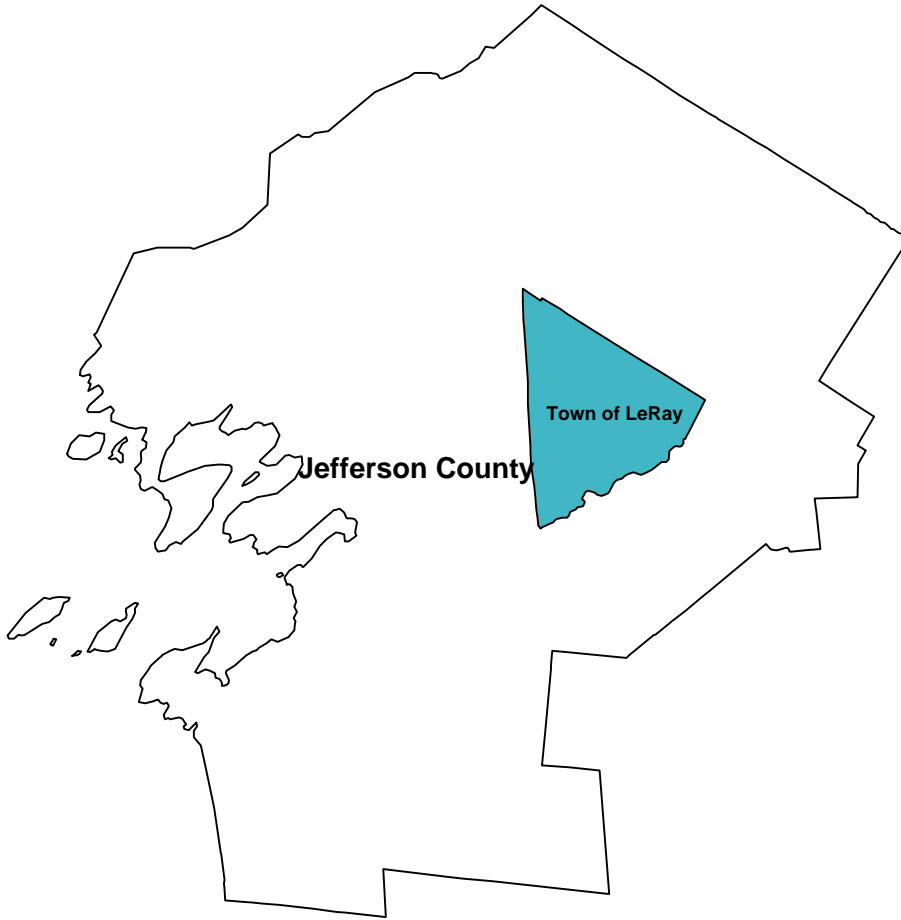
New York State Department of Health

April 2021

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Introduction

New York State is extremely diverse - from the perspectives of culture, history, language, geography, economy, to name a few. Taking into consideration the diversity of health needs across the state, the New York State Department of Health (the Department) is dedicated to improving the health of all New Yorkers. This is evident in the Prevention Agenda which is New York State's health improvement plan, the blueprint for state and local actions to improve the health and well-being of all New Yorkers, and to promote health equity in all populations who experience disparities.[1]

According to the 2010 U.S. Census, approximately 36 percent of the U.S. population belongs to a racial or ethnic minority group (non-White). Though health indicators such as life expectancy and infant mortality have improved for most Americans, some minorities experience a disproportionate burden of preventable disease, death, and disability compared with non-minorities. [2] Literature indicates that communities with a high concentration of minority populations, are poorer, rely on government assistance, and have a higher incidence of sexually transmitted diseases (STDs), chronic diseases, and injuries.[3]

The Kelly 2015 Report on Health Disparities indicates that, nationally, minorities experience higher rates of infant mortality, HIV/AIDS, and cardiovascular disease than Whites, as well as substantial differences in disease incidence, severity, progression, and response to treatment.[4]

Eliminating disparities in health and health care among racial, ethnic, and other underserved populations and ensuring the best possible health outcomes for all New Yorkers, is a central objective for New York State. Underscoring this effort, Title 2-F of Article 2 of the Public Health Law (PHL) requires the Department to issue a report on the health status of racial and ethnic populations in Minority Areas, defined in Public Health Law Section 240(1), as a county with a non-White population of 40 percent or more (Minority Area).

This Health Equity Report provides data on health-related indicators from 2015 to 2018 to assess the extent of health disparities in Minority Areas. This report also provides a comprehensive picture of the population health status for thirty-three (33) Minor Civil Divisions (MCDs), smaller areas than counties that meet the definition of Minority Areas, as well as four boroughs of New York City that also meet the Minority Area definition. This level of data will assist with focused health planning, and better measurement of health outcomes and policy impacts.

The increasing diversity of New York State's population brings opportunities and challenges for public health and health care providers, government agencies and policy makers. The U.S. Census Bureau reports in 2018, approximately 44.2 percent of New York State's population were non-Whites.

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[1] **New York State Department of Health, Prevention Agenda 2019-24. New York State's Health Improvement Plan: https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/**
[2] **Centers for Disease Control and Prevention, Minority Health. https://www.cdc.gov/minorityhealth/index.html**
[3] **Centers for Disease Control and Prevention, CDC Health Disparities and Inequalities Report-United States, 2011. MMWR Morb and Mortal Wkly Rep. 2011;60(Suppl).**
[4] **2015 Kelly Report, Health Disparities in America, Washington, D.C.**

Hispanics represented 18.8 percent of the population followed by Black non-Hispanics with 14.3 percent, and Asians with 8.2 percent. Approximately 2 percent were of two or more races, while American Indians, Native Hawaiians and other races represented 1 percent.[5] The New York State population is projected to become increasingly diverse; by 2025, Asians will see the largest growth rate with a 208.2 percent increase, followed by Hispanics with a 150.1 percent growth rate, and the Black population with a 53.3 percent growth rate.[6]

Knowledge of, and data on, the racial and ethnic composition, the health status, and the changing health care needs of different populations is vital to supporting the essential functions of and achieving the objectives of New York State's health care delivery system. Further, the Patient Protection and Affordable Care Act promotes the collection and reporting of racial, ethnic and language data as an important element in understanding and fighting health disparities.[7]

The federal Agency for Healthcare Research and Quality, which has assessed the nation's health system annually since 2003, reported that, in 2018, the health care delivery system has made progress to achieve the three aims of better care, smarter spending, and healthier people. However, disparities persist by race and socioeconomic status.[8]

The Department continues to make investments that have helped improve several indicators of health.[9] Many of the advancements come from improvements in the quality and efficiency of care and patient outcomes; expanded access to primary health care; increased access to health insurance coverage; improved data collection and research; and the engagement of community residents in problem identification, priority setting, and the design of interventions focused on advancing health equity.

The 2017 Health Equity report has been shared with the Minority Areas in New York State, some of which in turn have utilized the data for grant writing opportunities and to stratify health conditions by race and ethnicity to showcase disparities and need. The 2017 Health Equity report has been included in community outreach activities and events for immediate dissemination to community partners. Data-related information supports the community's ability to focus on securing resources to these areas. When participating in community events, it provides the Office of Minority Health and Health Disparities Prevention (OMH-HDP) an opportunity to engage the participants by providing information about health trends among minority populations. Inquiring about demographic information encourages members to provide this important data, the collection of which is mutually beneficial to all who are endeavored to support healthy outcomes and address inequities. The community voice is not represented only by data. It is represented in the programs and initiatives funded by the OMH-HDP in response to awareness of the disparities identified by the community.

Another opportunity to provide this resource is via the Minority Area Research Project which focuses on the dissemination of the Health Equity reports and the Minority Area map to community-based organizations (CBOs) located in identified Minority Areas to promote awareness of the resources and engage agencies in conversations. The reports help both the OMH-HDP and CBOs to assess health disparities among racial and ethnic minority populations, focus efforts to increase capacity to address Prevention Agenda priority areas, and target community engagement. However, efforts remain to not only promote health equity, but to also achieve racial health equity and further address the elimination of health and racial disparities.

[5] **U.S. Census Bureau, American Community Survey, Population by Race and Hispanic Origin, New York State, 2018. Table: B03002**
[6] **New York State Office for the Aging, Demographic Changes in New York State. http://www.geo.hunter.cuny.edu/courses/geog260/DemographicChangesinNewYorkState.pdf**
[7] **USDHHS, Key Features of the Affordable Act by Year, Improving Quality and Lowering Costs, Understanding and Fighting Health Disparities, March 2012**
[8] **2018 National Healthcare Quality and Disparities Report. Content last reviewed May 2019. Agency for Healthcare Research and Quality, Rockville, MD. https://www.ahrq.gov/research/findings/nhqrdr/nhqdr18/index.html**
[9] **New York State Department of Health, Prevention Agenda 2019-2024 Dashboard. https://health.ny.gov/preventionagendadashboard**

To reach the goal of making New York the healthiest state in the nation, the Prevention Agenda aims to prevent chronic diseases; promote a healthy and safe environment; promote the health of women, infants and children; promote mental health and prevent substance abuse; and prevent HIV, sexually transmitted diseases, vaccine-preventable diseases and healthcare-associated infections. The Prevention Agenda's interventions aim to reduce or eliminate racial, ethnic, and socioeconomic health disparities that affect these priorities. Many indicators in this report are being used to measure progress toward achieving the Prevention Agenda goals. To this end, the Department has integrated health disparities prevention strategies into the State's public health and health care programs.

Using U.S. Census data, this report presents the geographic distribution of the non-White population by census block groups in each MCD. Using American Community Survey data, this report also includes a demographic snapshot highlighting education levels, poverty, race/ethnicity distribution, health insurance status and several other indicators that allow for comparison to the MCD's county, and New York State as a whole. In addition, 32 health measures are presented. Indicators are organized in blocks that correspond to their Prevention Agenda priority, and include data on deaths, births, hospitalizations for injuries, hospitalizations for chronic diseases, preventable hospitalizations, cancer diagnoses, HIV and STD cases, and suicide.

Other data resources for neighborhoods and communities below the county level should be reviewed in conjunction with this report, including:

• The New York State Prevention Agenda 2019-2024 tracking dashboard, which measures progress on 99 statewide and 70 county health outcome indicators, including reductions in health disparities. From the county-level dashboard, sub-county level data can be accessed for a subset of 6 tracking indicators at ZIP code or school district levels, or New York City community districts and MCDs outside New York City.

• The New York City Community Health Profiles[10] provide comprehensive health reports of 59 community districts in New York City. These profiles include data and information on major health outcomes and factors that contribute to these outcomes such as housing quality, air quality, and type of food accessible.

The ultimate goal of this Health Equity report is to contribute to the quality, integrity and granularity of health outcome data. The data provides the metrics to potentially identify disparities and their consequences and may serve as a resource to communities and policymakers in identifying potential areas to target health-related interventions.

[10] Hinterland K, Naidoo M, King L, Lewin V, Myerson G, Noumbissi B, Woodward M, Gould LH, Gwynn RC, Barbot O, Bassett MT. Community Health Profiles 2018. http://www1.nyc.gov/site/doh/data/data-publications/profiles.page

Town of LeRay

Minority population distribution map by census block group, 2014-2018
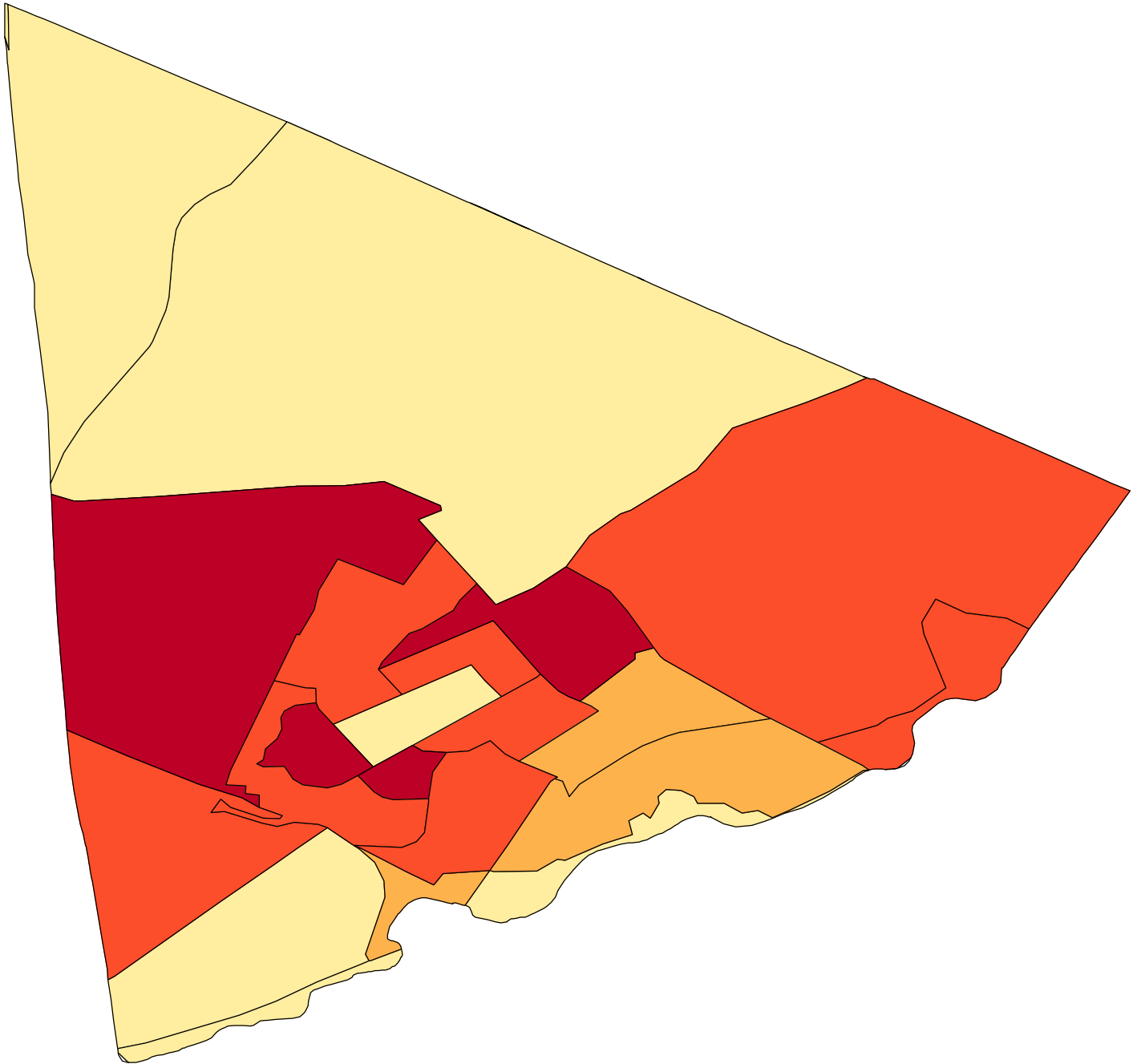
Percentage minority population
by block group

- Less than 20%
- 20% -< 30%
- 30% -< 40%
- 40% or greater

*Minority population is defined as non-White.

Population Demographics

Table 1. Demographic characteristics* of the Town of LeRay, Jefferson County and New York State, 2014-2018

Population Characteristic	Town of LeRay	Jefferson County	New York State
Population, Age and Sex			
Total population	21,665 (21,660 - 21,670)	114,448 (114,448 - 114,448)	19,618,453 (19,618,453 - 19,618,453)
Percentage female	39.7 (38.2 - 41.2)	47.6 (47.5 - 47.7)	51.5 (51.4 - 51.6)
Percentage male	60.3 (58.8 - 61.8)	52.4 (52.3 - 52.5)	48.5 (48.4 - 48.6)
Percentage of total population less than 5 years old	13.3 (12.0 - 14.6)	7.9 (7.8 - 8.0)	5.9 (5.8 - 6.0)
Percentage of total population 5 to 19 years old	19.5 (19.1 - 19.9)	18.9 (18.7 - 19.1)	17.7 (17.6 - 17.8)
Percentage of total population 20 to 64 years old	65.3 (65.2 - 65.4)	60.4 (60.3 - 60.5)	60.6 (60.5 - 60.7)
Percentage of total population 65+ years old	2.0 (1.5 - 2.5)	12.8 (12.7 - 12.9)	15.6 (15.5 - 15.7)
Race and Ethnicity			
Percentage minority	43.4 (40.7 - 46.1)	18.2 (18.1 - 18.3)	44.1 (44.0 - 44.2)
Percentage White	56.6 (53.9 - 59.3)	81.8 (81.7 - 81.9)	55.9 (55.8 - 56.0)
Percentage Black	13.5 (11.5 - 15.5)	5.6 (5.3 - 5.9)	14.3 (14.2 - 14.4)
Percentage Hispanic	19.3 (18.3 - 20.3)	7.4 (7.4 - 7.4)	18.9 (18.9 - 18.9)
Percentage Asian	4.6 (3.7 - 5.5)	1.8 (1.6 - 2.0)	8.2 (8.1 - 8.3)
Percentage Native American	0.5 (0.2 - 0.8)	0.4 (0.3 - 0.5)	0.2 (0.1 - 0.3)
Percentage other	5.5 (4.6 - 6.4)	3.0 (2.8 - 3.2)	2.5 (2.4 - 2.6)
Educational Attainment of Adults 18-25			
Percentage less than high school	2.1 (1.0 - 3.2)	8.1 (6.5 - 9.7)	11.7 (11.5 - 11.9)
Percentage high school	55.3 (51.2 - 59.4)	47.2 (44.6 - 49.8)	26.3 (26.1 - 26.5)
Percentage some college & associates degree	38.7 (34.6 - 42.8)	37.8 (35.3 - 40.3)	45.8 (45.5 - 46.1)
Percentage with a bachelor's degree	3.8 (2.5 - 5.1)	6.8 (5.4 - 8.2)	16.2 (16.0 - 16.4)
Income and Poverty			
Median household annual income ($)	51,604 (49,547 - 53,661)	52,268 (50,740 - 53,796)	65,323 (65,053 - 65,593)

*: A point estimate is presented for demographic characteristics in each geographic level with a 95% confidence interval. Source: American Community Survey, 2014-2018.

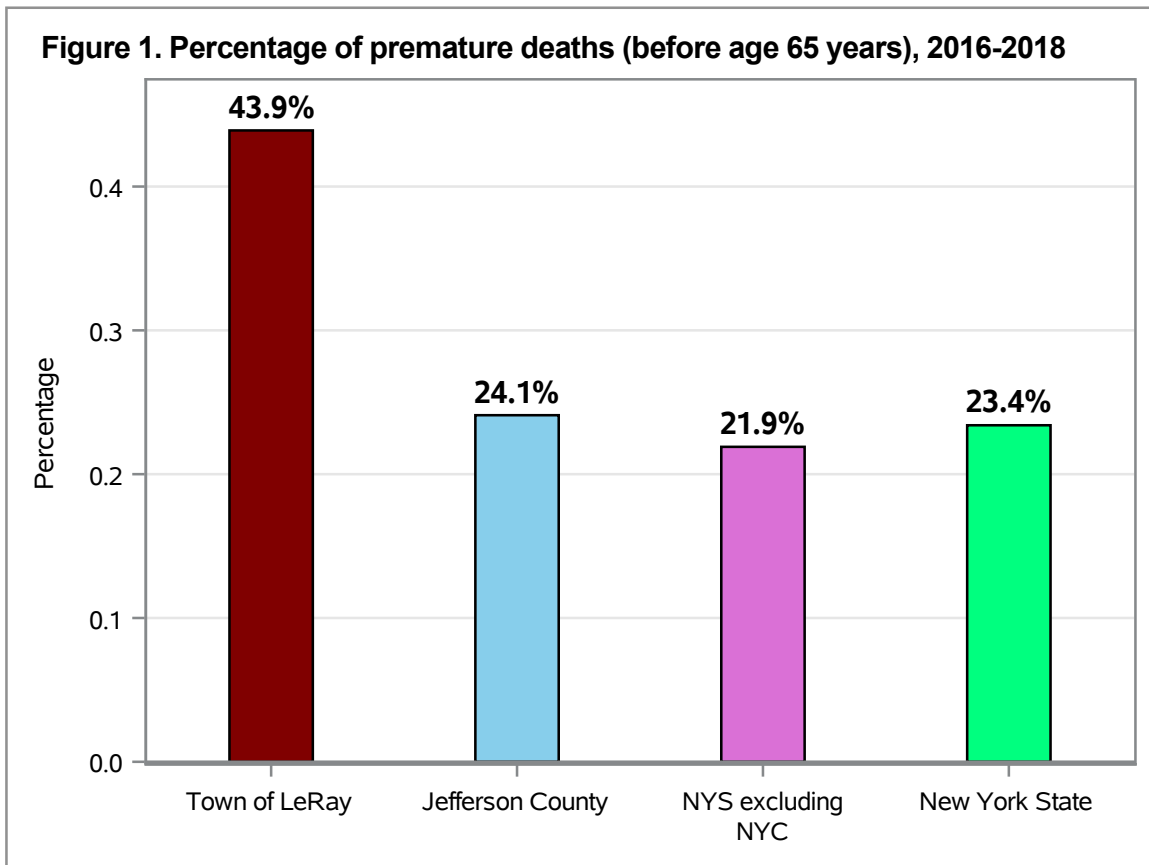| Population Characteristic	Town of LeRay	Jefferson County	New York State
Percentage unemployed	7.7 (5.6 - 9.8)	6.5 (5.9 - 7.1)	6.0 (5.9 - 6.1)
Percentage under poverty	6.8 (4.4 - 9.2)	9.9 (8.7 - 11.1)	10.9 (10.8 - 11.0)
Percentage of household on food stamps	7.4 (5.0 - 9.8)	16.1 (15.1 - 17.1)	15.0 (14.9 - 15.1)
Percentage of household receiving public income	0.8 (0.0 - 1.6)	3.1 (2.6 - 3.6)	3.4 (3.3 - 3.5)
Housing Characteristics			
Percentage of housing units built before 1940	7.1 (5.4 - 8.8)	33.7 (32.6 - 34.8)	32.2 (32.1 - 32.3)
Median specified house value ($)	172,300 (159,891 - 184,709)	149,500 (145,415 - 153,585)	302,200 (301,235 - 303,165)
Percentage of occupied housing units which are owner occupied	18.1 (15.7 - 20.5)	55.7 (54.6 - 56.8)	53.9 (53.7 - 54.1)
Median gross rent ($)	1,351 (1,318 - 1,384)	979 (954 - 1,004)	1,240 (1,237 - 1,243)
Health Insurance Status			
Percentage no health insurance	4.6 (2.7 - 6.5)	6.0 (5.1 - 6.9)	6.5 (6.4 - 6.6)
Percentage Medicaid insurance	19.6 (16.3 - 22.9)	39.9 (38.5 - 41.3)	38.6 (38.5 - 38.7)
Disability Status			
Percentage of total population 18 to 64 years old with disability	17.6 (16.5 - 18.7)	25.0 (24.2 - 25.8)	16.2 (16.1 - 16.3)
Percentage of total population 18 to 64 years old with cognitive difficulty	3.2 (1.8 - 4.6)	5.8 (5.1 - 6.5)	3.6 (3.5 - 3.7)
Percentage of total population 18 to 64 years old with ambulatory difficulty	2.2 (1.4 - 3.0)	5.6 (5.0 - 6.2)	4.3 (4.2 - 4.4)
Percentage of total population 18 to 64 years old with vision difficulty	1.9 (0.5 - 3.3)	2.3 (1.9 - 2.7)	1.6 (1.5 - 1.7)
Percentage of total population 18 to 64 years old with hearing difficulty	2.1 (1.1 - 3.1)	3.5 (3.1 - 3.9)	1.5 (1.4 - 1.6)
Language Access			
Percentage of total population 5+ years old that speaks English less than 'very well'	3.1 (2.1 - 4.1)	1.9 (1.6 - 2.2)	13.4 (13.3 - 13.5)

*: A point estimate is presented for demographic characteristics in each geographic level with a 95% confidence interval. Source: American Community Survey, 2014-2018.

Improve Health Status and Reduce Health Disparities

Figure 1. Percentage of premature deaths (before age 65 years), 2016-2018

	Town of LeRay			Jefferson County	NYS excluding NYC	New York State
Indicator	**Numerator**	**Denominator**	**Percent**	**Percent**	**Percent**	**Percent**
Percentage of premature deaths (before age 65 years)	65	148	43.9	24.1	21.9	23.4

Table 2. Percentage of premature deaths (before age 65 years), 2016-2018

Source: New York State Vital Records

Figure 2. Age-adjusted potentially preventable hospitalization rate per 10,000 population, aged 18+ years, 2016-2018

Town of LeRay: 91.6
Jefferson County: 125.4
NYS excluding NYC: 107.8
New York State: 114.4

Y-axis: Age-adjusted rate per 10,000 population
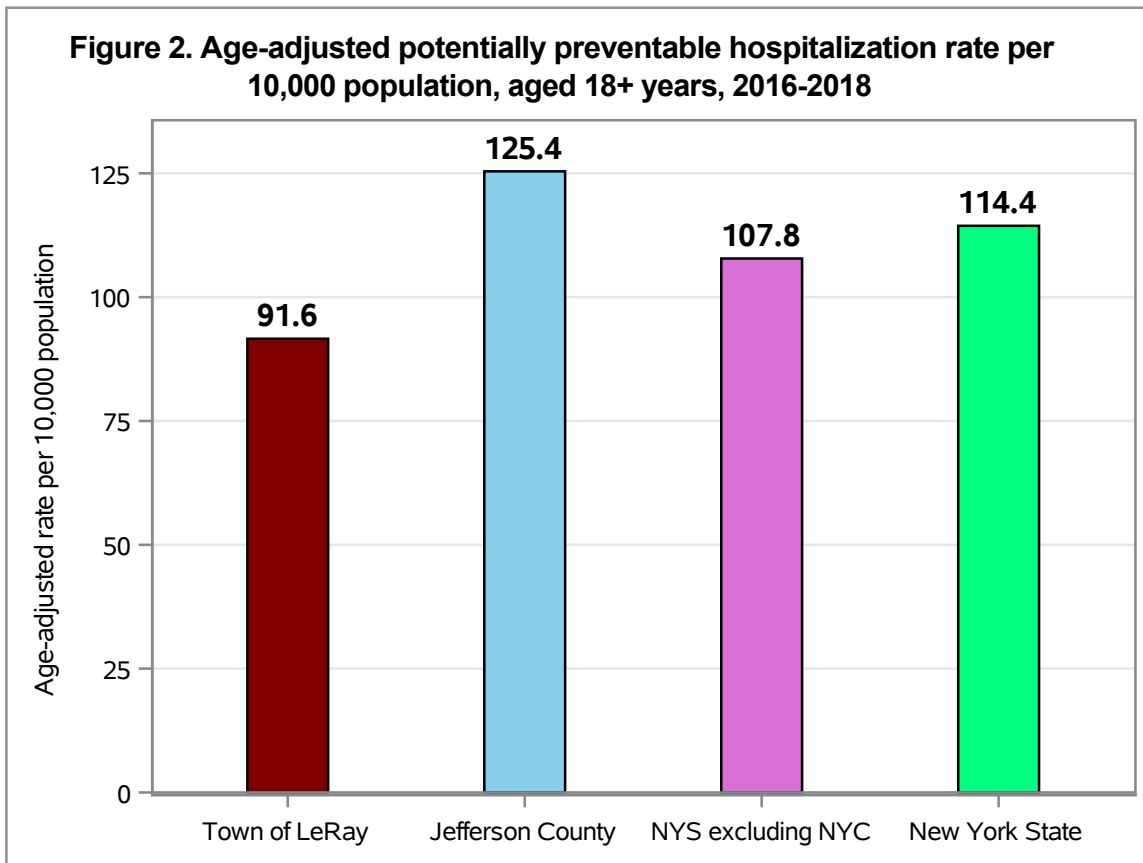
Table 3. Age-adjusted potentially preventable hospitalization rate per 10,000 population, aged 18+ years, 2016-2018

Indicator	Town of LeRay		Jefferson County	NYS excluding NYC	New York State
	Numerator	Rate	Rate	Rate	Rate
Age-adjusted potentially preventable hospitalizations per 10,000 population - Aged 18+ years	161	91.6	125.4	107.8	114.4

Source: Statewide Planning and Research Cooperative System (SPARCS)

Promote a Healthy and Safe Environment

Figure 3. Age-adjusted homicide related death rate per 100,000 population, 2016-2018
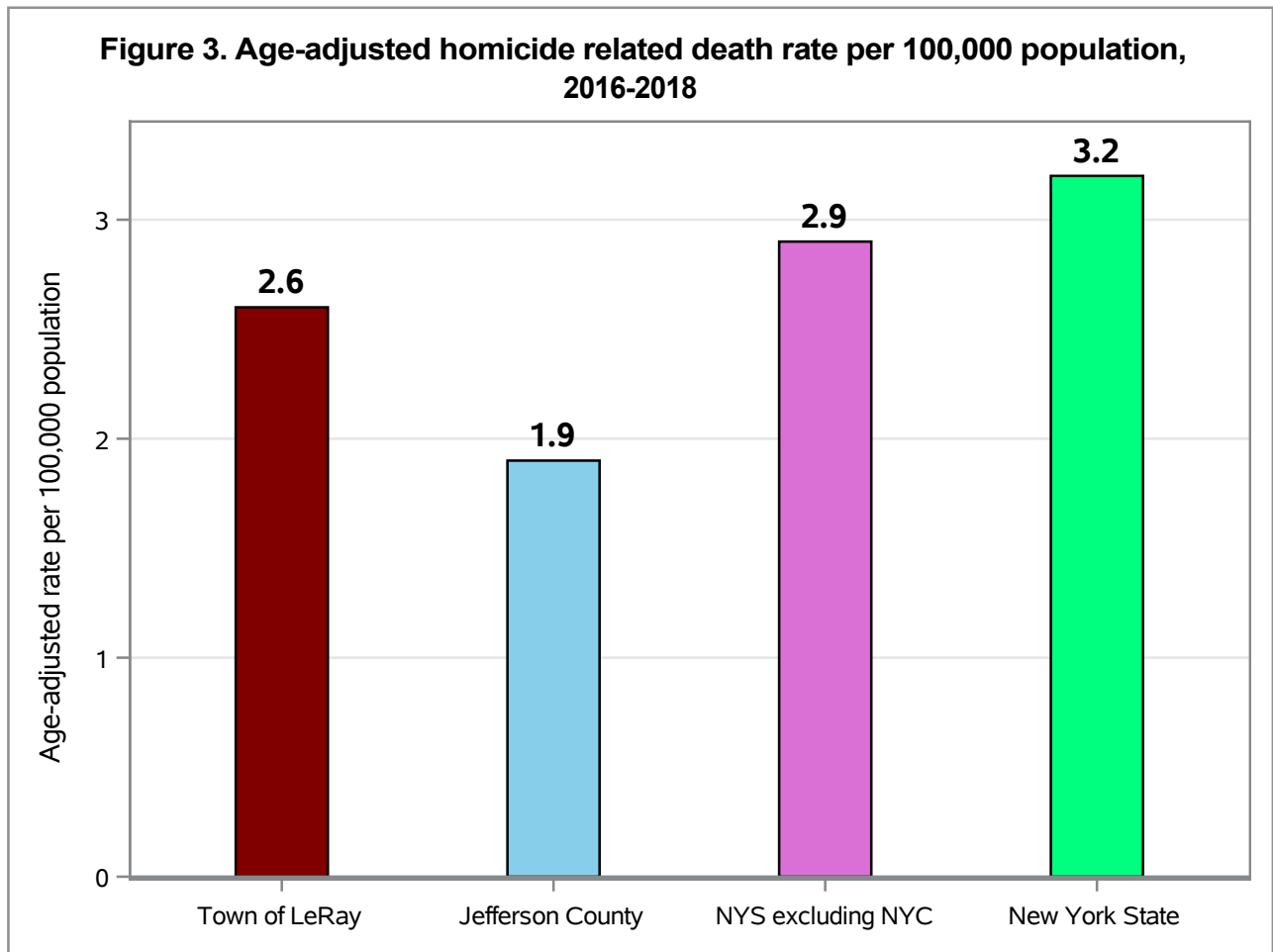
Source: New York State Vital Records

Figure 4. Rate of emergency department visits due to falls per 10,000 population, aged 1-4 years, 2016-2018
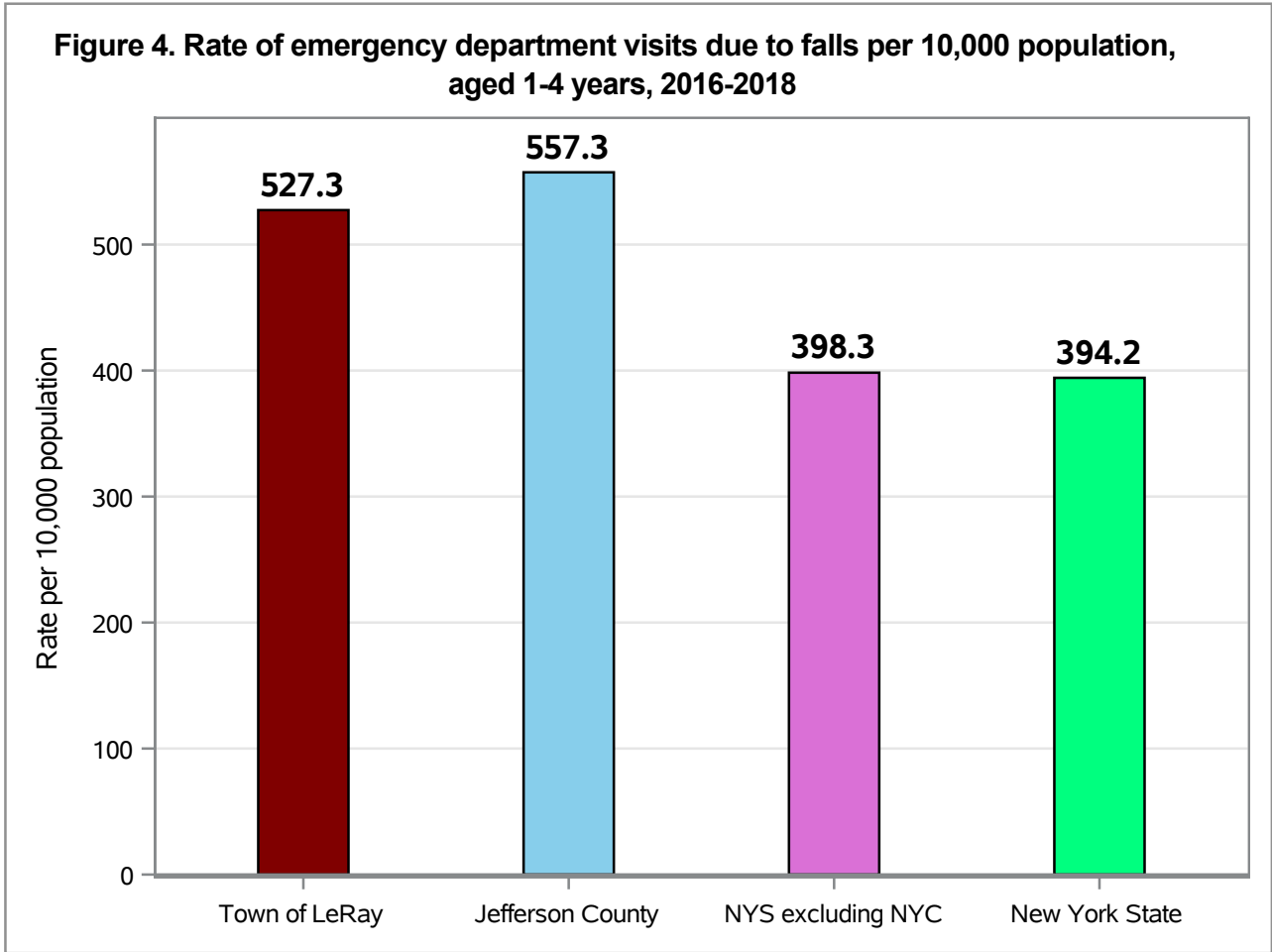
Source: Statewide Planning and Research Cooperative System (SPARCS)

Figure 5. Rate of hospitalizations due to falls per 10,000 population, aged 65+, 2016-2018
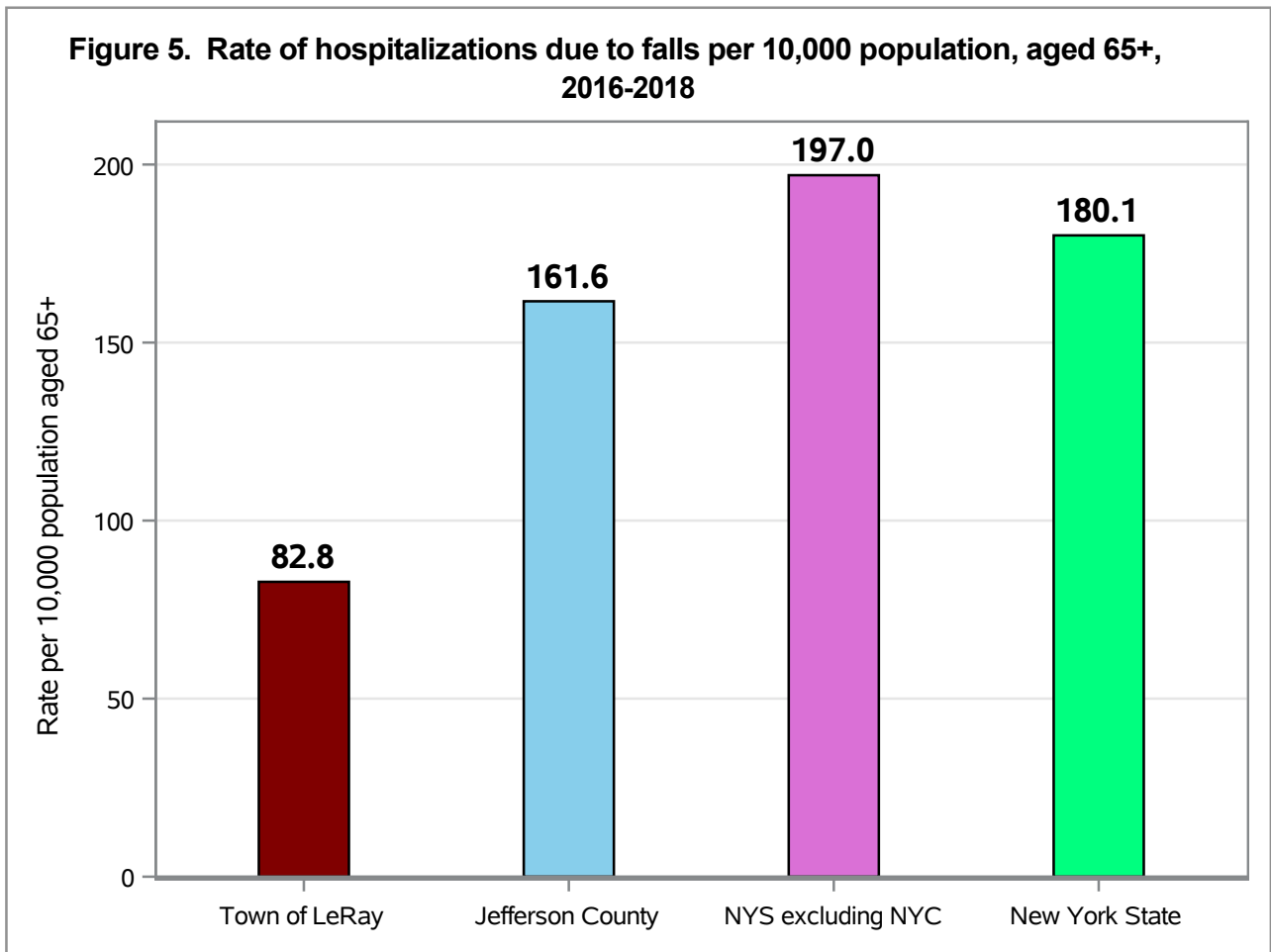
Source: Statewide Planning and Research Cooperative System (SPARCS)

Figure 6. Age-adjusted assault related hospitalization rate per 10,000 population, 2016-2018
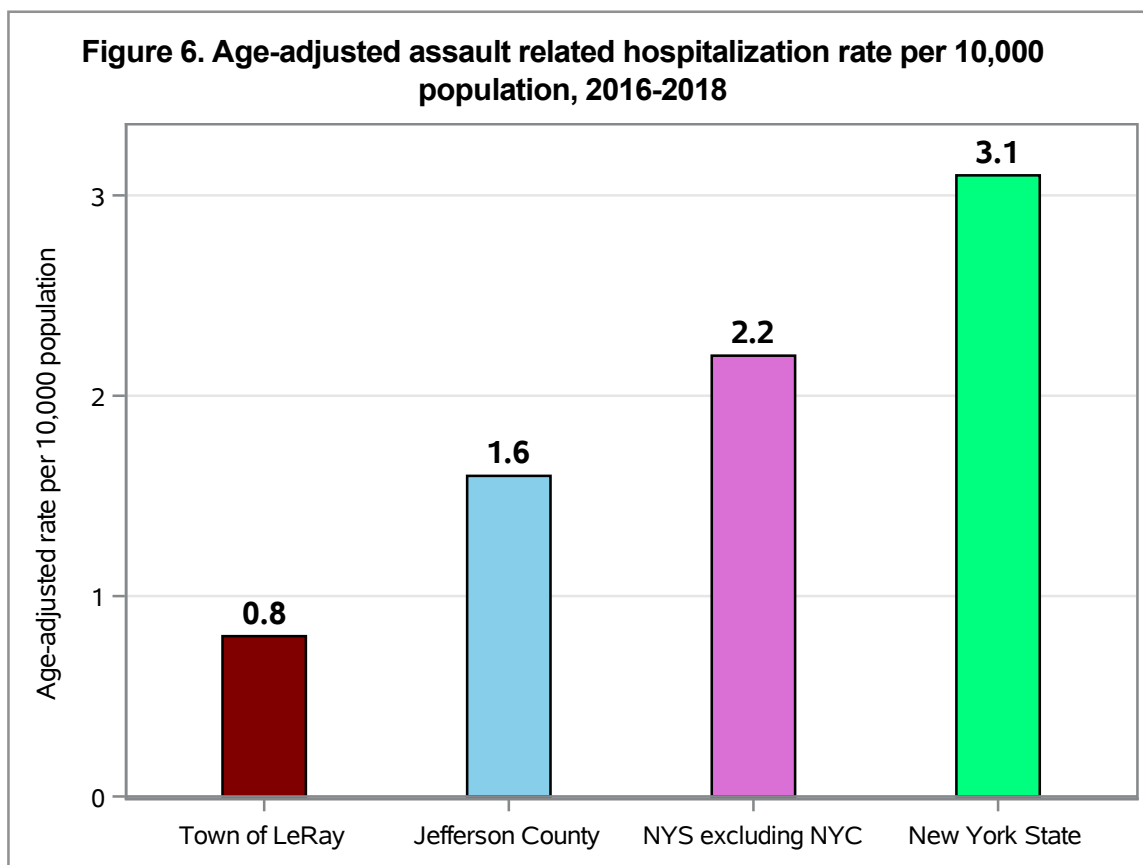
Source: Statewide Planning and Research Cooperative System (SPARCS)

Table 4. Indicator data related to Prevention Agenda Priority Area: Promote a Healthy and Safe Environment, 2016-2018

Indicator	Town of LeRay		Jefferson County	NYS excluding NYC	New York State
	Numerator	Rate	Rate	Rate	Rate
Age-adjusted homicide rate per 100,000 population	2	2.6	1.9	2.9	3.2
Rate of emergency department visits due to falls per 10,000 population - Aged 1-4 years	381	527.3	557.3	398.3	394.2
Rate of hospitalizations due to falls per 10,000 population- Aged 65+ years	20	82.8	161.6	197.0	180.1
Age-adjusted assault related hospitalization rate per 10,000 population	7	0.8	1.6	2.2	3.1

Prevent Chronic Diseases

Figure 7. Rate of emergency department visits for asthma per 10,000 population, all ages, 2016-2018

Source: Statewide Planning and Research Cooperative System (SPARCS)

Figure 8. Rate of emergency department visits for asthma per 10,000 population, aged 0-4 years, 2016-2018

Rate per 10,000 population

Town of LeRay	Jefferson County	NYS excluding NYC	New York State
30.1	50.6	97.8	170.5
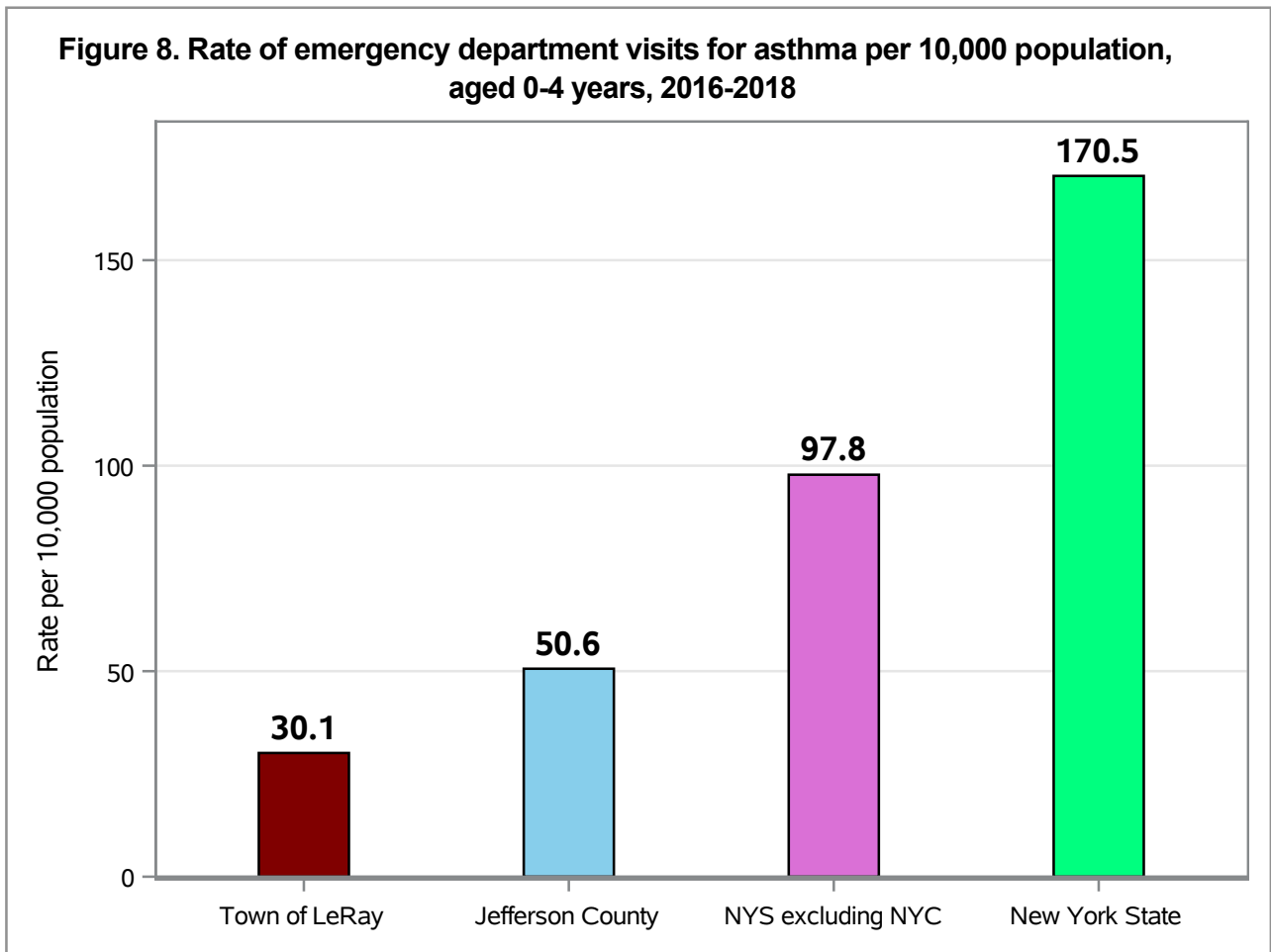
Source: Statewide Planning and Research Cooperative System (SPARCS)

Figure 9. Rate of hospitalizations for short-term diabetes complications per 10,000 population, aged 18+, 2016-2018
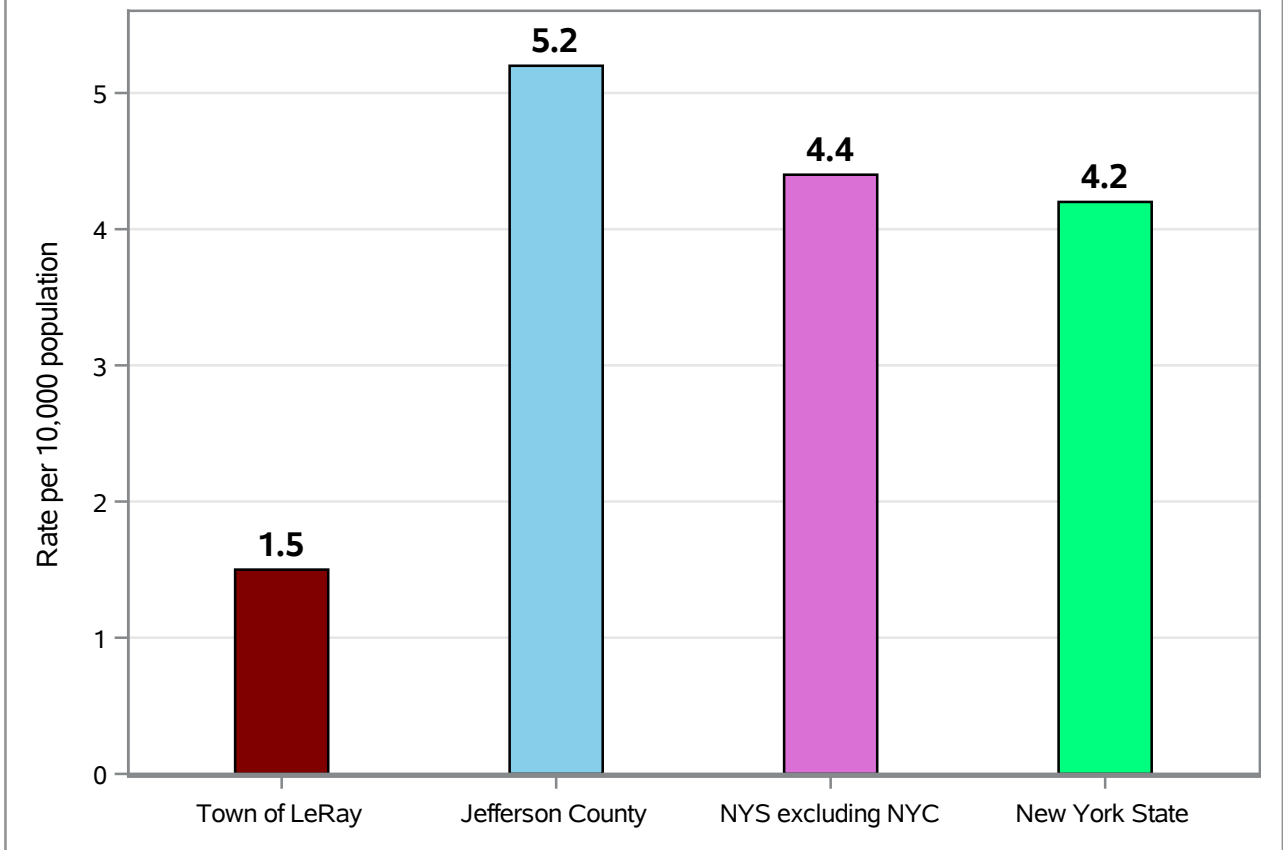
Source: Statewide Planning and Research Cooperative System (SPARCS)

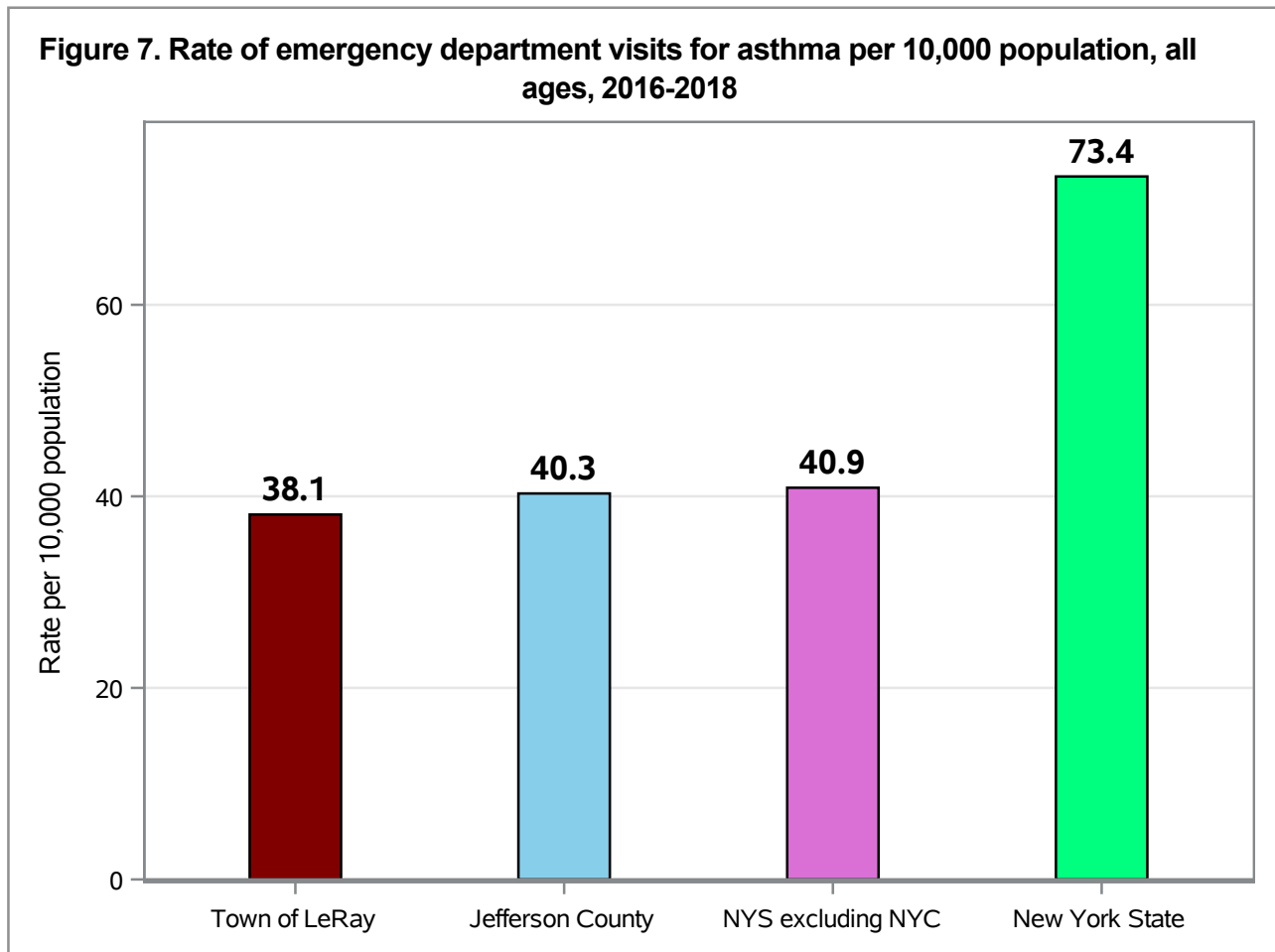**Figure 10. Age-adjusted heart attack hospitalization rate per 10,000 population, 2016-2018**
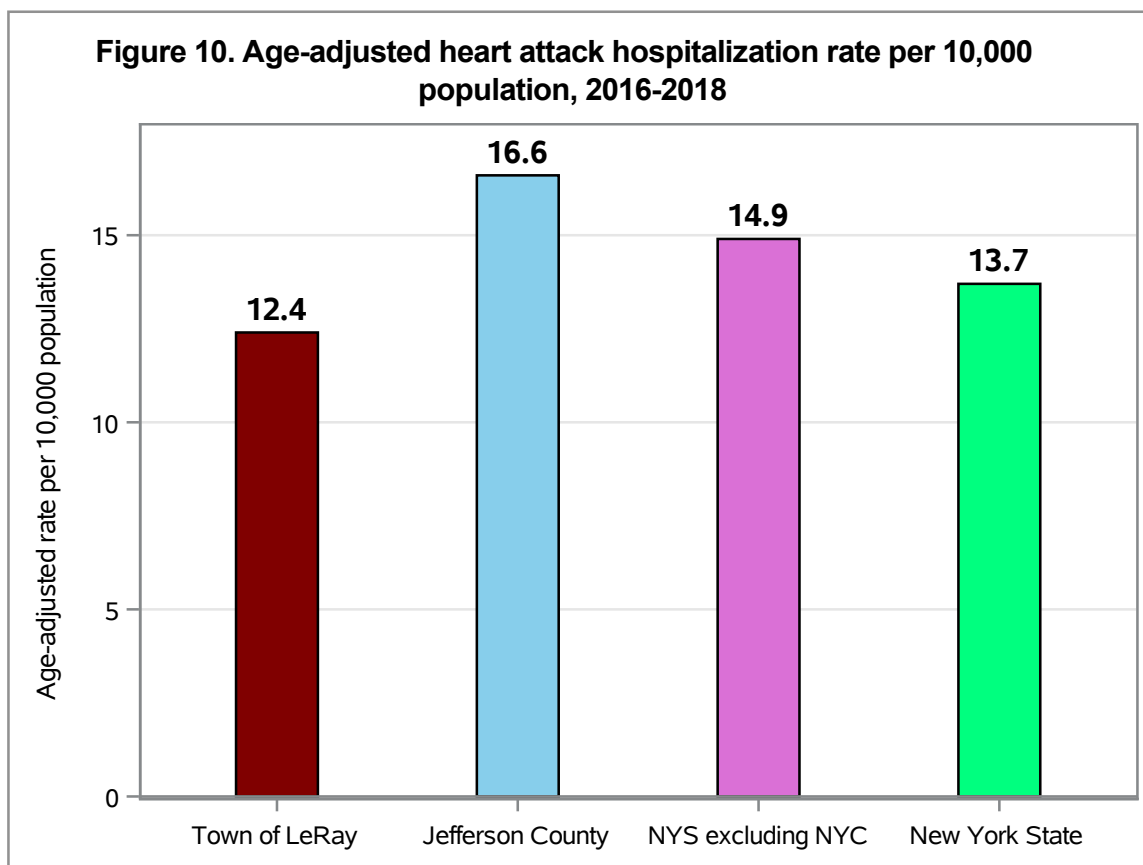
Source: Statewide Planning and Research Cooperative System (SPARCS)

Table 5. Indicator data related to Prevention Agenda Priority Area: Prevent Chronic Disease, excluding cancer, 2016-2018

Indicator	Town of LeRay		Jefferson County	NYS excluding NYC	New York State
	Numerator	Rate	Rate	Rate	Rate
Asthma emergency department visit rate per 10,000 population	267	38.1	40.3	40.9	73.4
Asthma emergency department visit rate per 10,000 population - Aged 0-4	27	30.1	50.6	97.8	170.5
Rate of hospitalizations for short-term complications of diabetes per 10,000 population - Aged 18+ years	7	1.5	5.2	4.4	4.2
Age-adjusted heart attack hospitalization rate per 10,000 population	31	12.4	16.6	14.9	13.7

Figure 11. Observed to expected case ratio and late diagnoses for common cancer types, 2015-2017

Ratio of observed cancer cases to expected cancer cases, 2015-2017

Site	Town of LeRay	Jefferson County
Female Breast	0.91	0.92
Female Lung	1.05	1.41
Male Lung	0.83	1.51
Female Colorectal	1.21	1.32
Male Colorectal	0.87	1.29
Male Prostate	1.07	1.07

Standardized Morbidity Ratio

Percent of cancer cases diagnosed in late stages, 2015-2017

Site	Town of LeRay	Jefferson County
Female Breast	45.0	32.1
Female Lung	87.5	64.2
Male Lung	66.7	62.7
Female Colorectal	50.0	56.6
Male Colorectal	60.0	55.7
Male Prostate	26.7	20.0

Percent

Table 6. Observed to expected case ratio and late diagnoses for common cancer types, 2015-2017

| Site of Cancer	Location	Incidence				Cancers Diagnosed Late		
		Observed Cases	Expected Cases	Ratio*	Percent Difference from Expected	Late Cases	Total Cases	Percent Late
Female Breast	Town of LeRay	20	22.0	0.91	Within 15% Expected	9	20	45.0
	Jefferson County	221	239.7	0.92	Within 15% Expected	71	221	32.1
Female Lung	Town of LeRay	8	7.6	1.05	Within 15% Expected	7	8	87.5
	Jefferson County	165	116.7	1.41	15% to 49% Above Expected	106	165	64.2
Male Lung	Town of LeRay	6	7.3	0.83	Very Sparse Data	4	6	66.7
	Jefferson County	169	111.6	1.51	More than 50% Above Expected	106	169	62.7
Female Colorectal	Town of LeRay	6	5.0	1.21	Very Sparse Data	3	6	50.0
	Jefferson County	83	62.8	1.32	15% to 49% Above Expected	47	83	56.6
Male Colorectal	Town of LeRay	5	5.7	0.87	Very Sparse Data	3	5	60.0
	Jefferson County	88	68.0	1.29	15% to 49% Above Expected	49	88	55.7
Male Prostate	Town of LeRay	15	14.1	1.07	Within 15% Expected	4	15	26.7
	Jefferson County	230	215.9	1.07	Within 15% Expected	46	230	20.0

Source: Cancer Registry

*: Observed to expected case ratio

Prevent Communicable Diseases
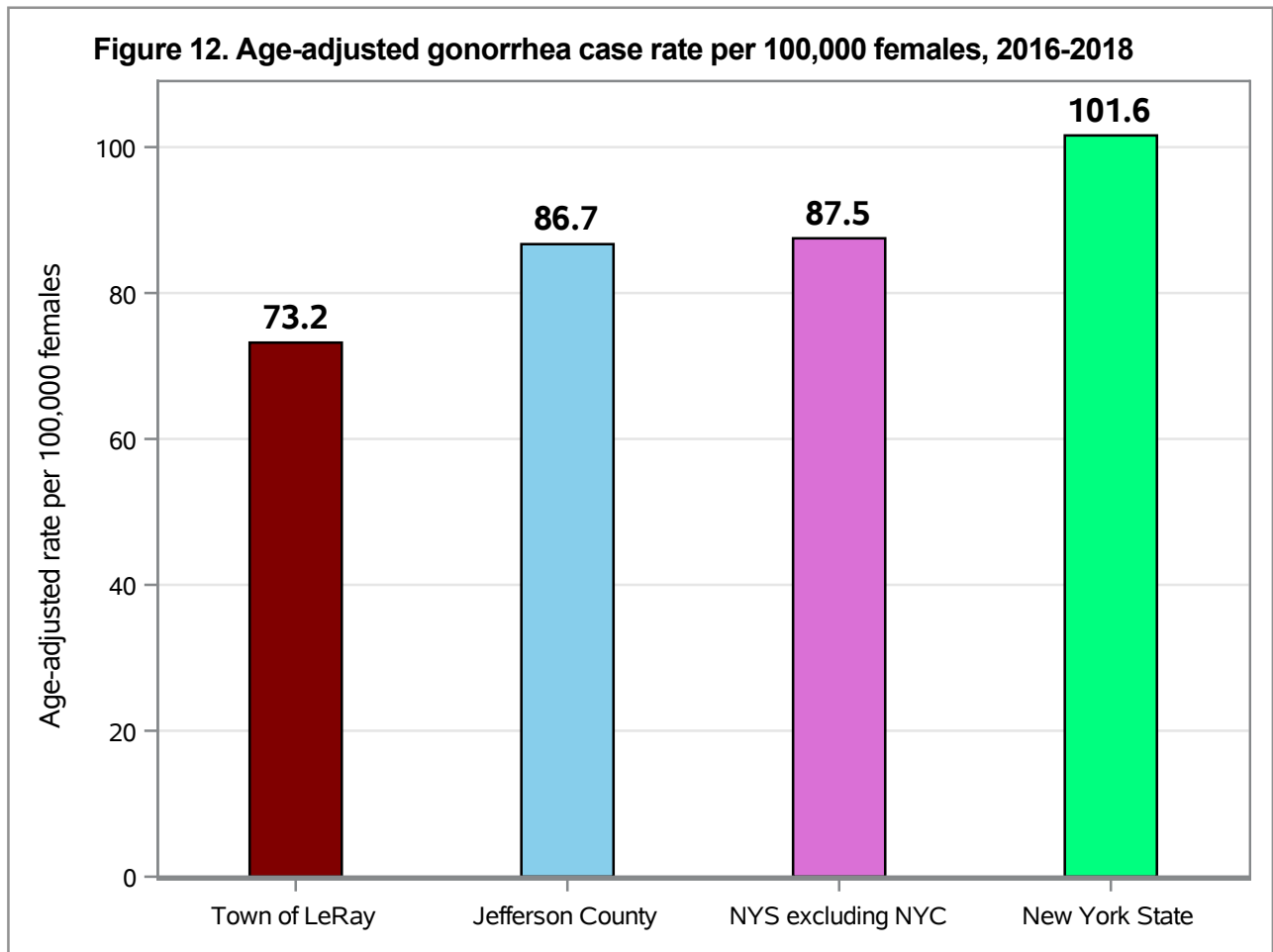
Figure 12. Age-adjusted gonorrhea case rate per 100,000 females, 2016-2018

Source: Communicable Disease Electronic Surveillance System (CDESS)

Figure 13. Age-adjusted gonorrhea case rate per 100,000 males, 2016-2018

Source: Communicable Disease Electronic Surveillance System (CDESS)

Figure 14. Age-adjusted chlamydia case rate per 100,000 females, 2016-2018

Source: Communicable Disease Electronic Surveillance System (CDESS)

Figure 15. Age-adjusted chlamydia case rate per 100,000 males, 2016-2018
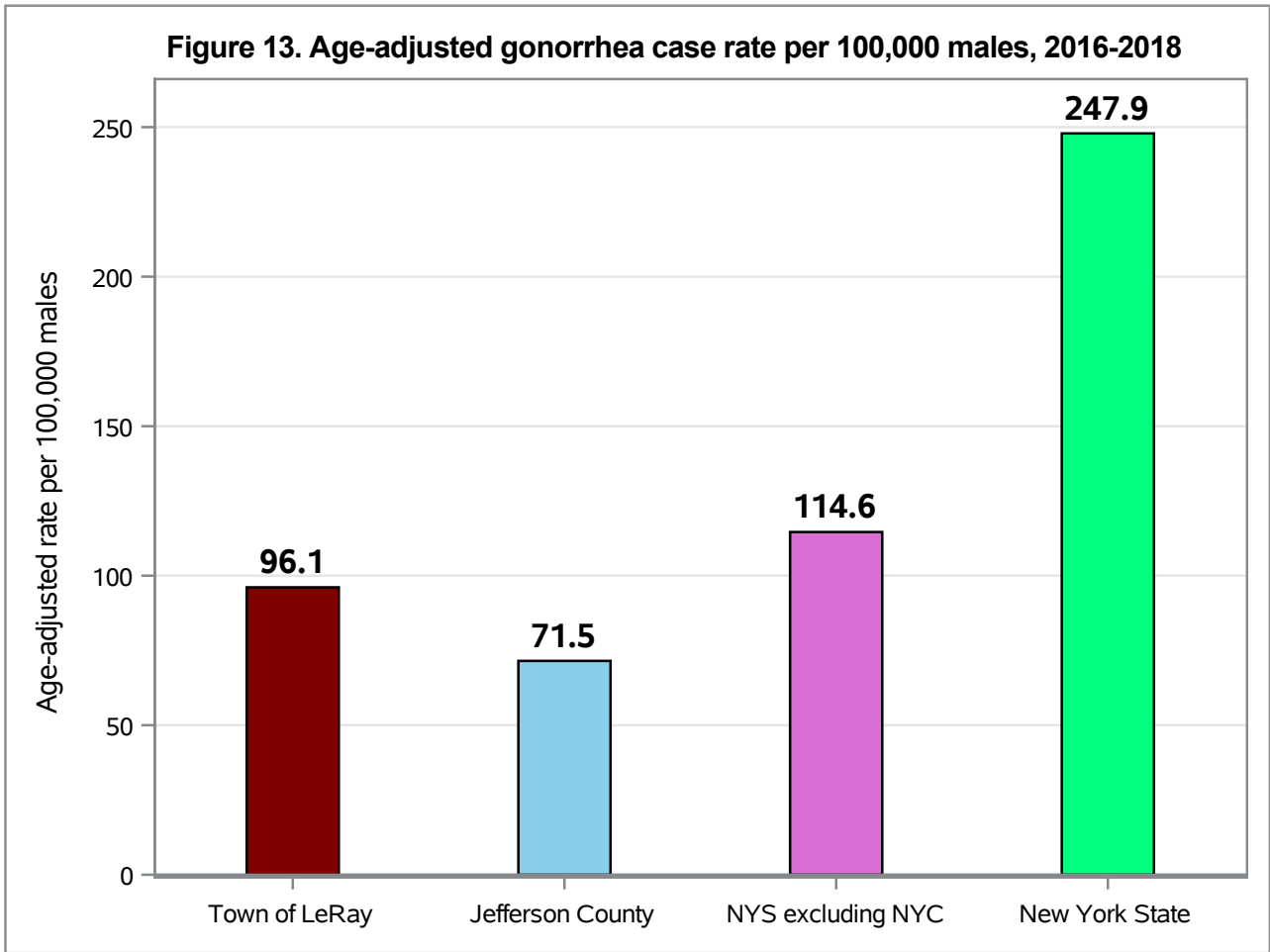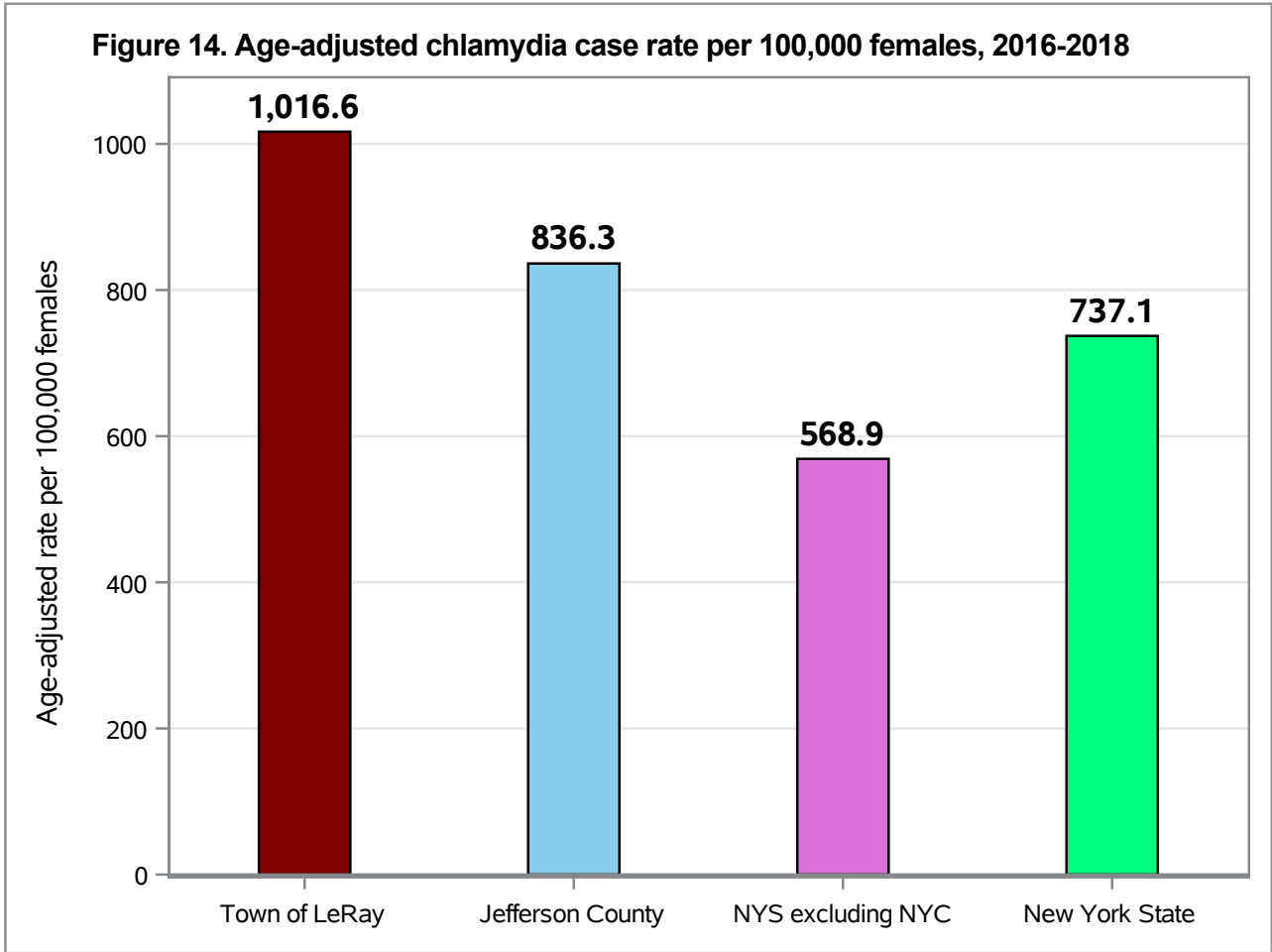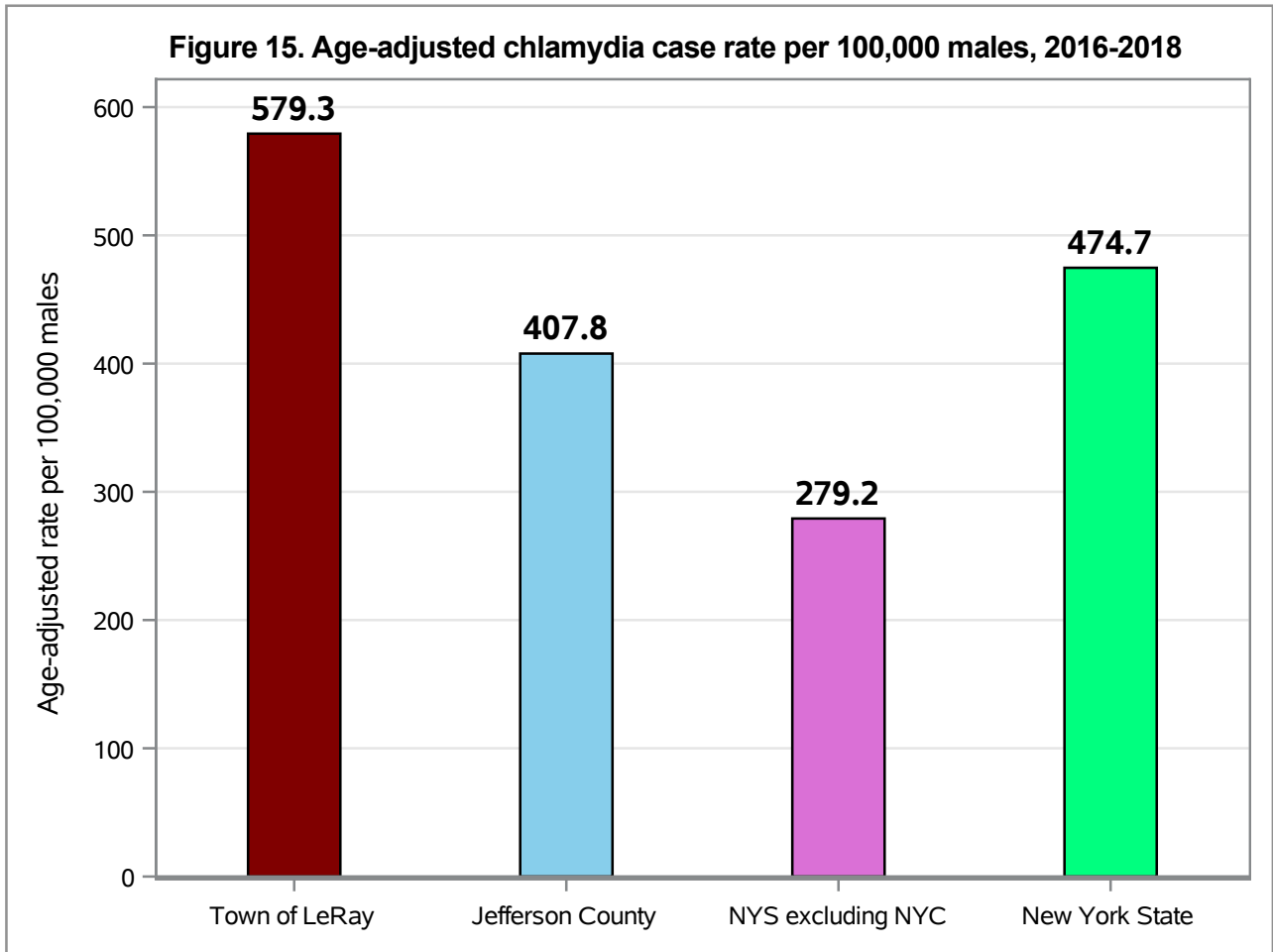
Source: Communicable Disease Electronic Surveillance System (CDESS)

Figure 16. Age-adjusted early syphilis case rate per 100,000 males, 2016-2018
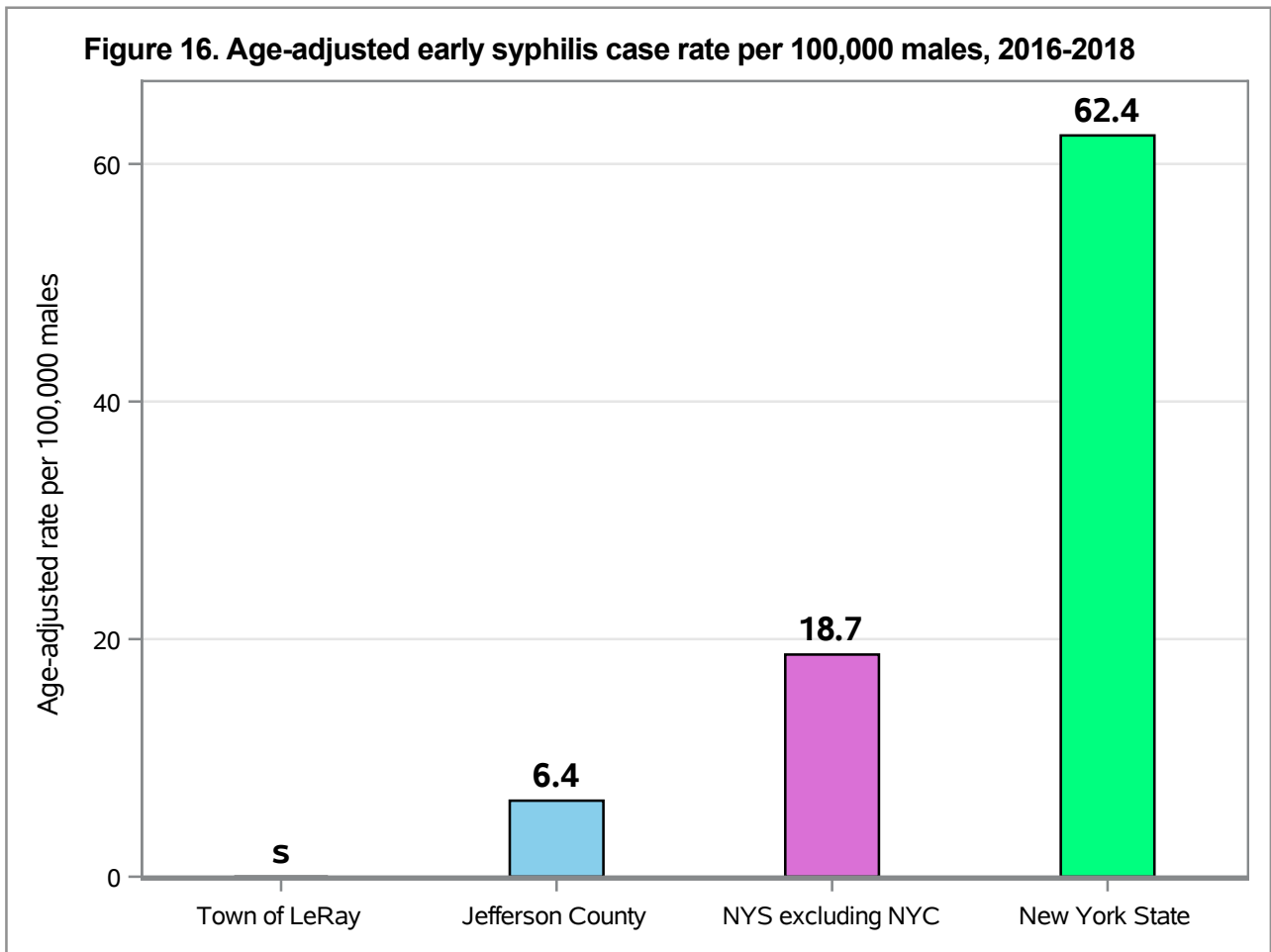
Source: Communicable Disease Electronic Surveillance System (CDESS)

s: Data is suppressed for confidentiality purposes.

Figure 17. Rate of newly diagnosed HIV cases per 100,000 population, aged 13+, 2016-2018
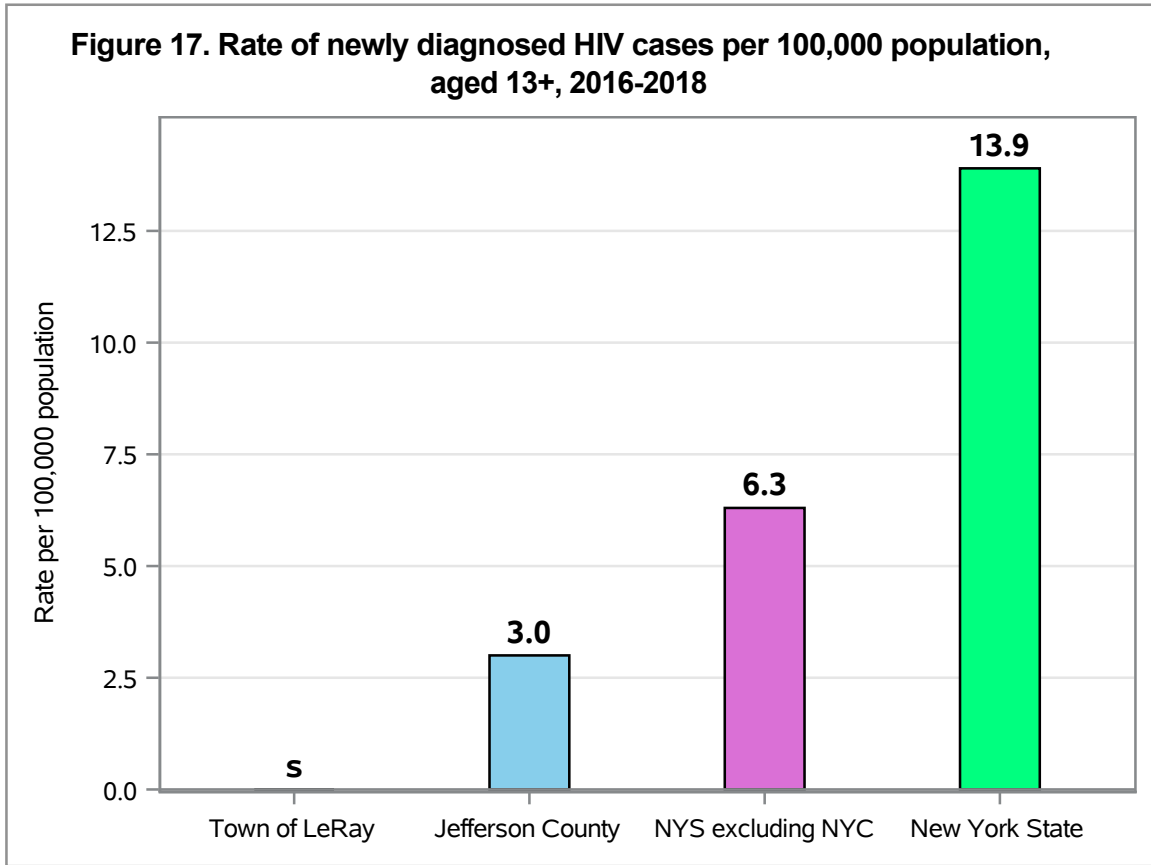
Source: HIV/AIDS Reporting System (HARS)

s: Data is suppressed for confidentiality purposes.

Table 7. Indicator data related to Prevention Agenda Priority Area: Prevent Communicable Diseases, 2016-2018

Indicator	Town of LeRay		Jefferson County	NYS excluding NYC	New York State
	Numerator	Rate	Rate	Rate	Rate
Age-adjusted gonorrhea case rate per 100,000 females	29	73.2	86.7	87.5	101.6
Age-adjusted gonorrhea case rate per 100,000 males	67	96.1	71.5	114.6	247.9
Age-adjusted chlamydia case rate per 100,000 females	401	1,016.6	836.3	568.9	737.1
Age-adjusted chlamydia case rate per 100,000 males	415	579.3	407.8	279.2	474.7
Age-adjusted early syphilis case rate per 100,000 males	s	s	6.4	18.7	62.4
Newly diagnosed HIV case rate per 100,000 population - Aged 13+	s	s	3.0	6.3	13.9

s: Data is suppressed for confidentiality purposes.

Promote Healthy Women, Infants, and Children

Figure 18. Percentage of preterm births, 2016-2018
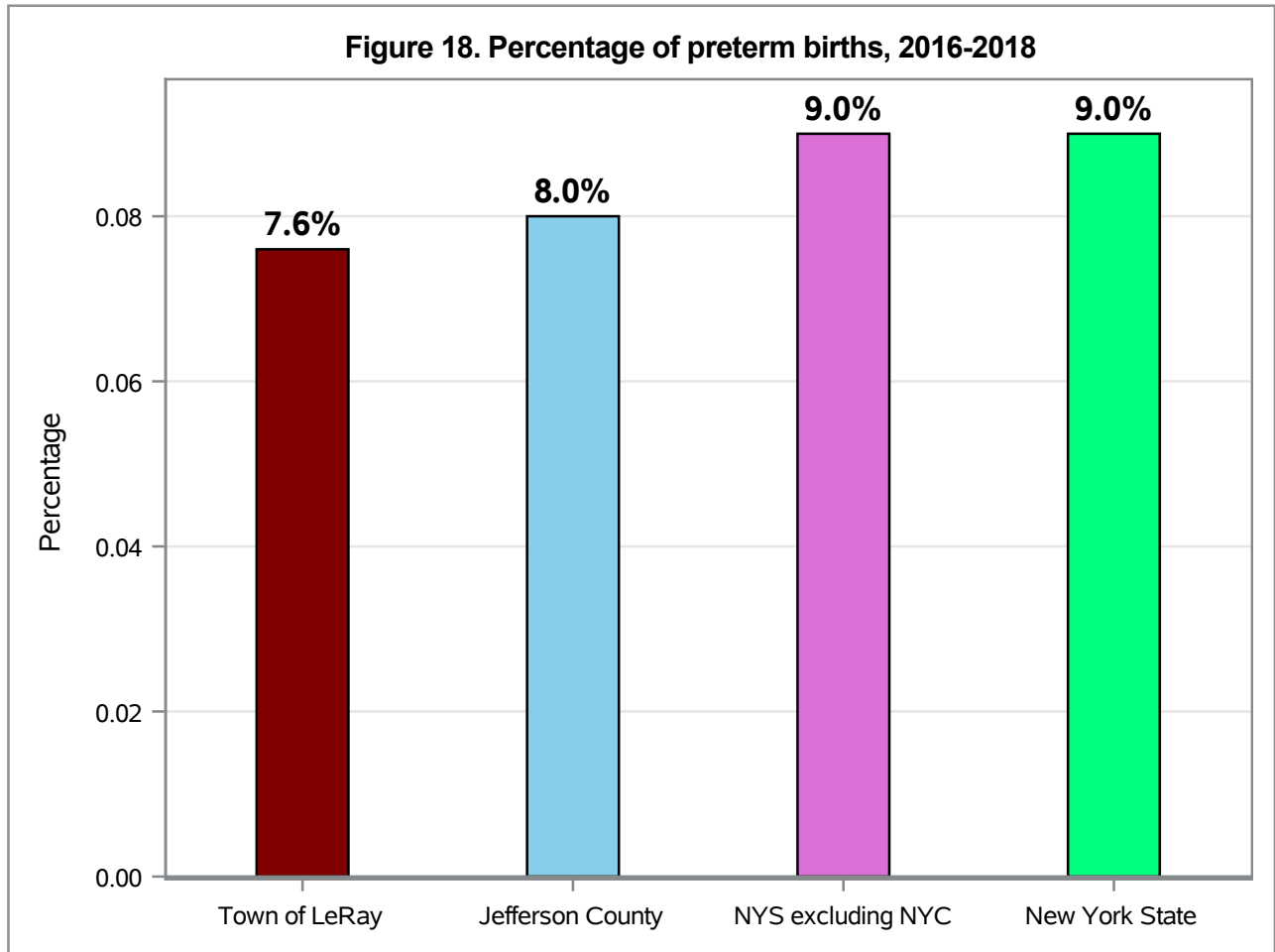
Source: New York State Vital Records

Figure 19. Percentage of infants exclusively breastfed in the hospital, 2016-2018

	Percentage
Town of LeRay	68.8%
Jefferson County	62.3%
NYS excluding NYC	51.6%
New York State	47.1%

Source: New York State Vital Records

Figure 20. Percentage of low birthweight singleton births, 2016-2018
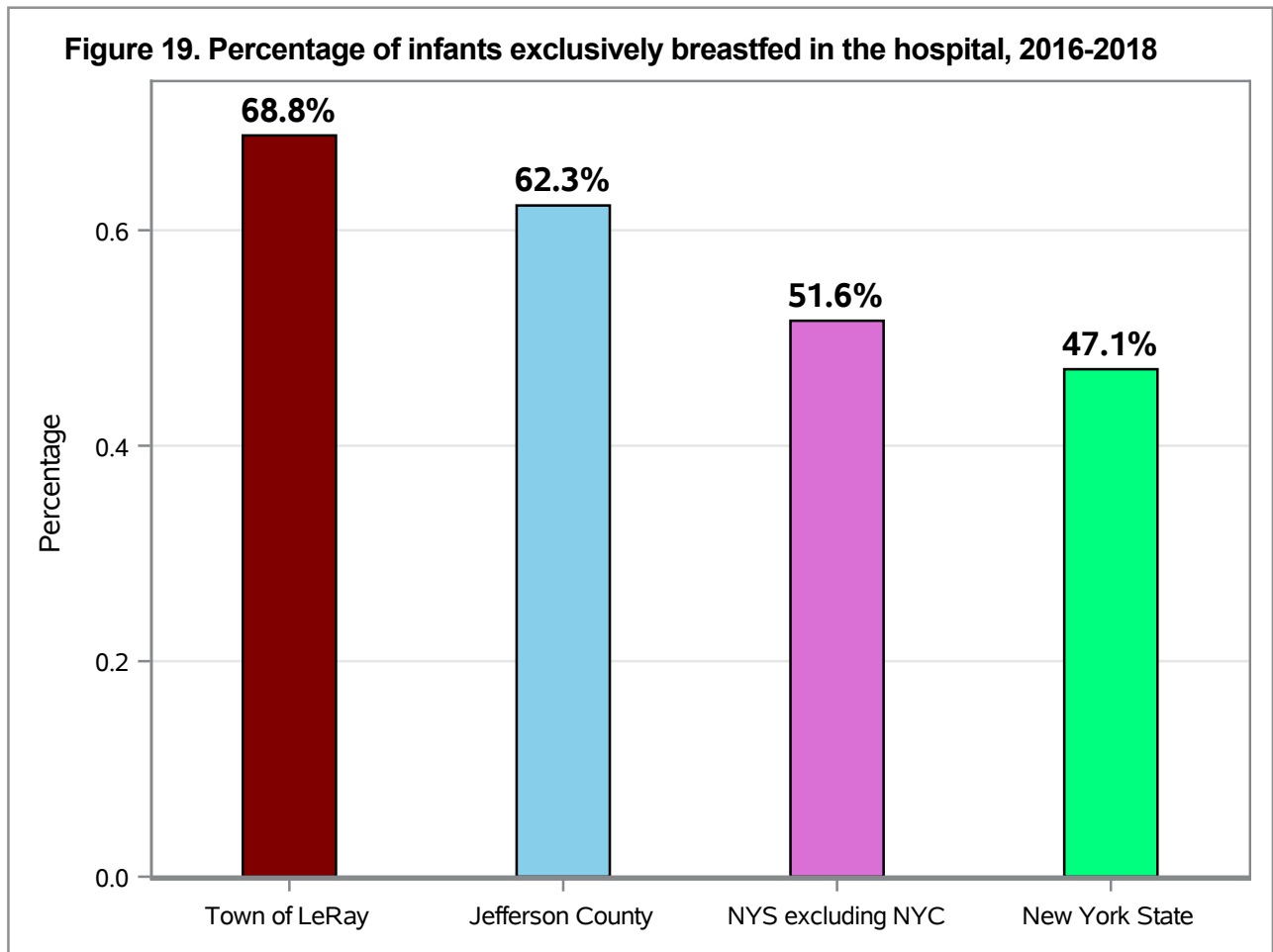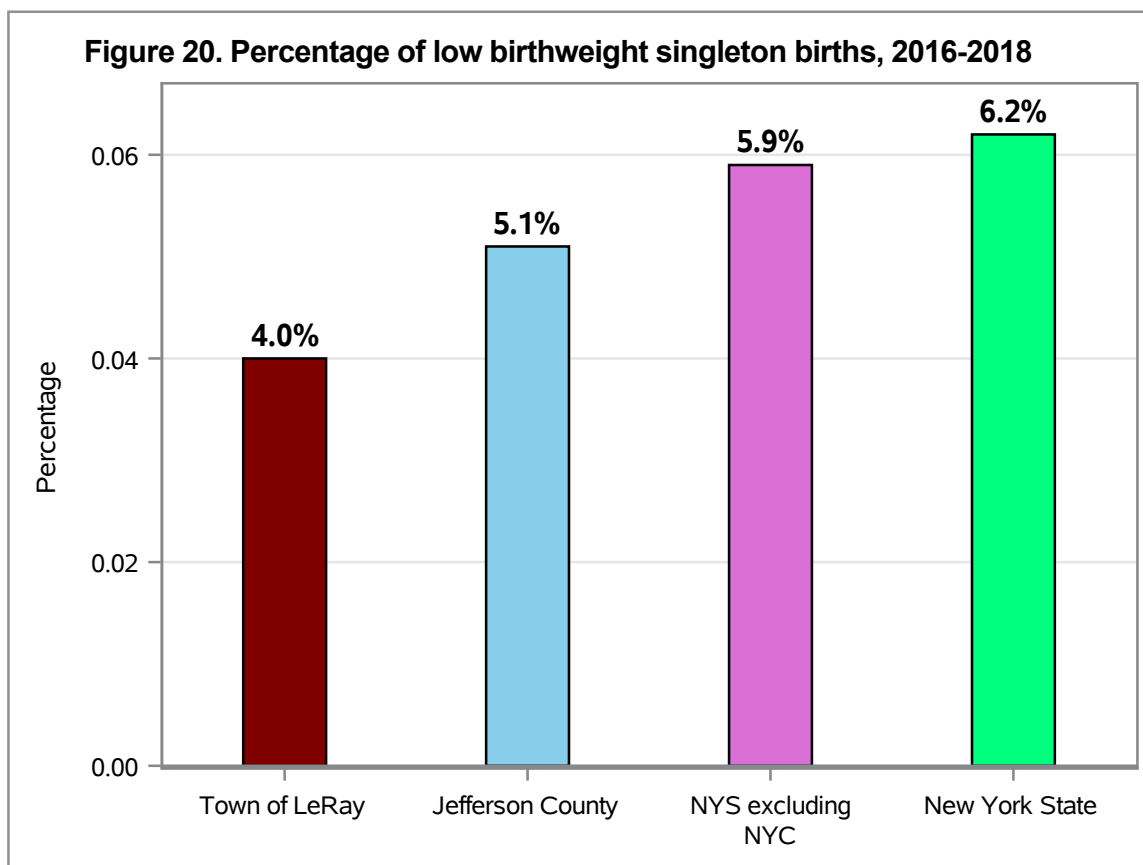
Source: New York State Vital Records

Table 8. Indicator data related to Prevention Agenda Priority Area: Promote Healthy Women, Infants and Children, 2016-2018

	Town of LeRay			Jefferson County	NYS excluding NYC	New York State
Indicator	**Numerator**	**Denominator**	**Percent**	**Percent**	**Percent**	**Percent**
Percentage of preterm births	155	2,027	7.6	8.0	9.0	9.0
Percentage of infants exclusively breastfed in the hospital	1,224	1,779	68.8	62.3	51.6	47.1
Percentage of low birthweight singleton births	79	1,966	4.0	5.1	5.9	6.2

Promote Well-Being and Prevent Mental and Substance Use Disorders

Figure 21. Age-adjusted suicide related death rate per 100,000 population, 2016-2018

Source: New York State Vital Records

Figure 22. Opioid burden* rate per 100,000 population, 2016-2018
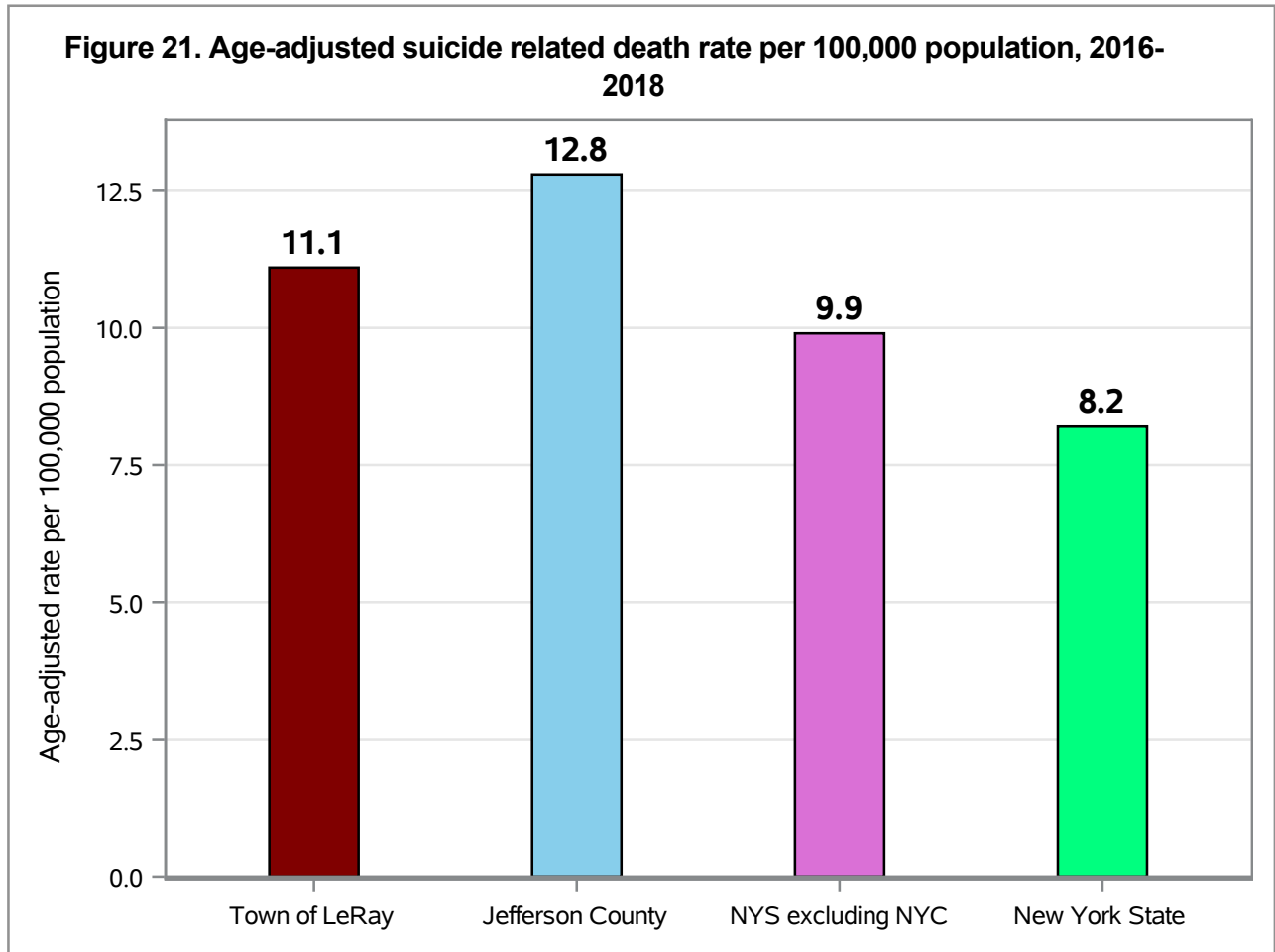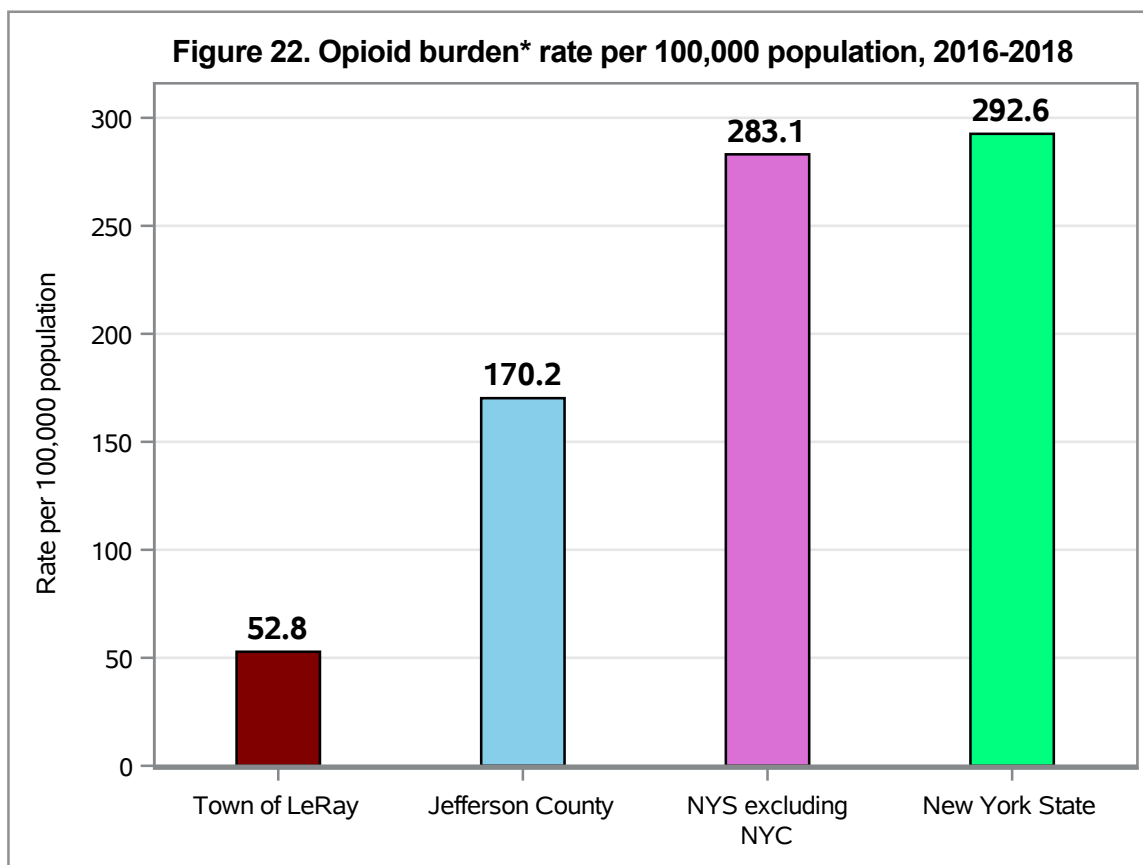
Source: New York State Vital Records, Statewide Planning and Research Cooperative System (SPARCS).

*: Opioid burden includes outpatient ED visits and hospital discharges for non-fatal opioid overdose, abuse, dependence, and unspecified use; and opioid overdose deaths.

Table 9. Indicator data related to Prevention Agenda Priority Area: Promote Well-Being and Prevent Mental and Substance Use Disorders, 2016-2018

Indicator	Town of LeRay		Jefferson County	NYS excluding NYC	New York State
	Numerator	Rate	Rate	Rate	Rate
Age-adjusted suicide related death rate per 100,000 population	12	11.1	12.8	9.9	8.2
Opioid burden rate per 100,000 population	37	52.8	170.2	283.1	292.6

Methods

Health Measures

Measure	Description	Data Source	Years
Percentage of premature deaths	Deaths before age 65	New York State Vital Records	2016-2018
Age-adjusted preventable hospitalization rate per 10,000	The number of potentially avoidable hospital admissions per 10,000 population aged 18+ years. This rate is age-adjusted to the 2000 U.S. population. Prevention Quality Indicators (PQIs) are measures developed by the federal Agency for Healthcare Research and Quality for use in assessing the quality of outpatient care for "ambulatory care sensitive conditions." This rate is defined as the combination of the 12 PQIs that pertain to adults using ICD-10-CM codes: short-term complication of diabetes; long-term complication of diabetes; uncontrolled diabetes; lower-extremity amputation among patients with diabetes; hypertension; congestive heart failure; angina; chronic obstructive pulmonary disease; asthma; dehydration; bacterial pneumonia; and urinary tract infection. PQIs estimate the number of potentially avoidable hospital admissions, and therefore a lower rate is desirable. Definitions for these measures (version 2019) can be found: https://www.qualityindicators.ahrq.gov/modules/pqi_overview.aspx	SPARCS	2016-2018
Rate of hospitalizations for falls (aged 65+) per 10,000	The number of hospitalizations (inpatient, aged 65+) with ICD-10-CM codes for falls. Codes used for injuries are defined by CDC NCHS. The specific codes for each type of injury are listed in format catalogs ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/injury/tools/	SPARCS	2016-2018
Rate of emergency department visits for falls (aged 1-4) per 10,000	The number of Emergency Department visits (aged 1-4 years) with ICD-10-CM codes for falls. Codes used for injuries are defined by CDC NCHS. The specific codes for each type of injury are listed in format catalogs ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/injury/tools/	SPARCS	2016-2018
Age-adjusted assault-related hospitalization rate per 10,000	The number of hospitalizations (inpatient) with ICD-10-CM codes for assaults per 10,000 population, age-adjusted to the 2000 U.S. population. Codes used for injuries are defined by CDC NCHS. The specific codes for each type of injury are listed in format catalogs ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/injury/tools/	SPARCS	2016-2018
Age-adjusted rate of homicide related deaths per 100,000	The number of deaths where code is 'X85'-'Y09','Y35', per 100,000 population, age-adjusted to the 2000 U.S. population	New York State Vital Records	2016-2018
Rate of asthma emergency department visits (all ages) per 10,000	Number of emergency department visits per 10,000 population with primary diagnosis ICD-10-CM records from inpatient file with admission diagnosis 'J45' or emergency department records from outpatient file with principle diagnosis 'J45'	SPARCS	2016-2018

Measure	Description	Data Source	Years
Rate of asthma emergency department visits (aged 0-4) per 10,000	Number of emergency department visits (aged 0-4) per 10,000 population with primary diagnosis ICD-10-CM records from inpatient file with admission diagnosis 'J45' or emergency department records from outpatient file with principle diagnosis 'J45'.	SPARCS	2016-2018
Age-adjusted rate of hospitalizations for heart attack per 10,000	Number of hospitalizations (inpatient) with a principal diagnosis ICD-10-CM code 'I21' per 10,000 population, age-adjusted to the 2000 U.S. population	SPARCS	2016-2018
Rate of hospitalizations for diabetes short-term complications (aged 18+), per 10,000	The number of hospitalizations (inpatient, aged 18+) with a principal diagnosis ICD-10-CM code: 'E1010', 'E1011', 'E10641', 'E1100', 'E1101', 'E11641' per 10,000 population	SPARCS	2016-2018
Standardized morbidity ratio of female breast, colorectal, lung and prostate cancers	Observed number of cancer cases (at sites: breast, colon, lung, prostate) compared to the expected number of cases in the region	NYS Cancer Registry	2015-2017
Percentage of late cancer diagnoses	Number of cancer cases diagnosed late (defined as being coded as a regional or distant cancers; non-localized) out of the total number of observed cancer cases	NYS Cancer Registry	2015-2017
Age-adjusted gonorrhea case rate (female and male) per 100,000	Observed number of gonorrhea diagnoses, by gender, per 100,000 population, age-adjusted to the 2000 U.S. population	Communicable Disease Electronic Surveillance System (CDESS)	2016-2018
Age-adjusted chlamydia case rate (female and male) per 100,000	Observed number of chlamydia diagnoses, by gender, per 100,000 population, age-adjusted to the 2000 U.S. population	Communicable Disease Electronic Surveillance System (CDESS)	2016-2018
Age-adjusted male early syphilis case rate per 100,000	Observed number of early syphilis diagnoses per 100,000 population, age-adjusted to the 2000 U.S. population	Communicable Disease Electronic Surveillance System (CDESS)	2016-2018
Rate of newly diagnosed HIV cases (aged 13+), per 100,000	Number of new HIV diagnoses per 100,000 population	HIV/AIDS Reporting System (HARS)	2016-2018
Percentage of low birthweight singleton births	The percentage of singleton births born weighing less than 2,500 grams (excludes births with unknown birthweight)	New York State Vital Records	2016-2018
Percentage of preterm births	Percentage of births with less than 37 weeks gestation (clinically estimated)	New York State Vital Records	2016-2018
Percentage of infants exclusively breastfed in the hospital	Percentage of infants who were exclusively breastfed in the hospital following birth (excludes unknown breastfeeding status)	New York State Vital Records	2016-2018

Measure	Description	Data Source	Years
Age-adjusted suicide rate per 100,000	The number of deaths with an ICD-10 primary cause of death code: X60-X84 or Y87.0 per 100,000 population, age-adjusted to the 2000 U.S. population	New York State Vital Records	2016-2018
Opioid burden rate per 100,000	Opioid burden rate includes outpatient ED visits and hospital discharges for non-fatal opioid overdose, abuse, dependence, and unspecified use; and opioid overdose deaths. Underlying cause of death, determined from the field designated as such, or, where missing or unknown, from the first listed multiple cause of death field: X40-X44, X60-X64, X85, Y10-Y14 and any opioid in all other causes of death: T40.0, T40.1, T40.2, T40.3, T40.4, T40.6. ICD-9-CM: Opioid abuse (Principal Diagnosis: 30550-30552); Opioid dependence and unspecified use (Principal Diagnosis: 30400-30402, 30470-30472); Opioid poisoning (Principal Diagnosis: 96500-96502, 96509 OR First-listed External Cause of Injury: E8500-E8502). ICD-10-CM: Opioid abuse (Principal Diagnosis: F1110, F11120, F11121, F11122, F11129, F1114, F11150, F11151, F11159, F11181, F11182, F11188, F1119); Opioid dependence and unspecified use (Principal Diagnosis: F1120, F11220, F11221, F11222, F11229, F1123, F1124, F11250, F11251, F11259, F11281, F11282, F11288, F1129, F1190, F11920, F11921, F11922, F11929, F1193, F1194, F11950, F11951, F11959, F11981, F11982, F11988, F1199); Opioid poisoning (Principal Diagnosis: T40.0, T40.1, T40.2, T40.3, T40.4, T40.6 (Excludes 'adverse effect' or 'underdosing' as indicated by the values of 5 and 6 in the 6th character; and 'sequela' as indicated by the value of 'S' in the 7th character; e.g. T400X5S, T400X6S)	New York State Vital Records, SPARCS	2016-2018

Data Tools

Data was analyzed using SAS v9.4 (SAS Institute, Cary, N.C.) and Microsoft Office.

Data Sources

American Community Survey

Demographic data in the American Community Survey (ACS), which are five-year estimates, from 2014-2018, were downloaded May 2020 from the United States Census. In this survey, a series of monthly samples produces annual estimates for the same small areas (census tracts and block groups) formerly surveyed via the decennial census long-form sample. Nationwide, ACS samples about 3.54 million addresses each year. Data for each MCD, county and New York State as a whole was downloaded for this report. Selected indicators are represented in the Population Demographics section of this report.

New York State Vital Records

New York State (NYS) has two registration areas, New York City (NYC) and NYS exclusive of NYC ("NYS excluding NYC," or "Rest of State"). The Department's Bureau of Vital Records processes data from live birth, death, fetal death and marriage certificates recorded in NYS excl. NYC. Through a cooperative agreement, the Department receives data on live births and deaths recorded outside of NYS to residents of NYS from other states and Canada.

The measures in this report generated from Vital Records data are premature death, low birthweight, preterm birth, and infants that were exclusively breastfed in the hospital. Data are included from years 2016-2018 and were obtained in August 2020.

Statewide Planning and Research Cooperative System (SPARCS)

SPARCS is a comprehensive, all-payer data reporting system, which collects patient-level detail on patient characteristics, diagnoses and treatments, services, and charges for each hospital inpatient stay and outpatient (ambulatory surgery, emergency department, and outpatient services) visit. Each hospitalization or visit receives an ICD-10-CM code at discharge that indicates the primary reason for the visit. Up to 24 other diagnosis codes may be recorded to further describe the visit. Statistics presented in these tables are based on the primary diagnosis, unless otherwise noted. Numbers and rates are based on the number of hospitalization inpatient stays and emergency department outpatient visits that occurred, not on the number of individuals who were hospitalized. Data is updated continuously, and reports utilizing SPARCS data should include the date of the most recent records update. Records in this report were updated January 2021.

New York State Cancer Registry

The Cancer Registry includes reports of all malignant cancers, except for selected skin cancers. The Cancer Registry collects data on the anatomic sites of tumors, the stages at diagnosis, the cell types of the cancers and, more recently, some treatment information. The Cancer Registry also collects specific sociodemographic information (age, gender, ethnicity, race, residence, place of birth, etc.) on each individual diagnosed with cancer. For this report, data on gender, stage of cancer, cancer type and stage of diagnosis were provided at census-tract levels and assigned to the appropriate MCD. Using statewide information and population data, the expected number of cases for each diagnosis was calculated factoring in the age and sex distribution in each geographic area and then compared to the observed number of cases, with the exception of NYC, where age-adjusted rates were calculated. Data were obtained from the Cancer Registry March 2020.

Communicable Disease Electronic Surveillance System (CDESS)

Reporting of suspected or confirmed communicable diseases is mandated by Public Health Law and regulations. Reports are made to the local health department in the county in which the patient resides and need to be submitted within 24 hours of diagnosis.

In this report, CDESS data on sexually transmitted infections provided by the Department's Office of Sexual Health and Epidemiology at the MCD level for gonorrhea, chlamydia, and male syphilis for years 2016-2018. Data were obtained from the Department's Office of Sexual Health and Epidemiology in July 2020.

HIV/AIDS Reporting System

The HIV/AIDS Reporting System contains data on detectable HIV viral load, as well as CD4 antibody counts that are less than 500. These two types of test results define HIV-related illness for the purposes of reporting. CD4<500 and positive HIV viral loads indicating HIV related illness occur via laboratory reporting. Physicians are asked to complete a report form for newly diagnosed cases of HIV. This report includes newly diagnosed HIV cases at the MCD level.

Data were provided July 2020 by the Department's Bureau of HIV/AIDS Epidemiology for years 2016-2018.

Sub-County Geography and Population Selection

To address the increasing needs for more granular community data to support local prioritization and planning, the Department's staff analyzed and produced data below county level, at the MCD level, for this report. MCDs, such as cities, towns, reservations, or villages, are legally incorporated municipal corporations providing services to their residents and authorized to tax property. There are 1,023 MCDs in NYS, including 932 towns, 62 cities, 14 Native American reservations, 10 undefined MCDs consisting entirely of water, and five town-village governments. Minority Areas (MCDs in this case) are identified as "minority" if the population is comprised of 40 percent or more non-White minority population.

Map displays minority population distribution by census block: This report provides a MCD map that shows the distribution of minority population by census block group. The block group colors are shaded based on the percentage of the block group's minority population:

• The YELLOW color represents minority population <20% in that census block group
• The LIGHT ORANGE color represents minority population 20%-<30% in that census block group
• The DARK ORANGE color represents minority population 30%-<40% in that census block group
• The RED color represents minority population equal to or greater than 40% in that census block group

While race/ethnicity is the driving force for the inclusion of MCDs in this report, no further stratification for population demographic and health outcomes was conducted. In NYS, there are 48 MCDs meeting the Minority Area designation. Included in this report are 37 MCDs having sufficient data for statistical analysis.

The report also includes county, state, NYC, and NYS excluding NYC data, where appropriate, for comparison purposes.

Data Interpretation and Limitations

Percentages

Measures expressed as percentages were calculated by taking the count for a particular indication (for example, low birthweight births) and dividing it by the total possible denominator from which the indication can occur (for example, all births).

Rates

Measures presented as rates in this report are shown per 10,000 or 100,000 population. A simple interpretation of a rate per 10,000 or 100,000 is the number of cases/diagnoses occurring for every 10,000 or 100,000 people living in a particular area, respectively.

Age-adjusted rates

Age adjustment is a statistical process applied to rates of disease, death, injuries or other health outcomes which allows communities with different age structures to be compared.

Almost all diseases or health outcomes occur at different rates in different age groups. Most chronic diseases, including most cancers, occur more often among older people. Other outcomes, such as many types of injuries, occur more often among younger people. The age distribution determines what the most common health problems in a community will be. One way of examining the pattern of health outcomes in communities of different sizes is to calculate an incidence or mortality rate, which is the number of new cases or deaths divided by the size of the population. In chronic diseases and injuries, rates are usually expressed in terms of the number of cases/deaths per 100,000 people.

A community made up of more families with young children will likely have a higher rate of bicycle injuries than a community with fewer young children. A community with more older individuals will have higher rates of cancer than one with younger individuals. This is true even if the individuals in the two communities have the same risk of developing cancer or being injured. Epidemiologists refer to this as confounding, which happens when the measurement of the association between the exposure and the disease is mixed with the effects of an extraneous factor (a confounding variable).

Age confounding occurs when the two populations being compared have different age distributions and the risk of the disease or outcome varies across the age groups. The process of age adjustment by direct method changes the amount that each age group contributes to the overall rate in each community, so that the overall rates are based on the same age structure. Rates that are based on the same age distribution can be compared to each other without the presence of confounding by age. Adjustment is accomplished by first multiplying the age-specific rates of disease by age-specific weights. The weights used in the age adjustment of cancer data are the proportion of the 2000 U.S. population within each age group. The weighted rates are then summed across the age groups to give the age-adjusted rate.

Observed vs. Expected Cases

For cancer indicators outside of NYC, a different approach for comparison was employed: observed to expected case ratios. Observed cases are the number of cases of a disease that occurred among MCD residents during a specified time period. Expected cases are the anticipated number of cases in the MCD in that time period, based on the state average rate of the disease and the size of the MCD's population.

Some MCDs have a larger population than others. Because of this, comparisons should not be made between the number of people diagnosed with cancer in each MCD to other MCDs or to the county level. Generally speaking, higher populations will result in higher cancer frequency. Also, because cancer is more common in older people, the age of the people who live in an MCD is important. Unsurprisingly, MCDs where older people live will have more cancer than neighborhoods where younger people live.

Expected cases are determined by calculating the number of people in a given MCD that would be expected to develop cancer within a five-year period, if the MCD had the same rate of cancer as the state as a whole. The cancer rate for the entire state and the number of people in an MCD are used to estimate the expected incidence. Age and population size are also taken into account because the expectation is that more people will develop cancer in an area with a larger population or a higher percentage of older residents.

The ratio of observed to expected cases is known as the standardized morbidity ratio. A ratio above the value of "1" indicates more cases occur than expected, while a value below "1" indicates fewer cases occurred than expected. This report also provides a calculated percentage difference from expected to illustrate where certain cancers occur more frequently.

Data Suppression

Results are not shown when issues of confidentiality, skewed data, or miscoding exist. Two types of data suppression were applied to this report: primary and secondary. Primary suppression rules vary depending on the data source and the measure.

Data Source	Suppression Criteria
Death data (Vital Records)	Denominator population (<30)
Birth data (Vital Records)	Denominator total births (<30)
Hospitalization data (SPARCS)	Numerator 1-5 cases
Cancer data (Cancer Registry)	Total numerator cancer cases across all cancer types reported (<6)
HIV/AIDS (HIV/AIDS Reporting System)	Numerator 1-5 cases
STD (Communicable disease electronic reporting system)	Numerator 1-5 cases

Secondary suppression is applied to remove outlier estimates that result from coding errors (e.g., in patients' demographic information), or skewed distribution of cases by age groups that cause age adjustment to produce extreme values.

Data Limitations

SPARCS/Vital Records Data: Data were age-adjusted in this report for the preventable hospitalizations, homicide-related deaths, and several other measures. At the MCD level, very unusual distributions in the population denominator and/or numerator (possibly due to multiple hospitalizations per individual) may result in extreme age-adjusted rates; therefore, these estimates are suppressed or should be interpreted with caution.

Cancer Data: Data for cancer cases outside of NYC in this report series are compared to expected case counts. At the MCD level, very unusual observed-to-expected case ratios are possible when the expected count is abnormally high or low. In some cases, these estimates are suppressed or should be interpreted with caution.

Acknowledgements