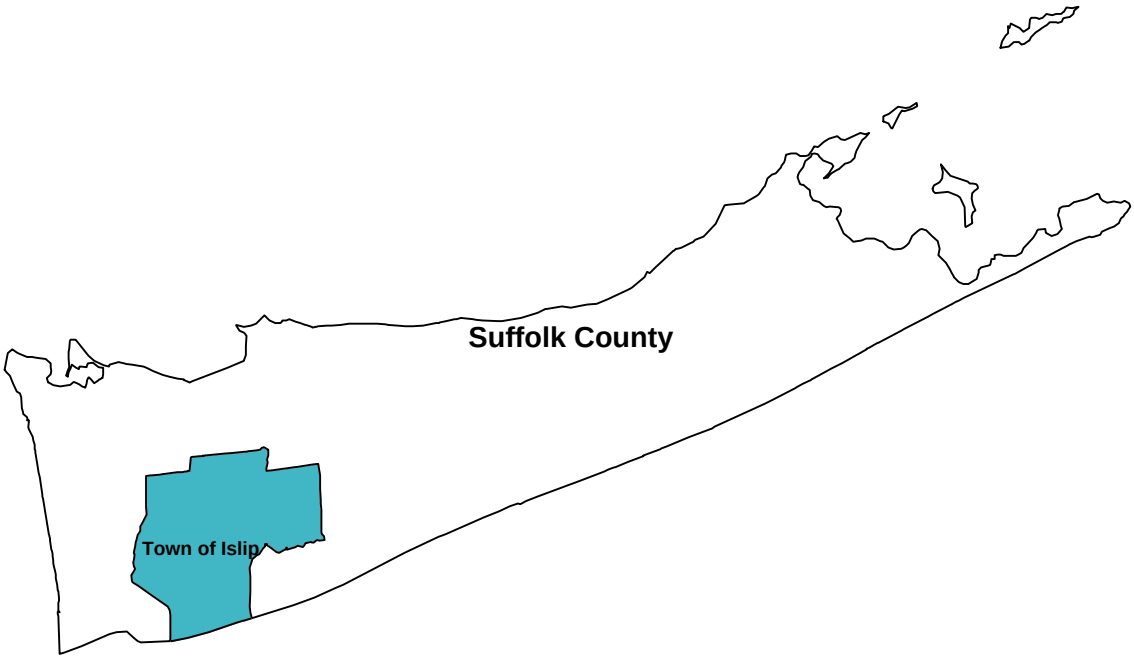
Town of Islip

Health Equity Report



New York State Department of Health

February 2017

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Introduction

Eliminating disparities in health and health care among racial, ethnic and other underserved populations, as well as 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 the Public Health Law (PHL) requires the New York State Department of Health (the Department) to issue a report on the health status of racial and ethnic populations in Minority Areas, defined in Public Health Law, as a non-White population of 40 percent or more. This Health Equity Report, provides data on health-related indicators from 2010 to 2013 to assess the extent of health disparities in 240*2 Minority Areas.

Literature indicates that communities with a high concentration of minority populations, such as Minority Areas, are poorer, rely on government assistance, and have a higher incidence of sexually transmitted diseases (STDs), chronic diseases, and injuries.[1] This report provides a comprehensive picture of the population health status for twenty-eight (28) Minor Civil Divisions (MCDs), smaller areas than counties that meet the definition of 240*2 Minority Areas. This level of data will assist with focused health planning, and better measurement of health outcomes and policy impacts.

While advances in public health and biomedical technology have led to increased life expectancy and improved health for all Americans, reducing health inequalities remains a challenge, as evidence continues to show differences in health status, health care access, and quality of care by racial and ethnic populations. 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.[2]

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 2014, approximately 44 percent of New York State's population were non-Whites. Hispanics represented 19 percent of the population followed by Black non-Hispanics with 14 percent, and Asians with 8 percent. Approximately 2 percent were of two or more races, while American Indians, Native Hawaiians and other races represented 1 percent.[3] 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.[4]

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

[1] Centers for Disease Control and Prevention. CDC Health Disparities and Inequalities Report-United States, 2011. MMWR Morb and Mortal Wlky Rep. 2011;60(Suppl).
[2] 2015 Kelly Report, Health Disparities in America, Washington, D.C.
[3] U.S. Census Bureau, American Community Survey, Population by Race and Hispanic Origin, New York State, 2014Table B03002
[4] New York State Office of Aging. Demographic Changes in New York State. http://www.geo.hunter.cuny.edu/courses/geog260/DemographicChangesinNewYorkState.pdf

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.[5]

The federal Agency for Healthcare Research and Quality, which has assessed the nation's health system annually since 2003, reported that, in 2015, 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.[6]

The Department continues to make investments that have helped improve several indicators of health.[7] 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; diversification of the health workforce to meet the needs of an increasingly diverse population; 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. However, work remains to be done to promote health equity.

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. New York's blueprint for improving population health is described in its State Health Improvement Plan (Prevention Agenda 2013-2018).[8]

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.

[5] USDHHS, Key Features of the Affordable Act by Year, Improving Quality and Lowering Costs, Understanding and Fighting Health Disparities, March 2012
[6] 2015 National Healthcare Quality and Disparities Report and 5th Anniversary Update on the National Quality Strategy. Content last reviewed May 2016. Agency for Healthcare Research and Quality, Rockville, MD. https://www.ahrq.gov/sites/default/files/wysiwyg/research/findings/nhqrdr/nhqdr15/2015nhqdr.pdf
[7] New York State Department of Health, Prevention Agenda 2013-2018 Dashboard: https://health.ny.gov/preventionagendadashboard
[8] New York State Department of Health, Prevention Agenda 2013-18: New York State's Health Improvement Plan: http://www.health.ny.gov/prevention/prevention_agenda/2013-2017/

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 2013-2018 tracking dashboard, which measures progress on 96 statewide and 68 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 11 tracking indicators at ZIP code or school district levels, or New York City community districts and MCDs outside New York City.

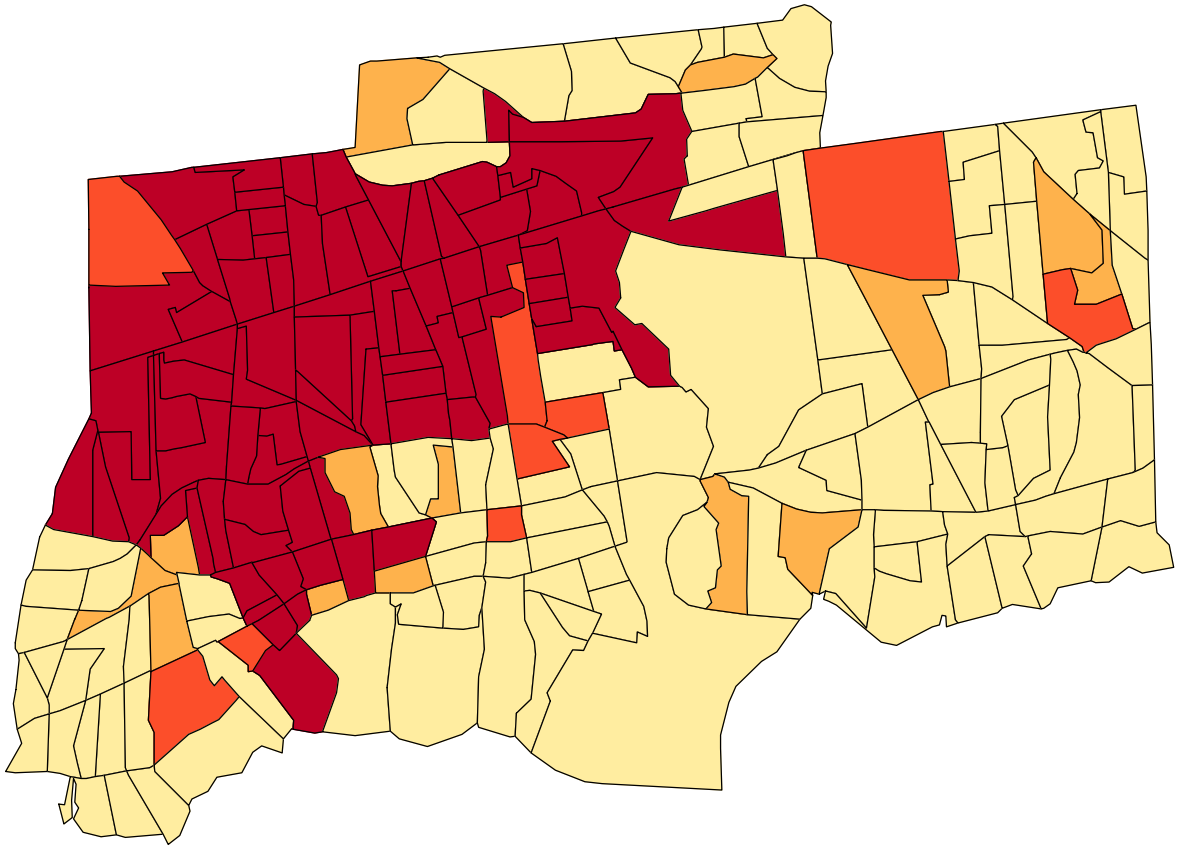
• The New York City Community Health Profiles[9] provide comprehensive health reports of 59 community districts in New York City. These profiles include data and information on major health outcomes and factors that contribute to these outcomes such as housing quality, air quality, and type of food accessible.

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.

[9] King L, Hinterland K, Dragan KL, Driver CR, Harris TG, Gwynn RC, Linos N, Barbot O, Bassett MT. New York City Community Health Profiles 2015. http://www1.nyc.gov/site/doh/data/data-publications/profiles.page

Town of Islip

Minority population density map by census block group, 2010-2014



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 Islip, Suffolk County and New York State

Population Characteristic	Town of Islip	Suffolk County	New York State
Population, Age and Sex			
Total population	336,758 (336,700 - 336,816)	1,500,373 (1,500,373 - 1,500,373)	19,594,330 (19,594,330 - 19,594,330)
Percent female	50.7 (50.3 - 51.1)	50.8 (50.7 - 50.9)	51.5 (51.4 - 51.6)
Percent male	49.3 (48.9 - 49.7)	49.2 (49.1 - 49.3)	48.5 (48.4 - 48.6)
Percentage of total population less than 5 years old	6.2 (5.9 - 6.5)	5.5 (5.4 - 5.6)	6.0 (5.9 - 6.1)
Percentage of total population 5 to 19 years old	20.7 (20.5 - 20.9)	20.3 (20.2 - 20.4)	18.7 (18.6 - 18.8)
Percentage of total population 20 to 64 years old	60.9 (60.7 - 61.1)	59.8 (59.7 - 59.9)	61.2 (61.1 - 61.3)
Percentage of total population 65 years old and over	12.2 (12.0 - 12.4)	14.4 (14.3 - 14.5)	14.0 (13.9 - 14.1)
Race and Ethnicity			
Percent minority	43.7 (43.0 - 44.4)	29.7 (29.6 - 29.8)	42.7 (42.6 - 42.8)
Percent White	56.3 (55.6 - 57.0)	70.3 (70.2 - 70.4)	57.3 (57.2 - 57.4)
Percent Black	8.9 (8.5 - 9.3)	7.1 (7.0 - 7.2)	14.4 (14.3 - 14.5)
Percent Hispanic	30.4 (29.7 - 31.1)	17.4 (17.4 - 17.4)	18.2 (18.2 - 18.2)
Percent Asian	2.8 (2.5 - 3.1)	3.6 (3.5 - 3.7)	7.7 (7.6 - 7.8)
Percent Native American	0.1 (0.0 - 0.2)	0.1 (0.0 - 0.2)	0.2 (0.1 - 0.3)
Percent other	1.4 (1.2 - 1.6)	1.3 (1.2 - 1.4)	2.0 (1.9 - 2.1)
Educational Attainment of Adults 18-25			
Percent less than high school	13.1 (12.0 - 14.2)	11.8 (11.1 - 12.5)	12.8 (12.4 - 13.2)
Percent high school	30.8 (28.8 - 32.8)	28.4 (27.5 - 29.3)	25.8 (25.3 - 26.3)
Percent some college & associates degree	43.3 (40.9 - 45.7)	45.2 (44.2 - 46.2)	46.3 (45.6 - 47.0)
Percent with a bachelor's degree	12.8 (11.4 - 14.2)	14.7 (14.0 - 15.4)	15.1 (14.7 - 15.5)
Income and Poverty			

Source: American Community Survey, 2010-2014

Population Characteristic	Town of Islip	Suffolk County	New York State
Median income ($)	85,281 (83,777 - 86,785)	88,323 (87,293 - 89,353)	58,687 (58,480 - 58,894)
Percent unemployed	7.7 (7.3 - 8.1)	4.6 (4.5 - 4.7)	5.6 (5.5 - 5.7)
Percent under poverty	5.2 (4.6 - 5.8)	4.8 (4.6 - 5.0)	12.0 (11.9 - 12.1)
Percentage of household on food stamps	8.9 (8.3 - 9.6)	6.2 (6.0 - 6.5)	15.6 (15.5 - 15.7)
Percent of household receiving public income	3.2 (2.7 - 3.6)	2.3 (2.1 - 2.5)	3.4 (3.3 - 3.5)
Housing Characteristics			
Percentage of housing units built before 1950	15.5 (14.9 - 16.1)	15.1 (14.8 - 15.4)	41.4 (41.3 - 41.5)
Median specified house value ($)	353,200 (350,971 - 355,429)	376,800 (375,568 - 378,032)	283,700 (282,816 - 284,584)
Percent of occupied housing units which are owner occupied	76.1 (75.3 - 76.9)	79.3 (78.8 - 79.8)	53.8 (53.6 - 54.0)
Median gross rent ($)	1,497 (1,463 - 1,531)	1,519 (1,496 - 1,542)	1,117 (1,114 - 1,120)
Health Insurance Status			
Percent no health insurance	11.0 (10.3 - 11.7)	9.3 (9.0 - 9.6)	8.7 (8.6 - 8.8)
Percent medicaid insurance	48.4 (47.4 - 49.4)	25.4 (25.1 - 25.7)	36.9 (36.7 - 37.1)
Disability Status			
Percentage of total population 18 to 64 years old with disability	16.7 (16.3 - 17.1)	9.1 (8.9 - 9.3)	11.5 (11.4 - 11.6)
Percentage of total population 18 to 64 years old with cognitive difficulty	8.0 (7.5 - 8.5)	2.6 (2.5 - 2.7)	3.5 (3.4 - 3.6)
Percentage of total population 18 to 64 years old with ambulatory difficulty	9.2 (8.7 - 9.7)	3.4 (3.3 - 3.5)	4.5 (4.4 - 4.6)
Percentage of total population 18 to 64 years old with vision difficulty	1.3 (1.1 - 1.5)	1.0 (0.9 - 1.1)	1.6 (1.5 - 1.7)
Percentage of total population 18 to 64 years old with hearing difficulty	1.3 (1.1 - 1.5)	1.2 (1.1 - 1.3)	1.6 (1.5 - 1.7)

Source: American Community Survey, 2010-2014

Leading Causes of Death

Table 2. Leading causes of death for Town of Islip, Suffolk County and New York State, 2011-2013

Region	#1 Cause of death and # of Deaths Age-adjusted death rate	#2 Cause of death and # of Deaths Age-adjusted death rate	#3 Cause of death and # of Deaths Age-adjusted death rate	#4 Cause of death and # of Deaths Age-adjusted death rate	#5 Cause of death and # of Deaths Age-adjusted death rate
Town of Islip	Heart Disease 1,951 201.6 per 100,000	Cancer 1,626 160.0 per 100,000	Unintentional Injury 388 37.9 per 100,000	Chronic Lower Respiratory Diseases (CLRD) 341 35.6 per 100,000	Stroke 249 25.9 per 100,000
Suffolk County	Heart Disease 9,706 180.8 per 100,000	Cancer 8,305 157.7 per 100,000	Unintentional Injury 1,954 40.9 per 100,000	Chronic Lower Respiratory Diseases (CLRD) 1,697 32.4 per 100,000	Stroke 1,296 24.4 per 100,000
NYS Excluding NYC	Heart Disease 79,850 181.4 per 100,000	Cancer 68,413 164.0 per 100,000	Chronic Lower Respiratory Diseases (CLRD) 15,333 36.2 per 100,000	Stroke 12,797 29.4 per 100,000	Unintentional Injury 11,287 30.4 per 100,000
New York State	Heart Disease 129,777 184.6 per 100,000	Cancer 105,995 157.0 per 100,000	Chronic Lower Respiratory Diseases (CLRD) 20,632 30.4 per 100,000	Stroke 17,964 25.9 per 100,000	Unintentional Injury 16,115 25.4 per 100,000

Source: New York State Vital Records

Improve Health Status and Reduce Health Disparities

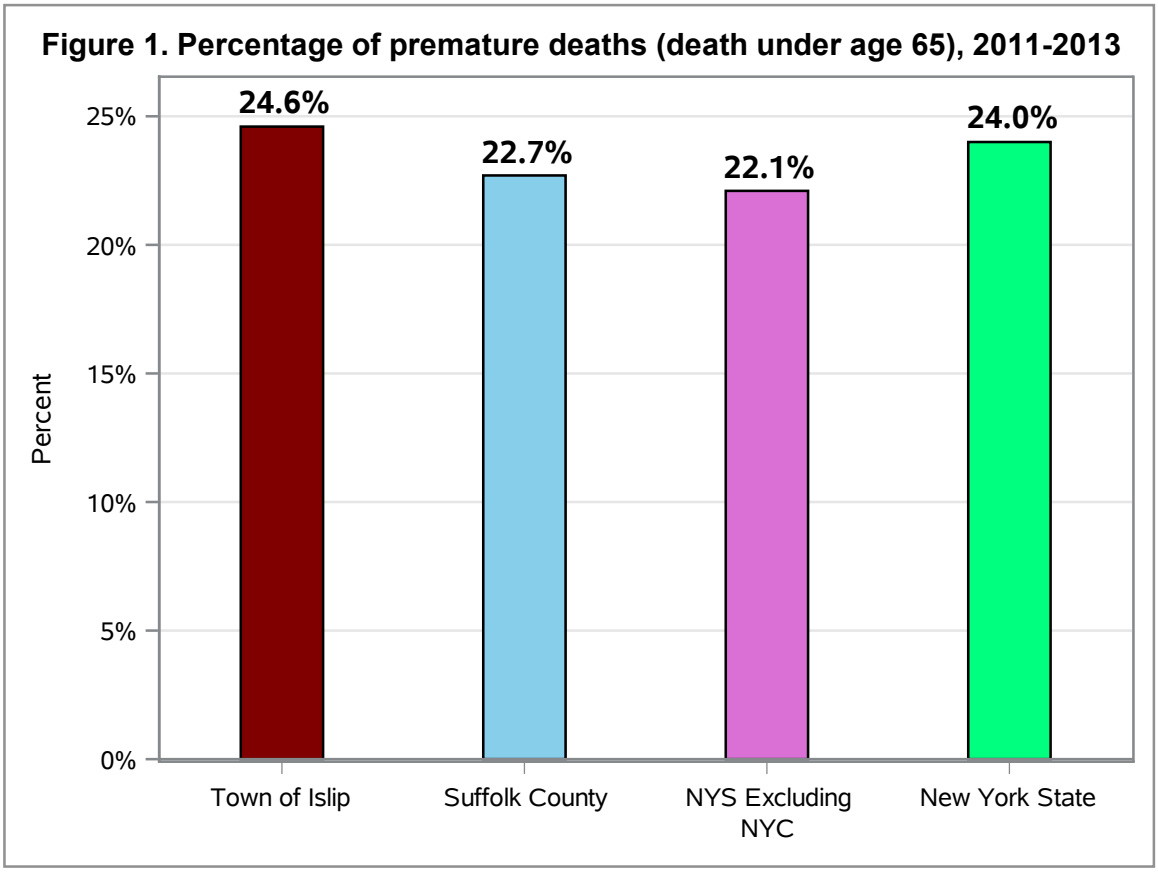


Table 3. Percentage of premature deaths (death under age 65), 2011-2013

	Town of Islip			Suffolk County	NYS Excluding NYC	New York State
Indicator	Numerator	Denominator	Percent	Percent	Percent	Percent
Percentage of premature deaths (before age 65 years)	1,639	6,650	24.6	22.7	22.1	24.0

Source: New York State Vital Records

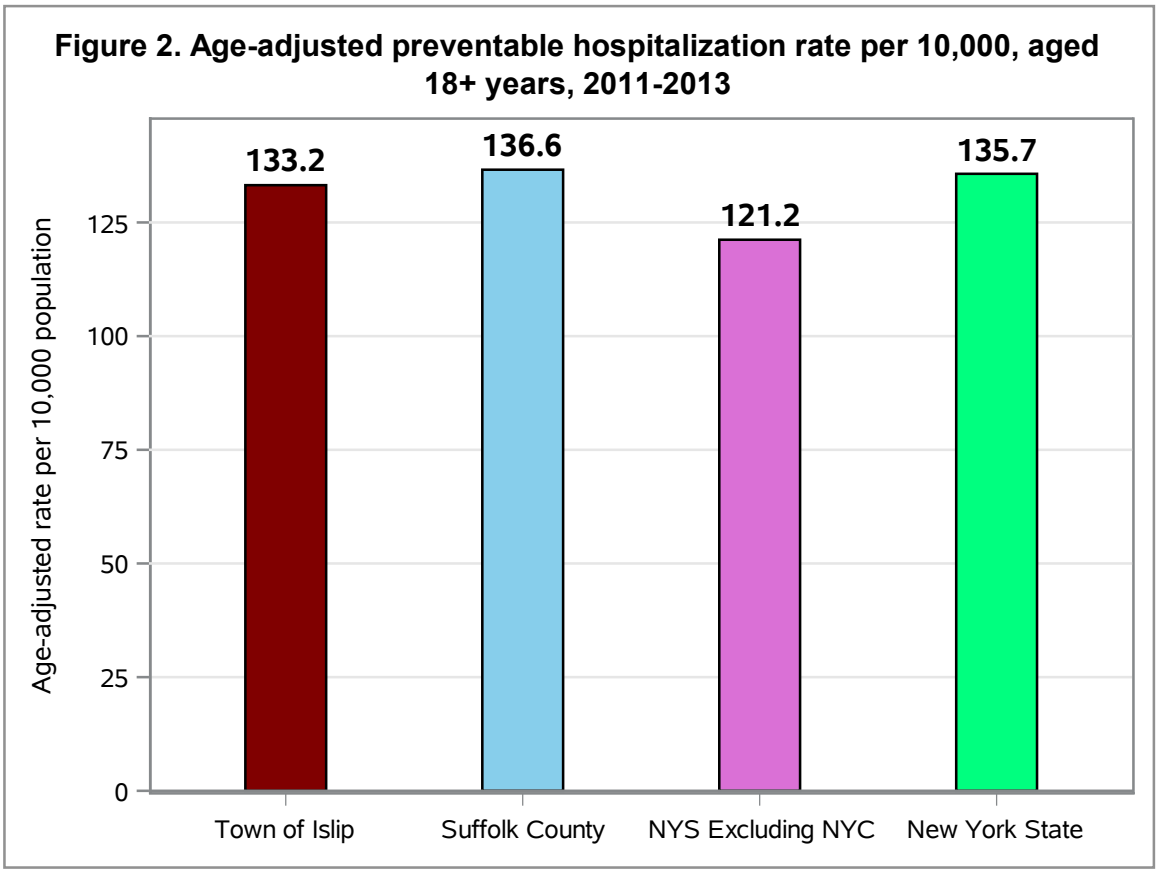
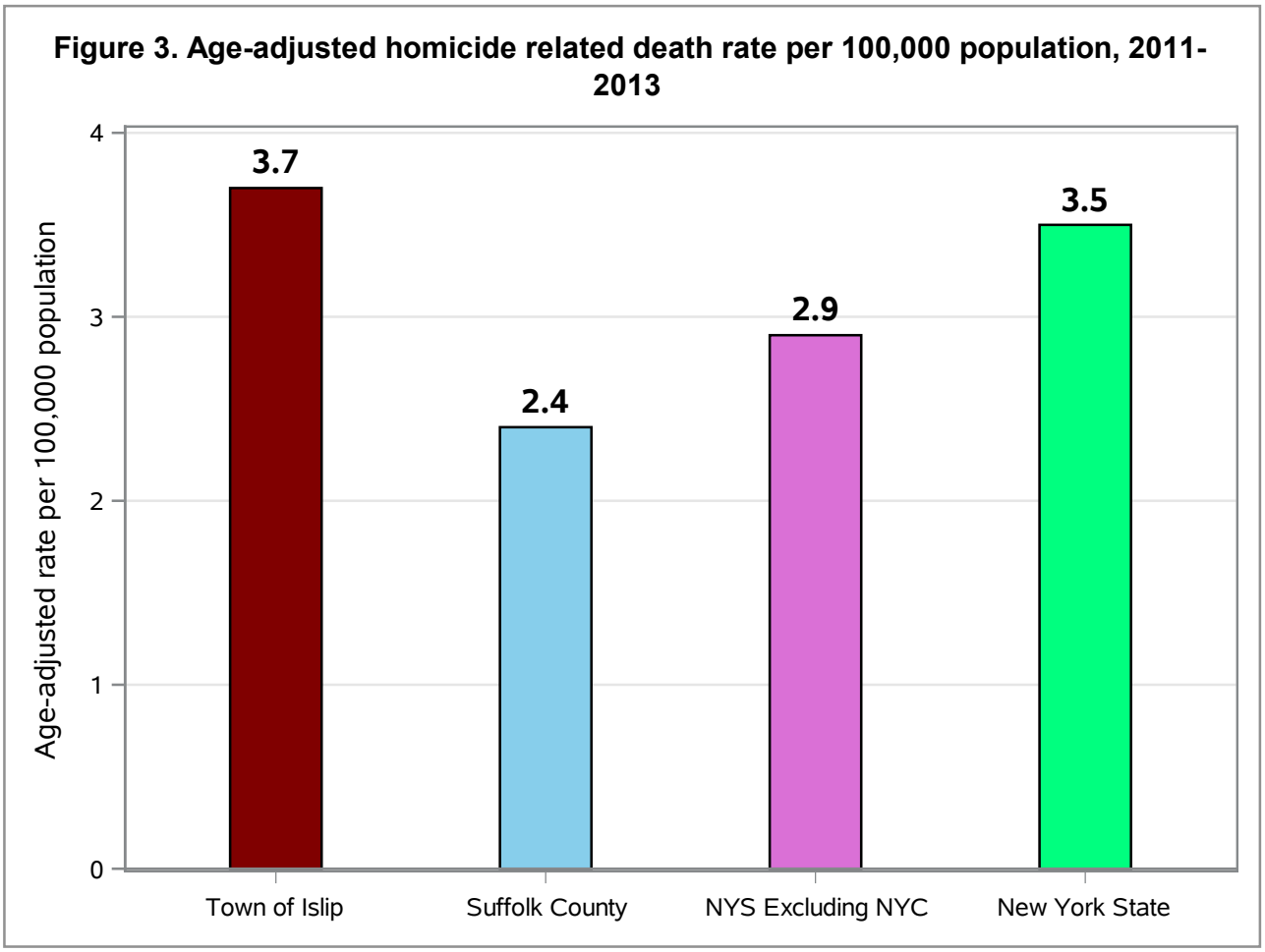


Table 4. Age-adjusted preventable hospitalization rate per 10,000, aged 18+ years, 2011-2013

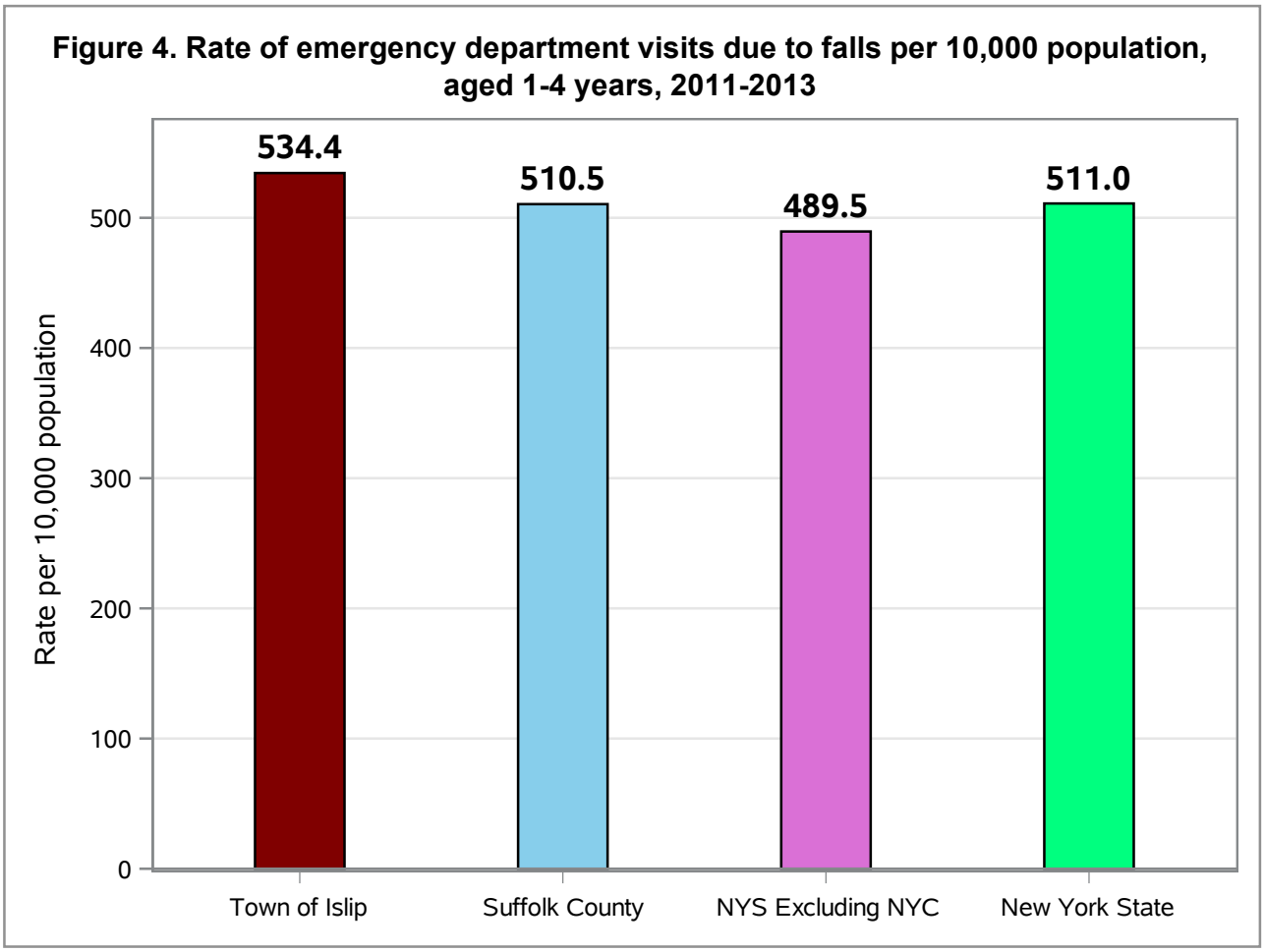
	Town of Islip		Suffolk County	NYS Excluding NYC	New York State
Indicator	Numerator	Rate	Rate	Rate	Rate
Age-adjusted preventable hospitalizations per 10,000 - Aged 18+ years	10,025	133.2	136.6	121.2	135.7

Source: Statewide Planning and Research Cooperative System (SPARCS)

Promote a Healthy and Safe Environment

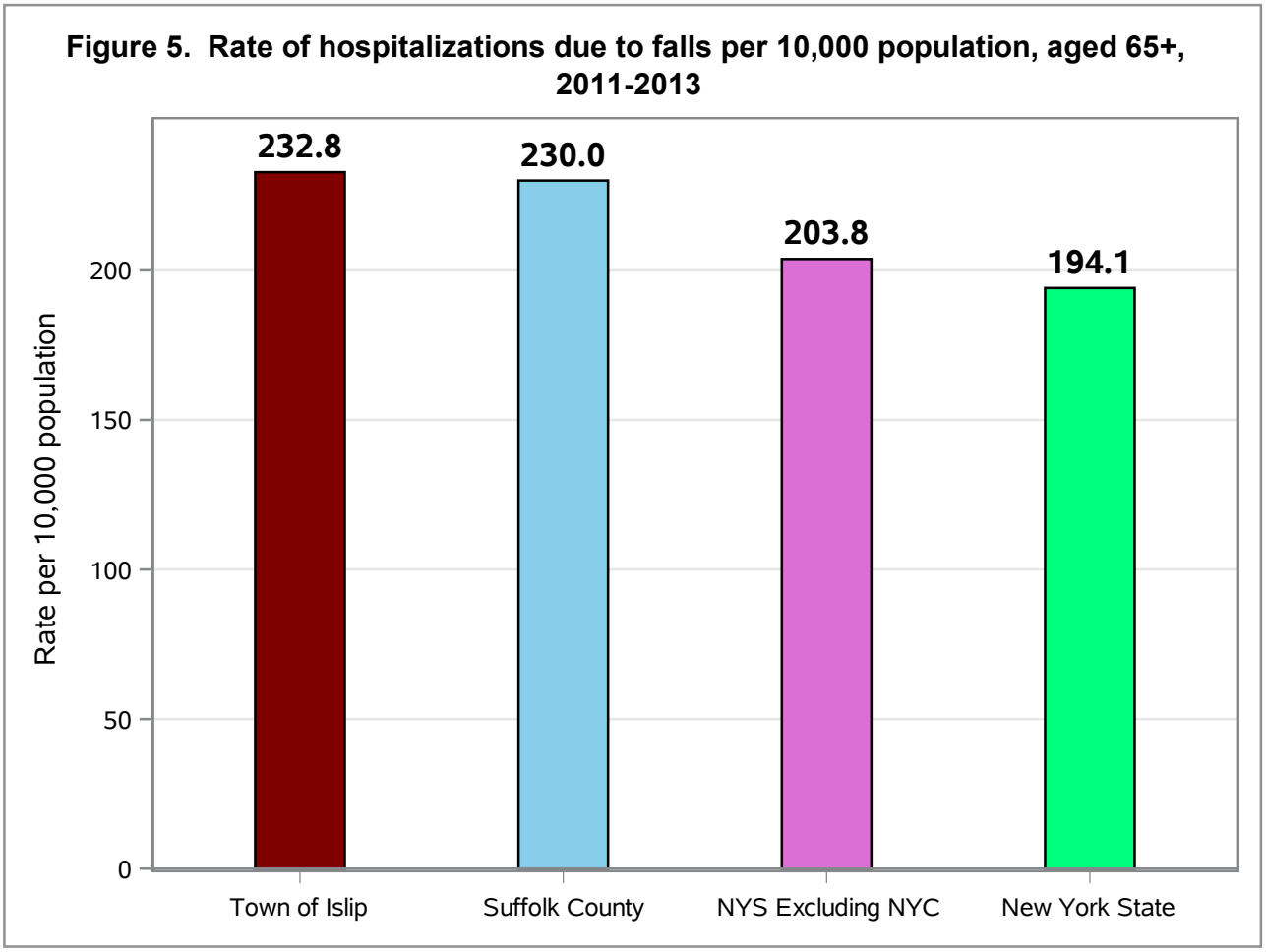


Source: New York State Vital Records

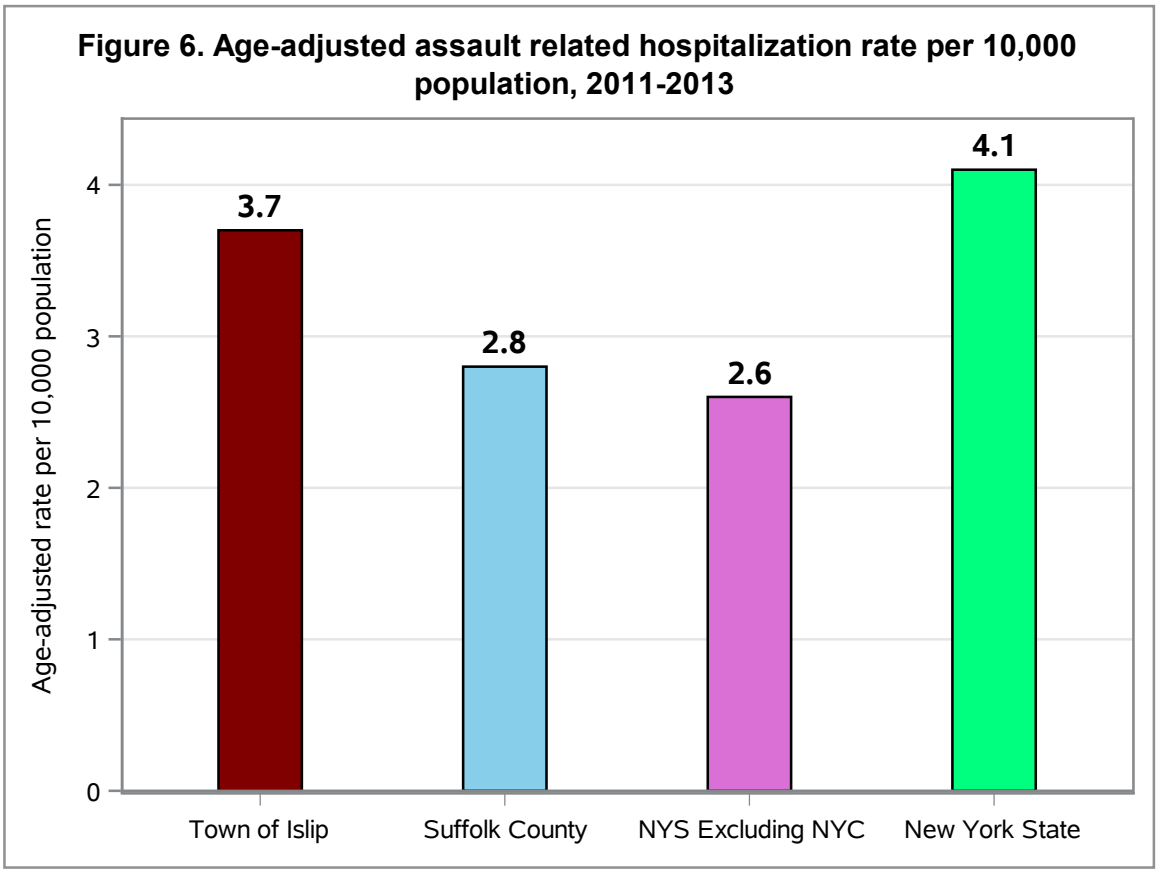


Source: Statewide Planning and Research Cooperative System (SPARCS)

Figure 5. Rate of hospitalizations due to falls per 10,000 population, aged 65+, 2011-2013



Source: Statewide Planning and Research Cooperative System (SPARCS)

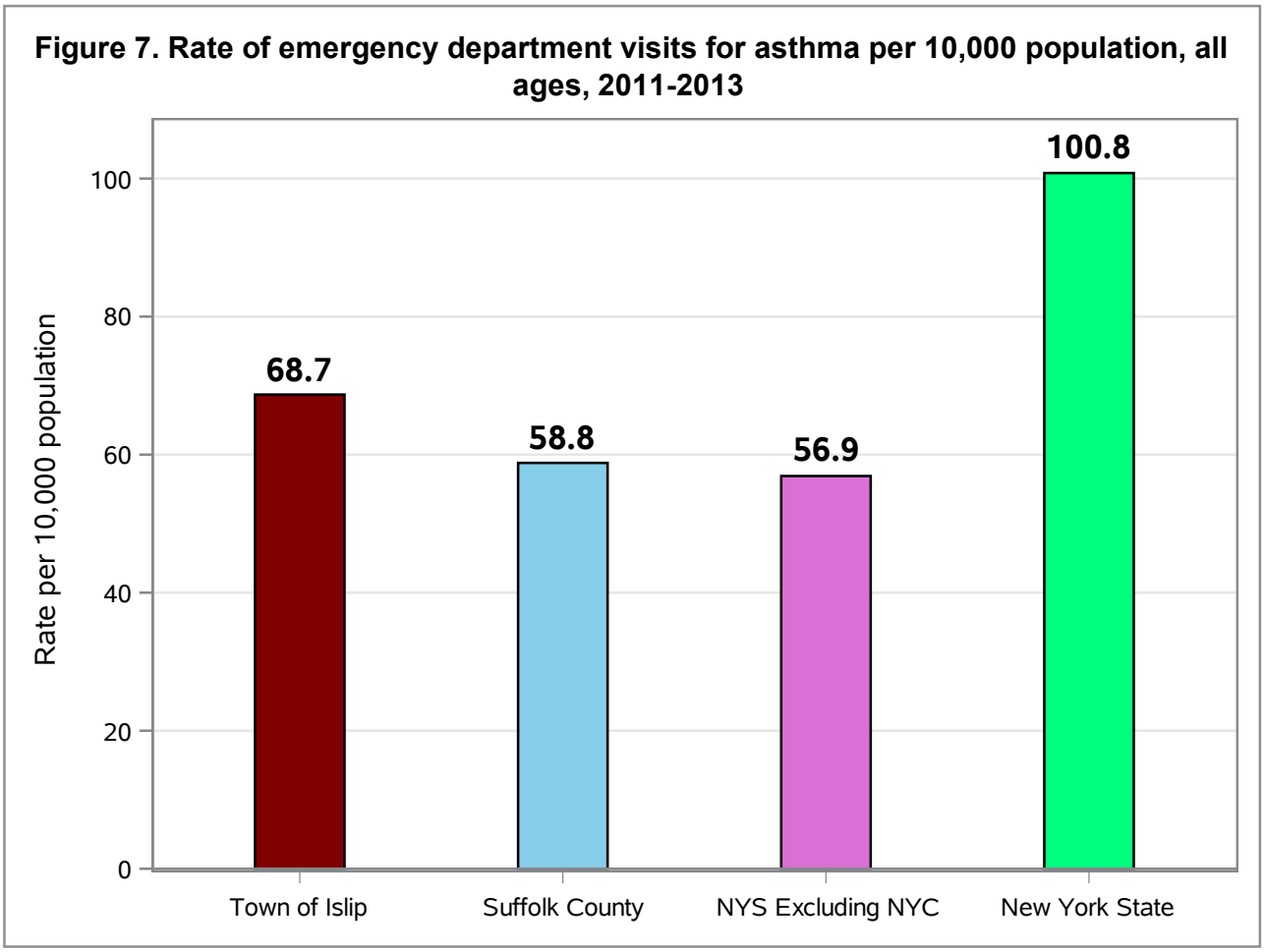


Source: Statewide Planning and Research Cooperative System (SPARCS)

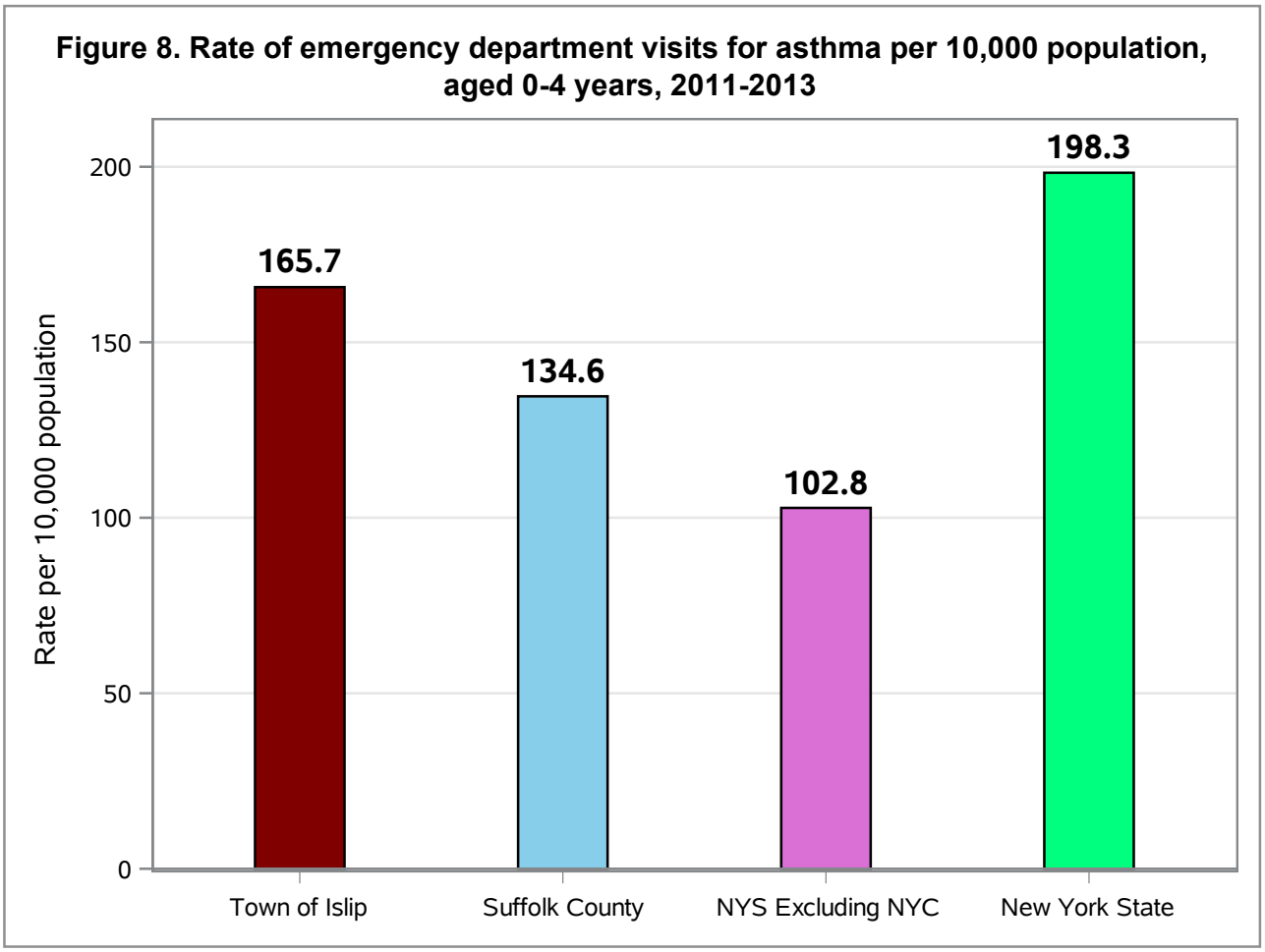
Table 5. Indicator data related to Prevention Agenda Priority Area: Promote a Healthy and Safe Environment, 2011-2013

	Town of Islip		Suffolk County	NYS Excluding NYC	New York State
Indicator	Numerator	Rate	Rate	Rate	Rate
Age-adjusted homicide rate per 100,000	36	3.7	2.4	2.9	3.5
Rate of emergency department visits due to falls per 10,000 - Aged 1-4 years	2,774	534.4	510.5	489.5	511.0
Rate of hospitalizations due to falls per 10,000 - Aged 65+ years	2,886	232.8	230.0	203.8	194.1
Age-adjusted assault related hospitalization rate per 10,000	369	3.7	2.8	2.6	4.1

Prevent Chronic Diseases

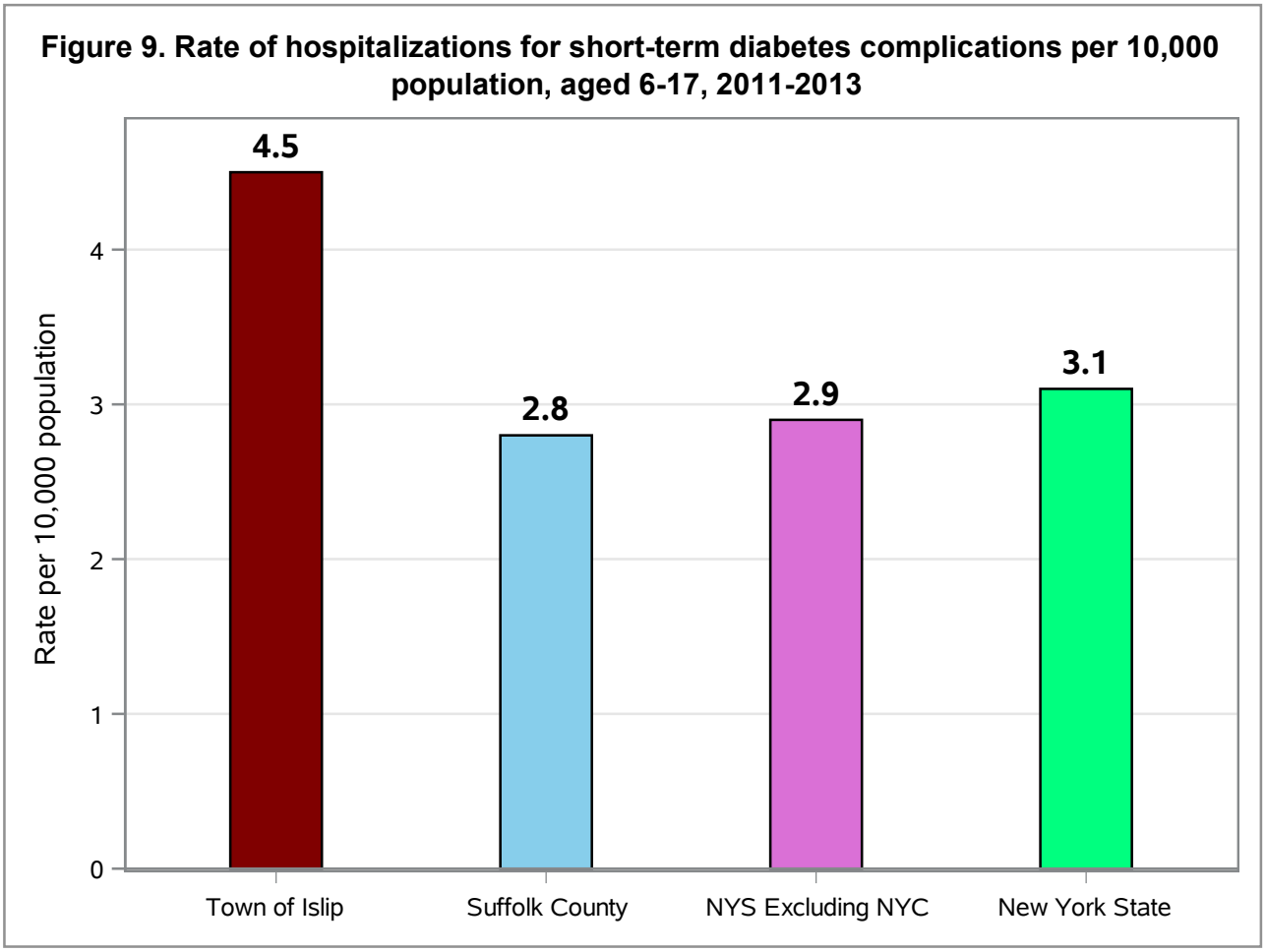


Source: Statewide Planning and Research Cooperative System (SPARCS)



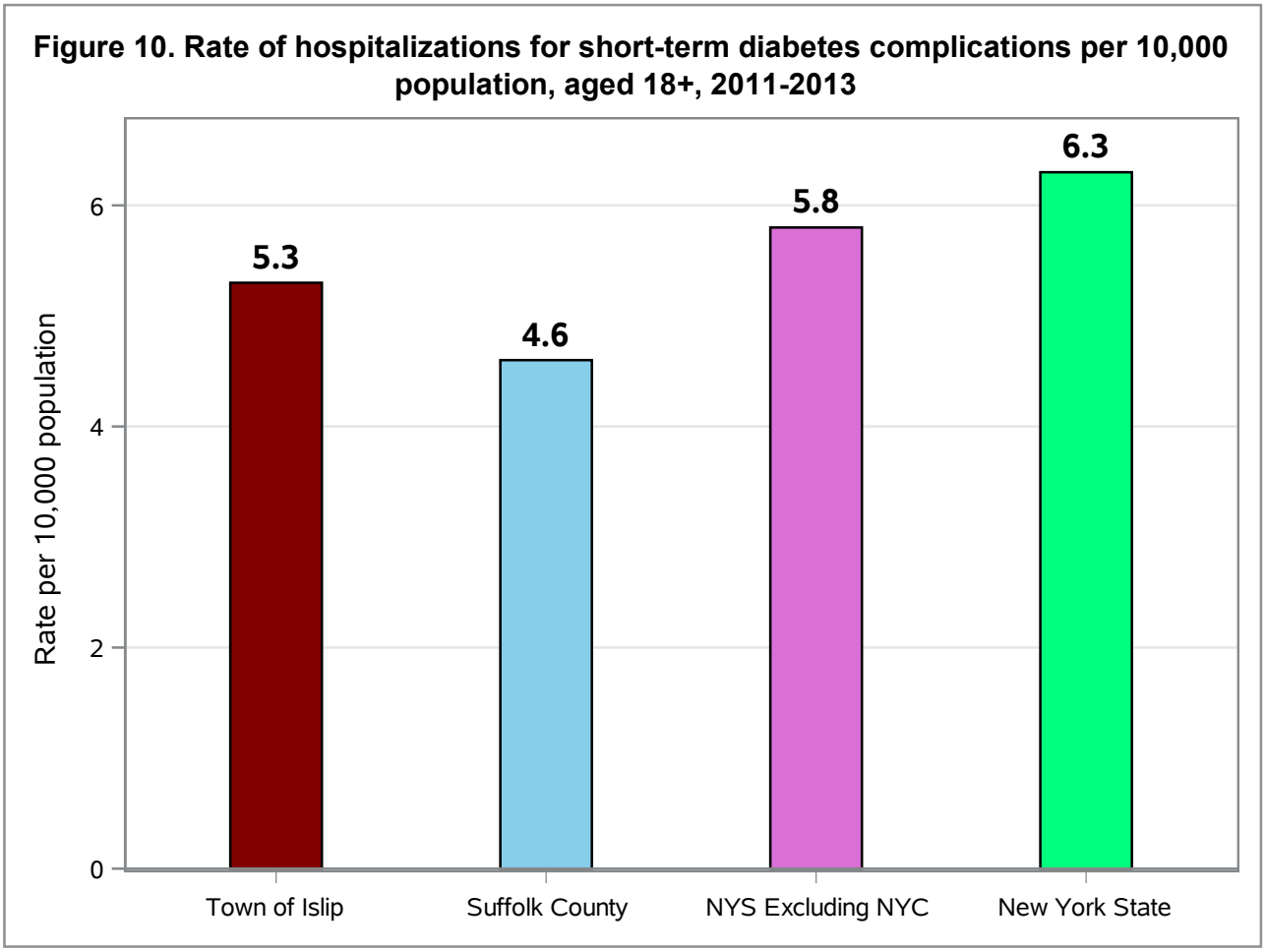
Source: Statewide Planning and Research Cooperative System (SPARCS)

Figure 9. Rate of hospitalizations for short-term diabetes complications per 10,000 population, aged 6-17, 2011-2013



Source: Statewide Planning and Research Cooperative System (SPARCS)

Figure 10. Rate of hospitalizations for short-term diabetes complications per 10,000 population, aged 18+, 2011-2013



Source: Statewide Planning and Research Cooperative System (SPARCS)

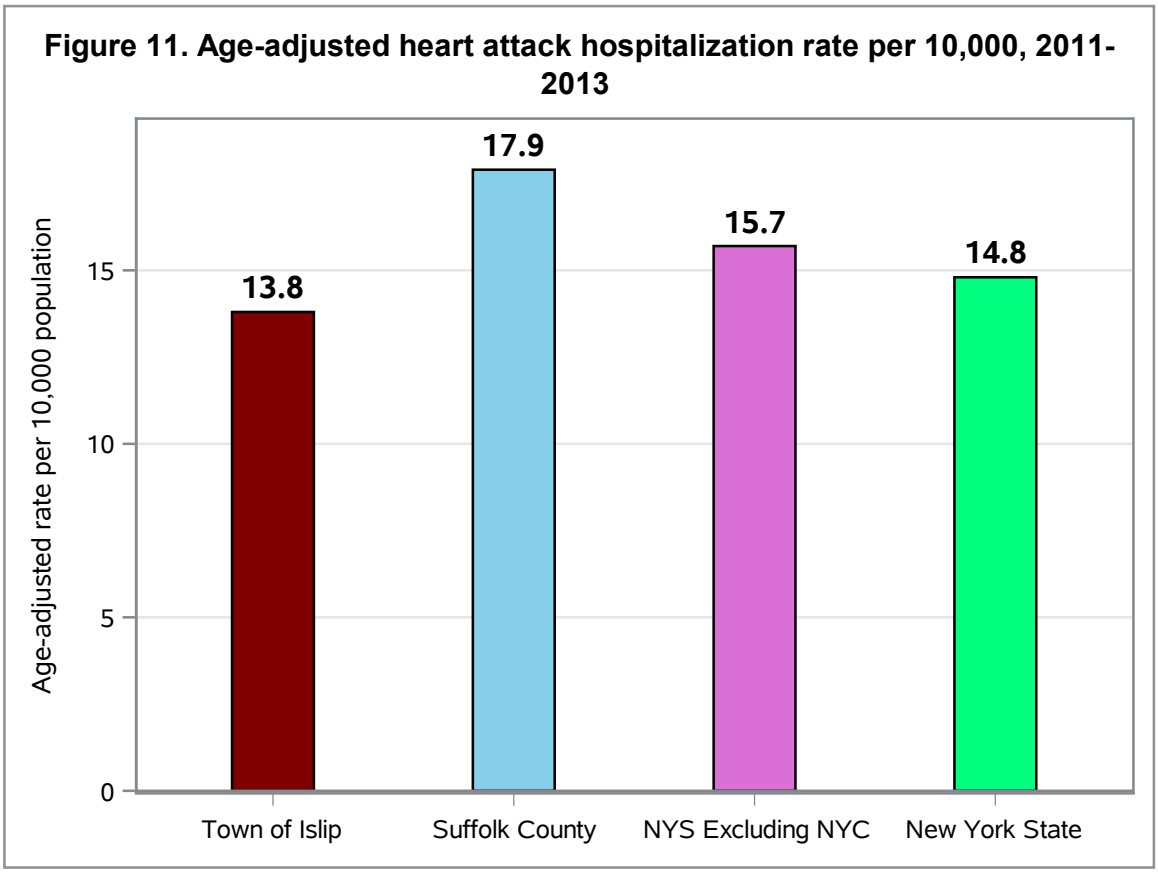


Table 6. Indicator data related to Prevention Agenda Priority Area: Prevent Chronic Disease, excluding cancer, 2011-2013

	Town of Islip		Suffolk County	NYS Excluding NYC	New York State
Indicator	**Numerator**	**Rate**	**Rate**	**Rate**	**Rate**
Asthma emergency department visit rate per 10,000 population	6,753	68.7	58.8	56.9	100.8
Asthma emergency department visit rate per 10,000 - Aged 0-4	1,064	165.7	134.6	102.8	198.3
Rate of hospitalizations for short-term complications of diabetes per 10,000 population - Aged 6 to 17 years	77	4.5	2.8	2.9	3.1
Rate of hospitalizations for short-term complications of diabetes per 10,000 population - Aged 18+ years	403	5.3	4.6	5.8	6.3
Age-adjusted heart attack hospitalization rate per 10,000	1,440	13.8	17.9	15.7	14.8

Source: Statewide Planning and Research Cooperative System (SPARCS)

Figure 12. Observed to expected case ratio and late diagnoses for common cancer types, 2010-2012

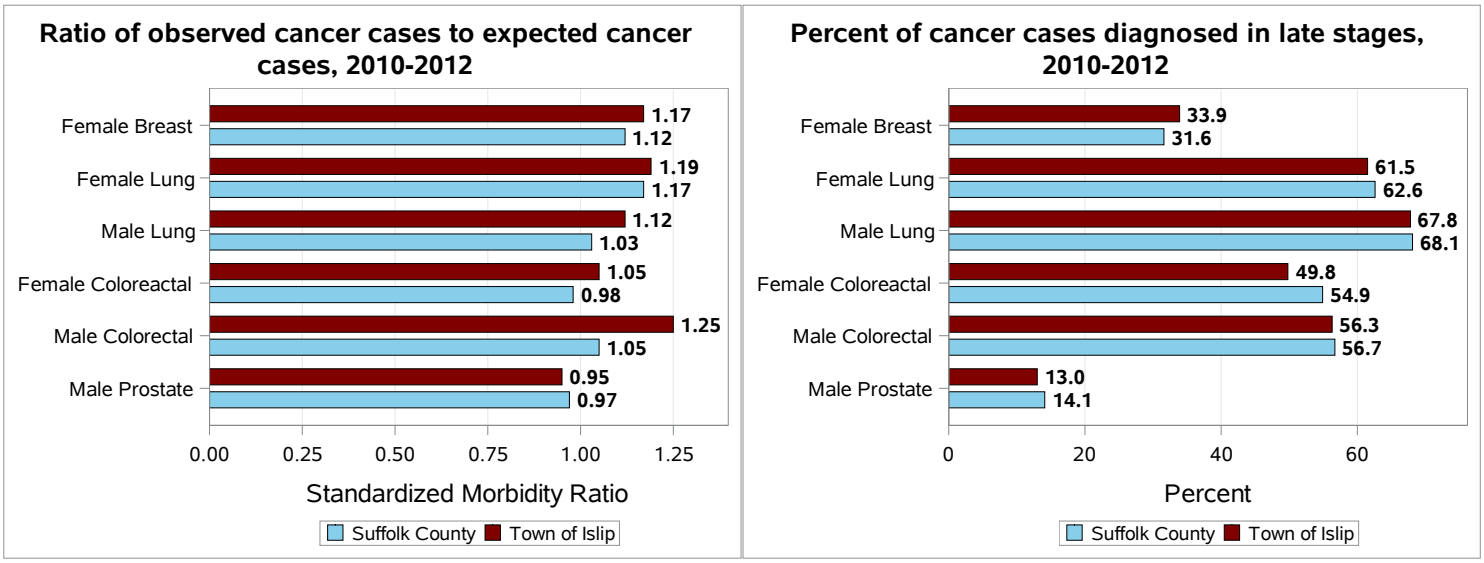


Table 7. Observed to expected case ratio and late diagnoses for common cancer types, 2010-2012

		Incidence				Cancers Diagnosed Late		
Site of Cancer	Location	Observed Cases	Expected Cases	Ratio*	Percent Difference from Expected	Late Cases	Total Cases	Percent Late
Female Breast	Town of Islip	835	716.4	1.17	15% to 49% Above Expected	283	835	33.9
	Suffolk County	3,956	3,523.6	1.12	Within 15% Expected	1,250	3,956	31.6
Female Lung	Town of Islip	374	313.3	1.19	15% to 49% Above Expected	230	374	61.5
	Suffolk County	1,833	1,566.3	1.17	15% to 49% Above Expected	1,147	1,833	62.6
Male Lung	Town of Islip	360	320.8	1.12	Within 15% Expected	244	360	67.8
	Suffolk County	1,674	1,632.2	1.03	Within 15% Expected	1,140	1,674	68.1
Female Colorectal	Town of Islip	215	205.4	1.05	Within 15% Expected	107	215	49.8
	Suffolk County	1,025	1,045.2	0.98	Within 15% Expected	563	1,025	54.9
Male Colorectal	Town of Islip	270	216.0	1.25	15% to 49% Above Expected	152	270	56.3
	Suffolk County	1,148	1,093.0	1.05	Within 15% Expected	651	1,148	56.7
Male Prostate	Town of Islip	690	728.8	0.95	Within 15% Expected	90	690	13.0
	Suffolk County	3,488	3,589.3	0.97	Within 15% Expected	491	3,488	14.1

Source: Cancer Registry

*: Observed to expected case ratio

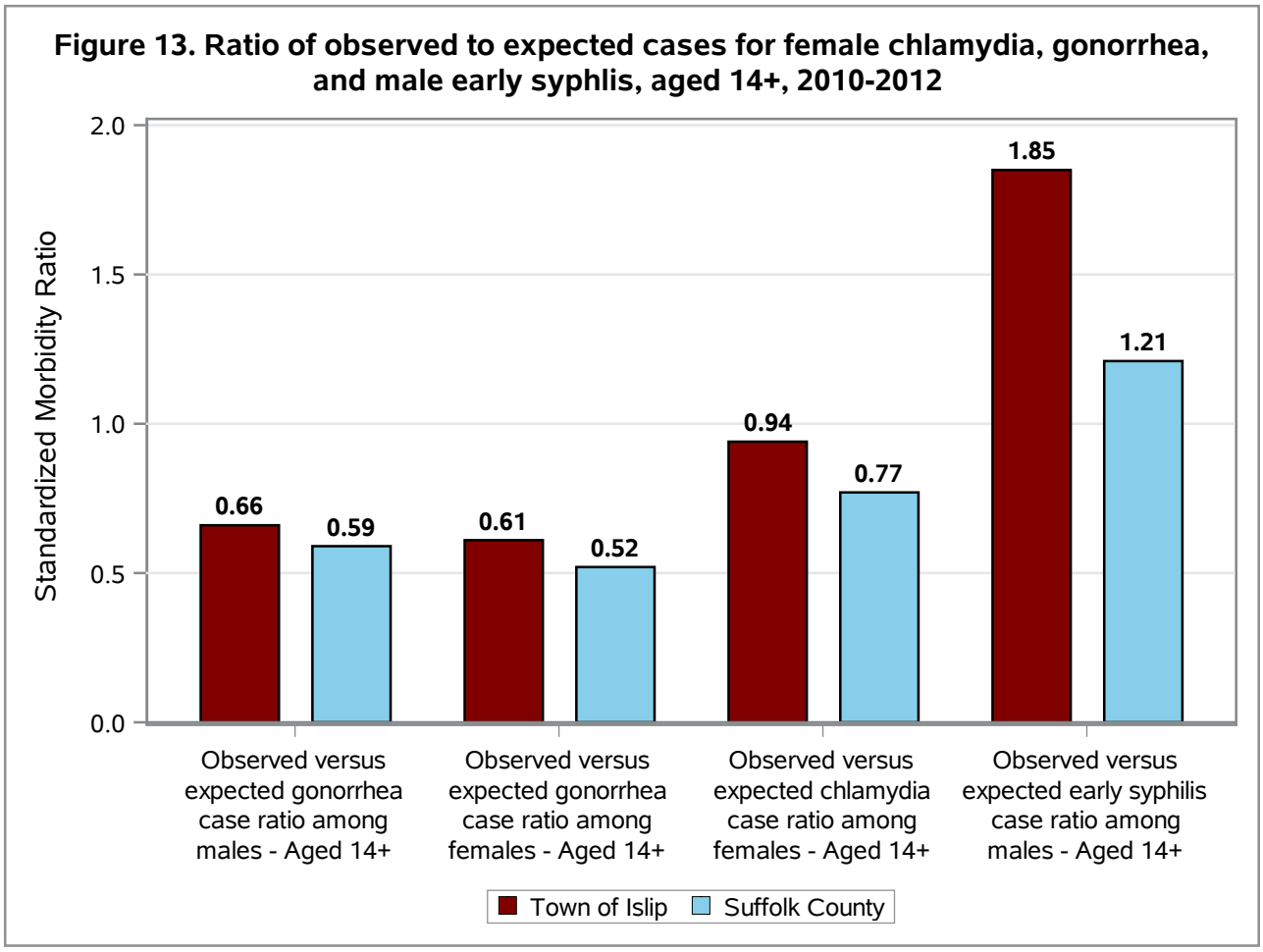


Table 8. Ratio of observed to expected cases for female chlamydia, gonorrhea, and male early syphilis, aged 14+, 2010-2012

	Town of Islip				Suffolk County			
Indicator	Observed Cases	Expected Cases	Ratio*	Percent Difference from Expected	Observed Cases	Expected Cases	Ratio*	Percent Difference from Expected
Observed versus expected gonorrhea cases among males - Aged 14+	179	269.5	0.66	15% to 50% Below Expected	685	1,168.4	0.59	15% to 50% Below Expected
Observed versus expected gonorrhea cases among females - Aged 14+	192	314.8	0.61	15% to 50% Below Expected	696	1,347.2	0.52	15% to 50% Below Expected
Observed versus expected chlamydia cases among females - Aged 14+	2,135	2,263.7	0.94	Within 15% Expected	7,458	9,666.6	0.77	15% to 50% Below Expected
Observed versus expected early syphilis cases among males - Aged 14+	51	27.5	1.85	More than 50% Above Expected	144	118.8	1.21	15% to 49% Above Expected

Source: Communicable Disease Electronic Surveillance System (CDESS)

*: Observed to expected case ratio

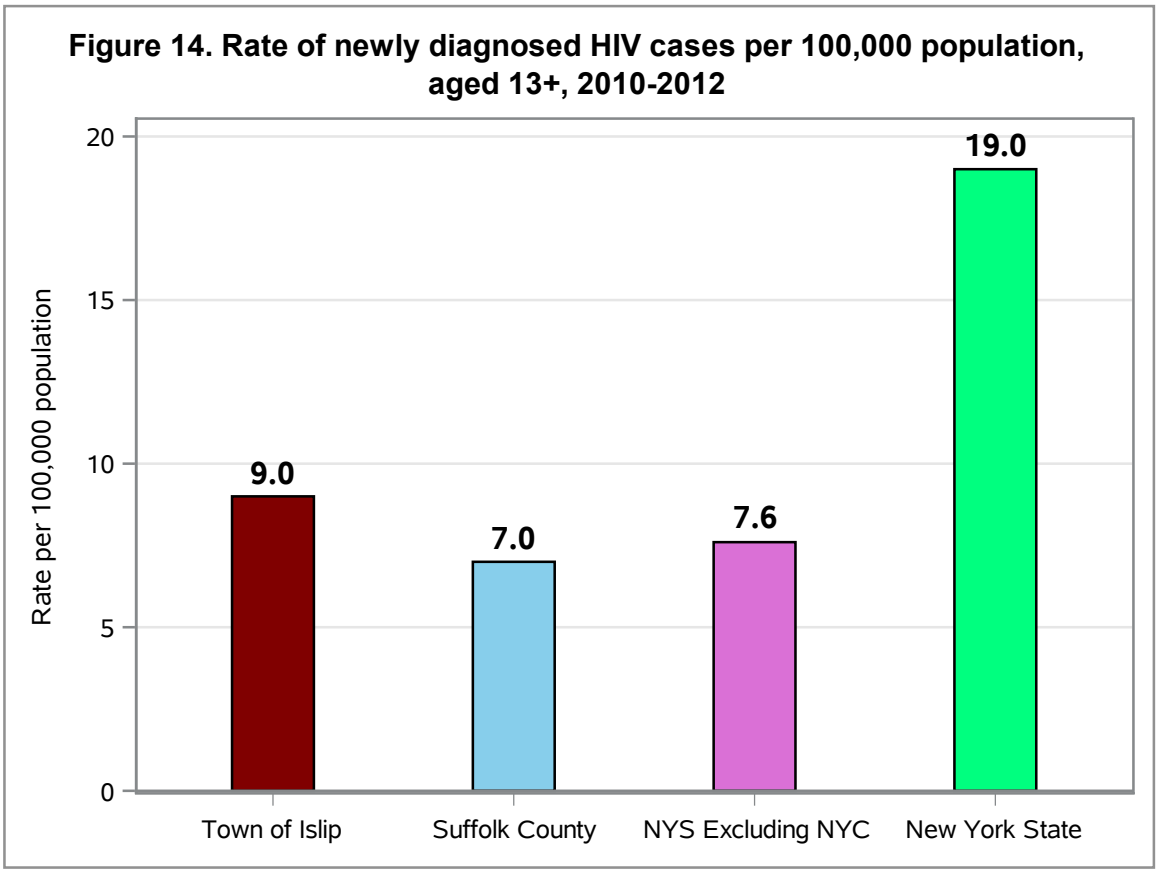
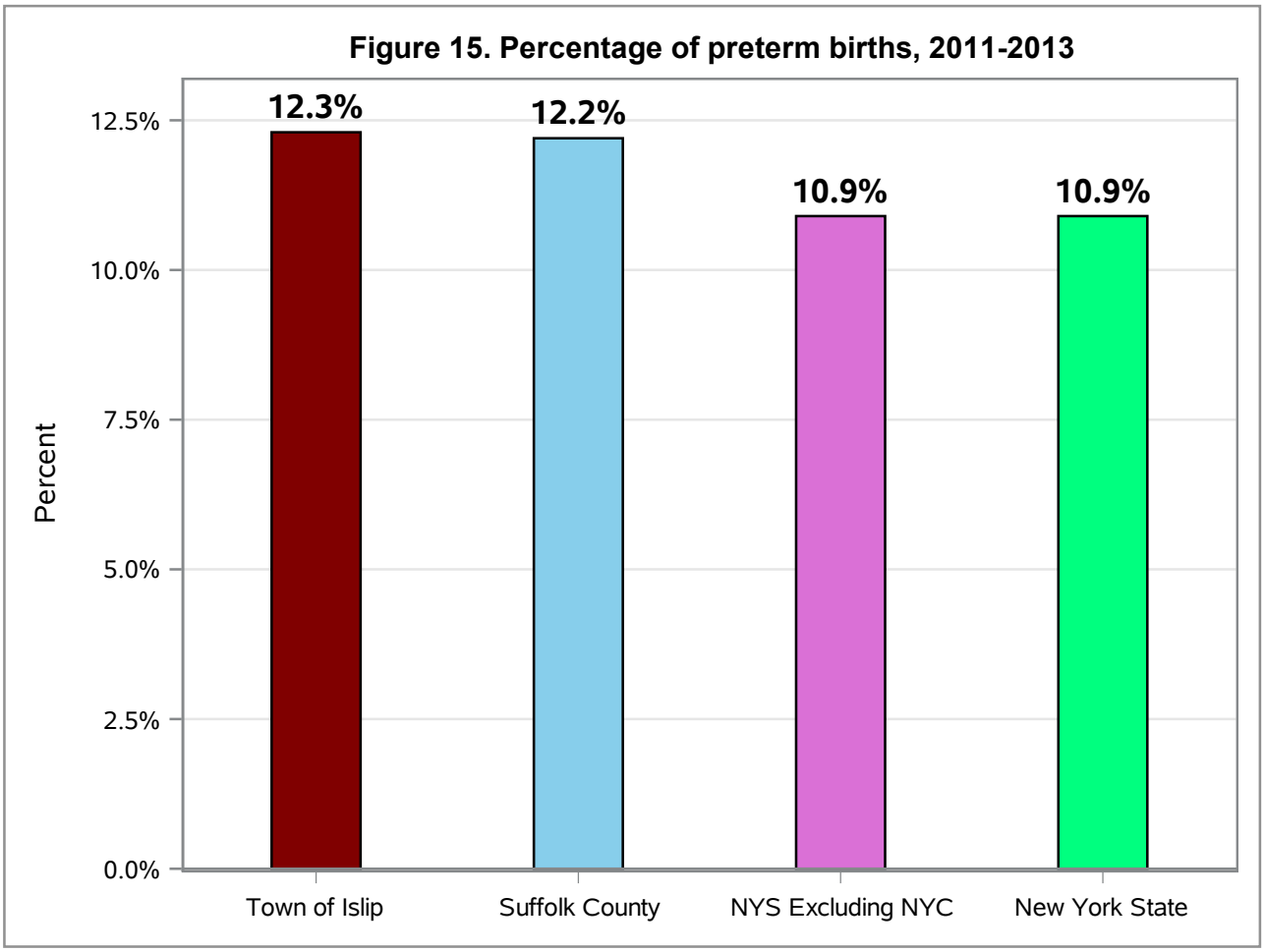


Table 9. Rate of newly diagnosed HIV cases per 100,000 population, aged 13+, 2010-2012

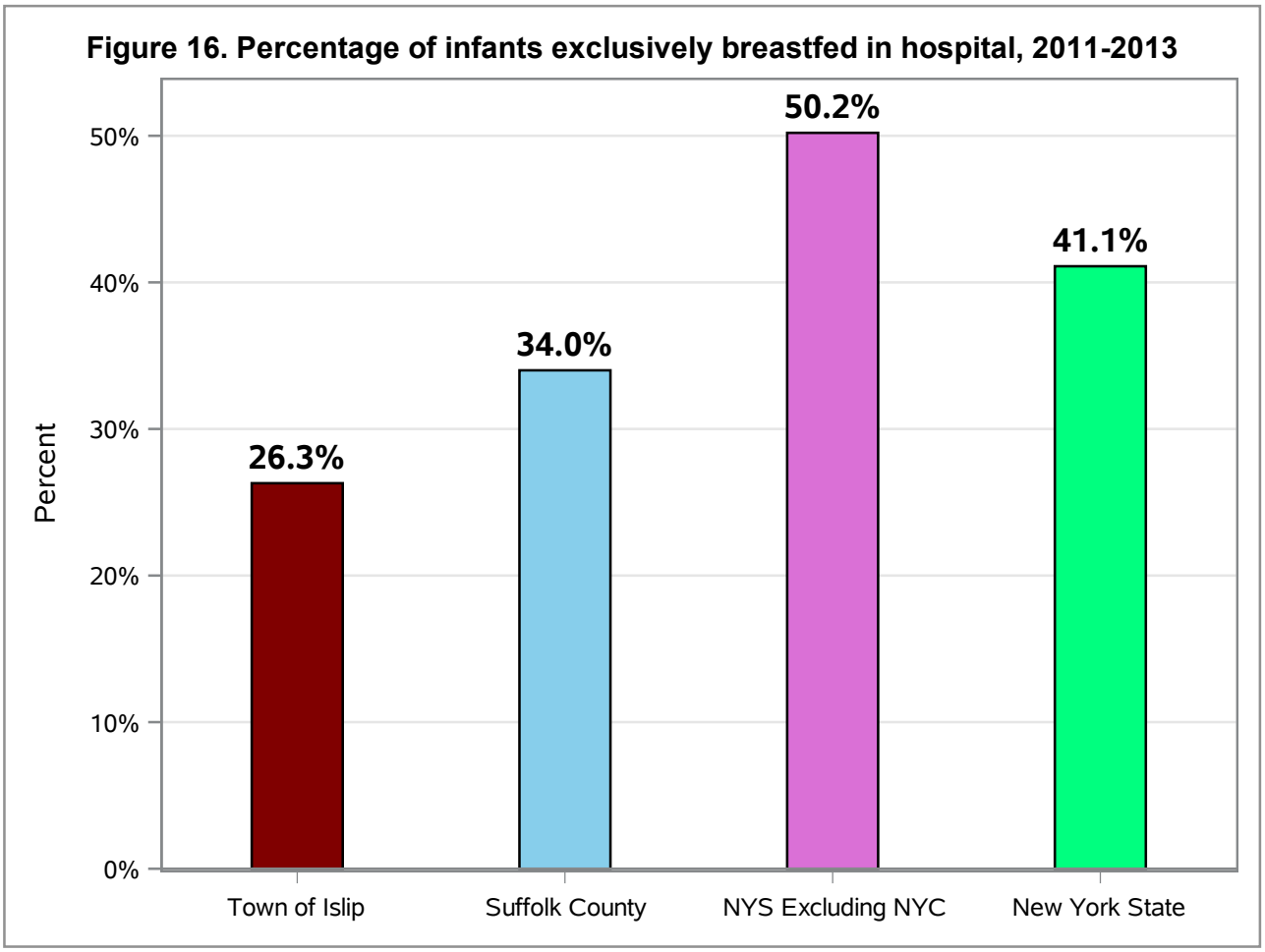
	Town of Islip		Suffolk County	NYS Excluding NYC	New York State
Indicator	Numerator	Rate	Rate	Rate	Rate
Newly diagnosed HIV case rate per 100,000 - Aged 13+	91	9.0	7.0	7.6	19.0

Source: HIV/AIDS Reporting System (HARS)

Promote Healthy Women, Infants, and Children



Source: New York State Vital Records



Source: New York State Vital Records

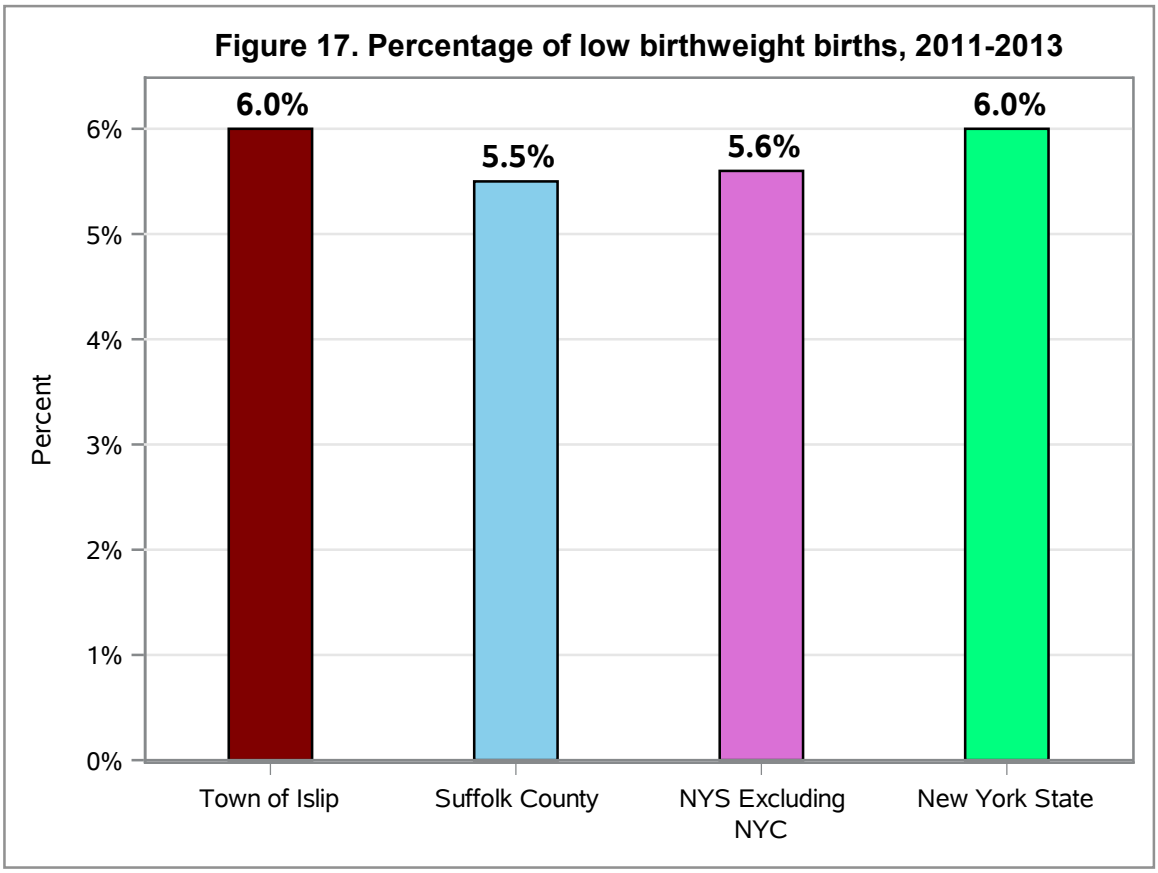


Table 10. Indicator data related to Prevention Agenda Priority Area: Promote Healthy Women Infants and Children, 2011-2013

	Town of Islip			Suffolk County	NYS Excluding NYC	New York State
Indicator	Numerator	Denominator	Percent	Percent	Percent	Percent
Percentage of preterm births	1,494	12,101	12.3	12.2	10.9	10.9
Percentage of infants exclusively breastfed in hospital	2,829	10,738	26.3	34.0	50.2	41.1
Percentage of low birthweight births	711	11,787	6.0	5.5	5.6	6.0

Source: New York State Vital Records

Promote Mental Health and Prevent Substance Abuse

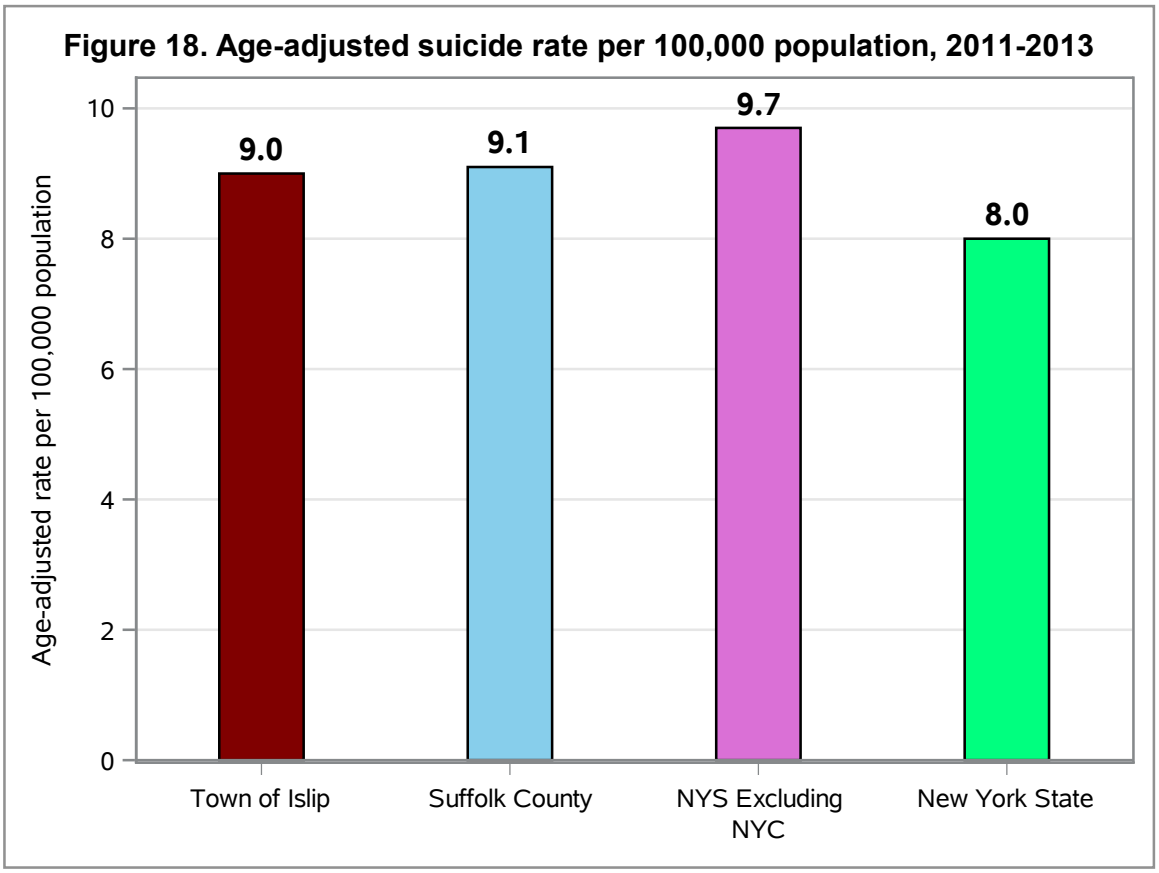


Table 11. Age-adjusted suicide rate per 100,000 population, 2011-2013

	Town of Islip		Suffolk County	NYS Excluding NYC	New York State
Indicator	Numerator	Rate	Rate	Rate	Rate
Age-adjusted suicide death rate per 100,000	93	9.0	9.1	9.7	8.0

Source: New York State Vital Records

Methods

Health Measures

Measure	*Description*	*Data Source*	*Years*
Percentage of premature deaths	Deaths before age 65	New York State Vital Records	2011-2013
Five leading causes of death	Top five number of deaths as determined by ICD-10 coding and algorithm to group by death type. Death rate in a group calculated as a weighted average of the age-specific death rate of the same group.	New York State Vital Records	2011-2013
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: 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.	SPARCS	2011-2013
Rate of hospitalizations for falls (aged 65+) per 10,000	The number of hospitalizations (inpatient, aged 65+ years) with primary diagnosis ICD-9CM external cause of injury codes E880-E888 (excluding E887) per 10,000 population.	SPARCS	2011-2013
Rate of hospitalizations for falls (aged 0-4) per 10,000	The number of hospitalizations (inpatient, aged 0-4) with primary diagnosis ICD-9CM external cause of injury codes E880-E888 (excluding E887) per 10,000 population.	SPARCS	2011-2013
Rate of emergency department visits for falls (aged 1-4) per 10,000	The number of hospitalizations (inpatient, aged 1-4) with primary diagnosis ICD-9CM external cause of injury codes E880-E888 (excluding E887) per 10,000 population.	SPARCS	2011-2013
Rate of emergency department visits for occupational injuries (aged 15-19) per 10,000	The number of emergency department visits with primary payer coded as workers' compensation per 10,000 population.	SPARCS	2011-2013
Assault-related hospitalization rate per 10,000	The number of hospitalizations with primary diagnosis ICD-9CM external cause of injury codes E960-E968 per 10,000 population	SPARCS	2011-2013
Rate of homicide related deaths per 100,000 population	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	2011-2013
Rate of asthma emergency department visits (all ages) per 10,000	Number of emergency department visits with primary diagnosis ICD-9CM code 493 per 10,000 population	SPARCS	2011-2013
Rate of asthma emergency department visits (aged 0-4) per 10,00	Number of emergency department visits with primary diagnosis ICD-9CM code 493 per 10,000 population	SPARCS	2011-2013

Measure	*Description*	*Data Source*	*Years*
Age-adjusted rate of hospitalizations for Myocardial infarction per 10,000	Number of hospitalizations (inpatient) with a principal diagnosis ICD-9CM code 410 per 10,000 population, age adjusted to the 2000 U.S. Population	SPARCS	2011-2013
Rate of hospitalizations for diabetes short-term complications hospitalizations (aged 6-17), per 10,000 population	Number of hospitalizations for short-term complications of diabetes, ICD-9CM code: 25010, 25011, 25012, 25013, 25020, 25021, 25022, 25023, 25030, 25031, 25032, 25033 per 10,000 population.	SPARCS	2011-2013
Rate of hospitalizations for diabetes short-term complications hospitalizations (aged 18+), per 10,000 population	Number of hospitalizations for short-term complications of diabetes, ICD-9CM code: 25010, 25011, 25012, 25013, 25020, 25021, 25022, 25023, 25030, 25031, 25032, 25033 per 10,000 population.	SPARCS	2011-2013
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	2010-2012
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	2010-2012
Standardized morbidity ratio of gonorrhea (aged 14+)	Observed number of gonorrhea diagnoses, by gender, compared to the expected number of cases in the region	Communicable Disease Electronic Surveillance System (CDESS)	2010-2012
Standardized morbidity ratio of chlamydia (aged 14+)	Observed number of female chlamydia diagnoses, compared to the expected number of cases in the region	Communicable Disease Electronic Surveillance System (CDESS)	2010-2012
Standardized morbidity ratio of male syphilis cases (aged 14+)	Observed number of syphilis diagnoses, compared to the expected number of cases in the region	Communicable Disease Electronic Surveillance System (CDESS)	2010-2012
Rate of newly diagnosed HIV cases (ages 13+), per 100,000	Number of new HIV diagnoses per 100,000 population	HIV/AIDS Reporting System (HARS)	2011-2013
Percentage of low birthweight births	The percentage of singleton births born weighing less than 2,500 grams (excludes births with unknown birthweight).	New York State Vital Records	2011-2013
Percentage of preterm births	Percentage of births with less than 37 weeks gestation	New York State Vital Records	2011-2013
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	2011-2013
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, adjusted to the 2000 U.S. population	SPARCS	2011-2013

Leading Causes of Death

The causes of death documented in this report are the underlying causes classified according to the 10th revision of the International Classification of Diseases (ICD, 10th revision) adopted by New York State in 1999. Rates for the time periods specified are based on deaths that occurred during the calendar years 2011-2013.

Leading causes of death are presented with the following color schema and groupings. For more information about the ICD 10 codes provided, please see: http://www.icd10data.com/ICD10CM/Codes.

Causes of Death and Assigned Color	ICD-10 Coding
HIV/AIDS	B20-B24
Arteriosclerosis	I70
Birth Defects	Q00-Q99
Chronic Lower Respiratory Diseases (CLRD)	J40-J47
Diabetes (Diabetes Mellitus)	E10-E14
Gastritis, Enteritis, Colitis, Diverticulitis	K29,K50-K52, K57
Heart Disease	I00-I09,I11,I13,I20-I51
High Blood Pressure	I10,I12
Homicide and Legal Intervention	X85-Y09, Y35
Kidney Disease and Diseases of Urinary Tract	N17-N19, N25-N27, N00-N07
Liver Disease and Cirrhosis	K70, K73-K74
Malignant Neoplasms (Cancer)	C00-C97
Other diseases of the circulatory system	I71-I78,I80-I99
Perinatal Period Condition	P00-P96
Pneumonia & Influenza	J12-J18, J10-J11
Pregnancy and Childbirth Related	O00-O99
Septicemia	A40-A41
SIDS	R95
Stroke	I60-I69
Suicide	X60-X84
Unintentional Injury	V01-X59,Y85-Y86

Data Tools

Data was analyzed and maps were generated using SAS v9.4 (SAS Institute, Cary, N.C.) and Microsoft Access.

Data Sources

American Community Survey

Demographic data using five-year estimates, from 2010-2014, were downloaded from the American Community Survey (ACS). 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 New York State exclusive of NYC (“NYS excl. NYC,” or “rest of state”). The New York State Department of Health (NYSDOH) Bureau of Vital Records processes data from live birth, death, fetal death and

marriage certificates recorded in NYS excluding NYC. Through a cooperative agreement, NYSDOH 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 Statistics data are premature death, leading causes of death, low birthweight, preterm birth, and infants that were exclusively breastfed in the hospital. Data are included from years 2011-2013.

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-9 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.

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.

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 diseases were provided by the NYSDOH Bureau of Sexually Transmitted Disease Prevention and Epidemiology at the MCD level for gonorrhea, female chlamydia and male syphilis for years 2010-2012.

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 purpose 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 by the NYS Bureau of HIV/AIDS Epidemiology for years 2011-2013.

Sub-County Geography and Population Selection

To address the increasing needs for more granular community data to support local prioritization and planning, NYSDOH staff analyzed and produced data below county level, at the Minor Civil Divisions (MCDs), for this report. MCDs, such as city, town, reservation, or village, 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. Public Health Law Title 2-F Section 240*2 minority areas (MCD 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. The block colors are shaded based on the percentage of block's minority population:

- The YELLOW color represents minority population <20% in that census block
- The LIGHT ORANGE color represents minority population 20%-<30% in that census block
- The DARK ORANGE color represents minority population 30%-<40% in that census block
- The RED color represents minority population > or = 40% in that census block

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 total, there are 44 minority MCDs in NYS, and 28 are included in the report. Excluded MCDs included the NYC boroughs due to lack of available program data, as well as Native American Reservations which contained too few population for meaningful analysis, or otherwise had missing data issues.

The report also includes county, state and NYS excl. 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.

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 STD and cancer indicators, 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 higher 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 prevalence. 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 or STDs 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 (<50)
Birth data (Vital Records)	Denominator total births (<30)
Hospitalization data (SPARCS)	Numerator cases (<6)
Cancer data (Cancer Registry)	Total numerator cancer cases across all cancer types reported (<6)
HIV/AIDS (HIV/AIDS Reporting System)	Numerator <6 cases; categorizes as either “1-3 cases” or “4-5 cases”
STD (Communicable disease electronic reporting system)	Numerator <6 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

NYC: There are several indicators for NYC which are not available at the borough level. To obtain borough- and neighborhood-level NYC health and demographic data, please refer to the New York City Community Health Profiles from the NYCDOHMH.

SPARCS/Vital Records Data: Data were age-adjusted in this report for the preventable hospitalizations measure. 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.

STD/Cancer Data: Data for STD and Cancer in this report 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.

STD Data: The structure of the dataset prevents discernment of zero numerator cases from 1-5 cases. Thus, a suppressed value in this report may reflect zero cases of STD cases in that particular MCD.

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