

NASSAU COUNTY DEPARTMENT OF HEALTH

# Community Health Assessment

Division of Quality Improvement, Epidemiology and Research

2014-2017

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## A Note from the Authors

Nassau County is unified by geography and government; this report of the health status of the residents, however, narrates a tale of two counties. As an aggregate, the county's residents are healthy and wealthy. However, substantial health inequities, or disparities, between the county as a whole and some of its communities exist. Health inequities are reflected in differences in length of life; quality of life; rates of disease, disability, and death; severity of disease; and access to treatment<sup>1</sup>. In Nassau County, population pockets are disproportionately burdened with a poorer health status. They have a higher proportion of minorities, are younger in age and have more residents of lower socio-economic status; in essence, they comprise a population at-risk, a health status with deep historical roots. In this report, these communities, identified using an index ranking of socioeconomic and health related factors (see Methods section), are termed the "selected" communities in that they selected and highlighted throughout this report. Data regarding these communities are presented in aggregate and are compared to the rest of the county, a county aggregate excluding these selected communities. Individual selected community profiles can be found in the appendix, as well as for the county as a whole.

Chapter 1A describes the demographics of Nassau County.

Chapter 1B communicates the morbidity and mortality trends in the community. Special attention is paid to how the health of the population living in selected communities compares with that of the rest of the county.

Chapter 2 illustrates the behavioral, economic, social, clinical and environmental factors that influence the health status of the community. The perception of the community's health priorities is also discussed.

Chapter 3 enumerates the services provided by the Nassau County Department of Health and its many collaborators that protect the public health.

Chapter 4 describes the methodology of this assessment.

We would like to acknowledge the work of Matthew Brennan, MPH who spent countless hours analyzing morbidity and mortality data and presenting it graphically in this report. We would also like to acknowledge, Natalie Crnosija, MPH candidate, who patiently and thoughtfully revised, edited and formatted the CHA. We thank NYC/LI-Lower-Tri-County Public Health Training Center and Stony Brook University Program in Public Health for supporting and providing these students and for technical assistance.

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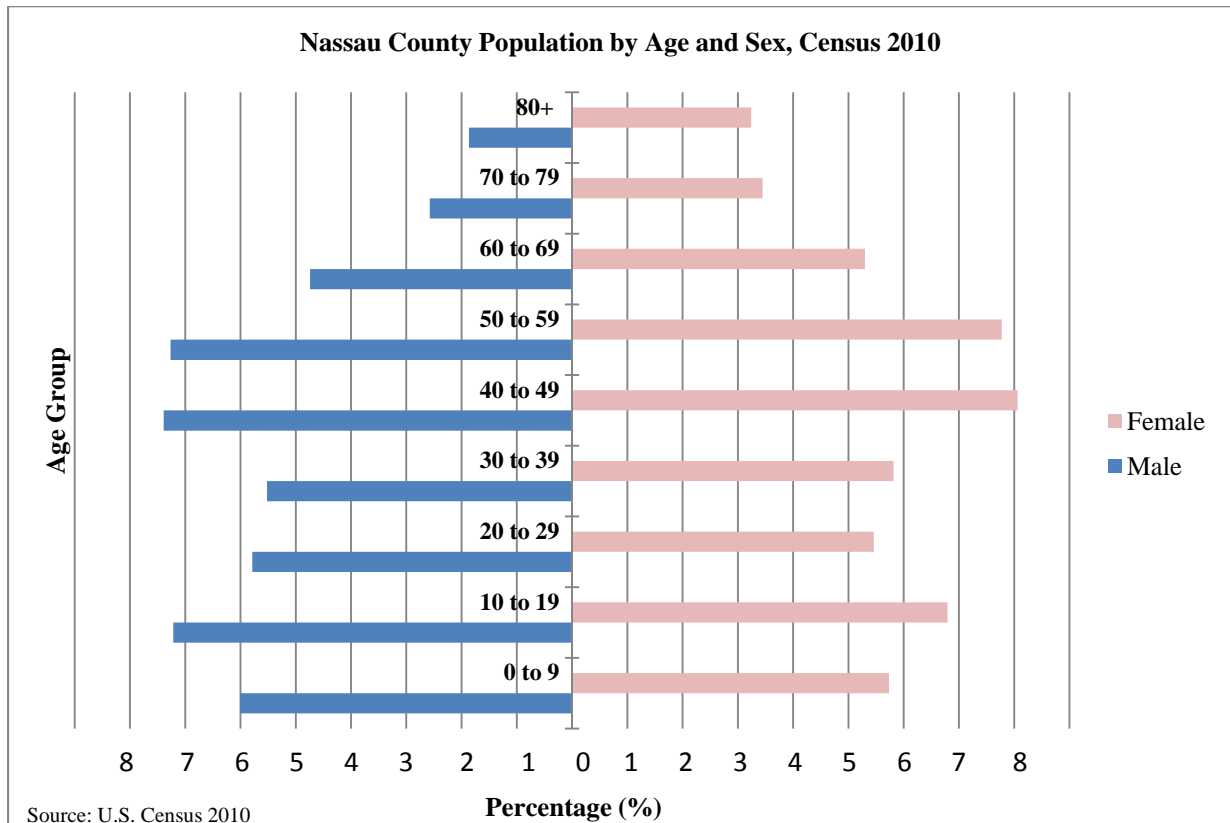
<sup>1</sup><http://www.cdc.gov/chronicdisease/healthequity/index.htm>

**Chapter 1A: Demographics of Nassau County**

Located in the western region of Long Island, Nassau County is home to some 1,339,532 residents. Nassau’s populace lives within roughly 287 square miles of the county’s 453 total square miles—the rest is occupied by water. Formally recognized as a county of New York in 1899, Nassau County is bordered by New York City’s Queens County to the west and Suffolk County to the east. Nassau is composed of three towns and two cities from which 9 communities--Elmont, Freeport, Glen Cove, Hempstead, Inwood, Long Beach, Roosevelt, Uniondale and Westbury--were selected for their socioeconomic disparities compared to the balance of the county.

**Age and Sex Profile**

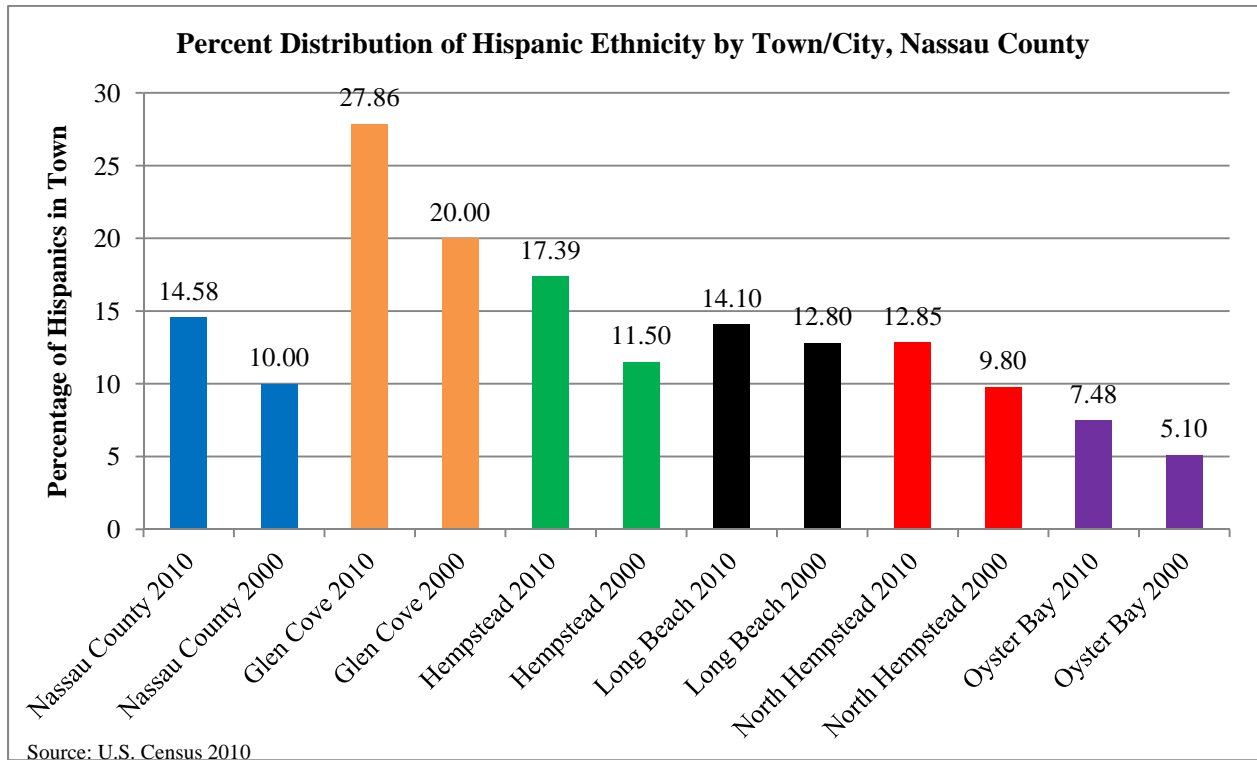
With a median age of 41.1 years, Nassau County is generally an older community compared to New York State (38 years of age) and the United States (37.2 years of age). In 2010 there were 691,554 females and 647,978 males residing in Nassau County, yielding a 51.6%-female and 48.4%-male population. The same percentages were seen statewide. The gender-based percentages of the United States as a whole were very similar, with 50.8% of residents identifying as female and 49.2% identifying as male.



**Race and Ethnicity Profile**

Nassau County’s racial and ethnic profile presents some interesting trends. Accounting for 65.5% of the population, Nassau’s 877,309 self-identified non-Hispanic whites make up the largest group in the county. After ethnicity is factored out, the number of white residents increases to 977,577, or 73% of residents. In Nassau, there are 149,049 black and 102,602 Asian Pacific Islander residents, accounting for 11.1% and 7.7% of the county population, respectively. Compared to the state of New

York (NYS), Nassau County has a higher percentage of white residents (65.7% of NYS residents), a lower percentage of blacks (15.9% of NYS residents) and a slightly higher percentage of Asian/Pacific Islander residents (7.4% of NYS residents). Nassau County has seen, in recent years, a significant increase in its Hispanic population overall, from 10% in 2000 to 14.6% in 2010. This trend is more pronounced in some communities though most of the county has seen a net increase in Hispanic residents over the past decade.



**Household Profile and Families**

In 2010, Nassau County was composed of 448,528 households, 340,523 of which housed families. These families made up 75% of total households, though the makeup of these families

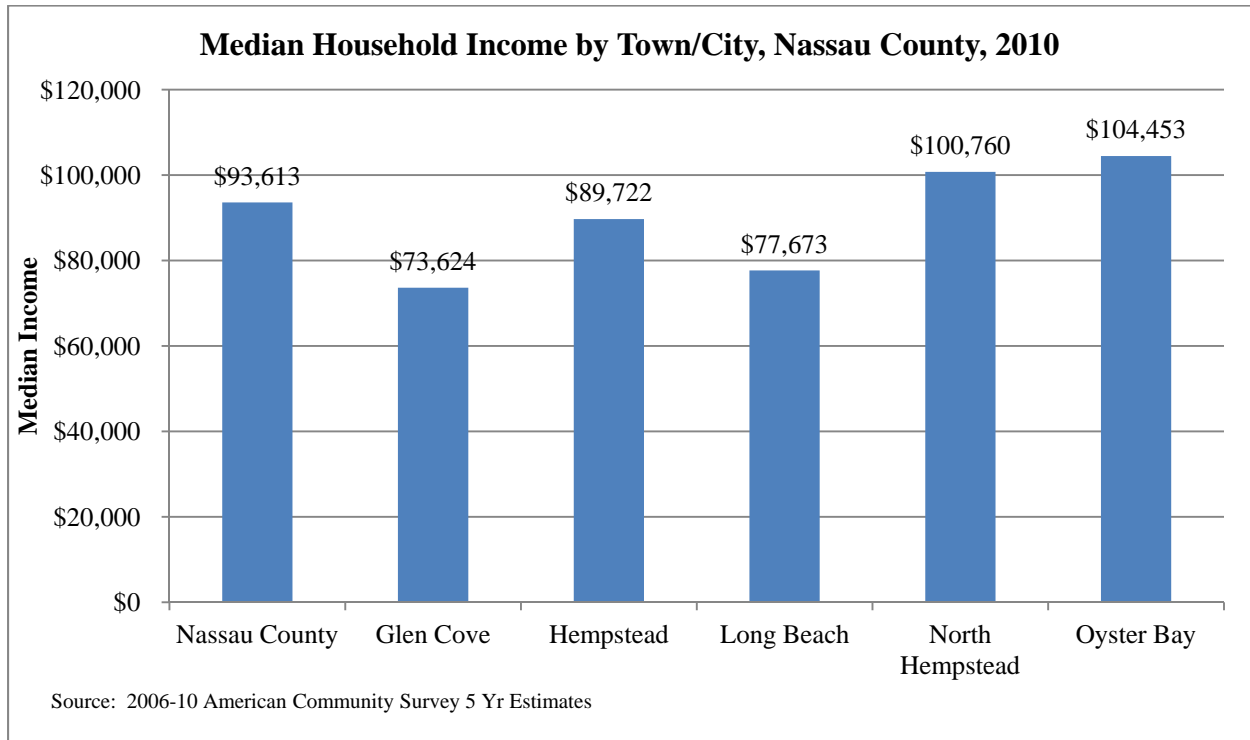
varies. Of the total families in Nassau County, 269,043 (79%) are two-parent families while 71,480 (16%) are single parent families. Of the total families in Nassau County, 358,300

(79.9%) resided in homes they owned and 90,228 (20.1%) resided in rented housing units.

**Income, Unemployment and Insurance Profile**

Ranking as the 12<sup>th</sup> wealthiest county in the country, Nassau County residents earn a median income of \$95,823, which is considerably higher than that of New York State (\$56,951) and the United States (\$52,762). Nassau County also experiences a lower unemployment rate

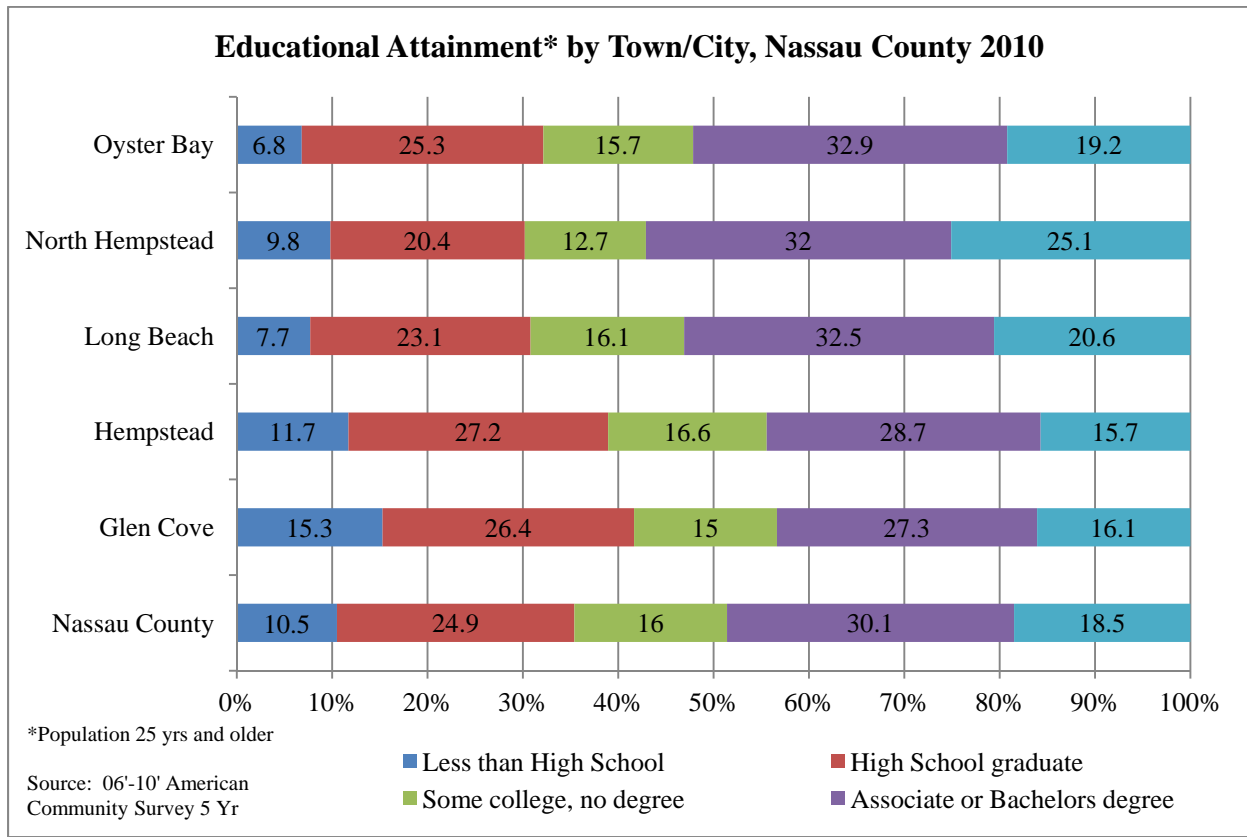
compared to both the state and the nation. Approximately 7.1% of Nassau residents were listed as unemployed in 2012 in contrast with an estimated 8.1% of United States residents and 8.7% of New York State residents. In 2010, an estimated 11.8% of Nassau County residents were identified as lacking adequate health insurance coverage compared with 13.7% of New York State residents.



**Education Profile**

Of Nassau residents above the age of 25, an estimated 89.9% have received a high school diploma or GED equivalent. For comparison, 84.6% of New York State residents and 85.4% of U.S. residents have achieved the same level

of educational attainment. With regard to higher education, approximately 48.9% of Nassau residents have received a college degree compared to 40.7% of New York State residents and 35.8% of U.S. residents.



### Selected Communities within Nassau County

While Nassau County as a whole appears to be quite well off, there is an unequal distribution of wealth and wellbeing among communities. These unequal distributions are most evident when comparing the 9 selected communities to the remainder of the county. These communities include: Elmont, Freeport, Glen Cove, Hempstead, Inwood, Long Beach, Roosevelt, Uniondale and Westbury. These communities have a larger proportion of minorities, a younger population and are of lower socioeconomic status. According to the 2010 U.S. Census, 46.4% of residents in the selected communities identify themselves as white, 31% as black and 29.8% as Hispanic of any race, compared to the

remainder of the county, which identified as 81% white, 5% black and 10% Hispanic of any race. And with a higher percentage of residents between the ages of 20 and 39 years of age, the selected communities are in general younger population than the county at large.

When looking at the socioeconomic profile of these selected communities and comparing it to that of greater Nassau, two narratives emerge. The average of the median income in the selected communities is \$71,245 compared to \$95,823--the county's median income. The selected communities also have a lower level of overall educational attainment with an average percentage of 79% of people 25 and older having received a high school diploma

or GED equivalent compared to the county's average of 92%. Yet another measurement that can be compared is the familial profiles of these communities. In Nassau, approximately 16% of the total families in the county were led by a single parent. In the selected communities, 36% of the total families are single parent families.

### **Chapter 1B: Populations at Risk - A Tale of Two Counties**

Based on its health factor, a quality measure assessing a combination of socioeconomic determinants, health behaviors, clinical care and physical environment, Nassau County was ranked 1<sup>st</sup> in the state by the 2013 Wisconsin County Health Ranking. Nassau, the nation's 12<sup>th</sup> wealthiest county, is generally healthy compared to the rest of New York State, ranking 8<sup>th</sup> out of the 62 counties in New York in terms of health outcomes, based upon morbidity and mortality data.

For Nassau County, it would appear to be the best of times... but this landscape of wellness is not every resident's health reality...

Nassau has pockets of severely underserved residents with low social and economic status, a lack of access to care, who display riskier behaviors and suffer significantly more from disease morbidity and mortality. The affluence of the county as whole masks the needs of these severely underserved selected communities

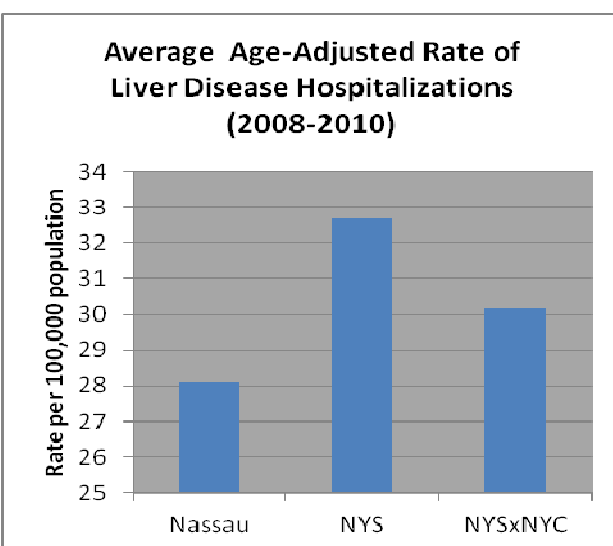
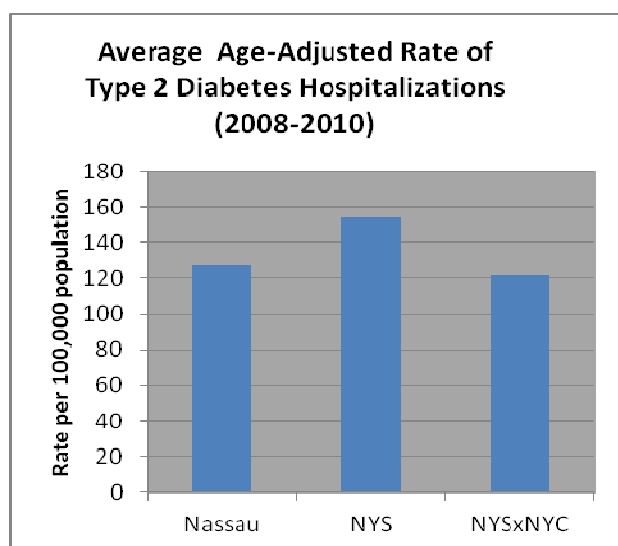
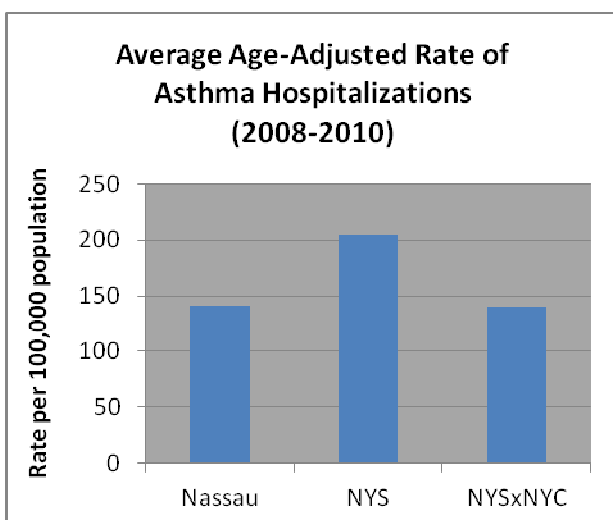
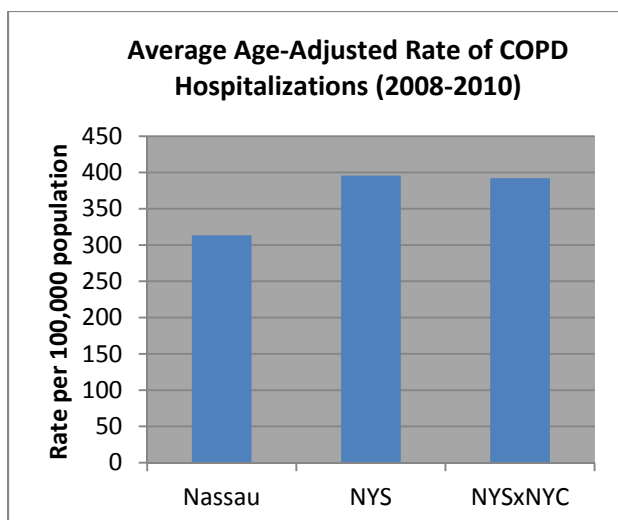
within Nassau County. This section relates a tale of two counties—one characterized by its prosperity and wellness and another marked by the relatively poor health outcomes of its inhabitants.

### **Chronic Disease Burden**

Chronic diseases are long-lasting conditions that can be controlled but not cured. These largely preventable conditions are also our nation's leading causes of death and disability. Furthermore, according to the CDC, as a nation, 75% of our healthcare dollars go to the treatment of these pathologies. Nassau County, in general, has a lower burden of disease compared to New York State as a whole. This relative relationship changes slightly when New York City is excluded from the state statistics (NYSxNYC). However, in Nassau County's selected communities, the burden of many chronic diseases is disproportionately higher than that of the county, as highlighted below. For general chronic disease trends in Nassau County, see CHAI tables in the appendix.

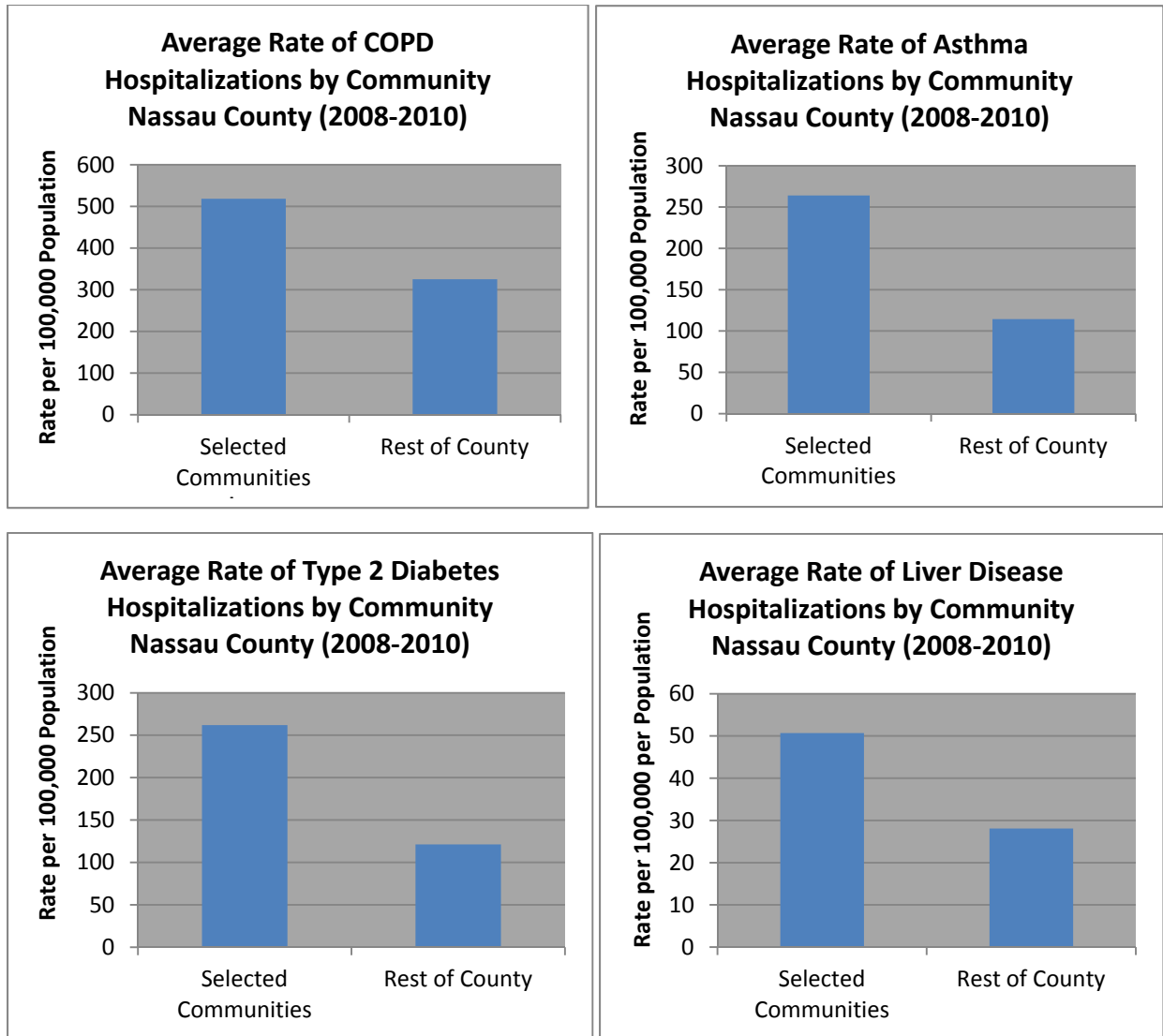
The hospitalization rates for chronic obstructive pulmonary disease (COPD), asthma, type 2 diabetes and liver disease are significantly lower in Nassau County compared to those of New York State. When compared to New York State, excluding New York City, the county's rates of COPD and liver disease remain significantly lower.





While Nassau County, as a whole, fairs well in these health measures, there are profound disparities at the community level. The selected communities' asthma, type 2 diabetes, liver disease and COPD rates are significantly higher

than that of the rest of the county. The rates of asthma and type 2 diabetes hospitalizations are more than doubled in the selected communities compared to those of the rest of the county.

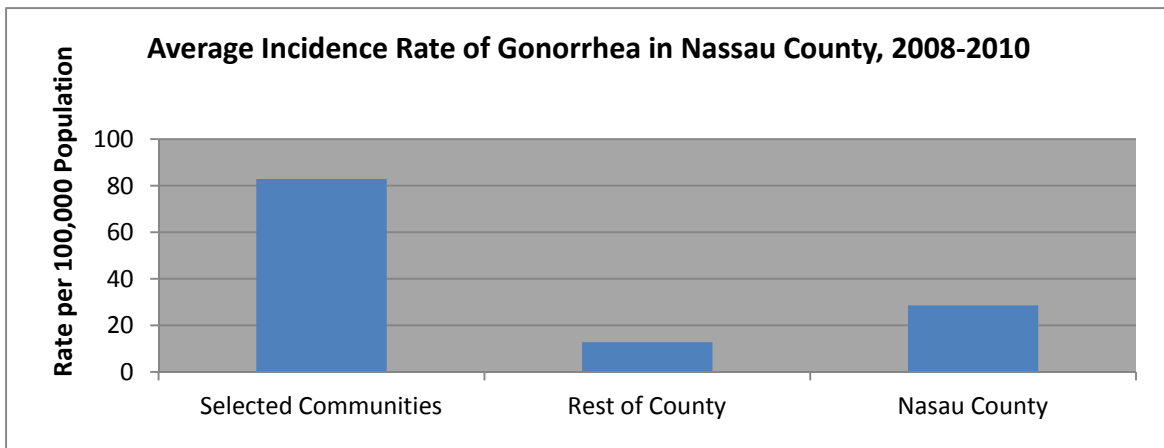
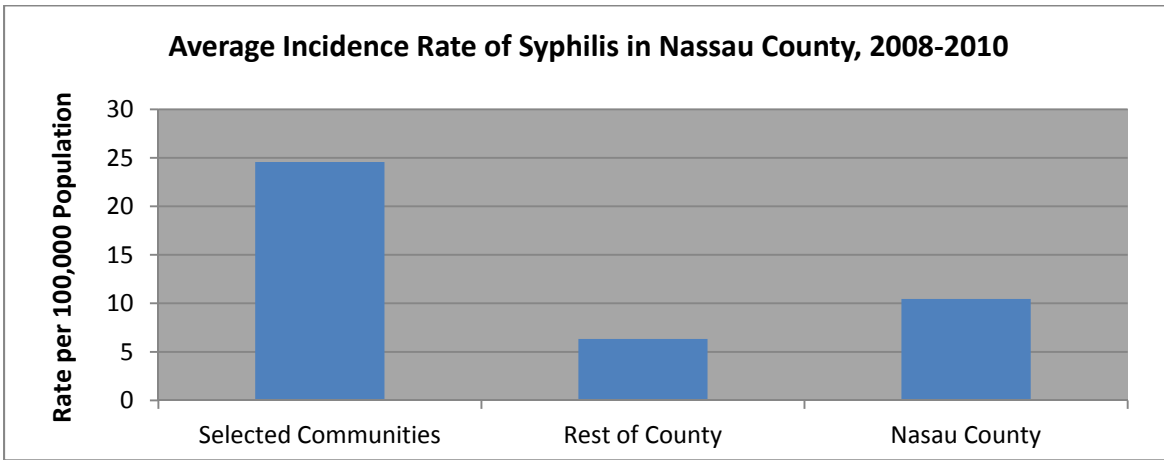
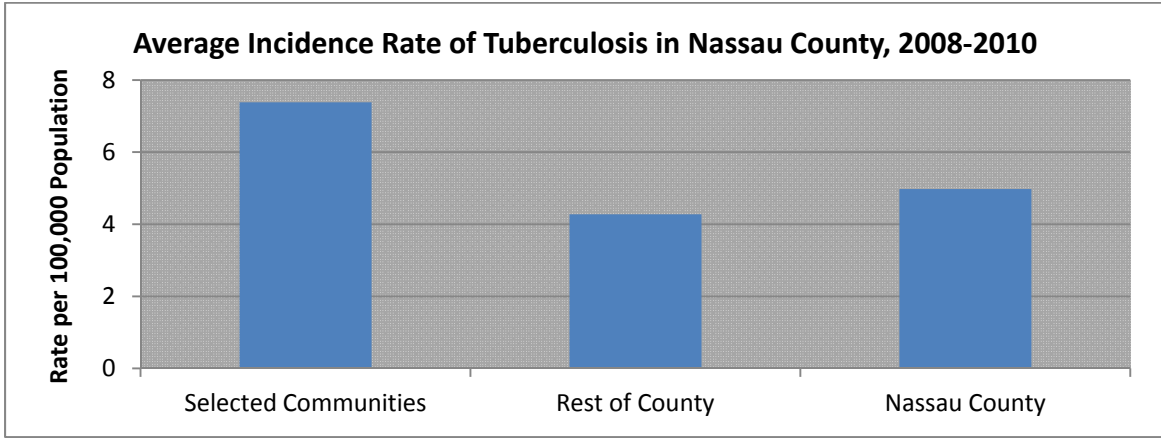


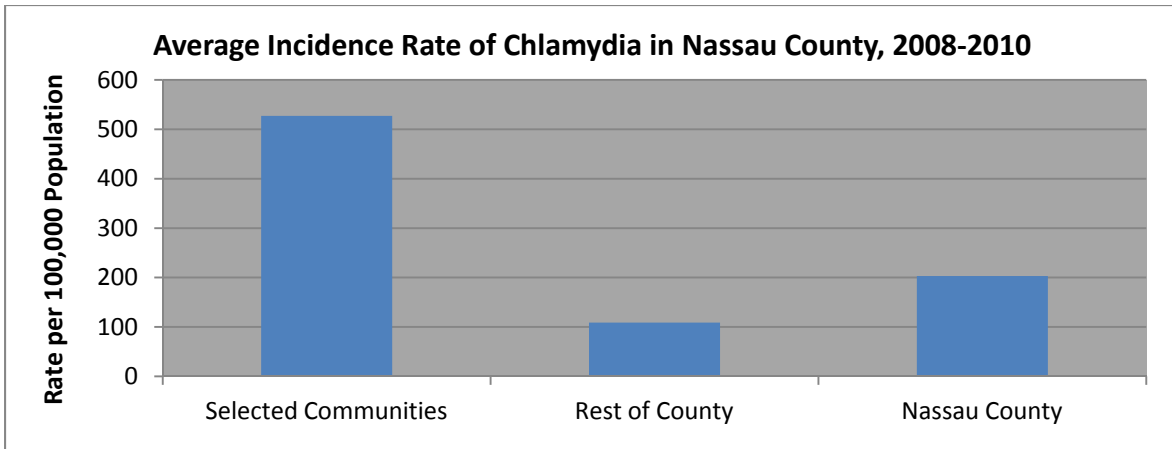
### Communicable Disease Prevalence

The prevention and control of communicable or infectious disease is essential to public health. In Nassau County, an effective and efficient surveillance system has largely decreased the prevalence of most of these conditions for the county as a whole (see Communicable Disease Table in the appendix). Some communicable diseases, including sexually transmitted disease (STDs), have a

markedly higher incidence rate in the selected communities, enforcing the established health disparities. The selected communities display a higher average annual incidence of tuberculosis (7 cases/100,000 people), syphilis (25 cases/100,000 people), gonorrhea (83 cases/100,000 people) and Chlamydia (527 cases/100,000 people) when compared to the balance of Nassau County (4 cases/100,000 people, 6 cases/100,000 people, 13

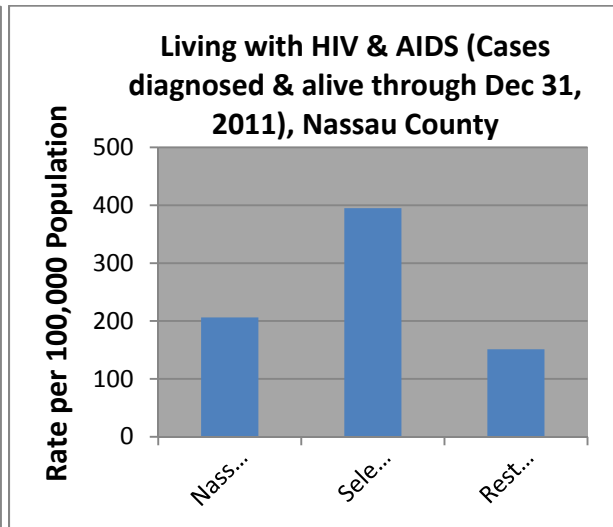
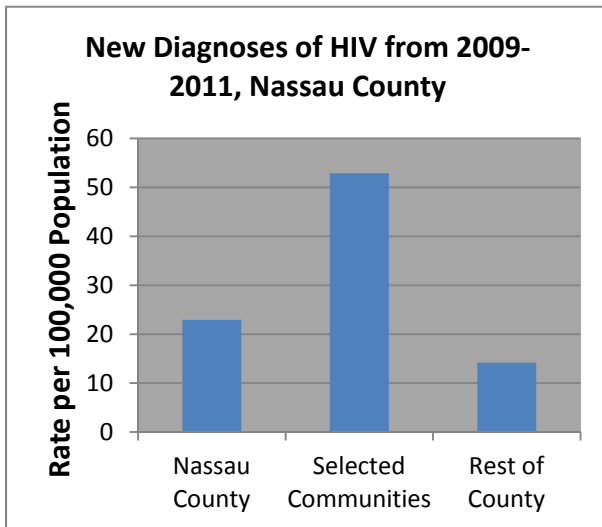
cases/100,000 people and 109 cases/100,000 people, respectively). All of these differences are statistically significant.





According to the Centers for Disease Control and Prevention, over the past decade, the number of people living with HIV has increased, while the annual number of new HIV infections has remained relatively stable. Still, the pace of new infections continues at far too high a rate— particularly among certain groups. Men who have sex with men, injection drug users, African Americans and Hispanic/Latinos continue to be disproportionately affected.<sup>2</sup>

In Nassau County, the rate of new HIV diagnosis is significantly greater in the selected communities than in the rest of county and there are twice as many individuals living with HIV and AIDS in the selected communities as compared to the rest of the county.

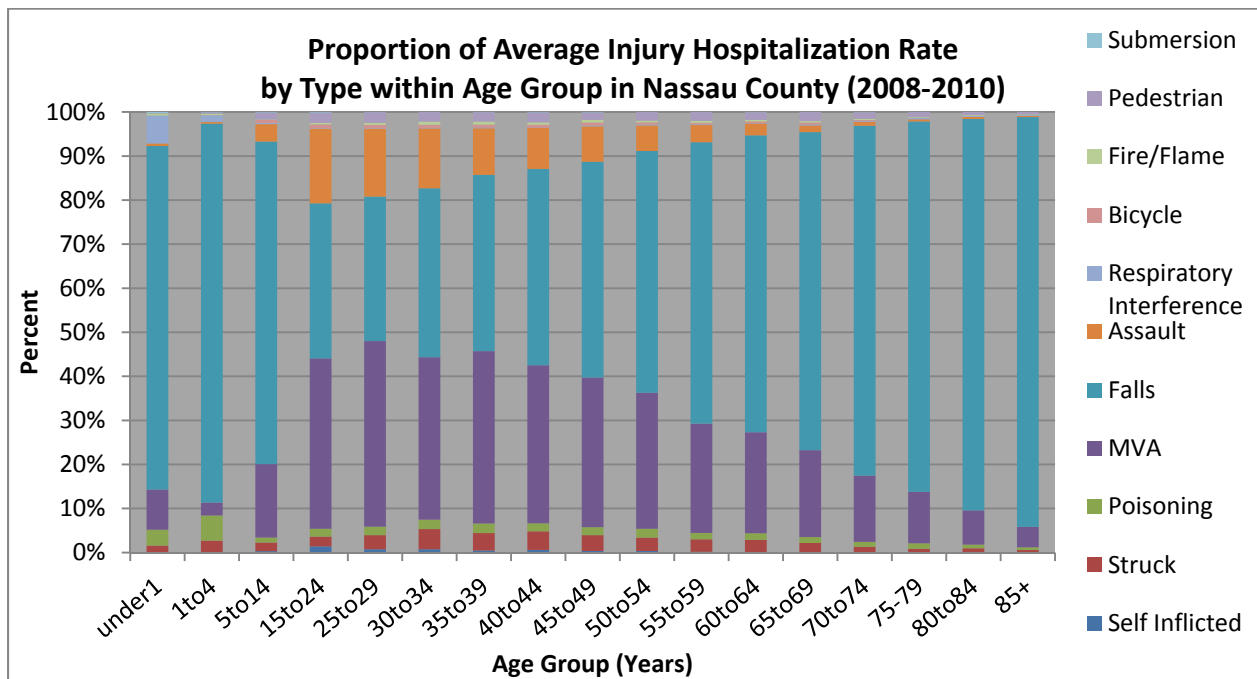


<sup>2</sup>[http://www.cdc.gov/hiv/pdf/statistics\\_basics\\_factsheet.pdf](http://www.cdc.gov/hiv/pdf/statistics_basics_factsheet.pdf)

## Injury

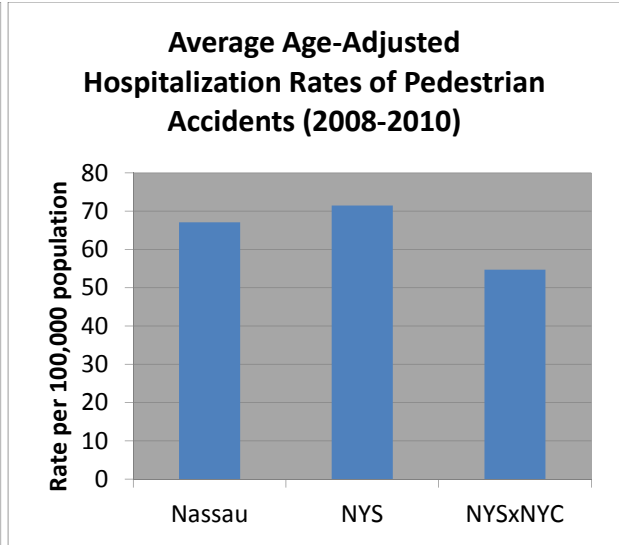
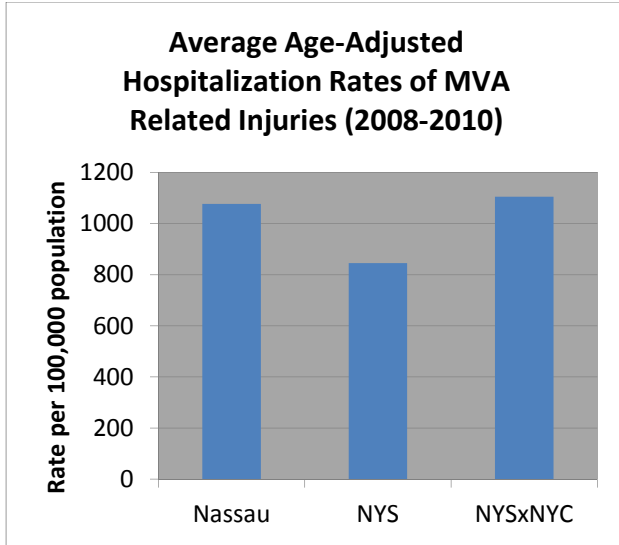
The distributions of various unintentional and intentional injuries vary within age groups but certain injuries remain common, whatever the age bracket. Falls appear to be the predominant injury in both the young and aged populations, accounting for approximately 80%

of all injuries in infants and nearly 90% of the eldest population groups' injuries; motor vehicle accident injuries are the most prevalent between the ages of 15 and 40. Assault, another notable injury, is most prevalent in the 15-to-40-year-old population.



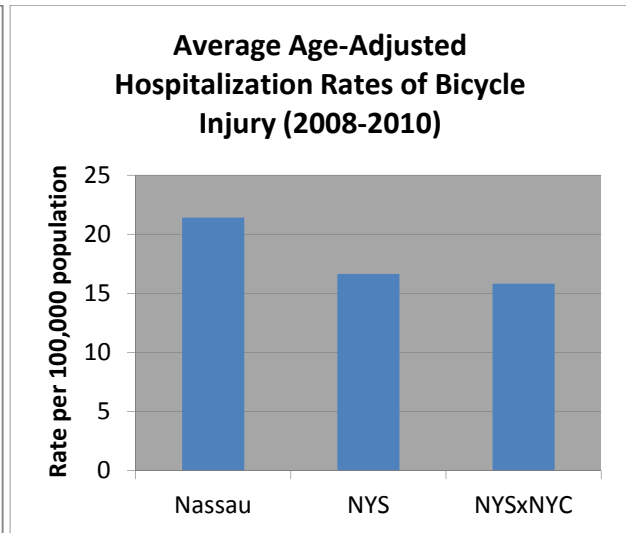
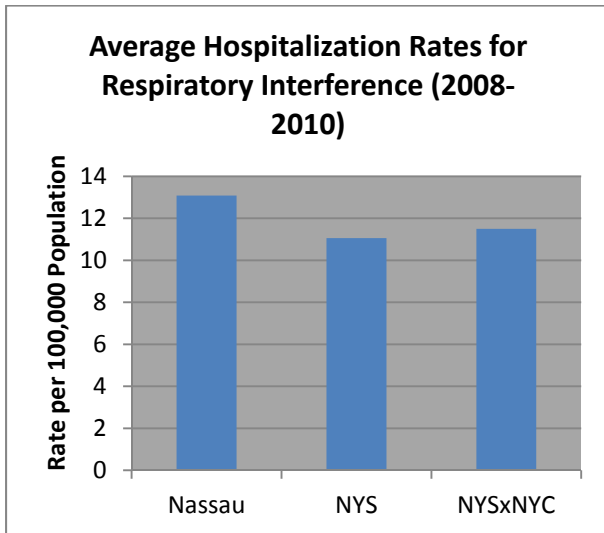
Nassau County shows a significantly higher rate of hospitalizations for injuries stemming from motor vehicle accidents (1,077 hosp/100,000 people) than that does the state of New York (845 hosp/100,000 people); though, when New York City is excluded, the State rate significantly exceeds that of Nassau County (1,081 hosp/100,000 people). Conversely,

pedestrian accidents are less frequent in Nassau County (67 hosp/100,000 people) than in the state (71 hosp/100,000 people); however, when New York City is excluded from the state total (53 hosp/100,000 population), Nassau's rate of pedestrian accidents is significantly higher than that of the State.



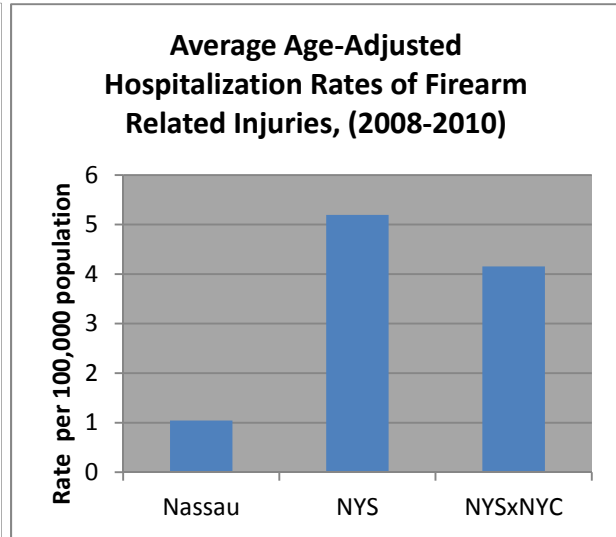
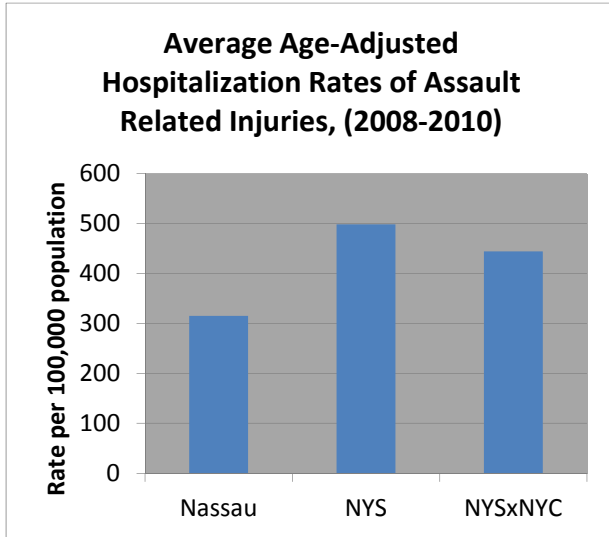
The difference in the rate of respiratory interference (choking) between the county and the state are statistically significant--Nassau's rate of hospitalizations for choking is higher than that of NYS including NYC but lower than that of NYS excluding NYC. The number of these events is, however, quite small compared to most other health outcomes. For instance, the

average annual number of hospitalizations for respiratory interference in Nassau between 2008 and 2010 was approximately 157 cases, compared to the 13,600 MVA hospitalizations that occurred in the same time period. Bicycle injury rates are statistically higher in Nassau County than both New York State and New York State, excluding New York City.



Inpatient hospital visits for assault and firearm related injuries are considerably lower in

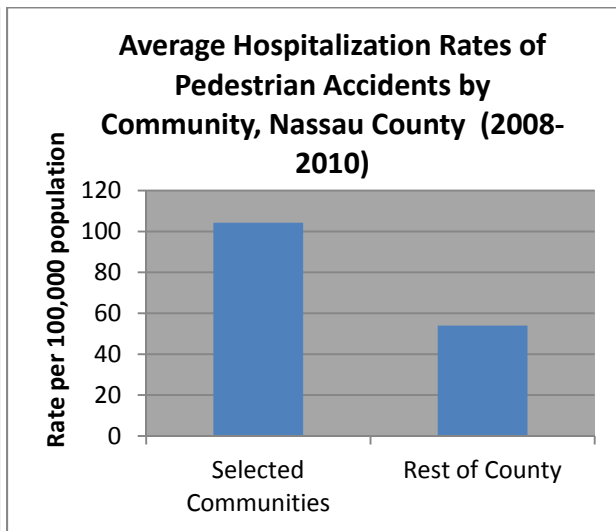
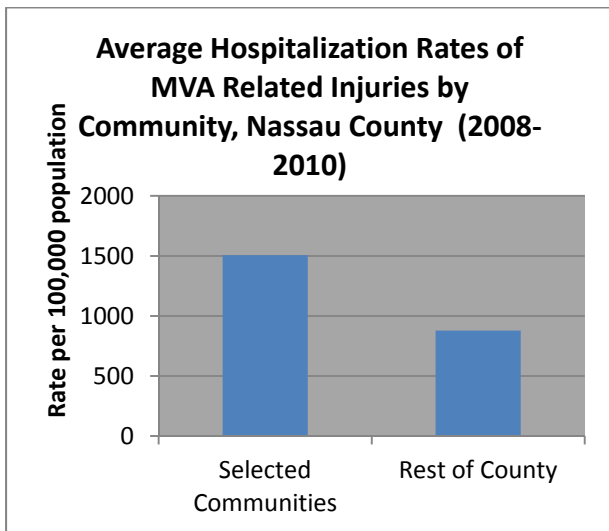
Nassau County compared to NYS and NYS excluding NYC.

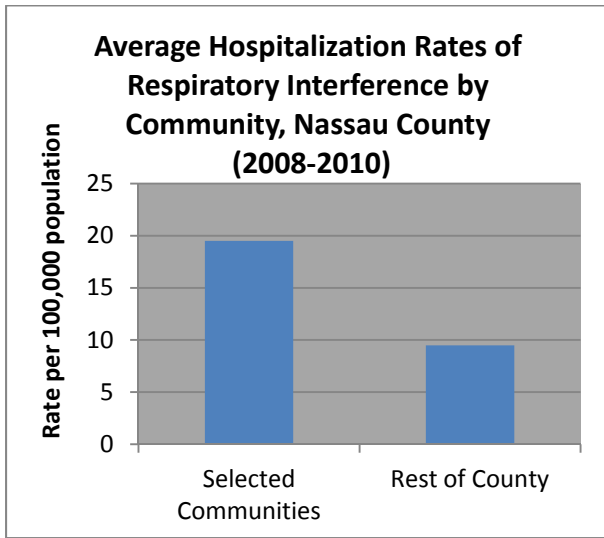


It is important to first understand injury in Nassau County as a whole to then be able to grasp the magnitude of the health disparity between the county and the selected communities.

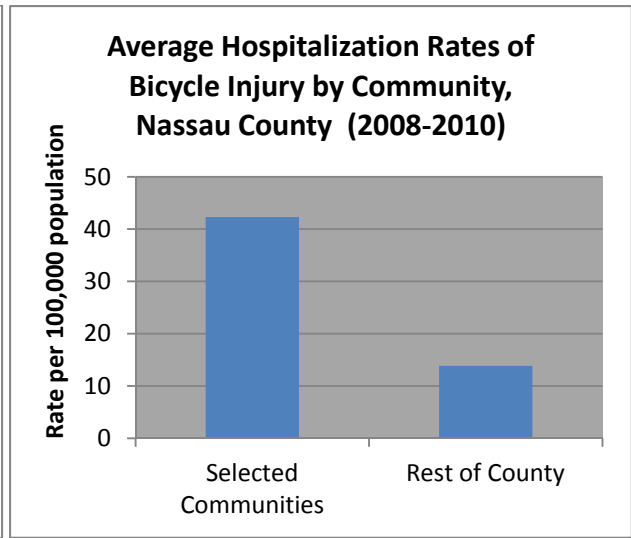
related injuries more frequently than do county residents living in other zip codes—the rates of the aforementioned injuries in selected communities are almost double that of the rest of the county. The bicycle-related injury rate in the selected communities is nearly triple that of the rest of the county.

Selected community residents go to the hospital for MVA, pedestrian, and choking-

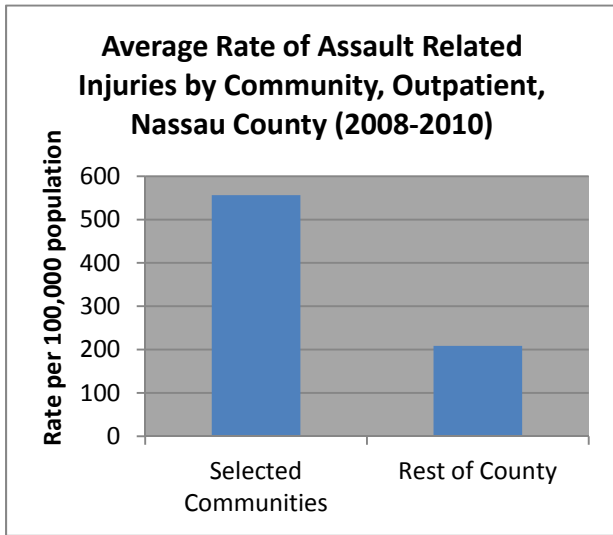




In the selected communities, the rate of hospitalizations due to assaults is more than double that of the rest of the county. Further dividing the narratives of Nassau County and its

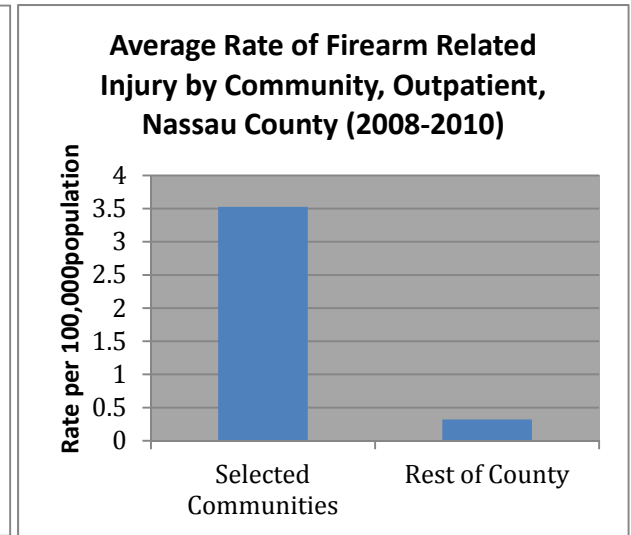


selected communities is the rate of hospitalizations due to firearms—3.5 hosp/100,000 people compared to almost 0 (0.3 hosp/100,000 people) in the rest of the county.



**Maternal and Perinatal Health**

The gross disparities within Nassau County continue to be enforced by the trends in perinatal and maternal health in selected communities

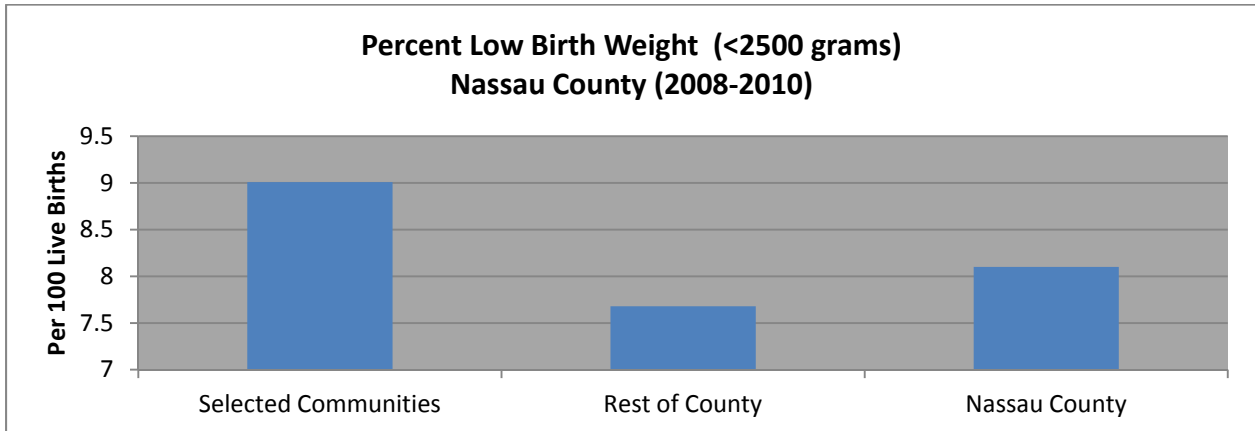
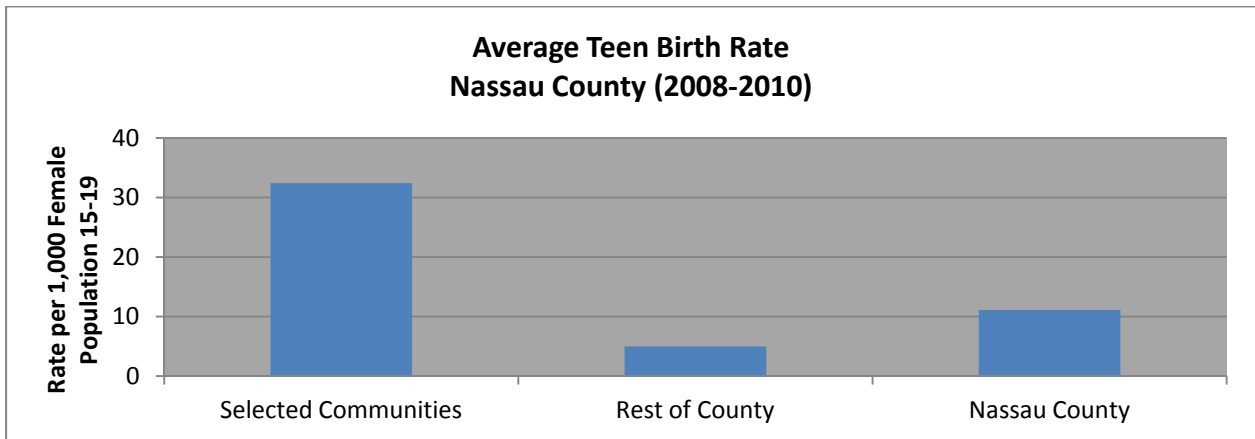
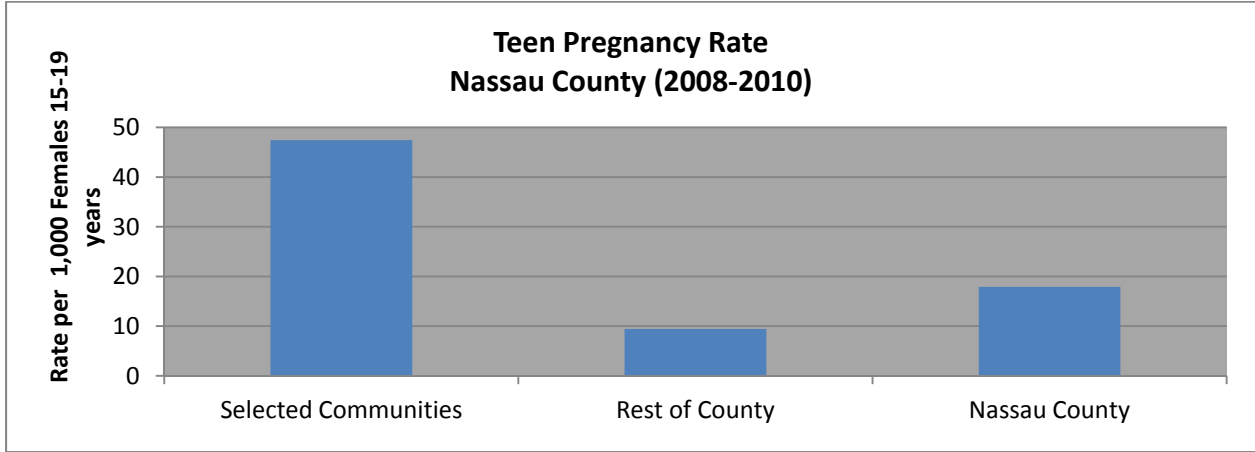


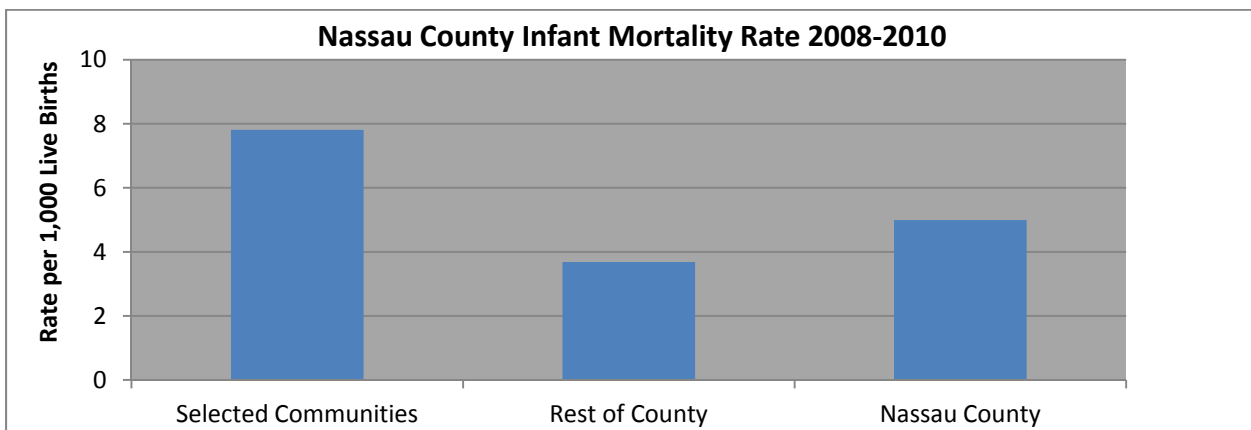
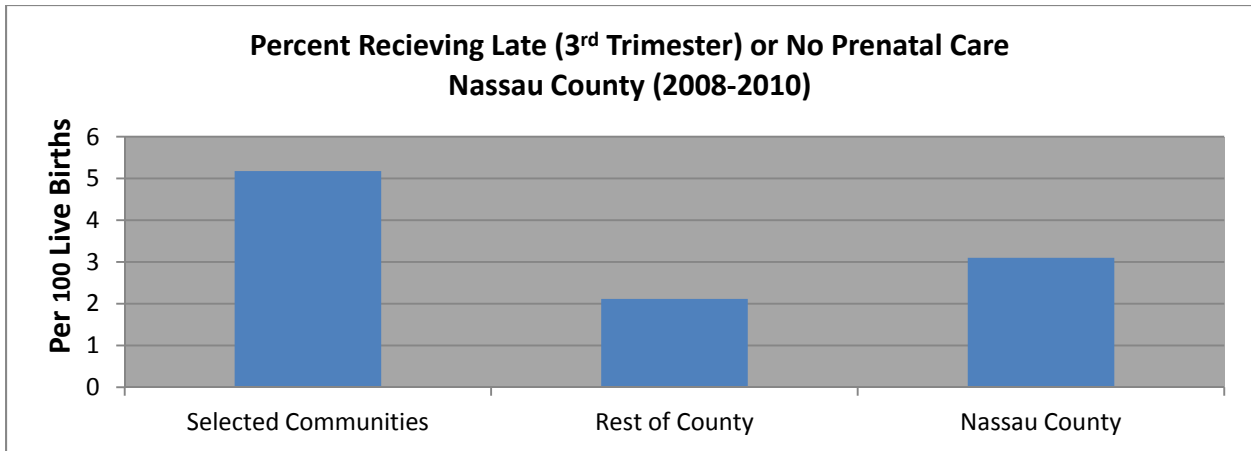
relative their county. Teens in the selected communities have a pregnancy rate over four times and a birth rate over six times those of the rest of the county. Additionally, the selected



communities have higher percentages of low birth-weight babies born and of women with late or no prenatal care. In all of these cases, the

difference between the selected communities and the rest of Nassau are statistically significant.





Infant mortality is routinely used as an indicator of a population's health status, as it is associated with education (primarily maternal), economic status and access to care. The infant mortality rate in Nassau County is on par with the NYS

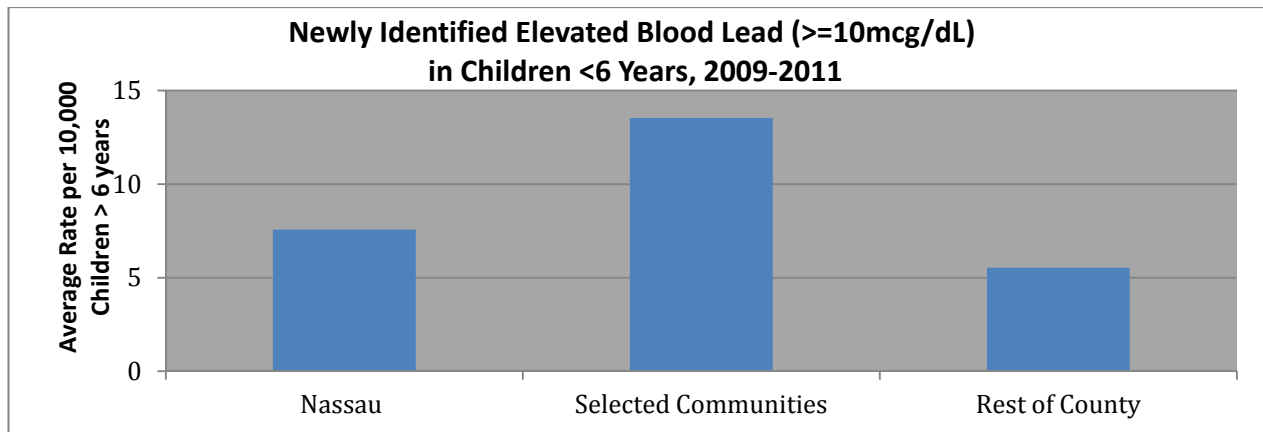
rate (4.9 per 1,000 live births) and similar to the NYS excluding NYC rate (5.4 per 1,000 live births).<sup>3</sup> The selected communities have a significantly higher infant mortality rate, nearly double that of the rest of county.

<sup>3</sup><http://www.health.ny.gov/statistics/chac/perinatal/county/regions.htm>

## Lead Poisoning in Children

In the United States, there are currently an estimated four million households with children who are exposed to high levels of lead. Lead exposure can affect nearly every system in the body but it frequently occurs with no obvious symptoms and goes unrecognized.<sup>4</sup> Children under the age of six are at greatest risk because they are growing rapidly and tend to put

their hands or other objects, which may be contaminated with lead dust, into their mouths. Children who live at or below the poverty line, underserved minority children or those living in older housing are disproportionately affected.<sup>5</sup> In Nassau County, children under the age of six in the selected communities experience more than double the rate of elevated blood lead levels as compared to children living in the rest of the county.

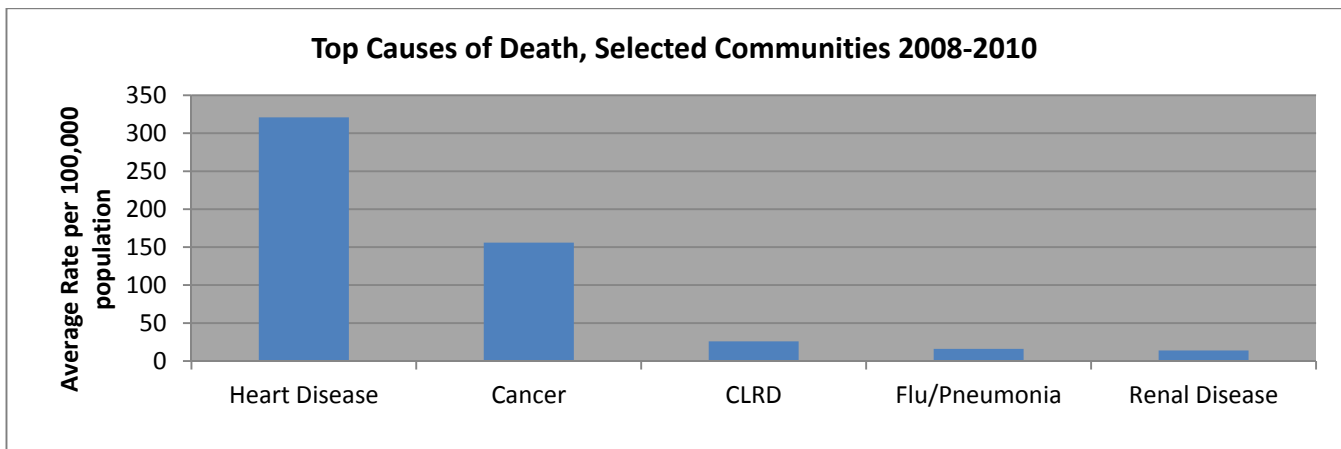
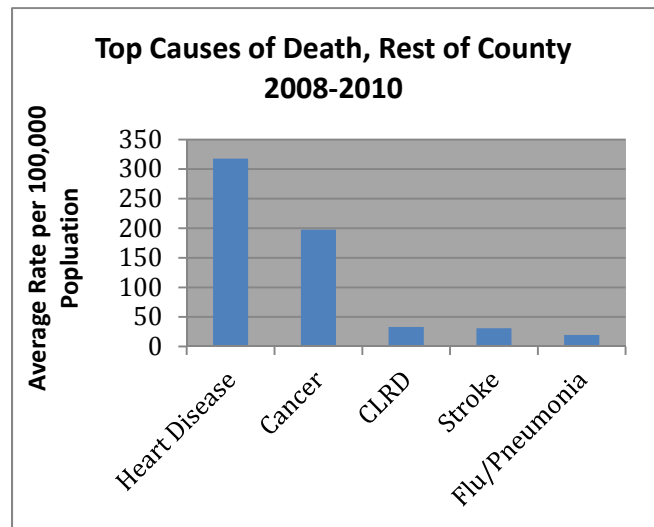
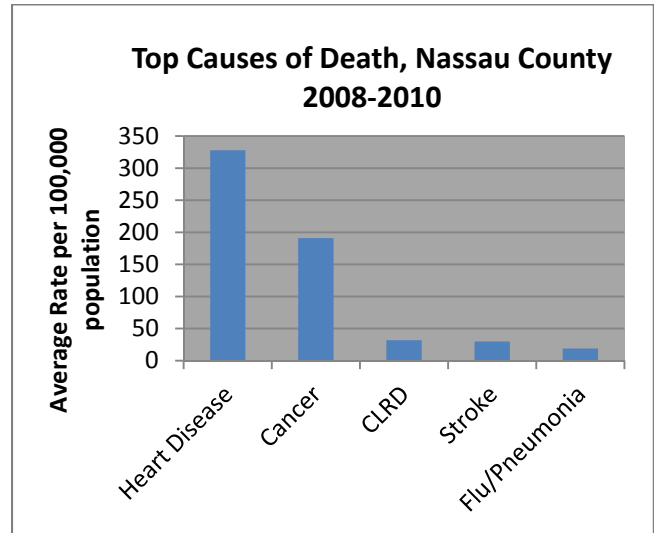


<sup>4</sup> <http://www.cdc.gov/nceh/lead/>

<sup>5</sup> <http://www.cdc.gov/nceh/lead/tips.htm>

**Mortality**

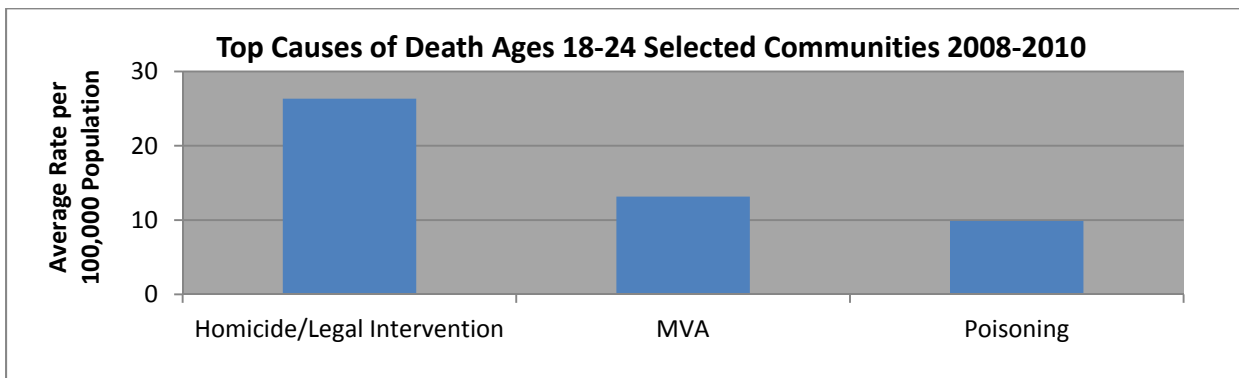
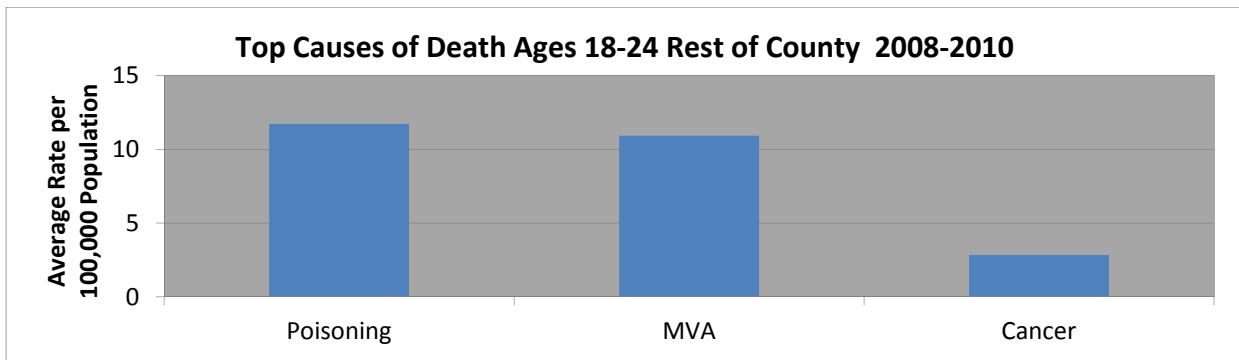
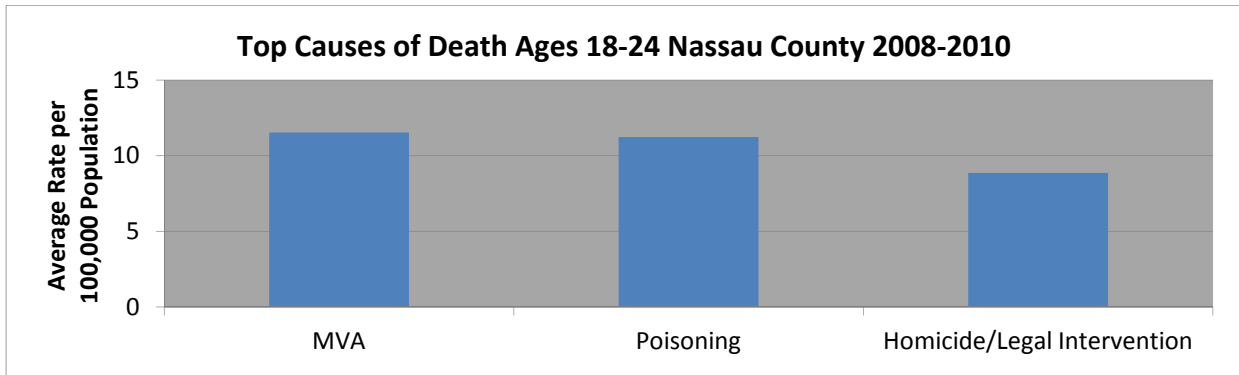
Nassau County’s top five causes of death are very similar to the reported leading causes of death in 2010 for the United States, according to the Centers for Disease Control and Prevention; the five major causes of death in the United State are Heart Disease, Cancer, Chronic Lower Respiratory Disease (CLRD), Stroke and unintentional injury.<sup>6</sup> Nassau County echoes the top four causes of death in the nation-- influenza or pneumonia, however, is the fifth major cause of death in Nassau County but is ranked ninth in the United States. The three chief causes of death in the selected communities are the same as that of Nassau County. Influenza and pneumonia, however, rise to the fourth-ranked cause of death in the selected communities. Stroke does not rank among the selected communities’ five foremost mortality causes-- renal disease is the fifth major cause of death in these communities.



<sup>6</sup> <http://www.cdc.gov/nchs/fastats/deaths.htm>

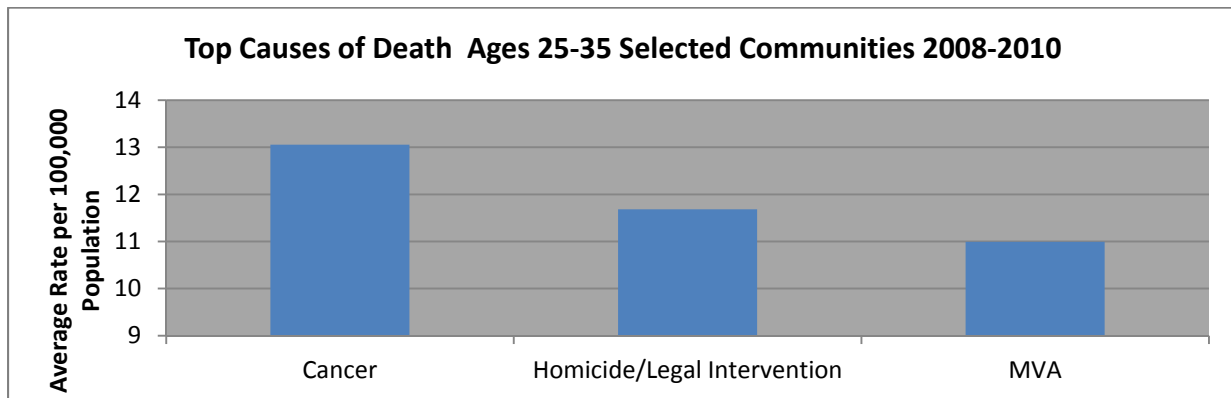
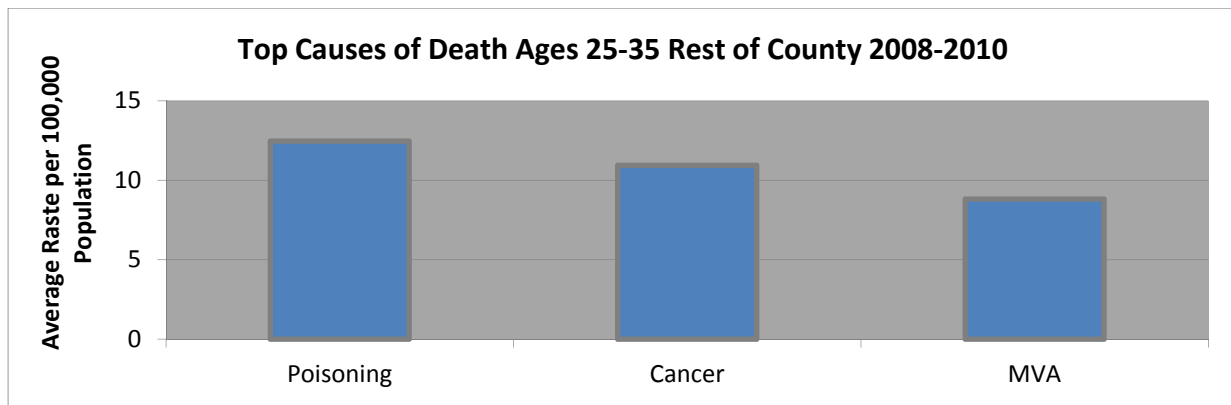
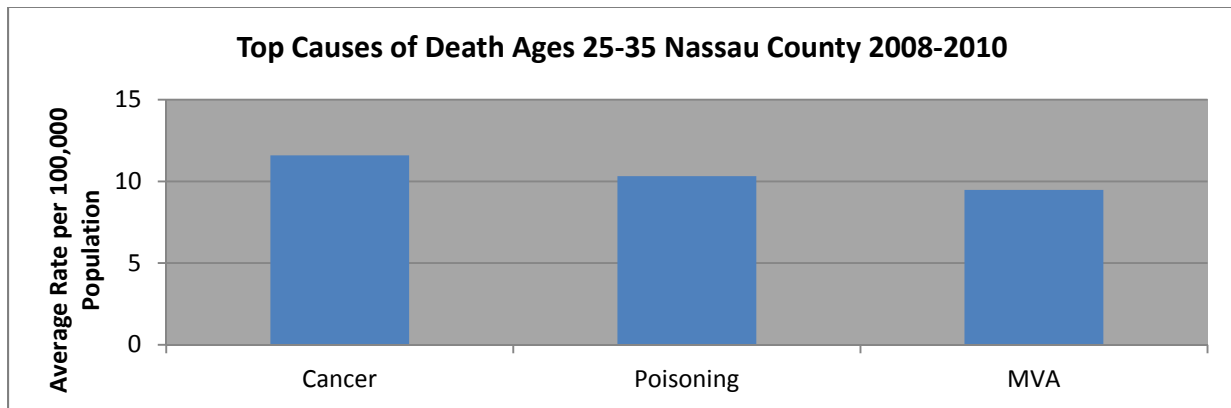
Presented graphically below are the top causes of death by age group, comparing the rates of Nassau County’s selected communities and those of the rest of the county. Most striking is Nassau County’s and the selected communities’ disparate homicide mortality rates in the young adult populations. In the county’s

18-to-24-year-old population, homicide deaths occur at an elevated rate in the selected communities, with an average rate of 26 deaths/100,000 people, nearly triple that of the remainder of Nassau (approximately 9 deaths/100,000 people per year).



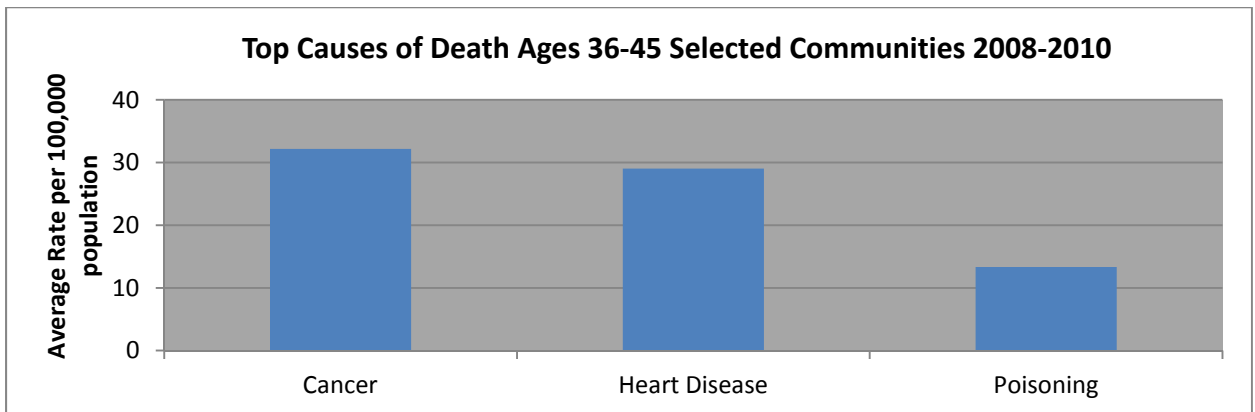
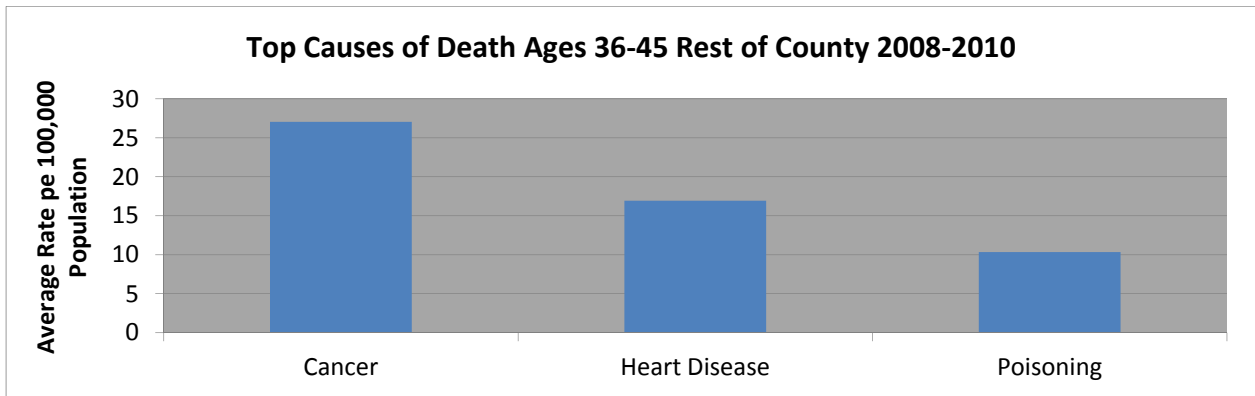
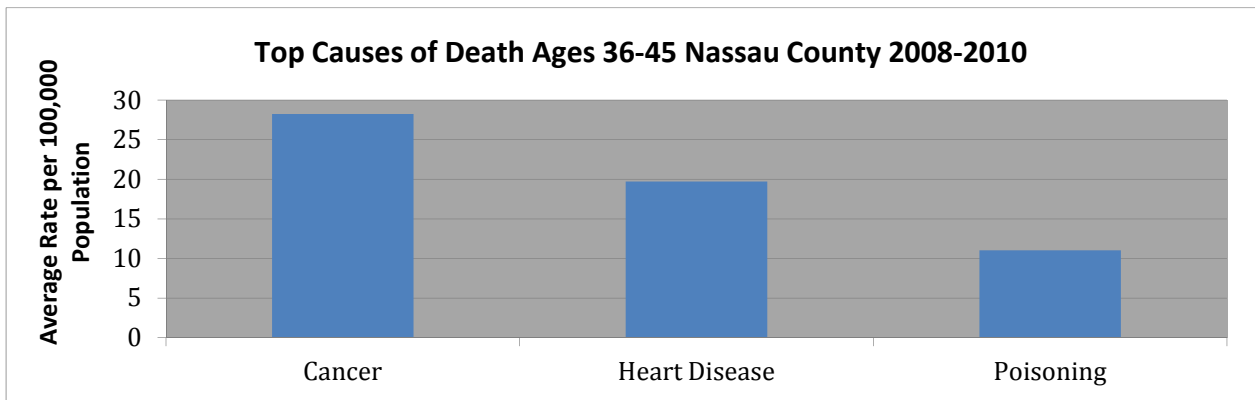
In a slightly older population (25-to-35-year-olds), the leading causes of death change slightly in both the county and its selected communities. Cancer emerges as the primary cause of death in both populations, though the mortality rate is slightly higher in the selected communities. In both groups, motor vehicle

accidents are the third major cause of death for this age group. Homicide, however, does not figure in Nassau County’s top causes of death for this age group—it still figures prominently in the selected communities as the second ranked major cause of mortality. In greater Nassau, the second ranked cause of mortality is poisoning.



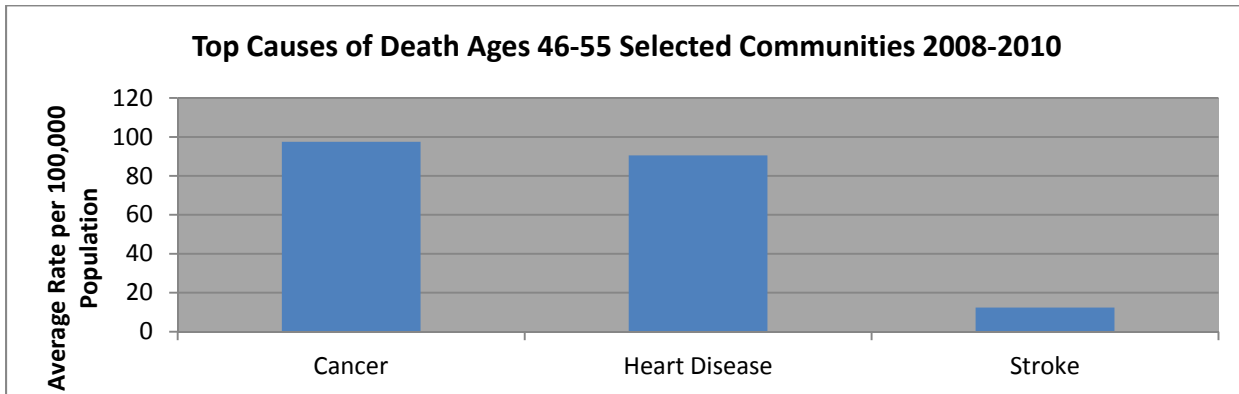
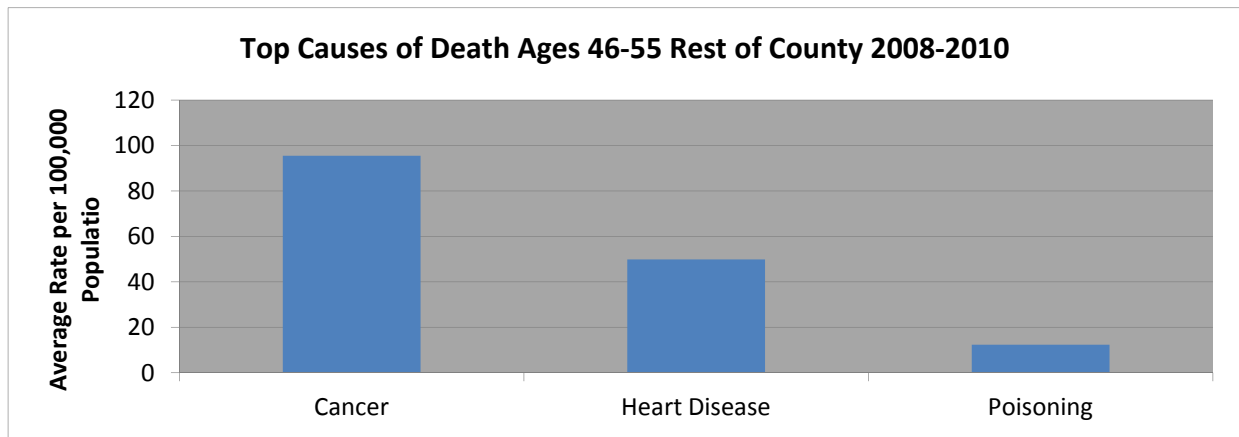
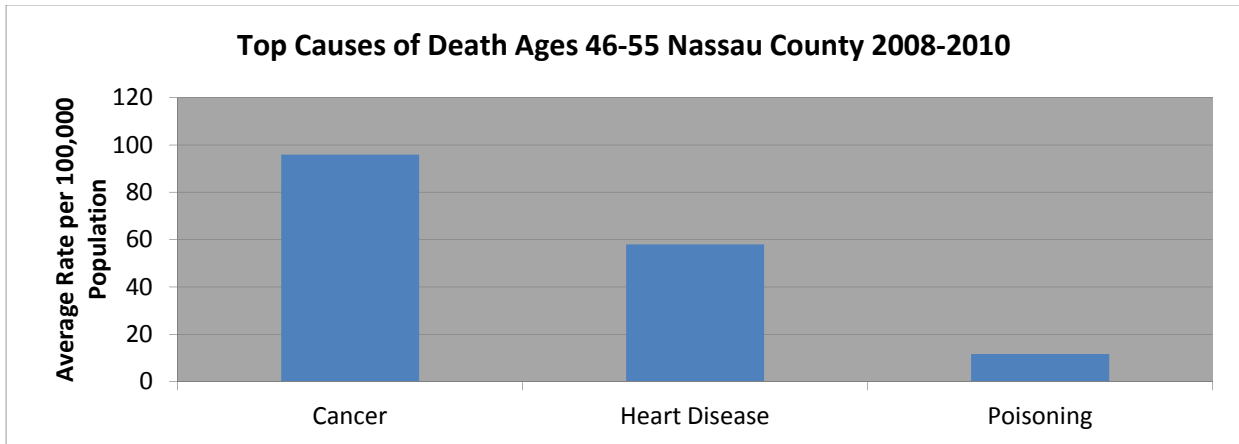
In the 36-to-45-year-old population, the top causes of mortality are the same at the county and community levels and occur in the same rank order. Cancer in the selected communities has a mortality rate of 32/100,000 as opposed to

the disease's 28/100,000 mortality rate in Nassau County. For heart disease and poisoning, the mortality rates are also higher in the selected communities.



The mortality trend in the middle-aged population slightly resembles that in the 36-to-45-year-old Nassau population. Though cancer mortality is relatively similar between selected communities and the balance of Nassau, the 46-to-55-year-old population in selected communities displays pronounced heart disease

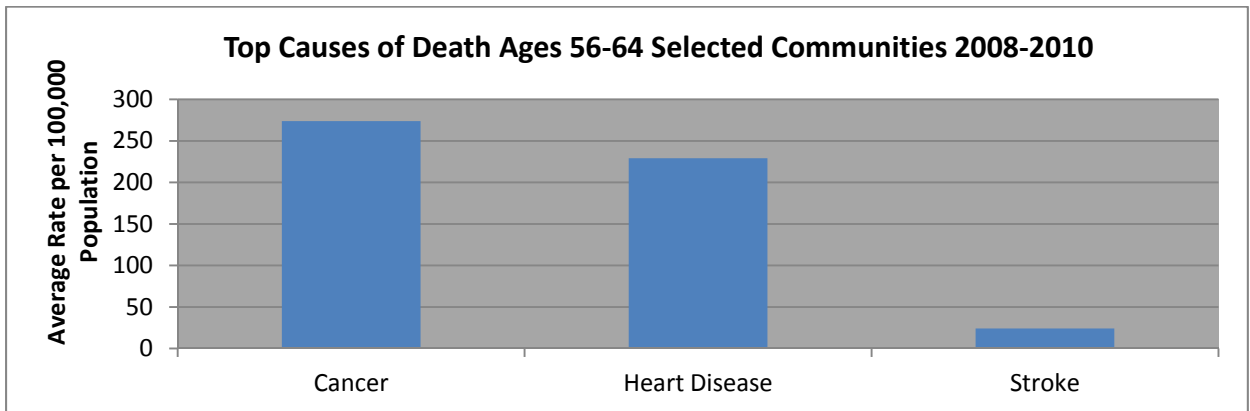
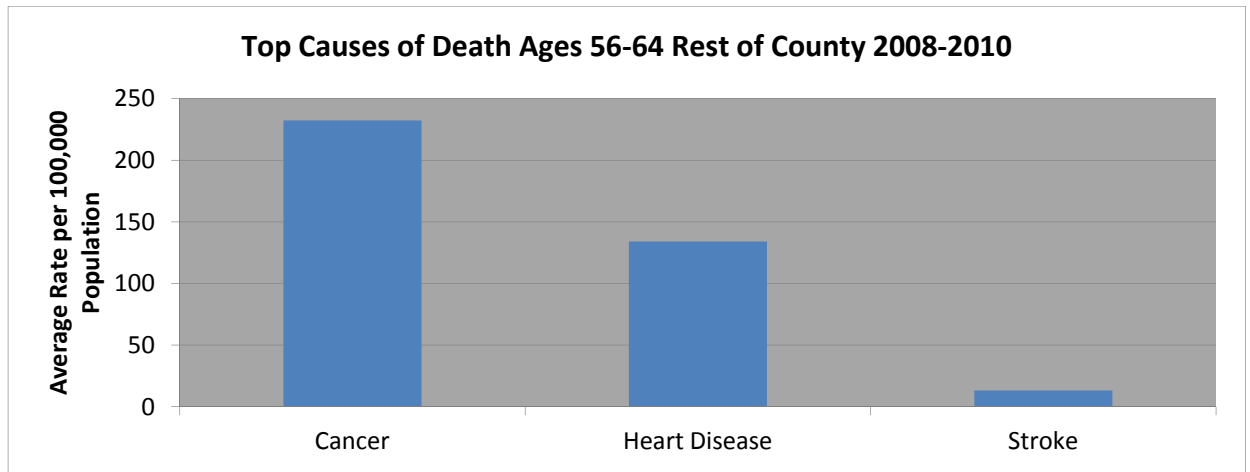
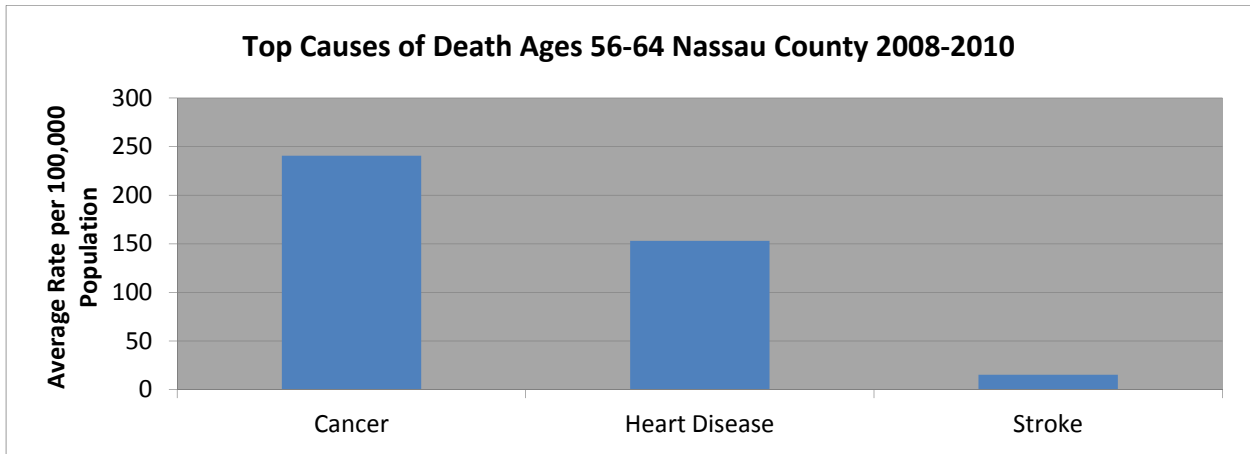
mortality. Stroke, too, emerges as the third leading cause of mortality in this age group. Poisoning, for the rest of the county, is the third chief cause of mortality in the greater Nassau population, a trend present in the preceding group.





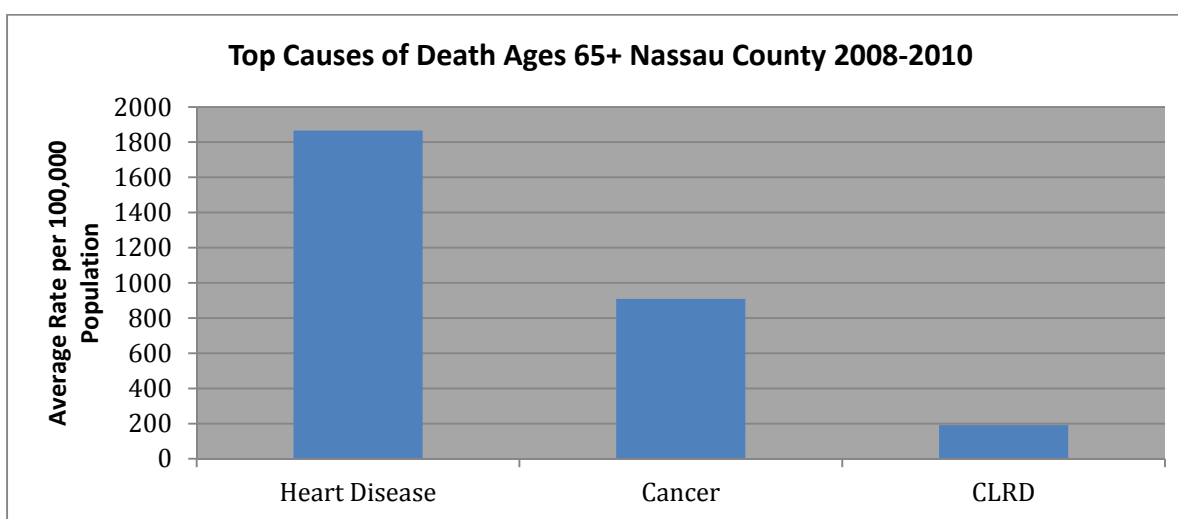
The mortality trends in the late middle-aged population in the selected communities are echoed by that of the county at large. Cancer and heart disease mortality rates are higher than that of younger groups, with higher mortality

experienced in selected communities on both counts. Stroke mortality rates are only slightly higher in selected communities compared to Nassau County proper.



In the 65 and older population, heart disease mortality rates reach their peak in Nassau (255/100,000/year) and its selected communities (270/100,000/year); heart disease eclipses cancer as the cause of greatest mortality in both the county and the selected communities, though the mortality rate in selected communities is slightly higher. Cancer ranked as the second major cause

of death in both the county and selected communities—the cancer mortality rate on the county level is slightly greater than that of the selected communities. Chronic Lower Respiratory Disease mortality rates are relatively on par in both the county and in the selected communities.



Superficially, it would appear that there is little difference in health status between Nassau County and its selected communities in the most aged of the examined populations. But the mortality rates of these generations must be interpreted together as a whole, contributing to a more complete understanding of the health trends at work in the county and in its selected communities between the years 2008 and 2010. Fundamentally, the mortality trends of Nassau County change, in cause, magnitude or both, when we cross community boundaries into the

selected communities, making for the most visceral illustration of the differences in health outcomes on the community level.

## **Chapter 2: Determinants of Health Status**

The health status of a population is the result of multiple, dynamically integrated factors that carry different weights at different times. In identifying the main health challenges facing the community, input was sought through community engagement. Community-wide surveys and key informant interviews of community-based organizations provided the qualitative data used in this assessment. These two reports are found in the appendix.

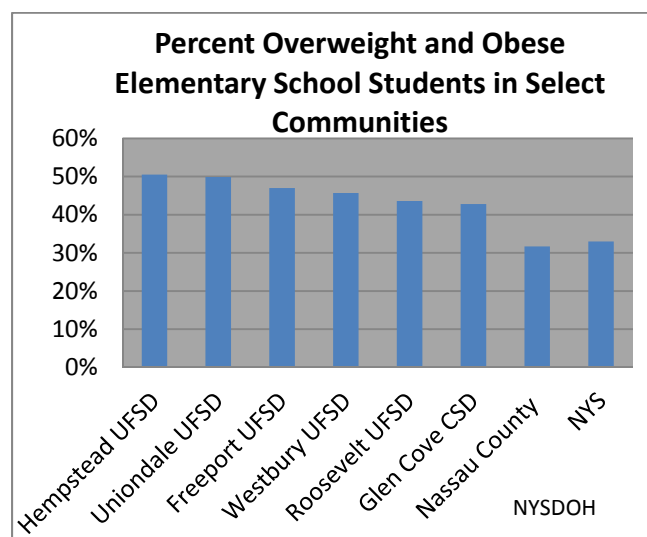
Community engagement yielded insight into the perception of barriers to and determinants of health at the community level. These determinants of health fall into five categories: behavioral, economic, social, clinical and environmental. Within these categories, different health characteristics serve as proxies of these determinants. Within the county, these characteristics may vary across geographic lines, potentially revealing similar disparities seen between selected communities and the rest of the county (see Chapter 1).

### **Behavior and Health: Obesity, Smoking, Binge Drinking and Perinatal and Sexual Risk Factors**

Individual choice is one of the most influential, far-reaching determinants of health. Obesity and being overweight are not only the health outcomes of poor diet and a lack of exercise, as the outcomes are themselves risk factors for chronic disease, including diabetes, cardiovascular disease, respiratory illness and

cancer. Compared to New York State, excluding New York City's population, Nassau County has a lower percentage of overweight and obese students (31.3%, vs 27.1% respectively).

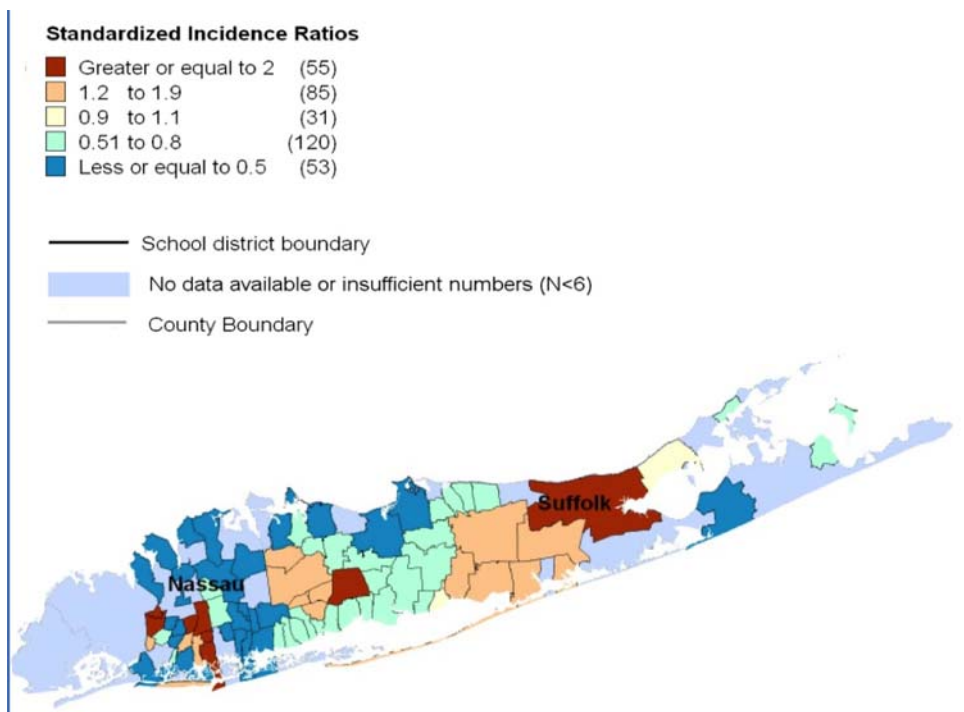
Within the selected communities' school districts, however, the percentage of overweight and obese students is much higher than that of the county at large. Community residents identified healthy food choice was among the most important factors to improve overall health in both the selected communities and the rest of the county (45% and 46% of community respondents, respectively). The health burden of overweight and obesity-related diseases and conditions, such as diabetes and heart disease is increasing significantly, according to the key informant interviews. Poor diet among minority and low socioeconomic status (SES) populations due, in part, to cultural norms was a theme that resonated among the community-based organizations.



Overall, Nassau County's tobacco use is lower than that of the state. In Nassau, 10.1% of adults smoke cigarettes compared to 18.9% of New York State's adult population. Nevertheless, according to the key informant interviews, smoking continues to be highly prevalent among the mentally ill population. The percentage of the population that engages in binge drinking is slightly higher in Nassau County compared to that of New York State (see appendix).

Perinatal risk factors include teen pregnancy and delayed prenatal care. Compared to the rest of the county, selected communities display significantly higher rates of pregnancy amongst

girls, ages 15-to-19 years old (See Chapter 1) compared to the rest of the county. Prenatal care rates within the county are high. However, in selected communities, the percent of late or no prenatal care is greater than that of the rest of the county. Furthermore, risky sexual activity is evidenced by higher incidence rates of sexually transmitted disease (i.e., the Chlamydia rate amongst school-aged girls in selected communities).<sup>7</sup>



<sup>7</sup>[http://www.health.ny.gov/statistics/diseases/communicable/std/abstracts/docs/chlamydia\\_mapping\\_by\\_nys\\_school\\_district\\_boundaries.pdf](http://www.health.ny.gov/statistics/diseases/communicable/std/abstracts/docs/chlamydia_mapping_by_nys_school_district_boundaries.pdf)

### **Economics and Health: Education, Income, Community Safety**

As described in the demographics section of this document, Nassau County's median income ranks as the 12<sup>th</sup> highest in the country. These riches are counterbalanced by the county's high property taxes. Concomitant with national unemployment rates, Nassau County's unemployment rate has increased.<sup>8</sup> Income disparities are severe within the county (See Chapter 1) and translate to poorer health outcomes in the selected communities. Forty percent of those who responded in the community survey felt that more job opportunities were needed to improve the health of the community. According to community-based organizations, high childcare costs affect those with low income who cannot afford daycare services which limits job opportunities.

Educational attainment is the strongest predictor of health in a community. Education rates within the county are higher than that of NYS, and Nassau County's public school system ranks among the highest in the state. Yet, two of the most troubled school districts in the state, Hempstead UFSD and Roosevelt UFSD schools, are found within the county's selected communities maintaining high rates of violence and transient workforce. Within the selected communities, there are areas with extremely high crime rates—in Hempstead, NY, the rate was 8.12/100,000 and in Roosevelt NY, the rate

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<sup>8</sup><http://www.health.ny.gov/statistics/chac/general/g97/28.htm>

was 11.22/1,000.<sup>9</sup> Nassau County department's crime statistics indicate that the violent crime rate for the county was 3.92 per 1,000 in 2012.

Education, in terms of language fluency, is an important determinant of health as well. As found in the key informant report, a growing segment of the population does not speak English fluently, affecting the quality of care provided due to poor communication.

Affordable housing is also necessary for a community to thrive. According to a recent report of Long Island's minority population,<sup>10</sup> just under a half of all African-Americans report some difficulty paying their rent or mortgage in an average month; younger respondents and those without a college degree find this financial burden especially difficult to manage.

### **Social Barriers and Health: Community Resources, Social Networks, Institutional Racism**

Community resources include programs that are available to residents. In Nassau County, there is an abundance of programs available to the population (see Program Inventory in the CHIP Chapter 3), especially in underserved areas. Nevertheless, the community's perception is that these programs are lacking, or not relevant to their needs. There is a lack of awareness of health resources available among

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<sup>9</sup> <http://www.neighborhoodscout.com/ny/>

<sup>10</sup> Erase Racism, *Housing and Neighborhood Preferences of African Americans on Long Island*, 2012 Survey Research Report

healthcare providers and consumers. The community-based organizations recommended an increase in communication across organizations to ensure visibility of programs and resources available.

Therefore, even with these programs, the quality of life in these areas is still considered poorer. In a study evaluating racial disparities within Section 8 Housing, which included those in selected communities, the analysis indicated that black, non-Latino respondents rated their communities significantly less positively in terms of quality of life than did either White or Latino respondents.<sup>11</sup> Approximately 40% of the community felt that fear was preventing people from seeking healthcare. This fear can be derived from the perceived stigma of mental or physical disease, such as HIV, as suggested in the key informant interview. Undocumented immigrant populations are afraid to access healthcare out of fear of being reported. Pregnant teenagers tend to underuse healthcare services despite its availability. Therefore, without social support and accessible resources, fear prevails.

Institutional racism, defined as differential access to goods, services, and opportunities of society by race,<sup>12</sup> has a history in Nassau County.<sup>13</sup> As one of the first populated suburban

areas post-WWI, Nassau County maintained local zoning laws and restrictive covenants that were further supported by federal housing acts that led to segregated housing. The effects of these historic practices are still felt. The disparate, poorer health outcomes that are seen in minority populations compared to white populations may be attributed, in part, to racism.<sup>14</sup>

### **Clinical Care and Health: Access and Quality**

Access to quality healthcare has expanded within the county with the recent institution of the federally qualified health centers that are part of NuHealth Nassau Health Care Corporation. NuHealth is a public benefit corporation managing the operations of Nassau University Medical Center, A. Holly Patterson Extended Care and a network of Family Health Centers that bring primary and specialty care out into the community. Nassau County has 12 hospital locations within the county. The county hospitals offer community services, such as perinatal services, child safety, health screening, healthy aging and wellness programs and smoking cessation efforts.

The linkage of uninsured patients to managed care programs, including Medicaid and Medicare services, is supported by the Nassau

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<sup>11</sup> Johanna Shih, PhD, Marc Silver, PhD, Charisse Wheby, MA. *A Report on Housing Choice Voucher Program Participants in Nassau County, NY: Findings from the Communities and Health Survey*, Hofstra University, 2009.

<sup>12</sup><http://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.90.8.1212>

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<sup>13</sup> Hackett, M. (2013, July). Not My Problem: Facing Contemporary Suburban Public Health Inequities. *Public Health in the Suburbs*. Lecture conducted from Adelphi University, Garden City, NY.

<sup>14</sup><http://www.cdc.gov/omhd/highlights/2002&3/HFeb2803.htm>

County Department of Social Services. Nevertheless, the uninsured population is estimated to be 14.1% (182,000 individuals) of the total population in Nassau County compared to 16.9% of NYS.<sup>15</sup> According to the community response, having no insurance or unable to afford co-pays and deductibles prevents residents from accessing medical treatment. In Nassau County, there is also a significant undocumented population estimated to be 20%<sup>16</sup> of all immigrants (foreign-born) — approximately 55,700 undocumented people. Without the support of insurance, this population imposes an additional burden on hospital and healthcare services. The Affordable Care Act will impact the number of those eligible for insurance in 2013, but will not affect those who are undocumented.

### **Environment and Health: Water, Air and Land Neighborhood Infrastructure and Policy**

Nassau County Department of Health provides services and oversight to protect the county's environment. The ongoing regulation of recreational, residential and commercial sites through inspection and the enforcement of laws, codes and ordinances maintain safe food, water and air quality within the county. The community agreed that clean air and water

<sup>15</sup><http://www.health.ny.gov/statistics/chac/general/g102.htm>

<sup>16</sup> [http://fiscalpolicy.org/wp-content/uploads/2012/06/FPI\\_Presentation\\_NeighborLink20110927.pdf](http://fiscalpolicy.org/wp-content/uploads/2012/06/FPI_Presentation_NeighborLink20110927.pdf)

ranked highly as an important factor to improve the health of a community. The community perceived that Superstorm Sandy increased cases of unsafe living environments, particularly among low SES, minority population.

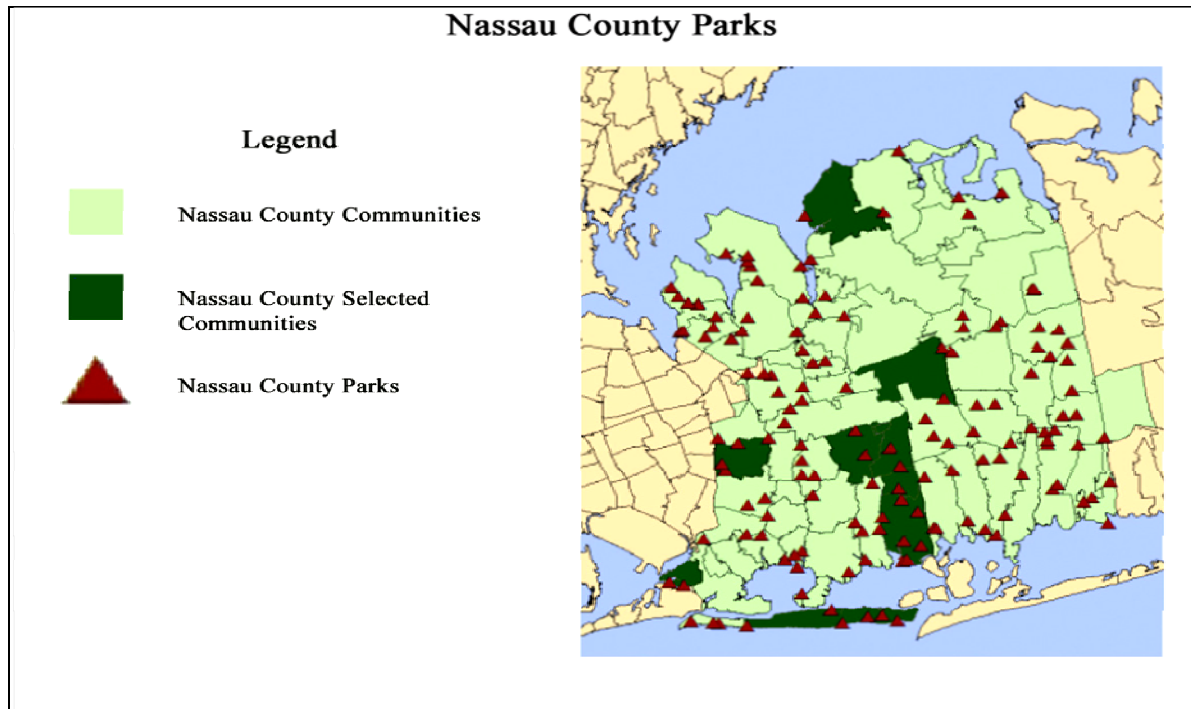
The built environment is also associated with health outcomes. Nassau County boasts more than 70 parks and recreational facilities within the county<sup>17</sup> (see map below).

However, according to the key informants, lower SES populations may not have access to safe spaces to exercise and stay active. Transportation consistently was identified as a barrier to these activities. The community-based organizations identified it as an inadequate system on Long Island.

Though some trends in population health emerge as a result of multiple determinants of health, a single policy can impact wellness. Nassau County has chosen to ban *trans* fats in its restaurants; bakeries were excluded from the ban. Data indicates that *trans* fats increase low-density lipoproteins, which can contribute to cardiovascular disease. Recent results from a similar ban in NYC<sup>18</sup> indicated that patrons were consuming a net decrease in *trans* and saturated

<sup>17</sup><http://www.nassaucountyny.gov/agencies/Parks/about.html>

<sup>18</sup> Angell, SY MD, MPH, Cobb, LK MS, Curtis, CC MBA, Konty, KJ MS, Silver, LD MD, MPH, Change in Trans Fatty Acid Content of Fast-Food Purchases Associated With New York City's Restaurant Regulation: A Pre-Post Study, *Ann Intern Med.* 2012;157(2):81-86.



fats, based on data collected from fast food restaurant receipts since the initiation of the ban. A recent study in Nassau County found that the *trans* fat ban in Nassau County yielded high food establishment compliance rates within two years, and was overwhelmingly accepted by sanitarians, establishment operators, and consumers,<sup>19</sup> demonstrating implemented policy's potential to elicit positive health outcomes.

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<sup>19</sup> Sood RK, Frank SH, Trapl ES. *First time inspections to evaluate an artificial trans fat ban in Nassau County; a suburban area near New York City*. Case Western Reserve University. Cleveland, OH. May 2011.

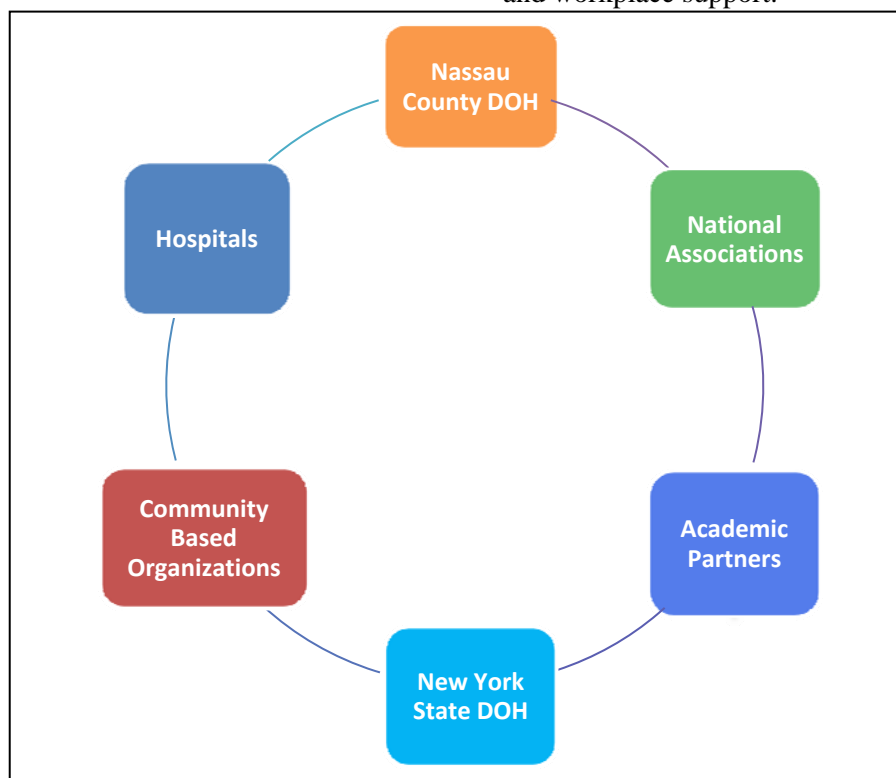


### **Chapter 3: Assets and Resources**

The public health system addresses health issues in the county through the combined efforts of community-based organizations and academic partnerships, as it is only through collaboration that the county will be able to improve the health of its citizens.

### **Nassau County Department of Health Administration**

The Health Commissioner and Administrative staff is responsible for the overall direction of the Nassau County Department of Health. The fiscal and human resources divisions are important units within the administration and are responsible for budget and workplace support.



### **Community and Maternal Child Health Services**

The Division of Community and Maternal Child Health Services provides a combination of direct services and administrative support to community-based programs and facilitates the coordination and

integration of services for children and families. The Division includes the Office of Children with Special Needs, which encompasses four programs: Early Intervention, Preschool Special Education, the Physically Handicapped Children's Program (PHCP), Community Health Worker Program and Child Find. The Division is also comprised of the Child Fatality Review Team (NCCFRT), 1 in 9: Hewlett House, the

Childhood Lead Poisoning Prevention Program and the Women, Infants, and Children (WIC) Program. The latter is a federal program that provides food and formula vouchers to qualifying mothers and children, with the county health department acting as contractor for these services.<sup>20</sup>

### **Communicable Disease**

This Division protects the public from the spread of communicable diseases through education, surveillance, investigation, and intervention. Some of the actions taken to prevent outbreaks include: education, post-exposure prophylaxis, immunization, recommendations, isolation, and quarantine. Communicable Disease Control also maintains a 24-hour public health consultation service for the reporting of reportable communicable diseases and physician consultation

### **Communication and Health Information**

The Office of Communications and Health Information is responsible for educating Nassau County residents about health issues to support a safe and healthy community and is dedicated to answering the public's questions and providing clear and accurate information. The Department of Health's website provides health information for residents in both English and Spanish.

### **Environmental Health**

The Environmental Health Division

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<sup>20</sup><http://www.nassaucountyny.gov/agencies/Health/wic.html>

promotes safe food, drinking water, air quality, and safe recreational, commercial, and residential environments through the regulation, inspection and enforcement of the New York State Public Health Law, State Sanitary Code, and the Nassau County Public Health Ordinance. It protects the community from the adverse effects of environmental pollution, unsanitary conditions, or unsafe practices. It regulates the safe and sanitary conditions of public water systems, food service establishments, residential environments, temporary residences, hotels, motels, and recreational spaces, like the children's camps, public pools and beaches that provide quality environments for community members of all ages to exercise and maintain a healthy lifestyle. The Division provides education to food handlers and investigates food-borne disease outbreaks. It certifies tattoo and body piercing artists and prevents the sale of tobacco products to minors.

The Division also investigates complaints of rodent and insect infestations, and conducts mosquito and rabies surveillance. The county's water is derived from the sole source aquifer,<sup>21</sup> making the protection of the county's water is especially vital. The Division monitors drinking water quality, investigates soil and groundwater contamination, and regulates the storage of toxic and hazardous materials; lead abatement also

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<sup>21</sup><http://www.nassaucountyny.gov/agencies/Health/Docs/PDF/LIEXEC.PDF>

falls within the Division's purview. The Division reviews and approves engineering plans for water systems, public pools, residential developments of five lots or more and commercial development in non-sewered areas. As a participant in the New York Metropolitan Air Quality Initiative, Nassau has actively worked to improve air quality through the reduction of automobile emissions.<sup>22</sup>

### **Laboratory Services**

The Division of Public Health Laboratory assesses the status of community health in Nassau County through analytic and diagnostic laboratory services. Equipped with the necessary instruments and the expertise to use them, this Division tests for the presence of bacterial and chemical contaminants in the environment. The Health Department Laboratory is available to respond to public health emergencies 24 hours a day, 7 days a week.

### **Public Health Emergency Preparedness**

The Health Department is invested in developing and maintaining individual and community preparedness for public health hazards and events. The Public Health Emergency Preparedness Division leads and coordinates the Department in emergency preparedness and response. The Division coordinates and staffs the Medical Reserve Corps, a volunteer organization through which medical professionals can volunteer their time

and expertise in preparing for and responding to public health emergencies.

### **Quality Improvement, Epidemiology and Research**

The Division of Quality Improvement, Epidemiology, and Research analyzes hospitalization data and vital statistics for the county. Additionally, the Division partners with hospitals, schools, and other entities to carry out research, provide trainings, and apply for grants. This Division is responsible for the Community Health Assessment, the Community Health Improvement Plan, the departmental Strategic Plan and accreditation.

### **Division of Social Health Initiatives and Minority Health**

Activities of this Division focus on a comprehensive approach to STD and HIV intervention, including risk reduction, counseling and education, early identification, and partner notification. These activities are conducted in partnership with healthcare providers, community organizations, schools, and other county agencies

Division staffers have extensive experience in field epidemiology, case interviews, confirmation of treatment, partner elicitation and notification, counseling and referral services, and have the capacity to use innovative approaches to case and partner investigations.

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<sup>22</sup><http://www.nassaucountyny.gov/fitnassau/air/airquality.html>

## Tuberculosis Control

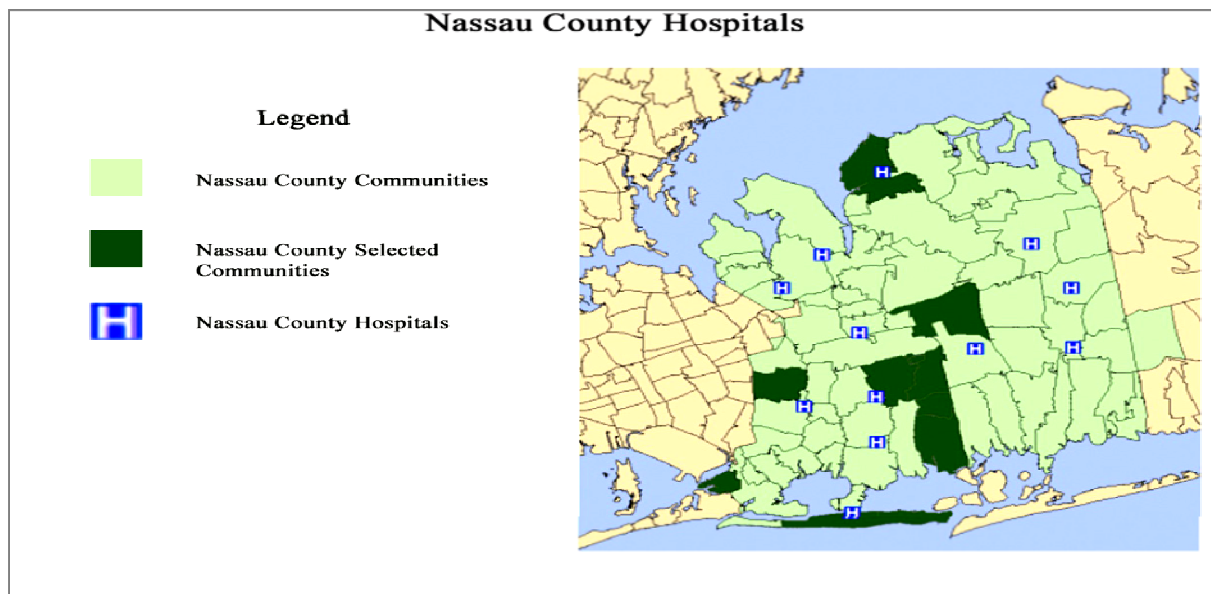
Nassau County's Division of Tuberculosis Control successfully monitors and manages the spread of tuberculosis, one of the world's deadliest diseases, through case management, Directly Observed Therapy (DOT), contact investigation, the immigrant program, education, isolation and quarantine, and consultation.

## Hospitals Systems in Nassau County

Nassau County maintains a robust hospital system and a high density of physicians in the county. Nassau County has 12 hospitals, including those in the North Shore-LIJ Hospital System and Catholic Health Services Hospital System within its borders. As designated by the New York State Department of Health, North

Shore University Hospital -Manhasset, Nassau University Medical Center and Winthrop-University Hospital are regional trauma centers and South Nassau Communities Hospital is an area trauma center.<sup>23</sup>

The county's perinatal centers are specialized, depending on the complexity of pregnancy<sup>24</sup>--Regional Perinatal Centers, like North Shore University Hospital -Manhasset and Winthrop-University Hospital, are equipped to treat the most complex obstetric and neonatal cases, whereas Level 3 Perinatal Centers, like Nassau University Medical Center, and Mercy Medical Center, treat mothers and neonates who require a sophisticated level of care.<sup>25</sup> Level 2 Centers, such as South Nassau Communities Hospital and North Shore University Hospital-



<sup>23</sup>[http://www.hospitals.nyhealth.gov/browse\\_search.php?form=CENTER&rt=1](http://www.hospitals.nyhealth.gov/browse_search.php?form=CENTER&rt=1)

<sup>24</sup><http://www.hospitals.nyhealth.gov/learn.php?t=PC>

<sup>25</sup>[http://www.hospitals.nyhealth.gov/browse\\_search.php?form=CENTER&rt=2](http://www.hospitals.nyhealth.gov/browse_search.php?form=CENTER&rt=2)

Plainview, treat cases of moderately complex pregnancies and deliveries.

Level 1 Centers, of which Nassau has none, treats relatively typical obstetric cases; all centers, except those with a Level 1 designation, have Neonatal Intensive Care Units. Both Nassau University Medical Center and North Shore University Hospital-Manhasset serves as AIDS Centers, which provide out-patient and in-patient care to those infected with HIV and AIDS.<sup>26</sup>

Cardiac Catheterization Centers, like Winthrop-University Hospital, South Nassau Communities Hospital, Mercy Medical Center, Nassau University Medical Center, St. Francis Hospital and North Shore University Hospital-Manhasset, provide adult cardiac care.<sup>27</sup> Nassau University Hospital is the county's only burn center,<sup>28</sup> but all 12 hospitals are Stroke Centers<sup>29</sup> and serve as primary care providers.<sup>30</sup> NuHealth runs Nassau University Medical Center and community health centers, which are federally qualified. Nassau County Department of Health relies on these partnerships to provide direct care to the community. In particular, the Nassau County Department of Health works closely with NuHealth to provide care to the

<sup>26</sup>[http://www.hospitals.nyhealth.gov/browse\\_search.php?form=CENTER&rt=5](http://www.hospitals.nyhealth.gov/browse_search.php?form=CENTER&rt=5)

<sup>27</sup>[http://www.hospitals.nyhealth.gov/browse\\_search.php?rt=12&form=SERVICE](http://www.hospitals.nyhealth.gov/browse_search.php?rt=12&form=SERVICE)

<sup>28</sup>[http://www.hospitals.nyhealth.gov/browse\\_search.php?form=CENTER&rt=4](http://www.hospitals.nyhealth.gov/browse_search.php?form=CENTER&rt=4)

<sup>29</sup>[http://www.hospitals.nyhealth.gov/browse\\_search.php?form=CENTER&rt=7](http://www.hospitals.nyhealth.gov/browse_search.php?form=CENTER&rt=7)

<sup>30</sup>[http://www.hospitals.nyhealth.gov/browse\\_search.php?rt=154&form=SERVICE](http://www.hospitals.nyhealth.gov/browse_search.php?rt=154&form=SERVICE)

underserved and uninsured population within the county. Furthermore, the Nassau – Suffolk Hospital Council helps support island-wide hospitals and is an important collaborative team member of the health department and the public health system. It enhances healthcare for all Long Islanders by representing the interests of its member hospitals before lawmakers, regulatory agencies, the media, and the public.



The Council's objectives include serving as an expert voice on all healthcare issues pertaining to members and the region, providing application assistance to Medicaid, Child Health Plus and Family Health Plus, participating in regional emergency preparedness efforts and maintaining relationships with allied associations, business partners, and community groups. As part of the efforts of the Community Health Improvement Plan (CHIP), the hospitals and health departments of both Nassau and neighboring Suffolk County have entered into a collaboration to provide resources to the region. This effort was facilitated by the Nassau-Suffolk Hospital Council.

#### **Academic Partnerships**

With a number of colleges and universities in and around the county, Nassau is a region of characterized by higher learning. The health

department works closely with six universities and colleges. In fact, memoranda of understandings have been formed with many of the schools to be sites for Points of Dispensing (PODS) for emergency events, or academic research to address varied health outcomes. Beyond the county's borders, additional university systems support the health department and community in terms of outreach, research and trainings.

### **Community-Based Organizations and Associations**

Nassau County has an active faith-based, health issue-driven, grassroots effort to address multiple health disparities and needs throughout the community. There are a number of community-based organizations (CBOs) located within the county; an excellent representation of grassroots agencies can be found in the CHIP. Nassau County Department of Health has engaged many of these agencies to participate in this assessment, as well as in the continued effort to move forward with plans to address poor health outcomes.

### **Nursing Homes**

For people who need round-the-clock care, nursing homes provide supervision and care outside of a hospital setting. Some facilities provide specialized services beyond the basic level of care—there are homes that cater to those who are living with AIDS, or require a ventilator. In Nassau County, there are 35

nursing homes with a total certified bed capacity of 7,467.<sup>31</sup>

### **Private Physicians and other Healthcare Providers**

While there is no single source that tracks the number of physicians and other healthcare providers *practicing* in the county, the New York State Education Department maintains a list for licensing purposes. In 2013, there were 10,067 registered licensed physicians and 1,490 physician's assistants;<sup>32</sup> 1,562 nurse practitioners;<sup>33</sup> and 2,153 licensed dentists in Nassau County.<sup>34</sup>

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<sup>31</sup><http://nursinghomes.nyhealth.gov/searches/county/30>

<sup>32</sup><http://www.op.nysed.gov/prof/med/medcounts.htm>

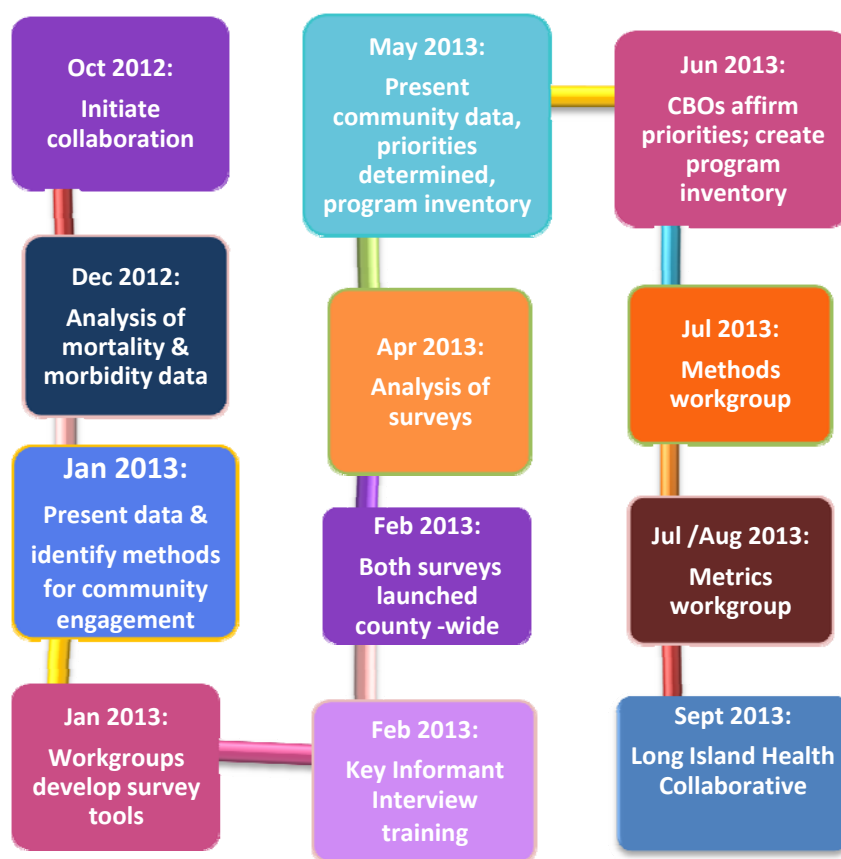
<sup>33</sup><http://www.op.nysed.gov/prof/nurse/nursecounts.htm>

<sup>34</sup><http://www.op.nysed.gov/prof/dent/dentcounts.htm>

## **Chapter 4: Process and Methods to Conduct Community Health Assessment**

Nassau County Department of Health spearheaded a collaborative partnership with county public health partners. The partners that were engaged included representatives from all the hospitals within the County: NuHealth (Nassau University Medical Center), North Shore Long Island Jewish Hospital System (Plainview, Manhasset, Franklin Square, Glen Cove, Syosset), Catholic Health Services Hospital System (Mercy Medical Center, St. Joseph and St Francis Hospital), Winthrop-

University Hospital, South Nassau Communities Hospital and Long Beach Medical Center. Additionally, local representatives from national agencies and community-based organization participated (See Chapter 3 in the CHIP). Hofstra University, Adelphi University and Stony Brook University contributed academic expertise. The effort of developing an assessment took place over the course of one year. The stakeholders that were involved from the inception of the collaboration remain engaged in the partnership and the community health assessment process (See Timeline below).



The overall process involved the following steps: The collaborative established a collective need for common priorities to complete the Community Health Assessment, Community Health Improvement Plan, Public Health Accreditation Board, Community Health Needs Assessment and IRS requirements on behalf of the hospital systems. Nassau County Department of Health was responsible for analyzing the distribution of disease throughout the county. This included both morbidity and mortality data. The community's perception of health was achieved by a community-wide survey and key informant interviews. Together, with that information, the partnership met on a continuous basis to then identify the health priorities for the county, collectively. Therefore, through a process of qualitative and quantitative analysis, the assessment was conducted.

### **Demographic Data**

Census 2010 data provided the foundation for the demographic characteristics of the community. On occasion, but not routinely, the American Community Survey data was used in lieu of the census data when detailed information not collected during the most current census efforts was required .

### **Morbidity and Mortality Data**

Hospitalization rates were calculated using the 2008, 2009 and 2010 Statewide Planning and Research Cooperative System (SPARCS). These data contain information on all inpatient

hospital visits in the State of New York over a given year.

New York State Vital Statistics data were used to determine Cause of Death (COD) rates for the same years (2008-2010). Data fields found in SPARCS and pertinent to this analysis include diagnosis codes in the form of ICD-9 codes along with demographic information including patient age, sex, race, ethnicity and zip code of residence.

The dataset is updated and maintained by the New York State Department of Health. For the purposes of this analysis, the three annual datasets from years 2008, 2009 and 2010 were combined to form a single dataset for inpatient visits and causes of death for the time period. Lead data was provided by New York State Bureau of Community Environmental Health & Food Protection. HIV/AIDS data was provided by the New York State AIDS Institute.

Health, injury and death outcome frequencies were tabulated and stored for later analysis. Frequencies were obtained for various health outcomes for the overall population, as well as for multiple strata. Hospital visit and death frequencies were calculated by age group, patient sex, and patient race, as well as by patient ethnicity. In addition to these strata, health outcome frequencies were also stratified by zip code of residence at the time of the visit or death. Frequencies were obtained for Nassau County, New York State and New York State excluding New York City. As a large metropolitan area, New York City can, in many



cases, skew health outcome rates for NYS. Census data was used to obtain population frequencies, which were essential in the calculation of rates. Data from the 2010 U.S. Census served as population denominators.

The three-year frequencies obtained earlier from the SPARCS and Vital Statistics data were divided by three to give a per-year average frequency. This number was then divided by the corresponding population and multiplied by a factor of 100,000. The resulting rate is the average number of hospitalizations or deaths per every 100,000 people within a specific group.

The rates of the total county/state population and age were age adjusted using a direct standardization method via the 2000 U.S. standard population, which is the most recent available estimate. Double stratifying was not conducted.

Once rates were calculated, they were compared. Differences in rates were analyzed for statistical significance. To test for statistical significance, 95% confidence intervals were calculated. In this report, the differences found to be statistically significant are termed “significant.” Those differences not described as “significant” should be assumed to be not statistically significant.

It is misleading to demonstrate the burden of disease within the county as a singular Nassau County rate. Nassau County, as evidenced in Chapter 1 of this document, suffers from health disparities and health inequities. Based on the demographic results and considering the history

of Nassau County’s profile, communities within the county were selected to be aggregated in an effort to better describe differences in morbidity and mortality data.

### **Identifying Selected Communities**

For the purposes of the Community Health Assessment, a comparison between a selected group of communities and the rest of the county population was conducted.<sup>35</sup> The term “selected communities” denotes the group of zip codes within Nassau County that were analyzed against the rest of the county population.

This analysis has helped to locate and display many of the health disparities that exist within the county. The selected communities were chosen with the assistance of an index comprised of multiple socioeconomic and health related factors.

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<sup>35</sup> 2007-2011 American Community Survey 5yr Estimates. United States Census Bureau;

<sup>2</sup>2010 United States Census. United States Census Bureau;

<sup>3</sup> 2008-2010 Perinatal Data Profile. New York State Department of Health, Bureau of Biometrics and Health Statistics and New York City Department of Health and Mental Hygiene, Bureau of Vital Statistics

The five socioeconomic factors included in the index are:

- Percent of individuals within the community that have a high school diploma (or GED equivalent)
- Median household income (USD)
- Percent of single parent families within the community
- Percent of Individuals renting their current home
- Infant Mortality Rate (IMR)

These five factors were chosen for inclusion following an exhaustive review of the current literature on the topic. The first four factors together provide a picture of the economic status of each community and, individually, these four factors have been linked to a population's overall health. Infant mortality was chosen for inclusion, along with the other socioeconomic factors, as it is an important measure of population health and is widely used when comparing two or more groups. All of these factors were obtained from the most currently available data source. Selected communities were chosen using both the index and the selection of populations historically categorized as "at risk" in previous Community Health Assessments. A total of 9 communities were selected. These communities ranked as the top 9 in the index and all have been deemed "at risk" in previous assessments.

These communities included:

- Freeport (11520)
- Hempstead (11550)
- Inwood (11096)
- Long Beach (11561)
- Westbury (11590)
- Roosevelt (11575)
- Uniondale (11553)
- Elmont (11003)
- Glen Cove (11542)

For this portion of the assessment, these 9 communities were combined and a rate for each health or injury outcome was calculated for the group as a whole. This rate was then compared to a single rate of the same outcome for the county population, excluding these 9 zip codes. The differences between the two rates were tested for statistical significance using the same method aforementioned. Those outcomes with statistically significant differences were included in the final report.

### **Community Wide Survey**

The survey was developed by a workgroup from our larger partnership and was based on a tested template that St. Francis Hospital had used. The workgroup tailored said survey to include prevention agenda priorities, goals, barriers, strategies, and demographic information. Common terminology was used in place of health specific terms known to the public health community. In addition, it was culturally competent and available in English

and Spanish as a certified translation. The survey was distributed via Survey Monkey, hospital outreach, public libraries, Nassau County Department of Health programs and county agencies, faith-based organizations, community centers and social media. (See the appendix).

### **Key Informant Survey**

A workgroup was created to develop a tool to use for key informant interviews. The list of potential community health leaders was derived from the larger list of community-based organizations. A training for interviewers was conducted by Stony Brook University Faculty. Key-informant interviews were conducted with health organization leaders to identify pressing health needs in the community in the hopes of developing strategies to meet them.

Upon providing consent to be interviewed, participants were asked open-ended questions about their organization and the population they serve. Participants were asked to identify the biggest health problems in their community and prioritize health issues to be addressed. Additionally, they were asked to describe the factors that affect the healthcare the community receives, namely demographic factors, such as age, gender, race/ethnicity, socioeconomic status and financial security, and language barriers.

Participants were asked to describe the health resources their community utilizes in relation to specific health problems and identify barriers to, or gaps in, resources provided. Lastly, participants were asked to identify ways they feel their organization might improve services and programs for the community they serve. Interviews were recorded and transcribed.

Qualitative data analysis was conducted using Atlas TI software to identify prevalent themes and emergent themes in responses. A pre-interview survey was also conducted to collect basic information about the services provided by the organizations and their target populations. Report details and results are found in the appendix.

Preliminary results from the Community Health Assessment have been presented to the hospitals, community-based organizations and health department staff. Furthermore, opportunities to present the material have included public presentations at local universities and through webinars. The assessment will be available on the Health Department website following its submission to New York State Department of Health. Feedback from the public and interested agencies will contribute to the ongoing efforts going forward.