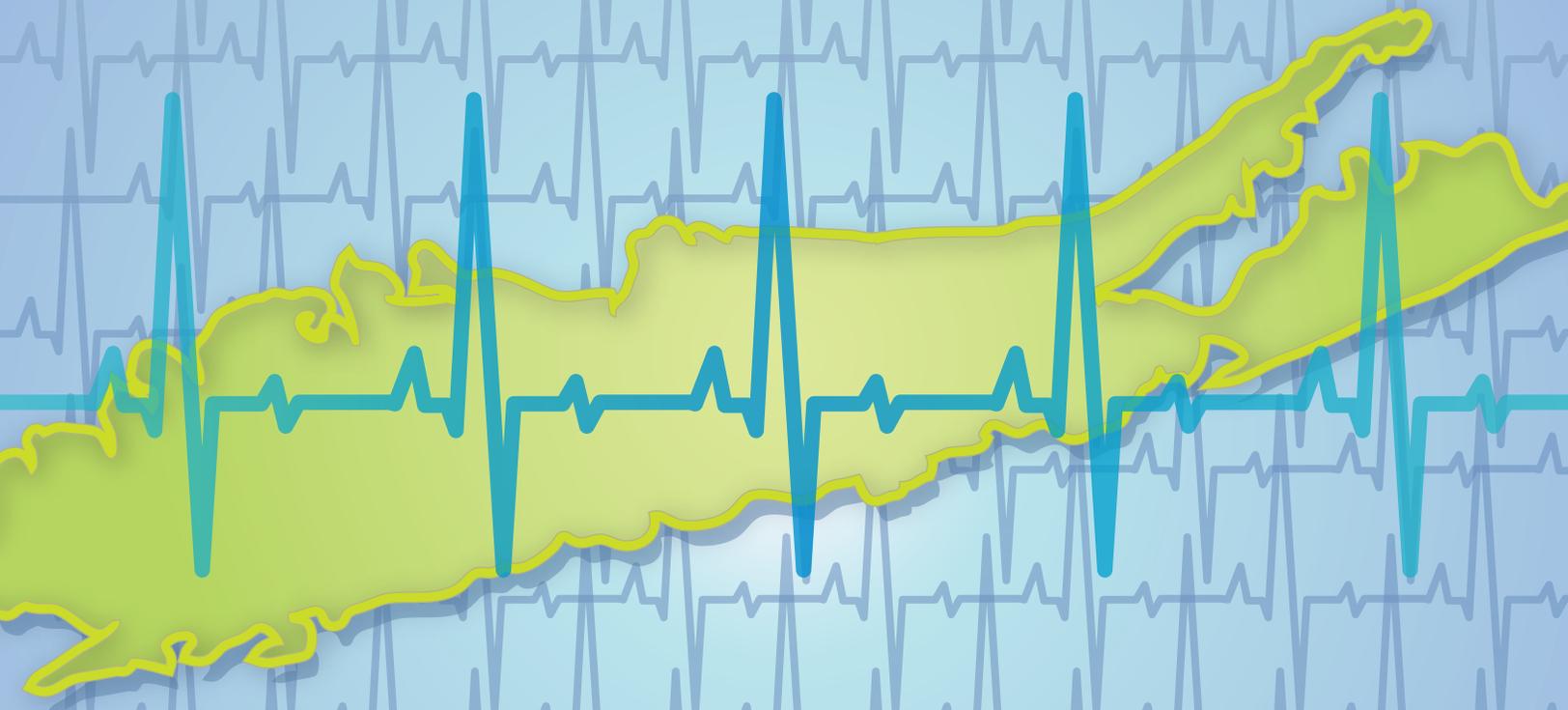


# VITAL SIGNS 2014



 **ADELPHI UNIVERSITY**

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VITAL SIGNS 2014  
*Measuring Long Island's Social Health*

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## EXECUTIVE SUMMARY

“A community is like a ship, everyone ought to be prepared to take the helm.”

—HENRICK IBSEN

### SOCIAL HEALTH INDICATORS

#### Economic, Housing and Food Security

- Rental housing
- Home ownership
- Mortgage foreclosure and delinquency
- Homelessness
- Food insecurity

#### Community Engagement, Well-Being and Safety

- Voter turnout
- High school dropouts
- Child abuse and maltreatment
- Youth arrests
- Domestic violence
- Violent crime
- Hate crime

#### Health Insurance and Physical and Mental Health

- Health insurance
- Mental health services
- Early prenatal care
- Teen pregnancies
- Teen births
- Low birth weight
- Infant mortality
- Pediatric asthma
- Diabetes
- Senior unintentional falls
- Diseases of the heart
- Cancer
- HIV/AIDS
- Drug abuse
- Suicide
- Alcohol-related motor vehicle deaths

## INTRODUCTION

**V**ITAL SIGNS 2014 TRACKS PERFORMANCE on 28 social health indicators, updating previous data and noting trends and patterns, to capture quality of life on Long Island. The report is the latest in a series of studies examining the region's social health, with particular emphasis on underserved and vulnerable populations. By providing centralized, comprehensive and current data, the project seeks to inform community-based initiatives, policy and strategic planning in the region.

The release of *Vital Signs 2014* follows two crushing events: a prolonged recession and Hurricane Sandy. While previous Vital Signs data offered preliminary insight into the Great Recession's impact on social health, this report allows for greater analysis of long-

term effects. It also provides a first look at well-being during our still fragile economic recovery. Finally, *Vital Signs 2014* documents Hurricane Sandy's widespread destruction and discusses important means to assess any lasting harm to social health.

As noted in prior Vital Signs reports, Long Island's challenges as a mature suburb—a diversifying population, income inequality and lack of affordable housing—contribute to significant disparities in quality of life. And it was within this preexisting social context that the economic downturn and Hurricane Sandy took place. As a result, both events, alone or together, acted to exacerbate inequalities and to expose stark differences in cultural and material assets. Today, while many Long Islanders flourish, others, with fewer resources, continue to suffer profound personal, economic and social loss.

A key finding of this report is that Long Island is losing ground on many social health indicators, reflecting, in part, the cumulative damage of our region's challenges and inequalities. While some indicators have shown positive change over the past few years, like heart disease and teen pregnancy, others have trended negatively, including housing cost burden, food insecurity, homelessness, youth drug arrests, pediatric asthma, diabetes, drug abuse, suicide and alcohol-related motor fatalities. In many cases, these shifts are regionwide, although counties are moving in opposite directions on a number of indicators such as domestic violence, violent crime, hate crimes, prenatal care, infant mortality and senior unintentional falls. When community data are available, they typically show the same disadvantaged areas and populations suffering from distress.

To their credit, Long Island's social service and welfare agencies have come together over the past several years to better coordinate efforts to meet need. Without these endeavors and the existing social safety net, hardship would be even greater. In addition, the Affordable Care Act (ACA) promises to help redress health disparities for many area residents, by making health insurance available and affordable for the first time. This reform may ultimately improve population health outcomes, although change will not be measurable for years to come. Moreover, access to care is only one factor among many determining health; for broad transformation to come about, more comprehensive measures in social health are essential.

The importance of wide-ranging, multidimensional and inclusive social health approaches has been a theme of each Vital Signs report. Plans to address social health disparities must attend to all domains of well-being and include regional solutions as well as county- and neighborhood-specific efforts, taking varying community needs into consideration. They should also recognize the communitywide benefits of investment in social equity, creating return by reducing direct and indirect costs of disparities and permitting financial layout in other areas.

Currently, there is an urgent need to embrace such comprehensive change, as the region's economy begins to rebound and many anticipate a return to normalcy. However, normalcy is not enough to guarantee a truly vital and sustainable future. For Long Island to fully thrive, its populace must be empowered to create a quality of life that is shared by all. Given the counties' current budget limitations, this will necessitate wiser and more strategic thinking, planning and investing to address regional and community-based social health needs.

Toward this end, we offer *Vital Signs 2014* as a resource for the many stakeholders interested in enhancing well-being in the region. While a data report cannot drive policy change alone, it is a guide for understanding our past and present, as well as a tool for advocacy, particularly in the path toward a more dynamic and equal future.

## METHODOLOGY

**V**ITAL SIGNS 2014 INCLUDES 28 social health indicators selected by an Advisory Board of government officials, service providers, community leaders and advocates. The report updates past indicators to assess performance over time and includes one new indicator, Mental Health Services, as a baseline for measuring mental health effects of Hurricane Sandy. The set of 28 indicators is not meant to be exhaustive, but is intended to capture a broad view of well-being, by analyzing data across several domains of social health. Data were collected from county, state, federal and proprietary databases and publications and allow for typical trend lines of 10 years or more, with a specific focus on movement since *Vital Signs 2009*.

Whenever possible, the report uses ZIP code level data to reveal disparities obscured by aggregate data and to encourage more place-based social health interventions. It also compares local data to state and national data to provide a context for evaluating Long Island's social health.

Vital Signs envisions social health as a condition that is contextually constructed, meaning that it is determined by multiple forces that interact to shape well-being. These forces may include biology and genetics, demographics, social networks and relationships, physical environment, cultural traditions and public policy. Where these interactions take place is also crucial, not only because environmental/physical characteristics vary by location, but also because the meanings and beliefs which shape social relationships and structures differ, particularly the ways in which individuals interpret and experience their own health. Through the use of this perspective, Vital Signs is able to identify and highlight the dynamic relationships between different sectors of social health and to reveal how social health risk factors and needs vary by population and community.

## FINDINGS

**L**ONG ISLAND IS OFTEN THOUGHT OF AS AN AFFLUENT SUBURB, and the region frequently exceeds state and national levels on social health indicators. However, many indicators are moving in a negative direction, including food insecurity, domestic violence, diabetes, drug abuse and suicide. While Nassau often outperforms Suffolk, its more rural neighbor, on social health measures, this is not true in every case. The following are major findings in areas of social health, emphasizing positive or negative change since *Vital Signs 2009*.

**RENTAL HOUSING COST BURDEN:** While the percentage of all renters paying more than 30% of their gross income on housing has eased since the recession's heights, cost burden has increased for low and moderate income households: from 2007–2012, up 1.4% in Nassau and 6.7% in Suffolk for those earning less than \$20,000 per year. Among households earning \$50,000–\$74,999 per year, increases have been steeper: 49.6% in Nassau and 27.2% in Suffolk during the same time period.

Severe housing cost burden—payment of more than 50% of a household's gross income—rose 6% in Suffolk but fell 3.6% in Nassau between 2007 and 2012.

**HOMEOWNER COST BURDEN:** A growing percentage of Nassau homeowners are paying more than 30% of their gross income on housing costs. In 2012, 44.6% of homeowners experienced this burden compared to 39.2% in 2007. In contrast, cost burden fell from 46.1% to 43.4% for Suffolk homeowners during this time.

**MORTGAGE FORECLOSURE AND DELINQUENCY:** Foreclosures persist on Long Island, even as the local housing market recovers in other areas. As of December 2013, 6.3% of homes with mortgages were in the foreclosure inventory, compared to 2.1% of homes nationwide.

Lower-income communities and communities of color have borne the brunt of the foreclosure crisis. Of the 15 communities with the highest foreclosure rates in June 2013, 14 had median household incomes below their respective county levels; 13 had greater populations of color than their respective counties.

**HOMELESSNESS:** Homelessness is increasing on Long Island: from 2007 to 2013, up 24.9%. Early assessment of 2014 numbers suggests this trend will continue—driven, in part, by households displaced by Hurricane Sandy, who no longer have federal temporary housing support.

**FOOD INSECURITY:** Food insecurity is a growing problem: From November 2008 to November 2013, individual enrollment in the Supplemental Nutrition Assistance Program (SNAP) increased 118% in Nassau and 162% in Suffolk.

**HIGH SCHOOL DROPOUTS:** High school dropout rates have declined slightly on Long Island, standing at 1.1% in Nassau and 1.6 % in Suffolk for the 2011–2012 school year.

Dropout rates are higher in many lower-income communities and communities of color, and, in some cases, have risen dramatically in the past five years.

**CHILD ABUSE:** The percentage of indicated reports of child abuse has declined in recent years: 18% in Nassau and 8.4% in Suffolk from 2008 to 2012.

**YOUNG ADULT ARRESTS:** Young adult arrests for all offense categories combined have declined on Long Island: 21.3% in Nassau and 8% in Suffolk between 2008 and 2012.

However, arrests rates for drug use, sale and possession are increasing: from 2008 to 2012, up 8.4% in Nassau and 15.6% in Suffolk.

**DOMESTIC VIOLENCE:** Domestic violence incidents are increasing in Nassau: from 2009 to 2012, up 15.2%. In contrast, domestic violence incidents decreased 3.6% in Suffolk.

Elder abuse is an area of concern; for 2008–2009, Long Island had an abuse rate of 3.6 per 1,000 adults ages 60 and older, the second highest in the State.

**VIOLENT CRIME:** The violent crime rate is rising in Nassau: from 2007 to 2012, up 3.1%. It fell 21.3% in Suffolk County during this same time period.

Nassau's violent crime rate, which was lower than Suffolk's in 2007, is now greater. Rates stood at 181.7 per 100,000 population in Nassau and 141.4 in Suffolk in 2012.

**HATE CRIME:** Hate crime incidents are increasing in Suffolk: up 48.1% between 2007 and 2012. The number jumped 200% in just one year from 2011 to 2012. By contrast, hate crime incidents decreased 54.1% in Nassau from 2007 to 2012.

**HEALTH INSURANCE:** The number of uninsured people decreased 2.6% on Long Island between 2009 and 2012 as the economy improved. As of 2012, the uninsured rate was 8.8% in Nassau and 10.1% in Suffolk.

Uninsured rates are higher in certain lower-income communities: For 2008–2012,

16 Long Island communities had rates of 20% or higher.

The uninsured rate will likely decrease with the implementation of the Affordable Care Act (ACA).

**MENTAL HEALTH SERVICES:** Fewer adults and children are receiving public/community-based mental health services. As of November 2011, there were 15,427 consumers, a 1.8% decrease from November 2009.

Use of mental health treatment settings by consumers changed between 2009 and 2011, with fewer adults and children receiving treatment in emergency rooms or inpatient settings and more receiving services in outpatient settings.

This indicator will be important to track over time as the State reforms its mental health system and as Long Islanders remain at risk for negative mental health effects from Hurricane Sandy.

**EARLY PRENATAL CARE:** Over the past decade, the early prenatal care rate has fallen in Nassau and Suffolk. In the short term, patterns have diverged between counties.

Fewer women are receiving prenatal care in Nassau: down 3.2%, from 81.2% to 78.6% between 2007 and 2011. By comparison, the rate rose 2.1% in Suffolk, from 71.9% to 73.4%.

Disparities exist in both counties: Younger (20 and under) Hispanic and black women have lower rates of early prenatal care than older or white women.

**LOW BIRTH WEIGHT RATE:** Low birth weight rates have increased on Long Island over the last decade. However, more recent trends differ by county: From 2007–2011, the rate remained flat in Nassau and declined 3.8% in Suffolk. In 2011, the low birth weight rate was 8.1% in Nassau and 7.7% in Suffolk.

Race/ethnic disparities in low birth weight exist in both counties: Non-Hispanic blacks have the highest rates, followed by non-Hispanic whites and Hispanics.

**INFANT MORTALITY:** The infant mortality rate is increasing in Suffolk: From 2007 to 2011, up 4.4%. During the same time period, the rate fell 23.3% in Nassau. Nassau and Suffolk share the same 2009–2011 average infant mortality rate: 4.2 per 1,000 live births.

**PEDIATRIC ASTHMA:** Pediatric asthma rates are climbing: up 15.6% in Nassau and 8.4% in Suffolk from 2005–2007. The 2009–2011 average pediatric asthma rates were 20.8 per 10,000 population ages 0–17 for Nassau and 19.3 for Suffolk. This indicator is important

to track as a measure of Hurricane Sandy's long-term impact on respiratory health.

**DIABETES:** Hospitalization rates for diabetes are increasing: from 2002–2011, a rise of 18.2% in Nassau and 9.9% in Suffolk.

In 2012, a total of 805 diabetes-related lower-extremity amputations (LEA) took place on Long Island, an increase over 778 episodes in 2006.

**SENIOR FALLS:** Unintentional falls rates for older adults ages 65–74 and age 85 and older are increasing in Suffolk: from 2007 to 2011, up 10.9% and 2.8%, respectively. Alternatively, rates for older adults in all age categories declined in Nassau for the same time period.

**HEART DISEASE:** The heart disease mortality rate is falling: from 2005–2007 to 2009–2011, down 13.4% in Nassau and 17.8% in Suffolk. Despite this decline, Nassau's heart disease mortality rate remains above the State's rate. Heart disease mortality rates in Nassau and Suffolk are higher than at the national level.

**CANCER:** Cancer incidence and mortality rates are higher in Suffolk than in Nassau and in men than in women. Lung cancer incidence rates are rising for women in Nassau and Suffolk; between 2001–2005 and 2006–2010, up 4.6% in Nassau and 4.7% in Suffolk. By contrast, the breast cancer mortality rate is falling: down 16.9% in Nassau and 16.7% in Suffolk.

Rates for black women remain higher than for other women in Nassau and Suffolk. For prostate cancer, black men have a mortality rate more than double that of white men in both counties.

**DRUG ABUSE:** The drug-related discharge rate is rising: an increase of 3.7% in Nassau and 14.2% in Suffolk from 2007–2011. In 2011, the rate was 19.7 per 10,000 population in Nassau and 25.7 in Suffolk. Suffolk's 2011 rate was higher than New York State's rate.

Among the 10 Long Island ZIP codes with the highest 2009–2011 average drug-related discharge rates, 70% were located in Suffolk County.

**SUICIDE:** The suicide rate is rising: from 2005–2007 to 2009–2011, up 1.9% in Nassau and 10.1% in Suffolk. 2009–2011 rates were 5.5 per 100,000 population for Nassau and 7.6 for Suffolk. Suffolk's suicide rate was higher than New York State's rate.

Of the 10 Long Island ZIP codes with the highest suicide rates in 2009–2011, seven were located in Suffolk County.

**ALCOHOL-RELATED MOTOR VEHICLE DEATHS:** Alcohol-related motor vehicle fatalities are escalating: an increase of 22.6% in Nassau and 13% in Suffolk from 2007–2011. Suffolk had the highest number of alcohol-related fatal crashes (61) of any New York county in 2011; Nassau County was second (38).

## NEXT STEPS

**V**ITAL SIGNS' INDICATORS provide a status report on the region's social health and point to areas requiring ongoing monitoring or immediate attention. These issues may stand alone as public health concerns but typically intersect to influence well-being. They include:

**MENTAL HEALTH:** Increasing rates of youth drug arrest, suicide, domestic violence, drug abuse and motor vehicle fatalities suggest underlying mental distress, such as depression or anxiety, driving this trend, possibly in response to the economic downturn and Hurricane Sandy. However, populations experiencing poor mental health differ. For example, growth in the suicide rate is largely propelled by the behavior of middle-aged or older white residents. This subgroup differs demographically and experientially from the young adults arrested for drug use.

**IMPACT OF HURRICANE SANDY:** More than 18 months after the storm made land-fall, it continues to impact the lives of many area residents. These effects may be due to emotional distress (as discussed above) as well as to economic/housing loss. Increases in homelessness and mortgage foreclosure reflect the challenges facing former homeowners and renters displaced by the storm.

Immediately after the hurricane, local organizations worked aggressively to meet the mental health needs of survivors. Many of these initiatives have now ended. Only future data will show how depression and anxiety play out in the longterm for Sandy survivors, particularly among vulnerable populations such as low-income individuals, older adults and the disabled.

**AFFORDABLE HOUSING:** The paucity of affordable housing is central to many other social health matters, like food insecurity and homelessness, which are more common when households must make difficult decisions about which bills to pay each month. Moreover, as has been previously noted, the rental housing crunch has been made more intense following Hurricane Sandy, with dislocated homeowners and renters competing for limited units.

**DIVERGING PATTERNS BETWEEN COUNTIES:** Compared to previous Vital Signs reports, there is greater deviation in indicator trend lines between Nassau and Suffolk. Variation in movement exists for indicators such as hate crime, senior falls, domestic violence and low birth weight. In addition, rates of growth vary by county. For example, in terms of suicide rates, the past five years saw a 1.9% increase in Nassau versus an 11.6% increase in Suffolk.

**THE GRAYING OF LONG ISLAND:** An aging population poses significant public health concerns. These include high rates of unintentional injury, food insecurity and elder abuse. These and other age-related health issues boost demand for medical and social services. However, many seniors encounter barriers to receiving services, mainly due to fear of stigma or because they are unable to navigate the bureaucratic processes required to receive aid.

**POORER QUALITY OF LIFE FOR LOW-INCOME PEOPLE AND PEOPLE OF COLOR, ESPECIALLY UNDOCUMENTED IMMIGRANTS:** On a range of indicators, low-income people and people of color disproportionately shoulder the greatest social health burdens. Immigrants, in particular, are at risk for inadequate primary and preventive care, since they are often uninsured because of program ineligibility, lower-paying jobs and immigration status fears. Even with the implementation of the Affordable Care Act, which expands healthcare coverage to previously uninsured Americans, undocumented individuals will remain without such protection. Other issues affecting (undocumented) immigrants include food insecurity, homelessness and hate crimes.

The report's findings also provide some direction for contemplating social health challenges, identifying gaps in knowledge and informing tactics to improve well-being. Some of the ideas listed below are new and some were first introduced in *Vital Signs 2006*; each may be useful in reducing social health disparities. Ultimately, their goal is to help level the social health playing field by informing thoughtful and deliberate policies to meet what are often disproportionate community needs.

**1) Integration of Social, Emotional and Physical Health:** How people manage stress has profound implications for health. As research has shown, low-income people experience more mental health issues, which are in turn associated with poorer physical health, although the pathways by which this occurs are not well understood.<sup>1</sup> From a policy perspective, we need broader strategies that recognize

the interconnection between mental and physical health, rather than typical “silo” approaches, which focus on these needs separately. For example, a condition like diabetes 2, which is related to nutrition-deficient diet and obesity, often receives specific medical intervention, including prescription drugs and insulin therapy; yet social and emotional factors which may coexist, such as food insecurity, depression and anxiety, are left untreated.

**2) Better Disaster Preparedness:** In light of atypical weather patterns, and the likelihood of future disasters like Hurricane Sandy, there is a need to create better coordinated approaches to catastrophic events before and after they occur. Currently, disaster management tends to focus on informing and assisting the general population, with limited attention to subgroups known to be especially vulnerable to disasters, such as older adults, the disabled and lower-income people. We need more information about the specific needs of these vulnerable individuals/communities to increase safety and resiliency.

One practical suggestion for shoring up emergency preparation, management and response includes the development of an “index of vulnerability” that combines demographic, social and economic data (from sources like Vital Signs) with environmental information to help pinpoint the communities most at risk from hazards, whether due to geographic location or social conditions and resources.<sup>2</sup>

**3) More Affordable Housing:** Despite much rhetoric, very few concrete efforts have been made to address this issue. For Long Island to continue to thrive and attract a dynamic and diverse workforce, the creation of more affordable housing must be a priority for policy makers; in addition, residents must be willing to accept that change is necessary for long-term regional sustainability. A recent report from the Suffolk County Welfare to Work Commission makes several concrete suggestions for improving the housing landscape for people with limited incomes.<sup>3</sup>

**4) More Qualitative and Community-Based Research:** These types of studies allow researchers to better understand the lived experience of social health and to better determine how social health is created. Rich analyses of social health experiences can complement quantitative data and provide decision makers with more comprehensive and robust resources to address social health challenges. For example, deep information on the needs and experiences of vulnerable populations before and after Hurricane Sandy could help policy makers craft programs that more effectively take

the concerns of these populations into consideration.

In addition, particular focus on “neighborhood effects” or the role of place—whether local built environment, community assets or cultural attitudes—in shaping health should be encouraged. These findings may help enable local capacity building, strengthen existing resources and remove barriers to care.

**5) Geographic- and Population-Specific Solutions:** In order to maximize potential for positive social health, programs and interventions must be targeted to address the needs of specific groups and communities. Moreover, policies should take geographic level (regional, county or community/neighborhood) into consideration when seeking to improve social health. For example, plans to provide affordable housing may need to be regional, while plans to address suicide may be county-, community- or population-based. The many divergent indicator trends between Nassau and Suffolk suggest the need for this type of targeted approach.

**6) Innovative Collaborations Across All Sectors:** The report’s findings point to the need for more integrated policy, planning and action. In the aftermath of Hurricane Sandy, social welfare organizations and government agencies have valiantly worked together to address short- and long-term need. We must build on this collaboration across sectors and spheres to better ensure social health. At a time when county budgets are still stressed and grant funding is limited, coalitions can help maximize available resources to strengthen quality of life for all.

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## PROJECT BACKGROUND

### VITAL SIGNS OBJECTIVES

The primary objective of Vital Signs is to develop centralized, comprehensive and timely data resources that can be used to inform policy and service provision and improve social health.

#### **Vital Signs also seeks to:**

- Identify the people and communities affected by, or at risk for, poor social health.
- Determine factors that contribute to poor social health.
- Establish benchmarks and track trends.
- Evaluate Long Island's capacity to address existent and emergent social health needs.
- Facilitate dialogue among stakeholders.
- Stimulate collaborative research.

**I**NITIATED IN 2004, Vital Signs is a collaborative campus-community research and action project committed to tracking and assessing Long Island's social health. Its goals are to better understand existing health and social conditions, help strengthen community assets, reduce social health disparities and improve regional social health. By providing centralized, comprehensive and timely data, the project seeks to inform community initiatives, policy and strategic planning.

Vital Signs is part of an established national and international movement that evaluates quality of life in order to highlight community needs and stimulate social change.<sup>1</sup> Quality of life projects (also called community indicator projects) typically focus on one or a combination of issues such as physical and mental health, economic development and environmental sustainability.<sup>2</sup>

Vital Signs builds on the insights of these initiatives, particularly community health studies emphasizing a holistic approach. A holistic approach to community health recognizes health as a multidimensional, contextual and social phenomenon, influenced not just by biology and behavior, but also by a range of interacting demographic, social and economic factors.

Vital Signs, a multiphase project, employing a mix of primary and secondary research methods for data collection and analysis, has released six previous reports, independently or in partnership. In its inaugural report (June 2006), Vital Signs focused on 25 social health indicators to establish a baseline profile of well-being on Long Island. This initial offering has been followed up by examinations of mental health, healthcare access and food system sustainability. *Vital Signs 2009* updated data in the 2006 report and explored the initial impact of the Great Recession on individual and community well-being.

The current report further develops the themes explored in previous studies, using the most recent data available from public access sources. Through an analysis of 28 social health indicators, the report provides a snapshot of the region's quality of life.

## INTRODUCTION

### USE OF VITAL SIGNS

Inform policy makers, planners providers and advocates about current data and trends.

Enhance the capacity for long-term service planning and fundraising activities.

Foster dialogue among stakeholders.

Stimulate new collaborative planning and action.

Inspire the development of an action research agenda for the region, county and/or communities.

**V**ITAL SIGNS 2014 measures Long Island's performance on 28 social health indicators. The report employs a longitudinal perspective, updating data from previous studies and noting trends and patterns to effectively capture quality of life on Long Island. In particular, the report provides a comprehensive look at population and community well-being, as the region attempts to recover from the Great Recession and the widespread devastation of Hurricane Sandy.

Four years ago, *Vital Signs 2009* provided a preliminary assessment of the Great Recession's effects on social health. Given the timeframe of the data available, which spanned the years 2006–2009, the report was not able to fully evaluate the scope of the impact, since the recession did not officially begin in our region until 2008. Nevertheless, the report did highlight a number of troubling patterns, noting that Long Island was losing ground on multiple indicators, including job growth, housing cost burden, food insecurity, child abuse, early prenatal care, low birth weight, diabetes, drug abuse and suicide. Moreover, *Vital Signs 2009* offered rich information on the reach of the mortgage crisis, following the collapse of the housing bubble, including a focus on communities where distress was greatest.

Today, the region appears to be undergoing an economic recovery. The most recent monthly economic report from the Long Island Association (April 2014) documents solid labor market growth, with 17,300 new jobs added over the past year.<sup>1</sup> The report also indicates that the regional housing market is improving, with stable home sales and gains in home prices: 4.6% in Nassau and 2.4% in Suffolk between February 2013–2014. Moreover, Long Island remains one of the most prosperous areas in the nation; Nassau and Suffolk counties have the 10th- and 26th-highest median household

incomes in the country, respectively.<sup>2</sup>

Still, even as the region begins to bounce back, long-term structural challenges remain: economic inequality, high cost of living, aging infrastructure and scarce affordable housing. Not only do these conditions threaten the lasting vitality of the region's economy, they contribute to deep and disturbing social health disparities that are often obscured beneath an idyllic surface of affluence and comfort.

As noted in past Vital Signs reports, the story of contemporary Long Island is “a tale of two suburbs.” On the one hand, many residents are living out the American dream. On the other, growing numbers of the poor, working and middle class, people of color, immigrants and seniors are struggling to get by each day. Sadly, many of these people are still reeling from the effects of the Great Recession and the immense damage of Hurricane Sandy. In some cases, the impact is cumulative, with individuals and families ravaged by both events.

When Hurricane Sandy made landfall on October 29, 2012, it was the first major disaster to hit the region in a very long time. The storm caused excessive flooding, property damage and mass displacement. Sandy also triggered substantial infrastructure failure, leading to weeks of electrical outages that crippled the function and flow of hospitals, gasoline supplies, businesses and the educational system. People from diverse backgrounds and communities experienced the storm's hardships.

Yet, even as Sandy affected all demographic groups, our region's more disadvantaged populations were pre-positioned to take the biggest hit. Not simply a discrete natural event, Sandy took place in an established social context, marked by sharp divides in individual and community assets. Such disparities have enabled some Long Islanders to more easily manage the storm's disruptions, while others continue to suffer profound personal, economic and social loss.

This is not to discount the tremendous response efforts provided by organizations dedicated to disaster recovery. Thousands of survivors have received coordinated social, legal and medical services, many through the Long Island Voluntary Organizations Active in Disaster (LIVOAD) coalition, comprising regional not-for-profits and government agencies. But with such tremendous need, it is certain that others have fallen through the system's cracks, whether due to language barriers, program ineligibility, reluctance to seek aid or difficulties navigating the bureaucratic process.

Moreover, a year and a half after the storm, countless properties linger in disrepair, with owners still waiting on promised assistance from federal/state programs or lacking adequate insurance compensation to begin necessary renovations. Many remain displaced, living in temporary housing and unable to reestablish their lives. Along with the

mental strain of uncertainty, they endure great financial difficulty, trying to cover mortgages while paying for other lodgings.<sup>3</sup> For low-moderate income renters dislocated by the storm, a tight rental market poses few affordable options, leading to housing instability and the threat of homelessness.<sup>4</sup> Finally, in what may be a long-term health hazard for the region, some residents continue to live in homes that have yet to be fully cleaned or gutted, causing mold to grow and exposing individuals to respiratory risks.<sup>5</sup>

All of these storm-related issues, combined with the additional and ongoing needs of vulnerable populations, are taking place in a profoundly conservative monetary environment. Both Nassau's and Suffolk's governments face massive budget deficits and have been designated as "fiscally stressed" by the state comptroller.<sup>6</sup> To reduce spending, the counties have instituted pay freezes, reduced staff and eliminated or consolidated social services. As a result, client demand has increased for the region's not-for-profits, although, in many instances, they are under financial pressure themselves.

Cutbacks at the federal and state level have also taken their toll. The recent termination of increased benefits from the Supplemental Nutrition Assistance Program (SNAP), provided by the American Recovery and Reinvestment Act of 2009, slashed monthly allotments to approximately 200,000 Long Islanders, heightening food insecurity and increasing reliance on food banks. In addition, reduced funding for the Low-Income Home Energy Assistance Program has made it harder for thousands of low-income residents to pay for energy bills,<sup>7</sup> resulting in painful choices between paying for heat and other necessities such as food, housing and medicine.

None of these themes of struggle and hardship are new, although more recent stressors—the weak economy and the storm—have exacerbated them. For almost a decade, Vital Signs has tracked quality of life on Long Island, with a specific focus on social health disparities. The message of each of the project's reports has been similar: Without innovative strategies and new investments to address all domains of social health, these inequalities will endure and likely worsen. While there have been noble efforts in both the public and private sectors to meet this challenge, including comprehensive regional plans, community redevelopment initiatives and pioneering collaborations among social welfare agencies,<sup>8</sup> much still needs to be done. Long Island's ability to thrive economically and socially rests on empowering its populace by providing a quality of life that is shared by all.

Toward this end, we offer *Vital Signs 2014* as a resource for the many stakeholders interested in enhancing well-being in the region. While a data report cannot drive policy change alone, it is a guide for understanding our past and present, as well as a tool for advocacy, particularly in the path toward a future of greater regional equality and vitality.

## SOCIAL HEALTH

**I**N *THE SOCIAL HEALTH OF THE NATION: How America Is Really Doing*, authors Marc and Marque-Luisa Miringoff argue that traditional economic indicators are incomplete measures of quality of life. They suggest that a more comprehensive look at health and social conditions is necessary to assess the nation's well-being.<sup>9</sup> Vital Signs shares this perspective and adds to it a contextual public health framework to further explain the processes and outcomes of social health.

As defined by the World Health Organization (WHO), health is “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”<sup>10</sup> Building on WHO's description, Vital Signs created a working definition of social health that focuses on individuals and communities, their connection to one another and other social structures, as well as their capacity for well-being. The ideal situation for social health involves health equity, which has been defined as “the absence of systematic disparities in health between and within social groups that have different levels of underlying social advantages or disadvantages—that is, different positions in a social hierarchy.”<sup>11</sup>

Vital Signs envisions social health as a condition that is contextually constructed,<sup>12</sup> meaning that it is determined by multiple forces or factors that interact to shape well-being. These forces may include biology and genetics, demographics, social networks and relationships, physical environment, cultural traditions and public policy. Within this contextual approach, single factors can affect well-being on their own, but more often act in concert with other forces to create powerful combined and cumulative effects on social health.<sup>13</sup> Moreover, impact is not unidirectional; these forces interact with one another to make health a dynamic process, subject to contingencies, and always open to agency and transformation. Within this model, communities and individuals are not just sites or targets of health intervention, but may be possible drivers of change, capable of using their own resources to improve well-being, as they interact with their environment and with one another.<sup>14</sup>

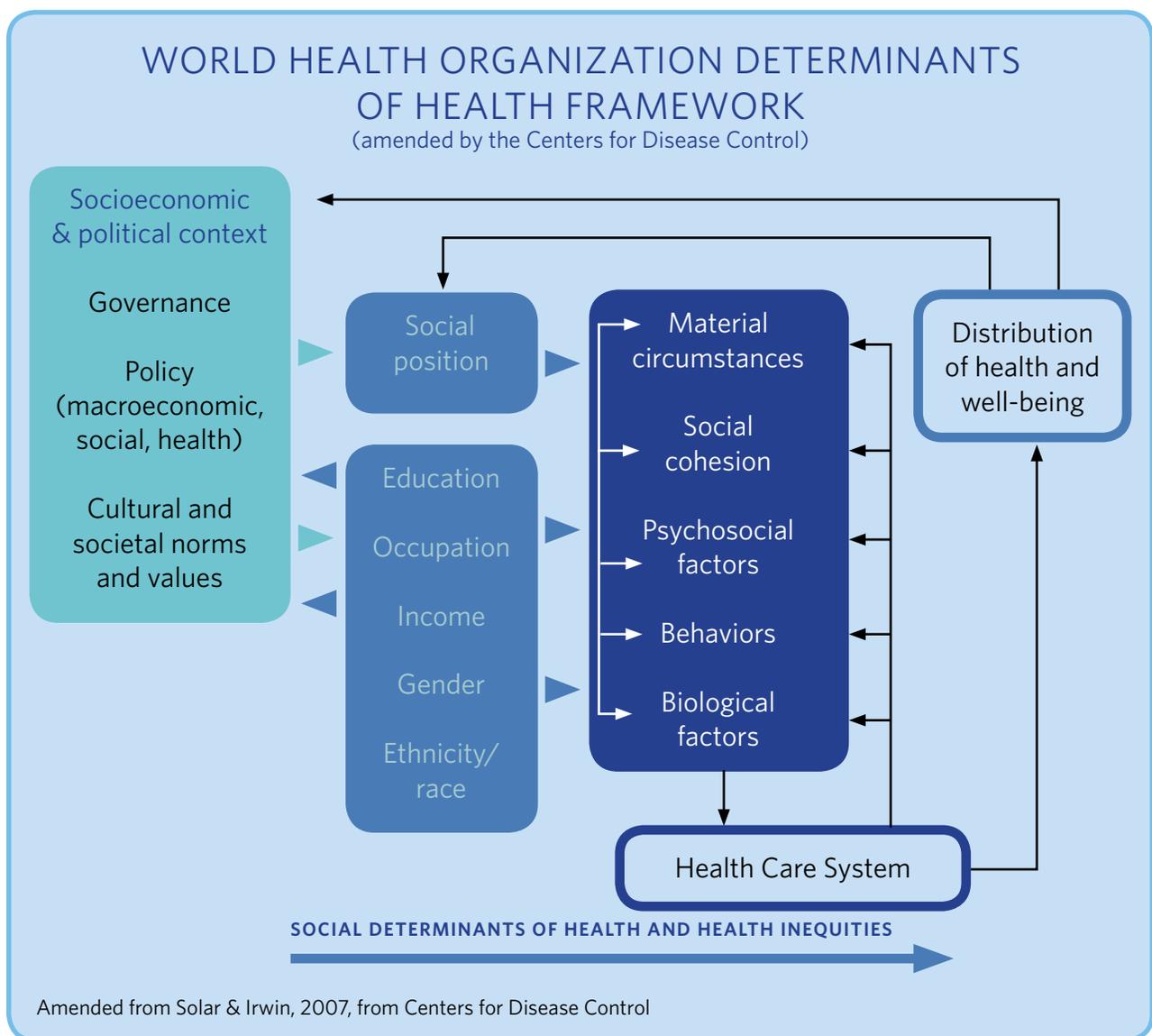
Where these interactions take place is also important, not just because environmental/physical characteristics vary by location, but because the meanings and beliefs which shape social relationships also differ, particularly the

**HEALTH EQUITY** has been defined as “the absence of systematic disparities in health between and within social groups that have different levels of underlying social advantages or disadvantages—that is, different positions in a social hierarchy.”

**PLACE** includes both the physical characteristics and population make-up of an area. But it also involves how people feel about their environments and how they interact with each other and their built surroundings.

ways in which individuals interpret and experience their own health.<sup>15</sup> Understanding local context or “place,” within a larger social system, allows researchers to more fully explore and understand how social health is determined.

The complex and dynamic nature of social health makes it difficult to model. The World Health Organization (WHO) offers a diagram to represent its contextual approach to the determinants of health. WHO’s model incorporates broad social and economic structural determinants of health as well as more intermediary determinants such as social capital and social cohesion, socioeconomic status, behavioral and biological factors and the healthcare system itself.<sup>16</sup> While WHO’s framework does not include temporal or spatial dimensions, and therefore is not fully attentive to context and its influence on health, it is still useful as a point of reference in order to gain a basic understanding of how social health is produced.



## HEALTH AND CONTEXT

Health is determined in multiple contexts, across time and place, and varies depending on geography, historical moment and social organization. Health is a contextual and dynamic process. There are multiple, complex pathways to health and illness and each of these pathways is subject to change. Effects on health are also cumulative; determinants experienced at one stage may influence later stages.

Increased understanding about health and context may lead to more effective interventions in specific localities and among specific resident populations with risk profiles for poor social health.

Listed below are just some of the influences on individual and community health. Health determinants and health status are interrelated. Out-

comes due to one determinant may affect other determinants and outcomes.

- Social: social networks, social roles, social capital
- Cultural: beliefs, meaning systems, traditions, values, norms, ideologies
- Socioeconomic: employment, education, occupation, income
- Environmental: quality of water and air, quality of housing, work conditions
- Behavioral: diet, substance use, exercise
- Biological: genetics, disease
- Psychosocial: self-esteem, level of control, depression
- Political: government policies, actions and priorities
- Access to services: healthcare, social services, recreational facilities, transportation, supermarkets

## BARRIERS TO ACCESSING AND USING SERVICES

**S**OCIAL HEALTH DEPENDS, in part, on timely access to healthcare or social support services and may be facilitated or impeded by a range of factors. Barriers not only hinder initial access to these services, but exist at various points throughout them, affecting quality of care in terms of safety, efficiency, effectiveness and equity.

The Institute of Medicine has outlined three broad barrier categories to healthcare, which can also be applied generally to social services: financial, structural and personal/cultural.<sup>17</sup>

**FINANCIAL:** These barriers limit the ability to pay for services.

- Inability to pay out of pocket for healthcare costs, including insurance premiums, prescription medications, office visits, etc.
- Lack of insurance
- Underinsurance
- Benefit (in)eligibility

**STRUCTURAL/INSTITUTIONAL:** These are impediments to services based on the organization of the healthcare and social services system.

- Geographic availability of providers, including specialists
- Availability and schedules of transportation systems
- Service hours
- Waiting times for appointments
- Number of beds and treatment slots
- Translated and pictorial information materials
- Availability of bilingual staff and interpreters
- Availability of child care or child-friendly areas

**PERSONAL/CULTURAL:** These barriers inhibit individuals from seeking care or services and/or reduce their adherence to recommendations and treatments.

- Culture of the healthcare or social service delivery system, including racism, sexism, heterosexism, etc.
- Communication between patients/clients and providers
- Language, including proficiency in English
- Health literacy
- Cultural beliefs of patients/clients and providers
- Expectations of care or services by patients/clients and providers
- Thresholds for seeking care or services or recognizing need for care or services
- Perceptions of the healthcare and social service systems and providers
- Information and social networks and support

## INDICATORS

**I**NDICATORS ARE TOOLS to measure how well a community is meeting the social health needs of its members. Indicators use data to show where a community has come from, where it is and where it may be going. Indicators also provide critical insight into where strategic action and social innovation are needed to enhance well-being.

Social health status and capacity are typically measured using quantitative data. Quantitative data are often referred to as “objective” data, meaning they provide measurements that are impartial or unbiased. However, no data, indicators or research can ever be completely free from judgment or subjective influences. Indicators and data, even the absence of data, reflect the choices, concerns and beliefs of those selecting them in a particular moment in time. This does not diminish the significance of studies such

as Vital Signs, but offers a context to frame and inform our understandings as to where we are and where we want to go.

In this profile, Vital Signs uses 28 indicators to assess Long Island’s social health. The data come from multiple public access sources and allow for typical trend lines of 10 years or more, while the narrative accompanying the report’s graphics usually concentrates on indicator trends since *Vital Signs 2009*. The report updates 27 indicators from previous reports to track changes in well-being. It also examines one new indicator to provide baseline data on mental health service use in order to evaluate Sandy’s long-term impact on emotional well-being in future reports.

Whenever relevant and possible, this profile includes ZIP code and county level data. By focusing on smaller geographic areas for analysis, it becomes easier to surface disparities that may be masked by aggregate (or county or regional level) statistics. This approach also has the potential to provide data needed for more context-specific social health interventions. In addition, when feasible, the report compares local, state and national data in order to provide a context for assessing Long Island’s social health status. In addition, where applicable, we contrast Long Island data with related Healthy People 2020 objectives. These objectives, set by the Centers for Disease Control, are part of federal efforts to identify and address physical and mental health disparities. By establishing social health goals, they provide a guide for Long Island’s research, policy development and service planning.

While each of the indicators is examined separately in this report, in reality, they do not function independently of one another; they are interconnected, so that changing the conditions related to one indicator have the potential to affect the conditions related to another indicator.

For clarity, the indicators in this report are placed in the following groupings: Economic, Housing and Food Security; Community Engagement, Well-Being and Safety; and Health Insurance and Physical and Mental Health. While the ordering of indicators is essential for organizational purposes, their arrangement should not be understood as hierarchical or fixed.

## LONG ISLAND HISTORY

**L**ONG ISLAND WAS FIRST SETTLED more than 10,000 years ago. The descendents of the first inhabitants—the Algonquian Indians—lived as hunters, fishermen and farmers throughout Long Island when the Europeans first arrived in the 1600s. Despite the presence of the Native Americans, the Europeans quickly established their own towns and villages, the British on the East End and the Dutch on the

West End. By the end of the 17th century, large numbers of Native Americans had been driven off their lands. In 1667, the Dutch ceded control of New York under the Treaty of Credo, and English law became the rule of the land.

During the 17th and 18th centuries, farming, lumbering, whaling and fishing were Long Island's main industries. The local economy relied on slave labor to function; in fact, Long Island was home to a slave population larger than any other area in the North. Slavery was eventually banned in New York in 1827, leaving thousands of former slaves to establish their own communities in Nassau and Suffolk counties and work as tradesmen, farmers, and fishermen occasionally intermarrying with the Native American population.<sup>18</sup>

The invention of the automobile changed the American landscape and fostered the development of a new American lifestyle: the suburbs. On Long Island, the building of bridges, railroads and roads in the 19th century made travel easier, and the once sparsely populated region began to grow. In the 1930s, the “master builder,” Robert Moses, began his extensive construction projects, including the Long Island Expressway, the Northern and Southern State Parkways and the region's recreational areas, transforming Nassau County into a bedroom community, its residents oriented by their commute to New York City.

After World War II, federal support of suburban housing developments and the availability of mortgages to veterans resulted in rapid industrial and residential expansion into what were once Long Island's potato fields. New residential developments, such as Levittown, the nation's first planned suburb, proliferated. Between 1940 and 1960, the population of Nassau and Suffolk counties swelled from 604,000 to 1,961,000, with growth finally slowing by the 1980s.<sup>19</sup>

## LONG ISLAND: A MATURE SUBURB

**S**INCE WORLD WAR II, suburbs have represented the “American dream.” Millions of Americans have moved to Long Island and other suburbs in search of the “the good life”—open space, security, home ownership, quality education and upward mobility. In fact, given the timeline of its development, Long Island—specifically Nassau County—is often considered the nation's first suburb. But just as Long Island once stood at the forefront of postwar suburban growth, it now leads the way in a new phase of suburban living—Long Island is a mature suburb.

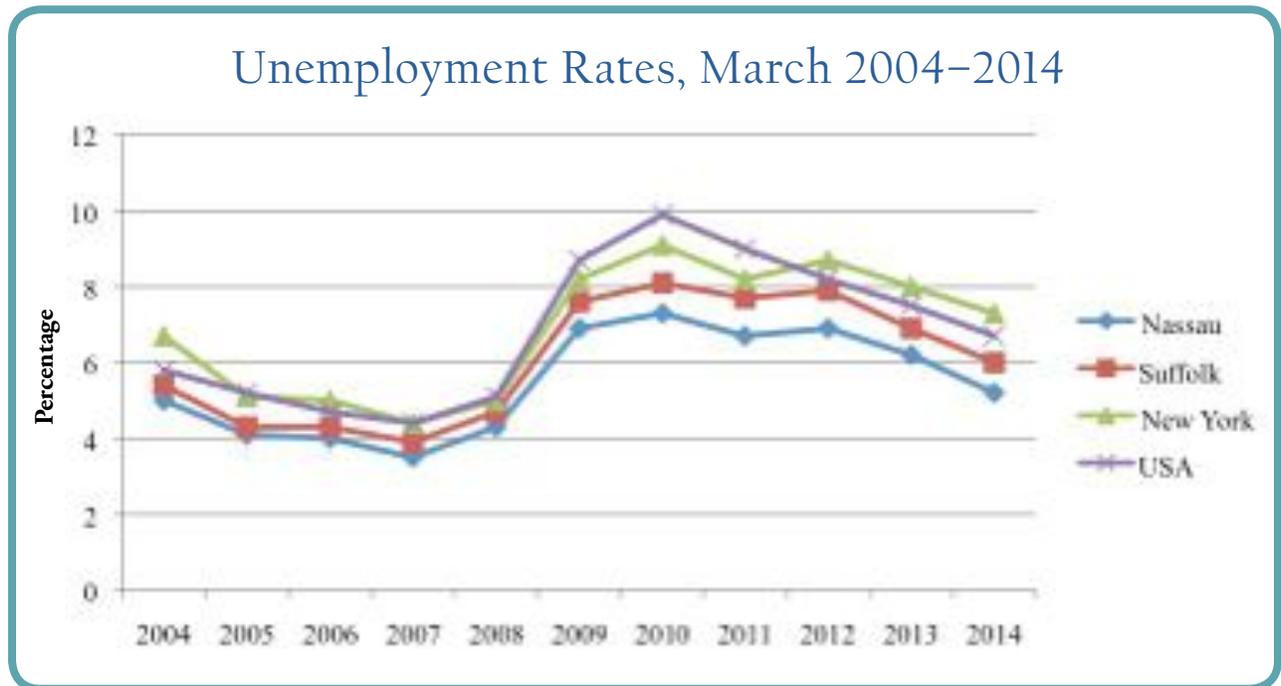
Intensive commercial and housing development in the 1970s and 1980s have contributed to today's sprawl, scarcity of undeveloped land and environmental concerns. Ironically, Long Island now confronts these and other profound social and economic chal-

lenges that resemble the very urban conditions that suburbia was supposed to contain, such as homelessness and poverty.<sup>20</sup>

The critical challenges facing each county, and Long Island as a whole, include an aging infrastructure of public buildings and roads, and an inadequate transportation system that contributes to massive congestion throughout the region. In order to protect unused land and check further sprawl, zoning regulations limit new business and residential construction. As a result, an area with extremely high housing costs experiences an acute shortage of affordable homes and apartments and significantly fewer rental units than other suburban areas in the New York metropolitan region. To make matters worse, Long Island's fragmented government system, comprising over 900 different jurisdictional bodies, is often ill equipped to address these challenges. The lack of a more consolidated system means that, rather than sharing resources across communities, independent village and town fire, police, education and water systems compete for funds from the local coffers.

#### LONG ISLAND: CURRENT ECONOMIC TRENDS

**L**ONG ISLAND WAS HIT HARD BY THE GREAT RECESSION. While the U.S. National Bureau of Economic Research marks the length of the recession as 18 months, lasting between 2007 and 2009, the region's economy remained in a slump long after the recession officially ended.<sup>21</sup>



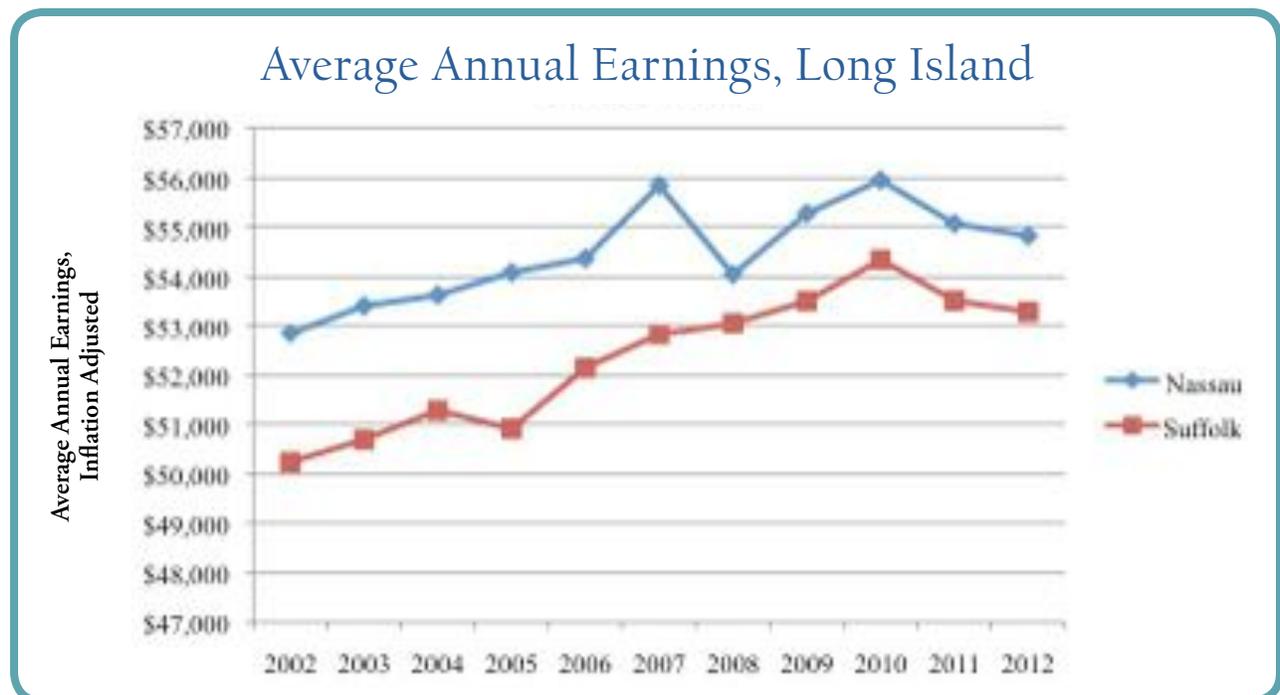
Sources: New York State Department of Labor; U.S. Department of Labor

Job loss was severe on Long Island, with more than 66,000 jobs shed between 2007 and 2010.<sup>22</sup> Unemployment rates began to rise early in 2008 and, by December, the local job market was the weakest it had been in 16 years. Unemployment peaked in February 2010 at 8.3% for the Nassau-Suffolk region. After some fits and starts, a fragile jobs recovery was underway by 2012. And, as of October 2013, Long Island had made up for virtually all jobs lost.<sup>23</sup> The region's unemployment rate for March 2014 was 5.7%.<sup>24</sup>

Within the recovery, private sector job growth has been significant; 27,100 jobs were added over the course of 2013, marking December 2013 as the 43rd consecutive month of year-over-year gains in private sector jobs. Growth has remained steady in the first few months of 2014. Employment expansion has taken place across several sectors, including professional and business services, education and health services, leisure and hospitality, and trade, transportation and utilities.<sup>25</sup>

While Long Island's job market is improving, there are still several disquieting trends that threaten the long-term vitality of the region's economy. For example, even as many sectors have experienced job growth, others have bled jobs, such as manufacturing, which lost 11,400 employees between August 2007 and August 2013.<sup>26</sup>

In addition, many of the new jobs created in the past few years have been low-wage positions, concentrated in areas like food services and drinking places (part of the leisure and hospitality sector), which grew by more than 10,000 jobs between 2007 and 2012.<sup>27</sup> What's more, salaries in all job sectors have been stagnant since 2008. While average earnings did improve slightly in Nassau and Suffolk in 2010, this bump appears to have



Source: United States Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages

been temporary. Between 2008 and 2012, average annual earnings increased just 1.4% in Nassau and .4% in Suffolk, not nearly enough to match annual inflation rates.<sup>28</sup>

Trends in median household incomes are similar. For instance, there was no statistically significant change in Nassau's and Suffolk's median household incomes between 2011 and 2012.<sup>29</sup>

Long Island's housing market has had a mixed recovery. After dramatically losing value during the recession, the median sales price for a home on Long Island has grown at a moderate pace. For example, in the course of a year, from October 2012 to October 2013, median sales prices increased by 5.1% in Nassau and 6.6% in Suffolk.<sup>30</sup> In late 2013, prices flattened out a bit, but experts predict that they will rise in 2014.<sup>31</sup> As of April 2014, homes sold for a median price of \$397,500 in Nassau and \$303,500 in Suffolk.<sup>32</sup>

Home sales were brisk throughout 2013; a total of 5,982 homes were sold in the final quarter of that year, up 31.8% from the last quarter of 2012.<sup>33</sup> While home sales have declined somewhat recently (probably due to winter weather-related issues), the inventory of home listings on Long Island remains low, with only 5,841 homes for sale in Nassau and 8,821 homes for sale in Suffolk in February 2014.<sup>34</sup>

Despite this encouraging news, the foreclosure crisis still casts a long shadow over the region. After tapering off in 2010 and 2011, due to new State laws enacted to amend the foreclosure process, initial filings have soared recently. In the first three quarters of 2013, lenders filed 12,271 initial foreclosure cases, a 53% increase over the same period in 2012. Some of this activity can be attributed to Hurricane Sandy, as homeowners short of resources found they could not keep up with mortgage payments on their damaged homes.<sup>35</sup> These new cases joined others already backlogged in New York's foreclosure court system. As a result, Long Island's share of foreclosures is high compared to the national rate of 2.1%. In December 2013, 6.3% of mortgaged homes were in the foreclosure process.<sup>36</sup>

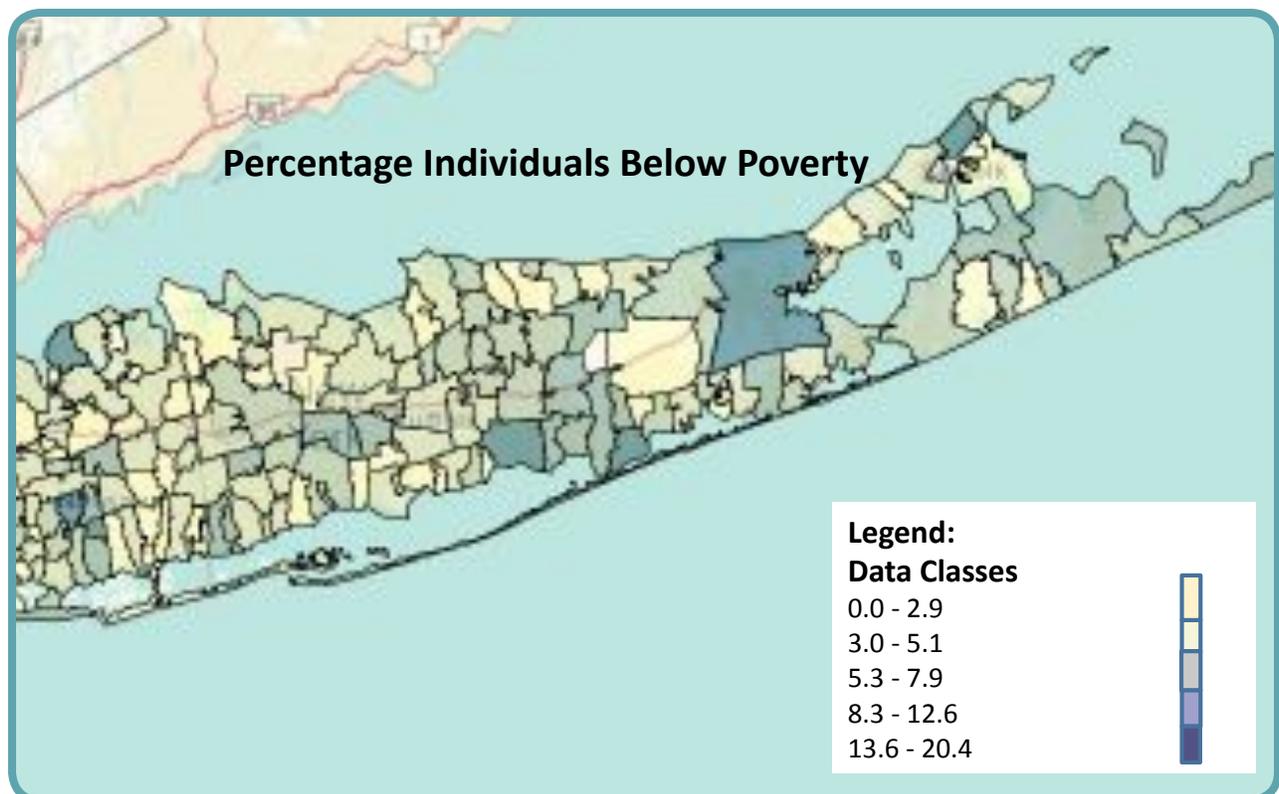
Even with some recovery in the labor and housing markets, Long Island's more vulnerable residents continue to grapple with economic uncertainty. While wages stagnate or decline, the cost of living on Long Island is soaring, currently standing at about 31% above the national average. These conditions make it especially difficult for households to escape economic hardship. As numerous studies have suggested, including *Vital Signs 2006*, the federal poverty threshold—\$23,850 for a family of four in 2014—is an inadequate measure of economic distress, given the region's high cost of living and lack of affordable housing. Researchers and advocates have put forth various alternative measures; *Vital Signs 2006* suggested that a better indicator of economic distress or "true poverty" is 50% of the median household income in the Nassau-Suffolk region or roughly

\$45,000, in 2012. Based on this criterion, approximately 225,000, or 24%, of all Long Island households are living in true poverty.<sup>37</sup>

Another way of assessing economic status is by calculating real cost of living budgets or the income level below which households are not able to make ends meet. For example, a study by the New York State Self-Sufficiency Standard Steering Committee suggests that a household of four—composed of two adults and two children, a preschooler and a school-age teenager—is economically distressed if it has a yearly income under \$91,444 in Nassau and \$98,071 in Suffolk. Household amounts vary slightly for families depending on the age of children.<sup>38</sup>

The Economic Policy Institute calculates that, for 2013, a family of four (two adults and two children) requires an annual income of \$94,567 to cover basic expenses such as housing (in a two-bedroom apartment), food, child care, transportation, healthcare and taxes, leaving no room for savings or unexpected or emergency expenditures.<sup>39</sup> This figure is higher than the 2012 median household income in Nassau (\$93,214) and a 31.5% increase in the household income required to meet basic needs in 2007. Looking at this number from another perspective, Long Islanders needed 144% of the national median family income (\$64,585) in 2012 merely to get by, an increase over the 116% required in 2007.

A recent Suffolk Welfare to Work Commission report, *Struggling in Suburbia: Meeting the Challenges of Poverty in Suffolk County*, established similar definitions for true poverty

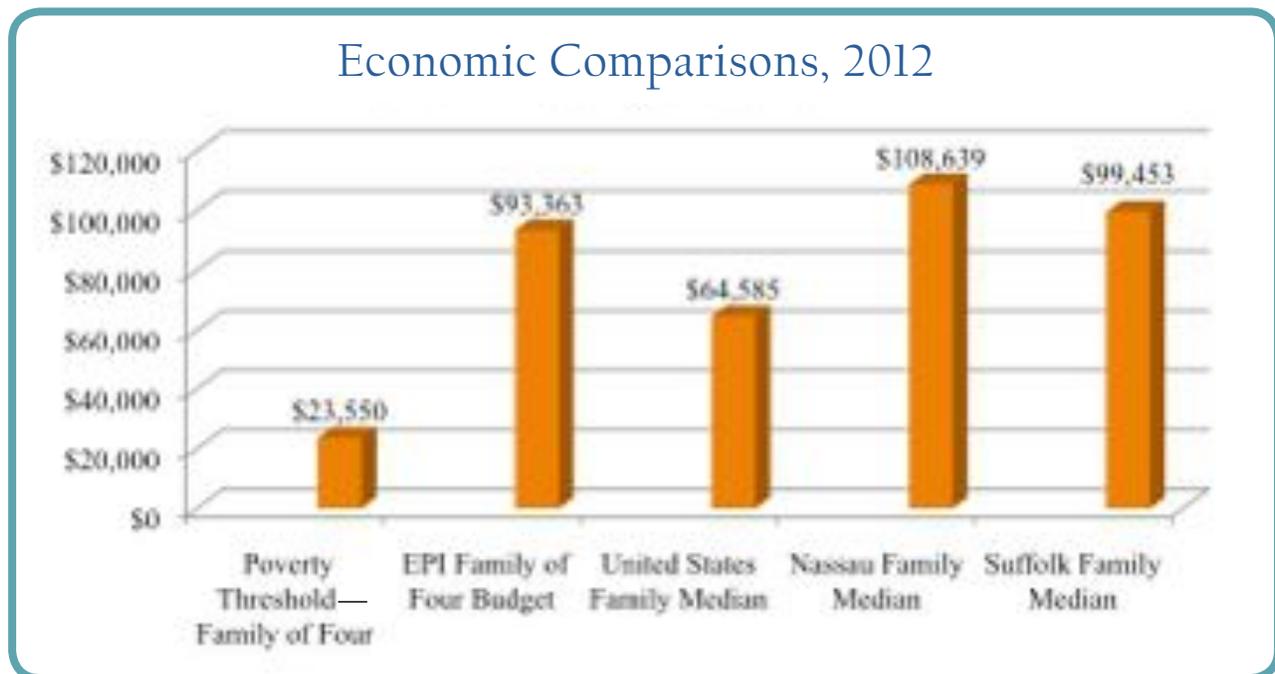


Source: U.S. Census, American Community Survey 2012

and self-sufficiency as those listed above. In addition, the report highlighted especially “fragile” populations among the poor, including Department of Social Services (DSS) clients, young people under age 21, segregated African Americans and Hispanics, people with mental illness and substance use disorders, senior citizens and people with physical and developmental disabilities. It also noted the growing ranks of the “near poor” (households earning between 100%–200% of the federal poverty level), increasingly filled by people who had been middle class before slipping into economic hardship.<sup>40</sup>

In the current economic environment, low-income families are being forced to find ways to cut spending. As the food insecurity indicator shows, a growing number of Long Islanders are turning to the government for assistance. This type of hardship is compounded by conditions specific to suburbia, where the poor tend to be less visible, more isolated and afforded fewer social safety net supports than urban residents. For those earning too much income to qualify for government assistance, but not enough for self-sufficiency, life is frequently unstable and unpredictable. Sociologist Katherine Newman of Princeton University has labeled this group the “missing class,” working Americans who are neither destitute nor comfortably middle class.<sup>41</sup>

These individuals are overlooked in most traditional indicators of economic well-being which rely on poverty-based government records for data. Yet, the “missing class” lives with profound financial distress, always a paycheck or a health scare away from poverty. Their absence in official statistics undermines realistic appraisals of economic hardship in America and on Long Island.



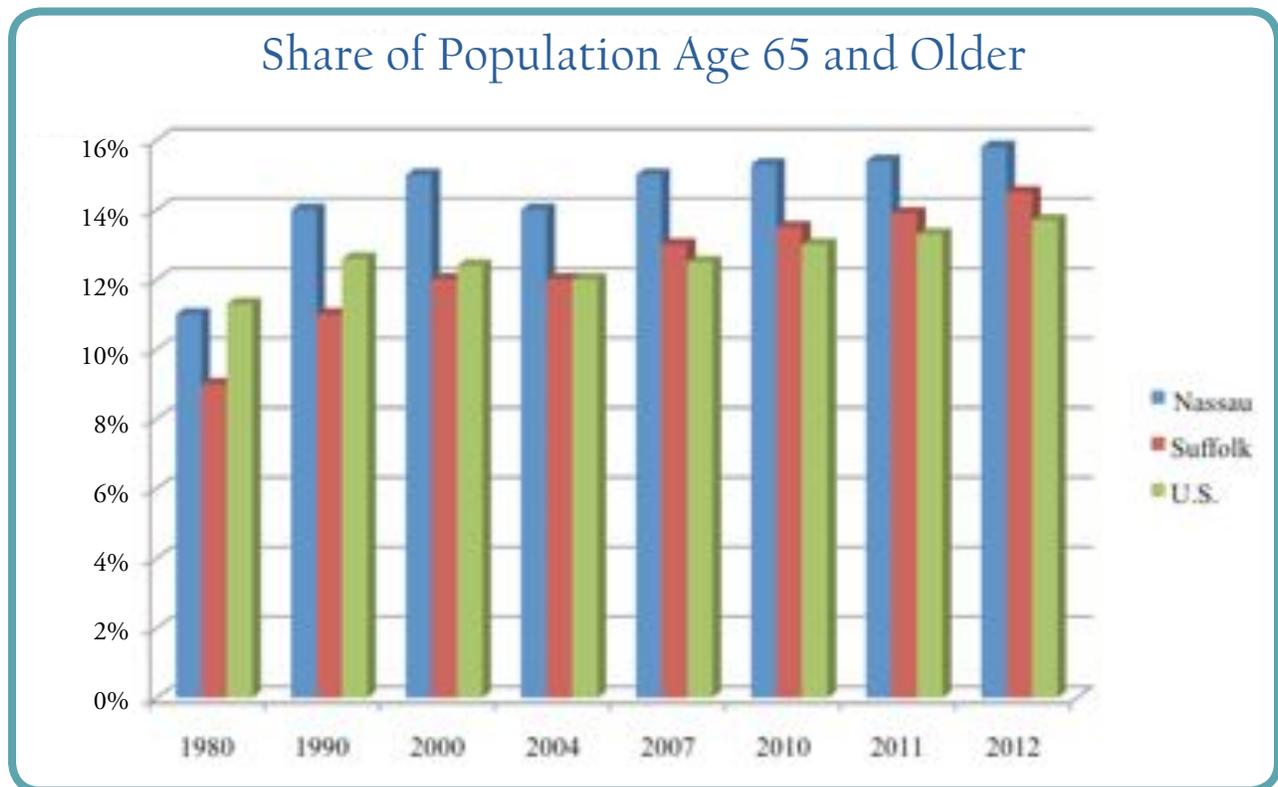
Sources: U.S. Census, American Community Survey 2012; Economic Policy Institute

## DEMOGRAPHIC TRENDS

THE DEMOGRAPHIC TRENDS discussed in *Vital Signs 2009*—namely, increased race/ethnic diversity and a rapidly aging population—have continued over the past four years. These changes further test Long Island and put additional pressure on existing housing, transportation, health and community services.

In just five years, 2007–2012, the region’s senior population (ages 65 and older) grew 13.2%, from 380,251 to 430,235, outpacing population growth for other age groups, as well as the growth rate for the senior population at both State and national levels. Most of the increase took place in Suffolk (16.9%), although Nassau’s senior population also rose (9.6%). In terms of population share, seniors made up 10% of the total Long Island population in 1990; by 2007, they made up 14% and, by 2012, they made up 15.1%.<sup>42</sup> In contrast, until recently, young adults (ages 25–34) have been outmigrating from Long Island, declining from 12.9% of the total population in 2000 to 9.8% in 2007.<sup>43</sup> This pattern has reversed slightly in the last few years and, as of 2012, young adults made up about 11% of the population.<sup>44</sup> Projections are that the senior population will continue to swell, as baby boomers age in place. For example, the number of Long Islanders age 80 and older is expected to double by 2030.<sup>45</sup>

This graying of the population poses new social health concerns for the region, es-

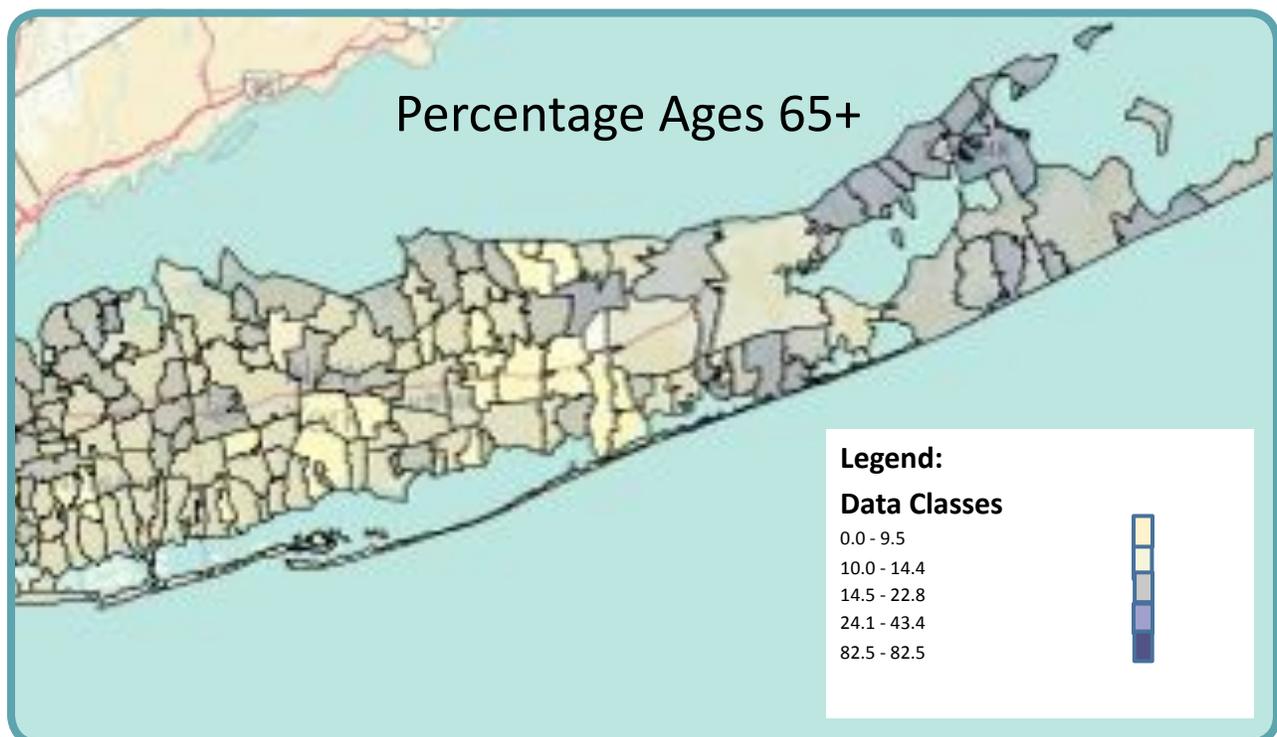


Sources: U.S. Census; American Community Survey 2004, 2007, 2011, 2012

pecially among those over 85, also referred to as the “older” old. These individuals are generally less healthy and less mobile than their younger counterparts. The “Long Island Senior Needs Assessment Survey” (2011) conducted by Long Island Center for Health Policy Studies and the Stony Brook University Center for Survey Research highlighted several issues requiring public health and social service attention, including accidental falls and injuries and older person’s functional limitations and need for assistance performing daily activities, including driving.<sup>46</sup> The indicator on Senior Unintentional Falls provides the latest data on this concern, noting a particular upswing in the rate of falls for people ages 65–74 and ages 85 and older in Suffolk County.

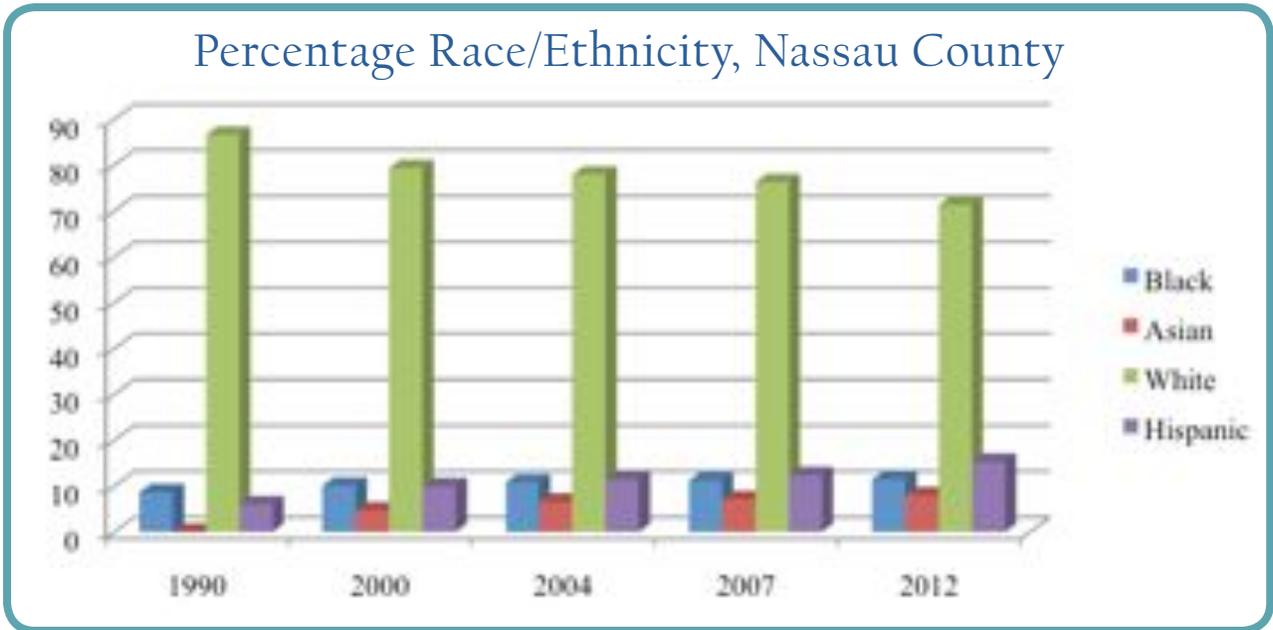
People of color and immigrants have also increased their share of the Long Island population in the past five years. However, trends differ by population and county. From 2007–2012, the share of black Long Islanders grew slightly from 11.2% to 11.4% of the population in Nassau and decreased marginally in Suffolk, from 7.5% to 7.3%. The proportion of Hispanics grew more significantly in both counties, from 12.4% to 15.3% in Nassau and from 13.3% to 17.3% in Suffolk. The share of Asians rose from 7.1% to 8% in Nassau, while remaining steady at 3.5% in Suffolk.<sup>47</sup>

From 2007–2012, the number of foreign-born Long Islanders increased 8.5%, from 463,327 to 522,801 people. In terms of population share, foreign-born Long Islanders increased from 20.4% to 21.9% in Nassau and from 13.5% to 15.1% in Suffolk during these same years.<sup>48</sup>

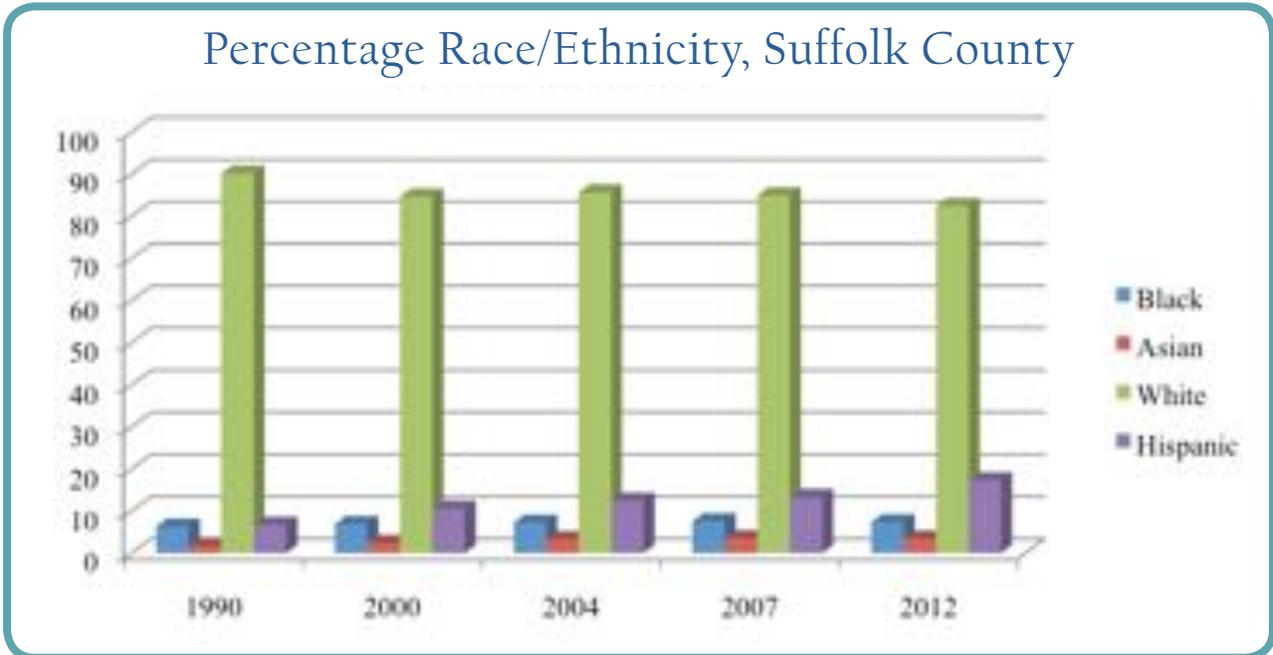


Source: U.S. Census, American Community Survey 2012

Despite increased heterogeneity, Long Island continues to be racially and ethnically segregated. To a large extent, Long Island’s residential patterns reflect the sad legacy of post-World War II federal and local discriminatory policies, such as insuring home mortgages with racially restrictive covenants. Yet, even with federal civil rights legislation, segregation is perpetuated through unlawful racial steering by real estate agents and lax enforcement of federal fair housing regulations.<sup>49</sup>



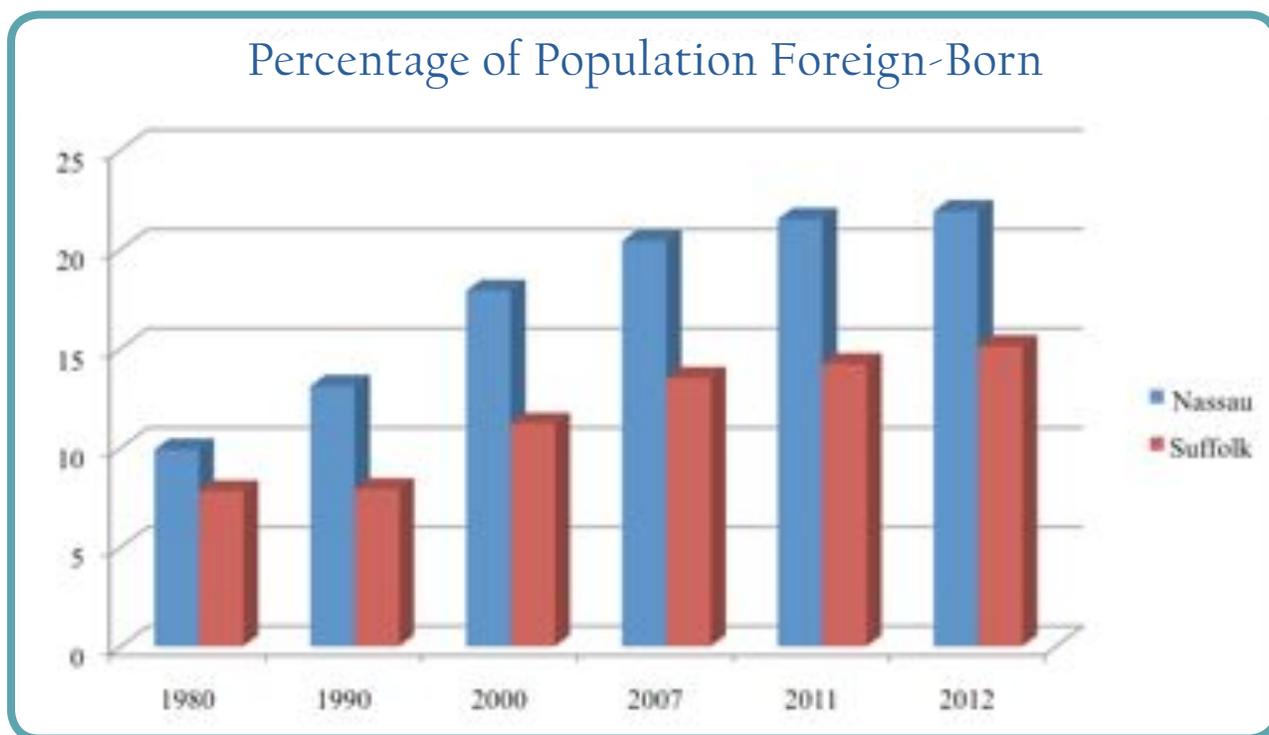
Sources: U.S. Census; American Community Survey 2004, 2007, 2012



Sources: U.S. Census; American Community Survey 2004, 2007, 2012

Census data suggest that segregation between black and white Long Islanders is decreasing slightly. In a recent census study, researchers reviewed segregation indices, measuring the degree to which populations of color are distributed differently than whites across census tracts, yielding a score from 0 (complete integration) to 100 (complete segregation). The study's authors found that segregation between whites and blacks on Long Island was 69.2 in 2010 down from 73.6 in 2000. However, this residential pattern still makes Long Island the 10th most segregated major metropolitan area in the nation, ahead of places like Los Angeles and Washington, D.C., and creates unequal access to resources and opportunities for many communities of color.<sup>50</sup>

As is explored in the Economic, Housing and Food Security section of this report, the mortgage foreclosure crisis continues to disproportionately affect low-income, black and Hispanic homeowners and communities on Long Island. In addition to the burden placed on homeowners, the spillover effects of foreclosure concentrations—decreased home values, lower property taxes, reduced municipal revenue, degraded community facilities and vacant buildings—have placed many low-income communities and communities of color at risk for further asset and capital imbalances as well as related social challenges.<sup>51</sup>



Sources: U.S. Census; American Community Survey 2007, 2011, 2012



## IMPLICATIONS AND DIRECTIONS

**V**ITAL SIGNS 2014 clearly details how our region is doing and suggests where we may be headed. The region's economic recovery is still fragile but offers some reasons—housing sales, rising home values and job growth—to expect an eventual return to normalcy. Still, deep social health disparities persist and, in many cases, have worsened over time. The lingering effects of both the Great Recession and Hurricane Sandy have contributed to economic uncertainty for growing numbers of area residents. What's more, on a range of indicators—affordable housing, pediatric asthma, diabetes, homelessness, food insecurity, suicide, drug abuse—the region is moving in the wrong direction. When community data are available, they show the same disadvantaged areas repeatedly suffering from distress. Put simply, we are a community divided between the haves and have-nots; and a return to normalcy is insufficient to guarantee a truly vital and sustainable future.

To ensure a strong Long Island, there is an urgent need to comprehensively address our current challenges—and the social disparities associated with them. Not only do social health disparities hurt those directly affected by them, but they also harm the social

and economic well-being of the greater community. The inability to counteract social health disparities leads to long-term direct and indirect costs, preventing financial layouts in other areas that would improve quality of life.

Research is also very clear that educational, health and other supports for low-income people create significant payoffs. Cost-benefit analyses of early childhood development programs indicate significant return for money invested, with poor children who participate in such programs having better educational attainment, lower rates of criminal conduct and greater adult earnings than their nonparticipating peers.<sup>52</sup> In a similar vein, the Supplemental Nutrition Assistance Program (SNAP) not only aids households but acts as a boon to local economies. According to The U.S. Department of Agriculture, for every \$5 of new SNAP money spent, \$9 of economic activity is generated.<sup>53</sup>

The 2010 Affordable Care Act (ACA), or Obamacare, offers a possible means to improve population and individual well-being. The law focuses on enhancing the quality and affordability of health insurance, lowering the uninsured rate and reducing health-care costs, through such means as healthcare exchanges and expanded Medicaid coverage. As the ACA continues to be implemented, thousands of uninsured Long Islanders will have access to health insurance for the first time. Still, the population health effects of the ACA will not be measurable for many years to come. In addition, the ACA's success depends, in part, on the ability of the healthcare system to meet the needs of an expanded insured population.

It is also important to keep in mind, as stressed previously, that access to healthcare is only one factor among many determining health status, and perhaps not even the most important one.<sup>54</sup> The many environmental and social forces influencing health are dynamic and in effect across communities each day where people live, work and play.<sup>55</sup> Without a broader conception of health, and better funded and more integrated programs, efforts to improve individual and population well-being will always be limited and piecemeal.

Amidst much discouraging news, there are reasons for optimism. As noted in previous Vital Signs reports, the region's assets are plentiful, including beaches, farms, roads, bridges, hospitals, schools, an educated workforce and strong regional and community identity. Community leaders and policymakers are increasingly advocating for these assets to be leveraged in new and inventive ways to add value to the economy, build competitive status, promote community investment and attract new residents and visitors to the area. What's more, many recent plans for reinvigorating Long Island have involved exercises engaging the public, through visioning sessions, public hearings and focus groups. These efforts help to integrate local concerns into decision making and further

strengthen people's investment in their communities.

Unfortunately, not everyone shares the same enthusiasm for change. Familiar ways of thinking about suburban life cause some to reject new realities or approaches, even when old ways are no longer sustainable. At the worst of times, specific populations or communities—immigrants, for example—may be unfairly singled out and blamed for economic and social ills rather than the complex array of factors that actually give rise to them.

For many years, Long Island has been an attractive place to live, providing an enriching and comfortable way of life for many. While some still prosper, a growing number are in need at a time that may well be a crossroads for the region. It is crucial that we come together to embrace new directions and to support strategies to keep our region vibrant, a goal only achieved when there is greater fairness for all populations. This profile, then, offers the most current available data to inform efforts to address our challenges and inequalities. It serves as a resource for all stakeholders interested in creating a more inclusive, equitable and dynamic Long Island.

## LONG ISLAND IN PROFILE

### LOCATION

Long Island is located at the southeastern tip of New York, surrounded by Long Island Sound to the north and the Atlantic Ocean to the south.

### SIZE

Long Island, including the New York City boroughs of Brooklyn and Queens, is 118 miles in length, 20 miles at its widest point, and with an area of 1,377 square miles.

In common usage, the term “Long Island” refers to Nassau and Suffolk counties only.

In land mass, Suffolk County is more than three times as large as Nassau County:

- Nassau County: 287 square miles
- Suffolk County: 912 square miles

### GOVERNMENT

The counties of Nassau and Suffolk have separate governments, legislatures and county executives. There are over 900 separate jurisdictional entities within the two counties. Within each county, towns, villages and cities have their own libraries, fire departments and school districts.

Nassau County has three townships: Hempstead, North Hempstead and Oyster Bay; two cities: Glen Cove and Long Beach; 64 incorporated villages; and over 100 unincorporated areas.

Suffolk County has ten townships: Babylon, Brookhaven, East Hampton, Huntington, Islip, Riverhead, Shelter Island, Smithtown, Southampton and Southold; 31 incorporated villages; and over 100 unincorporated areas.

### DEMOGRAPHICS

#### POPULATION

Long Island, including Queens and Brooklyn, is the 17th most populous island in the world. The population of Long Island is 2,832,882 people (2010 U.S. Census).

Nassau County has an estimated population of 1,339,532 (American Community Survey, 2012). One of the nation’s first suburbs, it is densely settled, with 4,655 persons per square mile, and has far less undeveloped land than Suffolk County.

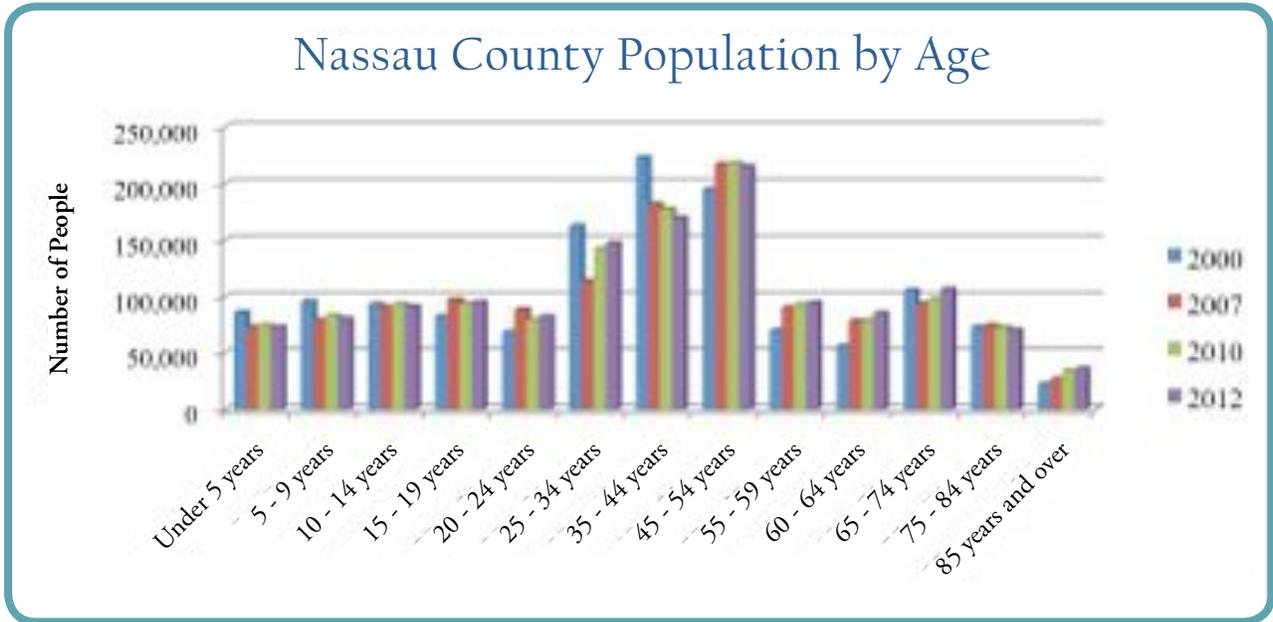
Suffolk County, an outer-ring suburb, remains more rural than Nassau, with an estimated population of 1,493,350 (American Community Survey, 2012). It has a third of

the density of Nassau, with 1,637 persons per square mile.

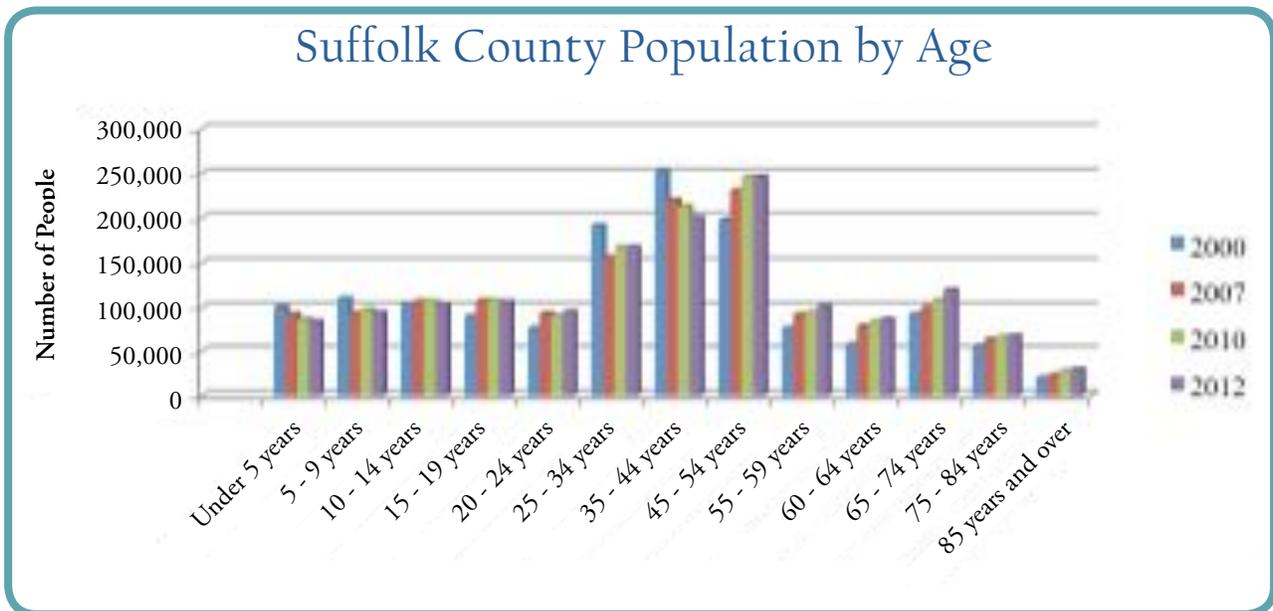
**AGE**

The median age of Nassau County residents is 41.4 and that of Suffolk County residents is 40.5 (American Community Survey, 2012).

Long Island’s population is aging. Baby boomers are now in their 50s and 60s and advances in medical care are enabling senior citizens to live longer. While Nassau’s residents



Sources: U.S. Census, 2000, 2010; American Community Survey 2007, 2012



Sources: U.S. Census, 2000, 2010; American Community Survey 2007, 2012

are slightly older than Suffolk's, this may change as more retirees relocate to Suffolk and the number of senior citizens grows.

Until recently, Long Island's young people (25–34) have been outmigrating from the region, a significant trend since this population includes many people entering the labor force or purchasing a home for the first time. Concern exists that young adults are leaving the area due to taxes and high housing costs. Since 2007, this outmigration pattern has reversed slightly. Young adults currently make up about 11% of the total population.

#### RACE AND ETHNICITY

Throughout Long Island's history, more people of color have resided in Nassau than in Suffolk. Since the 1980s, both Nassau and Suffolk have experienced a growth in populations of color. This increase is the result of multiple interrelated factors, including civil rights legislation, an expanding black middle class, activism to reduce housing segregation and increasing immigration into the region from Asia, the Caribbean Basin and Latin America.

Despite greater race/ethnic diversity, Long Island remains one of the most segregated regions in the nation. Long Island ranks 10th in segregation between blacks and whites among major metropolitan areas in the nation and 19th in segregation between Hispanics and whites, a trend which has intensified over the past 30 years.

Residential segregation on Long Island is largely due to a history of housing discrimination, which continues to this day. In a 2012 survey commissioned by ERASE Racism, 33% of black Long Islanders reported that they or their immediate family had experienced housing discrimination. The majority said that discrimination resulted from a real estate agent who steered them away from homes in mainly white areas, regardless of whether or not they could afford the properties.

### Percentage Population by Race and Ethnicity, 2012

	United States	New York	Nassau County	Suffolk County
White	73.9	65.2	71.2	82.4
Black	12.6	15.6	11.4	7.3
Hispanic	16.9	18.2	15.3	17.3
Asian	5	7.7	8	3.6
American Indian and Alaskan Native	.8	.4	.2	.2

Source: American Community Survey 2012

## IMMIGRATION AND THE FOREIGN-BORN

Since the 1980s, the United States has witnessed an expansion of its foreign-born population. Settlement patterns are largely influenced by social networks and job opportunities. Historically, gateway cities such as New York, San Francisco and Miami have been the destination of new immigrants. Today, first- and second-ring suburban areas experi-



ence some of the fastest growth of foreign-born residents.

The proportion of foreign-born residents in New York State has increased over the past 20 years, from 15.9% in 1990 to 22.6% in 2012. During this time, the growth of Long Island’s service economy attracted many immigrants to Nassau and Suffolk. Long Island’s share of immigrants is comparable to other affluent areas. In 2012, 21.9% of Nassau’s population and 15.1% of Suffolk’s population were foreign-born. About one in five immigrants on Long Island is undocumented.

Long Island’s foreign-born population growth is slightly lower than in similar communities. The 50 counties with the highest median incomes in the United States experienced a combined immigrant population growth of 37% between 2000 and 2010. By contrast, Suffolk’s foreign-born population grew by 35% and Nassau’s grew by 20% during the same time period.

The diversity of Long Island’s foreign-born population reflects migration from around the world, but each county has a different mix of immigrant nationalities. Immigrants from El Salvador make up the greatest share of immigrants, followed by those from India, the Dominican Republic, China, Haiti, Jamaica and Italy.

Adult immigrants require time to learn English and, depending on age at arrival and

### Ten Largest Source Nations for the Foreign-Born, 2012

<b>Nassau County</b>		<b>Suffolk County</b>	
Total Foreign-Born	295,966	Total Foreign-Born	226,835
Percentage Population	21.9	Percentage Population	15.1
El Salvador	37,328	El Salvador	42,992
India	24,562	Dominican Republic	10,786
Haiti	14,960	Columbia	10,335
Jamaica	14,192	China	8,712
China	12,233	Italy	8,098
Dominican Republic	12,055	Poland	7,949
Italy	11,776	Mexico	7,913
Honduras	8,495	Haiti	6,813
Columbia	8,303	Honduras	6,222
Korea	8,166	Guatemala	6,161

Source: American Community Survey 2012

opportunities to learn English, some never become fully proficient. Bilingual staff and interpreters at health and social service sites facilitate cross-communication with limited English-speaking clients and help them to make use of these services. Child and adolescent immigrants, and occasionally U.S.-born children of immigrants, make use of school-based English as a second language (ESL) and/or bilingual classes in order to learn English and to succeed academically.

Immigrants are a vital part of the local economy. A recent study by the Fiscal Policy Institute (2011) found that Long Island immigrants make up 16% of the population but contribute 17% to total economic output. The study found three main reasons for this disproportionate contribution. First, immigrants span the economic spectrum, with 54% of foreign-born Long Islanders employed in white-collar jobs. Second, immigrants are more likely than U.S.-born residents to be of prime working age (16–64 years old). And, finally, immigrants own a significant share—22%—of small businesses on Long Island, generating \$804 million dollars in profits annually.

## ECONOMICS

On most economic indicators, Long Island outperforms both the nation and New York State. Both counties have considerably higher median incomes and lower rates of unemployment and poverty. However, Nassau County, older and more developed, does better on most indicators than more rural Suffolk County.

While median incomes are relatively large, the cost of living on Long Island is one of the nation's highest. Despite the image of Long Island's affluence, many individuals and households experience economic hardship; this economic distress was exacerbated by the Great Recession and Hurricane Sandy.

Currently, the region's economy is in recovery. Private job sector growth is impressive, with 21,700 new jobs added in 2013. Unemployment is down from a 2008 peak of 8.3% for the Nassau-Suffolk region and, as of March 2014, stood at 5.7%. The regional housing market is also improving, with steady sales and modest gains in median home prices.

Despite these developments, there are some troubling trends. Many of the new jobs created in the past few years have been low-wage positions, concentrated in areas like food services. What's more, salaries in all job sectors have been stagnant since 2008.

The foreclosure crisis also continues to impact the region. After tapering off in 2010 and 2011, new filings have soared recently. In the first three quarters of 2013, lenders filed 12,271 initial foreclosure cases, a 53% increase over the same period in 2012.

Long-term wage disparities persist between male and female full-time workers on Long Island. Male full-time workers earn 129% of the wages of full-time female workers

in Nassau and 126% of the wages of full-time female workers in Suffolk. This disparity mirrors national trends and has major implications for women and their dependents, who rely on these earnings. Lower wages also have an impact on Social Security and other retirement benefits. As the population continues to age on Long Island, women's lower retirement income will further increase disparities.

## Economic Comparisons, 2012

	United States	New York State	New York City	Nassau County	Suffolk County
Median Household Income	\$51,371	\$56,448	\$50,895	\$93,214	\$86,334
Median Family Income	\$62,527	\$68,395	\$55,240	\$108,639	\$99,453
Median Earnings Male—Full-Time Worker	\$47,473	\$51,274	\$48,893	\$66,886	\$62,730
Median Earnings Female—Full-Time Worker	\$37,412	\$43,000	\$45,081	\$52,040	\$49,778
Median Male Earnings as Percentage of Median Female Earnings	1.27%	1.19%	1.09%	1.29%	1.26%
Percentage Individuals Below Federal Poverty Level	15.9%	15.9%	21.2%	6.6%	6.9%
2012 Unemployment Rate Population Over 16 years	9.4%	9.2%	10.6%	7.3%	7.3%
Foreclosure Rate*	2.8%	5.7%	N/A	6.1%	8.2%

Sources: U.S. Census, American Community Survey 2012; New York State Department of Labor; U.S. Department of Labor; Long Island Profiles

\*Foreclosure rates are for July 2013.

## SPECIAL FOCUS

### SPOTLIGHT ON SANDY: BY THE NUMBERS

**Number of People Killed:** 14

**Properties Flooded, Damaged or Destroyed (Est.):** Nassau: 74,736; Suffolk: 20,798

**Houses Damaged (Est.):**

#### Homes with Major and Severe Damage\*

County	Owner-Occupied	Renter-Occupied	Tenure Unidentified	Total
Nassau	29,325	6,249	5	35,579
Suffolk	8,714	1,340	2	10,056
Total Long Island	38,039	7,589	7	45,635

Source: Governor's Office of Storm Recovery - Action Plan Amendment No.6.

\* Includes homes damaged by Hurricane Irene and Tropical Storm Lee. Based on FEMA Individual Assistance Applicants with Verified Damage.

**Property Damage Value (Est.):** \$7 Billion

**"Substantially Damaged" Homes:** 3,000+

These homes sustained damage of 50% or more of their pre-storm market value and must now be renovated to meet strict flood plain codes. This involves elevation to protect against future events, moving structures to higher ground or razing and reconstructing structures to meet requirements.

**FEMA Public Assistance Funds Allotted:** Est. \$474 Million

The Federal Emergency Management Agency (FEMA) provides monies to communities/regions to fund emergency efforts and to help repair and rebuild public infrastructure.

Data as of December 2013

**FEMA Individual Housing Assistance Applicants Approved:** Owners: 37,550; Renters: 12,038

The Federal Emergency Management Agency (FEMA) provides funding to individuals for disaster-related housing needs, such as temporary housing and home repair and replacement not covered by insurance. It also covers other disaster-related needs such as transportation, medical, dental, funeral, and moving/storage.

Data as of August 2013

**FEMA Individual Housing Assistance Funds Approved:** Owners: 329 million, renters: 66 million

Data as of August 2013

**NY Rising Applicants:** 20,000+

NY Rising is a State housing recovery program funded by the federal government, specifically by the Community Development Block Grant Disaster Recovery (CDBG-DR) program, supported by the U.S. Department of Housing & Urban Development.

The program addresses remaining unmet housing recovery needs from hurricanes Sandy and Irene and Tropical Storm Lee through various mechanisms including home repair/rehabilitation, mitigation/elevation and/or buyouts. Applicants must have property that was damaged as a direct result of one of these storms.

The program began accepting applications in April 2013 and stopped accepting applications in April 2014.

**NY Rising Applicants Receiving Checks:** 6,388

Nassau: More than 4,650 Nassau residents have received payment.

Suffolk: More than 1,350 Suffolk residents have received payment.

Also, through its buyout and acquisition program, the State has made offers to purchase the homes of 709 homeowners.

Data as of March 2014

**Total Amount of NY Rising Money Distributed:** \$280 million+

Data as of March 2014

Disaster Case Management Clients, open or closed		Clients Displaced, open or closed	
Nassau	1838	Nassau	769
Suffolk	931	Suffolk	427
Total	2,769	Total	1,196

Total Number Adults/Children in All Disaster Case Management Client Households, open or closed	
Nassau	5,198
Suffolk	2,434
Total	7,632

Source: Archdiocese of New York  
Note: Data as of February 2014



### Disaster Case Management

Disaster Case Management (DCM) is a process involving collaboration between a case manager and a disaster survivor (also known as a client). In this process, the case manager acts as a single point of contact for an individual to access social services and to develop a disaster recovery plan. The Archdiocese of New York administers the program and works with local community-based nonprofits to provide services.

Clients are typically heads of households. Data in charts reflect open and closed cases as of February 2014.

### Impact on Low- and Moderate-Income Communities

A significant proportion of low- and moderate-income households, particularly renters, were impacted by Hurricane Sandy, Hurricane Irene and Tropical Storm Lee. Low and moderate homes have incomes that are 80% or below a region's median household income. Nassau and Suffolk counties had the highest number of low-moderate income households impacted by the storms among all counties in New York.

**Nassau County:** 18,426 households **Suffolk County:** 5,385 households

The communities with the largest number of low- and moderate-income households impacted by the storms include Long Beach, Freeport, Oceanside, Lindenhurst, Island Park, Massapequa, East Rockaway, Baldwin and Seaford.

# ECONOMIC, HOUSING AND FOOD SECURITY

## RENTAL HOUSING

### INDICATOR TREND

Housing cost burden persists for all Long Island renters, although it has eased slightly from heights during the Great Recession.

Cost burden has risen sharply for low-income renters in both counties.

As of 2012, 55.3% of renter households in Nassau and 56.3% of renter households in Suffolk experienced cost burden.

Severe housing cost burden has trended differently in Nassau and Suffolk. In Suffolk, severe housing cost burden rose between 2007 and 2012, from 28.3% to 30%. In Nassau, severe housing cost burden fell slightly, from 30.5% to 29.4%.

### WHAT DOES THIS MEASURE?

This indicator shows the percentage of renter households with housing cost burden or severe housing cost burden in Nassau and Suffolk counties.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

The generally accepted standard for housing cost burden is more than 30% of a household's gross income. A household has severe housing cost burden if it spends more than 50% of its gross income on housing costs.

The number of households experiencing housing cost burden reflects the material well-being of a region. Households that experience cost burden risk cutting into finances for other monthly necessities such as food, education, transportation and medical care. High housing costs pose serious problems for the continued vitality of a region. If members of the workforce cannot afford housing, they will leave the area in search of a better standard of living. In more dire circumstances, those with fewer resources and options may become homeless.

Nationwide, the economic downturn continues to challenge renters, largely because incomes have failed to keep pace with housing costs. Moreover, the rental market is tightening, driving up prices and heightening competition for units. This trend will likely endure even as the housing market recovers, with rigid credit conditions and rising home prices keeping cash-strapped younger and first-time buyers from purchasing homes. Moreover, the rental market remains flooded with former homeowners displaced by the foreclosure crisis.

## HOW DO WE COMPARE?

### National Context

The number of Americans living in rental housing is growing. A 2012 U.S. Census Bureau survey found that renter households increased by more than 1.1 million between 2011 and 2012, marking eight consecutive years of expansion. Renters made up 35% of all households nationwide in 2011.

In 2012, the median asking rent for a unit was \$720, the highest amount ever recorded. For many renters, housing affordability is a serious problem; as of 2011, more than 20 million households experienced cost burden. About half of these households, or 27.6% of all renters, experienced severe cost burden. The increase in severe housing cost burden for renters, a decade-long trend, began accelerating at the start of the Great Recession, rising 21.6 % from 2007 to 2011.

Both unemployment and underemployment have exacerbated housing cost burden. Moreover, full-time incomes have failed to keep pace with rental housing costs. Those with the lowest incomes have been especially hard hit, including the third of renters living below the Federal Poverty Level (FPL). From 2007–2011, the proportion of low-income households with full-time workers experiencing severe cost burden rose from 38.6% to 42.4% (about 800,000 households).

Many low-income households rely on earnings from hourly wage workers. The National Low Income Housing Coalition (NLIHC) calculates that the full-time hourly wage needed to afford the rent on a two-bedroom home was \$18.79 in 2013, almost three times the current minimum wage of \$7.25. Even the average wage earned by renters—\$14.32 per hour—was still short by about \$4.50.

### State Context

In 2012, 45% of New York households were renters. The mean income for these households was \$21.59 per hour or about \$44,900 in 2013. Households living on this income could afford a two-bedroom apartment up to \$1,123 per month. However, the 2013 Fair Market Rent (FMR), a rate set by the Department of Housing and Urban Development for regions across the country, was \$1,313 for a two-bedroom apartment. In order to avoid cost burden on an apartment this size, a household had to earn \$52,513 per year. A minimum wage worker, earning \$7.25 per hour, had to work 139 hours per week in order to afford a two-bedroom apartment.

### Nassau/Suffolk Counties

Like the nation as a whole, housing affordability remains a serious issue on Long Island.

Stagnant wages, unemployment and underemployment, and rising unit prices create a tight and expensive rental market. In addition, specific local conditions, including limited rental inventory, restrict affordable housing options. This issue was driven home after Hurricane Sandy, when displaced survivors, looking for short-term housing, were faced with few affordable rental alternatives. For many still dislocated, especially low-income renters, the shortage of affordable housing, and the demolition or reconstruction of damaged rental properties for higher unit prices, has caused great housing instability. These individuals are forced to move from place to place, enduring the specter of homelessness or ending up in shelters and on the street. This issue is explored more fully in the Homelessness indicator section.



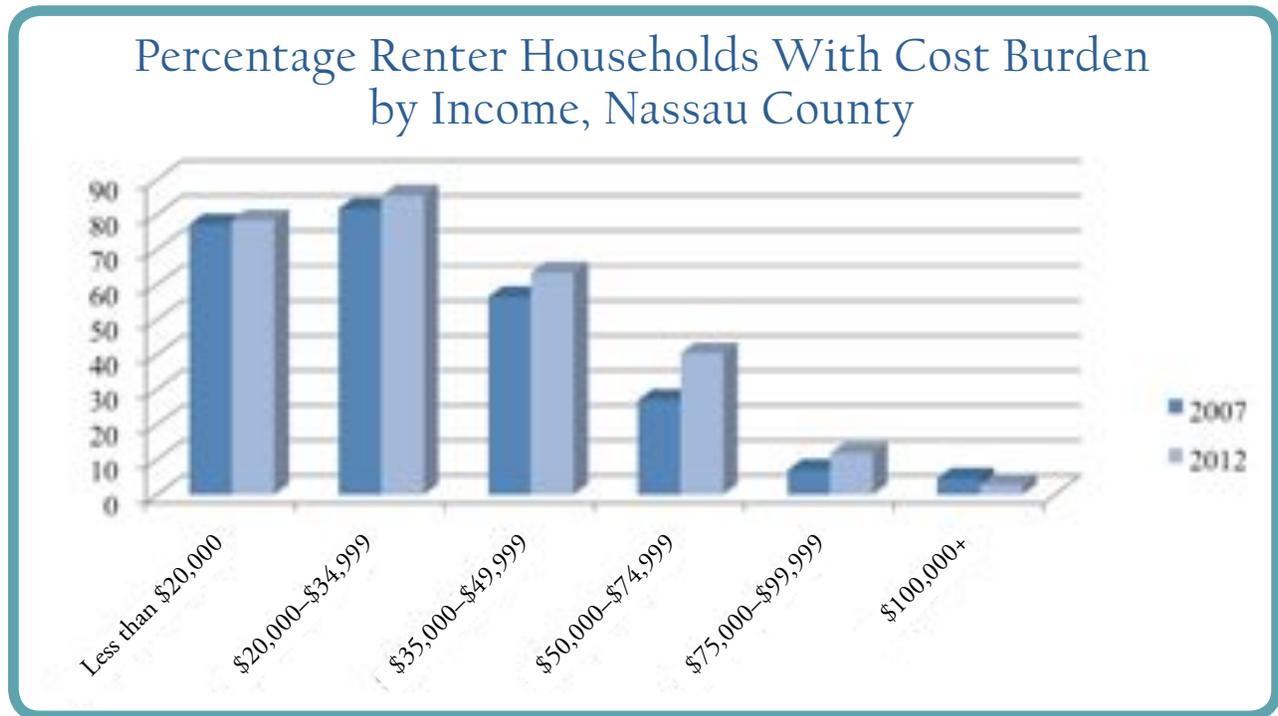
Sources: U.S. Census 2010; American Community Survey 2005, 2007, 2012



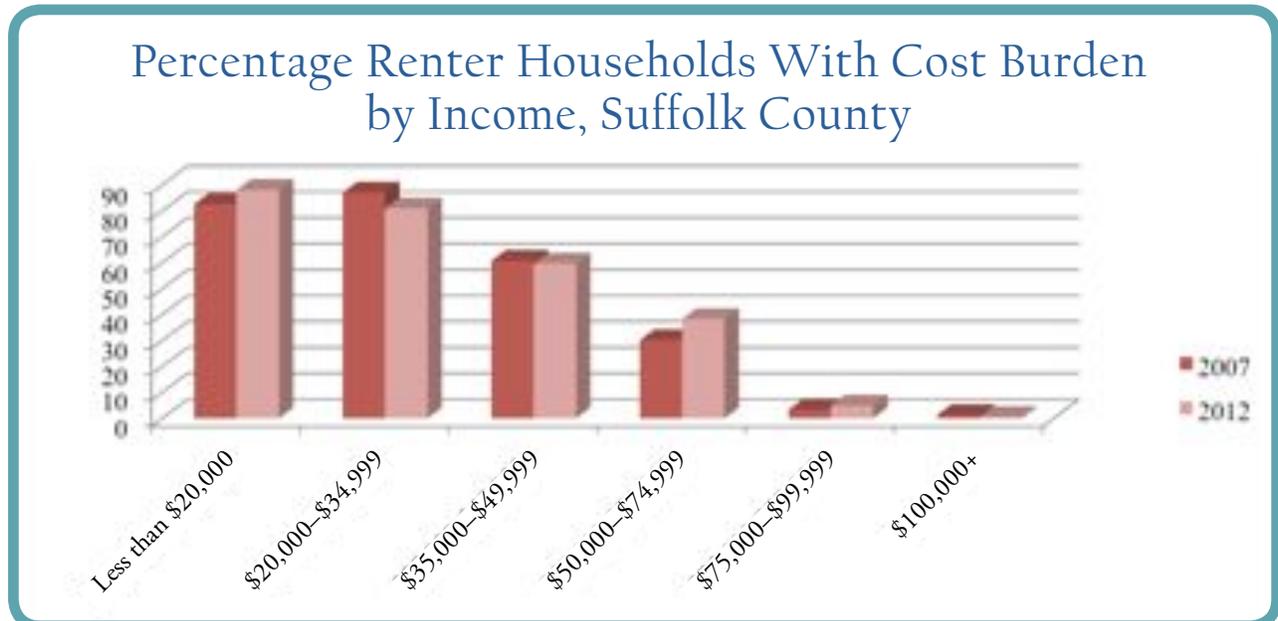
Sources: U.S. Census 2010; American Community Survey 2005, 2007, 2012

On Long Island, rentals make up about 21% of housing stock. This share is low compared to other parts of the New York City metropolitan area. For example, in Western Connecticut, 33% of housing stock is rentals and, in northern New Jersey, 37% is rentals. The rental vacancy rate in Nassau-Suffolk is 4.4%, half the rate in other New York City suburbs.

Significant housing cost burden persists on Long Island, although it has eased slightly



Sources: U.S. Census, American Community Survey 2007, 2012



Sources: U.S. Census, American Community Survey 2007, 2012

from higher levels at the peak of the economic downturn. In 2012, 55.3% of renter households in Nassau and 56.3% of renter households in Suffolk experienced cost burden.

Severe housing cost burden has trended differently in Nassau and Suffolk. It rose in Suffolk between 2007 and 2012, from 28.3% to 30%, and declined slightly in Nassau, from 30.5% to 29.4%.

Rental cost burden has intensified for lower-income households in both counties. For example, among Long Island households earning less than \$20,000 per year, housing cost burden grew 1.4% in Nassau and 6.7% in Suffolk from 2007–2012. For households earning \$50,000–\$74,999 per year, a range above the poverty level but still below economic self-sufficiency, cost burden rose 49.6% in Nassau and 27.2% in Suffolk during the same time period. By contrast, cost burden fell 39.1% for households earning \$100,000 or more per year.

In 2013, the Fair Market Rent (FMR) for the Nassau-Suffolk region was \$1,014 for an efficiency, \$1,285 for a one-bedroom, \$1,583 for a two-bedroom, \$2,370 for a three-bedroom and \$2,286 for a four-bedroom unit. These were the highest FMRs in the State and represented a 23.5% increase since 2006. However, FMRs declined between 2012 and 2013 (ranging from 3%–18%, depending on a unit's number of bedrooms).

A recent report by the Regional Plan Association underscores the long-term threat to regional vitality posed by lack of affordable housing. With rents soaring and inventory in decline, it is difficult to attract and maintain a diverse workforce to help grow the economy, which is dependent on workers across industry sectors and salary levels, including low- and middle-income employees in service work, construction, manufacturing and healthcare. The Universal Living Wage Campaign calculates that the full-time hourly wage needed to afford rent on a two-bedroom home in Nassau-Suffolk was \$35.35 in 2012 or \$67,280 per year, about five times the minimum wage, and an amount earned by only one-third of renters on Long Island.

Lack of affordable housing is also one of the main factors contributing to the exodus of young people from Long Island, many of whom are opting to live and work in more affordable areas. After years of declining in population share, the percentage of young adults (ages 25–34) has remained stable at about 11 since 2009. However, Long Island's proportion of young adults is slightly lower than in other New York suburbs and well below that in New York City.

Aging baby boomers, who no longer desire the burden of homeownership, are also helping to drive the demand for affordable rental housing. This trend will likely intensify in the future.

**INDICATOR  
TREND**

Rates of homeownership declined 3.4% in Nassau and 4.1% in Suffolk between 2007 and 2012.

Housing cost burden for Long Island homeowners decreased during these years from 44.8% to 43.2%.

However, trends differed by county. In Nassau, housing cost burden rose from 39.2% in 2007 to 44.6% in 2012. In contrast, cost burden fell in Suffolk from 46.1% in 2007 to 43.4% in 2012.

Severe cost burden remained relatively stable from 2007 to 2012 at about 19% in both counties.

**WHAT DOES THIS MEASURE?**

This indicator shows the percentage of owner-occupied households with housing cost burden or severe housing cost burden in Nassau and Suffolk counties.

**WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?**

Homeownership has long been an American ideal, representing economic security and success. But if ownership costs—mortgages, property taxes, utilities and other expenses—drain household finances, other monthly necessities such as food, clothing, education and medical care may become unaffordable.

While housing costs for all homeowners have fallen in recent years, stagnant and declining incomes have made keeping up with payments especially burdensome for moderate- and low-income households. Unable to afford monthly property costs, cash-strapped homeowners have turned to the rental market as a solution, driving up rental prices due to increased demand.

Long Island has an unfortunate history of segregated housing. Following World War II, the federal government approved mortgages for veterans in communities with restrictive housing covenants. Today, the desire for property tax revenue is behind local zoning ordinances that block the development of low and moderate housing in favor of high-end homes and profitable businesses. Such government-sanctioned zoning creates barriers to housing for low-income people and people of color.

A recent U.S. Census Bureau study found that segregation between black and white Long Islanders has diminished slightly. In this work, researchers reviewed segregation indices, measuring the degree to which populations of color are distributed differently than whites across census tracts, yielding a score from 0 (complete integration) to 100

(complete segregation). The study found that segregation between whites and blacks was 69.2 in 2010—down from 73.6 in 2000. Despite this decrease, Long Island remains the nation’s 10th-most segregated major metropolitan region. The same study tracked segregation between whites and Hispanics, ranking Long Island 19th among the same metropolitan regions. In fact, segregation has accelerated over the past 30 years, with a shift in index score from 37.1 in 1980 to 48.5 in 2010. These patterns of segregation create unequal access to resources and opportunities for many communities of color.

Racism can also affect the process of buying a home. Despite the presence of fair housing regulations, government agencies are often lax in enforcing them. On Long Island, discriminatory real estate practices, such as steering, or the channeling of people into particular neighborhoods based on race or other characteristics, help to perpetuate segregation. A 2012 survey sponsored by ERASE Racism found that 33% of black Long Islanders or their family members had experienced housing discrimination. The majority said that discrimination resulted from a real estate agent who steered them away from homes in mainly white areas, regardless of whether or not they could afford the property.

## HOW DO WE COMPARE?

### National Context

The U.S. housing market is currently undergoing recovery due to multiple factors, including reduced foreclosure filings, low mortgage interest rates, increased housing starts, especially in multi-family housing construction, and rising home prices. Even so, the homeownership rate remains depressed compared to the years before the Great Recession. In 3Q of 2013, the rate stood at 65.3% compared to 69% in 2006. The falloff has been particularly significant for black Americans; their homeownership rate has dropped 5.8% from its high in 2004. The rate is now at its lowest level since 1995.

In 2012, 27.4% of American homeowners experienced housing cost burden, down from 30.6% in 2007. While rents have increased in recent years, housing-related payments, including mortgages, have declined, contributing to the fall in cost burden.

### State Context

Housing cost burden has also decreased for homeowners in New York State. In 2012, 33.5% were cost burdened, compared to 34.7% in 2007. In the same year, a greater percentage of homeowners with mortgages were cost burdened than those without mortgages, 39.4% versus 22.7%, respectively.

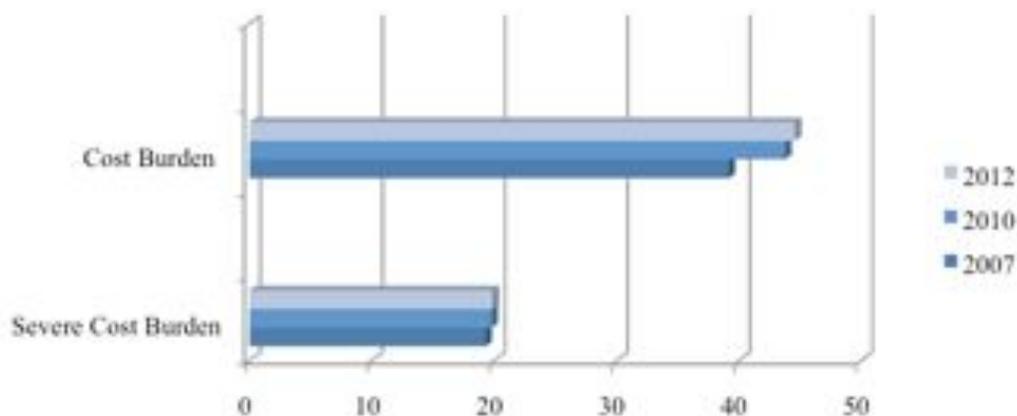
### Nassau/Suffolk Counties

Long Island's housing market is improving, as homes regain value. In February 2014, the median closing price for a home was \$397,500 in Nassau and \$303,500 in Suffolk, an increase of 4.6% and 2.4%, respectively, from the previous year.

According to The National Association of Home Builders/Wells Fargo Housing Opportunity Index (HOI), Long Island ranked 203 out of 232 in affordability among major housing markets nationwide in 2014. Using the standard that a household can afford a mortgage that is 2.5 times its gross income, a household would need a gross income of \$158,000 to afford a median-priced home in Nassau and \$121,400 to afford a median-priced home in Suffolk.

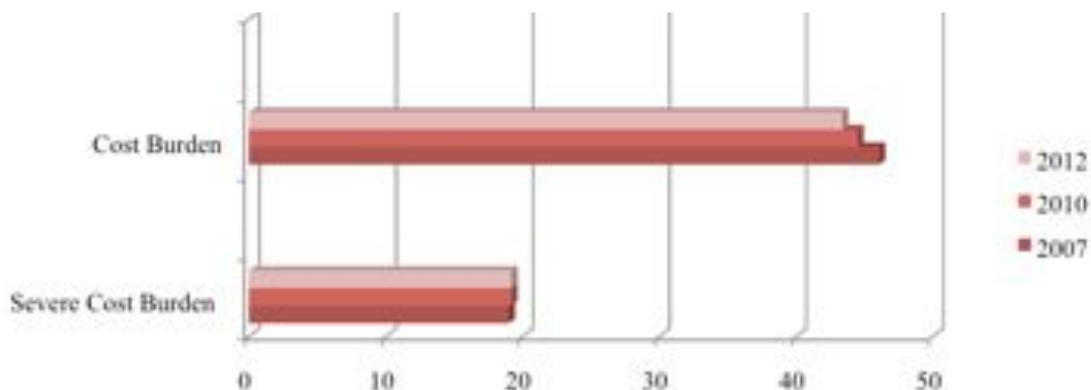
Mirroring the national trend, homeownership rates have fallen on Long Island, 3.4% in Nassau and 4% in Suffolk. Despite declines, Nassau and Suffolk still have the highest homeownership rates among the country's 50 most populous counties, 80.4% in Nassau

#### Percent of Nassau County Homeowners Experiencing Cost Burden



Sources: U.S. Census 2010; American Community Survey 2005, 2007, 2012

#### Percent of Suffolk County Homeowners Experiencing Cost Burden



Sources: U.S. Census 2010; American Community Survey 2005, 2007, 2012

and 78.9% in Suffolk in 2012.

Housing cost burden declined modestly between 2007 and 2012, from 44.8% of Long Island homeowners to 43.2%. However, trends differed by county. In Nassau, housing cost burden rose from 39.2% in 2007 to 44.6% in 2012. In contrast, cost burden fell in Suffolk County from 46.1% in 2007 to 43.4% in 2012.

In both counties, severe cost burden remained relatively stable: around 19% in 2007 and 2012.

Housing cost burden was more common among homeowners with a mortgage than those without a mortgage. In 2012, 49% of Nassau County homeowners with mortgages experienced housing cost burden, compared to 32.2% without mortgages. 47.9% of Suffolk County homeowners with mortgages experienced cost burden, compared to 30.8% without mortgages.

## MORTGAGE FORECLOSURE AND DELINQUENCY

### INDICATOR TREND

Foreclosures continue on Long Island despite some improvement in the housing market overall.

In the first three quarters of 2013, lenders filed 12,271 initial foreclosure cases, a 53% increase over the same period in 2012.

These new cases joined others already backlogged in New York's foreclosure court system. With so many distressed homes in the pipeline, Long Island's foreclosure burden is unlikely to abate in the near term.

Approximately 10% of mortgage loans in the region were seriously delinquent as of December 2013.

### WHAT DOES THIS MEASURE?

This indicator shows the number and percentage of housing units in mortgage foreclosure or serious delinquency in Nassau and Suffolk counties.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

A foreclosure involves the possession of a property by a lender due to a borrower's inability to make mortgage payments. The foreclosure rate is a measure of the economic health of a community.

Foreclosures have been at the forefront of the national news since the housing bubble collapse in 2006. At the start of the mortgage crisis, many of those affected were first-time or high-risk borrowers who took on substantial mortgages during the housing peak, lured by loan incentives, like adjustable rate mortgages (ARM), which offered below-



prime interest rates to start but later reverted to higher rates. Having taken on large debt, on the hopes of later refinancing their loans at better rates, these subprime borrowers were crushed when the housing bubble burst and housing prices fell.

While the mortgage crisis began with the widespread default of subprime loans, prime loan borrowers have also experienced high rates of payment delinquency and foreclosure. As the negative effects of the Great Recession wore on, particularly unemployment, these borrowers began to have difficulties making loan payments.

Currently, the American housing market is in recovery, with home values and sales increasing. These trends have contributed to a decline in the foreclosure rate, with fewer distressed properties entering foreclosure in 2013 than at any time since 2006. However, millions of property owners remain under water on their mortgages, owing more than their homes are worth. These homeowners may still be at risk for foreclosure and delinquency.

Controversy exists over whether racism played a role in subprime loan lending. Housing and civil rights advocates charge that communities of color, historically denied financing due to redlining, were singled out in reverse discriminatory practices for high-cost loans. Moreover, they argue that lenders steered black and Hispanic borrowers eligible for prime loans to subprime loans instead. A 2010 study by Princeton University supports this view, finding that the share of subprime mortgages among homeowners of color increased from 2% to 18% between 1993 and 2000. The study's authors suggest that institutional racism, including residential segregation, encouraged the marketing of risky subprime loans to people of color.

After a foreclosure, there are numerous negative economic consequences for borrowers and their families. These include loss of equity accrued in a home and a damaged credit rating. In cases where good credit is required, a damaged credit score may make it difficult to rent an apartment or secure a job. In the extreme, individuals and families without financial resources or support may find themselves homeless.

Research indicates that the stress accompanying foreclosure, including economic loss and forced relocation, negatively impacts the physical and psychological health of individuals and families. These impacts include depression, anxiety, hypertension, disruption of medical care and worsening of chronic ailments. Community well-being is also affected by concentrations of foreclosure. Spillover effects for neighborhoods with high rates of foreclosure include the declining market value of homes, lower property taxes, decreased municipal revenue, degraded community facilities, vacant buildings and increased crime and other social issues.

## HOW DO WE COMPARE?

### National Context

Foreclosure filings have been declining steadily in recent years. According to RealtyTrac, in 2013, total foreclosure filings, including notices of default, scheduled auctions and bank repossessions, were reported on 1.36 million properties, a 26% decline from 2012 and a 53% decline from the peak of the crisis in 2010.

The number of seriously delinquent loans—more than 90 days behind—has also decreased markedly, falling 26%, from 2,637,000 in November 2012 to 1,963,000 in November 2013.

As of Q3 2013, 5.7% of home loans were seriously delinquent, a decline from 7.03% a year earlier.

Trends in foreclosure vary by geographic location. In 2013, the states with the highest number of filings were Nevada, California, Florida and Arizona, comprising 57% of filings nationwide. Foreclosure activity increased in 10 states in 2013, including New Jersey (44%), Connecticut (20%) and New York (34%).

Over the past eight years, 10.9 million properties have started the foreclosure process and 5.6 million properties were repossessed by lenders through foreclosure.

### State Context

New York continues to experience a foreclosure crisis, unlike other areas in the nation. One reason for this lag is that foreclosures are judicial in New York, meaning the lender must foreclose through the State court system. In order to initiate foreclosure, a lender

must file a *lis pendens* with the civil court once a borrower defaults on a loan, which effectively brings suit against the borrower. The entire process from start to finish can take two to three years and involves multiple stages, including a mandatory settlement conference between lenders and homeowners to try and negotiate foreclosure alternatives.

In November 2013, 4.7% of mortgaged homes in New York were in foreclosure. The national rate was 2.1%.

New York's foreclosure filings peaked in 2009, at 47,664 cases. The number of cases fell significantly after 2010, following an administrative order issued by the court that required lenders' attorneys to affirm that foreclosure documents were accurate. This new rule was put in place to combat the mortgage industry practice of "robo-signing," wherein employees signed materials submitted to the court without reading their contents closely.

Recently, there has been a surge in filings, with 25,411 new cases in 2012. The projected amount for 2013 was 44,035. These new filings have stressed an already overburdened court system and, as of October 2013, more than 84,000 cases were still in the foreclosure pipeline.

In November 2013, 7.8% of New York homes had loans in serious delinquency.

#### Nassau/Suffolk Counties:

Foreclosures continue on Long Island, even as the local housing market recovers in other areas. In the first three quarters of 2013, lenders filed 12,271 initial foreclosure cases, a 53% increase over the same period in 2012. Some of this activity can be attributed to Hurricane Sandy, as cash-strapped homeowners found they could not keep up with mortgage payments on their damaged homes.

These new cases joined others already backlogged in New York's foreclosure court system. In August 2013, there were 6,070 pending foreclosures in Nassau and 12,693 in Suffolk. With so many distressed homes in the pipeline, Long Island's foreclosure burden is unlikely to abate in the near term.

Long Island's share of foreclosures is high compared to the national rate. In December 2013, 6.3% of homes with mortgages were in the foreclosure inventory, either in the foreclosure process or as unsold bank-owned homes.

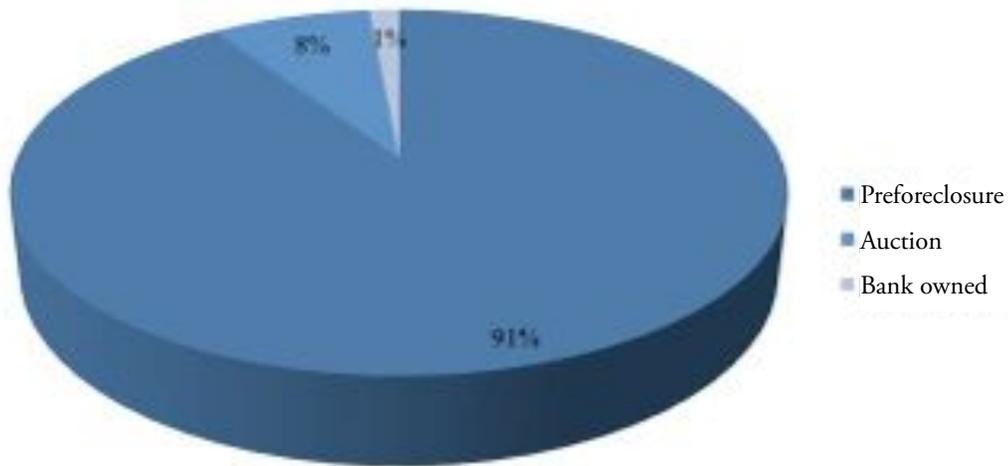
Approximately 10% of mortgage loans in the region were seriously delinquent as of December 2013. And, from 2012–2013, default notices rose, up 24% in Nassau and 28% in Suffolk.

Data from a number of sources show that lower-income communities and communities of color have borne the brunt of the foreclosure crisis. For example, the Empire Justice Center examined distribution patterns of 90-day pre-foreclosure filing notices (90-

day PFF Notices) across Long Island in the first half of 2012. The study looked at three ZIP code level factors—volume of notices, rates of notices per 1,000 household units, and number of notices per square mile—to create an “impact score” for all communities in the region.

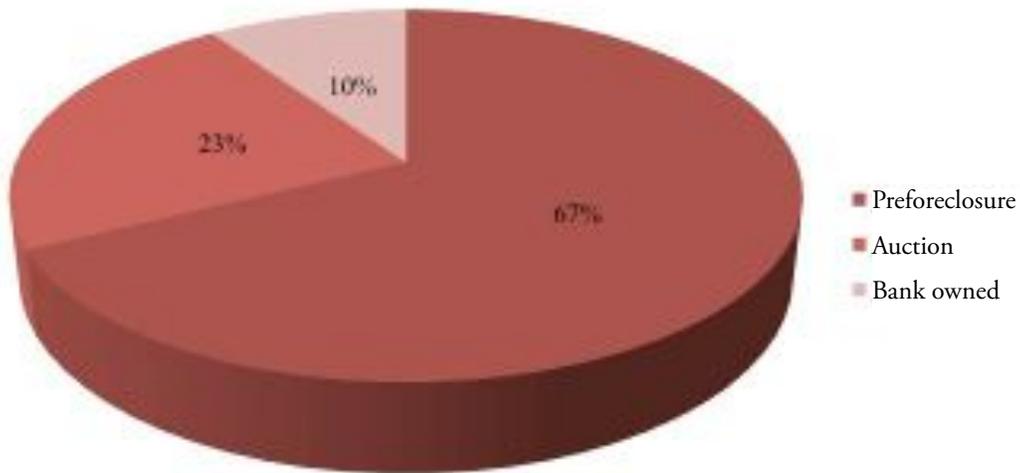
In Nassau, 16,175 90-day PFF Notices were delivered in the first half of 2012. Out of 66 ZIP codes, 53.7% of notices were concentrated in just 11 communities. These 11 communities, all with significant populations of color, were part of the 15 communities with the highest impact scores. They included Hempstead, Elmont, Roosevelt, Val-

### Status of Foreclosures—Nassau County, January 2014



Source: RealtyTrac

### Status of Foreclosures—Suffolk County, January 2014



Source: RealtyTrac

ley Stream (north), Freeport, Uniondale, Baldwin, Westbury, Valley Stream (south) and Hicksville. 74.5% of the county's black and Hispanic homeowners resided in these 15 communities compared to 26.8% of white, non-Hispanic homeowners.

In Suffolk, 24,740 90-day PFF Notices were delivered in the first half of 2012. Ten ZIP codes out of 94 accounted for 34.5% of notices. Moreover, 49.3% of all black and Hispanic homeowners lived in these 10 communities, compared to 10.9% of white, non-Hispanic homeowners. All three of the county's communities with majority populations of color—Central Islip, Brentwood and Wyandanch—were ranked at the top

### 15 Long Island ZIP Codes with Highest Percentages of Foreclosures, June 2013

Rank June 2013	County	Area	Zip Code	Foreclosure Rank in June 2009	Percentage Population White	Median Household Income	Percentage Below Poverty Level
	Nassau*				71.2	\$93,214	6.6
	Suffolk*				82.4	\$86,334	6.9
1	Nassau	Roosevelt	11575	3rd	14	\$68,524	14.7
2	Suffolk	Wyandanch	11798	2nd	18.8	\$60,341	11.2
3	Suffolk	Mastic Beach	11951	7th	85.4	\$68,243	15.6
4	Nassau	Hempstead	11550	5th	23.5	\$54,766	23.5
5	Suffolk	Central Islip	11722	4th	52.9	\$67,041	11.3
6	Suffolk	Brentwood	11717	1st	45.4	\$68,937	8.9
7	Suffolk	Mastic	11950	9th	81	\$66,107	11.9
8	Suffolk	Shirley	11967	14th	85.3	\$84,859	9.1
9	Suffolk	Islandia	11749	6th	72.8	\$95,625	5.5
10	Nassau	Freeport	11520	11th	44.3	\$70,516	12.6
11	Suffolk	Copiague	11726	8th	68.5	\$70,433	10.4
12	Suffolk	North Bellport	11713	10th	62.7	\$76,875	10.9
13	Nassau	Uniondale	11553	13th	32	\$72,431	10.4
14	Suffolk	Bay Shore	11706	12th	61.5	\$76,052	5.9
15	Nassau	Inwood	11096	17th	32.3	\$54,611	14.4

Sources: Federal Reserve Bank of New York; U.S. Census, 2012 American Community Survey, five-year estimates

Note: All ZIP codes have foreclosure percentages above 9.4 and are listed in order of mortgage distress.

\*Nassau and Suffolk demographic data are from the 2012 American Community Survey, one-year estimate.

of the 10 most-impacted communities. The remaining communities were Shirley, Bay Shore, Mastic, Mastic Beach, Amityville, Deer Park and Copiague.

Data from the Federal Reserve Bank of New York also show that communities of color and low-income communities disproportionately share the burden of foreclosure. As of June 2013, all but one of the 15 communities with the highest foreclosure rates in the region had median household incomes below the level of their respective counties. Thirteen of the communities had higher percentages of populations of color than their respective counties. Although these 15 communities have had different rates of foreclosure over the past several years, they have always been among the top-20 most-distressed neighborhoods on Long Island.

## HOMELESSNESS

### INDICATOR TREND

Homelessness is increasing on Long Island, up 24.9% between 2007 and 2013.

Early assessment of numbers for 2014 suggests this trend will continue, driven, in part, by individuals displaced by Hurricane Sandy, who no longer have resources for temporary housing.

### WHAT DOES THIS MEASURE?

This indicator shows the number of homeless people and supportive housing beds on Long Island.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

Definitions of homelessness vary across government agencies and among advocates and academics. One common definition of homelessness is a person who “lacks a fixed, regular and adequate night-time residence.”

Homeless people are often thought of as single men and women, but many are actually members of families, including children, whose lives together are disrupted through the experience of homelessness. In fact, families with children make up around 40% of the homeless population and are growing quickly in size. Other significant segments of the homeless population include war veterans, survivors of domestic violence and people with mental health or substance abuse issues. Certain race/ethnic groups, particularly African Americans, are overrepresented in the homeless population relative to their share of the general population.

Homelessness can be a temporary, episodic or chronic condition. The federal government is currently targeting the “chronically homeless” in efforts to end homelessness. To be consid-

ered chronically homeless, persons must have a disabling condition and have been homeless for a year or more or had at least four episodes of homelessness in the past three years.

The extent of homelessness in a region is a measure of its economic and social support for vulnerable populations. Lack of affordable housing is the primary reason for homelessness, particularly for families. Other socioeconomic causes include poverty, low wages, unemployment and reduced public assistance benefits. The economic downturn, specifically the foreclosure crisis, increased the number of homeless people on Long Island. Hurricane Sandy, which demolished homes and displaced thousands, also helped to swell their ranks.

The often unsafe and unsanitary conditions associated with homelessness place individuals and families at increased risk for a variety of physical and mental health problems, including injuries from assault, infectious disease, respiratory illness, hunger and nutritional deficiencies, emotional stress and depression. In terms of social and economic consequences, homelessness poses barriers to healthcare and social services, school attendance and employment. Children who are homeless are more likely to have academic difficulties, learning disabilities and developmental delays.

## HOW DO WE COMPARE?

### National Context

#### MEASURING HOMELESSNESS

The number of homeless people is difficult to determine, since the results depend on the definition of homelessness and the methods used for measurement. Estimates may be based on counts of all the people who are homeless on a given day or week (point-in-time counts) or counts of people who are homeless over a given period of time (period prevalence counts).

Each year, the United States Department of Housing and Urban Development (HUD) mandates a point-in-time (PIT) count of homeless persons for agencies receiving federal homeless assistance. For this count, service providers and volunteers canvass the community to tally the number of sheltered and unsheltered homeless in a single given night. HUD then tabulates results from across the country in order to arrive at a national figure for homelessness.

Many advocates for the homeless criticize HUD's approach. First, they contend that the counts are too narrow in scope, focusing only on the "literally homeless," thereby missing people who are managing housing instability by doubling up with friends or relatives. In addition, they question the counts' methods, including the limited time allotted to tally results as well as the wide amount of territory to cover. Local policies

may also affect the count. For example, many cities are now making it illegal to sleep in public places. As a result, fewer homeless people may be visible during street counts due to fear of arrest, effectively reducing the count's numbers, but in reality missing people who have been driven deeper into hiding.

#### HUD Estimates

According to HUD, there were 610,042 homeless people in the United States in January 2013. The majority of homeless people (65%) were living in shelters or transitional housing programs and the rest were living in unsheltered locations, including on the street, in cars or in abandoned buildings. Sixty-four percent were individuals and 36% were families.

The 2013 PIT count showed a 4% drop in the number of homeless people between 2012 and 2013; it revealed a 9% decrease from 2007 to 2013. HUD also found significant declines in homelessness among veterans (24%) and among people experiencing chronic homelessness (16%) from 2010 to 2013. During the same time period, homelessness declined 4.9% among individuals and 8.2% among persons in families.

#### Alternative Estimates

While HUD's data point to generous declines in the number of homeless people, information from other sources paint a different picture. For instance, data from the U.S. Department of Education show that during the 2011–2012 school year, more than 1.1 million preschool or K–12 students were homeless, a 10% boost from the prior school year. The U.S. Department of Education recognizes children and youth in families living doubled-up with others in their count.

Even as HUD counts indicate a fall in the number of homeless veterans over time, the Department of Veterans Affairs recently released statistics showing that the number of homeless Iraq and Afghanistan war veterans almost tripled between 2011 and 2013. One reason for this increase may have to do with enhanced outreach efforts by the Department and community partners, creating a more accurate profile of this population.

The U.S. Conference of Mayors collects survey data each year on hunger and homelessness. In their most recent report, they found that the number of homeless people increased an average of 7% in cities surveyed between 2011 and 2012.

Finally, a study done by the National Law Center on Homelessness and Poverty (2007) estimated that about 3.5 million Americans are likely to experience homelessness each year.

### State Context

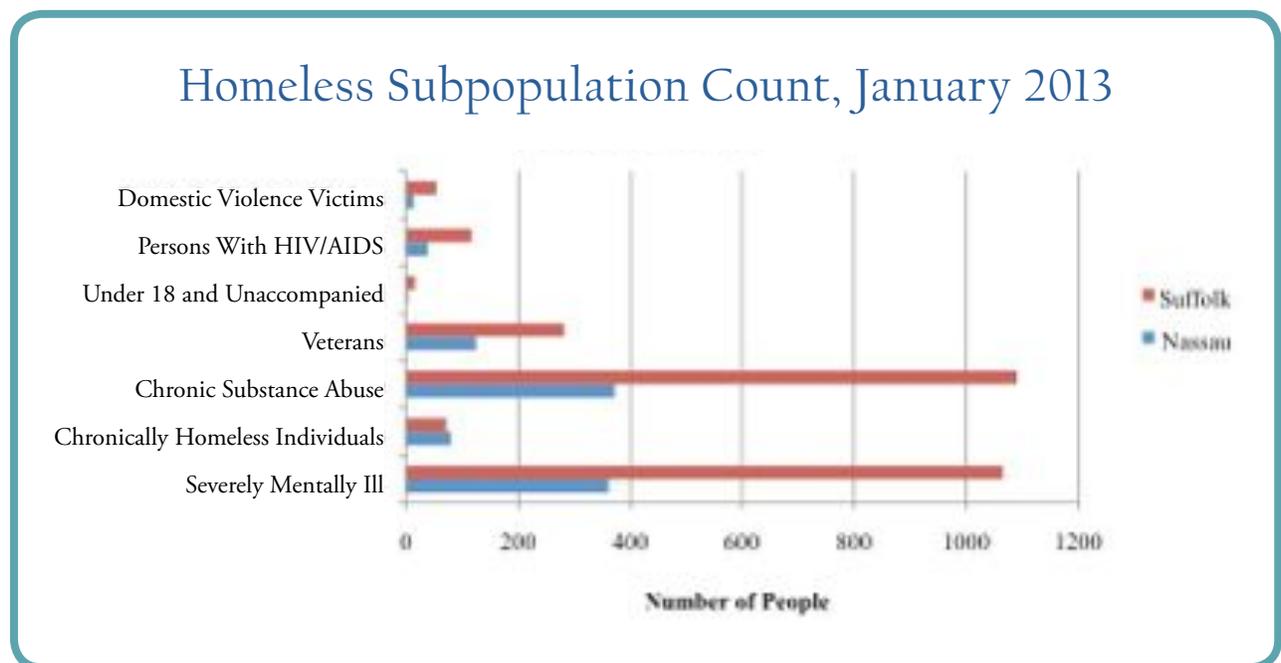
According to HUD, there were 77,430 homeless people in New York in January 2013, a 26.7% increase since 2008. Among all states, New York experienced the greatest rise in homelessness between 2012 and 2013, with an addition of 7,864 people.

According to a report by the National Center on Family Homelessness, there were 142,084 homeless children in New York in 2010. The Center ranked New York fifth among the 50 states in numbers of homeless children.

### Nassau/Suffolk Counties

Homelessness has increased on Long Island, rising 24.9% overall since 2007. Early assessment of numbers for 2014 suggests this trend will continue, driven, in large part, by households displaced by Hurricane Sandy. While these individuals were provided FEMA funds for temporary housing right after the storm, this support is no longer available and other government/insurance aid has been slow in reaching affected parties. As a result, some homeowners do not have the money to rebuild damaged properties and to cover short-term housing costs. Former renters have also been impacted, forced out of lodgings because of damage or because of landlords who have used rebuilding as an opportunity to raise rental rates. With limited affordable rental inventory on Long Island, these individuals have sometimes found themselves homeless.

Based on the annual HUD PIT count, there were 3,123 Long Islanders either sheltered or unsheltered in 2013. A breakdown of these numbers reveals that 2,428 persons



Source: Long Island Coalition for the Homeless

were in emergency shelters, 571 were in transitional housing and 117 were unsheltered. 1,265, or 40.5% of the people identified, were children.

Between 2012 and 2013, there was a 7% decline in the number of people identified as homeless. This decrease was largely due to a fall in the number of people sheltered in emergency housing and transitional housing programs, stemming from increased efforts among not-for-profits, government agencies and permanent housing providers to move eligible people out of shelters and into appropriate housing.

As noted previously, the PIT count does not include the “hidden homeless,” those doubling or tripling up with family or friends, often in crowded and unsafe environments. It also does not include people temporarily in jail, rehab or psychiatric hospitals. In addition, the count underreports homeless undocumented workers, who avoid shelters and may be wary of talking to canvassers due to fears about immigration status.

Based on data from the Long Island Coalition for the Homeless, which coordinates homeless services among more than 125 agencies on Long Island, capacity in year-round supportive housing beds (emergency shelter, transitional and permanent) for homeless people has increased. The total number of beds was 5,003 in 2013, compared to 3,987 in 2007.

## FOOD INSECURITY

### INDICATOR TREND

Enrollment in the Supplemental Nutrition Assistance Program (SNAP) increased 144% on Long Island between 2008 and 2013.

Economic uncertainty stemming from the Great Recession and Hurricane Sandy drove enrollment growth. Enhanced outreach efforts, coordinated by regional social welfare organizations, have also helped to augment program participation.

### WHAT DOES THIS MEASURE?

This indicator shows the number of individuals enrolled in the Supplemental Nutrition Assistance Program (SNAP) in Nassau and Suffolk counties. It also shows the percentage of households experiencing food insecurity on Long Island.

### WHY IS THIS SIGNIFICANT AND WHO DOES THIS AFFECT?

Food insecurity is a common household measure of food deprivation or hardship in the United States. The United States Department of Agriculture (USDA) defines food insecurity as “limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.” For the USDA, food insecurity is the result of insufficient resources, principally money, to

acquire food. Broader interpretations of food insecurity include other barriers to accessing food, such as lack of transportation to healthful food sources (supermarkets, smaller grocers, farmers markets, etc.) or the absence of healthful food sources in communities.

Food insecurity typically increases during times of economic hardship. Conditions contributing to food insecurity include high housing costs, low wages and unemployment and underemployment. When household resources are not able to cover the cost of living, many people must make a decision between paying for housing or other expenses and buying food.

Food insecurity is associated with poor physical and mental health. Diets lacking essential nutrients may cause malnutrition and iron-deficiency anemia or contribute to or worsen chronic conditions, including diabetes and hypertension. Food insecurity also generates mental distress, such as anxiety and depression. This stress results from both the absence of sufficient food as well as the ongoing strain of resource scarcity. For adults, poor mental health may hinder work productivity or efforts to find employment; it may also exacerbate physical ailments. For children, food insecurity is associated with developmental/behavioral problems and impaired school performance. These harmful impacts cost society \$167.5 billion each year due to lost earnings, unnecessary healthcare bills, food bank expenditures and investment in education to offset poor educational outcomes.

One measure to assess food insecurity involves tracking the number of people enrolled in the Supplemental Nutrition Assistance Program (SNAP), formerly known as food stamps. Under SNAP, the federal government provides eligible low-income households an electronic benefit card they can use to buy food at authorized food markets. While many households make use of this benefit, others do not, for a variety of reasons, including lack of familiarity with the program, the belief that they are not eligible or fear of social stigma. The number of people receiving SNAP in an area highlights economic need and potential health concerns. It may also show how successfully people are accessing food assistance programs.

Over the last decade, SNAP participation has increased nationwide due to policy changes and enhanced efforts to improve access. The Great Recession and lingering economic uncertainty also boosted the rolls to record highs.

On November 1, 2013, the federal government terminated the temporary rise in SNAP benefits created through the American Recovery and Reinvestment Act of 2009 (ARRA). As a result, benefits were slashed by 5.5% across the program and monthly allotments decreased, based on household size, for all Americans in the program. These cuts not only created hardship for individuals and families, but likely have caused ripple effects across the entire economy. Research shows that SNAP dollars promote economic

growth in local communities. According to the U.S. Department of Agriculture, for every \$5 of new SNAP money spent, \$9 of economic activity is generated.

### HOW DO WE COMPARE?

#### National Context

As of November 2013, 47,033,135 Americans were enrolled in SNAP, a 1.4% decrease from the same month in 2012. Improvements in the national economy have slowed SNAP enrollment recently and additional drop-offs are expected in the future. Still, high unemployment and underemployment persists, and declines in SNAP caseloads are largely explained by conditions specific to individual states.

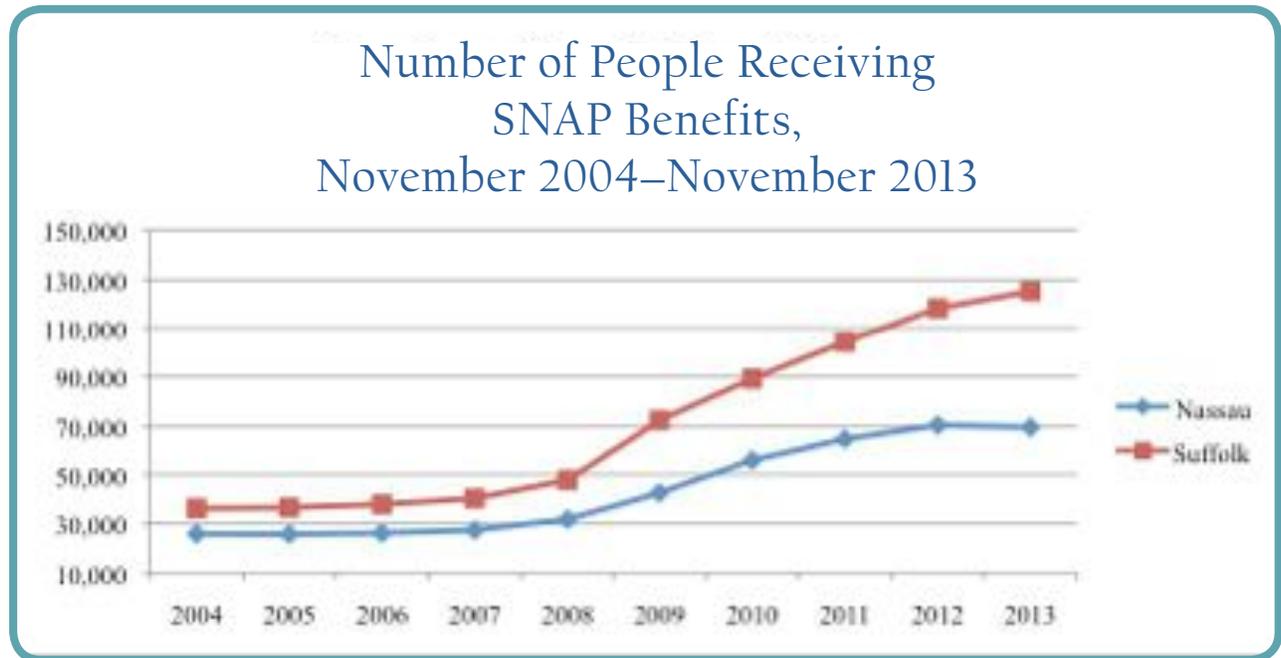
About one in seven Americans receives SNAP benefits. Even with the high number of people in the program, an estimated one in four eligible households remains unenrolled.

#### State Context

SNAP caseloads remain heavy in New York State. As of November 2013, 3,243,156 people were enrolled in SNAP, a 2.9% increase from the same month in 2012. From November 2008 to November 2013, SNAP enrollment increased 51% in New York.

#### Nassau/Suffolk Counties

Over the past five years, the number of people enrolled in SNAP has risen on Long Island, with percentage growth greater than at the state or national levels. The increase in



Source: New York State Office of Temporary and Disability Assistance

SNAP participation has been fueled by the Great Recession as well as economic/housing conditions in the wake of Hurricane Sandy. In addition, some growth in enrollment may be attributed to enhanced outreach efforts, including new social media strategies, coordinated by local social welfare organizations.

As of November 2013, 194,598 Long Islanders were enrolled in SNAP; there were 69,417 recipients in Nassau and 125,181 recipients in Suffolk. This figure was a 3.3% increase from the same month in 2012. From November 2008 to November 2013, SNAP enrollment increased 144% on Long Island.

Enrollment growth varied by county. In Nassau, the number of people enrolled grew by 118.2% between 2008 and 2013. During the same time period, the number of people enrolled rose 162% in Suffolk.

The number of people participating in SNAP also declined slightly (1.2%) between November 2012 and November 2013 in Nassau. Caseloads continued to climb in Suffolk, increasing 5.9% during this time period.

While SNAP cases have increased, many eligible households remain unenrolled on Long Island. Seniors, in particular, are not making use of the program. According to the American Association for Retired People (AARP), 85% of eligible seniors do not access SNAP, either because they fear the stigma associated with the program or because they are unable to navigate the application process required to receive aid.

Data from the Gallup-Healthways Well-Being Index shed light on the extent of food insecurity in the region, regardless of participation in federal food assistance programs. This yearly survey asks its national sample of households the “food hardship” question: “Have there been times in the past 12 months when you did not have enough money to buy food that you or your family needed?” In 2012, 18.2% of households nationwide answered “Yes” to this question and 17.7% did the same at the State level. The index also breaks out data by congressional district (as of 2012), including those covering all or parts of Long Island: the first, second, third and fourth. Food hardship rates were highest in the Second Congressional District (16.4%), which included the Suffolk towns of Huntington and parts of Babylon, Islip and Smithtown, as well as parts of Oyster Bay in Nassau County. Specific communities included Bay Shore, Brentwood, Central Islip, Commack, Deer Park, Dix Hills, Huntington, Melville, North Amityville, Northport, Oakdale, Plainview, Ronkonkoma, Sayville and Wyandanch.

Rates for the remaining districts were 13.5% for the fourth, 12.1% for the third and 11.9% for the first.

## VOTER TURNOUT

### INDICATOR TREND

Voter turnout decreased significantly between 2008 and 2012. This fall-off was largely related to difficulties casting ballots after Hurricane Sandy.

The voter turnout rate for the 2012 presidential election was approximately 59% in Nassau and 62.5% in Suffolk, compared to 71% and 75%, respectively, in 2008.

### WHAT DOES THIS MEASURE?

This indicator shows the registration rates for the voting-age population in Nassau and Suffolk counties. It also includes the voting-age participation (VAP) rate and the voter turnout rate.

### WHY IS THIS SIGNIFICANT AND WHO DOES THIS AFFECT?

Voter participation is a key indicator of public engagement in civic life. Voting provides citizens with the opportunity to express their views on policy issues and choose office-holders. When voters feel that their positions have little or no impact on government decision making, they have less incentive to participate in the electoral system.

While the United States was founded on the right to vote, this right did not extend to all Americans. Women did not win the right to vote until 1920. Black Americans were guaranteed the right to vote following the Civil War, but only with the passage of the Civil Rights Act of 1965, which prohibited discriminatory voting practices, did widespread enfranchisement take hold. Today, the right to vote remains restricted based on age and nationality; voters must be over the age of 18 and possess U.S. citizenship.

Much debate exists concerning the factors that affect voter turnout. For the past 30 to 40 years, rates of voter turnout/participation have fluctuated in the United States. While rates have also varied in other wealthy countries, the United States has one of the lowest participation/turnout rates.

Voter turnout may be influenced by several factors, including socioeconomic status, specifically education, geography, age and identification with a party. Barriers, such as difficulty registering and lack of early voting, also contribute to turnout disparities. Some nations, like Belgium and Australia, have addressed low voter participation by instituting “mandatory voting,” fining eligible voters who do not show up to cast their ballot. Nine-

ty-three percent of Belgian citizens participate in elections—the highest rate globally.

The standard method used by researchers to assess voter turnout is the voting-age participation (VAP) rate. The VAP rate is the percentage of the population age 18 or older who voted in a local, state or national election. The VAP rate includes individuals who are ineligible to vote, such as noncitizens and felons. As such, this method tends to produce an underestimate of turnout.

The voter turnout rate is based on the percentage of registered voters who vote in local, state or national elections. This method of determining voter participation is also imprecise, as it does not include all people eligible to vote, but only those who have registered. This method is typically used by election administrators and reported in the media.

To address these shortcomings, some researchers have begun to employ a new method to estimate turnout—the voting-eligible population (VEP) rate. The VEP rate is calculated by determining the percentage of eligible voters age 18 and older who vote in elections. Another means to capture a more accurate picture of voter turnout is the citizen voting-age population rate, which measures the percentage of citizens age 18 and older, who turn out to vote. This is the method used by the U.S. Census Bureau.

#### **National Context**

Voter turnout is typically higher during presidential election years than during other years and allows for greater exploration of voting patterns and trends.

Based on official or certified results from all states and Washington, D.C., 129,085,403 ballots were cast for president in 2012, a decrease of 2.2 million voters from 2008.

The voting-age participation (VAP) rate was 53.6%, somewhat lower than the 56.8% rate in the 2008 election, which had the highest VAP rate since 1968. The voting-eligible population (VEP) rate was 61.7%, a 3% fall from 2008.

Census data show several demographic shifts in the voter turnout rate between 2008 and 2012. For example, black voter turnout (66.2%) surpassed white voter turnout (64.1%) for the first time in 2012. The Hispanic turnout rate—48%—was much lower than rates for whites and blacks and fell by about 2% from the 2008 election. In terms of overall youth voter turnout, there was a 15% decline in the percentage of 18- to 24-year-olds participating in the 2012 election (41.2%).

#### **State Context**

New York's VAP rate for the 2012 election was 46.2%; the VEP rate was 53.2%. In both instances, there was a decline in voter participation/turnout between 2008 and 2012,

and both rates were record lows for presidential year turnout. Much of this drop-off can be explained by Hurricane Sandy, which hit areas of New York just one week before the national election, causing gas shortages and power outages and complicating voters' efforts to get to the polls.

#### Nassau/Suffolk Counties

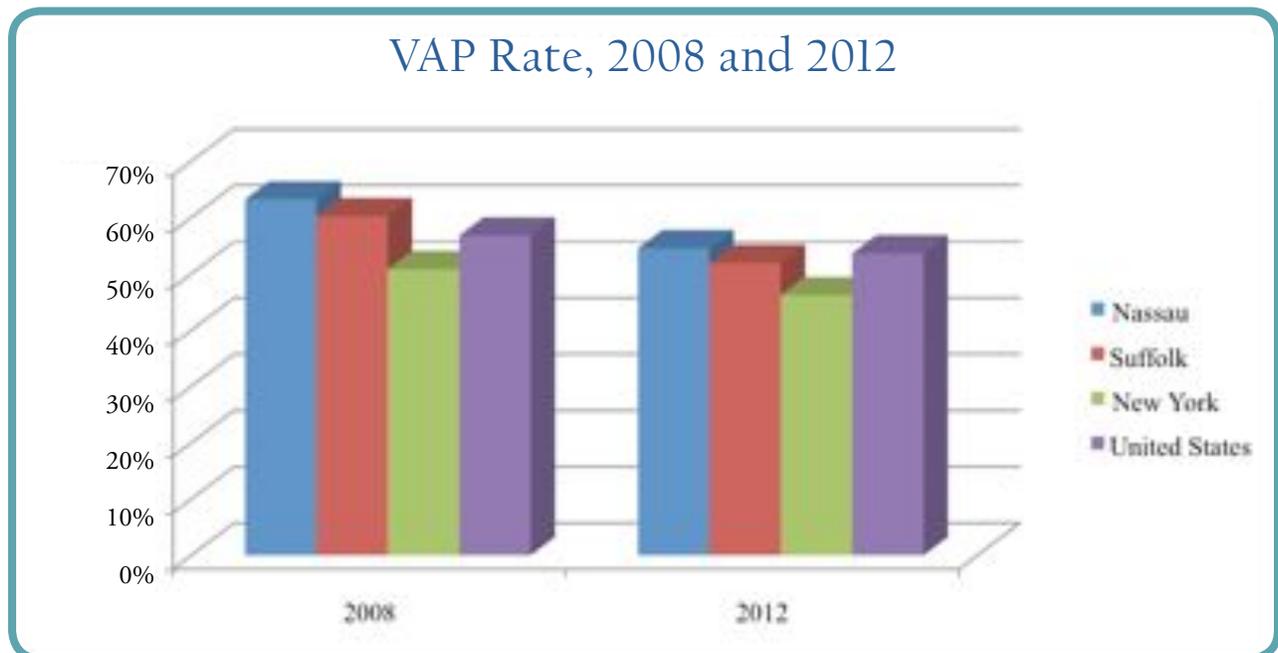
A very high percentage of the voting-age population is registered to vote in Nassau and Suffolk counties, approximately 92% and 83%, respectively. While the rate of registered voters remained the same in Nassau between 2009 and 2012, it fell in Suffolk by 5.7%.

As of November 2013, Nassau County had 965,409 registered voters (active and inactive) and Suffolk County had 958,165 registered voters (active and inactive). Between 2009 and 2013, Nassau experienced a 4.1% increase in voter registration and Suffolk experienced a .1% decrease.

In Nassau, 38.2% of registered voters were Democrats and 34.2% were Republicans as of November 2013. While the share of Democrats remained relatively stable between 2009 and 2013, the share of Republicans fell by 6.3%.

Some change in party affiliation also took place among registered voters in Suffolk between 2009 and 2013. Democrats increased their share of registered voters by 1% to 33.2%, while Republicans decreased their share by 13.7% to 32.7%.

Shifts in party membership in both counties reflect the changing demographics of



Sources: United States Election Project, George Mason University; the Center for the Study of the American Electorate, American University School of Public Affairs; New York State Board of Elections; Nassau County Board of Elections; Suffolk County Board of Elections; U.S. Census

Long Island, including its increasing race/ethnic diversity. Voters of color are historically more likely to vote for the Democratic Party.

Voter turnout for the 2012 election was affected by Hurricane Sandy, even after the governor issued an executive order allowing residents to vote at any polling site in the State. Due to devastation from the storm, some voting places were relocated or consolidated into larger sites.

According to data from the New York State and county boards of elections, the voter turnout rate for the 2012 presidential election was approximately 59% in Nassau and 62.5% in Suffolk, compared to 71% and 75%, respectively, in 2008. The voting-age participation (VAP) rate was approximately 54.5% in Nassau and 51.9% in Suffolk, again down from percentages in 2008.

With regard to more local elections, federal law requires redistricting for all legislature levels after the census every 10 years. This event often allows the party in power to redraw district lines in their favor, in order to retain control. In Nassau, recent redistricting has caused some voter frustration, undermining confidence in the transparency and inclusiveness of the electoral system. A 2013 poll by the Long Island Civic Engagement Table (LICET) found that more than 80% of Nassau residents approve of moving to a nonpartisan approach to creating district maps.

## ● HIGH SCHOOL DROPOUTS

### INDICATOR TREND

High school dropout rates have declined slightly on Long Island, falling to 1% in Nassau and 1.6% in Suffolk for the 2011–2012 school year.

The region's dropout rates are lower than the State's rate (3.5%).

However, dropout rates are higher in lower income communities and communities with significant populations of color.

This disparity reflects continued racial segregation and economic inequality on Long Island, which perpetuate disadvantage in educational opportunities and outcomes for students of color and lower-income students.

### WHAT DOES THIS MEASURE?

This indicator shows the percentage of students who leave high school before graduation.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

A high school diploma or its equivalent grants specific advantages in today's society, including entrance to postsecondary institutions, enhanced job prospects and higher life-

time earnings. Individuals who leave high school early often lack the basic literacy and technological skills needed for employment in the contemporary workplace. As a result, high school dropouts are more likely than graduates to be unemployed and underemployed. They are also more likely to live in poverty and stay on government assistance for longer periods of time. Over the course of their lifetimes, high school dropouts earn an average of \$375,000 less than high school graduates and about \$1 million less than college graduates.

The decision to drop out is usually the result of a process involving a complex set of factors. Research indicates that the structure of schools, such as classroom size and academic and disciplinary policies, affects high school completion. Student attitudes toward school, sense of belonging or alienation, academic performance, engagement and attendance also play a role. Some studies have also linked family stability and parental involvement with dropout risk.

Certain demographic characteristics are associated with increased risk of high school dropout. These include lower socioeconomic status, sex/gender, disability and non-English-speaking background.

Disparities also exist by race. Asian students have the lowest dropout rate of any group, while Hispanics have the highest. In 2011, 14% of Hispanics ages 16–24 were not enrolled in school or did not have a high school diploma or GED. This rate was down from 32% in 1990 but still higher than rates for whites (5%) and blacks (7%). Elevated Hispanic dropout rates can be attributed, in part, to the number of immigrants in this age group who did not attend school in the United States. Disparities in dropout rates between whites and Hispanics and blacks may also be related to increased incarceration rates for black and Hispanic males, especially high school dropouts. Individuals institutionalized in prison are not included in the population base used to determine the dropout rate.

### **HOW DO WE COMPARE?**

There are no standardized definitions and methods for determining high school completion in the United States; strategies vary based on who is counted and over what period of time. At the federal level, the U.S. Department of Education's National Center for Education reports four types of dropout rates: the averaged freshman graduation rate, the event dropout rate, the status dropout rate, and the status school completion rate (described in the next section). One area of contention in computing high school completion rates involves whether or not to include GED certificate holders as high school graduates, since they do not perform as well economically or in the job market as tradi-

tional high school graduates.

Data collection and formulas also differ by school districts and states, making comparisons across regions difficult. Keeping track of enrollment information is also challenging, as students move in and out of programs across schools and districts, leading to imprecise estimates.

### National Context

As noted above, there is no agreed-upon national high school dropout rate. However, based on various calculations, the dropout rate appears to be declining. Again, given varying measures for dropout rates and potential administrative accounting errors, these data should be treated with caution.

One approach to assessing dropout rates is to determine the percentage of 16- to 24-year-olds who are not enrolled in school and do not have a high school diploma or GED certificate, also referred to as the status dropout rate. The Department of Education reports a steady decline in the status dropout rate; the rate fell from 12% in 1990 to 7% in 2011.

The event dropout rate, which estimates the percentage of high school students who left high school between the beginning of one school year and the beginning of the next without earning a high school diploma or an alternative credential (e.g., a GED certificate), is also decreasing. The rate was 3.4% in 2009, down from 4% in 1990.

Meanwhile, graduation rates are increasing. The averaged freshman graduation rate represents the percentage of high school freshmen who graduate on time (within four years). Data from the Department of Education show a steady increase in the averaged freshman graduation rate over the past 20 years; the rate was 73.7% in 1990–1991 compared to 78.2% in 2009–2010.

### State Context

The New York State Department of Education provides annual dropout rates for public school students in grades nine through 12. The Department of Education refers to a dropout as “any pupil who left school prior to graduation for any reason except death and did not enter another school or a program leading to a high school equivalency diploma.”

The New York State Department of Education reports that the dropout rate was 3.5% for the 2011–2012 school year, a slight increase from 3.1% in 2006–2007. The dropout rate was higher for students with disabilities (5.3%) in 2011–2012.

### Nassau/Suffolk Counties

Both Nassau and Suffolk report dropout rates well below the State rate. However, dropout rates are higher in lower-income communities and communities with significant populations of color. These disparities reflect continued economic inequality and racial segregation on Long Island, which perpetuates disadvantage in educational opportunities and outcomes for students of color and lower-income students.

In Nassau, the dropout rate for all students was 1% for the 2011–2012 school year, compared to 1.1% for the 2006–2007 school year. The dropout rate was 1% for general education students and 1.2% for students with disabilities.

In Suffolk, the dropout rate for all students was 1.6% for the 2011–2012 school year,

### Long Island Public School Districts With the Highest Dropout Rates, 2011–2012

District/County	Percentage High School Dropout 2011-2012	Change from 2006-2007	Percentage White Students 2011-2012	Percentage Limited English Proficiency 2011-2012	Percentage Students Eligible for Free Lunch 2011-2012
Nassau	1	-9.1%	58	6	16
Suffolk	1.6	-5.9%	68	6	19
Hempstead	11.4	+103.6%	3	27	79
Central Islip	5	+78.6%	8	26	66
Amityville	4.9	+88.5%	8	14	53
Brentwood	4.5	+18.4%	7	28	51
Riverhead	4	-2.4%	52	12	40
Wyandanch	3.8	-39.7%	1	16	75
Freeport	3.6	+80%	9	16	45
Uniondale	3.3	+65%	1	15	44
Longwood	3.1	-6.1%	55	4	30
Patchogue	3.1	+24%	62	10	34
South Country	2.9	-25.6%	46	6	33
William Floyd	2.7	-18.2%	60	3	23

Source: New York State Education Department

compared to 1.7% for the 2006–2007 school year. The dropout rate was 1.4% for general education students, and 2.5% for students with disabilities.

At the district level, Hempstead had the highest dropout rate on Long Island in 2011–2012, 11.4%, while Central Islip had the second-highest dropout rate, 5%. Of the 10 districts with the highest dropout rates in the last Vital Signs report (2006–2007 school year), seven appear among districts with the highest dropout rates for 2011–2012: Hempstead, Wyandanch, Riverhead, Brentwood, Longwood, Central Islip and Amityville. Of these seven districts, four had their dropout rates increase between 2006–2007 and 2011–2012: Hempstead, Brentwood, Central Islip and Amityville. Dropout rates declined in Riverhead, Longwood and Wyandanch.

## CHILD ABUSE AND MALTREATMENT

### INDICATOR TREND

The percentage of indicated reports of child abuse declined 22.3% in Nassau and 12.5% in Suffolk from 2002 to 2012.

Rates have also fallen overall in both counties in recent years, declining 18% in Nassau and 8.4% in Suffolk between 2008 and 2012.

In 2012, the percentage of indicated reports of child abuse was 22.3% in Nassau and 27.4% in Suffolk.

### WHAT DOES THIS MEASURE?

This indicator shows the number and percentage of indicated reports of child abuse and maltreatment in Nassau and Suffolk counties. While social services receives many reports of abuse, a report is “indicated” when there is some reliable evidence that abuse took place.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

In New York State, child abuse involves serious physical injury, risk of serious physical injury or sexual abuse by a parent or person who is legally responsible for a child’s care.

Maltreatment or neglect occurs when a child is placed in danger due to the lack of adequate food, shelter, clothing, education or medical care or is abandoned by his or her parent or legal guardian. Maltreatment also involves inadequate supervision of a child and/or excessive use of drugs and alcohol affecting the ability to parent or supervise a child. Abuse and maltreatment may be fatal or nonfatal.

The extent of child abuse is a measure of how well a community is providing for the needs of children and families. It underscores the ability of social workers, medical professionals and educators to recognize and intervene in situations where children are at risk. It

may also highlight the extent to which families are coping with social and economic stress. While abuse may occur in households of any socioeconomic status, some research indicates that reports of child abuse tend to increase during periods of economic downturn, as the pressures of unemployment and financial hardship lead to a greater risk of child abuse.

Child abuse and maltreatment can have profound long-term social and psychological consequences, depending on the length and type of abuse and the relationship between the perpetrator and the child. Abused or neglected children are at greater risk for lower academic achievement, substance abuse and mental health issues. Adults who were abused as children are at greater risk for violent behavior, abuse of their own children and drug and alcohol addiction.

Caution is warranted when interpreting the meaning of child abuse and maltreatment statistics. Despite mandatory reporting, many incidents are never communicated to the authorities. Alternatively, some incidents are reported more than once, inflating numbers. In addition, heightened awareness of abuse, due to educational campaigns and/or media reporting, may help to increase the number of cases in any given year.

## **HOW DO WE COMPARE?**

### **National Context**

The U.S. Department of Health and Human Services (Administration for Children and Families) collects and analyzes voluntarily submitted annual data on child abuse and maltreatment from the states, Washington, D.C., and Puerto Rico.

In 2011, there were an estimated 3.4 million referrals to Child Protective Service agencies concerning the well-being of 6.2 million children. Approximately 60.8% of the cases referred were screened in for investigation.

In total, an estimated 681,000 children were abused or neglected in 2011. The unique (nonduplicated) victim rate was 9.1 victims per 1,000 children in the population. Forty-two states reported a decline in the number of victims in 2011 compared to 2010.

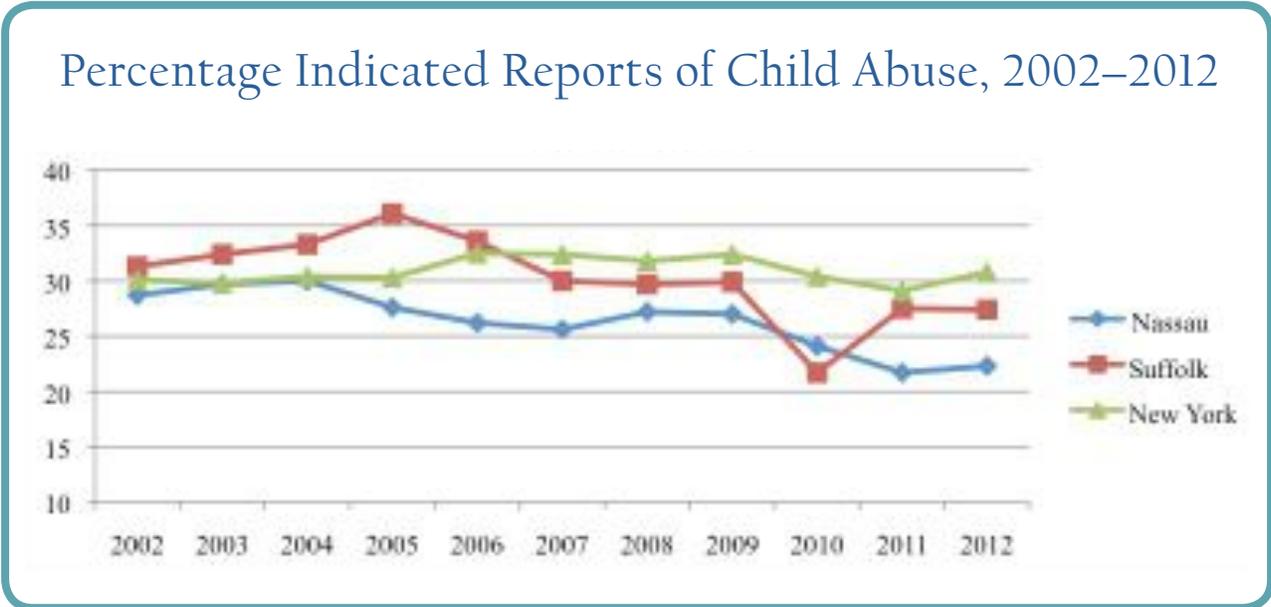
### **State Context**

Over the past 10 years, the number and percentage of indicated reports of child abuse have increased very slightly in New York, with some fluctuation in figures during this time. In 2012, there were 46,879 indicated reports of child abuse or maltreatment, compared to 46,709 in 2002, a 4% uptick. The percentage of indicated reports of child abuse and maltreatment rose from 30.1 in 2002 to 30.8 in 2012. The percentage of indicated reports reached a high in 2006 (32.5%) and stayed near this level until 2009 (32.4%), after which it fell.

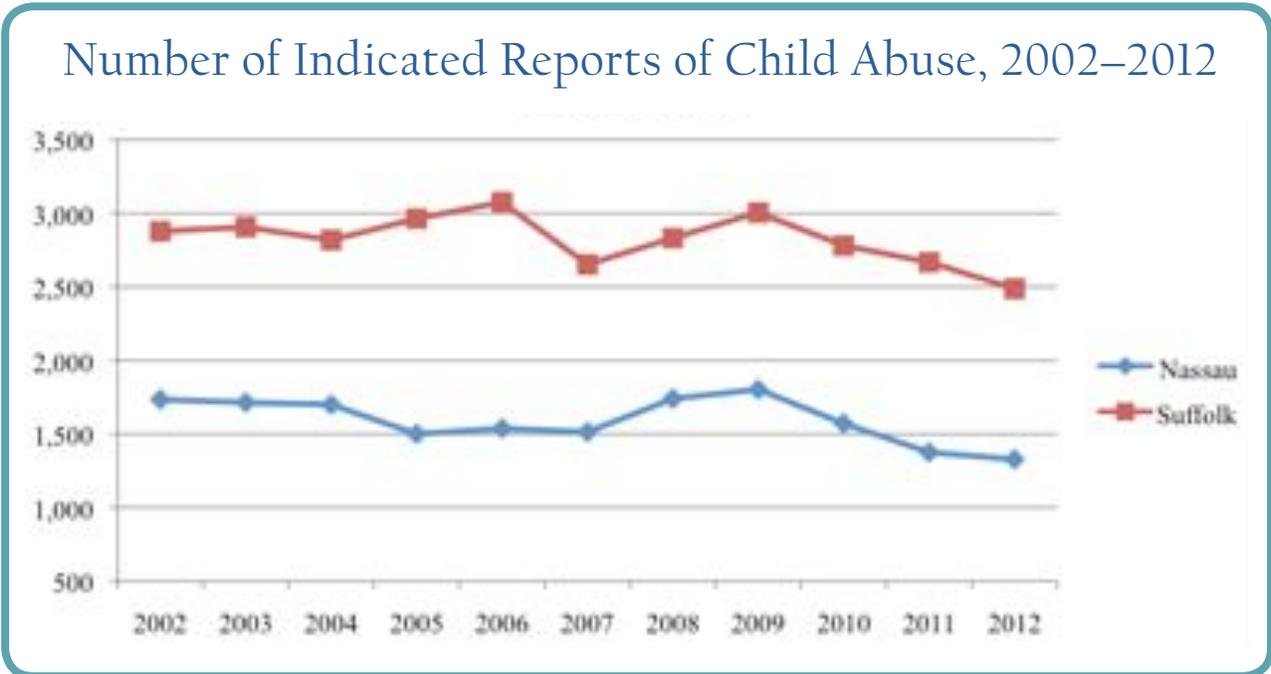
Nassau/Suffolk Counties

The percentage of indicated reports of child abuse declined 22.3% overall in Nassau from 2002 (28.7) to 2012 (22.3), although fluctuations in rates occurred during these years. At the start of the economic downturn in 2008, the percentage was 27.2; the rate remained relatively steady until 2010, and then dropped.

From 2002 to 2012, the number of indicated reports in Nassau declined 23.5%



Sources: New York State Office of Family and Children Services; Kids Well-Being Indicators



Sources: New York State Office of Family and Children Services; Kids Well-Being Indicators

overall, from 1,735 to 1,328. As with the percentage of indicated reports, the number of indicated reports also fluctuated throughout this 10-year period.

The percentage of indicated reports of child abuse declined 12.5% overall in Suffolk from 2002–2012, from 31.3% to 27.4%. The percentage reached a high in 2005 (33.6) but fell after this peak. The rate stayed around 30% at the height of the recession, in 2008 and 2009. It began rising again in 2011 but remains under 30%.

The number of indicated reports declined 13.6% overall during the same time period, from 2,878 in 2002 to 2,488 in 2012.

## YOUNG ADULT ARRESTS

### INDICATOR TREND

Young adult arrests for all crime categories combined have declined on Long Island, falling 21.3% in Nassau and 8% in Suffolk between 2008 and 2012.

Arrests rates for drug use, sale and possession have increased overall in both counties, climbing 8.4% in Nassau and 15.6% in Suffolk from 2008 to 2012.

The youth arrest rates for property crimes and violent crimes rose during the height of the economic downturn (2009–2010) but have since declined.

The youth arrest rates for driving while intoxicated dropped steadily between 2008 and 2012, 42% in Nassau and 15.4% in Suffolk.

### WHAT DOES THIS MEASURE?

This indicator shows the number of young adult/youth arrests in Nassau and Suffolk counties. It also shows young adult arrest rates. Arrests include drug use, sale and possession; driving while intoxicated; index violent crimes; and index property crimes. Young adult arrests are processed through the adult criminal justice system. The arrest rate is per 10,000 population ages 16–21.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

Young adult arrests are an indicator of community safety, as well as a measure of how well a community is providing for its youth. When the basic social, emotional and physical needs of young people are neglected, criminal behavior is often the result. Young adult arrests are also a reflection of relations between a community's residents and police. Whether or not a young person is arrested for criminal behavior may have as much to do with an offense as with the preexisting assumptions and prejudices of law enforcement. Arrests may also fluctuate depending on social service and police department budgets,

policy, delivery of services and reporting practices.

After many years of study, the exact causes of youth crime remain unclear. Poverty and neighborhood organization and environment—poor housing, population density, physical deterioration and lack of surveillance by residents—appear to be associated with delinquency. Poor academic performance and crime are also correlated. This may partially be the result of academic streaming, which rewards overachievers and lumps underachievers and “troublemakers” in the same classroom, fueling anger and resentment.

There is no conclusive research suggesting a direct link between crime and the economy. Some studies suggest that illegal misconduct may increase during economic downturns. Falling wages, rising unemployment, declining job quality and the eradication of critical social service and violence prevention programs may all play a role. However, other studies show no relationship or a very weak association between criminal activity and recession.

Gang membership is on the rise among young people throughout the United States, including those in suburban areas. According to the National Gang Center, about 23% of gangs are located in suburban counties rather than rural or urban counties. In 2011, 18.5% of gang-related homicides took place in suburban counties.

Relocating to the suburbs offers gangs the opportunity to expand drug-selling operations, increase profits, recruit new members, often at middle and high schools, and evade urban law enforcement and other gangs. Gangs on Long Island operate across the region. New York Senator Kirsten Gillibrand’s office estimates that there are up to 5,000 gang members on Long Island. Gangs include MS-13, Bloods, Crips, Latin Kings, Salvadoreans with Pride, Netas, Hell’s Angels, Pagans and 18th Street.

Research indicates that there are significant social and economic costs if young adult crime is not prevented. Adults arrested for serious crimes are more likely to have been youth offenders. Adult imprisonment not only penalizes offenders and their families but drains society of billions of dollars every year.

## HOW DO WE COMPARE?

### National Context

Approximately 2.18 million youth ages 16–21 were arrested nationwide in 2012, a 23% decline from 2008. Arrests of young adults comprised 23% of all arrests; they accounted for 23% of all violent crime arrests and 29.1% of all property crime arrests.

## State Context

The number and rate of young adult arrests have declined over the past two years in New York, following increases during the height of the economic downturn.

In 2012, there were a total of 70,793 youth arrests for all offense categories combined: drug use, possession or sale; driving while intoxicated; property crimes; and violent crimes. This was a 10.2% decline from 78,857 in 2008.

For drug use, possession or sale, there were 28,269 youth arrests in 2012, with an arrest rate of 176.4 per 10,000 population ages 16–21. The youth arrest rate for drug use, possession or sale rose between 2008 and 2010 but then fell over the next two years. Overall, the rate declined 11.4% between 2008 and 2011. The rate fell 13% between 2011 and 2012.

In terms of property crime, there were 25,789 youth arrests in 2012, with an arrest rate of 157.8 per 10,000 population ages 16–21. The youth arrest rate for property crime rose between 2008 and 2010, but then declined. Overall, the rate decreased 10.3% between 2008 and 2012. The rate fell 6.4% between 2011 and 2012.

With regard to violent crime, there were 11,904 youth arrests in 2012, with an arrest rate of 72.8 per 10,000 population ages 16–21. As with drug and property crimes, the violent crime arrest rate rose between 2008 and 2010 and then subsided. Overall, the rate declined 24.2% between 2008 and 2012 and declined 11.9% between 2011 and 2012.

There were 4,831 youth arrests for driving while intoxicated in 2012, with an arrest rate of 29.6 per 10,000 population ages 16–21. The youth arrest rate for driving while intoxicated followed a different pattern than the rates for other youth arrests. The rate dropped steadily in recent years, falling 28.7% between 2008 and 2012.

## Nassau/Suffolk Counties

There were a total of 2,657 youth arrests in Nassau County and 3,872 youth arrests in Suffolk County in 2012, a decline of 21.3% and 8%, respectively, from 2008.

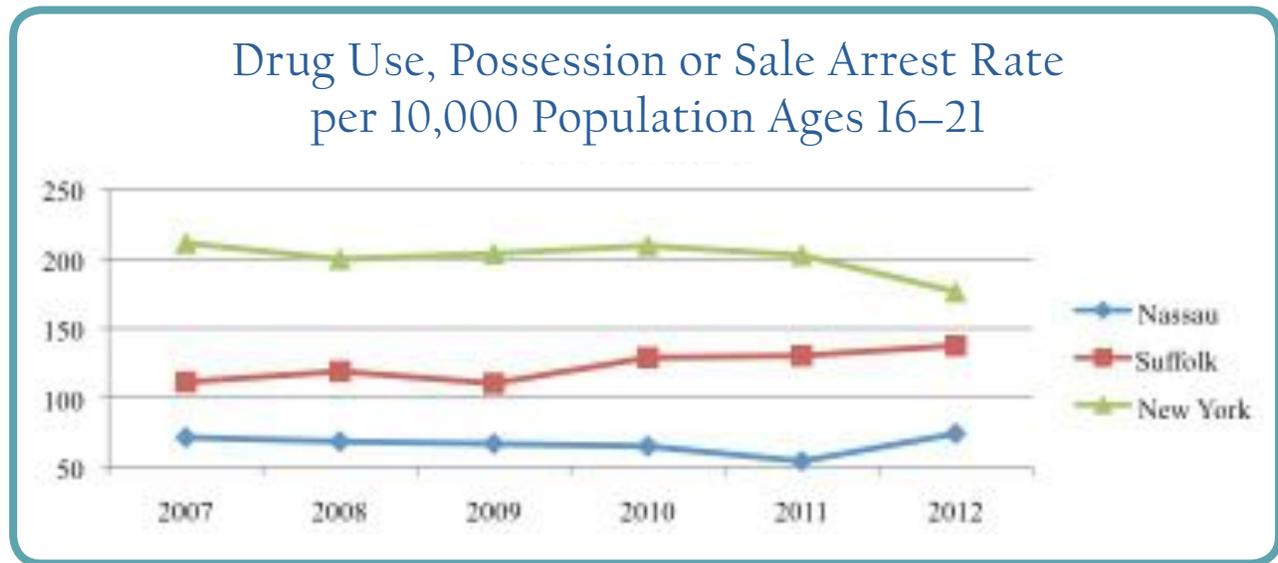
While there has been an overall decline in youth arrests over the past four years, trends vary within each of the arrest categories: drug use, sale or possession; property crimes and violent crimes; and driving while intoxicated.

In 2012, there were 809 youth arrests in Nassau and 1,706 youth arrests in Suffolk for drug use, sale or possession. The arrest rates were 73.9 per 10,000 population ages 16–21 in Nassau and 137.5 in Suffolk. Despite some fluctuation over the past five years, arrest rates have increased overall in both counties; they rose 8.4% in Nassau and 15.6% in Suffolk from 2008 to 2012. Arrest rates for drug use, sale or possession in both counties are below the State rate.

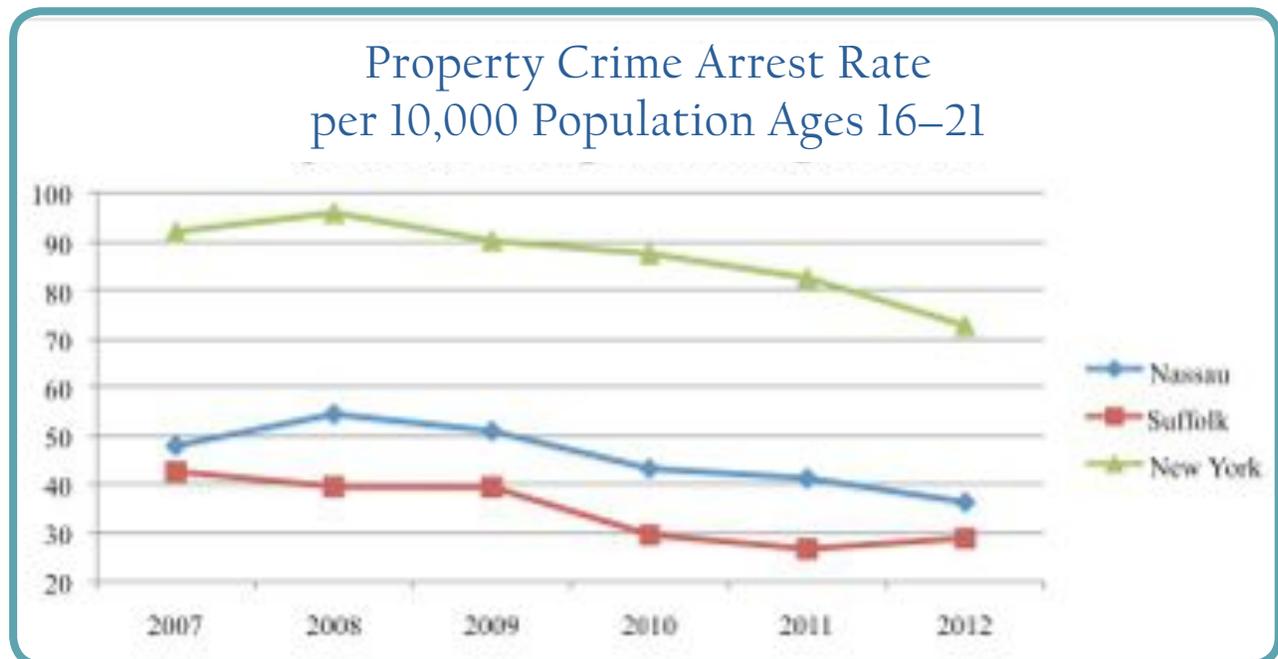
There were 1,166 youth arrests in Nassau and 1,282 youth arrests in Suffolk for prop-

erty crimes in 2012. The arrest rate was 106.5 per 10,000 population ages 16–21 in Nassau and 103.3 in Suffolk. From 2008 to 2009, the youth arrest rate for property crime rose in both counties, reaching 141.3 in Nassau and 133.8 in Suffolk. From 2009 to 2012, the rate decreased steadily, falling 24.6% in Nassau and 22.8% in Suffolk. Overall, the youth arrest rate fell 19% in Nassau and 17.6% in Suffolk between 2008 and 2012. Arrest rates for property crimes are below the State rate.

In terms of violent crime, there were 398 youth arrests in Nassau and 359 youth arrests in Suffolk in 2012; Nassau had a youth arrest rate of 36.3 and Suffolk had a youth arrest rate of 28.9. The rate for violent crime youth arrests has decreased steadily in Nas-



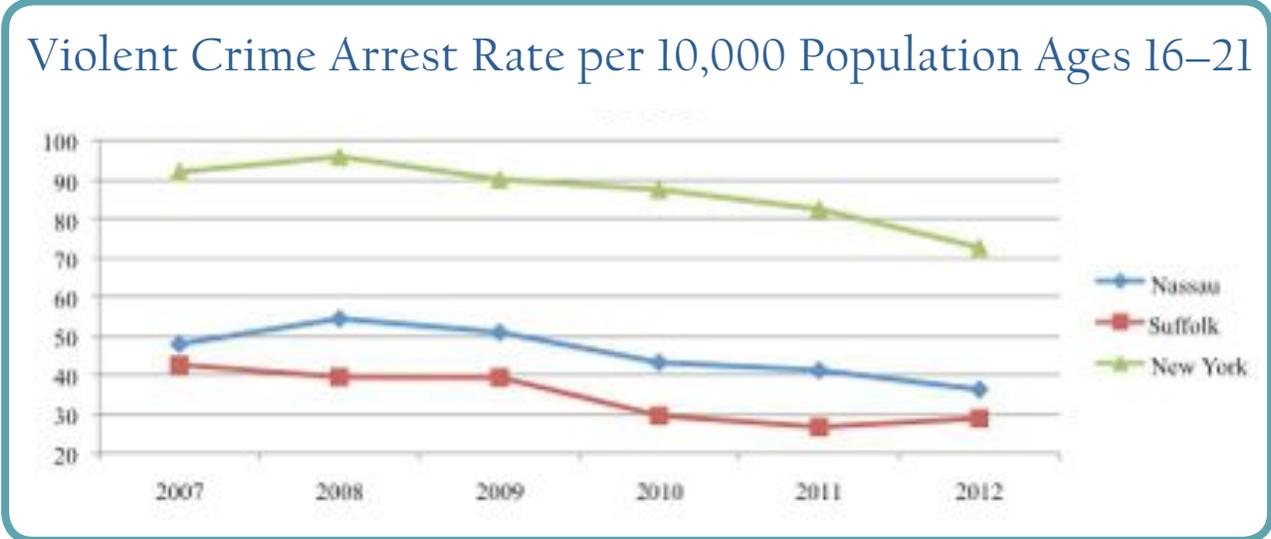
Sources: New York State Division of Criminal Justice Services; Kids Well-Being Indicators Clearinghouse



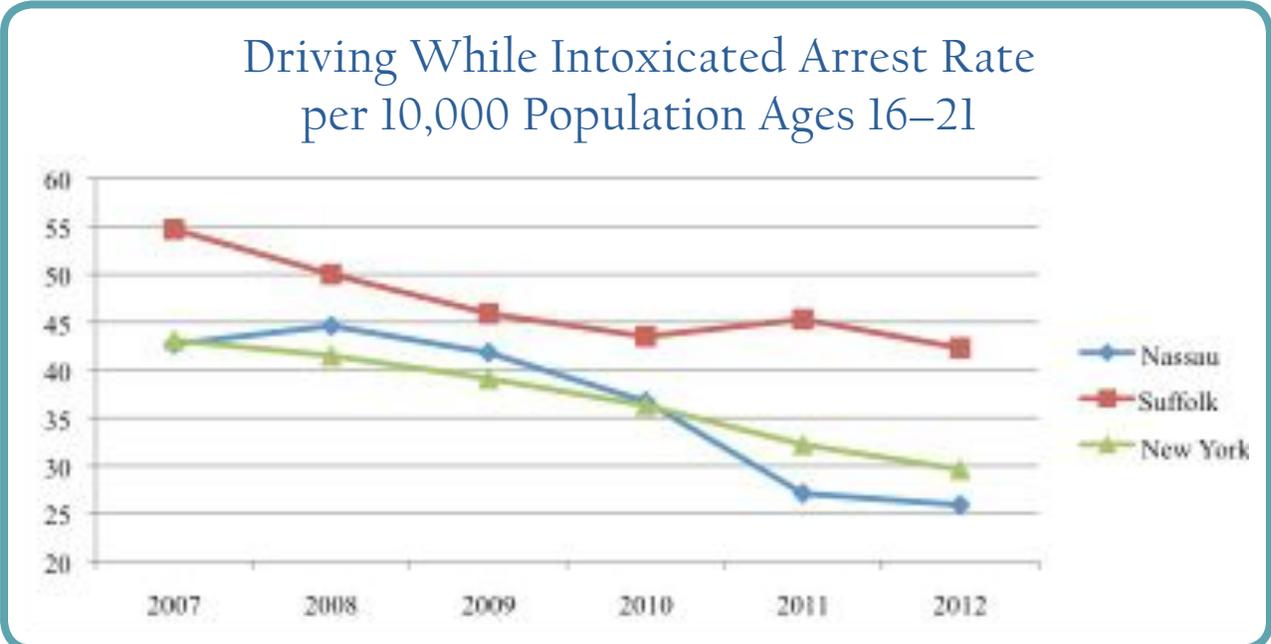
Sources: New York State Division of Criminal Justice Services; Kids Well-Being Indicators Clearinghouse

sau and Suffolk over the past several years; from 2008 to 2012, the rate dropped 33.3% in Nassau and 26.8% in Suffolk. Arrest rates for violent crimes are below the State rate.

There were 284 youth arrests in Nassau and 525 youth arrests in Suffolk for driving while intoxicated in 2012. The arrest rate was 25.9 per 10,000 population ages 16–21 in Nassau and 42.3 in Suffolk. The youth arrest rates for driving while intoxicated have consistently declined, falling 42% in Nassau and 15.4% in Suffolk between 2008 and 2012. Nassau’s arrest rate for driving while intoxicated is below the State rate, however, Suffolk’s rate is significantly higher.



Sources: New York State Division of Criminal Justice Services; Kids Well-Being Indicators Clearinghouse



Sources: New York State Division of Criminal Justice Services; Kids Well-Being Indicators Clearinghouse

## DOMESTIC VIOLENCE

### INDICATOR TREND

From 2009 to 2012, the number of reported domestic violence incidents increased 15.2% in Nassau and decreased 3.6% in Suffolk.

Women were much more likely to be the victims of violence than men. They comprised 81% of intimate partner victims in Nassau and 89% of intimate partner victims in Suffolk.

Elder abuse is an area of concern on Long Island, particularly as the population ages. There were 1,998 victims of reported elder abuse in 2008–2009. The elder abuse rate was 3.6 per 1,000 older (60 and older) adults, the highest rate in the State after New York City.

### WHAT DOES THIS MEASURE?

This indicator shows the number of domestic violence incidents reported to Nassau and Suffolk Police Departments. Incidents include aggravated assaults, simple assaults, sex offenses and violations of protection orders.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

Domestic violence is physical, sexual or emotional abuse that takes place among those within a close relationship, typically inhabiting the same home. Domestic violence can be perpetrated by a spouse or intimate partner, a child, a parent, a sibling or a household member.

Domestic violence affects people of all genders, races, ages, sexual orientations and incomes. Certain factors such as social isolation and lack of resources may put households at greater risk for severity and frequency of domestic violence. While an association between substance abuse and domestic violence exists, this may reflect two overlapping issues, rather than a causal relationship. One of the main theories to explain domestic violence suggests that it is a learned behavior. Domestic violence is also understood as a tactic used by abusers to exert power and gain control over their victims.

Simply witnessing domestic violence can result in significant emotional and behavioral problems for children, including anxiety and depression, as well as the increased likelihood of becoming an abuser in adulthood. Studies show that partner or spouse abuse exists in combination with child abuse as much as 60% of the time.

Research also indicates that women are five times more likely than men to be the victims of intimate partner violence. In addition to physical threat, including the threat of death, battered women experience many social and emotional challenges, including fear,



low self-esteem, isolation and economic dependence on their abuser.

Data documenting the prevalence of elder abuse are difficult to obtain since tracking is limited and the phenomenon remains underreported. According to the National Academy of Sciences, approximately one million to two million people 65 years and older experience abuse or mistreatment by someone who is supposed to care for them, either in the home or an institutional setting. Other studies show several recurring patterns in elder abuse, including greater rates of abuse against women. Abuse also increases with age, and close to 80% of elder abuse victims are over the age of 70. As the population ages, the number of abused seniors will likely increase.

#### **HOW DO WE COMPARE?**

Because many domestic violence events go unreported to the police, accurate and reliable data are difficult to obtain. Great care needs to be taken when interpreting what

numbers in this section mean with respect to trends and patterns. Changes over time may not reflect actual increases or decreases in domestic violence, but may be related to more frequent reporting of incidents and/or changes in police definitions, practice and regulation.

#### **National Context**

Although the FBI tracks violent crimes such as rape and homicide, it does not track domestic violence specifically. The Centers for Disease Control and Prevention (CDC) National Intimate Partner and Sexual Violence Survey (NISVS) captures information on intimate partner violence, sexual violence and stalking in the United States. According to the 2010 survey, one in four women has been a victim of intimate partner violence, compared to one in seven men. This is the first report based on the survey, making it impossible to track trends over time.

Healthy People 2020 puts forth an objective to reduce unintentional injury and violence. While this objective does not include all aspects of domestic violence, it does provide targets for reducing physical, sexual and psychological intimate partner abuse.

#### **State Context**

The New York Department of Criminal Justice Services (DCJS) cannot provide state-wide counts of domestic violence incidents, since the New York City Police Department does not use the same classification system for offenses as the rest of the State.

The DCJS does supply data on domestic violence homicides. In 2012, police in New York State reported 685 homicide victims in 660 incidents. Victims in 136 of these homicides (19.9%) had a domestic relationship with their offenders. Intimate partner homicides accounted for 54.5% of domestic violence homicides.

In terms of elder abuse, a 2011 report by the New York State Office of Children and Family Services (and community and academic partners) found a significant discrepancy between the self-reported rate of abuse by older New Yorkers (ages 60 and older) and the number of cases referred to and acted upon by the elder abuse service system. The report estimated that about 260,000 older adults had been the victims of abuse during 2008–2009. While agency records showed that psychological maltreatment was the most common form of abuse, older adults self-reported that they were more likely to be the victims of financial exploitation.

### Nassau/Suffolk Counties

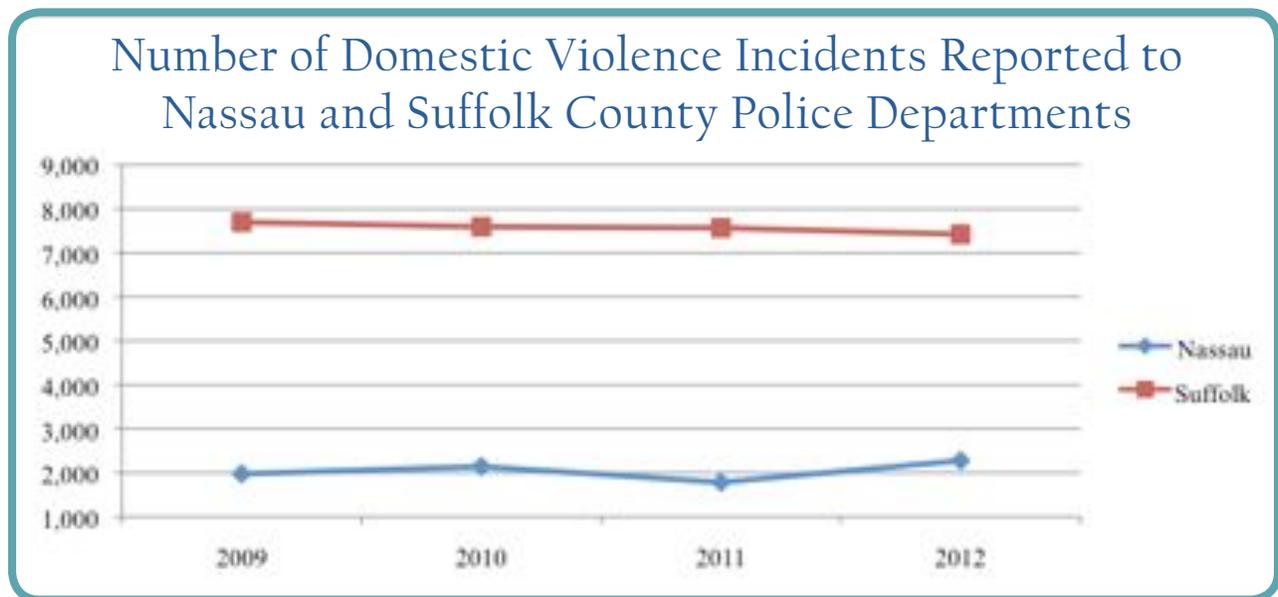
In 2008, DCJS conducted a review of domestic violence reporting procedures and established new guidelines for recording and categorizing incidents. Because of these changes, data prior to 2009 were not included in this analysis.

From 2009 to 2012, the number of incidents reported to Nassau County police departments increased 15.2%, from 1,976 to 2,276. During the same time period, the number of incidents reported to Suffolk County police departments decreased 3.6%, from 7,699 to 7,424.

For all years, the majority of reported incidents involved violence between intimate partners. For example, in 2012, 70.7% of incidents in Nassau and 52.8% of incidents in Suffolk took place between intimate partners. Women were much more likely to be the victims of violence than men in these cases, comprising 81% of victims in Nassau and 89% of victims in Suffolk.

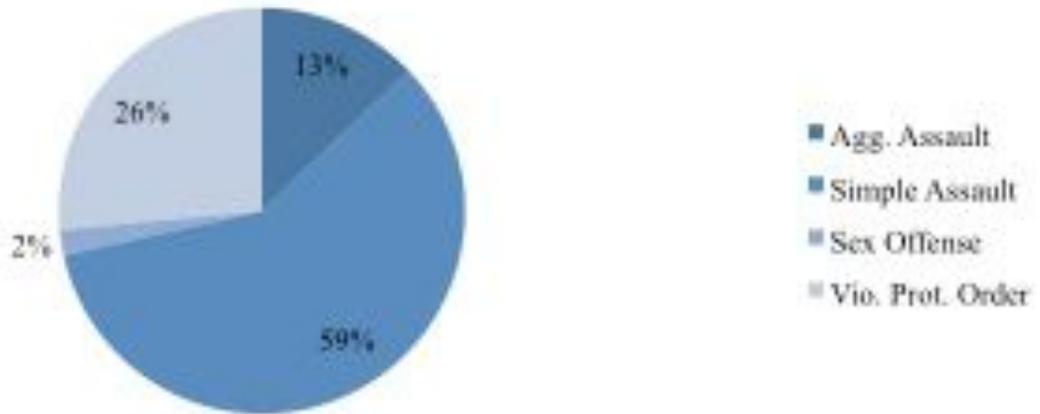
In terms of offenses, simple assault was more common than aggravated assault, sexual violence and violation of a protection order. In 2012, simple assault made up 58.6% of offenses in Nassau and 73.1% of offenses in Suffolk.

Elder abuse is an area of concern on Long Island, particularly as the population ages. The 2011 report by the New York State Office of Children and Family Services identified 1,998 victims of elder abuse served by the social service system in Nassau and Suffolk in 2008–2009; the elder abuse rate was 3.6 per 1,000 older (ages 60 and older) adults, the highest rate in the State after New York City (3.8). Actual (nonreported) incidents of abuse are probably much greater.



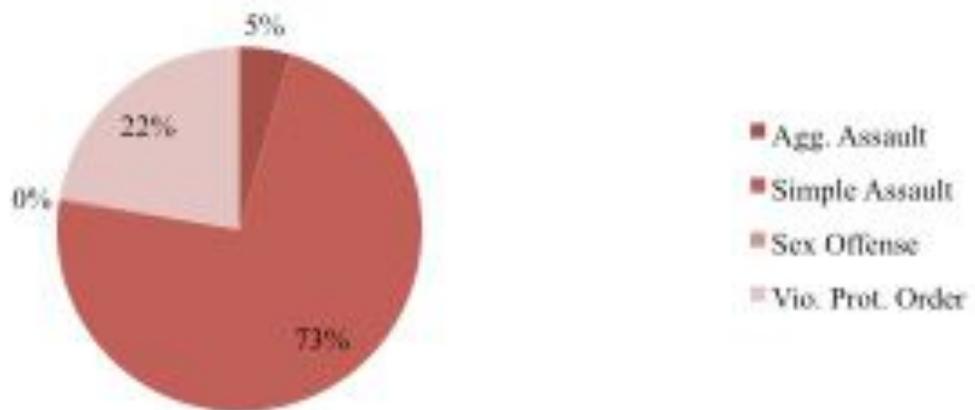
Source: New York State Division of Criminal Justice Services

## Domestic Violence Incidents by Offense, Nassau County, 2012



Source: New York State Division of Criminal Justice Services

## Domestic Violence Incidents by Offense, Suffolk County, 2012



Source: New York State Division of Criminal Justice Services

## VIOLENT CRIME

### INDICATOR TREND

From 2007–2012, the violent crime rate rose 3.1% in Nassau County and fell 21.3% in Suffolk County.

As a result, Nassau's violent crime rate, which was lower than Suffolk's in 2007, is now the greater between the two counties.

Rates stood at 181.7 per 100,000 population in Nassau and 141.4 in Suffolk in 2012.

### WHAT DOES THIS MEASURE?

This indicator shows the number and rate of violent crimes in Nassau and Suffolk counties. The violent crime rate is per 100,000 population.

The FBI tracks violent crimes based on the following offenses: murder and non-negligent manslaughter, forcible rape, robbery and aggravated assault. (These offenses are also included in three other indicators examined in this report: youth arrests, hate crime and domestic violence incidents.) Each of these violent crimes involves force or the threat of force.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

The extent of violent crime is an important measure of community safety. If people do not feel secure in their neighborhoods, both in their homes and on the street, their quality of life is compromised.

Violent crime may also reflect the degree of social and economic distress in a region. For example, fragile social ties among neighbors may result in higher crime rates. In addition, times of high unemployment may cause crime rates to rise, although this is an area of contention among scholars. For example, the link between economic uncertainty and violent crime is not always direct and may be impacted by other developments, such as changes in policing or new surveillance technologies.

The number of crimes reported in a community is also related to the state of relations between the community and the police. Language barriers, cultural differences and previous negative experiences may make residents more reluctant to report crime. If people feel that their concerns will be taken seriously, they are more likely to report an offense.

### HOW DO WE COMPARE?

#### National Context

The violent crime rate fell 18% between 2007 and 2012, from 471.8 violent crimes per

100,000 population to 386.9. In 2012, 1,214,462 violent crimes occurred nationwide, a .7% increase in volume from 2011.

In terms of offenses, aggravated assaults made up 62.6% of violent crimes reported to law enforcement in 2012. Robbery made up 29.2%, rape made up 6.9% and murder made up 1.2%.

#### State Context

New York State's violent crime rate and volume declined overall between 2007 and 2011. However, both increased between 2011 and 2012.

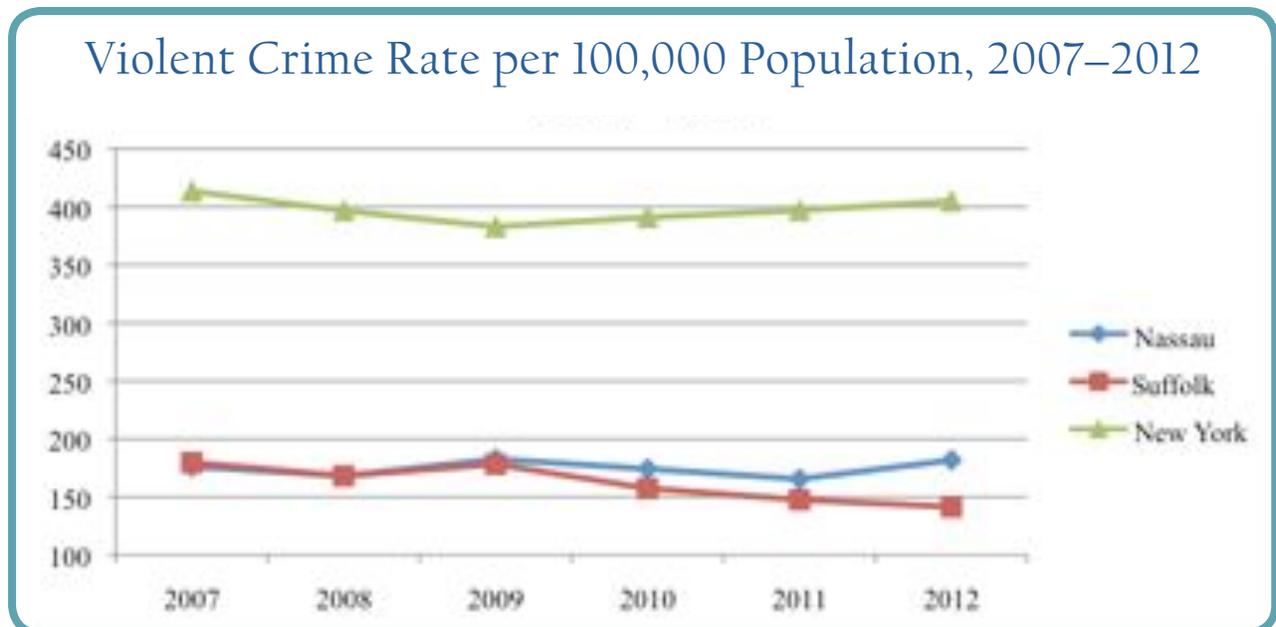
From 2007 to 2011, the violent crime rate fell 4% from 413.6 per 100,000 population to 397, with some fluctuation along the way. The amount of crime also varied somewhat by year, but dropped 3.2% overall from 79,807 to 77,265.

Between 2011 and 2012, the crime rate grew 2% from 397 to 405.1; the number of violent crimes reported climbed from 77,265 to 79,262.

#### Nassau/Suffolk Counties

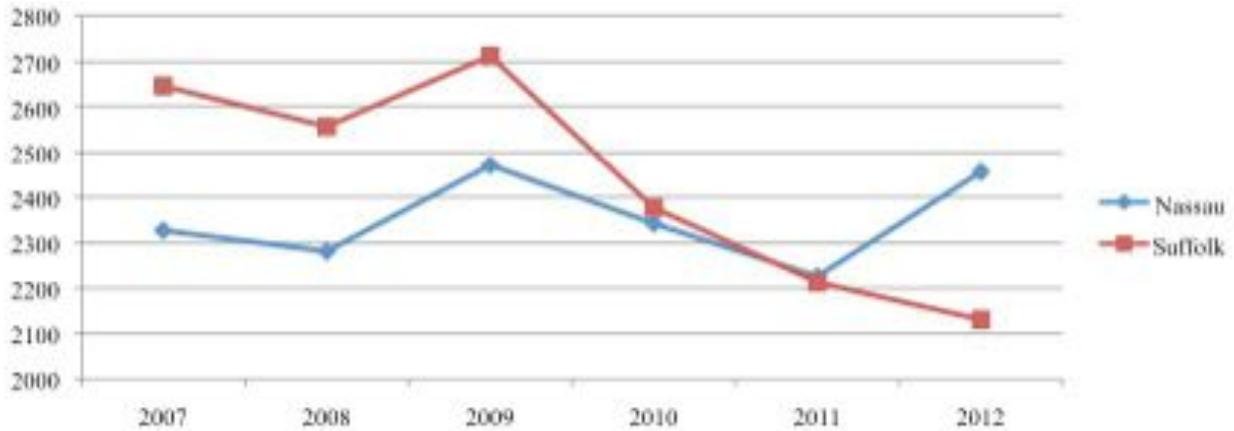
From 2007–2012, Nassau County experienced an overall increase in the rate and volume of violent crime. During the same time period, Suffolk experienced a decrease in the rate and volume of violent crime. Despite diverging patterns, both Nassau and Suffolk have violent crime rates below the rates for New York State and the nation.

Nassau's violent crime rate rose 3.1% from 176.2 per 100,000 in 2007 to 181.7 in 2012. However, rates fluctuated throughout this time period. In terms of crime volume,



Source: New York State Division of Criminal Justice Services

## Number of Violent Crimes Reported to All Nassau and Suffolk Police Departments, 2007–2012



Source: New York State Division of Criminal Justice Services

## Violent Crime in Select Police Departments on Long Island, 2008 and 2012

Agency	Number of Violent Crimes (2008)	Number of Violent Crimes (2012)	Percentage Change	Population	Percentage Individuals in Poverty	Percentage Youth Population (0-19) of Total Population
Hempstead Village PD	341	464	36.1	54,306	21.2	27.4
Freeport Village PD	201	209	4	43,047	15.1	24.9
Riverhead Town PD	111	76	-31.5	33,671	10	22
Southampton Town PD	87	64	-26.4	56,960	8	20.2
Lynbrook Village PD	21	12	-42.9	19,426	14.7	24.3
Glen Cove City PD	27	20	-25.9	26,918	4.8	24.2
Rockville Centre Village PD	15	32	113.3	24,009	5.8	26.5
Long Beach City PD	13	45	246.2	33,356	10.2	18.8

Sources: New York State Division of Criminal Justice Services; U.S. Census, American Community Survey 2012

the number grew from 2,327 in 2007 to 2,456 in 2012. Again, figures varied across these years. The rate of violent crime committed with a weapon (versus without a weapon) also increased from 2007 to 2012, from 30.1 per 100,000 population to 33.3.

In Suffolk, the violent crime rate showed a consistent decline from 2007–2012, falling 21.3% from 179.7 per 100,000 population to 141.4. Similarly, the amount of crime dropped 19.5% during this time period, from 2,646 to 2,131. The rate of violent crime committed with a weapon also decreased significantly from 2007 to 2012, from 38.9 per 100,000 population to 29.2.

Although violent crime numbers and rates are low for Nassau and Suffolk overall, they are higher in select communities. Because the majority of communities on Long Island report offenses to the county police in Nassau and Suffolk, it is difficult to tease out the extent of crime in specific locales. However, a number of villages, towns and cities have their own police departments, so crime in these communities can be more easily measured. Among these police agencies, Hempstead Village Police Department had the highest number of violent crimes in 2012, with 464 incidents. Of course, the number of crimes reported only has meaning in relation to the size of the population in a community. Still, elevated crime volume is more common in neighborhoods with certain demographics, including high poverty and large youth populations.

## ○ HATE CRIME

### INDICATOR TREND

From 2007 to 2012, the number of hate crime incidents in Nassau County decreased 54.1%, from 133 to 61.

The number of hate crime incidents in Suffolk County increased 48.1%, from 79 to 117 during the same time period. The number jumped 200% in just one year, from 2011 to 2012.

According to Suffolk County, the rise in hate crime incidents stems from changes in police department reporting practices.

In December 2013, Suffolk County legislators voted for an agreement to allow the U.S. Justice Department oversight of the Suffolk County Police Department in order to ensure equitable policing in Hispanic communities; including greater investigation of hate crimes.

### WHAT DOES THIS MEASURE?

This indicator shows the number of hate crime incidents reported to the Nassau County Police Department and the Suffolk County Police Department.

## WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

Hate crimes are motivated by bias or prejudice against a person or persons or the property of an individual or group because of actual or perceived race, ethnicity, color, religion, sexual orientation, gender, national origin, disability or age. The extent of hate crime is a measure of community safety as well as a measure of community tolerance.

Physical harm from hate crimes can range from minor to fatal. After the incident, victims of hate crimes experience a range of emotions such as shame, fear, outrage, frustration and alienation. The psychological consequences of hate crimes may be short-term or long-term and run from headaches and sleep disturbances to depression, drug use and post-traumatic stress disorder. Because victims of bias are members of disadvantaged or vulnerable groups, they may be afraid that the police won't take their claims seriously. This concern results in significant underreporting of incidents.

## HOW DO WE COMPARE?

### National Context

Data collected by the FBI show that there were 6,222 hate crime incidents in the United States in 2011, an 18.4% decline from 2007. The vast majority of incidents (99%) were recorded as single-bias events, during which offenders were motivated by hatred toward a particular race, religion, sexual orientation, ethnicity/national origin, or physical or mental disability.

The most common motivation—racial bias—accounted for 46.9% of the single-bias incidents reported nationwide in 2011. Sexual orientation bias, the second most common hate crime motivation, accounted for 20.8%. Religious bias made up 19.8% of incidents. Sixty-two percent of religious bias hate crime incidents were anti-Jewish.



### State Context

According to the Department of Criminal Justice Services (DCJS), there were 720 hate crime incidents in New York in 2012, a 30% increase over 2011.

Among the 720 incidents, 402 (56.8%) involved crimes against property and 311 (43.2%) involved crimes against a person.

For all hate crime incidents targeted against persons and property, the most frequently reported bias motivations were religion (56.3%), race/ethnicity/national origin (29.9%) and sexual orientation (12.9%).

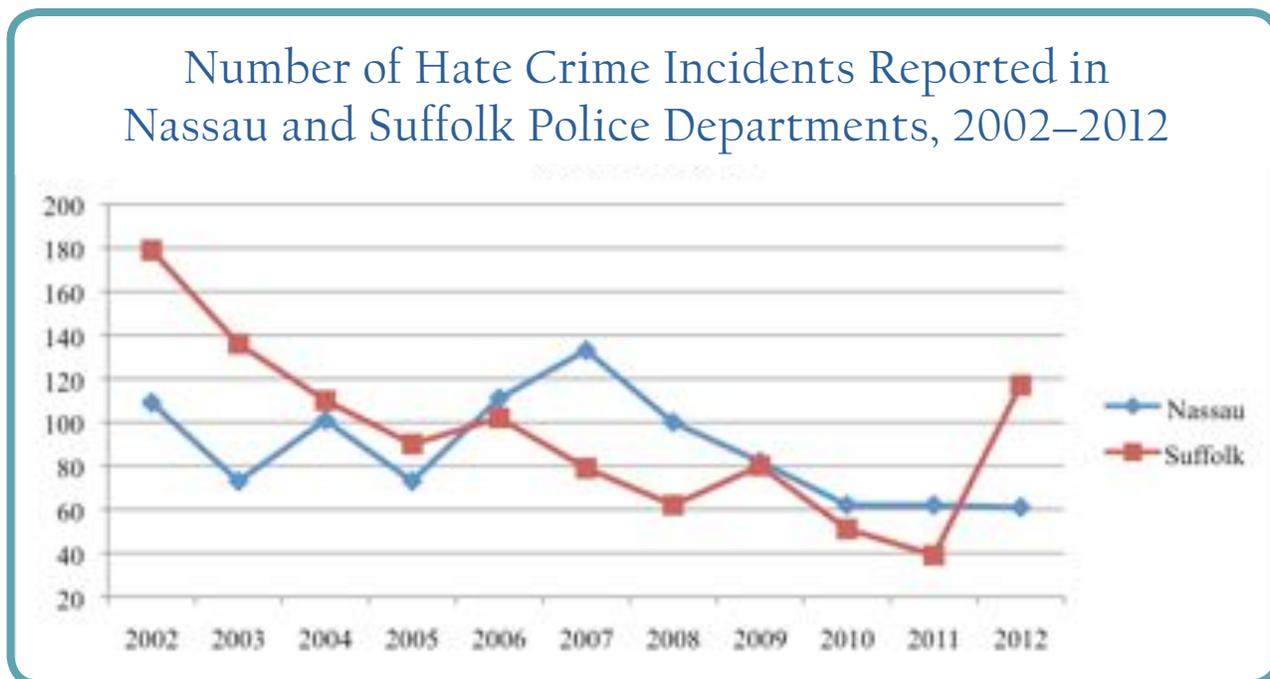
The most common motivations for hate crimes against property were anti-Jewish (64.5%) and anti-black (13.7%).

The most common motivations for hate crimes against persons were anti-sexual orientation (26.4%), anti-black (25.4%) and anti-Jewish (21.9%).

### Nassau/Suffolk Counties

From 2007 to 2012, the number of hate crime incidents recorded in Nassau County decreased 54.1%, from 133 to 61. The number of hate crime incidents recorded in Suffolk County increased 48.1%, from 79 to 117.

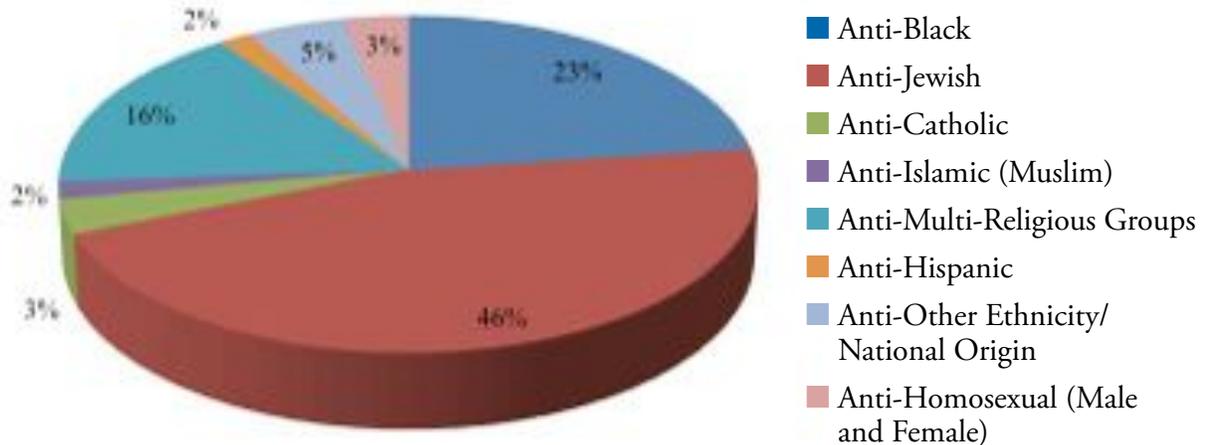
In Nassau, anti-Jewish incidents made up the greatest percentage (46%) of hate crimes reported in 2012, although the share was down from 64.5% in 2011. The second most common bias motivation in 2012 was anti-black (23%), consistent with the percentage in 2011.



Source: New York State Division of Criminal Justice Services

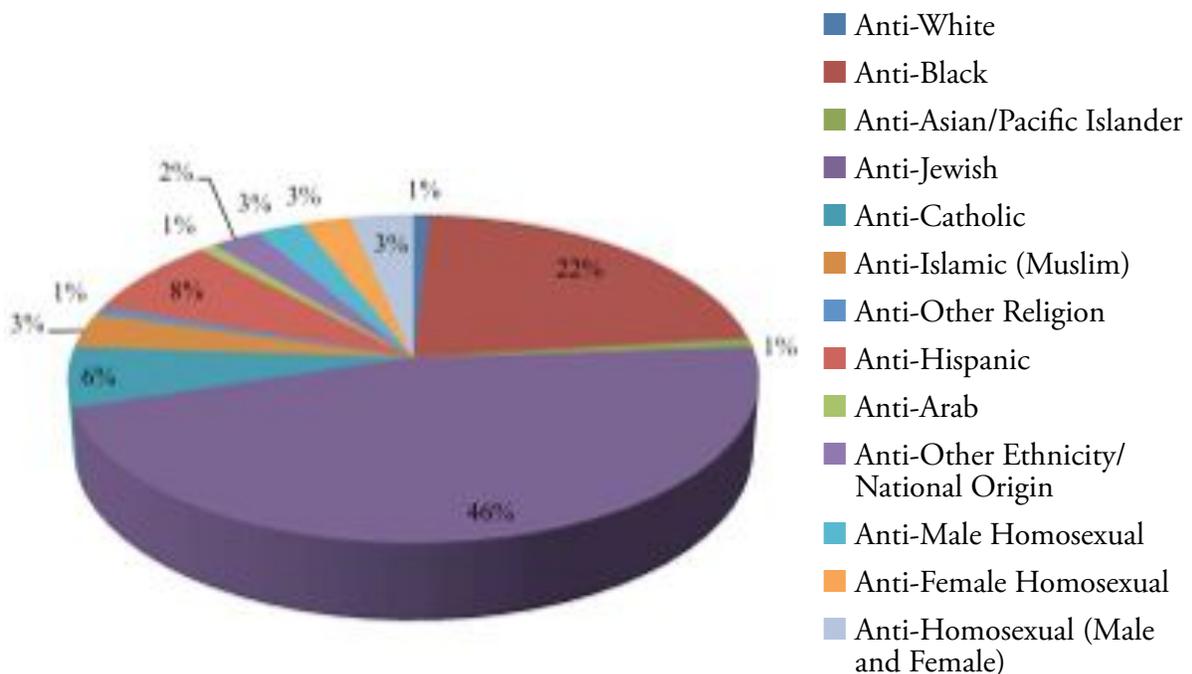
Not only did hate crimes increase in Suffolk from 2007–2012, but they jumped 200% in just one year, from 2011 to 2012. This increase was driven by higher numbers of anti-Jewish and anti-black hate crimes, largely against property. In 2012, anti-Jewish incidents comprised 46.1% of all incidents compared to 17.9% in 2011. Anti-black incidents accounted for 22.2% of all incidents, up from 15.3% in 2011. Anti-Hispanic

### Hate Crime Incidents by Motivation, Nassau County, 2012



Source: New York State Division of Criminal Justice Services

### Hate Crime Incidents by Motivation, Suffolk County, 2012



Source: New York State Division of Criminal Justice Services

hate crime incidents made up 7.7% of all incidents in 2012, down from 12.8% in 2011.

According to Suffolk County, the rise in hate crime incidents stems from changes in police department reporting practices, specifically recent implementation of the hate crime model policy adopted by the DCJS Municipal Police Training Council (MPTC).

Suffolk County has been under scrutiny for its handling of hate crime offenses against Hispanics ever since the 2008 killing of Ecuadorian immigrant Marcelo Lucero by a gang of teenagers. In December 2013, Suffolk County legislators voted for an agreement to allow U.S. Department of Justice oversight of the Suffolk County Police Department (SCPD). Under this agreement, the SCPD will have to implement new policies and procedures to ensure equitable policing in Hispanic communities, including greater training and investigation of hate crimes. A 2009 report by the Southern Poverty Law Center documented widespread hostility and violence toward the county's Hispanic immigrants helped set the Department of Justice inquiry in motion.

# HEALTH INSURANCE AND PHYSICAL AND MENTAL HEALTH

## HEALTH INSURANCE

### INDICATOR TREND

In 2012, approximately 267,000 Long Islanders were uninsured. The uninsured rate was 8.8% in Nassau and 10.1% in Suffolk.

Uninsured rates were higher in certain lower-income communities: For 2008–2012, 16 communities on Long Island had uninsured rates of 20% or higher.

The implementation of the Affordable Care Act (ACA) will likely shrink the uninsured rate.

### WHAT DOES THIS MEASURE?

This indicator shows the percentage of people who have health insurance coverage in Nassau and Suffolk counties. It also includes the hospital inpatient payment method percentages in Nassau and Suffolk counties.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

Health insurance is an important measure of access to medical services. Traditionally, most working-age Americans have obtained private healthcare through their employers. Government plans such as Medicare and Medicaid provide coverage to individuals who meet income or age eligibility requirements. As structured, this model of health insurance left over 47 million non-elderly Americans without coverage in 2012. Millions of other Americans had limited or partial health insurance which did not meet their need for care. Healthcare is currently undergoing significant reform brought about by the Affordable Care Act (ACA) of 2010.

The consequences of being uninsured or underinsured are profound. Without adequate health insurance, many people are unable to afford primary and preventive care and receive treatment only on an emergency basis, increasing their risk for serious health conditions, including cancer, diabetes, disability and chronic illness. Lack of health insurance also has cumulative effects on emotional well-being, family life, school achievement, work productivity, earnings and financial security. In addition, high numbers of uninsured individuals generate significant costs to society. A 2011 report by the U.S.

Department of Health and Human Services found that hospitals incurred \$49 billion in unpaid bills from uninsured or underinsured Americans. These bills were either covered by hospitals/providers or government funds, redirecting taxpayer money and driving up premiums for the insured.

Rising healthcare costs have also placed significant financial burdens on governments, businesses and households. From 1980 to 2003, national spending on healthcare increased nearly 700%, from \$246 billion to almost \$1.7 trillion. In 2012, U.S. healthcare spending stood at \$2.8 trillion; healthcare costs rose 3.7% in 2012, continuing a four-year pattern of more gradual expenditure, although the reasons for this slowdown are not entirely clear.

The ACA, also known as Obamacare, focuses on improving the quality and affordability of health insurance, lowering the uninsured rate and reducing healthcare costs. Many of the ACA's health insurance access reforms went into effect on January 1, 2014. Most Americans without coverage are now mandated to acquire health insurance through competitive state or federal health insurance marketplaces, offering "one stop shopping" for health plans. These exchanges provide subsidies to low- and moderate-income households purchasing health insurance. In addition, the law requires insurance companies to cover all applicants at the same rate regardless of preexisting conditions.

The ACA also expands Medicaid eligibility to cover more low-income Americans and address the gap between those qualifying for Medicaid and those qualifying for subsidies through the health insurance exchanges. Originally mandatory, Medicaid expansion was expected to cover about half of currently uninsured Americans. However, a 2012 Supreme Court ruling allowed individual states to opt out without penalty.

Initial rollout of the federal health insurance exchange in late 2013 was marked by difficulties in technology and lack of ease in the application process. While these issues now largely have been addressed, many Americans are still unaware of the bill's specifics and healthcare reform remains politically controversial.

By 2022, the ACA is projected to reduce the number of uninsured people by 25–30 million. Most of this growth will be driven by new enrollees in the health insurance exchanges, with about 80% receiving subsidies for the purchase of their plans.

## HOW DO WE COMPARE?

### National Context

In 2012, 47.9 million Americans—or 15.4%—were uninsured, down slightly from 48.6 in 2011. This fall in the number uninsured reflects the nation's recovering economy and improvements in the unemployment rate during this time period.

Previous increases in the uninsured were due largely to a decline in employer-sponsored coverage. After falling steadily from 2000 to 2010, the percentage of people with employer-sponsored coverage remained steady (56%) between 2011 and 2012.

The percentage of people covered by Medicaid has increased in recent years, with close to 11 million people newly enrolled between 2007 and 2012. This growth was largely due to the Great Recession and related job loss, which decreased household incomes as well as employer-sponsored health insurance coverage.

The majority of uninsured Americans are non-elderly adults from low-income working families. This group often lacks access to Medicaid and the State Children's Health Insurance Program (SCHIP), which covers most low-income children, or Medicare, which covers the elderly. About 17.7% of people under age 65 were uninsured in 2012, with rates highest for those ages 19–34 (27.2%).

Reducing the uninsured rate among adults under age 65 is a key goal of the ACA, by expanding Medicaid eligibility for adults, up to 138% of the federal poverty level (FPL), and by subsidizing private insurance through the health insurance marketplace for low- and moderate-income individuals/households (earning between 100% and 400% of the FPL). In 2015, employers with over 100 employees will also be required to provide insurance to employees or receive a fine.

The uninsured rate also differs by race/ethnicity, with people of color more likely to be uninsured. In 2012, 11.1% of whites were uninsured, compared to 19% of blacks and 29.1% of Hispanics.

As of April 2014, approximately eight million people had signed up for health insurance under the ACA.

### State Context

Approximately 2.2 million New Yorkers—or about 12% of the population—were uninsured in 2011–2012. As in other parts of the nation, most of these individuals were members of working families. For those who had health insurance, 48% had employee-sponsored coverage, 23% had Medicaid and 12% had Medicare. Twelve percent had other public coverage and 4% had private policies.

Under the ACA, and with New York's decision to implement Medicaid expansion, about two-thirds of uninsured non-elderly people statewide are eligible for Medicaid or tax credit subsidies for plans purchased through the State health insurance exchange. Approximately 530,000 people are eligible for subsidized coverage in the health insurance marketplace. 950,000 New Yorkers, the vast majority adults, are eligible for Medicaid.

As of April 2014, close to one million New Yorkers had enrolled in the State exchange: 525,293 for Medicaid and 435,479 for private insurance.

#### Nassau/Suffolk Counties

In 2012, approximately 267,000 Long Islanders were uninsured, down from 274,000 in 2009. The uninsured rate was 8.8% in Nassau and 10.1% in Suffolk.

For adults 18–64 years of age, uninsured rates were higher in 2012: 12.7% in Nassau and 14.1% in Suffolk.

The uninsured rate also differed by race/ethnicity. In 2012, 5.6% of whites in Nassau and 8.2% of whites in Suffolk were uninsured, compared to 9.7% and 11.2% of blacks, respectively. Hispanics had the largest uninsured rate: 25.9% in Nassau and 26.8% in Suffolk.

For 2008–2012, 16 communities on Long Island had uninsured rates of 20% or higher, including Flanders (38.7%), New Cassel (29.8%), Hempstead (27%), Central Islip (23.8%) and Brentwood (25.4%). These and other underserved communities will likely see rates decrease as more individuals receive coverage through the ACA. However, ACA does not provide healthcare insurance to undocumented individuals, meaning that these Long Islanders will remain without coverage.

Data on hospital inpatient payment methods reveal mostly similar use patterns in Nassau and in Suffolk over the past 10 years. While inpatient discharge information is informative, it should be treated with caution, as it does not include payment for ambulatory care, which has increasingly been used for all kinds of treatments. It is also likely that patterns of payment will change as more individuals enroll in Medicaid or sign up for health plans in the marketplace.

From 2002–2012, there was a decrease in the percentage of adults and children covered by commercial/HMO insurance plans in Nassau and Suffolk. As of 2012, 34.3% of adults in Nassau and 33% of adults in Suffolk paid for hospital admissions with commercial insurance, declines of 10.2% and 21.6%, respectively, since 2002. In Nassau, the fall in the percentage of hospital admissions paid for by commercial insurance occurred steadily between 2002 and 2004. The percentage then experienced a slight bump up in 2005 and eventually leveled off between 2006 and 2008. After that, the percentage began a steady decline, as the Great Recession took hold. Between 2008 and 2012, the use of commercial insurance fell 3.6% in Nassau. In Suffolk, the reduced use of commercial insurance for adult hospital stays was more consistent over time, but, as in Nassau, declines were exacerbated by the Great Recession.

With regard to pediatric hospital admissions, 61% of children in Nassau and 56.6%

of children in Suffolk had these stays covered by commercial insurance in 2012. While the percentage of pediatric hospital admissions covered by commercial insurance dropped steadily over the past 10 years in Suffolk, the percentage fluctuated somewhat in Nassau, although it has declined significantly since 2010, falling 8.7% in two years. Again, the decline in hospital admissions covered by commercial insurance reflects the national trend in reduced employer-sponsored healthcare coverage, intensified by the Great Recession.

In terms of Medicaid, there was an increase in the share of adults and children covered by this form of payment for hospital stays from 2002–2012. For adults, hospital admissions covered by Medicaid increased 45% in Nassau and 70.9% in Suffolk from 2002 to 2012, with much of the growth taking place between 2008 and 2012: 32% in Nassau and 31.2% in Suffolk. This surge in coverage is likely related to the Great Recession and the continuing weak economy. As of 2012, the percentage of adults covered by Medicaid for hospital admissions was 13.2% in Nassau and 14.7% in Suffolk.

For children, the percentage of inpatient charges covered by Medicaid increased 39.7% in Nassau and 63.5% in Suffolk from 2002 to 2012. Again, a large part of the rise in coverage occurred as a result of the Great Recession: the percentage climbed 26.8% in Nassau and 28% in Suffolk between 2008 and 2012. As of 2012, the percentage of children covered by Medicaid for hospital admissions was 34.5% in Nassau and 38.9% in Suffolk. The increase in the percentage of adult and pediatric hospital stays covered by Medicaid may also be related to increased outreach for enrollment in Child Health Plus and Medicaid.

With regard to Medicare, the percentage of adults covered by this form of payment has risen in both counties, although the pace of growth differs significantly. From 2002 to 2012, the percentage increased 1.1% in Nassau and 11.4% in Suffolk. While gains in the share of hospital admissions paid for by Medicare rose consistently in Suffolk over this time period, Nassau's trajectory was less constant. The share rose between 2002 and 2006 and then fell in 2007 to 47.4%. Since that time, the share has fluctuated, standing at 47.3% in 2012. In Suffolk, the percentage of hospital admissions covered by Medicare was 46.8% in 2012. The variation in growth rates in Medicare use between counties likely reflects the more rapid aging of Suffolk's population.

In both counties, the percentage of adult and pediatric hospital admissions of individuals with no insurance grew between 2002 and 2012. For adults, the percentage increased 28% in Nassau and 29.3% in Suffolk. As of 2012, the percentage of adults with no insurance was 15.1% in Nassau and 17.2% in Suffolk. Not surprisingly, much of the growth in both counties occurred with the onset of the Great Recession and has continued with the still anemic economy. Between 2008 and 2012, the percentage increased

16.1% in Nassau and 15.4% in Suffolk.

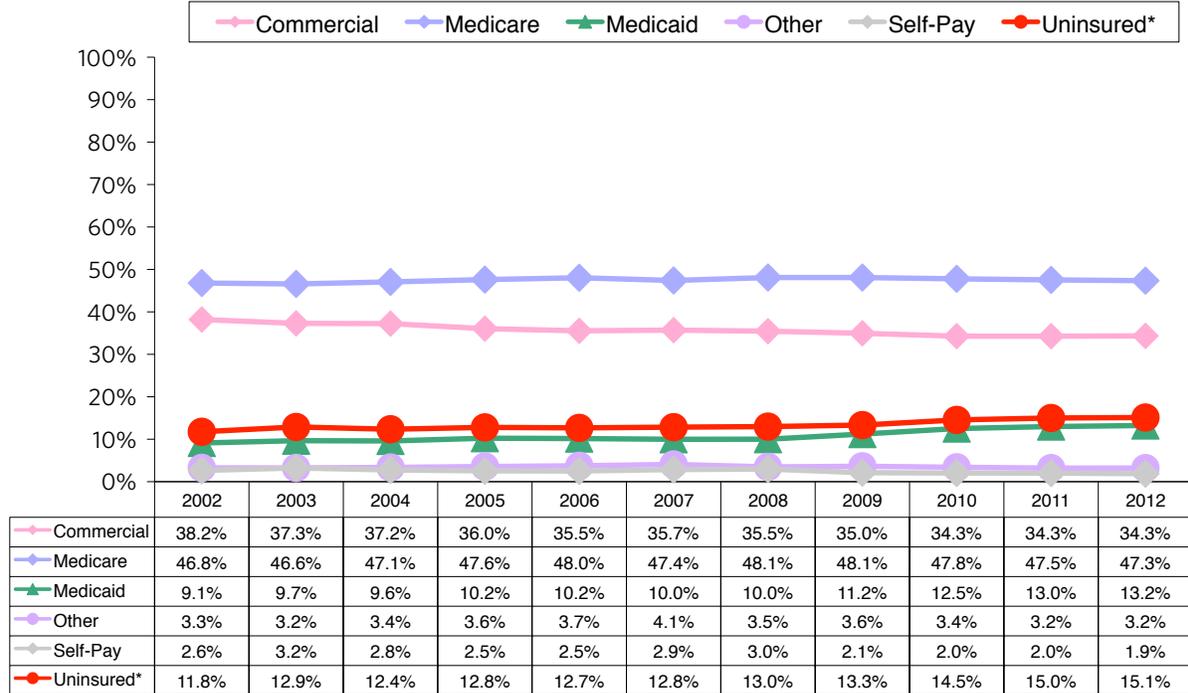
For children, the increase in the percentage of uninsured was even greater than for adults: 29.7% in Nassau and 40.1% in Suffolk between 2002 and 2012. As of 2012, the percentages of uninsured children were 35.8% in Nassau and 40.5% in Suffolk. These data indicate that many children who may be eligible for government healthcare assistance programs like SCHIP remain unenrolled.

### 16 Long Island Communities With Uninsured Rates 20 Percent or Higher

Village or Hamlet	Rate Uninsured
Flanders	38.7%
Riverside	34.9%
Gilgo	34.8%
Shinnecock Hills	30.9%
New Cassel	29.8%
Hempstead Village	27%
East Hampton	26.2%
Brentwood	25.4%
Central Islip	23.8%
Gordon Heights	22%
Noyack	22%
Riverhead	21.9%
Wyandanch	21.2%
Uniondale	20.8%
Aquebogue	20.7%
Springs	20%

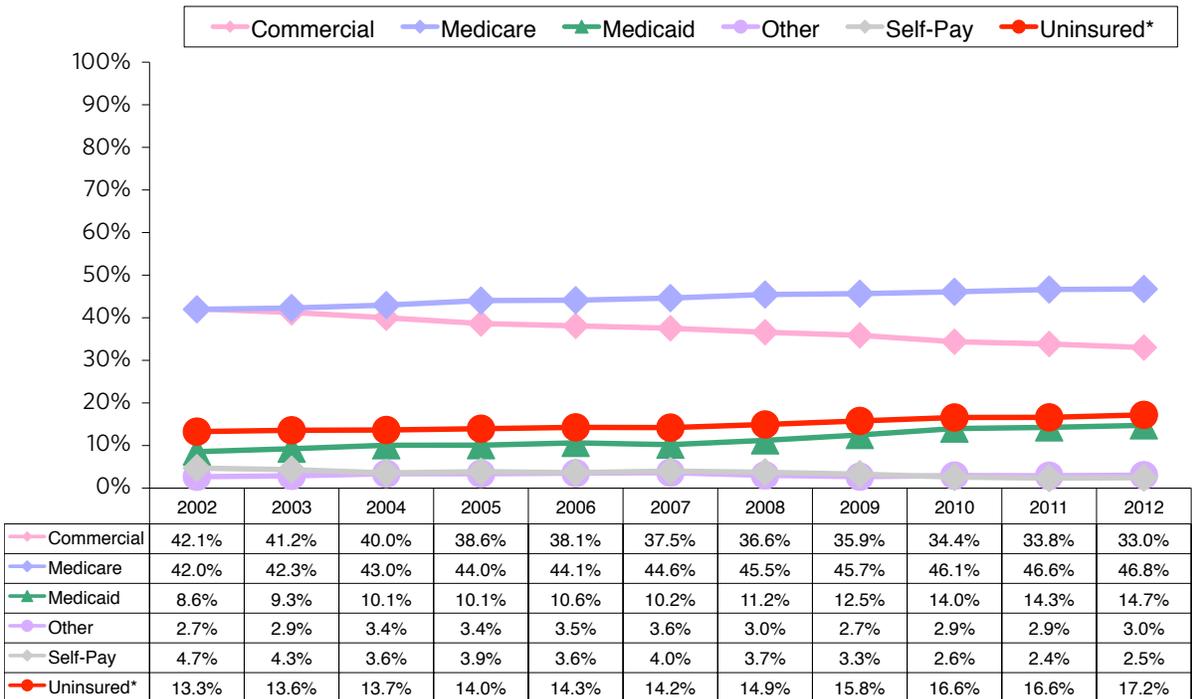
Sources: American Community Survey 2012, five-year estimates; *Newsday*

## 2002–2012 Inpatient Adult Payor Mix, Nassau County



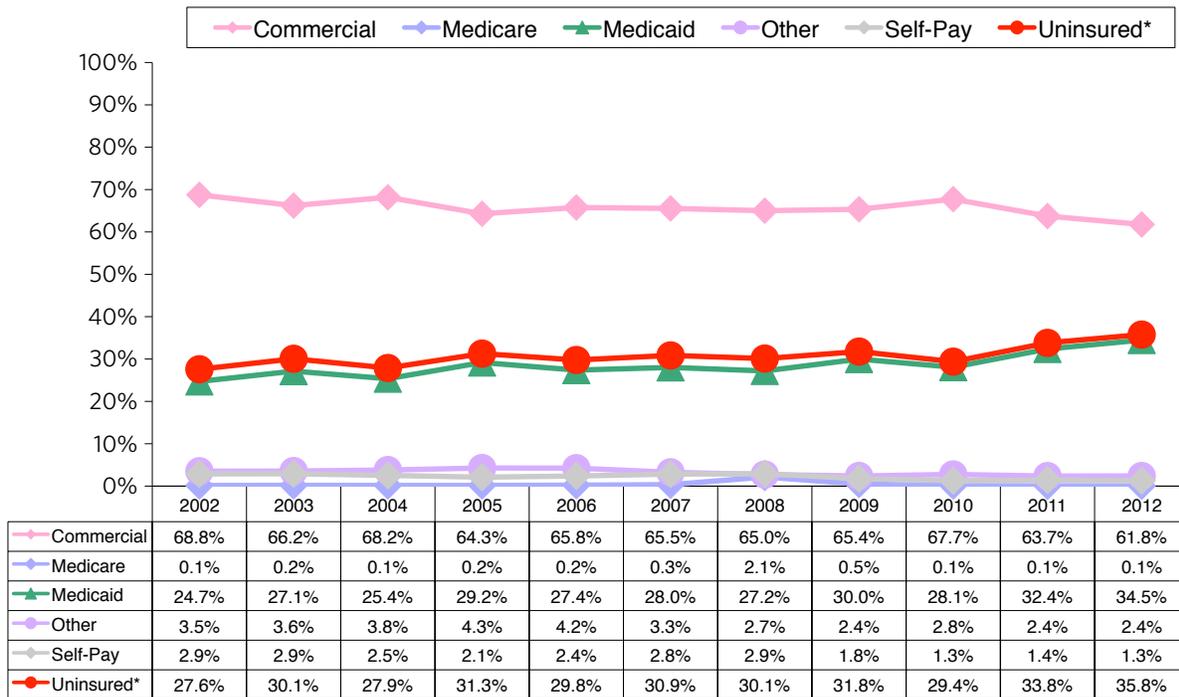
Source: SPARCS, New York State Department of Health

## 2002–2012 Inpatient Adult Payor Mix, Suffolk County



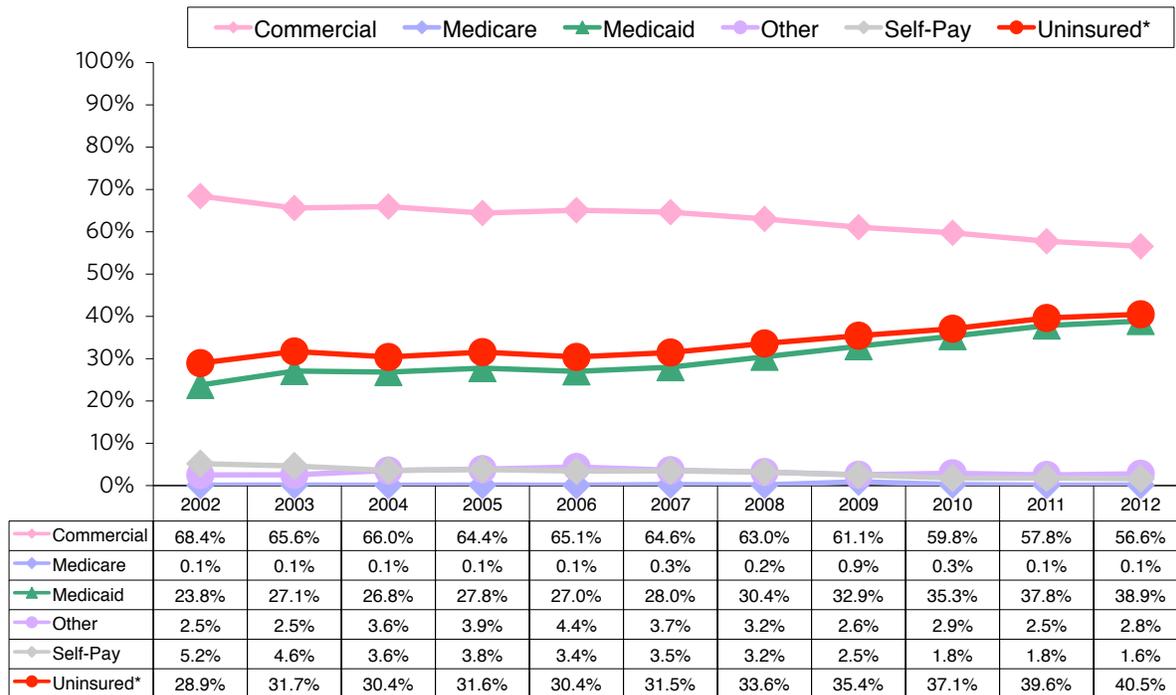
Source: SPARCS, New York State Department of Health

## 2002–2012 Inpatient Pediatric Payor Mix, Nassau County



Source: SPARCS, New York State Department of Health

## 2002–2012 Inpatient Pediatric Payor Mix, Suffolk County



Source: SPARCS, New York State Department of Health

## MENTAL HEALTH SERVICES

### INDICATOR TREND

In one month in 2011, 15,427 adults and children on Long Island received public/community-based mental health services, a 1.8% decrease from the same month in 2009.

The majority of adults (63%) and children (71%) received mental health services as outpatients. The rest received treatment in emergency rooms, inpatient settings or residential or support settings.

This indicator collects baseline data that can be tracked over time to evaluate public/community-based mental health service use, as the State reforms its mental health system and as Long Islanders continue to experience the negative effects of Hurricane Sandy.

### WHAT DOES THIS MEASURE?

This indicator shows the number and demographics of people using community-based/public mental health services on Long Island.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

Use of mental health services is an important indicator of access to care as well as possible emotional distress in a community. People receive mental health treatment through various means and environments, including outpatient and inpatient care, general medical providers, schools, nursing homes or correctional facilities, and prescription medication. In some cases, treatment may be accessed through private clinicians or hospitals. Treatment may also be received from government-funded or community-based hospitals, programs and providers.

Poor mental health is a serious public health issue in America. Each year, one in four adults and one in 10 children experiences a diagnosable mental disorder. While the prevalence of mental disorders is relatively high, only about 6% of the population experience a serious or “severe” mental illness, such as schizophrenia, major depression or bipolar disorder. Many people with mental health disorders are also at risk for substance abuse. Data from the National Survey on Drug Use and Health show that close to 8.4 million American adults had both a mental and substance use disorder in 2012.

While medical and psychosocial treatment can be very effective in reducing symptoms, only about 40% of people with a diagnosable mental disorder receive services in any given year. There are numerous structural and attitudinal barriers to obtaining treatment. These include financial cost, limited availability of services, disinterest in

treatment, belief that the disorder will improve on its own, hopelessness and the stigma associated with mental illness. Particular barriers to treatment exist for people of color, especially the lack of culturally competent providers, racism, and distrust and fear of mental health systems.

In response to the Great Recession, states and municipalities across the country reduced non-Medicaid public health spending between 2008 and 2012. These cuts eliminated vital services for people with serious mental illness, such as community- and hospital-based psychiatric care, housing and access to medications. While many people who use public mental healthcare receive Medicaid, not all people with mental illness qualify for or make use of this program, either because their income is too high for eligibility or because their illness prevents them from taking steps to apply.

Under the Affordable Care Act (ACA), more Americans will have access to mental health services. The bill requires parity between all health insurance plans, meaning they must cover mental healthcare at the same level as other types of care. The ACA also addresses the needs of the uninsured by expanding Medicaid eligibility in participating states and creating health insurance marketplaces, with government subsidies for income-eligible households.

The ACA's implementation has the potential to alter the mental health status and service use of 11 million uninsured adults with mental illness. However, more than 3.7 million American adults in states opting out of Medicaid expansion will remain without mental health coverage. In addition, many private clinicians do not accept insurance for mental health treatment because they view reimbursement rates as insufficient, a practice that is unlikely to change any time soon.

Mental health services are especially critical after natural and man-made disasters. The tragedy of 9/11 created great emotional distress for family members, direct responders and communities affected by the attacks. To address these issues, additional mental health services were established on Long Island to aid those experiencing grief, depression, anxiety, substance abuse and other problems. Hurricane Sandy, which disrupted the lives of thousands of area residents, has also impacted mental health, particularly among individuals experiencing personal, economic and housing loss. Populations especially vulnerable after disasters include older adults, the disabled, low-income households and people of color. While it is too early to measure the full mental health impact of Sandy, tracking the numbers and types of individuals using public mental health services over time, as more data become available, will provide insight into this issue.

## HOW DO WE COMPARE?

### National Context

The Substance Abuse and Mental Health Services Administration (SAMHSA) tracks information on the number of people living with mental illness receiving services in state hospitals, community programs, residential treatment centers and other inpatient settings on its Uniform Reporting System (URS) database. Data are gathered from state mental health authorities and are made available for government planning and assessment of service delivery.

In 2012, 7.2 million Americans received services, according to the URS database. The penetration rate—the rate at which individuals used any part of the public mental health system—was 22.67 per 1,000 population, an increase of 12.6% since 2007.

The manner in which individuals interact with the mental health system has changed over the last five years. From 2007–2012, the community utilization rate—the rate at which individuals used community services—increased 14%, from 19.01 per 1,000 population to 21.67. At the same time, the state hospital utilization rate declined 20%, from .6 to .48.

The growing number of Americans using mental health programs likely reflects increased emotional distress due to ongoing economic uncertainty. Yet, between 2009 and 2012, states slashed more than \$4.35 billion in funds for mental health services, leading to cuts in housing, Assertive Community Treatment and crisis intervention. According to the National Association of State Mental Health Program Directors, approximately 4,000 psychiatric hospital beds were eliminated between 2010 and 2012. The decline in the state hospital and psychiatric inpatient utilization rates between 2009 and 2012 may reflect these cutbacks.

Dramatic reductions in state mental health budgets have made stays in hospital emergency rooms longer and more common. Prisons and homeless shelters are also crowded with mentally ill people who have fallen through the cracks in the mental healthcare system.

### State Context

In 2012, 717,075 New Yorkers used mental health programs and services, according to the Uniform Reporting System (URS) database, a 14% increase since 2007. The penetration rate was 38.64 per 1,000 population, a 16% increase since 2007.

About 90% of people accessing mental health services did so through community programs. The community utilization rate was 33.19 per 1,000 population in 2012, up 9.4% from 2007. The rate rose between 2007 and 2009 but then fell between 2009 and

2011. The rate increased 3.9 % between 2011 and 2012.

The state hospital utilization rate grew from .56 per 1,000 population in 2007 to .59 in 2009, but then declined, standing at .55 in 2012. The other psychiatric inpatient utilization rate also increased between 2007 and 2009 and then fell, rising slightly between 2011 and 2012 to reach .47.

The increase in mental health system clients likely reflects heightened emotional distress as a result of the weak economy. However, like many other jurisdictions, New York cut funds for State mental health services in recent years. From 2009 to 2012, the State budget for mental health services shrank by \$204.9 million dollars.

In 2013, New York's Office of Mental Health released a plan to consolidate 24 inpatient psychiatric hospitals into 15 "regional centers of excellence" focused on providing community-based services. Savings from the consolidation are meant to be redirected to localities to shore up community-based programs.

#### Nassau/Suffolk Counties

Data for mental health program use at the regional or county level are not available through the Uniform Reporting System (URS) database. However, the New York State Office of Mental Health maintains records based on a number of reporting methods, including biannual patient characteristic surveys. These surveys provide a snapshot in time of consumer demographics and service use during one month in a calendar year. The most recent survey data available are for 2011.

Based on the Patient Characteristics Survey, in November 2011, 15,427 adults and children on Long Island received mental health services. This number represents a 1.8% decrease in mental health consumers from November 2009.

Forty percent of consumers in 2011 were treated by Nassau providers and 60% were treated by Suffolk providers.

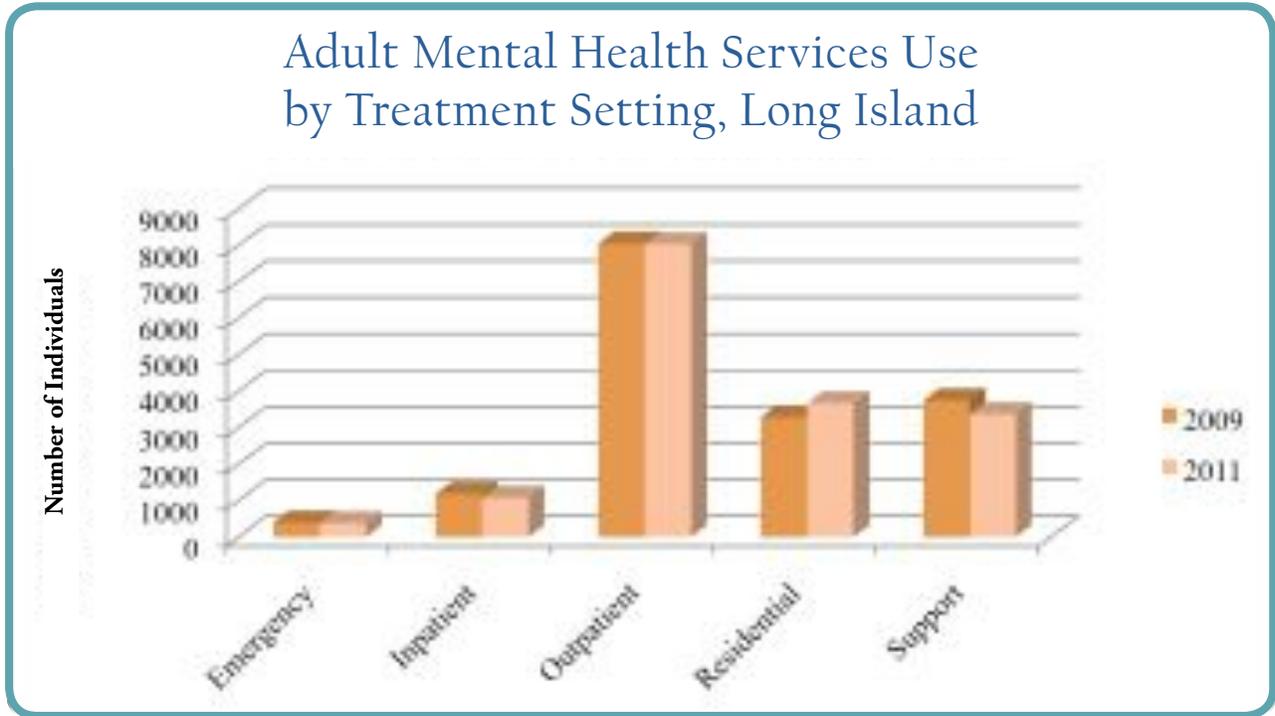
With regard to diagnosis, 88.1% of adult consumers had a serious mental illness in 2011. Among child consumers, 81.1% had a serious emotional disability. These percentages were similar to 2009 rates.

In terms of race/ethnicity, people of color made up a slightly greater share of mental health services consumers in 2011 than in 2009. For example, black children and adults accounted for 18.7% of consumers in 2011 compared to 18.4% in 2009. Hispanic adults and children comprised 13.2% of clients compared to 12.5% in 2011. White adults and children made up 64.1% of consumers in 2009 compared to 63.2% in 2011.

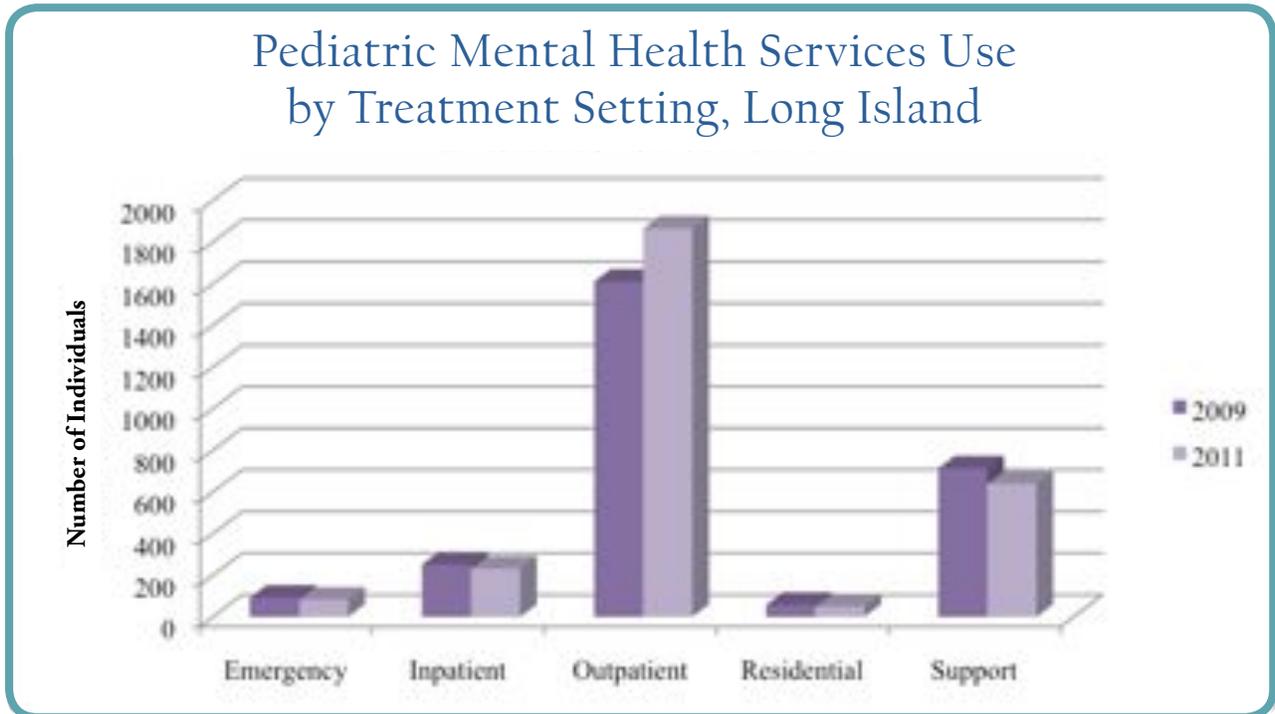
The majority of adults (63%) and children (71%) received mental health services as outpatients in 2011. Three percent of adults and children received treatment in emer-

gency rooms, and 8.4% of adults and 8.8% of children received mental health services in inpatient settings. The rest received treatment in residential or support settings.

Use of mental health treatment settings by consumers has changed over time. From 2009 to 2011, the share of adult consumers in all treatment setting categories declined,



Source: New York State Office of Mental Health

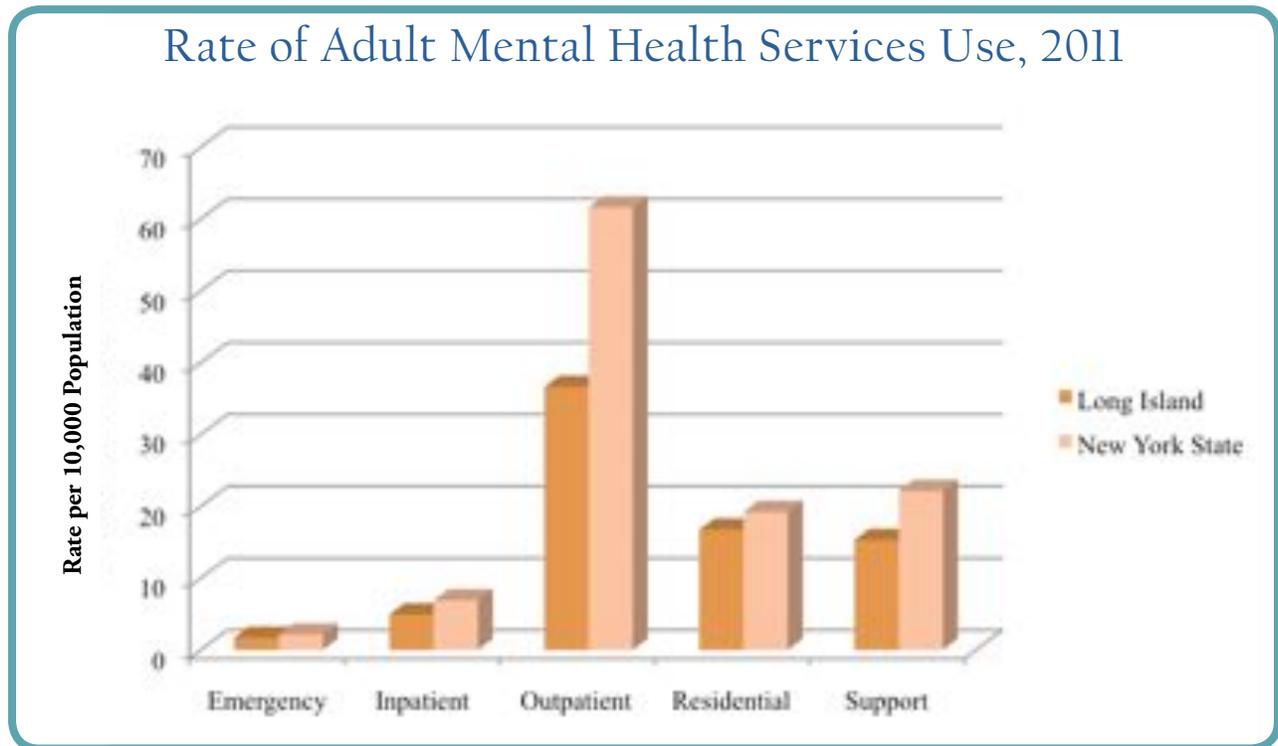


Source: New York State Office of Mental Health

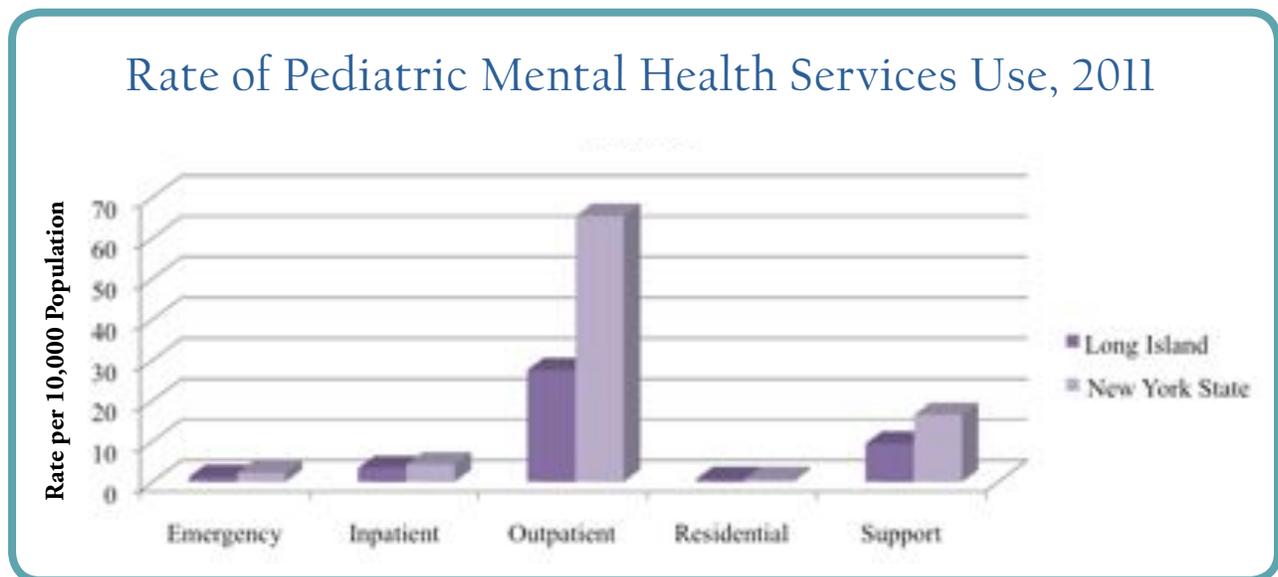
except for outpatient and residential. The share of pediatric consumers also decreased in all treatment settings except for outpatient.

Long Island adults used mental health services at lower rates than adult consumers statewide in all treatment settings in 2011. Children also had lower utilization rates in all treatment settings except for residential.

Under the original “regional centers of excellence” plan, Sagamore Children’s Psychi-

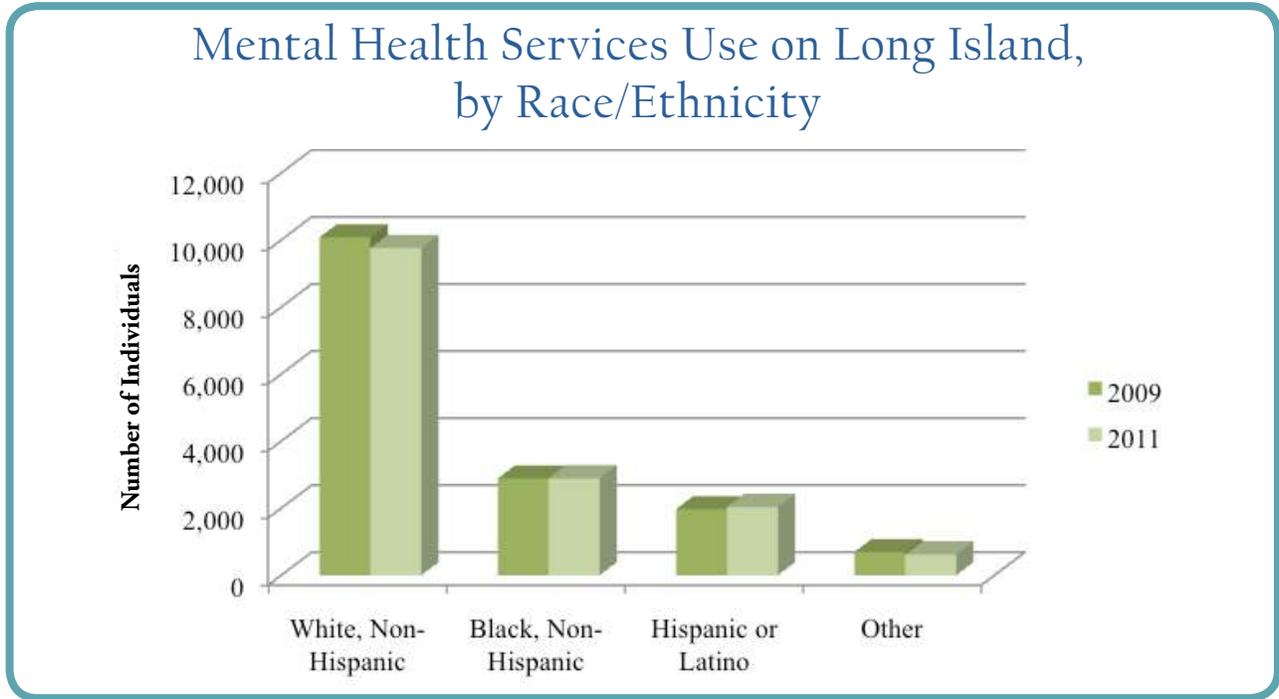


Source: New York State Office of Mental Health



Source: New York State Office of Mental Health

atric Center, Long Island’s only inpatient children’s psychiatric program, was slated for closure, eliminating 54 beds. An updated plan now postpones shutting down the hospital but reduces the beds to 27, a move which is opposed by some State legislators representing the region.



Source: New York State Office of Mental Health

## EARLY PRENATAL CARE

### INDICATOR TREND

Over the past decade, the early prenatal care rate has moved downward overall in Nassau and Suffolk.

Short-term trends differ by county. Between 2007 and 2011, the early prenatal care rate fell 3.2% in Nassau and rose 2.1% in Suffolk.

In 2011, 78.6% of women in Nassau and 73.4% of women in Suffolk received early prenatal care.

### WHAT DOES THIS MEASURE?

This indicator shows the percentage of women who receive early prenatal care in Nassau and Suffolk counties, as well as the percentage of women who receive late or no prenatal care. State and county rates are crude rather than age-adjusted.



#### **WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?**

Early or timely prenatal care is prenatal care beginning in the first three months (first trimester) of pregnancy. Late prenatal care refers to prenatal care that does not begin until the third trimester of pregnancy.

The purpose of prenatal care is to monitor and improve the health of the pregnant mother and her baby. During prenatal care visits, health professionals check pregnancies, provide advice on nutrition and lifestyle habits (alcohol and drug use, etc.), identify potential problems such as obesity, hypertension and diabetes and, if necessary, refer patients to specialists.

Early prenatal care has been found to significantly improve maternal and fetal health and birth outcomes. Without prenatal care, the incidence of low birth weight is three times higher and the risk of infant death is five times higher.

Lack of early prenatal care may reflect a variety of barriers to services. For example, a woman may not realize she is pregnant, may be ambivalent about her pregnancy or may lack knowledge about the importance of prenatal care. Other impediments may include inadequate health insurance, high out-of-pocket costs, unfamiliarity with prenatal resources, inconvenient office hours, transportation problems, cultural attitudes and beliefs, limited English proficiency and fears about immigration status.

## HOW DO WE COMPARE?

### National Context

It is difficult to compare prenatal care utilization over time due to changes made to the standard birth certificate in 2003, which is used to track rates. These changes have been gradually adopted by states but the transition is still not complete. As of 2011, 36 states, representing 83% of all births, had put the 2003 revisions into place.

Based on existing data, 73.7% of women giving birth received early prenatal care in 2011. Six percent received prenatal care in the third trimester or did not receive any prenatal care at all.

Significant disparities exist in the use of prenatal care. For example, in 2011, 86.3% of women with a college education received early prenatal care compared to 58.3% of women with less than a high school diploma. Prenatal care rates were higher for non-Hispanic white (78.8%) and non-Hispanic Asian (77.8%) women than Hispanic (68%) and non-Hispanic black (63.4%) women. Non-Hispanic American Indian/Alaska Native (59%) and non-Hispanic Native Hawaiian/Other Pacific Islander (55.7%) women had the lowest rates of early prenatal care.

The Healthy People 2020 goal is to increase the early prenatal care rate to 77.9% of live births.

### State Context

For the past decade, the percentage of women receiving early prenatal care has declined overall in New York State; the rate was 73.1% in 2001 and 70.9% in 2011. Rates over these years rose from 2001 to 2005, peaking at 75.5% before subsiding.

As of 2011, prenatal care rates were higher for white (76.7%) than for black (62.4%) or Hispanic (66%) women.

The late or no prenatal care rate has declined over the last decade, although it has fluctuated somewhat during this time, reaching a low of 4.8% in 2005 and then trending higher. The 2011 rate for late or no prenatal care was 5.4%.

### Nassau/Suffolk Counties

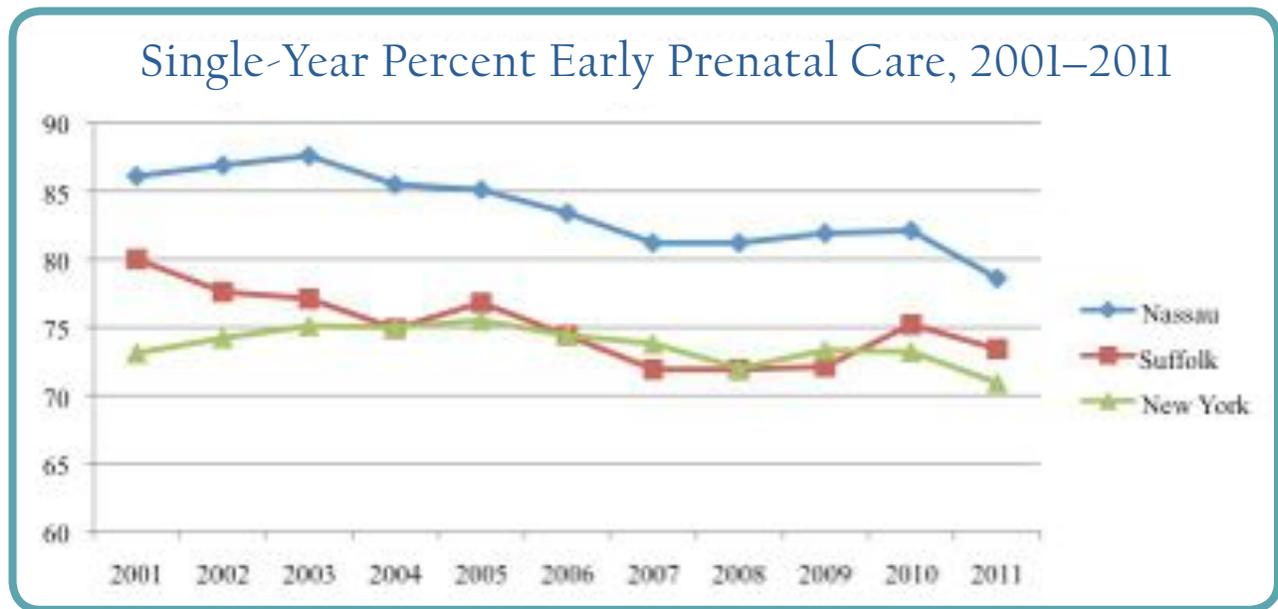
Over the past decade, the early prenatal care rate moved downward overall in Nassau and Suffolk. While the decline has been relatively steady in Nassau, Suffolk has seen more rate fluctuation over time. Rates in Suffolk increased 2.1% between 2007 and 2011.

In 2011, 78.6% of women in Nassau received early prenatal care, compared to 86.1% in 2001. In Suffolk, 73.4% of women received early prenatal care in 2011, compared to 80% in 2001.

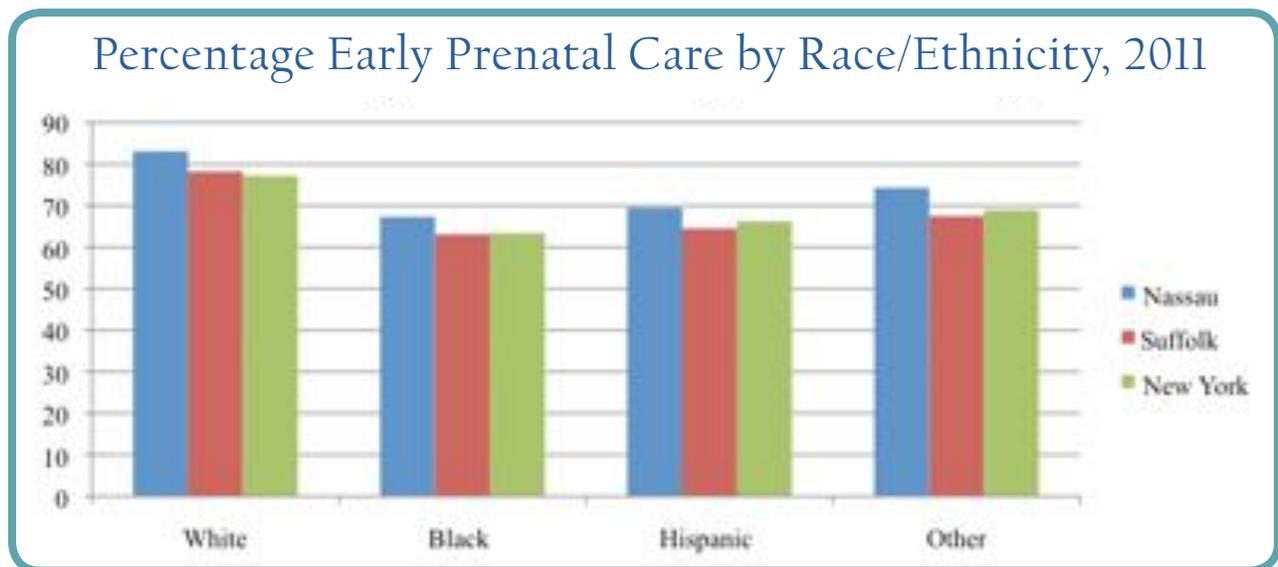
Disparities by race also exist in both counties; 83.1% of white women in Nassau received early prenatal care in 2011 compared to 67.3% of black women and 64.5% of Hispanic women. For the same year, in Suffolk, 78.2% of white women, 63.1% of black women and 64.5% of Hispanic women received early prenatal care.

Disparities by age are also evident. In Nassau, women 20 years of age or older, regardless of race, were more likely than younger women to receive early prenatal care in 2011; the rates were 77.2% for older women and 49.7% for younger women. In Suffolk, early prenatal care rates for older women were 73.7% compared to 48.7% for younger women in 2011.

The late or no prenatal care rate in Nassau County rose over the last decade from



Source: New York State Department of Health



Source: New York State Department of Health

## Percentage Change Early Prenatal Care, 2007–2011

	2007	2008	2009	2010	2011	Percentage Change 2007–2011
New York State	73.8	72	73.3	73.2	70.9	-3.9
Nassau County	81.2	81.2	81.9	82.1	78.6	-3.2
Suffolk County	71.9	71.9	72.1	75.2	73.4	2.1

Source: New York State Department of Health

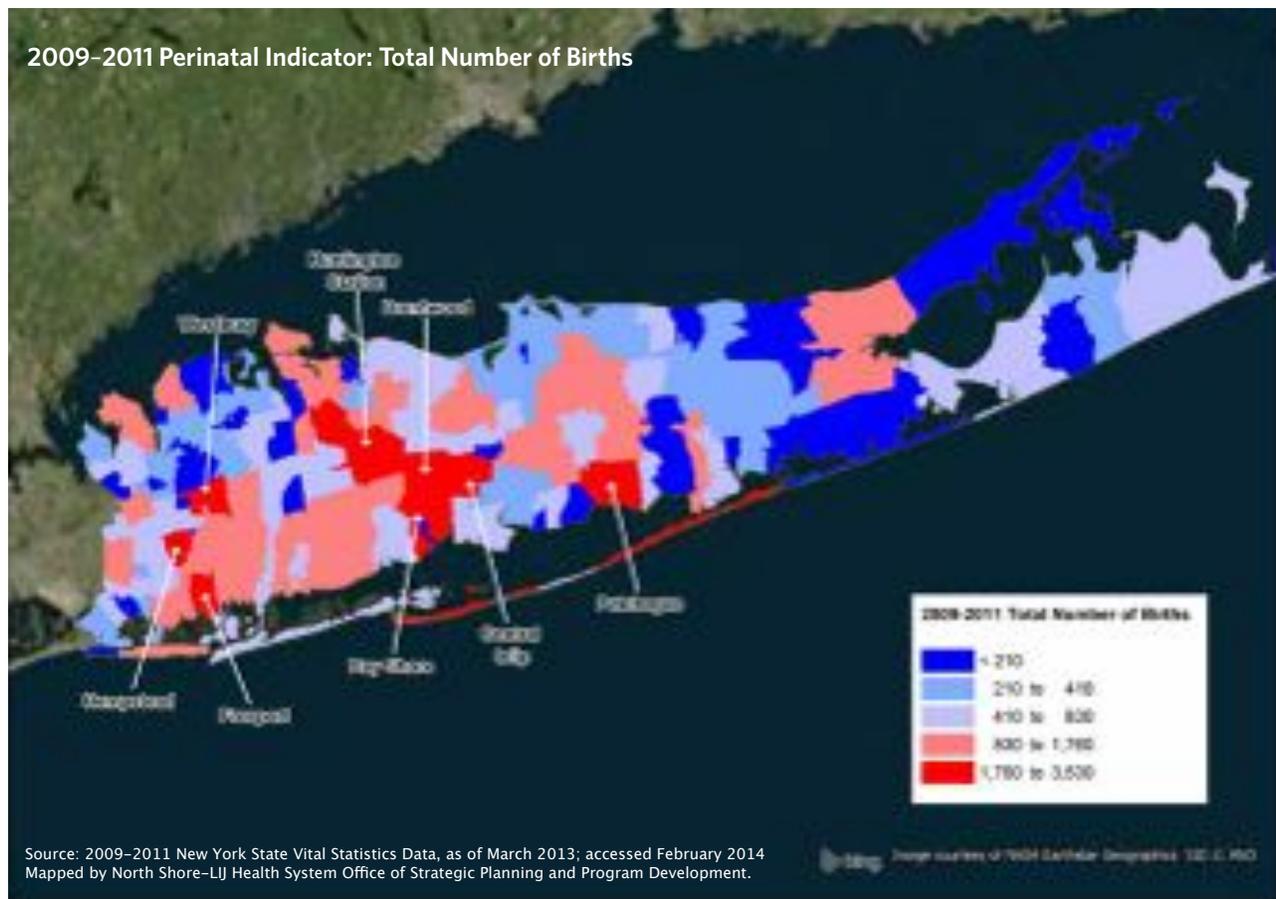
## Long Island ZIP Codes With the Highest Rates of Late or No Prenatal Care, 2009–2011 Average

	Percentage Late or No Prenatal Care	Percentage Birth Medicaid or Self-Pay	Percentage Individuals Below Poverty	Percentage Population White
Nassau County	3.2	27.9	5.2	73.4
Suffolk County	4.3	35.8	5.7	82.5
Laurel 11948	13.6	43.5	1.4	100
Wyandanch 11798	12.8	68.8	12.3	19.8
Orient 11957	10	40	6.5	94.8
Roosevelt 11575	9	72.9	14.1	15.4
Copiague 11726	8.8	59.4	8.9	69.9
Islandia 11749	8.6	42.7	7.1	68.3
Inwood 11096	7.7	69.3	13.5	35.9
Central Islip 11722	7.6	68.1	10.7	50.1
Bay Shore 11706	7.6	55.7	5.8	61.3
Middle Island 11953	6.6	31.1	4.1	75.2
Elmont 11003	6.6	45.1	5.5	28
Hempstead 11550	6.6	68.1	15.6	25.6

Sources: New York State Department of Health; US Census, American Community Survey 2011, five-year estimates

Notes: ZIP codes with fewer than 10 births during the three-year period are not included in this table.

ZIP codes with a population of fewer than 30 teenage women are suppressed for reasons of confidentiality. Rates are crude rather than age-adjusted.



2.3% in 2002 to 2.9% in 2011; however, it fell 12% overall between 2007 and 2012. The rate in Suffolk fell 21% from 2002 (4.8%) to 2012 (3.8%).

Data from the latest Nassau County Community Health Assessment indicate that late or no prenatal care rates are higher in “selected” communities, including Elmont, Freeport, Glen Cove, Hempstead, Inwood, Long Beach, Roosevelt, Uniondale and Westbury. These communities have larger populations of color and lower median household incomes than the county at large. Suffolk does not analyze particular communities in relation to the rest of the county in their Community Health Assessment.

For 2009–2011, information at the ZIP code level was available only for late or no prenatal care. Analysis of the Long Island ZIP codes with the 10 highest average rates of late or no prenatal care indicated that 80% were located in Suffolk County. Approximately 85% of ZIP codes had higher poverty rates than their respective counties; and 75% of ZIP codes had higher percentages of people of color in their populations than their respective counties.

In order to avoid unstable rates, ZIP codes with fewer than 10 births during the three-year period were suppressed. ZIP codes with a population of 30 teenage women or fewer were also suppressed for reasons of confidentiality.

## TEEN PREGNANCY AND TEEN BIRTHS

### INDICATOR TREND

Long Island teen pregnancy and birth rates have declined significantly during the past decade.

From 2002 to 2011, the teen pregnancy rate fell 49.2% in Nassau and 43.8% in Suffolk. In 2011, the rate was 15.4 per 1,000 female population ages 15–19 in Nassau and 22.7 in Suffolk.

During the same time period, the teen birth rate dropped 33.6% in Nassau and 31.9% in Suffolk. In 2011, the rate was 9.1 per 1,000 female population ages 15–19 in Nassau and 13.9 in Suffolk.

### WHAT DOES THIS MEASURE?

This indicator shows teen pregnancy and birth rates in Nassau and Suffolk counties. The pregnancy and birth rates are per 1,000 female population ages 15–19.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

Teen pregnancies and births place both mothers and children at risk for short- and long-term medical complications. Both teen mothers and fathers may also be at risk for educational, economic and social difficulties.

Approximately 82% of teen pregnancies are unplanned. Unplanned pregnancies may reflect inadequate sex education, lack of access to birth control and difficulty negotiating sexual relationships and family planning issues. Alcohol and drug use may affect decisions about sexual activity and birth control. Sexual assault may also be a factor. Research has found that between 11%–20% of teenage pregnancies result from rape.

Religious beliefs, cultural traditions, economic resources and social support may also contribute to a teen's decision to become pregnant or carry a child to term. As a result, teen pregnancy and birth rates vary by community and population group. Pregnant adolescents also have lower rates of early prenatal care than women 20 years and older. Some teens are unaware they are pregnant. Others are uncertain where and how to seek medical services or if they want to carry the pregnancy to term. Others lack health insurance and access to quality care. The presence of a strong support system can help facilitate decision making about family planning, use of health services and arrangements for the baby's arrival.

Babies born to teen mothers and fathers are more frequently premature and of low birth weight. As a result, these children have a greater risk of health problems, including mental retardation, developmental delays, deafness, blindness, cerebral palsy and infant

mortality. Because teen mothers may be unprepared for parenting or have cut short their education, they may not know how to effectively respond to their child's needs. As a result, children of teen mothers are at greater risk for child abuse and neglect, as well as low educational achievement. Female children are more likely to become teen mothers themselves.

Approximately 40% of teenage mothers and 50% of teenage fathers graduate high school, although research indicates that many teen mothers have already dropped out of high school at the time of their pregnancy or delivery. Only a small percentage of teen parents continue on to college. Seventy-five percent of teen mothers rely on public benefits within five years of the birth of their child. Many teen mothers remain single parents and must balance caretaking and employment.

Recent research suggests that earlier studies may have exaggerated the negative social consequences of teenage motherhood. While poverty and high school noncompletion are associated with teen motherhood, current scholarship finds little difference in life outcomes between teenage mothers and girls from similar socioeconomic backgrounds who do not give birth as teens. This issue is an area of academic and policy debate.

The sexual partners of teenage mothers are frequently several years older. Approximately 40% of children born to teenage females are fathered by adult men age 20 years or older. The CDC reports that, in 2011, the birth rate for teenage males was 14.7 per 1,000 ages 15–19; the birthrate for teenage females in the same year was 31.3 per 1,000 ages 15–19. Teen fatherhood has not received the same policy attention as teen motherhood.

### **National Context**

Over the past two decades, the teenage pregnancy rate has declined for all ages, races/ethnicities and socioeconomic groups in the United States. Between 1990 and 2008, the rate fell 42%, from 116.9 per 1,000 females ages 15–19 to 67.8. This drop is attributed to an increase in the percentage of adolescents delaying sexual intercourse as well as increased contraceptive use among teenagers.

Teen birth rates have also declined continuously over the past 20 years. In 2012, the rate was 29.4 births for every 1,000 females ages 15–19, a decrease of 52.4% since 1991. Despite this fall, the U.S. teen birth rate is higher than rates in other industrialized countries, including Canada and the United Kingdom.

A significant proportion of teenage births are repeat births; about one in five was a repeat birth in 2012.

Teen birth rates vary by population subgroup and regions of the country. In 2012, teen birth rates for black (43.9) and Hispanic (46.3) females remained higher than for

white (20.5) females. While Hispanic females had the highest teen birth rate among race/ethnic groups, the rate also experienced the greatest decline over time, falling 39% between 2007 and 2012.

In 2010, the lowest teen birth rates existed in the Northeast; the highest rates were reported in the South. Teen births are more frequent in rural than urban or suburban areas.

The Healthy People 2020 goal is to reduce the teen pregnancy rate to 36.2 pregnancies per 1,000 females ages 15–17.

#### State Context

The New York State teenage pregnancy rate continues to go down. In 2011, the rate was 45.9 per 1,000 female population ages 15–19, compared to 58.4 in 2007.

The New York State 2009–2011 average teen pregnancy rate was 50.2.

The teenage birth rate for 2011 was 21.2 per 1,000 female population ages 15–19, a 17.5% decline from 25.7 in 2007.

The 2009–2011 average teen birth rate was 22.7.

#### Nassau/Suffolk Counties

Teen pregnancy and birth rates have declined significantly on Long Island during the past decade. Teen pregnancy and birth rates on Long Island remain lower than national and State rates.

In Nassau, the teen pregnancy rate fell 49.2% from 30.3 per 1,000 females ages 15–19 in 2002 to 15.4 in 2011. The 2009–2011 average teen pregnancy rate was 20.6 per 1,000 females ages 15–19, a decline from the 2005–2007 average rate of 27.3.

In Suffolk, the teen pregnancy rate fell 43.8% from 40.4 per 1,000 females ages 15–19 in 2002 to 22.7 in 2011. The 2009–2011 average teen pregnancy rate was 27.4 per 1,000 females ages 15–19, a decrease from the 2005–2007 average rate of 36.3.

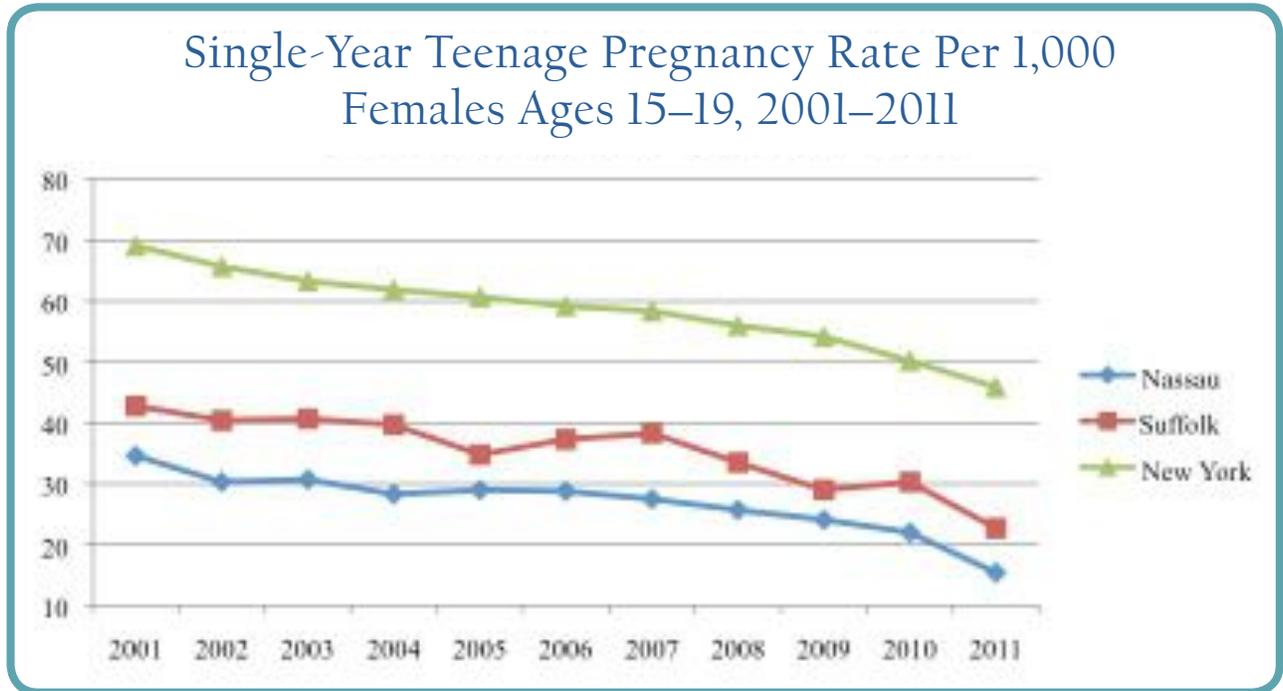
The teen birth rate for Nassau females ages 15–19 fell 33.6% from 13.7 in 2002 to 9.1 in 2011.

The teen birth rate for Suffolk females ages 15–19 decreased 31.9% from 20.4 in 2002 to 13.9 in 2011.

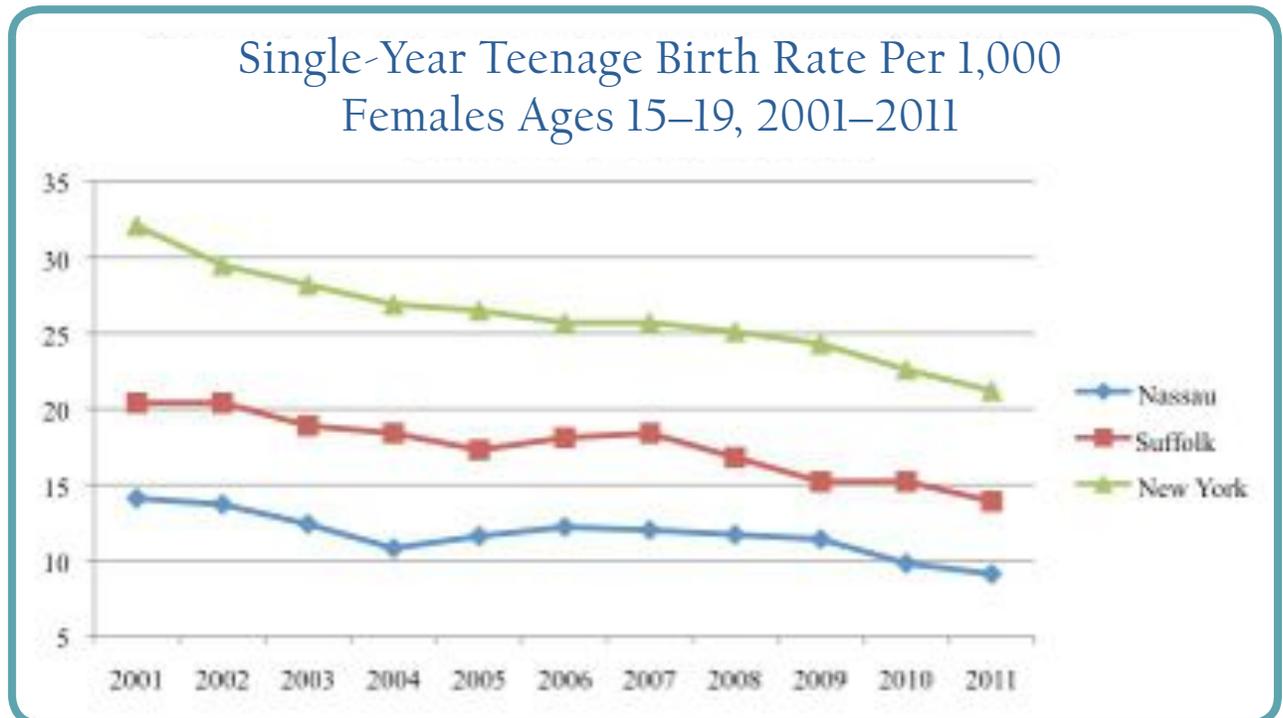
Both counties have experienced an increase in the percentage of live births to pregnancies in the past 10–15 years. In 2011, 59.2% of Nassau teen pregnancies and 61.4% of Suffolk teen pregnancies resulted in a live birth, compared to 38% for both counties in 1997. Abortion rates have also decreased in both counties; in 2011, 36.2% of Nassau teen pregnancies and 36.8% of Suffolk teen pregnancies resulted in induced abortions. Whether this shift in pregnancy outcomes is due to changing mores and beliefs or in-

creased barriers to health services is unclear. However, the decrease in abortions reflects national trends, as more teens nationwide carry their pregnancies to term.

Differences in pregnancy and birth rates exist among communities and socioeconomic groups on Long Island. For example, according to the Nassau County Community Health Assessment, teens in “selected” communities have a pregnancy rate more than

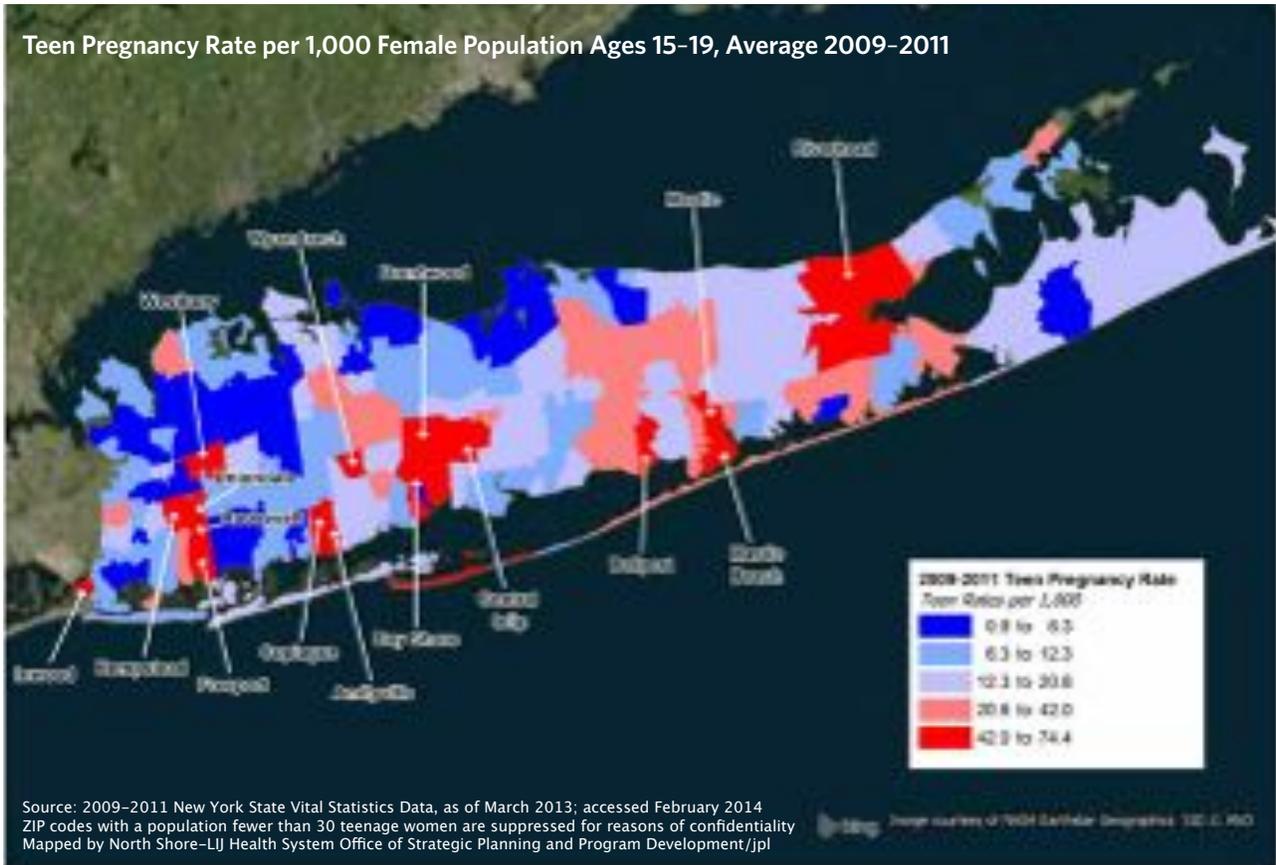


Source: New York State Department of Health

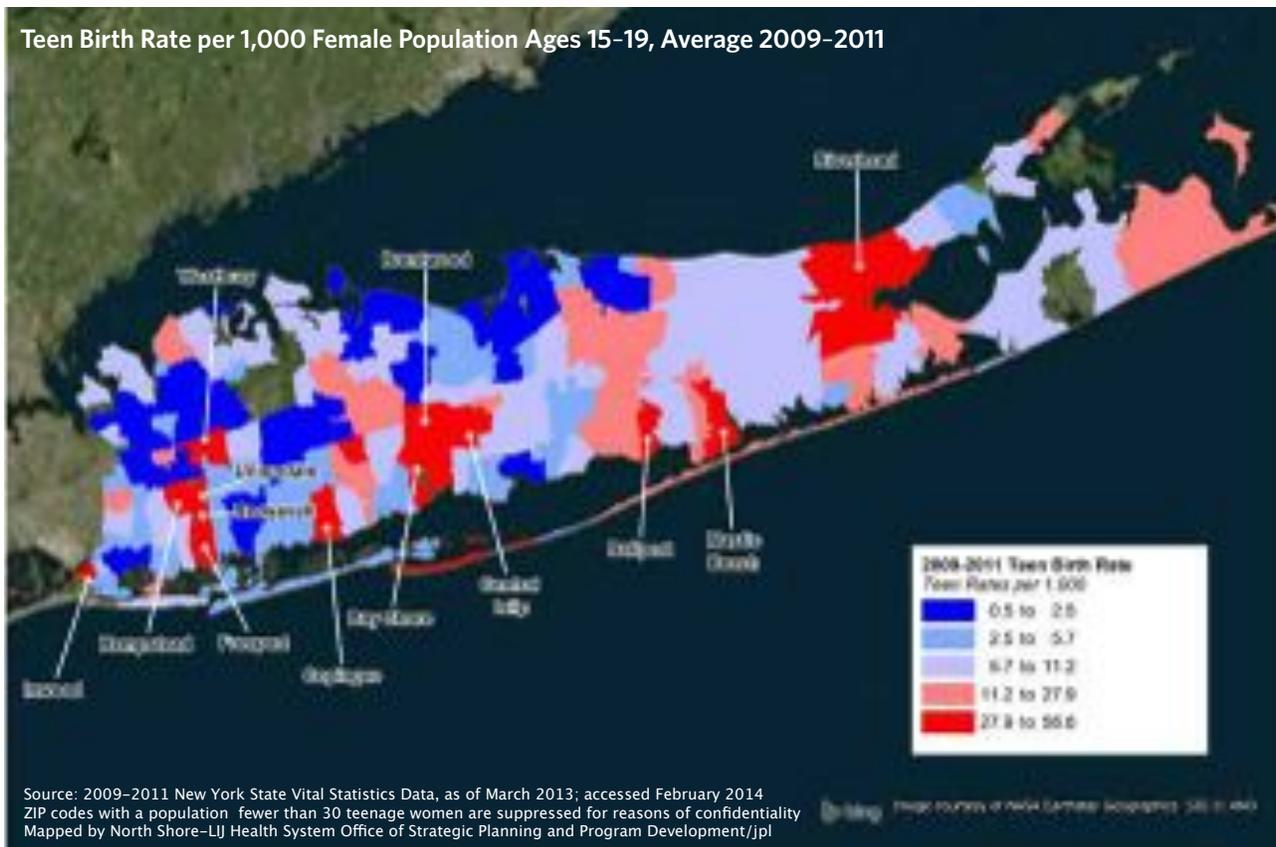


Source: New York State Department of Health

**Teen Pregnancy Rate per 1,000 Female Population Ages 15-19, Average 2009-2011**



**Teen Birth Rate per 1,000 Female Population Ages 15-19, Average 2009-2011**



four times the rest of the county. These selected communities have larger populations of color and lower median household incomes than the county at large.

Of the 10 ZIP codes with the highest teenage pregnancy rates in 2009–2011, four were in Nassau and six were in Suffolk. All 10 ZIP codes had higher poverty rates than their respective counties. Four (Roosevelt, Inwood, Freeport and Mastic Beach) had poverty rates more than two times their county levels. Eight had higher rates of people of color in their populations than their respective counties.

ZIP codes with fewer than 10 births during the three-year period (2009–2011) may yield unstable rates and therefore were not included in this analysis. In addition, ZIP codes with a population of fewer than 30 teenage women were suppressed for confidentiality reasons.

## LOW BIRTH WEIGHT

### INDICATOR TREND

On the whole, low birth weight rates have increased on Long Island over the last decade.

However, patterns differ between counties during more recent years.

From 2007 to 2011, the low birth weight rate remained relatively flat in Nassau, around 8%, and declined slightly in Suffolk, from 8% to 7.7%.

### WHAT DOES THIS MEASURE?

This indicator shows the percentage of live births weighing less than 2,500 grams (about 5.5 pounds) in Nassau and Suffolk counties. The majority of low weight babies are born preterm—before 37 weeks of pregnancy.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

Low birth weight is an indicator of infant and maternal health. It is also the most important factor influencing infant mortality, which is the death of a baby before his or her first birthday.

Infants with low birth weight are at increased risk for a variety of medical complications as a result of their underdeveloped organs and organ systems. They often require intensive medical treatment at birth and may go on to face long-term disabilities, such as blindness and deafness, as well as developmental delays. These conditions may require extensive and intensive child and family supports, such as special education. Studies indicate that preven-

tion helps offset the immediate and long-term costs of caring for a premature and/or low birth weight baby.

Low birth weight is associated with multiple births (twins, triplets, etc.), use of fertility treatments and mother's age, either under 17 or over 40. Genetics and overall health status are also related to low birth weight. Health conditions existing prior to pregnancy increase the risk for low birth weight babies. Women with diabetes, hypertension and obesity and those who smoke or are substance abusers are at risk. Maternal exposure to stress and emotional and physical abuse may also increase the likelihood of preterm and low birth weight babies.

Disparities exist by race. For example, black mothers are two times more likely to deliver a low birth weight baby than white mothers.

Socioeconomic factors such as low income and lack of education have been linked with increased risk of having a low birth weight baby, although the specific mechanisms by which this occurs are not totally understood. Recent studies indicate that even with prenatal care, the young, poor and women of color are at elevated risk for preterm rupture of the uterine membrane, preeclampsia and other medical conditions that may cause preterm delivery and low birth weight babies.

## HOW DO WE COMPARE?

### National Context

Low birth weight births have decreased very slightly in recent years. In 2011, the low birth weight rate was 8.1%, down from 8.15% in 2010. The 2011 rate was 2% lower than the 2006 rate, 8.26, which was the highest in four decades.

Most of the decline in the low birth weight rate is due to a fall in babies with moderately low birth weight (1,500–2,499 grams). There was only minor improvement in the rate of infants with very low birth weight (less than 1,500 grams) between 2006 and 2011.

Disparities by race/ethnicity persist. In 2011, the low birth weight rate was 7.1% for non-Hispanic white babies, 7% for Hispanic babies and 13.3% for non-Hispanic black babies. From 2006 to 2011, the low birth weight rate declined 3% among non-Hispanic white newborns and 5% among non-Hispanic black newborns. The rate remained unchanged for Hispanic newborns.

Low birth weight percentages are influenced by the rate of multiple births, since these types of births are more likely to result in low birth weight babies than singleton deliveries. One factor affecting the recent decline in the low birth weight rate may be the 3% drop in the rate of singleton babies with low birth weight between 2006 and 2011.

The Healthy People 2020 goal is to decrease the low birth weight rate to 7.8%.

### State Context

The low birth weight rate increased overall during the past decade in New York. In 2011, the low birth weight rate was 8.0%, compared to 7.7% in 2001. The rate has been relatively steady since 2004.

Low birth weight rates vary by race: For 2009–2011, the three-year average rate was 12.9% for non-Hispanic black infants, 7.7% for Hispanic infants and 6.9% for non-Hispanic white infants.

### Nassau/Suffolk Counties

On the whole, low birth weight rates have increased on Long Island over the last decade.

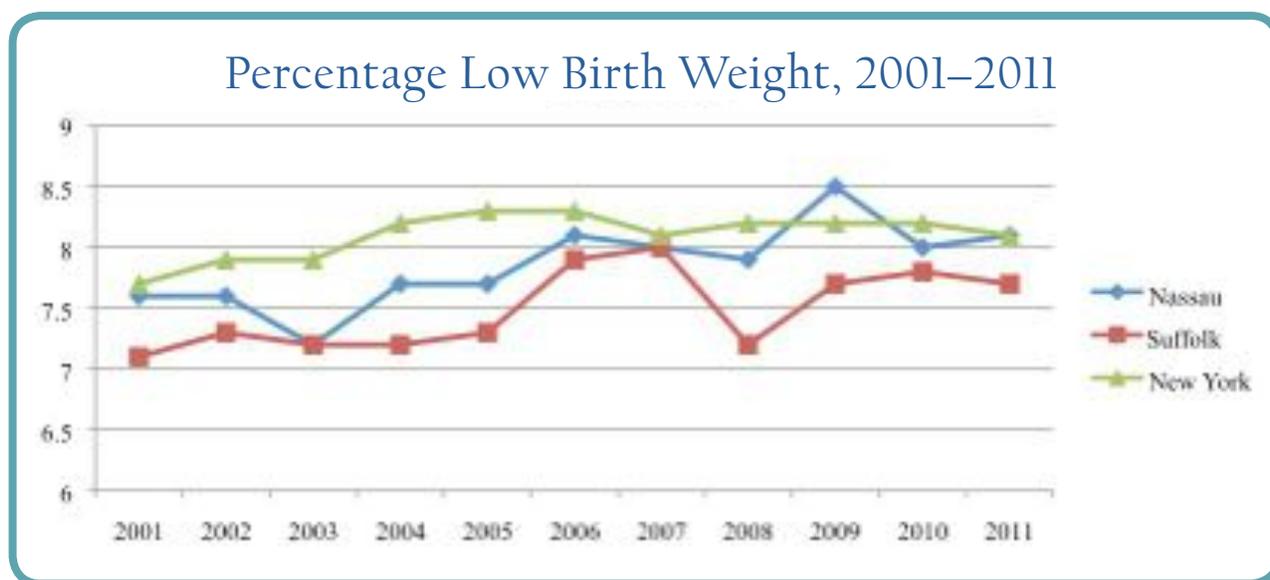
Recent patterns differ between counties. From 2007 to 2011, the low birth weight rate remained relatively flat in Nassau, around 8%, and declined marginally in Suffolk, from 8% to 7.7%.

Nassau's 2009–2011 average low birth weight rate was 8.2% and Suffolk's was 7.7%.

In 2011, the majority (87%) of low birth weight babies were born to women ages 20 to 39. Babies born to women 40 and older made up 8% of all low weight births on Long Island, while births to teenagers made up 5%.

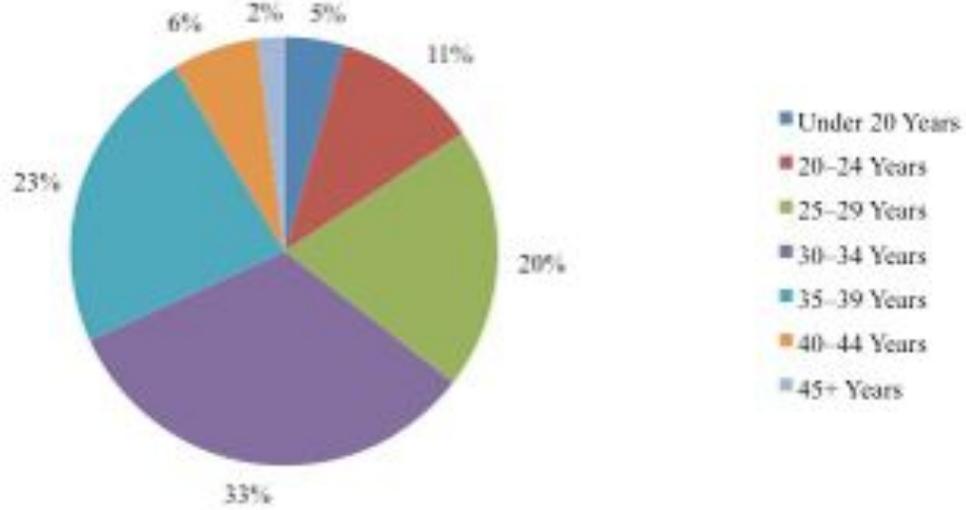
Low birth weight and race/ethnicity are associated on Long Island. For 2009–2011, the average low birth weight rate in Nassau was 7.5% for non-Hispanic whites, 12.9% for non-Hispanic blacks and 7% for Hispanics. In Suffolk, the rate was 7.2% for non-Hispanic whites, 14% for non-Hispanic blacks and 6.9% for Hispanics.

In addition to race/ethnicity, other factors such as fertility treatments, multiple births and access to prenatal services play an important role in determining low birth weight rates.



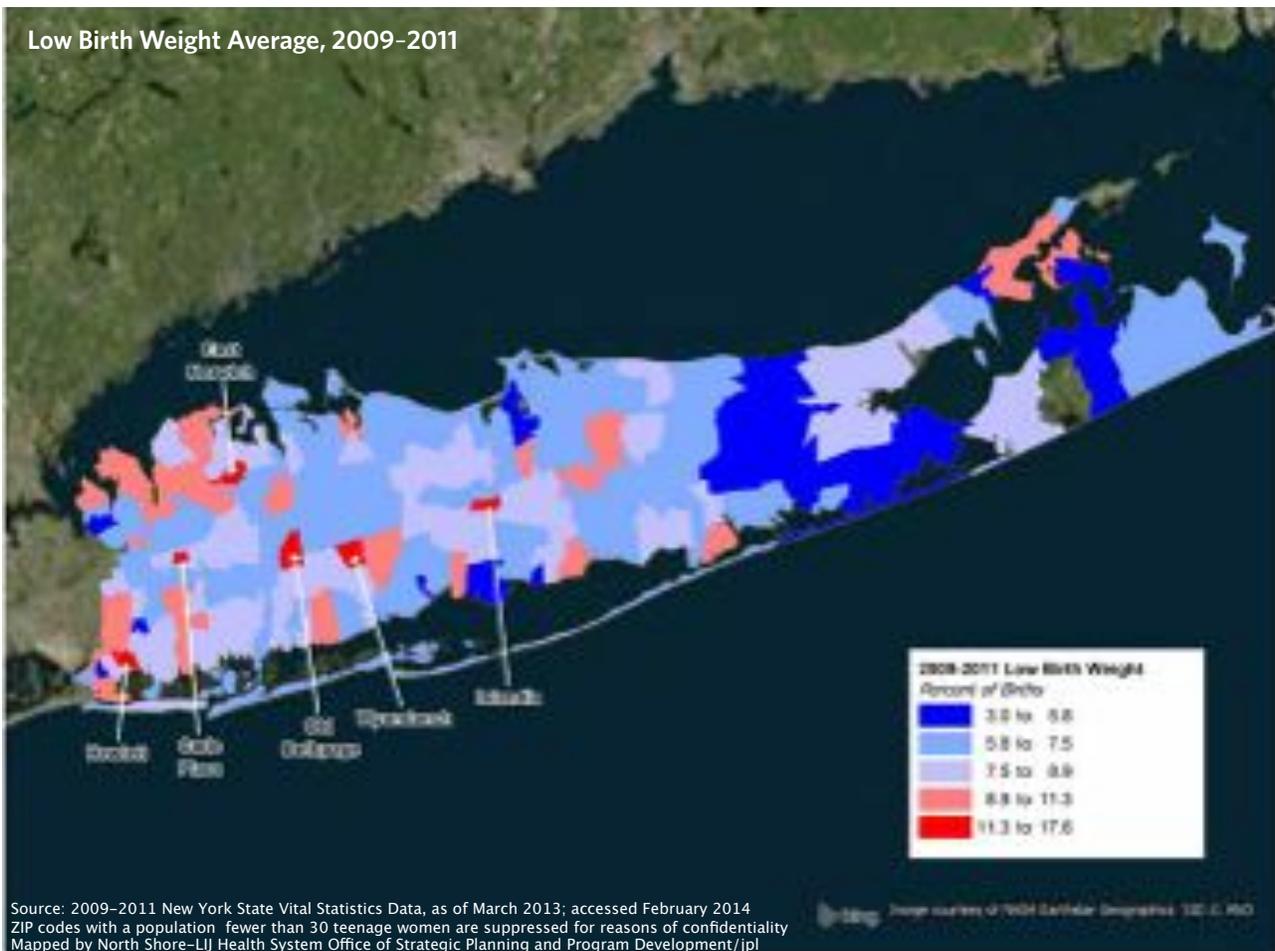
Source: New York State Department of Health

## Low Birth Weight by Age of Mother, Long Island, 2011



Source: New York State Department of Health

## Low Birth Weight Average, 2009-2011



## INFANT MORTALITY

### INDICATOR TREND

Nassau and Suffolk share the same 2009–2011 average infant mortality rate: 4.2 per 1,000 live births.

Trends over time have varied by county.

From 2001–2003 to 2009–2011, Nassau’s infant mortality rate barely changed, from 4.1 to 4.2. After rising between 2001–2003 and 2007–2009, peaking at 4.8, the rate began to decline.

From 2001–2003 to 2009–2011, Suffolk’s infant mortality rate declined 17.7% overall. While the rate decreased steadily between 2001–2003 and 2007–2009, dropping to 3.9, it has since risen slightly.

### WHAT DOES THIS MEASURE?

This indicator shows infant mortality rates for Nassau County and Suffolk County. The rates are per 1,000 live births.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

Infant mortality refers to deaths within the first year of life. Infant deaths are divided into two categories—neonatal deaths and post-neonatal deaths. Neonatal deaths take place in the first 28 days of life and post-neonatal deaths take place after the 28th day but under one year of life.

Infant mortality is one of the most common indicators used to assess the health of populations around the world, since it is associated with maternal health and the performance of primary healthcare systems. While infant, neonatal and post-neonatal mortality rates have declined consistently in the United States since the 1970s, they are still higher than in many other industrialized nations; in 2008, the United States was ranked 28th among industrialized countries by the World Health Organization. About 25,000 infants die each year in the United States.

Infant mortality is correlated with premature birth (prior to 37 weeks gestation), low birth weight, birth defects and complications of pregnancy. Two causes of death are respiratory distress syndrome and Sudden Infant Death (SIDS). Other factors increasing the risk of infant mortality are maternal age and health, infections and unintended injuries.

The death of an infant before the first year may have long-term emotional consequences for parents and other family members, including profound grief and fears about future pregnancies and births. The death of an infant may also affect the emotional experiences of children born after the child who died.

## HOW DO WE COMPARE?

### National Context

From 1940—when the rate was close to 50 per 1,000 live births—through the 1990s, there was a steep decline in the infant mortality rate. In 2000, the rate began to plateau. However, in 2005, the pattern started to shift again, and over the next six years (2005–2011), the infant mortality rate fell 12% overall.

As of 2011, the U.S. infant mortality rate was 6.05 deaths per 1,000 live births, down from 6.87 in 2000.

Recent progress in the decline of the infant mortality rate has been linked to two possible factors: a decrease in premature births and an increase in planned early deliveries, with more hospitals preventing mothers from scheduling births before 39 weeks without a medical reason.

Fall-off in the infant mortality rate has occurred for all race/ethnic groups, although disparities remain. From 2005 to 2011, the infant mortality rate declined most sharply for non-Hispanic black women (16%). The smallest rate decrease was for Hispanic women (9%). The rate fell 12% for non-Hispanic white women.

Rates also differ by region. In 2010, Alabama and Mississippi had infant mortality rates of 8.7 and 9.7, respectively. In contrast, California and Washington had infant mortality rates of 4.7 and 4.5, respectively.

The Healthy People 2020 goal for infant mortality is 6 infant deaths per 1,000 live births.

### State Context

The New York State infant mortality rate stood at 5 per 1,000 live births in 2011, continuing a slow downward trend that began in 1970. From 2001 to 2011, the rate decreased 10.5%.

The three-year average infant mortality rate reflects the same pattern. From 2001–2003 to 2009–2011, the rate decreased 13.6%, from 5.9 per 1,000 live births to 5.1.

Despite this decline, disparities by race/ethnicity endure. For the period 2009–2011, the average infant mortality rate was 4.1 for non-Hispanic whites, 4.5 for Hispanics and 10.3 for non-Hispanic blacks.

As of 2010, New York was ranked 13th in the nation with regard to (lowest) infant mortality rates.

New York has met the Healthy People 2020 goal for infant mortality.

### Nassau/Suffolk Counties

Nassau and Suffolk share the same 2009–2011 average infant mortality rate: 4.2 per 1,000 live births. Trends over time have varied by county.

From 2001–2003 to 2009–2011, Nassau County’s three year average infant mortality rate barely changed, moving from 4.1 per 1,000 live births to 4.2. After rising between 2001–2003 and 2007–2009, peaking at 4.8, the rate began to decline.

Nassau County’s 2011 single-year infant mortality rate was 3.3.

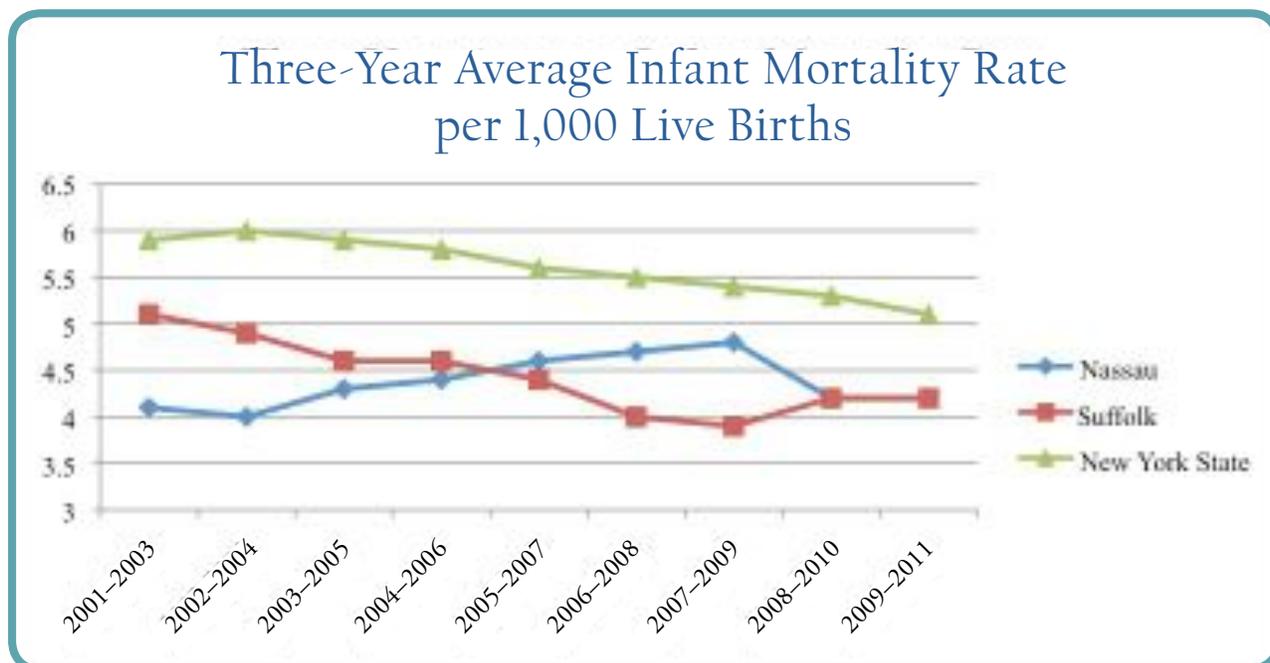
From 2001–2003 to 2009–2011, Suffolk County’s three-year average infant mortality rate declined 17.7% overall, from 5.1 per 1,000 live births to 4.2. While the rate decreased steadily between 2001–2003 and 2007–2009, it has since risen slightly.

Suffolk County’s 2011 single-year infant mortality rate was 4.2.

Both Nassau’s and Suffolk’s 2011 infant mortality rates were below the rates for the United States and the State. They also met the Healthy People 2020 goal.

Disparities in the infant mortality rate exist in both counties. In Nassau, the 2009–2011 average infant mortality rate was 2.7 per 1,000 live births for white women, 13.4 for black women and 3.8 for Hispanic women. In Suffolk, the 2009–2011 average infant mortality rate was 3.4 per 1,000 live births for white women, 8.5 for black women and 4.6 for Hispanic women.

Data from the Nassau County Community Health Assessment also show that infant mortality rates are dramatically higher in “selected” communities than in the rest of the county. As noted in other perinatal indicator sections, these selected communities have larger populations of color and lower median household incomes than the county at large.



Source: New York State Department of Health

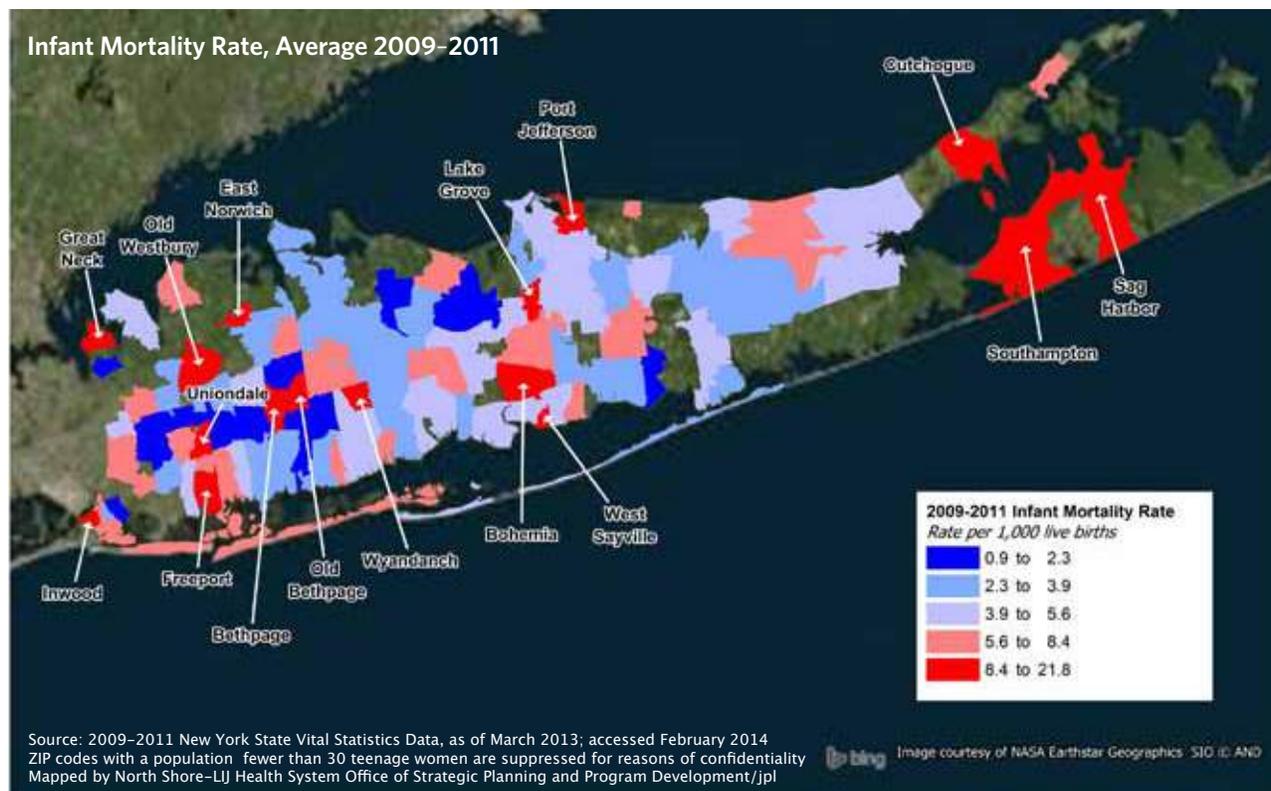
The 10 Long Island ZIP codes with the highest infant mortality rates show some limited patterns with regard to risk indicators examined in previous sections, including late or no prenatal care rates, teen pregnancy rates and low birth weight rates. For example, among these 10 ZIP codes, 50% had late or no prenatal care rates above their respective county levels. Approximately 40% of ZIP codes had higher percentages of low birth weight births than their respective counties.

### Long Island ZIP Codes With the Highest Rates of Infant Mortality per 1,000 Live Births, 2009–2011 Average

	Rate Infant Mortality	Percentage Low Birth Weight	Percentage Late or No Prenatal Care	Teen Pregnancy Rate per 1,000	Percentage Births Medicaid or Self-Pay	Percentage Individuals Below Poverty Level	Percentage People of Color
Nassau County	4.2	8.2	3.2	20.6	27.9	5.2	26.6
Suffolk County	4.2	7.7	4.3	27.4	35.8	5.7	17.5
Old Westbury 11568	21.8	6.5	4.3	3.8	13	1.4	30
East Norwich 11732	17.4	12.2	0	2.7	4.3	1.2	6.1
Southampton 11968	11.5	7.8	4.4	14.9	4.3	7.5	14.9
Middle Island 11553	11.5	8.3	6.6	56.8	62.7	8.6	69
Bohemia 11716	10.3	6.5	2.2	17.1	19.2	4.4	3
Lake Grove 11755	10.2	11	3.3	14.8	13.8	3.5	9.9
Freeport 11520	9.9	8.5	5.4	49.9	60.3	12.6	57.5
Inwood 11096	9.3	6.8	7.7	49.1	60.3	13.5	64.1
Bethpage 11714	9	7.4	2.3	6.7	11.3	2.5	11.4
Sag Harbor 11963	9	4.5	.9	16.4	33.8	9.1	8

Sources: New York State Department of Health; American Community Survey 2012, five-year estimates

Notes: Results do not include ZIP codes with fewer than 10 births during the three-year period. ZIP codes with a population of fewer than 30 teenage women were suppressed for reasons of confidentiality. Rates are crude rather than age-adjusted.



ZIP codes with fewer than 10 births were suppressed for the purposes of analysis, in order to minimize unstable rates. ZIP codes with a population of 30 teenage women or fewer were also suppressed for reasons of confidentiality.

Other related factors that may contribute to infant mortality include age of mother, fertility treatments, and multiple births.

## PEDIATRIC ASTHMA

### INDICATOR TREND

While pediatric asthma rates on Long Island have decreased overall in the long term (2002-2011), they have climbed in recent years.

The 2009-2011 average pediatric asthma rates were 20.8 per 10,000 population ages 0-17 for Nassau and 19.3 for Suffolk, an increase of 15.6% and 8.4%, respectively, since 2005-2007.

This indicator is important to track as a measure of Hurricane Sandy's long-term impact on respiratory health.

### WHAT DOES THIS MEASURE?

This indicator shows hospital discharge rates for children ages 0-17 years old in Nassau and Suffolk counties. The pediatric asthma discharge rate is per 10,000 population



ages 0–17. ZIP code level rates were determined by using Prevention Quality Indicators (PQI) guidelines for pediatric asthma (PQI #14), developed by the Agency for Healthcare Research and Quality rather than New York State Department of Health definitions. As a result, ZIP code rates are not comparable to data from prior years; however, they still capture pediatric asthma distribution patterns for the region.

#### **WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?**

Asthma is a chronic respiratory condition that constricts the passageway to the lungs. Children are especially vulnerable to asthma because of their narrow airways and rapid breathing pace. Asthma attacks can be brought on by a number of indoor and outdoor environmental triggers, including cigarette smoke, allergens such as pollen, molds and animal hair and dander, poor ventilation, changing weather, chemicals, and respiratory infections and colds.

Pediatric asthma is a major cause of hospitalization, school nonattendance, poor academic performance and chronic disease. Parents who care for children with asthma are at risk for work absenteeism and decreased productivity.

Pediatric asthma is associated with socioeconomic conditions. While asthma can af-

fect children from all backgrounds, poor children suffer from asthma more than others. Asthma is also more common in Hispanic and black children and in children who live in urban environments. Adverse outcomes, such as emergency department visits, hospitalizations and death are also significantly higher for black children.

The pediatric asthma rate is an important indicator because hospitalization discharges for pediatric asthma reflect care given for an ambulatory care sensitive (ACS) condition. ACS conditions are conditions that could have been prevented or controlled had they been treated earlier or had an individual received more consistent primary care. High pediatric asthma rates may signal possible barriers to accessing or using primary or preventive care, such as early treatment and prophylactic medications. With the implementation of the Affordable Care Act (ACA), which extends health insurance coverage to millions of uninsured Americans, pediatric asthma rates may decline in the future.

In addition, future changes in the pediatric asthma hospitalization rate may point to potential health effects from Hurricane Sandy. The storm left many Long Island homes damaged by floodwaters and in danger of mold contamination. Without proper mold remediation, individuals are at risk for health problems, especially those with compromised immune systems or chronic respiratory conditions like asthma, allergies or emphysema.

## HOW DO WE COMPARE?

### National Context

Asthma is one of the most common chronic childhood diseases. As of 2011, 9.5% of all children in the United States had asthma.

From 2001–2009, the asthma prevalence rate for children ages 0–17 increased from 8.7% to 9.3%.

Among children under 15, asthma is the third-leading cause of hospitalization. In 2009, approximately 29% of all asthma hospital discharges were for children under the age of 15.

In 2009, children ages 0–17 had a rate of 19.1 hospitalizations per 10,000 population. The rate was higher for children ages 0–4 at 40.6 per 10,000 population, although it has declined 27.8% since 2001.

The Healthy People 2020 goal is to reduce the pediatric asthma rate to 18.1 hospitalizations per 10,000 population ages 0–4.

### State Context

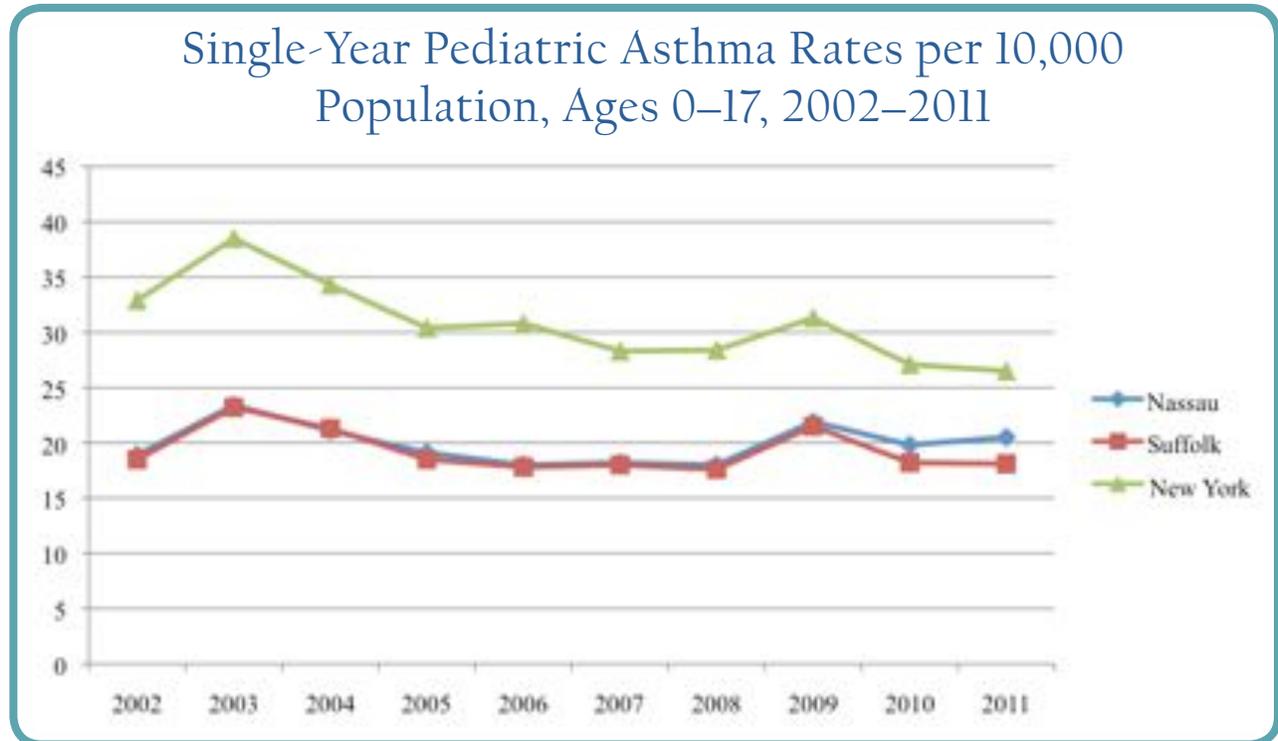
In New York, the pediatric asthma discharge rate has fallen over the last decade, with some

variation in the intervening years. The 2009–2011 average pediatric asthma discharge rate was 26.5 per 10,000 population ages 0–17, compared to 28.3 for 2005–2007.

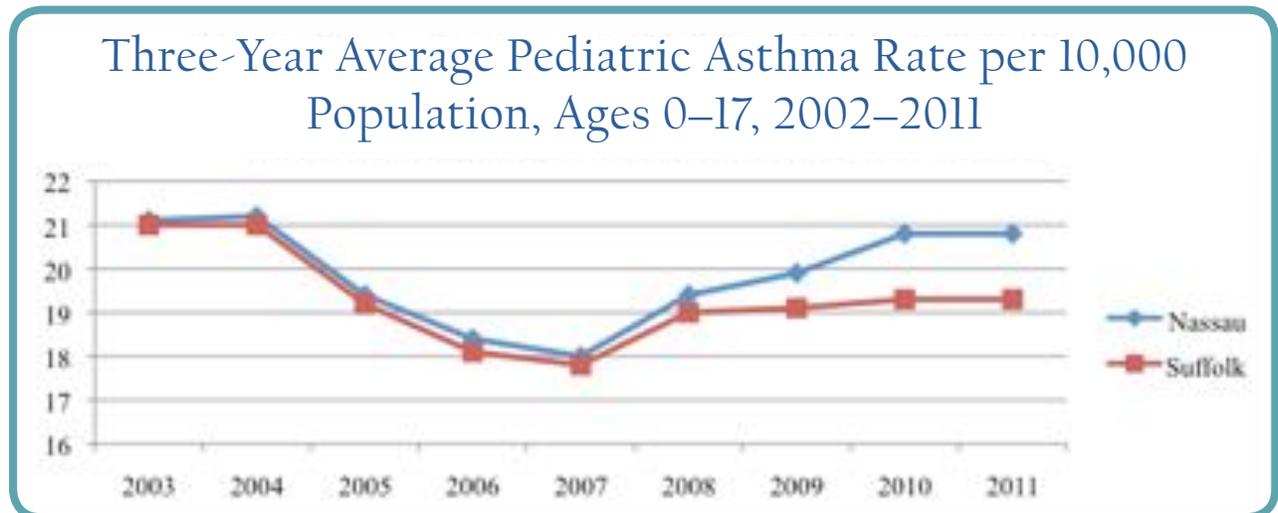
**Nassau/Suffolk Counties**

While pediatric asthma rates on Long Island have decreased over the past decade, they have climbed in recent years. Rates are lower than at the State level but higher than nationwide.

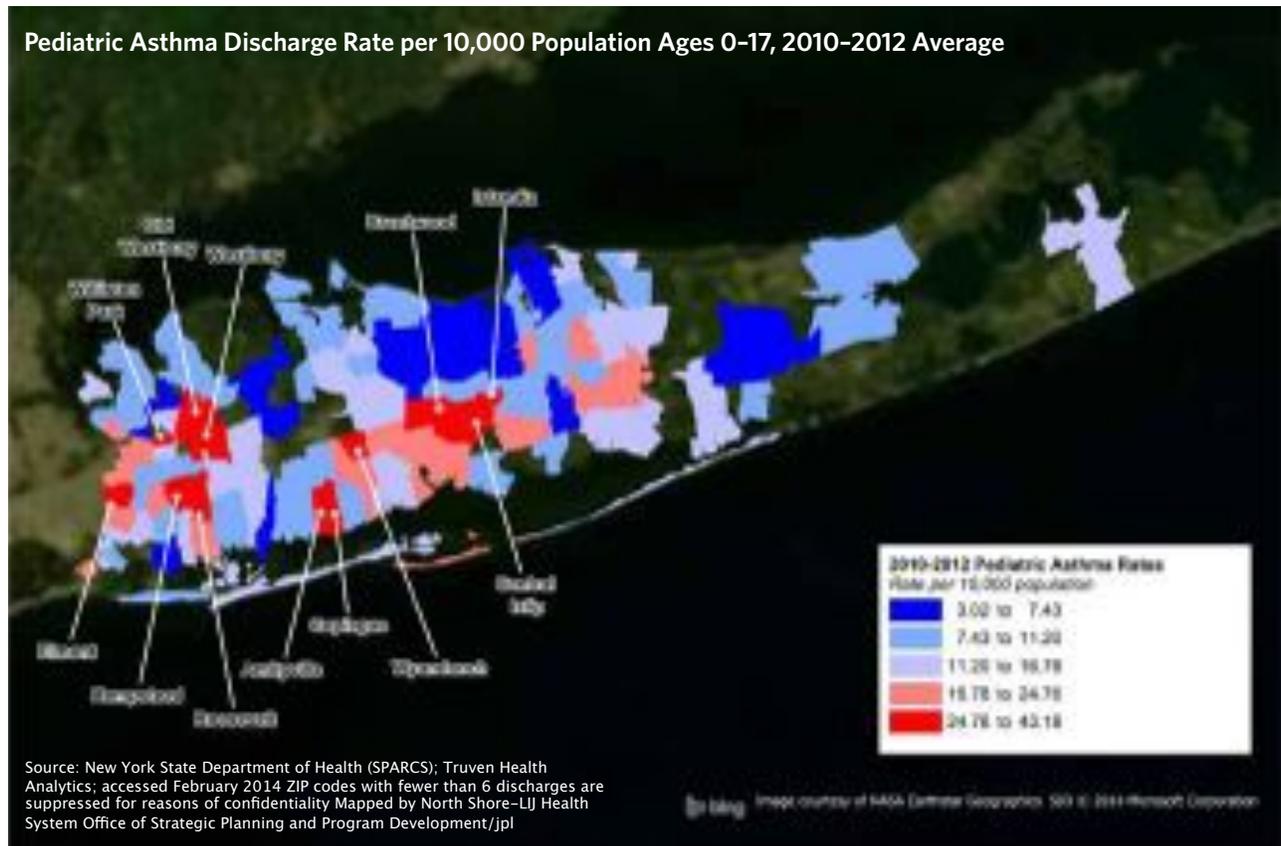
The 2009–2011 three-year average pediatric asthma rates were 20.8 per 10,000 population ages 0–17 for Nassau and 19.3 for Suffolk, an increase of 15.6% and 8.4%, re-



Source: New York State Department of Health



Source: New York State Department of Health



spectively, since 2005–2007.

Analysis of 2010–2012 ZIP code level pediatric asthma discharges reveals that they are focused in particular communities. The 10 ZIP codes with the highest pediatric asthma rates per 10,000 population ages 0–17 were: Wyandanch, Hempstead, Roosevelt, Farmingville, Uniondale, Central Islip, Williston Park, Amityville, Brentwood and Westbury. The pediatric asthma discharge rates ranged from 28.2 per 10,000 population to 43.2 for these ZIP codes. By comparison, Nassau’s pediatric asthma discharge rate was 14.1 and Suffolk’s was 12.7 for the same years.

Three of the 10 Long Island ZIP codes (Hempstead, Roosevelt and Wyandanch) with the highest pediatric asthma rates had individual poverty rates approximately two to three times higher than their respective counties. In addition, all the ZIP codes had an average household size exceeding their respective county sizes. As noted in *Vital Signs 2006*, these findings suggest that poverty and household size may act as proxies for the quality of housing stock and environmental conditions in the home.

ZIP codes with fewer than six episodes were not included in this analysis since they may yield unstable rates.

**INDICATOR  
TREND**

Hospitalization rates for diabetes have climbed over time on Long Island, up 18.2% in Nassau and 9.9% in Suffolk from 2002–2011.

In 2012, a total of 805 diabetes-related lower extremity amputations (LEA) took place on Long Island; 380 were in Nassau and 425 were in Suffolk. This number was an increase over 778 episodes in 2006.

Nassau’s and Suffolk’s LEA rate for 2010–2012 was approximately 35 per 100,000 people with diabetes. Certain communities had diabetes-related LEA rates that were 1.5 to 3 times higher than the rates in their respective counties.

**WHAT DOES THIS MEASURE?**

This indicator shows the rate of adult inpatient cases of diabetes (primary diagnosis), as well as the number and rate of lower-extremity amputations (LEA) due to diabetes in Nassau and Suffolk counties. ZIP code data are based on Prevention Quality Indicators (PQI) guidelines for lower extremity amputations due to diabetes (PQI #16), developed by the Agency for Healthcare Research and Quality. Lower extremities include the toes, feet and legs. The rate is per 1,000/100,000 people with diabetes. ZIP code rates are crude rather than age-adjusted. Because ZIP code level rates were determined by using PQI guidelines rather than New York State Health Department standards, results cannot be compared to data from previous years. However, they still capture diabetes-related LEA distribution patterns for the region.

**WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?**

Diabetes is caused by the inability of the body to metabolize glucose, resulting in high blood glucose levels. There are four types of diabetes: Type 1 diabetes, Type 2 diabetes, gestational diabetes and diabetes secondary to other conditions. Type 1 and Type 2 are the most common forms of diabetes.

The risk of complications from diabetes increases without medical care or adherence to dietary, exercise or medication regimens. In addition to health concerns such as eye, heart and kidney disease, complications can include the loss of lower extremities due to peripheral nerve damage related to diabetes. In some communities, lack of affordable, healthful food or cultural dietary norms contribute to outcomes like obesity that heighten the risk of complications.

Disparities exist in the diabetes-related LEA rate. In 2008, the rate was almost two times higher for blacks than for whites. Among Medicare beneficiaries, the difference

was even greater, with the rate for black Medicare recipients close to four times that of white recipients.

Diabetes-related LEA can result in profound physical, emotional, social and economic consequences. After an amputation, a person may experience reduced mobility, decreased work productivity, unemployment, depression and social isolation.

This is an important indicator because LEA for diabetes reflects care given for an ambulatory care sensitive (ACS) condition. ACS conditions are conditions that could have been prevented or controlled had they been treated earlier or had the individual received consistent primary care. High rates of LEA due to diabetes may signal possible barriers to accessing primary or preventive care. One of the reasons people cannot access preventive care is because many healthcare insurers do not reimburse for diabetes-related foot care or podiatrist visits. The CDC estimates that diabetes-related foot care programs could prevent as much as 85% of diabetes-related amputations.

With the implementation of the Affordable Care Act (ACA), there are new opportunities to improve diabetes prevention, screening and treatment. Millions now have access to health insurance, through Medicaid expansion and health insurance marketplaces, providing them with primary care for the first time. In addition, people with preexisting conditions, including those related to diabetes, have greater protection against insurers. Beyond expanding coverage, the ACA also includes provisions to improve diabetes surveillance and quality standards across the country.

## HOW DO WE COMPARE?

### National Context

#### DIABETES

Diabetes is increasing in the United States. In 2011, 20.9 million Americans had diagnosed diabetes, up 273% since 1980. Another seven million were estimated to have diabetes that had not yet been diagnosed.

#### DIABETES-RELATED LEA

After increasing in the 1990s, the number of LEA hospital discharges plateaued and then began to decline through 2007, fluctuating over the next two years. In 2009, 68,000 LEA were performed on people with diabetes.

The 2009 age-adjusted diabetes-related LEA rate was 3.2 per 1,000 persons with diabetes; the rate declined from 2000–2007 but has since held steady. The 2009 crude rate was 3.3.

The decrease in the diabetes-related LEA rate is largely attributed to improved treat-

ment of feet and ankles, including better prevention and management of diabetic ulcers through surgery called contact casting, which lessens pressure on the parts of the foot likely to develop ulcers. Still, experts argue that, even with better treatment, the United States lags behind other countries in aggressive management, mainly because these procedures are not always covered by insurance plans.

### State Context

#### DIABETES

Mirroring national trends, diabetes prevalence has increased in New York. The three-year average rate for self-reported diabetes among adults rose from 4.6% in 1996–1998 to 8.5% in 2007–2009.

CDC survey data for 2011 show that 10.4% of New York adults had diagnosed diabetes. However, changes in survey methodology make it impossible to compare this rate to previous years.

While most adults with diabetes are white New Yorkers (55%), black, Asian and Hispanic New Yorkers make up a disproportionate share of adults with the disease (45%) compared to their representation in the general population (32%).

New York State does not have a surveillance system to track undiagnosed diabetes. However, if national estimates for undiagnosed diabetes were applied, approximately 5.1% of the population over the age of 20, or 760,000 New York adults, would have undiagnosed diabetes.

#### DIABETES-RELATED LEA

Diabetes-related LEA are decreasing in New York. In 2009, 2,820 diabetes-related lower-limb amputations were performed, compared to 5,039 in 2004, a fall-off of 44%.

The last publicly available data (2006) put the LEA rate at 3.23 per 1,000 people with diabetes.

### Nassau/Suffolk Counties

#### DIABETES

In 2011, Nassau and Suffolk counties had a combined estimated diagnosed diabetes prevalence rate of 9.8%, the highest since 2004, and above the national rate (9.5%). From 2004–2011, the Nassau-Suffolk estimated diagnosed diabetes rate fluctuated significantly.

Diabetes prevalence rates within the counties have also differed year by year; in some years, the rate was higher in Nassau and, in other years, the rate was higher in Suffolk.

Overall, Nassau’s rate increased 26% from 6.4% in 2004 to 8.2% in 2010 (the last year for which separate county data are available). Suffolk’s rate rose 37% from 4.1% in 2004 to 5.6% in 2010.

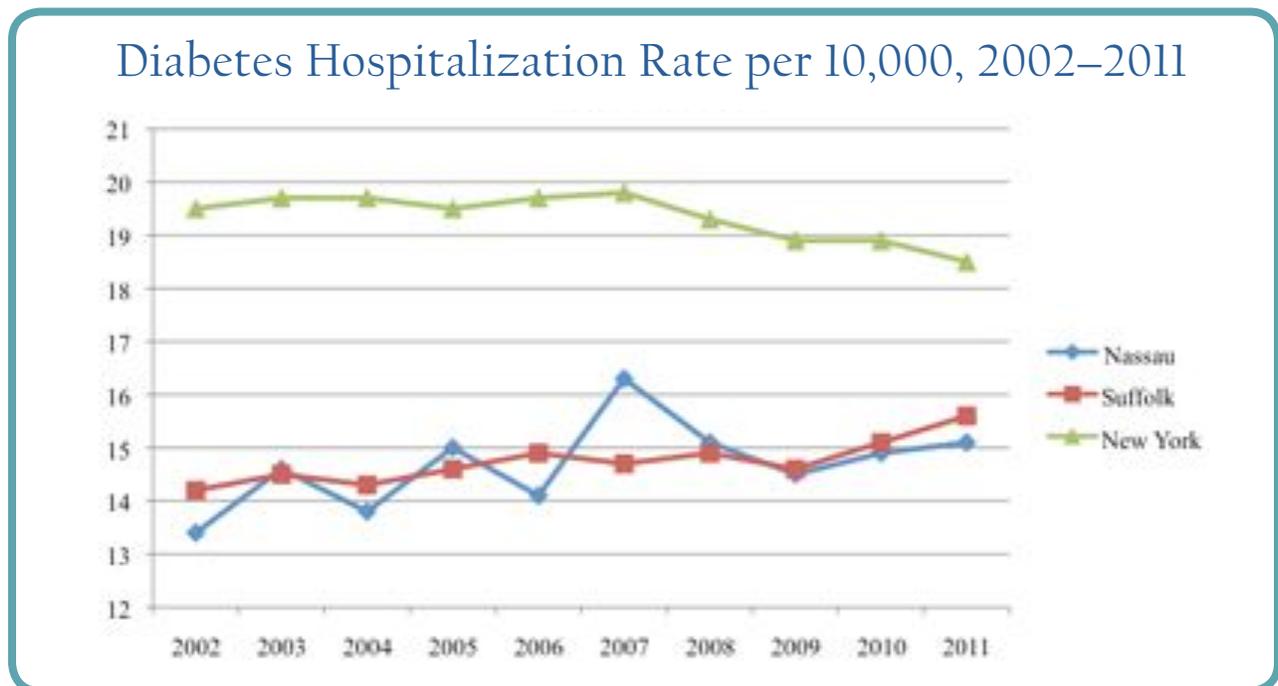
As with prevalence rates, hospitalization rates for diabetes have climbed over time on Long Island. From 2002–2011, the age-adjusted diabetes hospitalization rate per 10,000 population rose 18.2% in Nassau, from 14.8 to 17.5. Over the same time period, the rate increased 9.9% in Suffolk, from 14.2 to 15.6.

**DIABETES-RELATED LEA**

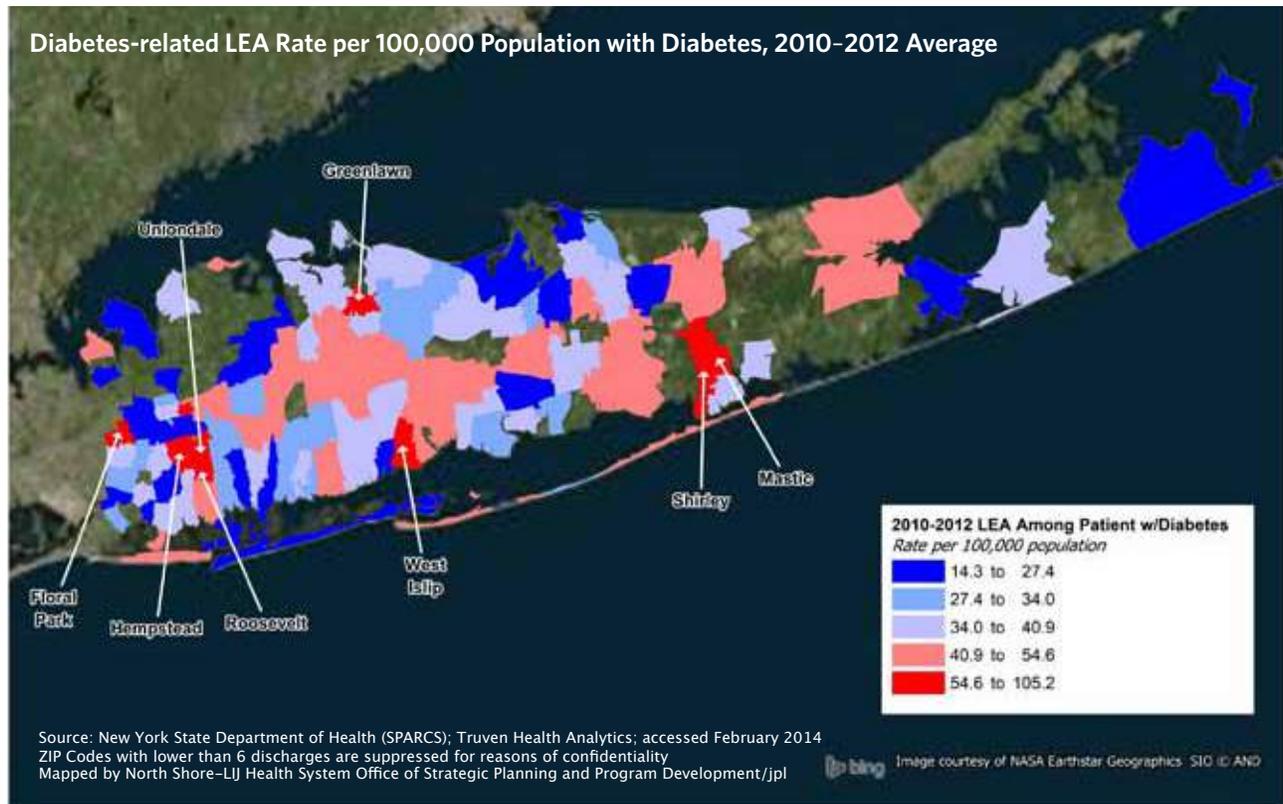
In 2012, a total of 805 diabetes-related LEA episodes took place on Long Island; 380 were in Nassau and 425 were in Suffolk. This figure represents an increase from 2006, when there were 778 LEA episodes.

The diabetes-related LEA rate per 1,000 population with diabetes is not publicly available for years after 1999, when it was 6.7 in Nassau and 7.2 in Suffolk.

A review of diabetes-related LEA rates for 2010–2012 indicate that they were concentrated in certain ZIP codes on Long Island. After removing ZIP codes with fewer than six episodes, to minimize unstable rates, the 10 ZIP codes with the highest rates were: Greenlawn, Uniondale, Roosevelt, Carle Place, Shirley, Hempstead, West Islip, Floral Park, Mastic and Bellport. The diabetes-related LEA rates for 2010–2012 ranged from 50.8 per 100,000 population with diabetes to 105.2 for these ZIP codes. By comparison, both Nassau and Suffolk had LEA rates of about 35 for the same years.



Source: New York State Department of Health  
 Note: Rates are age-adjusted.



Seventy percent of ZIP codes had individual poverty rates higher than their respective counties. Fifty percent of ZIP codes had greater populations of color than their respective counties.

## SENIOR UNINTENTIONAL FALLS

### INDICATOR TREND

From 2007 to 2011, unintentional falls rates decreased for adults ages 65 and older, ages 75-84 and ages 85 and older in Nassau.

In contrast, unintentional falls rates rose for adults ages 65-74 and ages 85 and older in Suffolk during the same time. Suffolk's rates now exceed Nassau's rates.

Nassau's 2011 rates for unintentional falls were 82.5 per 10,000 population ages 65-74; 258.7 for ages 75-84; and 696.9 for ages 85 and older.

Suffolk's 2011 rates were 93.8 per 10,000 populations ages 65-74; 274.6 for ages 75-84; and 723.6 for ages 85 and older.

### WHAT DOES THIS MEASURE?

This indicator shows the hospital discharge rate for unintentional falls among the population ages 65-74, 75-84, and 85 and older in Nassau and Suffolk counties. The dis-



charge rate is per 10,000 and 100,000 population age group.

#### **WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?**

Falls are the leading cause of injury to people over the age of 65. Each year, one out of every three seniors suffers an injury from a fall. These injuries may be minor or major and include fractures, usually in the hip, as well as head trauma and damage to internal organs.

Risk of falling increases with age, as does the possibility of resulting injury or fatality; unintentional falls are the leading cause of injury-related deaths for adults ages 65 and older.

Causes of unintentional falls vary but include the physical wear of the body that comes with age, medications, home environment conditions such as poor lighting, stairs, objects on the ground or in pathways and slippery surfaces, insufficient sleep, improper or no use of assistive devices, and symptoms of disease or illness.

Disparities in falls exist by sex and race/ethnicity. While the unintentional falls rate is higher for women, men are more likely to die as a result of falls; their death rate was 40% higher than women's in 2010. There is minimal difference in fatal falls rates between whites and blacks between the ages of 65–75; however, after age 75, older whites are 2.4 times more likely to die from their falls than their black peers. White women are

more likely than black women to fracture their hips in a fall. Other demographic factors associated with increased likelihood of falls include income, disability status and household composition, specifically living alone, if community dwelling. Older adults living alone are at increased risk for complications from falls, since about half cannot get up unassisted.

Depending on their severity, falls may affect quality of life for seniors. In some cases, unintentional falls result in cognitive, speech and functional impairment. Falls are the most common cause of traumatic brain injuries (TBI). Injuries from falls may require short-term or ongoing assistance, such as nursing home care, home care or use of assistance devices like canes or walkers. A decrease in mobility may result in a loss of independence for seniors, leading to depression and social isolation. Anxiety, due to a fear of falling again, and loss of confidence may also occur after a fall.

Some unintentional falls are avoidable. Prevention strategies consist of modifications to the internal and external home environment, including the installation of bathroom safety equipment, enhanced indoor and outdoor lighting, removal of scatter rugs and the securing of handrails. Other prevention tactics involve regular checkups, including vision screenings and screenings for osteoporosis, medication monitoring, exercise to improve balance and lower body strength, and sufficient rest.

Unintentional falls result in significant direct and indirect social costs. Direct costs of falls include hospitalization, nursing home or home care, medications and home modification. According to the Centers for Disease Control (CDC), the direct medical cost of falls, adjusted for inflation, was \$30 billion in 2010. Indirect costs include loss of work productivity and income for seniors as well as for family members, who may have to take time off from their jobs to provide care. If falls among older adults continue to increase at current rates, the annual estimated direct and indirect cost related to falls will be \$67.7 billion in 2020.

## HOW DO WE COMPARE?

### National Context

Nationally, the CDC estimates unintentional falls numbers and rates based on all episodes treated in emergency rooms. In 2011, 2.4 million nonfatal fall injuries among older adults were treated in emergency departments nationwide. Approximately 21,700 seniors died from unintentional falls injuries in 2010.

The nonfatal falls rate per 100,000 population ages 65 and older was 3,712 for men and 6,120 for women in 2012. The combined male and female rate was 5,614.65, up 10.2% since 2007.

The fatal falls rate (male and female combined) was 53.76 per 100,000 adults age 65 and older in 2010.

Healthy People 2020 goals in this area include reducing the fatal falls rate for people age 65 and older to 45.3 deaths per 100,000 population.

#### State Context

In New York State, senior unintentional falls rates are tracked by the following age groups: 65–74, 75–84, and 85 and older, based on hospital discharges.

The 2009–2011 average discharge rate for unintentional falls per 10,000 population ages 65–74 was 77.3. The rate was 226 for ages 75–84 and 570.6 for age 85 and older.

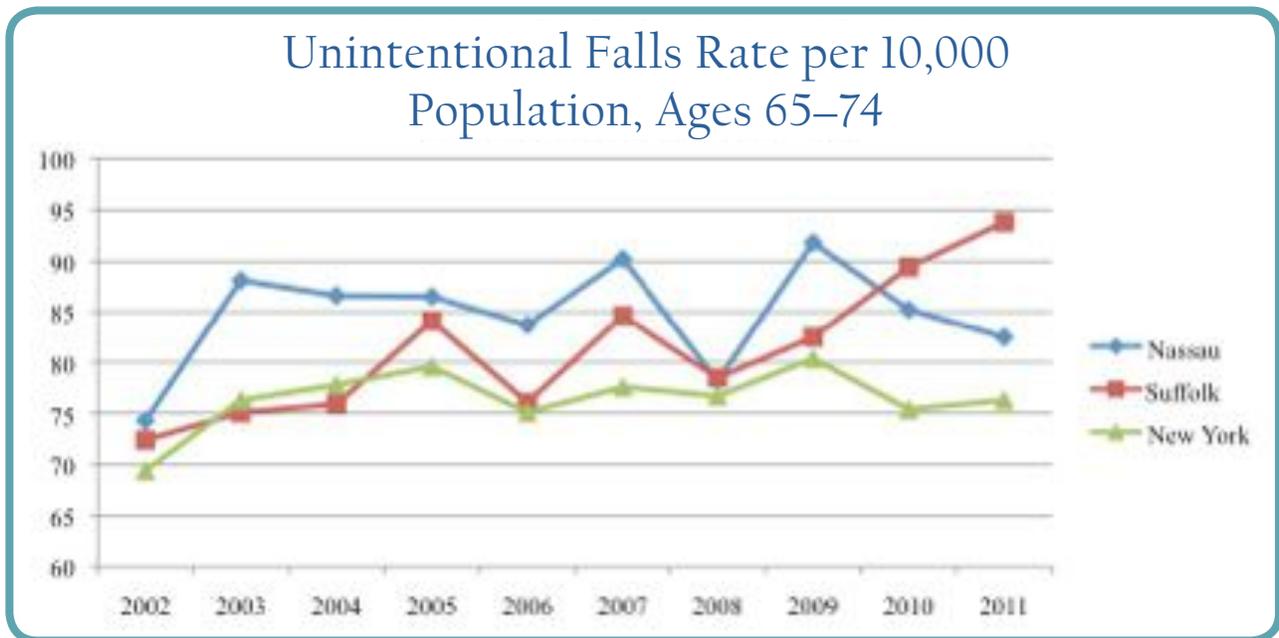
The falls rate for ages 65–74, while fluctuating at various points, decreased overall by 1.7% from 2007 to 2011.

The unintentional falls rate for ages 75–84, which also fluctuated, decreased overall by 5.7% during the same time period.

In contrast, the falls rate for age 85 and older, which also rose and fell from 2007 to 2011, increased overall by 5.4%.

#### Nassau/Suffolk Counties

In Nassau County, rates for senior unintentional falls for all age categories climbed during the past decade, exceeding State rates. From 2002–2011, single-year rates increased 11% for adults ages 65–74, 10.6% for adults ages 75–84, and 27.1% for adults age 85 and older.

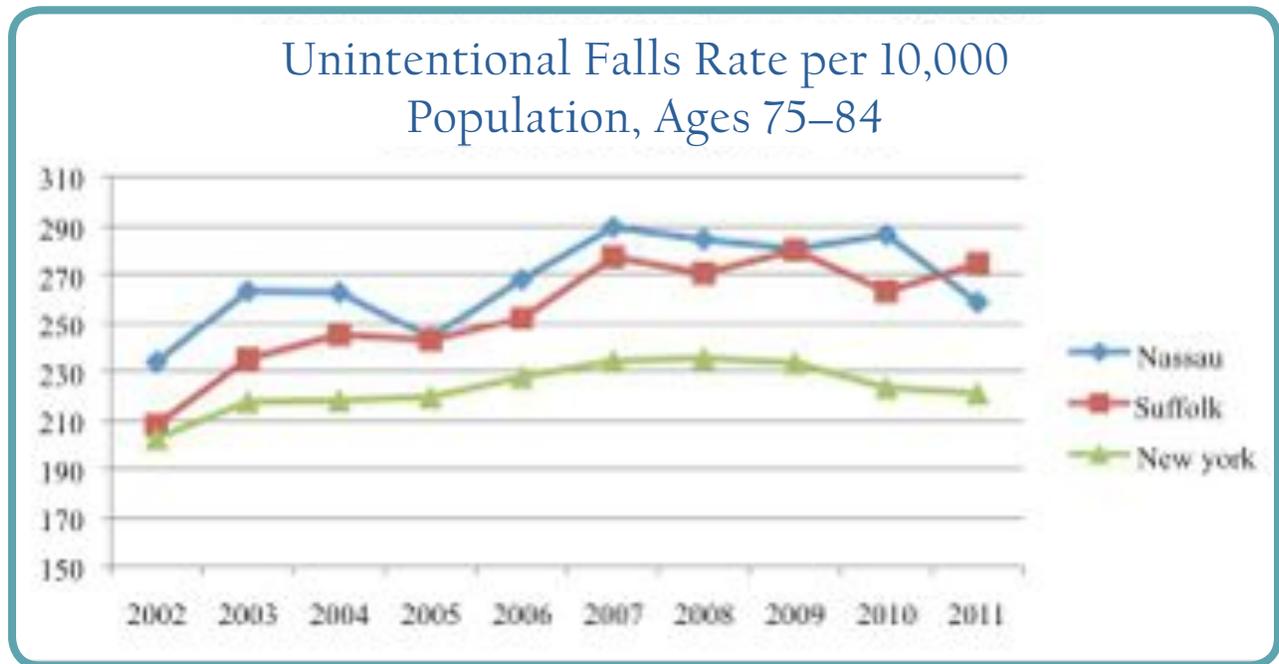


Source: New York State Department of Health

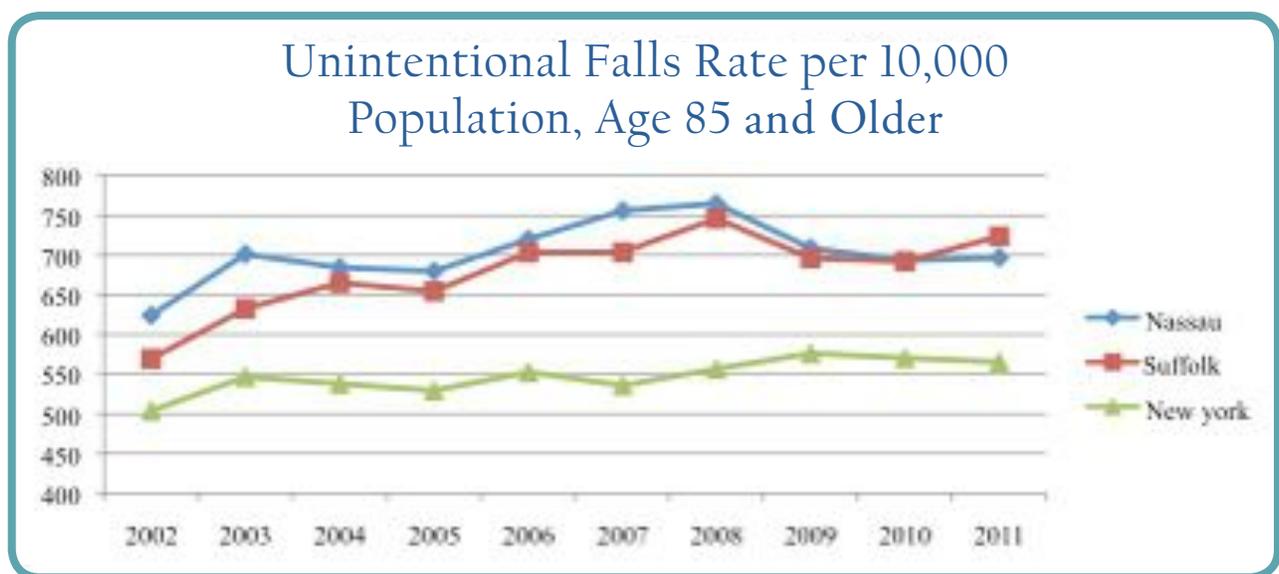
However, during more recent years (2007–2011), trends have differed. The rate fell 8.5% for adults age 65 and older, 10.9% for adults ages 75–84 and 7.8% for adults age 85 and older.

Nassau’s 2011 rates for unintentional falls were 82.5 per 10,000 population ages 65–74, 258.7 per 10,000 population ages 75–84, and 696.9 per 10,000 population age 85 and older.

In Suffolk County, the single-year rate in each of the three reporting categories also rose overall during the past decade: 29.6% for adults ages 65–74, 32% for adults ages



Source: New York State Department of Health



Source: New York State Department of Health

75–84 and 27% for adults age 85 and older.

In contrast to Nassau, rates in Suffolk rose overall from 2007–2011 for age categories 65–74 (10.9%) and 85 and older (2.8%), with some fluctuation during these years. The rate fell 1% for adults ages 75–84.

For 2011, Suffolk’s unintentional falls rates were 93.8 per 10,000 population ages 65–74, 274.6 per 10,000 population ages 75–84 and 723.6 per 10,000 population age 85 and older.

Suffolk’s rates were higher than Nassau’s and the State’s rates.

## ● DISEASES OF THE HEART

### INDICATOR TREND

The average age-adjusted heart disease mortality rate fell 13.4% in Nassau and 17.8% in Suffolk between 2005–2007 and 2009–2011.

The 2009–2011 average age-adjusted heart disease mortality rate was 214.8 per 100,000 population in Nassau and 192.2 in Suffolk.

Despite decline, Nassau’s age-adjusted heart disease mortality rate remains above the State’s rate.

Heart disease mortality rates in Nassau and Suffolk are higher than at the national level.

### WHAT DOES THIS MEASURE?

This indicator shows heart disease mortality rates for Nassau and Suffolk counties. The rates are per 100,000 population. ZIP code rates are crude rather than age-adjusted.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

Diseases of the heart or heart disease cover a wide range of conditions that prevent the heart from functioning normally. Heart disease includes acute rheumatic fever, chronic rheumatic heart disease, hypertensive heart disease, coronary heart disease, pulmonary heart disease, congestive heart failure, arrhythmias and other heart conditions or disorders.

According to the World Health Organization (WHO), heart disease accounts for 30% of deaths worldwide, making it the leading cause of death. Heart disease is also the main cause of death for men and women in the United States. About 75% of deaths from cardiovascular disease are due to diseases of the heart.

Individual risk factors for heart disease include obesity, smoking, high blood pressure, high cholesterol, poor nutrition and lack of physical activity. Heart disease is more com-

mon in certain populations, including men and African Americans. The incidence of heart disease also increases with age.

Heart disease death rates have been declining since 1950. Their decrease is the result of several developments including improved access to early detection, greater awareness and control of risk factors, and more effective medications and treatment.

Because the risk factors associated with heart disease can be mitigated by early identification and treatment, high mortality rates of heart disease may indicate possible barriers to accessing primary or preventative care. Lower rates may indicate changes in risk factor behavior and/or improved access to care. As with other health indicators, the Affordable Care Act (ACA) may alter treatment access patterns and improve health outcomes in the years to come.

## HOW DO WE COMPARE?

### National Context

In 2010, 597,689 Americans died from diseases of the heart. Provisional data from 2011 put the number at 596,339. Overall, heart disease mortality has been declining in the United States since the 1980s.

The age-adjusted heart disease mortality rate was 179.1 per 100,000 population in 2010. The preliminary 2011 rate was 173.7. Between 2005 and 2010, the diseases of the heart mortality rate fell 15.2%.

Age-adjusted heart disease mortality rates trended higher for men (225.1) than for women (143.3) in 2010. Black Americans had the highest age-adjusted heart disease mortality rate of all races/ethnicities. Age-adjusted heart disease death rates were 176.9 for whites, 224.9 for blacks and 132.8 for Hispanics.

When considering race and gender together, black men had the highest age-adjusted mortality rate among all groups: 280.6. Rates were lower for white men (225.1), white women (140.4), Hispanic men (165.1) and Hispanic women (107.8).

### State Context

The heart disease mortality rate continues to fall in New York State.

In 2011, 43,963 New Yorkers died from diseases of the heart. The age-adjusted rate was 191.4 per 100,000 population. Between 2002 and 2011, the age-adjusted heart disease mortality rate dropped 30.8%.

The State age-adjusted three-year average rate also declined steadily, falling 30% from 283.6 per 100,000 population in 2000–2002 to 198.6 in 2009–2011.

## Nassau/Suffolk Counties

Heart disease mortality rates have been decreasing on Long Island. However, Nassau's rate remains higher than Suffolk's and New York State's rate. Suffolk's rate has also declined more sharply than Nassau's over the past decade.

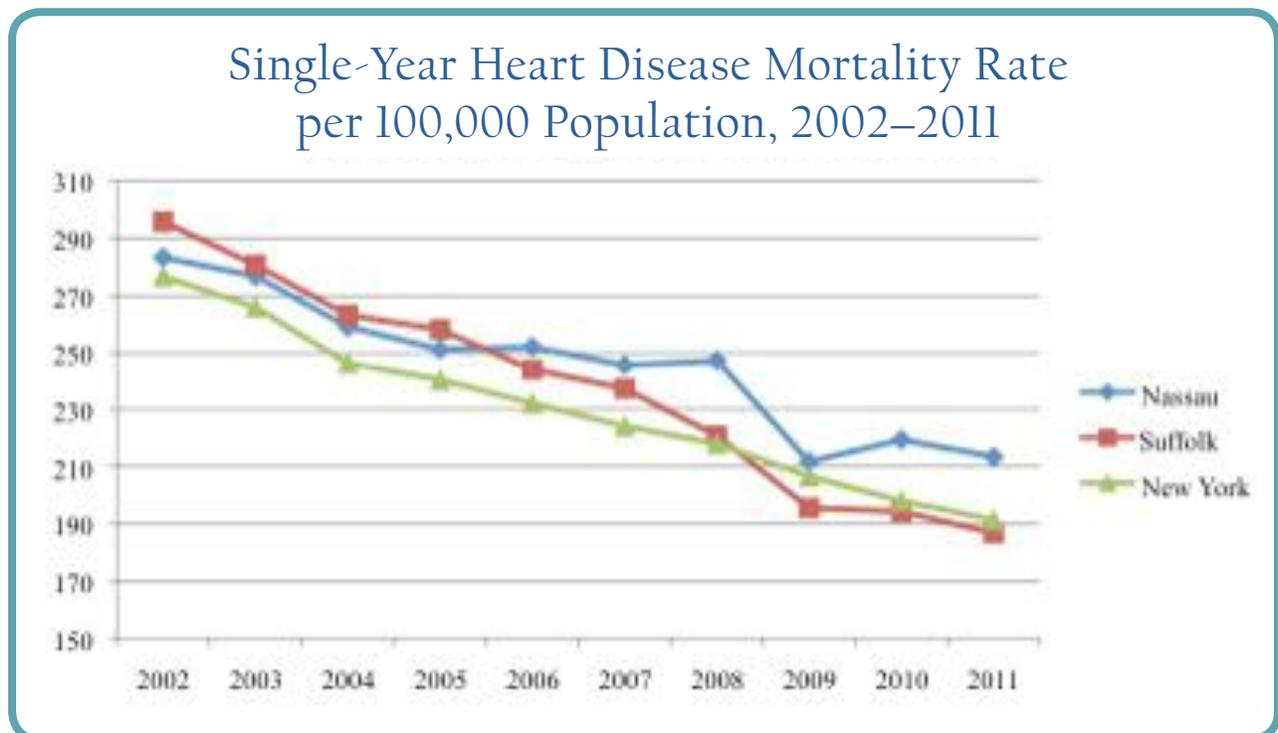
For 2009–2011, Nassau's average age-adjusted heart disease mortality rate was 214.8 per 100,000 population, a 13.4% decline since 2005–2007 and 21.4% decline since 2001–2003.

Nassau's single-year age-adjusted mortality rate also fell between 2002 and 2009 but has fluctuated slightly since then. The age-adjusted rate was 213.4 in 2011. The crude rate was 305.9 for the same year.

The average age-adjusted heart disease rate in Suffolk was 192.2 in 2009–2011, a 17.8% decline since 2005–2007 and a 31.3% decline since 2001–2003.

Suffolk's single-year age-adjusted mortality rate has also fallen steadily; it was 186.8 in 2011. The crude rate was 216.8 for the same year.

Data from the Nassau County Community Health Assessment reveal disparities in heart disease mortality rates between “selected” communities and the rest of the county, beginning at age 36 and persisting throughout the rest of the life course. Select communities have larger populations of color and lower median household incomes than the county at large.



Source: New York State Department of Health  
Note: Rates are age-adjusted.

ZIP code data for Nassau and Suffolk counties were available for (crude) diseases of the heart mortality rates for 2009–2011. An examination of the 10 Long Island ZIP codes with the highest 2009–2011 average heart disease mortality rates revealed that half were in Nassau and half were in Suffolk. Six of the ZIP codes were among the communities with the highest diseases of the heart mortality rates in *Vital Signs 2006*: Woodbury, Greenport, Ridge, Long Beach, Great Neck and Oakdale.

Ninety percent of ZIP codes had median ages higher than their respective counties. Fifty percent had median household incomes below county levels.

### Ten ZIP Codes With Highest Heart Disease Mortality Rates per 100,000 Population, 2009–2011 Average

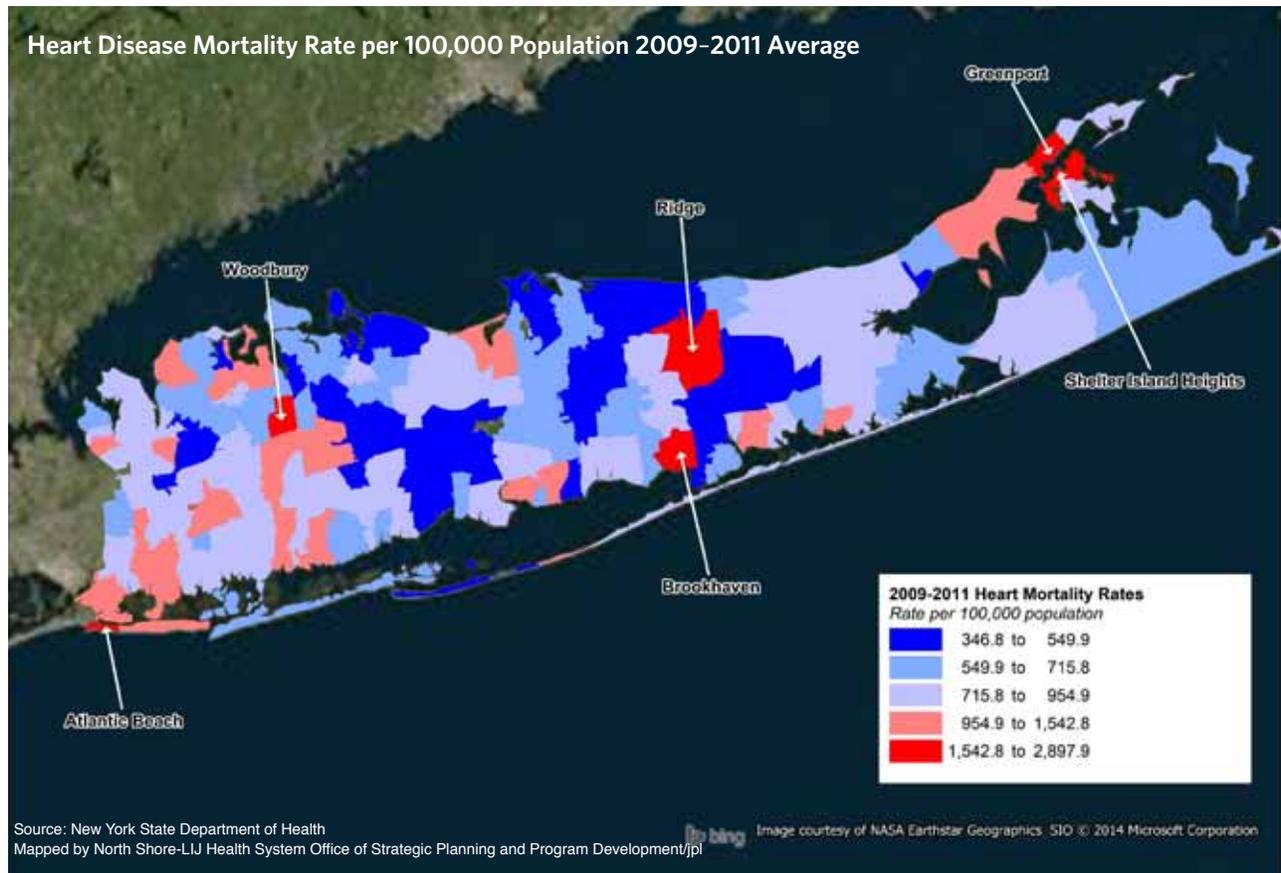
County	Area	ZIP Code	Incidents	Rate per 100,000*	Median Age	Percentage White	Median Household Income
	Nassau**		12,210	302.1	41.4	71.2	\$93,214
	Suffolk**		9,822	217.8	40.5	82.4	\$86,334
Nassau	Woodbury	11797	262	2,898	51.5	86	\$149,149
Suffolk	Shelter Island Heights	11965	15	2,809	47.9	98.3	\$87,614
Nassau	Atlantic Beach	11509	46	1,733.9	54.2	96.1	\$106,250
Suffolk	Brookhaven	11719	58	1,616	46.1	86.1	\$83,285
Suffolk	Greenport	11944	68	1,582	47.4	82.5	\$51,000
Suffolk	Ridge	11961	198	1,543	49.6	92.1	\$50,431
Nassau	Long Beach	11561	493	1,322.4	43.5	84	\$86,842
Nassau	Great Neck	11021	234	1,320	46.2	78.7	\$97,757
Nassau	Glen Cove	11542	358	1,295.6	40	66.3	\$67,548
Suffolk	Oakdale	11769	123	1,294	46.5	94.8	\$96,844

Sources: New York State Department of Health; U.S. Census, American Community Survey 2012, five-year estimates

Note: Rates are crude rather than age-adjusted.

\*ZIP Code rates are based on 2010 Census population data.

\*\*Nassau and Suffolk demographic data come from 2012 American Community Survey one-year estimates.



## CANCER

### INDICATOR TREND

Incidence rates for all cancers combined fell 4.4% in Nassau and 4.5% in Suffolk from 2006–2010.

Mortality rates for all cancers combined also declined over the same time period, 6.1% in Nassau and 9.6% in Suffolk.

In 2010, the age-adjusted mortality rate for all cancers combined was 506.7 per 100,000 population in Nassau and 530.8 in Suffolk.

Rates of cancer incidence and mortality continue to vary by site as well as sex, race/ethnicity and geographic location on Long Island.

### WHAT DOES THIS MEASURE?

This indicator shows the incidence and mortality rates for a primary diagnosis of cancer. The rates are per 100,000 persons.

## WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

Cancer includes more than 100 diseases resulting from mutations in the gene structure. As a result of the growth and spread of abnormal cells, most cancers involve a lump or mass called a malignant tumor, although some cancers, such as leukemia, do not result in tumors.

A number of factors can increase a person's risk of developing cancer. Relative risks for specific kinds of cancer vary by age, income, gender, race/ethnicity and years of residence in the United States. Lung cancer, for example, is correlated with smoking, exposure to asbestos fibers and genetics; colorectal cancer is associated with diet and genetics. However, the relationship between risk factors and cancer is not clear-cut. Some people with risk factors never develop the disease, while others without any known risk factors do.

In the United States, cancer is second to heart disease as the main cause of death. Lung cancer has the highest death rate for both men and women among all cancer types. The combined male and female rates for colorectal cancer make it the second-leading cause of cancer deaths. In terms of incidence, prostate cancer is the most common cancer for men and breast cancer is the most common cancer for women.

Death rates for cancer have declined overall in recent years due to education about behavioral risks such as smoking, increased use of diagnostic tests, and new drugs. After a diagnosis of cancer, the prognosis depends on several factors, including the type and stage of cancer and available treatments, as well as an individual's age, health status, health insurance and access to care.

While cancer was once a death sentence, today many individuals survive cancer and go on to live long and productive lives. To increase survival rates and to reduce the human and economic costs of cancer treatment, access to diagnostic screening (e.g., mammograms and colorectal exams) and early detection of precancerous conditions and existing cancers is critical.

A cancer diagnosis affects an individual as well as his or her family, friends and fellow workers. Concerns about the prognosis are paramount, but there are also worries about the short- and long-term consequences of various forms of treatment. With a constantly changing landscape of treatment choices, the stress of making the best-informed decision can be difficult and creates additional anxiety for an individual and his/her loved ones.

After a diagnosis of cancer, there are also individual and family concerns about the illness' effect on employment, earnings and the ability to provide or receive care. If an individual dies, the family needs time to grieve as well as to adapt to life without the deceased.

In addition to individual family loss, cancer results in enormous costs to society.

The National Institutes of Health estimates that the overall cost of cancer in 2010 was \$263.8 billion. This figure included direct medical costs (\$102.8 billion) and lost productivity due to illness (\$20.9 billion) and premature death (\$140.1 billion).

## HOW DO WE COMPARE?

### National Context

According to the most recent *Annual Report to the Nation on the Status of Cancer*, death rates for all cancers combined continue to fall, a trend that began about 20 years ago. The rate decreased by 1.5% per year from 2001 to 2010. Over this period, mortality rates decreased for 11 of the 17 most common cancers in men (lung, prostate, colon and rectum, leukemia, non-Hodgkin's lymphoma (NHL), esophagus, kidney, stomach, myeloma, oral, larynx) and for 15 of the 18 most common cancers in women (lung, breast, colon and rectum, ovary, leukemia, NHL, brain, myeloma, kidney, stomach, cervix, bladder, esophagus, oral, gallbladder).

In 2010, the mortality rate for all cancers combined was 171.8 per 100,000 population.

Overall cancer incidence rates fell from 2001–2010 for men of every race/ethnicity; they decreased for white and Hispanic women, while remaining stable for women of other races/ethnicities. The incidence rate for all cancers combined in 2010 was 445.5 per 100,000 population.

Despite the recent decline in cancer mortality and incidence rates, race/ethnic and sex disparities persist. Among men, in 2010, death rates for all cancers combined were highest for black men (264.4), followed by white (495.2), Hispanic (390.4), Asian/Pacific Islander (307.6) and American Indian/Alaska Native (299.2) men. In the same year, incidence rates for all cancers combined were again highest among black men (553.2), followed by white (495.2), Hispanic (390.4), Asian/Pacific Islander (307.6) and American Indian/Alaska Native (299.2) men.

Among women, death rates for all cancers combined in 2010 were highest among black women (166.3), followed by white (145.9), American Indian/Alaska Native (101.5), Hispanic (98.6) and Asian/Pacific Islander (92.4) women. Incidence rates for all cancers combined were highest among white women (409.9), followed by black (388.8), Hispanic (314.9), Asian/Pacific Islander (279.7) and American Indian/Alaska Native (251.9) women.

The Healthy People 2020 goal is to reduce the mortality rate for all cancers combined to 160.6 per 100,000 population. The objectives for specific cancers are as follows: Reduce lung cancer deaths to 45.5 per 100,000, colorectal cancer deaths to 14.5 per 100,000, female breast cancer deaths to 20.6 per 100,000, and prostate cancer to 21.2 per 100,000.

## New York State

Incidence and mortality rates for all cancers combined have declined in New York State. In 2010, the age-adjusted incidence rate was 482.5 per 100,000 population, a 14.3% decrease from 2006. In the same year, the age-adjusted mortality rate was 160.2, a 5.7% decline from 2006.

However, rates vary when examined by cancer site, gender and race/ethnicity.

In 2010, the average age-adjusted incidence rate for lung cancer was 71.6 per 100,000 for men and 54.6 for women; the rate fell 7.6% for men and 4.4% for women between 2006 and 2010.

The 2010 mortality rate was 51 for men and 35.4 for women, a decline of 11% and 1.9%, respectively, since 2006.

Colorectal cancer incidence and mortality rates for men and women have continued to decline. The 2010 age-adjusted incidence rate was 49.1 for men and 38.2 for women, down 12.9% and 11.4%, respectively, from 2006. The 2010 age-adjusted mortality rate was 18.2 for men and 12.4 for women.

Female breast cancer incidence and mortality rates also fell. The 2010 age-adjusted incidence rate for female breast cancer was 123.6, a 3% decrease since 2006. The 2010 age-adjusted mortality rate was 21.3, a 7.4% decline since 2006.

The 2010 age-adjusted incidence rate for prostate cancer was 147.6, an overall decrease of 17.4% since 2006. Rates rose between 2005 and 2007, but then began to fall. The age-adjusted mortality rate was 21.3 in 2010, a 14.8% decline since 2003.

## Nassau/Suffolk Counties

Incidence and mortality rates for all types of cancer are higher in Suffolk than in Nassau. Incidence and mortality rates for colorectal and lung cancer are also higher for men than for women.

In 2010, Nassau's age-adjusted incidence rate for all cancers combined was 506.7 per 100,000 population, a 4.4% overall decline since 2006, although the rate fluctuated during this five-year time period. The age-adjusted all-cancers combined mortality rate was 146.1 in 2010, a 6.1% drop since 2006.

In Suffolk, the 2010 age-adjusted incidence rate for all cancers was 530.8, an overall decrease of 4.5% from 2006, although the rate rose and fell during these years. The age-adjusted all-cancers combined mortality rate was 164.8 in 2010, falling 9.6% since 2006.

From 2006 to 2010, five-year average incidence and death rates for all cancers combined were higher for men than for women in Nassau and Suffolk. In both counties, for the same time period, black men had the highest five-year average incidence and mortal-

ity rates among all race/ethnic groups.

Rates of cancer incidence and mortality also vary by cancer site as well as sex, race/ethnicity and county on Long Island.

The five-year average lung cancer incidence rate in Nassau has declined steadily for males over the past 30 years. Among women, the rate reached a low in the 1986–1990 time period but has since increased. The 2006–2010 average lung cancer incidence rates in Nassau were 65.4 per 100,000 population for males and 57.2 for females.

The five-year average lung cancer death rate has also declined steadily over time for men in Nassau, standing at 42.6 for 2006–2010, a 26% drop from 2001–2005. The rate for women has not been as consistent over the past 30 years but has been falling since 1991–1995. The rate was 32.7 for 2006–2010, a 12.8% decrease since 2001–2005.

In Suffolk, as in Nassau, the five-year average male lung cancer incidence rate declined over the past 30 years to 81.5 for 2006–2010. The rate for women has more than doubled over the past 30 years. For 2006–2010, the rate was 69.4, a 4.7% increase since 2001–2005.

The 2006–2010 average lung cancer mortality rate was 53.9 for men, down 18.6% since 2001–2005. The 2006–2010 average mortality rate was 43.4 for women, a 2.5% decline since 2001–2005.

Black men in Suffolk had the highest 2006–2010 average lung cancer mortality rate on Long Island (59.4), followed by white men in Suffolk (56.5), white women in Suffolk (46.7), black men in Nassau (40.2), white women in Nassau (36.8) and black women in Nassau (19.6). Hispanic men and women had the lowest rates among all groups.

The 2006–2010 average colorectal cancer incidence rate was 49.9 for men and 38 for women in Nassau. Rates for both men and women have declined over the past 30 years.

Colorectal cancer mortality rates have decreased over time in Nassau for men and women, falling 18.5% and 20.8%, respectively, between 2001–2005 and 2006–2010. The 2006–2010 average colorectal cancer mortality rates were 17.2 for men and 12.2 for women in Nassau.

In Suffolk, the average colorectal incidence rates decreased for both sexes over the past 30 years. The 2006–2010 average rate was 55.1 for men and 43.2 for women, declines of 19.6% and 17.2, respectively, since 2001–2005.

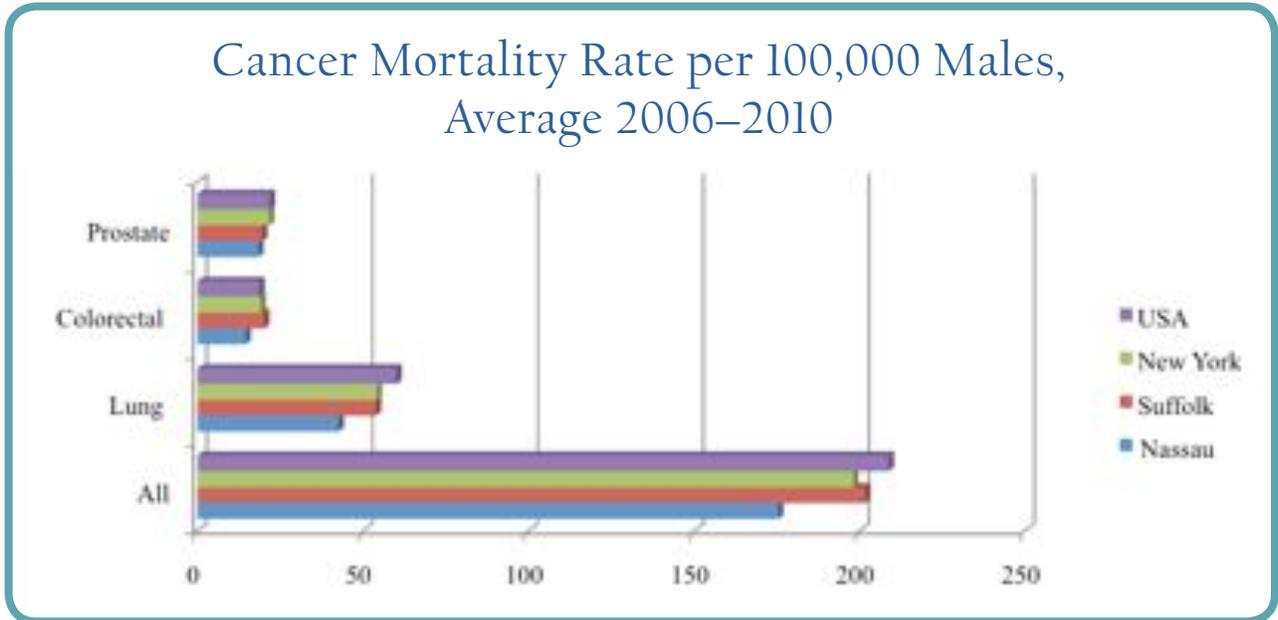
Mortality rates in Suffolk for 2006–2010 were 20.1 for men and 14.3 for women, reflecting falls of 17% and 20.1%, respectively, since 2001–2005. Average colorectal cancer mortality rates have declined steadily for both sexes over time.

In terms of race/ethnicity, black men in Suffolk (35) had the highest average colorectal mortality rate for 2006–2010. They were followed by black men in Nassau (23),

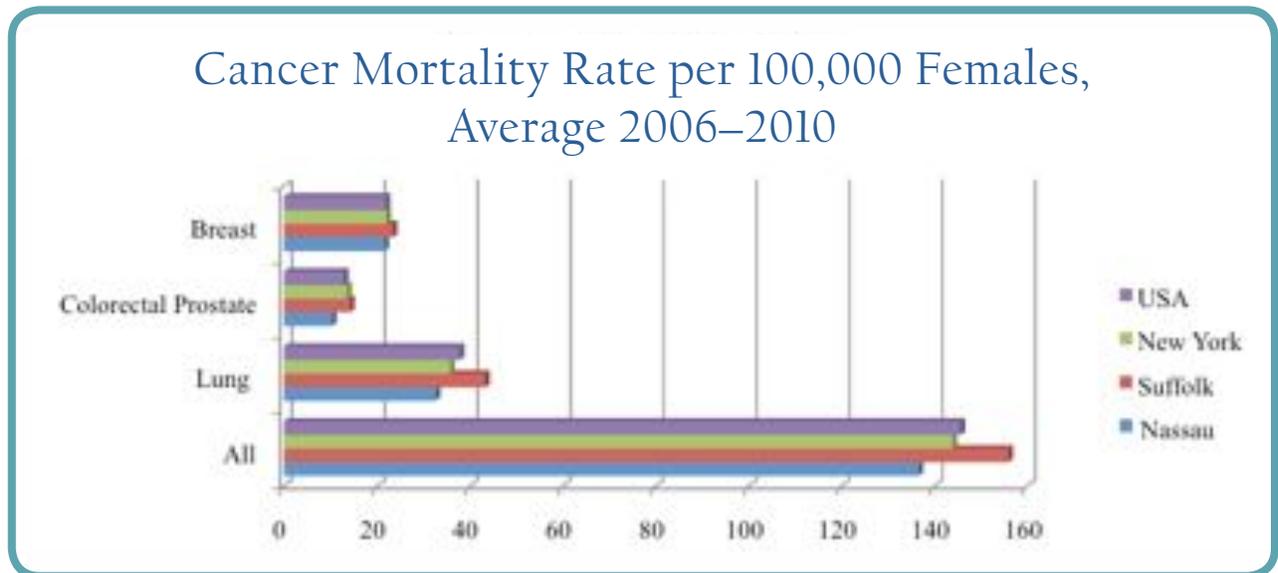
white men in Suffolk (19.8), black women in Suffolk (19.6) and black women in Nassau (17.7). The lowest rates were among Hispanic men and women in Nassau, 10.7 and 7.3, respectively.

Nassau County’s 2006–2010 average age-adjusted incidence rate for breast cancer was 146.2 per 100,000 females. Multiyear average incidence rates rose after 1976-2000, peaking at 149.2 in 1996–2000. However, they then declined slightly before rising 1.9% between 2001–2005 and 2006–2010.

The average age-adjusted breast cancer mortality rate in Nassau is trending downward.



Source: New York State Department of Health  
 Note: Rates are age-adjusted.



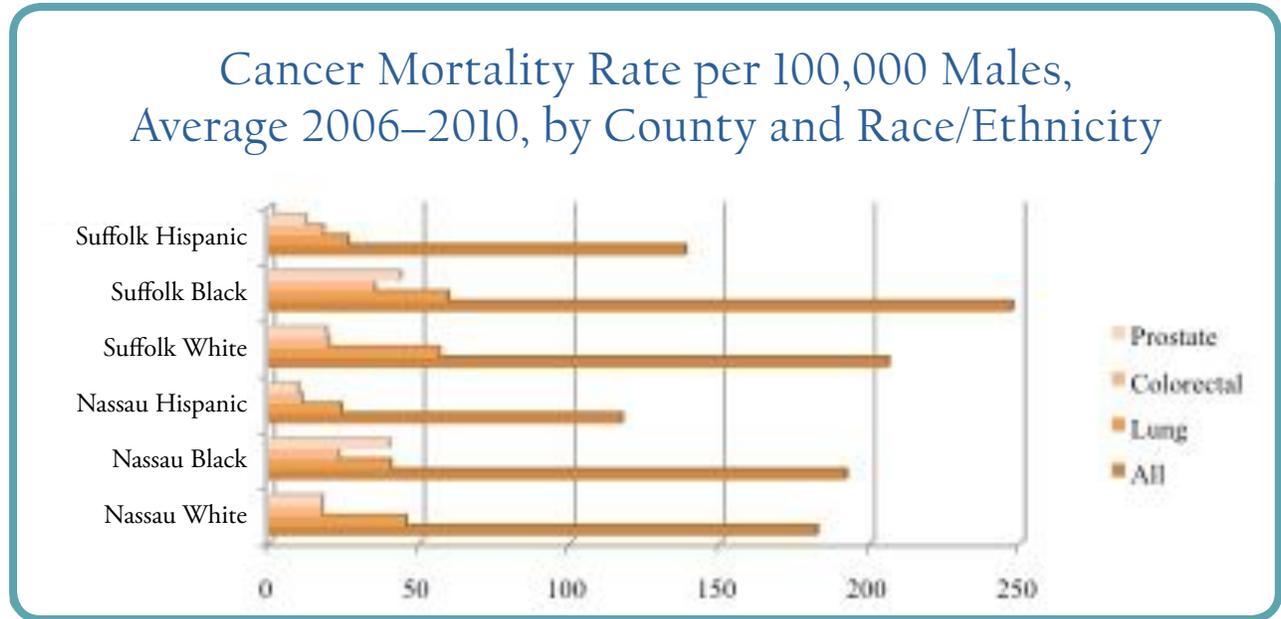
Source: New York State Department of Health  
 Note: Rates are age-adjusted.

It decreased 16.9% from 26.1 to 21.7 from 2001–2005 to 2006–2010.

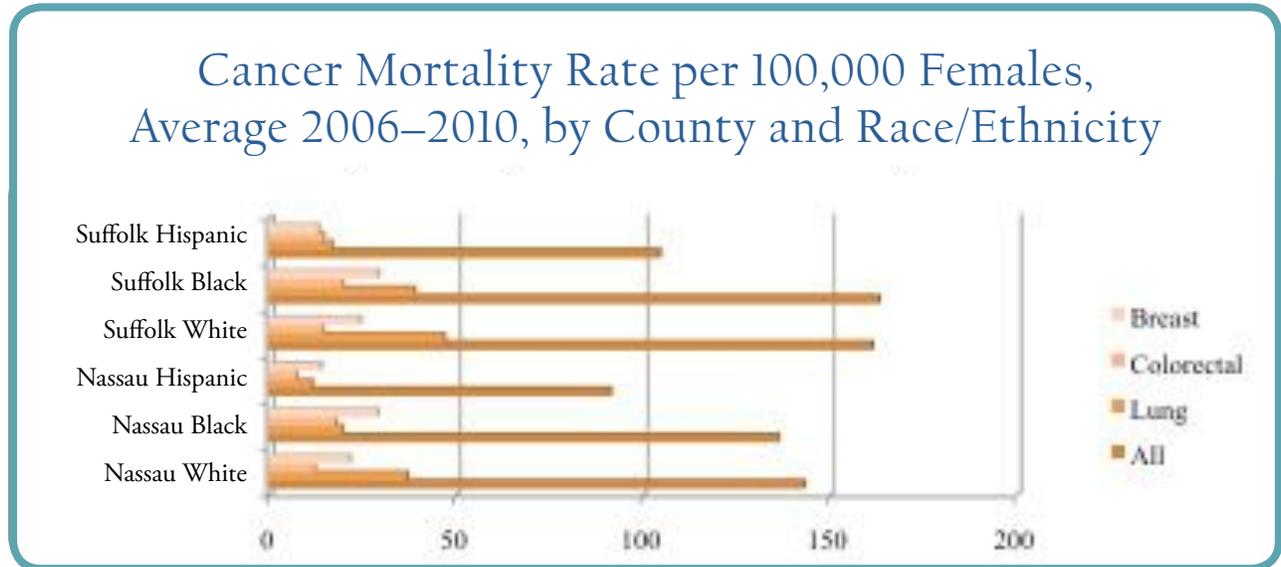
Black women in Nassau had a higher 2006–2010 breast cancer mortality rate than white women, 28.9 and 21.5, respectively. Hispanic women had a rate of 13.8.

The 2006–2010 average age-adjusted incidence rate for breast cancer in Suffolk County was 139.8. Multiyear average incidence rates rose from 1976 to 2000, peaking at 150.7 in 1996–2000, but have declined since that time. The rate fell 2% from 2001–2005 and 2006–2010.

For 2002–2006, Suffolk’s breast cancer mortality rate was 23.5, a 16.7% decrease



Source: New York State Department of Health  
Note: Rates are age-adjusted.



Source: New York State Department of Health  
Note: Rates are age-adjusted.

since 2001–2005.

In Suffolk, the 2002–2006 average breast cancer mortality rate was highest for black women (29.4), followed by white (24.2) and Hispanic (13) women.

Nassau County's 2006–2010 average age-adjusted prostate cancer incidence rate was 179. The rate has been increasing for the past 30 years. It rose 5.5% between 2001–2005 and 2006–2010.

The 2006–2010 average age-adjusted prostate cancer mortality rate was 18.3, falling 19.4% since 2001–2005.

For 2006–2010, black men had an average age-adjusted prostate cancer mortality rate more than double white men in Nassau, 39.9 compared to 17.4. Hispanic men had a rate of 9.6.

Suffolk's five-year prostate cancer incidence rate rose from 1976–1980 to 2001–2005 but dropped 3.8% from 2001–2005 to 2006–2010. In 2006–2010, the rate was 174.3.

Suffolk's average age-adjusted mortality rate was also 19.5 in 2006–2010, falling 19.4% since 2001–2005.

The mortality rate for black men in Suffolk (43.6) was more than double the rate for white men (18.9) and almost four times the rate for Hispanic men (12.1).

The New York State Department of Health tracks and measures the expected incidence of cancers by population age and size for communities at the ZIP code level. Their most recent data cover the years 2005–2009.

Overall, compared to Nassau, Suffolk had significantly more ZIP codes with elevated incidences of cancer.

Three ZIP codes in Nassau (East Rockaway, West Hempstead and Bayville) had above-expected lung cancer incidence rates for men, compared to four in 2002–2006. Fourteen ZIP codes in Nassau had above expected incidence rates for women, compared to nine in 2002–2006. All were in the 15–49% range.

In Suffolk, 34 ZIP codes had above expected incidence rates of lung cancer in men, compared to 28 in 2002–2006; of these 34, five had rates 50%–100% above expected (Medford, East Moriches, Mastic, Moriches and Yaphank). Fifty-four ZIP codes had higher than expected lung cancer incidence rates for women, compared to 40 in 2002–2006. Twenty-two ZIP codes had incidence rates in the more than 50% above expected range compared to eight in 2002–2006.

Nine communities in Nassau had above expected rates of colorectal cancer rates for men, in contrast to 14 in 2002–2006. One of these (Lawrence) was in the more than 50% above expected range. Eleven communities had higher than expected incidence rates of colorectal cancer for women, compared to eight in 2002–2006. Three of these

(Atlantic Beach, Locust Valley and East Norwich) were in the more than 50% above expected range.

In Suffolk, 26 ZIP codes had above expected incidence rates for male colorectal cancer, compared to 34 in 2002–2006. Eleven (Blue Point, Brightwaters, Islandia, Islip, Lake Grove, Medford, Sound Beach, West Sayville, Mattituck and Middle Island) were in the more than 50% above expected range. Thirty-six ZIP codes in Suffolk had above expected incidence rates for women, compared to 31 in 2002–2006. Twelve of these (Babylon, Bellport, Brookhaven, Islandia, Medford, Oakdale, Port Jefferson Station, Sound Beach, West Islip, East Quogue, Westhampton and Yaphank) were in the more than 50% above expected range.

For female breast cancer, 35 ZIP codes in Nassau had above expected incidence rates, in contrast to 24 in 2002–2006. Four were in the more than 50% above expected range (Great Neck, Atlantic Beach, East Norwich and Old Bethpage). Suffolk had 41 communities with above expected incidence rates, compared to 31 in 2002–2006, and three communities in the more than 50% above expected range (Oakdale, Orient and Westhampton).

Fourteen ZIP codes in Nassau had above expected incidence rates of prostate cancer, compared to eight in 2002–2006. All were in the 15–49% above expected range. Eighteen communities in Suffolk had above expected incidence rates, in contrast to 29 in 2002–2006. Four (Mount Sinai, East Moriches, Hampton Bays, Peconic and Westhampton) of these were in the more than 50% above expected range.

## HIV/AIDS

### INDICATOR TREND

From 2001 to 2011, the number of newly diagnosed HIV and AIDS cases on Long Island declined significantly—23.4% and 54%, respectively.

Deaths among people living with AIDS have also decreased on Long Island. From 2001–2011, they fell 55.2%, from 145 to 65.

Men who have sex with men (MSM) make up the majority of newly diagnosed HIV/AIDS cases on Long Island. Blacks and Hispanics are also disproportionately represented.

### WHAT DOES THIS MEASURE?

This indicator shows the cumulative number of AIDS cases, the number of new HIV and AIDS diagnoses and the number of people living with HIV/AIDS. It also shows AIDS death and AIDS case rates. The rates are per 100,000 population.

## WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

Acquired immunodeficiency syndrome (AIDS) is caused by the human immunodeficiency virus (HIV). By compromising the immune system, HIV increases susceptibility to a range of infections and cancers. AIDS-related illnesses include Kaposi's sarcoma, lymphoma, pneumocystis carinii pneumonia (PCP), meningitis and tuberculosis, among other conditions.

HIV is transmitted through infected bodily fluids such as blood, semen, breast milk or vaginal fluids. HIV is typically spread through unprotected sex with an infected partner or through sharing needles or syringes with an infected person. HIV-infected women can transmit the virus to their fetuses during pregnancy or to their children during birth or through breastfeeding. While the blood supply was an early source of transmission, all blood has been tested for HIV since 1985.

The first AIDS cases were reported in the United States in 1981. Over the next 15 years, there was a rapid increase in the number of infections and deaths. With the introduction of highly active antiretroviral therapy (HAART) or the "AIDS cocktail," deaths from AIDS began to decline, from a height of more than 48,000 in 1995 to about 15,000 in 2010. In total, 658,992 people have died from AIDS since cases were first reported.

The number of newly diagnosed HIV infections has also declined since peaking in the 1980s, at about 134,000 per year. The number has remained at about 50,000 per year for the last decade.

HIV transmission patterns have changed somewhat over time. The vast majority of early AIDS cases were made up of men who have sex with men (MSM) and non-Hispanic whites. Today, MSM still constitute the largest share of HIV/AIDS diagnoses, although heterosexual sex has accounted for a greater share of transmissions over time. New infections due to drug use have decreased in recent years. Blacks and Hispanics continue to be disproportionately affected by HIV/AIDS.

While there is still no cure, early diagnosis of HIV, use of various drug therapies, and dietary regimens may improve an individual's life expectancy and quality of life. Access to diagnostic services and ongoing medical and social services is therefore crucial. Yet, for many people, particularly the poor, medical intervention comes too late. In some cases, a person may not receive a diagnosis until he or she is treated for an AIDS-related illness in the emergency room. With implementation of the Affordable Care Act (ACA), improved access to primary and preventive care through greater health insurance coverage should improve this situation.

Studies have found that sex education, including safe sex instruction, and harm reduction programs involving needle exchange also help to reduce the transmission of HIV/AIDS.

People with HIV/AIDS have encountered discrimination since the disease was first identified. Incomplete knowledge about the mechanics of transmission as well as bias toward the groups most often diagnosed with HIV/AIDS, particularly gay men and injecting drug users, have fueled negative public opinion. People with HIV/AIDS may be physically attacked; rejected by their families, friends and colleagues; denied healthcare; and fired from their jobs, despite federal laws prohibiting HIV/AIDS workplace discrimination.

People with HIV/AIDS may also suffer from depression and anxiety as a result of their illness and the judgments of other people. In some cases, fear of social isolation and discrimination keeps people from seeking treatment for AIDS. While the stigma of AIDS has decreased in recent years, negative attitudes remain, as well as misunderstandings about the process of AIDS transmission.

## HOW DO WE COMPARE?

### National Context

According to the CDC, an estimated 1,148,200 persons age 13 years and older were living with HIV/AIDS in the United States in 2010. Approximately 18.1% were undiagnosed.

Overall incidence (number of new infections) of HIV has remained relatively stable in recent years. In 2010, there were an estimated 47,500 new HIV infections.

Certain groups remain at greater risk than others for infection. Gay, bisexual and other men who have sex with men (MSM), Hispanics and African Americans account for most of the people affected by the disease.

From 2008 to 2010, the number of new HIV infections increased 12% among MSM, from 26,700 to 29,800. MSM made up 2/3 of new HIV infections in 2010. MSM comprised 78% of the new HIV infections among males in 2010.

Black Americans accounted for 44% of new infections in 2010. Black men and women were estimated to have an HIV incidence rate of 68.9, almost eight times as high as the incidence rate for whites (8.7) in 2010. Hispanics accounted for 21% of new HIV infections in 2010. Hispanics had an estimated HIV incidence rate of 27.5, almost three times the rate for whites.

From 2008 to 2010, the estimated number of new HIV infections decreased 21% among females, from 12,000 to 9,500. In 2010, the rate of new HIV infections among males (30.7) was 4.2 times that of females (7.3). Despite the overall fall in new HIV infections among women, black women remain disproportionately affected, becoming infected mainly through heterosexual contact.

In 2010, 15,529 people with an AIDS diagnosis died (although death may or may not have been related to AIDS).

### State Context

As of December 2011, there were 130,931 people living with HIV/AIDS in New York State. Twenty-one percent were white, 42.5% were black and 31.9% were Hispanic. Seventy percent were male. While most HIV diagnoses occur before a person is age 40, 77% of people living with diagnosed HIV infection were over age 40.

In terms of transmission/risk category, 32.8% of individuals living with HIV/AIDS were exposed through male-to-male sexual contact, 17.3% were exposed through injecting drug use and 16.9% were exposed through heterosexual contact. Thirty percent were other/unknown.

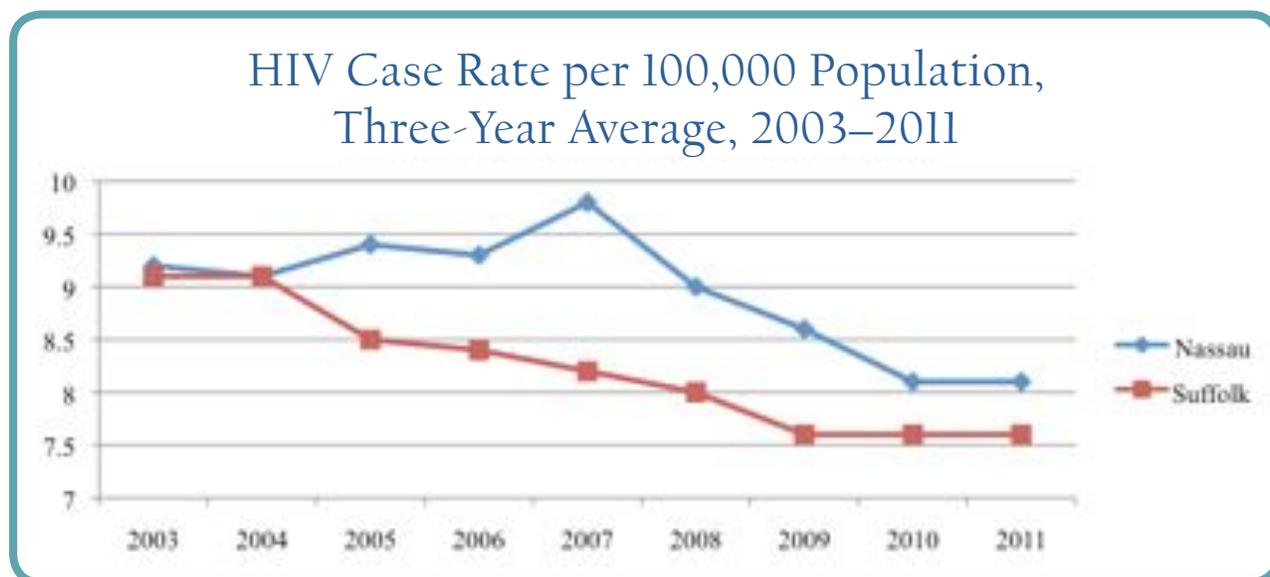
In the same year, there were 3,732 newly diagnosed cases of HIV (HIV alone or with a concurrent AIDS diagnosis) and 2,683 newly diagnosed cases of AIDS.

In 2011, New York had an HIV diagnosis rate of 30.1 per 100,000 population, compared to a U.S. diagnosis rate of 19.1. The AIDS case rate (new AIDS diagnoses) was 13.7 per 100,000 population, compared to a U.S. AIDS case rate of 10.3.

Deaths from AIDS continue to decrease in New York, falling 43.3% from 2003 to 2011. The 2011 age-adjusted AIDS mortality rate was 4.2 per 100,000 population compared to 10.2 in 2002.

### Nassau/Suffolk Counties

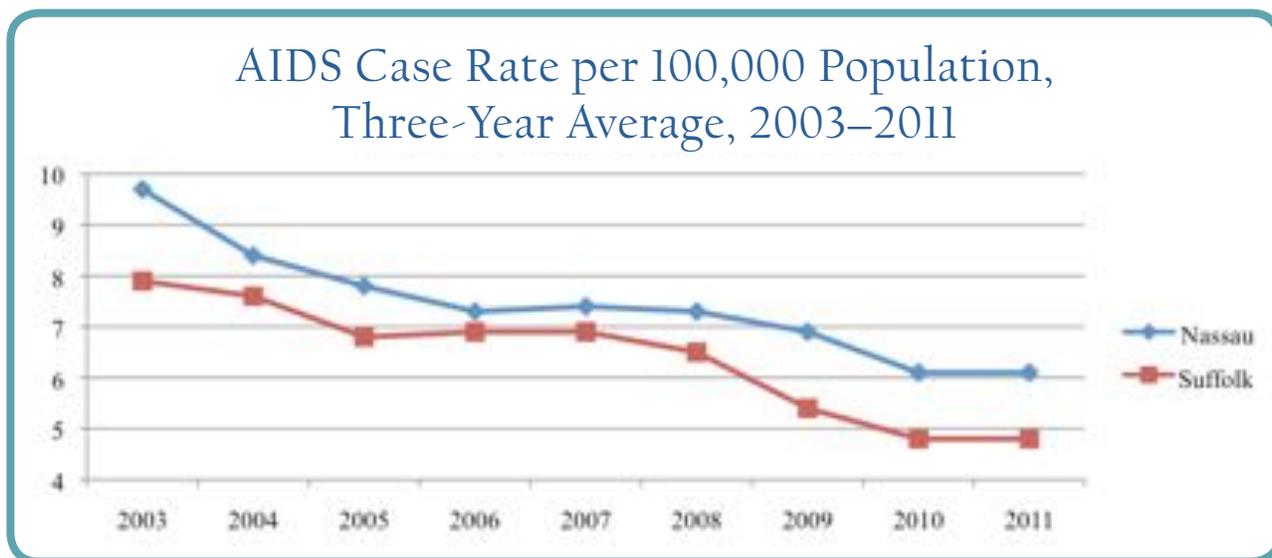
In 2011, the total number of Long Islanders living with HIV/AIDS was 5,964, an 11% increase from 2007. 2,958 persons were living in Nassau County and 3,006 persons were living in Suffolk County.



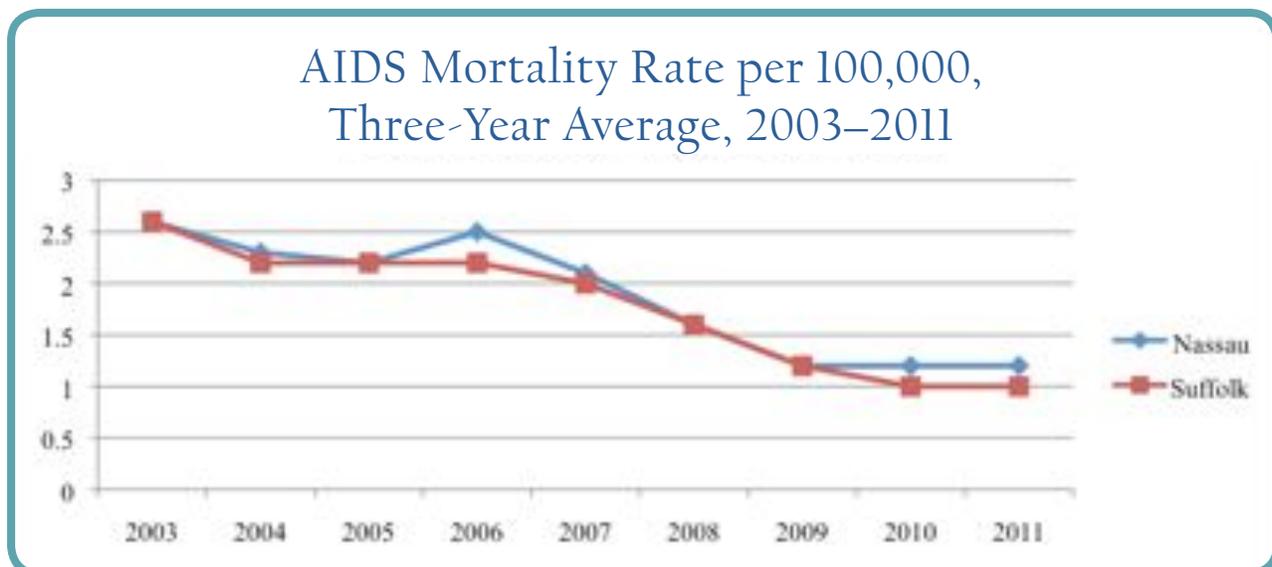
Source: New York State Department of Health  
Note: Rates are age-adjusted.

Among people living with HIV/AIDS in Nassau County, 67.3% were male; 30.5% were white, 40% were black and 21.6% were Hispanic. In terms of transmission/risk category, 30.1% of individuals living with HIV/AIDS were exposed through male-to-male sexual contact, 19% were exposed through injecting drug use and 16.9% were exposed through heterosexual contact. The rest were other/unknown.

In Suffolk County, 67.3% of people living with HIV/AIDS were male; 37.7% were white, 27.8% were black and 25.5% were Hispanic. In terms of transmission/risk category, 39.1% of individuals living with HIV/AIDS were exposed through male-to-male sexual contact, 15.6% were exposed through injecting drug use and 18.8% were exposed



Source: New York State Department of Health  
Note: Rates are age-adjusted.



Source: New York State Department of Health  
Note: Rates are age-adjusted.

## Nassau County Average Annual Newly Diagnosed HIV and AIDS Cases (2009-2011) and Cumulative AIDS (through 2011) by Sex, Exposure Category and Race/Ethnicity (Includes Prison Inmates)

		HIV Diagnoses (Annual Average)		AIDS Diagnoses (Annual Average)		Cumulative AIDS Cases		
		Number	Percent	Number	Percent	Number	Percent	
Total		105.3	100	81.7	100	4,602	100	
Sex	Male	78.3	74.4	56.3	69	3,399	73.9	
	Female	27	25.6	25.3	31	1,203	26.1	
Exposure	MSM	48.7	46.2	28	34.3	1,250	27.2	
	IDU	2	1.9	5	6.1	1,479	32.1	
	MSM/IDU	1	.9	1	1.2	178	3.9	
	Heterosexual	15.3	14.6	17.3	21.2	637	13.8	
	Female Presumed Heterosexual Contact	17	16.1	13.3	16.3	317	6.9	
	Blood Product	0	0	0	0	67	1.5	
	Pediatric Risk	0	0	1.3	1.6	71	1.5	
	Unknown	21.3	20.3	15.7	19.2	603	13.1	
	Race/Ethnicity	White	26.7	25.3	13.3	16.3	1,807	39.3
		Black	42	39.9	35.3	43.3	1,947	42.3
	Hispanic	32	30.4	24.7	30.2	604	13.1	
	Multi Race	3	2.8	7.3	9	217	4.7	
	Others	1.7	1.6	1	1.2	26	.6	
	Unknown	0	0	0	0	1	0	

Source: New York State Department of Health

Notes: Persons diagnosed with HIV may also be diagnosed with AIDS in the same year or a later year and their AIDS diagnosis will be counted in the AIDS diagnosis tables. HIV and AIDS diagnoses cannot be added together in a meaningful way. County of diagnosis for prison inmates usually reflects location of the prison rather than the inmate's home county.

## Suffolk County Average Annual Newly Diagnosed HIV and AIDS Cases (2009-2011) and Cumulative AIDS (through 2011) by Sex, Exposure Category and Race/Ethnicity (Includes Prison Inmates)

		HIV Diagnoses (Annual Average)		AIDS Diagnoses (Annual Average)		Cumulative AIDS Cases	
		Number	Percent	Number	Percent	Number	Percent
Total		110	100	76.3	100	4,577	100
Sex	Male	87	78.4	54.3	71.2	3,361	73.4
	Female	24	21.6	22	28.8	1,216	26.6
Exposure	MSM	62	55.9	36.3	47.6	1,532	33.5
	IDU	3	2.7	7.3	9.6	1,469	32.1
	MSM/IDU	3.3	3	3	3.9	291	6.4
	Heterosexual	16.7	15	14.3	18.8	562	12.3
	Female Presumed Heterosexual Contact	9.7	8.7	5	6.6	210	4.6
	Blood Product	0	0	0	0	62	1.4
	Pediatric Risk	0	0	1	1.3	100	2.2
	Unknown	16.3	14.7	9.3	12.2	351	7.7
Race/Ethnicity	White	36.7	33	24.3	31.9	2,106	46
	Black	28.7	25.8	22	28.8	1,363	29.8
	Hispanic	34	30.6	21	27.5	889	19.4
	Multi-Race	9	8.1	8.3	10.9	199	4.3
	Others	2.7	2.4	.7	.9	20	.4
	Unknown	0	0	0	0	0	0

Source: New York State Department of Health

Notes: Persons diagnosed with HIV may also be diagnosed with AIDS in the same year or a later year and their AIDS diagnosis will be counted in the AIDS diagnosis tables. HIV and AIDS diagnoses cannot be added together in a meaningful way. County of diagnosis for prison inmates usually reflects location of the prison rather than the inmate's home county.

through heterosexual contact. The rest were other/unknown.

The number of newly diagnosed HIV and AIDS cases has declined over time on Long Island. From 2001 to 2011, the number of newly diagnosed HIV cases fell 23.4% from 158 to 121. The number of newly diagnosed AIDS cases fell 54% from 158 to 72.

The HIV case rate decreased from 9.2 per 100,000 in Nassau and 9.1 per 100,000 in Suffolk in 2003 to 8.1 in Nassau and 7.5 in Suffolk in 2011.

Deaths among people living with AIDS have also decreased on Long Island, falling 55.2% from 2001–2011. The three-year average (age-adjusted) AIDS mortality rate declined from 2.6 per 100,000 population in both Nassau and Suffolk in 2003 to 1.2 in Nassau and one in Suffolk in 2011.

## DRUG ABUSE

### INDICATOR TREND

Drug use is increasing on Long Island. From 2007–2011, the single-year age-adjusted drug-related discharge rate increased 3.7% in Nassau and 14.2% in Suffolk.

In 2011, the rate was 19.7 per 10,000 population in Nassau and 25.7 in Suffolk.

Suffolk's 2011 rate was higher than New York State's rate.

### WHAT DOES THIS MEASURE?

This indicator shows the rates for drug-related hospital discharges in Nassau and Suffolk counties. The drug-related discharge rate is per 10,000 population. ZIP code rates are crude rather than age-adjusted.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

Drug-related discharges cover a variety of substances such as cocaine/crack, heroin, prescription opiates and methamphetamines. Drug abuse (also called problem use or misuse) can involve illegal substances such as heroin and cocaine, or legal substances such as over-the-counter and prescription medication and inhalants like nail polish or glue.

Drug abuse can result in an array of short-term and long-term health and social concerns. Medical conditions differ depending on the type of drug used but may include insomnia, anxiety, depression, paranoia, psychosis, loss of appetite, increased heart rate, elevated blood pressure, impaired memory, seizure, organ (heart, kidney, etc.) failure, stroke, coma and death due to overdose or accidental or intentional injury. The use of shared needles in drug use can lead to the transmission of HIV/AIDS. Injecting drug use is also associated with Hepatitis B and C infections. Women who use illicit drugs during

their pregnancies risk poor birth outcomes such as birth defects, developmental delays and infant mortality.

The social consequences of drug abuse are also numerous. Youth who abuse drugs may have difficulty with school, including poor academic performance and attendance. Drug abuse may also impair decisions about sexual relationships and use of birth control. For adults, drug abuse may increase absenteeism and reduce workplace productivity, leading to job loss and/or diminished earnings. Drug abuse is also associated with crime, including drug trafficking, offenses committed under the influence of drugs and offenses committed in order to support drug use.

The stigma associated with drug use can make the problem worse. Fear of disapproval can cause some people to hide their drug use and prevent them from seeking treatment. As a result, comprehensive data on drug abuse is unattainable. Indicator information only becomes available in portions as users come into contact with hospitals and the criminal justice system.

Condemnation of America's 40-year drug policy (often called the "war on drugs") has increased in recent years. A principal criticism is that the approach favors punishment for possession, use or sale of illegal drugs rather than prevention and inpatient and outpatient treatment. The costs of this approach include increased black market crime, loss of taxpayer funds that could be put toward other social issues, and a growing "underclass" of illegal drug users incarcerated rather than provided effective medical care. In order to address some of these concerns, several states have relaxed laws on marijuana use, sale or possession, by creating exemptions for medical use or decriminalizing recreational use.

## HOW DO WE COMPARE?

### National Context

National data on hospital drug-related discharges are difficult to obtain. The Drug Abuse Warning Network (DAWN) run by the Substance Abuse and Mental Health Services Administration (SAMHSA) tracks the number of drug-related emergency room visits per year rather than inpatient releases. Visits may be for single or multiple drug use and include treatment for illegal, prescription and over-the-counter drugs alone or in combination with alcohol. SAMHSA also tracks underage alcohol use.

In 2011, there were an estimated 2.5 million emergency department (ED) visits involving drug misuse in the United States, a 52% increase since 2004.

Among the ED visits for drug abuse in 2011, 64.9% involved a single drug type (illegal drugs, alcohol or pharmaceuticals); 26.6% of ED visits involved illicit drug misuse,

and 33.9% of ED visits involved pharmaceuticals; 4.8% involved alcohol with no other drug for underage individuals (age 20 or younger). The remaining visits (34.7%) involved a combination of illegal drugs, alcohol and pharmaceuticals.

Long-term data (2004–2011) indicate that ED visits involving illicit drugs and underage drinking have not increased over time. However, ED visits rose significantly for single use of pharmaceuticals (148%), use of pharmaceuticals with illicit drugs (137%), use of pharmaceuticals with illicit drugs and alcohol (93%) and use of pharmaceuticals combined with alcohol (84%). This upsurge may be related to the increasingly common prescription of pharmaceuticals for legitimate medical use.

For ED visits associated with illicit drugs, either alone or in combination with other substances, 40.3% involved cocaine, 20.6% involved heroin, 36.4% involved marijuana and 12.8% involved amphetamines and methamphetamines. Other illicit drugs, such as PCP and Ecstasy, were involved much less frequently.

#### State Context

Over the past decade, the single-year age-adjusted drug-related discharge rate declined 25.4% overall from 33.1 per 10,000 population in 2002 to 24.7 in 2011. The rate has been decreasing steadily since 2005, falling 20.3% over the last six years (2005–2011).

The 2009–2011 average drug-related discharge rate was 26.1 per 10,000 population compared to 32.7 in 2005–2007.

#### Nassau/Suffolk Counties

Drug use is increasing on Long Island. From 2007–2011, the single-year age-adjusted drug-related discharge rate rose in both Nassau and Suffolk, 3.7% and 14.2%, respectively.

With regard to long-term trends, Nassau's rate fell between 2002 and 2007 and then began to rise, reaching 20.8 in 2008, but has since decreased slightly. In 2011, the rate was 19.7 per 10,000 population.

Over the past decade, Suffolk's rate has consistently increased. The rate rose 53.7% from 16.9 in 2002 to 25.7 in 2011. Suffolk's 2011 rate was higher than New York State's rate.

The three-year age-adjusted drug-related discharge rate declined 1.6% overall in Nassau from 2005–2007 to 2009–2011. In Suffolk, the rate rose 11.3% for the same time period.

One of the drugs central to the upturn in drug-related hospitalizations is heroin, which is growing in popularity on Long Island and across the nation. As states like New York crack down on use of prescription drug painkillers, and street prices for oxycodone and hydrocodone skyrocket, heroin is becoming a cheap alternative, especially among young adults and adolescents.



According to substance abuse experts, Long Island currently runs short on treatment facilities and beds for detoxing addicts. And, in some cases, insurance companies refuse to cover inpatient rehab before patients have tried outpatient services first.

An analysis of ZIP code level 2009–2011 average drug-related discharge rates (crude), in areas with three or more discharges, indicated that the three ZIP codes with the highest rates were located in Nassau; the remaining seven were in Suffolk County.

Five of the ZIP codes with the highest rates were also among the ZIP codes with the highest rates in the last Vital Signs report: Port Jefferson, Mastic Beach, Mastic, Roosevelt, Hempstead and Shirley. For 2009–2011, 80% of ZIP codes with the highest rates had median household incomes below their respective county levels, and 60% had higher percentages of white residents than their respective counties.

## SUICIDE

### INDICATOR TREND

Suicide rates have increased in both Nassau and Suffolk counties. Suffolk's 2011 age-adjusted suicide rate is higher than the State's rate.

The age-adjusted three year average suicide rate for 2009–2011 was 5.5 for Nassau and 7.6 for Suffolk, an increase of 19.6% and 35.7%, respectively, since 2001–2003.

From 2005–2007 to 2009–2011, the three-year average age-adjusted rate grew 1.9% in Nassau and 10.1% in Suffolk.

### WHAT DOES THIS MEASURE?

This indicator shows the rate of death by suicide in Nassau and Suffolk counties. The rate is the number of suicides per 100,000 population. ZIP code rates are crude rather than age-adjusted.

### WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

Suicide is death caused by intentional self-inflicted injuries. These typically involve poisoning, hanging/suffocation, cutting, drowning, jumping from heights and firearms. More than 90% of people who kill themselves suffer from depression, another mental disorder and/or substance abuse.

Early identification and treatment of depression and other mental disorders is vital in preventing suicides. It is estimated that there are eight to 25 suicide attempts to one completion.

Unfortunately, the stigma associated with mental health treatment keeps many de-

pressed individuals from receiving the critical care they need. In other cases, individuals interested in therapy cannot receive it because their health insurance plans have limited or no coverage for mental health. With implementation of the federal Affordable Care Act (ACA), these barriers may be reduced.

Norms about suicide vary by race/ethnicity and religion. Some cultures accept suicide as an honorable form of death, while others consider it an immoral action. Assisted suicide for individuals with terminal illness and intractable pain has become a contested issue for state lawmakers, physicians and family members. Currently, only Oregon, Washington and Vermont allow assisted suicide. No data exist to determine the number of individuals who have ended their lives through assisted suicide.

Statistics on “passive” suicide are also unavailable. Such suicide methods may include substance abuse, starvation, lack of self-care or the refusal to take necessary medications. In many cases, these behaviors also require mental health assessment and intervention.

After a suicide, family members and friends may experience intense grief, anger or guilt and are at risk for depression and suicide themselves. The stigma associated with suicide may also cause some family members to fear the judgment of peers and neighbors, resulting in withdrawal and social isolation. Surviving family members and friends often need mental health treatment to deal with their emotions and to help reestablish their lives.

## HOW DO WE COMPARE?

### National Context

In 2010, suicide was the 10th leading cause of death in the United States. There was a total of 38,364 suicides in the same year.

After a period of decline (1990–2000), the age-adjusted suicide rate has increased in the United States, rising 16.4% from 10.4 per 100,000 population in 2000 to 12.1 in 2010.

While adolescent and white, male seniors traditionally have been viewed as high-risk groups for suicide, middle-aged Americans appear to be driving the recent rate explosion. From 1999 to 2010, the suicide rate for individuals ages 35 to 64 rose nearly 30% from 13.7 to 17.6. By contrast, younger adults had a suicide rate of 10.5 in 2010.

Researchers do not fully understand why the epidemiology of suicide has changed. A range of theories have been posited, including greater abuse of prescription medications and stress from high unemployment and cost of living.

Other disparities in the suicide rate exist. In general, men are almost four times more likely to commit suicide than women, although women are more likely to have suicidal thoughts than men. In 2010, the male suicide rate was 19.9 per 100,000 population

compared to 5.2 for women.

The suicide rate also varies by race/ethnicity. In 2010, the suicide rate was 16 for non-Hispanic whites, 5.3 for non-Hispanic blacks and 5.3 for Hispanics.

The Healthy People 2020 goal is to decrease the suicide rate to 10.2 per 100,000 population.

#### State Context

The suicide rate has been increasing in New York for the past 10 years. In 2011, the age-adjusted suicide rate was 8.0 per 100,000 population, a 15.9% increase from 6.9 in 2007 and a 21.2% increase from 6.6 in 2002.

The 2009–2011 average age-adjusted suicide rate was 7.2 per 100,000 population.

#### Nassau/Suffolk Counties

Suicide rates have been climbing in both Nassau and Suffolk over the past decade.

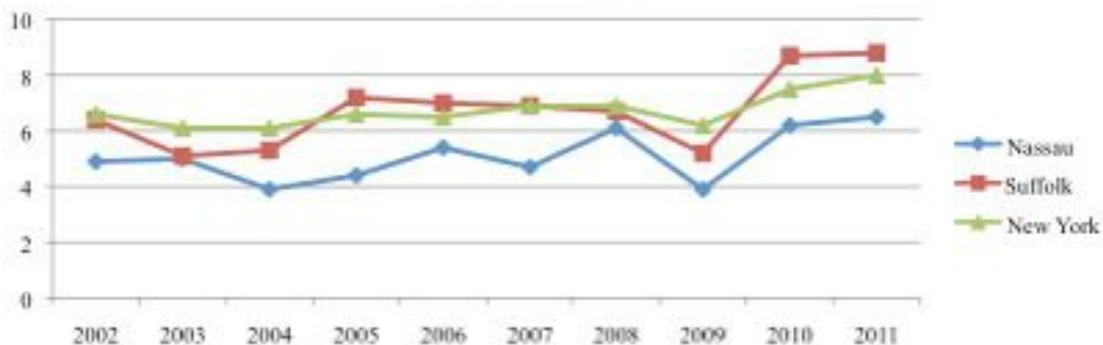
The three-year average age-adjusted suicide rate for 2009–2011 was 5.5 per 100,000 population for Nassau, a 19.6% increase from 2001–2003. In Suffolk, the rate was 7.6, a 35.7% rise since 2001–2003.

In 2011, the single-year age-adjusted suicide rate was 6.5 in Nassau and 8.8 in Suffolk. From 2002–2011, the suicide rate jumped 32.7% in Nassau and 37.5% in Suffolk.

Short-term trends also reflect increases in the suicide rate. From 2007 to 2011, the age-adjusted suicide rate rose 38.3% in Nassau and 27.5% in Suffolk. From 2005–2007 to 2009–2011, the three-year average age-adjusted rate grew 1.9% in Nassau and 10.1% in Suffolk.

A 2013 report from the Suffolk County Youth Bureau highlights a disturbing trend in the region: Suicide incidence among teenagers is escalating. Data from the New York

Single-Year Suicide Rate per 100,000 Population, 2002–2011



Source: New York State Department of Health  
Note: Rates are age-adjusted.

State Health Department indicate that suicides among youth ages 15 to 19 in 2010 were two times the rate of the previous three years.

Of the 10 Long Island ZIP codes with the highest (crude) suicide rates in 2009–2011, seven were in Suffolk County. Suffolk County also made up the majority of ZIP codes with the highest suicide rates in *Vital Signs 2009*, although only two of the seven Suffolk ZIP codes listed then (Cutchogue and Mastic Beach) are also listed now. Rates for all 10 ZIP codes ranged from 42.6 per 100,000 population to 98.9. Seven of the ten communities had median ages higher than their respective counties. All of the 10 ZIP codes had larger percentages of white residents in their populations than their respective counties.

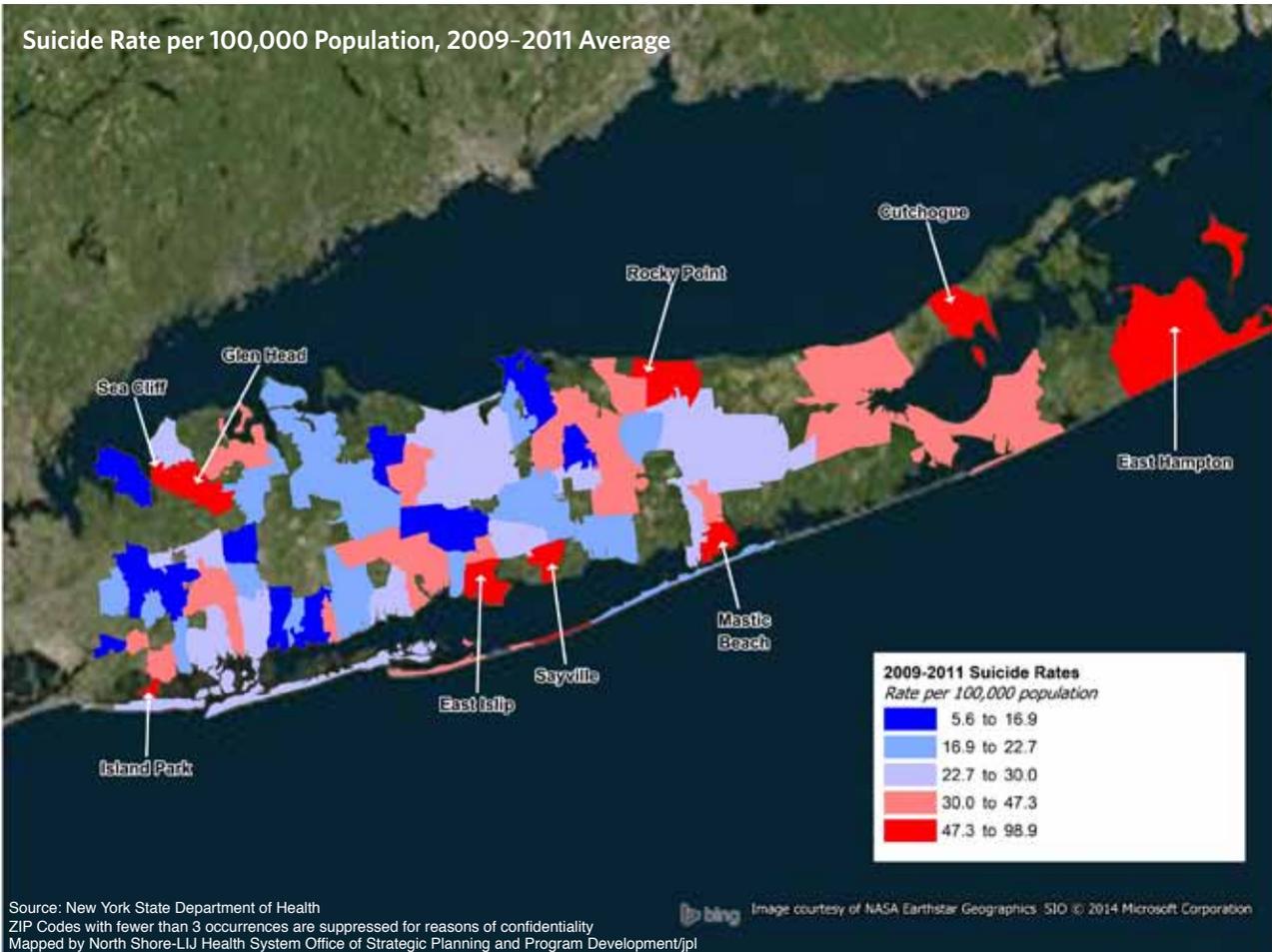
### 10 Long Island ZIP Codes With Highest Suicide Rates per 100,000 Population, 2009–2011

Area	ZIP Code	Number of Incidents	Suicide Mortality Rate	Population (2010)*	Median Age	Percentage White	Median Household Income
Nassau County	N/A	232	5.7	1,347,132	41.4	71.2	\$93,214
Suffolk County	N/A	349	7.7	1,503,547	40.5	82.4	\$86,334
Nassau	11579 Sea Cliff	5	98.9	5,055	43.5	93.5	\$100,078
Suffolk	11935 Cutchogue	3	84.7	3,304	55.1	94.6	\$88,036
Suffolk	11951 Mastic Beach	10	73.1	13,680	37	85.4	\$68,243
Suffolk	11778 Rocky Point	7	58.2	12,709	37.8	95.1	\$89,460
Nassau	11545 Glen Head	7	58	12,065	44.7	88.3	\$137,302
Suffolk	11937 East Hampton	8	53.3	15,398	45.6	83.7	\$74,758
Suffolk	11782 Sayville	8	50.6	15,814	42.9	96.3	\$103,306
Nassau	11558 Island Park	4	47.8	8,370	45.1	84.1	\$79,722
Suffolk	11730 East Islip	7	47.6	14,712	39.8	95.3	\$103,036
Suffolk	11946 Hampton Bays	6	42.6	14,068	40.7	92.8	\$72,049

Sources: New York State Department of Health; U.S. Census, 2012 American Community Survey, five-year estimates

Note: These are crude rates. ZIP codes with fewer than three incidents were not included in analysis. In ZIP codes with small populations, one or two additional suicides over the period of time being measured may be enough to significantly increase rates.

\*ZIP code rates are based on 2010 Census population data.



In ZIP codes with small populations, just one or two additional suicides over the period of time being measured may be enough to significantly increase rates. However, increased rates may not reflect any real rise in the prevalence of suicide in a specific area. As a result, ZIP codes with fewer than three suicide incidents from 2009–2011 were not included in this analysis.

ALCOHOL-RELATED MOTOR VEHICLE DEATHS

<b>INDICATOR TREND</b>	<p>The number of alcohol-related motor vehicle fatalities increased 22.6% in Nassau County and 13% in Suffolk County from 2007–2011.</p> <p>As a percentage of all motor vehicle fatalities, alcohol-related motor vehicle fatalities increased in Nassau and Suffolk during the same time period.</p> <p>Suffolk had the highest number of alcohol-related fatal crashes (61) of any county in New York in 2011; Nassau County was second (38).</p>
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## WHAT DOES THIS MEASURE?

This indicator shows alcohol-related motor vehicle fatalities as a percentage of all motor vehicle fatalities. It also shows the number of alcohol-related motor vehicle fatalities.

## WHY IS THIS SIGNIFICANT AND WHO IS AFFECTED?

Alcohol-related motor vehicle deaths are an indicator of the extent of alcohol abuse in a region. Many intoxicated drivers are habitually heavy drinkers or alcoholics. Drivers involved in fatal alcohol-related crashes are far more likely to have been previously convicted of driving while intoxicated than other drivers.

Alcohol-related is defined as blood alcohol content or concentration (BAC) of .01 or higher by the National Highway Transportation Safety Administration (NHTSA). Alcohol-impaired refers to a BAC of .08 or higher, which is the legal criterion for intoxication throughout the United States. Alcohol-related/impaired motor vehicle accidents may involve drivers, passengers, pedestrians or other nonoccupants.

While .08 remains the legal standard for impaired driving in all 50 states and Washington, D.C., the National Transportation Safety Board recently voted to recommend that all states lower the BAC threshold for drunk driving from .08 to .05, in an effort to reduce motor vehicle fatalities.

High BAC causes mental and motor impairment, leading to reduced skill and judgment on the road. Because the number of drinks required to become intoxicated depends on a person's weight and body fat percentage, BAC is the most effective means to assess impairment.

Motor vehicle crashes are the leading cause of death for young people (ages 5–34) in the United States. In 2012, 1,168 children age 14 and younger were killed in motor vehicle traffic crashes; twenty percent of these fatalities were due to alcohol-impaired crashes, where children were either passengers or pedestrians.

## HOW DO WE COMPARE?

### National Context

According to the NHTSA, 10,322 people were killed in alcohol-impaired-driving crashes in 2012. Alcohol-impaired-driving fatalities decreased 21% from 2003 to 2012.

The alcohol-impaired fatality rate per 100 million vehicle miles of travel was .33 in 2011, a slight decline from .34 in 2010.

Over the last decade, the percentage of alcohol-impaired fatalities making up total traffic fatalities has remained relatively stable. In 2012, alcohol-impaired fatalities accounted for 31% of all traffic fatalities.



Disparities in alcohol-related motor vehicle accidents exist by gender and age. Male drivers involved in crashes are almost twice as likely as female drivers to be impaired; in 2012, 24% of male drivers and 14% of female drivers in the United States were involved in fatal crashes with BAC levels of .08 or higher.

Young drivers have higher alcohol-impaired fatality rates than older drivers. In 2012, 32% of drivers ages 16–24 and 29% of drivers 24–34 involved in fatal crashes had a BAC of .08 or higher. By comparison, 11% of drivers ages 55–64 had a BAC of .08 or higher.

#### **State Context**

In 2012, there were 358 alcohol-related crash fatalities in New York State, a 4% decline from 2007. Alcohol-related crash fatalities made up 31% of all motor vehicle crash fatalities. Of the people killed in alcohol-related accidents 188, or 52.5%, were drinking drivers.

Seventy-five percent of drinking drivers involved in alcohol-related motor vehicle accidents were male. Fifty-nine percent of drinking drivers involved in alcohol-related crashes were under the age of 30.

#### Nassau/Suffolk Counties

Nassau County had 38 alcohol-related fatalities in 2011, making up 42.2% of all motor vehicle fatalities for the year, more than the state proportion of 31%. Since 2007, alcohol-related fatalities in Nassau have increased 22.6% and the percentage of total motor vehicle fatalities that are alcohol-related has increased 11 percentage points.

Nassau had the second-highest number of alcohol-related fatal crashes of any county in New York in 2011 (10.5% of the State total); it was second to Suffolk County.

79.4% of alcohol-related accidents occurred at night (6 p.m. to 6 a.m.), and 51% occurred on weekends (Friday after 6 p.m., Saturday and Sunday).

Of the 38 people killed in alcohol-related motor vehicle accidents in 2011, 45% were drinking drivers.

Of the 912 drivers involved in alcohol-related motor vehicle crashes (fatal and non-fatal) in Nassau, 63.4% were drinking drivers; 75% of these drinking drivers were male; 41% were under the age of 30.

Suffolk County reported 61 alcohol-related crash fatalities for 2011, 42.4% of all its motor vehicle crash fatalities (144) for the year. Since 2007, the number of alcohol-related fatalities in Suffolk has increased by 13%, and the percentage of alcohol-related motor vehicle fatalities has increased by 11 percentage points.

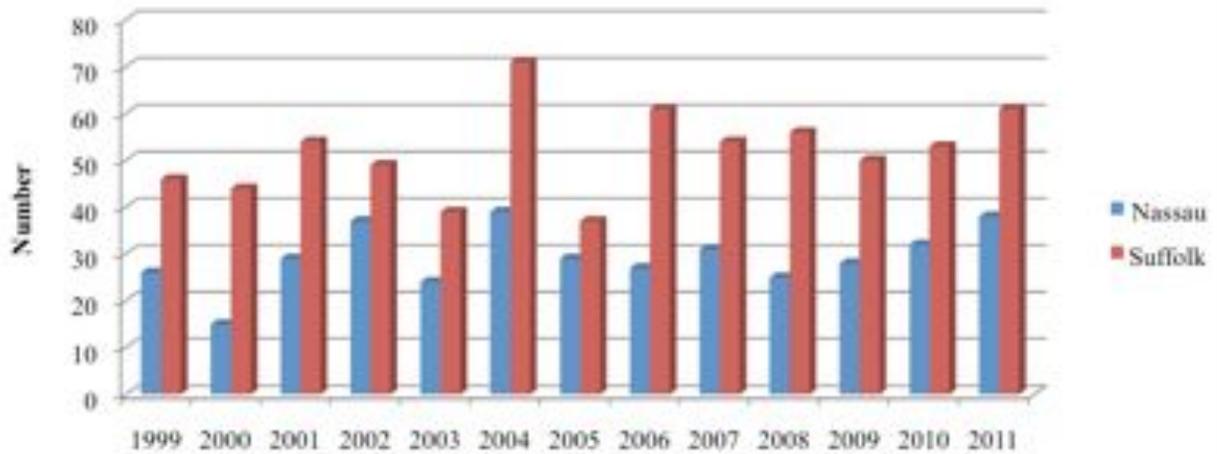
In 2011, Suffolk had the highest number of alcohol-related fatal crashes of any county in New York, accounting for 16.9% of all State alcohol-related fatal accidents.

82.4% of alcohol-related accidents occurred at night (6 p.m. to 6 a.m.) and 52.7% occurred on weekends (Friday after 6 p.m., Saturday and Sunday).

Of the 61 people killed in alcohol-related motor vehicle accidents in 2011, 38% were drinking drivers.

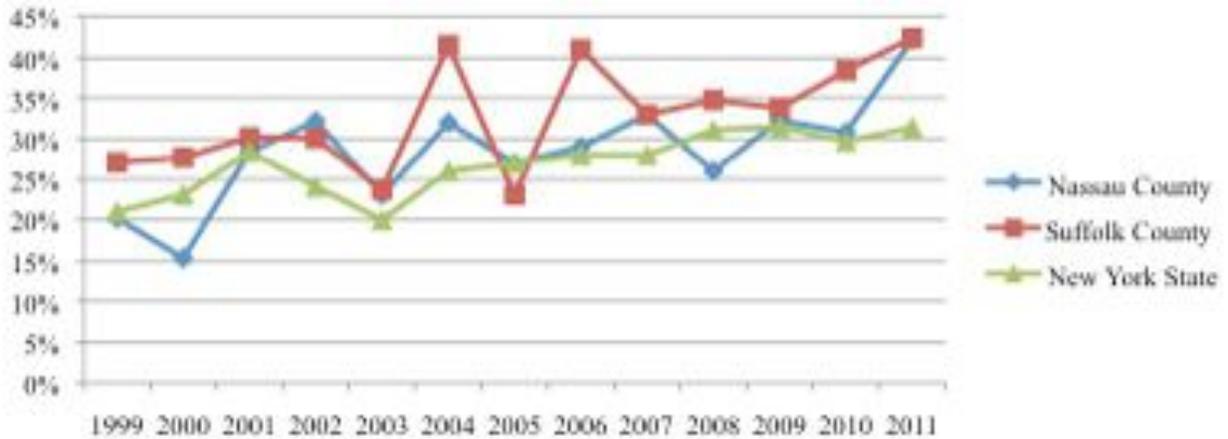
Of the 1,263 drivers involved in alcohol-related motor vehicle accidents (fatal and nonfatal) in Suffolk, 66% were drinking drivers; 77% of these drinking drivers were male; 44% were under the age of 30.

## Alcohol-Related Motor Vehicle Fatalities, 1999–2011



Source: Governor's Traffic Safety Commission, New York State Department of Motor Vehicles

## Alcohol-Related Motor Vehicle Fatalities as Percentage of Total Fatalities, 1999–2011



Source: Governor's Traffic Safety Commission, New York State Department of Motor Vehicles

## SUMMARY

**V**ITAL SIGNS 2014 assesses Long Island's performance on 28 social health indicators and provides an update on Long Island's quality of life. In so doing, it allows for a greater understanding of the economic downturn's full range of effects on social health. In addition, the report explores the scope of financial and social damage from Hurricane Sandy, a devastating catastrophe which will have repercussions long into the future. In all of its reports, Vital Signs uses a holistic, contextual approach in order to identify and highlight the dynamic relationships between different sectors of social health and to reveal how social health risk factors and needs vary by population and community.

Long Island is often thought of as an affluent suburb, and the region frequently exceeds state and national levels on social health indicators. However, a key finding of this report, which echoes results from previous Vital Signs releases, is that many indicators are moving in a negative direction. These indicators include housing cost burden, food insecurity, homelessness, pediatric asthma, diabetes, drug abuse, suicide and alcohol-related motor fatalities. In most cases, these trends are regionwide, although, in a growing number of instances, counties are moving in opposite directions on the same indicator. While Nassau, an inner-ring suburb, usually outperforms Suffolk, its more rural neighbor, this is not always the case. Moreover, within both counties, social health inequalities continue to exist by population and community and have often worsened over time.

The reasons for the decline in indicator performance are varied and interrelated. Even as the local economy improves, with job growth, declining unemployment and housing market rebounds, the Great Recession continues to cast a long shadow over the region, perpetuating economic uncertainty for many residents. For example, foreclosure rates remain high on Long Island compared to other locations nationwide and incomes have failed to keep pace with the cost of living.

Hurricane Sandy also upturned the lives of many area residents, leaving them with damaged homes and insufficient finances to repair them. Many remain displaced in a tight rental market where affordable options are few. In this environment, homeowners struggle to cover costs on mortgages while paying for short-term housing, leading to foreclosure and intense economic pain. Meanwhile, former renters, many of whom are low-income, experience significant housing instability and the constant threat of homelessness. The immediate mental health effects of Sandy, stemming from the strain of loss

and dislocation, were addressed by local organizations, but many of these initiatives have now ended. Only future data will show how depression and anxiety play out in the long-term for Sandy survivors, particularly among vulnerable populations.

Ongoing demographic shifts resulting in increased diversity and an aging population have also perpetuated need. For example, on indicators from housing cost burden, mortgage foreclosure and delinquency, prenatal care and pediatric asthma, low income communities and people of color disproportionately shoulder the greatest social health burdens. Immigrants, in particular, are at risk for lack of health insurance, due to lower-paying jobs, ineligibility for federal benefits and deportation fears. Even with the implementation of the Affordable Care Act, which expands healthcare coverage to previously uninsured Americans, undocumented individuals will remain without such protection. Immigrants are also at risk for violence and other bias offenses, as data from the report's Hate Crime section indicate. Yet, even as certain groups and communities repeatedly demonstrate poorer social health outcomes, moderate income communities and white Long Islanders are not immune, as evidenced by their high rates of suicide and heart disease.

Age-related challenges exist across social health domains. Declines in early prenatal care rates signal health challenges for newborns and the possibility of developmental delays and chronic illness for older children. High school dropout rates, while low in the aggregate, unevenly affect those in less affluent communities and communities of color, robbing individuals of their potential and hampering our region's overall economic growth. An upsurge in young adult arrests for drug use also signals a growing problem and points to possible youth disengagement and alienation as well as underlying mental health issues like depression.

The graying of Long Island poses new public health concerns, such as increasing rates of unintentional injury and heightened demand for services for those with functional limitations and difficulties completing the tasks of daily living on their own. In the area of food insecurity, seniors are especially impacted. Eighty-five percent of people age 65 and older eligible for the Supplemental Nutrition Assistance Program remain unenrolled because they fear the stigma associated with the program or because they are unable to navigate the bureaucratic process required to receive aid. Similar barriers exist for seniors in terms of receiving financial or other kinds of assistance from damage due to Hurricane Sandy.

Even as *Vital Signs 2014* tells an important story about social and health conditions on Long Island, particularly for groups that are marginalized or underserved, there is still much more to know. Many questions emerge from this profile's analysis of the 28 social health indicators, ultimately suggesting areas for further research and discovery.

Future studies should build on the information in this report to more effectively demonstrate how social health is determined and lived, particularly within local contexts. This type of qualitative research offers rich analysis of the mechanisms of social health, particularly the ways in which the environment, social relationships and cultural meanings interact to shape place-based health. Findings from these types of studies may help to identify new ways to enhance capacity building, remove barriers to care and improve social health.

Vital Signs took up this challenge in its study *The Truth and the Facts: Food Inequality on Long Island*, which provided the region's only comprehensive look at the day-to-day experiences of living with food insecurity. The report drew on firsthand accounts to bring to light the multifaceted challenges and coping strategies of food-insecure households. *The Truth and the Facts* captured the full range of emotional and physical health issues compounded by food insecurity and the patterns of social interaction that reinforce inequality. Based on these findings, the report offered insight into why some public health interventions work while others are doomed to failure when they do not address the specific dynamics and needs of local populations.

Quantitative studies, based on large data sets and statistical analysis, are also vital in efforts to isolate social health determinants for analysis and to evaluate, at least in part, their role and relative importance in social health processes for different population groups. This type of knowledge is extremely useful for strategic planners and policy makers seeking to prioritize their agendas.

In light of atypical weather patterns, and the likelihood of future disasters like Hurricane Sandy, there is a need to create better coordinated approaches to catastrophic events before and after they occur. Currently, disaster management tends to focus on informing and assisting the general population, with limited attention to subgroups known to be especially vulnerable to disasters, such as older adults, the disabled and lower-income people. We need more information about the specific needs of these vulnerable individuals/communities to increase safety and resiliency.

One practical suggestion for shoring up emergency preparation, management and response includes the development of an "index of vulnerability" that combines demographic, social and economic data (from sources like Vital Signs) with environmental information to help pinpoint the communities most at risk from hazards, whether due to geographic location or social conditions and resources.

Across Long Island, county and not-for-profit organizations and agencies are increasingly engaging residents in dialogue about strategic planning in areas such as community health and environmental design. Vital Signs hopes that this report too can be used as

a catalyst or foundation for public discussion about social health and social health decision making. These conversations should ideally focus on issues raised in the report, but also consider items and points of view beyond its scope but of importance to community members, particularly those that may have been overlooked by researchers or decision makers in the past.

The report's findings also point to the need for more integrated policy, planning and action. In the aftermath of Hurricane Sandy, social welfare organizations and government agencies have valiantly worked together to address short- and long-term need. Continuing to build on this type of collaboration across sectors and spheres is vital in all areas of social health.

Finally, as has been pointed out in previous Vital Signs reports, initiatives to address social health will need to be regionally and county-based as well as community and population specific, in order to make sure that social health needs, which vary by context and location, are appropriately met. Rather than reinvent the wheel, best practices from other regions should be studied and applied to address local social conditions.

It is with all these ends in mind that this report is offered as a tool to orient new thinking, policy, planning and action. While the report cannot generate change on its own, the information within is a resource for all stakeholders engaged in creating a more equitable, sustainable and vital Long Island.

## METHODS

### IDENTIFICATION AND SELECTION OF SOCIAL HEALTH INDICATORS

**V**ITAL SIGNS CONDUCTED an extensive review of the social health literature in order to identify an initial set of over 100 different social and health indicators. An Adelphi University faculty work group reviewed the indicators and narrowed them down to 60 indicators. These indicators were in turn reviewed by members of the Vital Signs Advisory Board and resulted in the 25 indicators included in the 2006 inaugural report. The decision to add or drop indicators from the 2009 and 2014 reports also came about due to a review process. Indicators for the 2014 report were not updated if no new data were available. In addition, a new indicator (Mental Health Services) was added to this report in order to set up a baseline measure for possible long-term health effects of Hurricane Sandy. In addition, a special “Spotlight on Sandy” section was included as a means to provide a centralized and comprehensive overview of the physical, economic and social consequences of the superstorm to date.

The selection of all the indicators reflects consideration of the following criteria:

- Reliability: Consistently measures same phenomena over repeated observations.
- Validity: Measures the phenomena it states it is measuring.
- Sensitivity to changing phenomena: Measurement detects small changes in occurrence.
- Timeliness: Data are current and/or conform to some established time period.
- Regularity: Data are collected routinely at some specified interval.
- Longitudinality: Data are collected at different points in time for the same population.
- Comparability: Same data are collected on the state or national level to facilitate comparisons of characteristics and/or trend phenomena.
- Geographic specificity: data are bounded geographically.

Data for the indicators were collected from a variety of sources:

- Federal, state and county governments, e.g., U.S. Census, New York State Department of Health, Nassau County Department of Health
- National nonprofit organizations, e.g., Annie Casey Foundation’s Kids Count
- National research institutions, e.g., Brookings Institute

- Regional and local nonprofit organizations, e.g., Long Island Association, LI Index, North Shore-LIJ Health System, Long Island Coalition for the Homeless
- Academic institutions

## DATA ANALYSIS

Geographic comparisons were made between national, state, regional and local data sets. Comparisons were also made with other mature suburbs. In addition, and when possible, analysis incorporated ZIP code comparisons and spatial mapping. Finally, analysis focused on trends over time as well as variations in demographic, social and economic characteristics.

## CHALLENGES: DATA COLLECTION AND ANALYSIS

Vital Signs' use of secondary data for this profile of Long Island's social health presented a variety of challenges. In addition to the absence of data, there were definitional, temporal and spatial problems.

- Incomplete or inadequate data collected, e.g., problems with existence or nature of sentinel points
- Scarcity of capacity data, e.g. treatment slots, waiting lists
- Wide variations in the format and content of data sets limiting comparative analyses
- Different definitions of phenomena or operational definitions, e.g. domestic violence reports, investigations and/or adjudicated cases
- Different cycles or periodicity of data collection, e.g., annual, biannual, decennial
- Different scale or geo-unit of data, e.g., ZIP code, town or county
- Different definitions of cohorts, e.g., youth includes individuals 12–19 years or 13–21 years

At times the limited availability of local ZIP code or town level data resulted in the use of aggregate data for a larger geographic area. This rendered invisible disparities that may exist within smaller geographic areas.

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## LONG ISLAND IN PROFILE

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## SPOTLIGHT ON SANDY

Data on Hurricane Sandy's impact and relief and recovery efforts were obtained from a number of sources, including the Federal Emergency Management Agency (FEMA) website's "Hurricane Sandy: One Year Later," [fema.gov/hurricane-sandy-one-year-later](http://fema.gov/hurricane-sandy-one-year-later), and "Housing Assistance Data: Hurricane Sandy New York & New Jersey," which included links to statistics on FEMA funds distributed to homeowners and renters as of August 28, 2013, [fema.gov/media-library/assets/documents/30714?id=6963](http://fema.gov/media-library/assets/documents/30714?id=6963); LI Can Disaster Case Management data, provided by the Archdiocese of New York; the Governor's Office of Storm Recovery, including "State Of New York Action Plan Amendment Number 6 To The Action Plan For Community Development Block Grant Disaster Recovery, Public Comment Period: February 18 to March 19, 2014," [stormrecovery.ny.gov/sites/default/files/uploads/ny\\_second\\_allocation\\_apa\\_march\\_5\\_2014\\_english\\_version.pdf](http://stormrecovery.ny.gov/sites/default/files/uploads/ny_second_allocation_apa_march_5_2014_english_version.pdf), and "NY Rising Housing Recovery Program Announces 6,388 Homeowners Have Been Issued Checks for Over \$280 Million for Home Rebuilding," [stormrecovery.ny.gov/sites/default/files/uploads/03-11-14\\_gosr\\_ny\\_rising\\_housing\\_program\\_application\\_deadline\\_release\\_final.pdf](http://stormrecovery.ny.gov/sites/default/files/uploads/03-11-14_gosr_ny_rising_housing_program_application_deadline_release_final.pdf); and Long Island Voluntary Organizations Active in Disaster, Long Term Recovery Group Committee notes, [www.hwcli.com/?PageID=601](http://www.hwcli.com/?PageID=601).

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## RENTAL HOUSING

Housing cost is defined for renters as "gross rent," which is the contract rent plus the estimated average monthly cost of utilities (electricity, gas, water, and sewer) and fuels (oil, coal, kerosene, wood, etc.), if these are paid by the renter (or paid for the renter by someone else). Trend data for this indicator were accessed from the National Low Income Housing Coalition, [nlihc.org](http://nlihc.org); The Universal Living Wage Campaign, [universallivingwage.org](http://universallivingwage.org); the U.S. Census Bureau, [census.gov](http://census.gov); and the U.S. Department of Housing and Urban Development, [hud.gov](http://hud.gov). In addition to HUD data on fair market rates, the U.S. Census, 2012 American Community Survey, was a resource for community level data. "The Long Island Regional Sustainability Plan—DRAFT," produced by the Long Island Regional Planning Board also supplied details on regional housing needs. Additional contextual information for national and local developments came from: The Center for Housing Policy, "Housing Landscape 2013," May 2013. [nhc.org/media/files/Landscape2013.pdf](http://nhc.org/media/files/Landscape2013.pdf); Jeffrey Lubell, "Census Data: Housing Costs Pinching Renters," *U.S. News & World Report*, March 25, 2013; The Joint Center for Housing Studies of Harvard University, "The State of the Nation's Housing, 2013," [jchs.harvard.edu/sites/jchs.harvard.edu/files/son2013\\_chap5\\_rental\\_housing.pdf](http://jchs.harvard.edu/sites/jchs.harvard.edu/files/son2013_chap5_rental_housing.pdf); Adam Fusfeld, "Long Island Renters Were Hit Hardest When Home Values Slumped," *Newsday*, May 14, 2013; and C.J. Hughes, "Confronting Long Island's Rental Shortage," *The New York Times*, September 19, 2013.

## HOMEOWNERSHIP

Owner housing costs consist of payments for mortgages, deeds of trust, contracts to purchase or similar debts on the property; real estate taxes; fire, hazard and flood insurance on the property; utilities; and fuels. Where applicable, owner costs also include monthly condominium fees. Data sources for this indicator included the 2007 and 2012 American Community Survey. Information from the U.S. Census brief by Christine Flanagan and Ellen Wilson, "Home Value and Homeownership Rates: Recession and Post-Recession Comparisons From 2007-2009 to 2010-2012" was also informative, as was the National Association of Home Builders/Wells Fargo Opportunity Index (HOI), [nahb.org](http://nahb.org), and the U.S. Census press release "Residential Vacancies And Homeownership In The Fourth Quarter 2013," [census.gov/housing/hvs/files/currenthvspress.pdf](http://census.gov/housing/hvs/files/currenthvspress.pdf). Additional Long Island housing data came from the Multiple Listing Service of Long Island, Inc. [links.mlsstratus.com/actrep/current/highlight.pdf](http://links.mlsstratus.com/actrep/current/highlight.pdf).

Sources on housing segregation were: John R. Logan, "Separate and Unequal: The Neighborhood Gap for Blacks, Hispanics and Asians in Metropolitan America," Project US 2010, July 2011; John R. Logan and Brian Stults, "The Persistence of Segregation in the Metropolis: New Findings from the 2010 Census." Census brief prepared for Project US 2010, 2011; and ERASE Racism's "Housing and Neighborhood Preferences of African Americans on Long Island 2012 Survey Research Report," February 2012, [eraseracismny.org/storage/documents/FINAL\\_ERASE\\_Racism\\_2012\\_Housing\\_Survey\\_Report\\_web\\_version.pdf](http://eraseracismny.org/storage/documents/FINAL_ERASE_Racism_2012_Housing_Survey_Report_web_version.pdf).

Additional contextual information on local and national housing trends included: Olivia Winslow, "LI, NY Home Values Fall, But Remain Among Nation's Highest," *Newsday*, November 14, 2013; Lisa Du, "Frigid Winter Slows Nassau Home Sales; Suffolk Sales Rise," *Newsday*, March 12, 2014; and the Population Reference Bureau report *The Growing Owner/Renter Gap in Affordable Housing in the U.S.*, [prb.org/Publications/Articles/2013/us-owners-renters-housing.aspx](http://prb.org/Publications/Articles/2013/us-owners-renters-housing.aspx).

## MORTGAGE FORECLOSURE AND DELINQUENCY

The prominence of foreclosures now and during the height of the country's economic crisis contributed to a wide variety of background sources in this area. Government references included the Department of Housing and Urban Development (HUD) and the Joint Economic Committee of Congress, "The Subprime Lending Crisis: The Economic Impact on Wealth, Property Values and Tax Revenues and How We Got Here," October 2007. Information on the role of race/ethnicity in mortgages came from: T. Boehm and A. Schlottmann, *Mortgage Pricing Differentials Across Hispanic, Black, and White Households: Evidence from the American Housing Survey*, Office of Policy Development and Research, Department of Housing and Urban Development, June 2006, [ideas.repec.org/p/hud/wpaper/39041.html](http://ideas.repec.org/p/hud/wpaper/39041.html); A. Haughwout et al., *Subprime Mortgage Pricing: The Impact of Race, Ethnicity, and Gender on the Cost of Borrowing*, Federal Reserve Bank of New York Staff Reports, no. 368 (April 2009); ERASE Racism, "The Racial Equity Report Card: Fair Housing on Long Island," California Reinvestment Coalition; Community Reinvestment Association of North Carolina; Empire Justice Center; Massachusetts Affordable Housing Alliance, Neighborhood Economic Development Advocacy Project; Woodstock Institute, "Paying More for the American Dream, A Multi-state Analysis of Higher Cost Home Purchase Lending," March 2007, [issuelab.org/research/paying\\_more\\_for\\_the\\_american\\_dream\\_a\\_multi\\_state\\_analysis\\_of\\_higher\\_cost\\_home\\_purchase\\_lending](http://issuelab.org/research/paying_more_for_the_american_dream_a_multi_state_analysis_of_higher_cost_home_purchase_lending); and Michael Powell and Janet Roberts, "Minorities Affected Most as New York Foreclosures Rise," *The New York Times*, May 16, 2009.

References for the individual and community impact of foreclosures were: Vern Baxter and Mickey Lauria, "Residential Mortgage Foreclosure and Neighborhood Change," *Housing Policy Debate* 11, no. 3 (2000); Daniel Immergluck and Geoff Smith, "The External Costs of Foreclosure: The Impact of Single-Family Mortgage Foreclosure on Property Value," *Housing Policy Debate* 17, no. 1 (2006); Daniel Immergluck and Geoff Smith, "The Impact of Single-family Mortgage Foreclosures on Neighborhood Crime," *Housing Studies* 21, no. 6 (2006); William C. Apgar et al., "The Municipal Cost of Foreclosures: A Chicago Case Study," Homeownership Preservation Foundation Housing Finance Policy Research Paper Number 2005-1, February 27, 2005; Gary Bennett, Melissa Scharoun-Lee, and Reginald Tucker-Seeley, "Will The Public's Health Fall Victim To The Home Foreclosure Epidemic?" *PLoS Medicine* 6, no. 6 (2009); and Katie McLaughlin et al., "Home Foreclosure and Risk Of Psychiatric Morbidity During The Recent Financial Crisis," *Psychological Medicine* 42, no. 7 (2012): 1441.

Current national, state and local figures were available at real estate and mortgage websites including the Mortgage Bankers Association, [mbaa.org](http://mbaa.org); [Propertyshark.com](http://Propertyshark.com); [Realtytrac.com](http://Realtytrac.com); [Corelogic.com](http://Corelogic.com); [LongIslandrealestateguru.com](http://LongIslandrealestateguru.com) and [Llrealestatereport.com](http://Llrealestatereport.com). Information and numbers related to the New York State Judicial foreclosure process came from: Scott M. Himes, *Statewide Judicial System Report Issued on N.Y. Foreclosure Cases*, November 13, 2013, [ballardspahr.com/alertspublications/legalalerts/2013-11-13-statewide-judicial-system-report-issued-on-ny-foreclosure-cases.aspx](http://ballardspahr.com/alertspublications/legalalerts/2013-11-13-statewide-judicial-system-report-issued-on-ny-foreclosure-cases.aspx); and the New York State Banking Department, *90 Day Pre-Foreclosure Notice Report*, October 7, 2010, [doviak.net/archive/PFF\\_re](http://doviak.net/archive/PFF_re)

port\_2010-10-07.pdf. Supplemental Long Island data were obtained from Paul Esajian, "Long Island: A Tale of Two Real Estate Markets," *Fortunebuilders.com*, December 17, 2013.

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Media sources with rich content on national, state and regional foreclosure patterns included: Adam Fufeld, "Long Island Foreclosures Rise, Not Just Because of Sandy," *Newsday*, October, 29, 2013; Maura McDermott, "'Underwater' Loans Fall 15% On Long Island, Corelogic Shows," *Newsday*, December 17, 2013; Adam Fufeld, "Foreclosure Rate Remains High On Long Island," *Newsday*, April 30, 2013; Maura McDermott, "Rising Foreclosures Hurt Island As Nation Recovers," *Newsday*, September 28, 2013; Morgan Brennan, "Where The Foreclosure Crisis Is Still Booming," *Forbes*, April 13, 2013; Lisa Prevost, "Upshot of the Foreclosure Backlog," *The New York Times*, December 6, 2012.

## HOMELESSNESS

The U.S. Department of Housing and Urban Development (HUD) provides annual point-in-time counts of homelessness in their *Annual Homeless Assessment Report* to Congress, [onecpd.info/resources/documents/ahar-2013-part1.pdf](http://onecpd.info/resources/documents/ahar-2013-part1.pdf). This report also provides definitions of relevant terms, such as chronically homeless, and explains HUD's methodology for the counts. An example of criticism of HUD's measurement and methods to assess homelessness can be read in the following opinion piece: Maria Foscarinis, "Homeless Problem Bigger Than Our Leaders Think: Column," *USA Today*, January 16, 2014.

Sources for alternative measures of homelessness at the national level were: The U.S. Conference of Mayors, *Hunger And Homelessness Survey, A Status Report on Hunger and Homelessness in America's Cities*, 2013, [usmayors.org/pressreleases/uploads/2013/1210-report-HH.pdf](http://usmayors.org/pressreleases/uploads/2013/1210-report-HH.pdf); National Center for Homeless Education, *Education for Homeless Children and Youths Program Data Collection Summary*, March, 2014, [center.serve.org/nche/downloads/data-comp-0910-1112.pdf](http://center.serve.org/nche/downloads/data-comp-0910-1112.pdf); Greg Zoroya, "Up To 48,000 Afghan, Iraq Vets At Risk For Homelessness," *USA Today*, January 17, 2014; and National Coalition for the Homeless, "How Many People Experience Homelessness?" July 2009, [nationalhomeless.org/factsheets/How\\_Many.html](http://nationalhomeless.org/factsheets/How_Many.html).

State data came from: The U.S. Department of Housing and Urban Development and the National Center on Family Homelessness, *State Report Card on Child Homelessness: America's Youngest Outcasts 2010*, [homelesschildrenamerica.org/media/NCFH\\_AmericaOutcast2010\\_web\\_032812.pdf](http://homelesschildrenamerica.org/media/NCFH_AmericaOutcast2010_web_032812.pdf). Information at the regional level, including point-in-time counts of homeless people and the number of shelters and beds available, were obtained from the Long Island Coalition for the Homeless website and through conversations with the Coalition's executive director.

The Urban Institute, [urban.org](http://urban.org) was used as a reference for factors that contribute to homelessness, the effects of homelessness on individuals and families, and community and legislative responses.

## FOOD INSECURITY

Data sources for this indicator included the Food Research Action Center, [frac.org](http://frac.org); the New York State Office of Temporary and Disability Assistance; and the United States Department of Agriculture. Specific reports consulted were: American Association of Retired Persons (AARP), *2012 Summit, Hunger among Older New Yorkers: Breaking Down the Barriers*, [states.aarp.org/wp-content/uploads/2013/09/AARP-NY-2013-Hunger-White-Paper.pdf](http://states.aarp.org/wp-content/uploads/2013/09/AARP-NY-2013-Hunger-White-Paper.pdf), and Food Research Action Center, *Food Hardship in America 2012*, [frac.org/pdf/food\\_hardship\\_2012.pdf](http://frac.org/pdf/food_hardship_2012.pdf).

Academic and policy pieces on hunger and individual, household and societal costs included the Center for American Progress, *Hunger in America, Suffering We All Pay For*, October 2011, [americanprogress.org/issues/2011/10/pdf/hunger\\_paper.pdf](http://americanprogress.org/issues/2011/10/pdf/hunger_paper.pdf); D. Ward, "The Role of Nutrition in the Prevention of infection," *Nursing Standard* 16 (2002): 47-52; M. Murphy et al., "Relationship Between Hunger and Psychosocial Functioning in Low-income American Children," *Journal of the American Academy of Child and Adolescent Psychiatry* 37, no. 2 (1998); K. Alaimo et al., "Food insufficiency, Family Income and Health in U.S. Pre-School and School-aged Children's Cognitive, Academic and Psychosocial Development," *Pediatrics* 108, no. 1 (2001): 44-53; and K. Alaimo, C. Olson and E. Frongillo, "Family Food Insufficiency, but Not Low Income, Is Positively Associated with Dysthymia and Suicide Symptoms in Adolescents," *Journal of Nutrition* 132 (2002): 719-775.

## VOTER TURNOUT

Several sources were useful in providing an overview of voter participation trends and methodologies in the United States, including the United States Election Project, George Mason University, [elections.gmu.edu/index.html](http://elections.gmu.edu/index.html); the Center for the Study of the American Electorate, American University School of Public Affairs, [american.edu/ia/cdem/csae](http://american.edu/ia/cdem/csae); and L. Sigelman et al., "Voting and Nonvoting: A Multi-Election Perspective," *American Journal of Political Science* 29, no. 4 (1985).

Information on Australia, Belgium and compulsory voting came from: Elliot Frankal, "Compulsory Voting Around the World," *The Guardian*, July 4, 2005; and Lisa Hill and Jonathon Louth, "Compulsory Voting Laws and Turnout: Efficacy and Appropriateness," Refereed paper presented to the Australasian Political Studies Association Conference, [academia.edu/703084/Compulsory\\_voting\\_laws\\_and\\_turnout\\_efficiency\\_and\\_appropriateness](http://academia.edu/703084/Compulsory_voting_laws_and_turnout_efficiency_and_appropriateness).

National data were obtained from: The Center for the Study of the American Electorate; the U.S. Census, including Thom, File, "The Diversifying Electorate—Voting Rates by Race and Hispanic Origin in 2012 (and Other Recent Elections)," May 2013, [census.gov/prod/2013pubs/p20-568.pdf](http://census.gov/prod/2013pubs/p20-568.pdf); the United States Election Project, George Mason University; and the Bipartisan Policy Center, "2012 Election Turnout Dips Below 2008 and 2004 Levels: Number Of Eligible Voters Increases By Eight Million, Five Million Fewer Votes Cast," [bipartisanpolicy.org/sites/default/files/2012%20Voter%20Turnout%20Full%20Report.pdf](http://bipartisanpolicy.org/sites/default/files/2012%20Voter%20Turnout%20Full%20Report.pdf).

State data were accessed from the United States Election Project and the New York State Board of Elections. Nassau and Suffolk data were obtained from the New York State Board of Elections, Nassau County Board of Elections, Suffolk County Board of Elections, and The Long Island Civic Engagement Table. Information on Hurricane Sandy's impact on voting came from News12 Long Island, "Election Day Voting Sites Impacted in Nassau, Suffolk," November 6, 2012.

## HIGH SCHOOL DROPOUTS

Information about the social and economic impact of high school noncompletion came from: A. Caspi et al., "Childhood Predictors of Unemployment in Early Adulthood," *American Sociological Review* 63, no. 3 (1998): 424-451; J. Boisjoly, K. Harris, and G. Duncan, "Initial Welfare Spells: Trends, Events, Duration," *Social Service Review* 72, no. 4 (1998): 466-492; K. Moore et al., "Poverty and Welfare Patterns: Implications for Children," *Journal of Social Policy* 31, no. 2 (2002): 207-227; Jeremy Burrus and Richard D. Roberts, "Dropping Out of High School: Prevalence, Risk Factors, and Remediation Strategies," *ETS R & D Connections*, February 2012, [ets.org/Media/Research/pdf/RD\\_Connections18.pdf](http://ets.org/Media/Research/pdf/RD_Connections18.pdf); Northeastern University-Center for Labor Market Studies, "Left Behind In America: The Nation's Dropout Crisis," Center for Labor Market Studies Publications, Paper 21, 2009, [hdl.handle.net/2047/d20000598](http://hdl.handle.net/2047/d20000598); and Adriana Lleras-Muney, "The Relationships between Education and Adult Mortality in the United States," *Review of Economic Studies*, 72 (2005): 189-221. The Child Trends Databank, [childtrends.databank.org](http://childtrends.databank.org), provided helpful statistics on national disparities and trends in high school dropout rates. The National Center on Secondary Education and Transition provided useful information concerning various measures for dropout rates, [ncset.org/publications/essentialtools/dropout/part1.2.asp](http://ncset.org/publications/essentialtools/dropout/part1.2.asp).

National data on high school dropouts came from the U.S. Census and U.S. Department of Education, National Center for Education Statistics, specifically *The Condition of Education 2013*, May 2013, [nces.ed.gov/pubs2013/2013037.pdf](http://nces.ed.gov/pubs2013/2013037.pdf) and *Trends in High School Dropout and Completion Rates in the United States: 1972-2009*, October 2011, [nces.ed.gov/pubs2012/2012006.pdf](http://nces.ed.gov/pubs2012/2012006.pdf). State, county and ZIP code level dropout rates were obtained from the New York State Department of Education, New York State School Report Card, [emsc.nysed.gov/irts/reportcard](http://emsc.nysed.gov/irts/reportcard); and the New York State Kids Well-being Indicators Clearinghouse, [nyskwic.org](http://nyskwic.org), which provides New York State county-level data on a range of children's health, education and other well-being indicators.

## CHILD ABUSE AND MALTREATMENT

Definitions of child abuse and maltreatment can be reviewed at the New York State Office of Children and Family Services, [ocfs.state.ny.us](http://ocfs.state.ny.us). Background and contextual sources, particularly for the relationship between child abuse and economic distress, included Frederik Joelving, "Child Abuse Climbs With Recession: Study," Reuters, September 19, 2011; Rachel P. Berger et al., "Abusive Head Trauma During A Time Of Increased Unemployment: A Multicenter Analysis," *Pediatrics* 128, no. 4 (2011): 637-643; Michael Winter, "Data Show No Spike In Recession-Related Child Abuse," *USA Today*, December 12, 2011; Jason Szep, "Child Abuse Spikes as U.S. Economy Founders," Reuters, April 16, 2009; Carey Goldberg, "Shaken Baby Cases on the Increase, Specialists Link Rise to Economic Stress," *The Boston Globe*, March 19, 2009; Donna St. George and Petula Dvorak, "Child Neglect Cases Multiply As Economic Woes Spread, Lost Jobs and Homes Exacerbate Family Stress Across Region," *The Washington Post*, December 29, 2008; L. Steinberg et al., "Economic Antecedents of Child Abuse and Neglect," *Child Development* 52, no. 3 (1981); and Shadi Houshyar, "Addressing the Needs of Vulnerable Families During an Economic Crisis," *First Focus*, December, 2008 [firstfocus.net/Download/Families\\_EconomicCrisis.pdf](http://firstfocus.net/Download/Families_EconomicCrisis.pdf).

National data on child abuse came from The U.S. Department of Health and Human Services, Administration for Children and Families. State and county data were retrieved from the New York State Kids Well-being Indicators Clearinghouse, [nyskwic.org](http://nyskwic.org), and the New York State Office of Family and Children Services.

## YOUTH ARRESTS

Much has been written on the correlates of juvenile/youth delinquency. Articles and publications used for this profile included Centre For Research On Youth At Risk, "Risk Factors," [stthomasu.ca/research/youth/risk.htm](http://stthomasu.ca/research/youth/risk.htm); Rachel Krause, "Killing the Programs We Need Most," Campus Progress, Center for American Progress, July 2009, [campusprogress.org/fieldreport/4284/killing-the-programs-we-need-most](http://campusprogress.org/fieldreport/4284/killing-the-programs-we-need-most); J.D. Hawkins, R.F. Catalano, and J.Y. Miller, "Risk and Protective Factors for Alcohol and Other Drug Problems in Adolescence and Early Adulthood Implications for Substance Abuse Prevention," *Psychological Bulletin* 112, no. 1 (1992): 64-105; R. J. Bursik and J. Webb, "Community Change and Patterns of Delinquency," *American Journal of Sociology* 88 (1982): 24-42; C.A. Murray, "The Physical Environment and Community Control of Crime," In J. Q. Wilson (ed.), *Crime and Public Policy*, (107-122). San Francisco: Institute for Contemporary Studies; D.S. Elliott, "Youth Violence: An Overview," Philadelphia: University of Pennsylvania, Center for the Study of Youth Policy, 1993. Information on the relationship between crime and economic downturns came from: Barry Krisberg, Carolina Guzman, and Linh Vuong, "Crime and Economic Hard Times," National Council on Crime and Delinquency, February 2009, [offendersolutions.com/Crime\\_Economy.pdf](http://offendersolutions.com/Crime_Economy.pdf); T.G. Chiricos, "Rates of Crime and Unemployment: An Analysis of Aggregate Research Evidence," *Social Problems* 34, no. 2 (1987): 187; and J. Grogger, "Market Wages and Youth Crime," *Journal of Labor Economics* 16, no. 4 (1998): 756-791.

Sources on gang membership were: National Gang and Intelligence Center, Federal Bureau of Investigation (FBI), "2011 National Gang Threat Assessment—Emerging Trends," [fbi.gov/stats-services/publications/2011-national-gang-threat-assessment/2011-national-gang-threat-assessment-emerging-trends](http://fbi.gov/stats-services/publications/2011-national-gang-threat-assessment/2011-national-gang-threat-assessment-emerging-trends); National Gang Intelligence Center, "National Gang Threat Assessment 2009," January 2009, [fbi.gov/stats-services/publications/national-gang-threat-assessment-2009-pdf](http://fbi.gov/stats-services/publications/national-gang-threat-assessment-2009-pdf); National Gang Center, U.S. Department of Justice, "National Youth Gang Survey Analysis," [nationalgangcenter.gov/Survey-Analysis](http://nationalgangcenter.gov/Survey-Analysis); Kirsten Gillibrand, "With Up To 50,000 Gang Members In New York, Gillibrand Announces New Legislative Agenda To Combat Gang Activity," (press release), [gillibrand.senate.gov/newsroom/press/release/with-up-to-50-000-gang-members-in-new-york-gillibrand-announces-new-legislative-agenda-to-combat-gang-activity](http://gillibrand.senate.gov/newsroom/press/release/with-up-to-50-000-gang-members-in-new-york-gillibrand-announces-new-legislative-agenda-to-combat-gang-activity); "Caught in the Crossfire: Arresting Long Island Gang Violence by Investing in Kids," Fight Crime: Invest in Kids, 2004, [fightcrime.org/reports/gangreport.pdf](http://fightcrime.org/reports/gangreport.pdf); Sarah Garland, "In a Suburban Gangland, Young Lives Cut Short," *The New York Times*, June 19, 2009; Timothy Bolger, "Gangs of Long Island: Rape. Drugs. Murder," *Long Island Press*, July 23, 2009; and Nassau and Suffolk County Police Departments.

National data on youth arrests were accessed from the Federal Bureau of Investigation's *Crime in the United States 2011* and *Crime in the United States 2012*, which base their findings on the Uniform Crime Reporting (UCR) program, a voluntary reporting effort. Statistics include reports on crime from over 18,000 law enforcement agencies in the country whose jurisdictions covered 98.9% of the population in Metropolitan Statistical Areas, 93.3% of the population in cities outside metropolitan areas and 94.2% of the population in nonmetropolitan counties in 2012. State and county data were obtained from the Department of Criminal Justice Services and the Kids Well-being Indicators Clearinghouse, [nyskwic.org](http://nyskwic.org).

## DOMESTIC VIOLENCE

Data on outcomes and disparities associated with domestic violence were collected from: The National Clearinghouse on Child Abuse and Neglect Information, *In Harm's Way: Domestic Violence and Child Maltreatment*, 1999; C.M. Rennison and S. Welchans, *Intimate Partner Violence*, (Special Report NCJ 178247),

Washington, D.C.: U.S. Department of Justice, 2000; and U.S. Department of Health and Human Services, *Child Protection in Families Experiencing Domestic Violence*, 2003.

Statistics on the estimated number of abused elderly in the United States were obtained from: The Committee on National Statistics, *Elder Mistreatment: Abuse, Neglect, and Exploitation in an Aging America*, The National Academies Press, 2002, [nap.edu/books/0309084342/html](http://nap.edu/books/0309084342/html); C. Cooper et al., "The Prevalence of Elder Abuse and Neglect: A Systematic Review," *Age and Ageing* 37, no. 2 (March 2008): 151-60; Action on Elder Abuse, "Hidden Voices, Action on Elder Abuse," 2005; and Administration on Aging, "What is Elder Abuse?"

National information on intimate partner violence was accessed from the Centers for Disease Control and Prevention's (CDC) National Intimate Partner and Sexual Violence Survey. State data were obtained from the New York State Division of Criminal Justice Services (DCJS). The decision to use state data rather than county police department data was made because (a) previous reports included DCJS data, making comparisons over time possible and (b) DCJS provides not just numbers of incidents but information on the relationship between perpetrators and victims.

As noted in the indicator section, domestic violence reporting in New York changed in 2008 after a review of existing reporting forms and categories by DCJS. DCJS found that agencies statewide were over-reporting domestic violence incidents by incorrectly including nonviolent offenses in the "other offenses" category. (This category should include only violent offenses.) As a result, analysis of this indicator begins with 2009 data.

Some additional information on domestic violence (specifically intimate partner violence) in New York State came from: A. Fernandez-Lanier, *Domestic Homicide in New York State, 2012*, New York State Division of Criminal Justice Services, Office of Justice Research and Performance, July 2013. Data on elder abuse on Long Island were accessed from *Under the Radar: New York State Elder Abuse Prevalence Study*, a report issued by the New York State Office of Children and Family Services in conjunction with research partners in May 2011, [lifespan-roch.org/documents/undertheradar051211.pdf](http://lifespan-roch.org/documents/undertheradar051211.pdf).

The Healthy People 2020 goals refer to a federal initiative that sets national goals for identifying, measuring, tracking and reducing health disparities using a determinants of health approach. Discussion about the resource's Leading Health Indicators, strategies to address problems and progress to date are available at the Healthy People 2020 website, [healthypeople.gov](http://healthypeople.gov).

## VIOLENT CRIME

According to the FBI, violent crime comprises four offenses: murder and non-negligent manslaughter, forcible rape, robbery and aggravated assault. Violent crimes may involve force or the threat of force. Information on crime and the economy was obtained from: Christopher Uggen, "Crime and the Great Recession," [soc.umn.edu/~uggen/crime\\_recession.pdf](http://soc.umn.edu/~uggen/crime_recession.pdf). The main source for national and state trends in violent crime was the Federal Bureau of Investigation's *Crime in the United States 2012*, a voluntary reporting effort. Statistics include reports on crime from over 18,000 law enforcement agencies in the country whose jurisdictions covered 98.9% of the population in Metropolitan Statistical Areas, 93.3% of the population in cities outside metropolitan areas and 94.2% of the population in nonmetropolitan counties

in 2012. Data on Long Island law enforcement agencies were provided by the New York State Division of Criminal Justice Services. Additional city, town and village data were accessed from the U.S. Census, American Community Survey, 2012.

## HATE CRIME

The American Psychiatric Association, "Anti-gay Hate Crimes Increase, Have Serious Effects on Victims," *Psychiatric News*, [psych.org/pnews/97-12-19/gay.html](http://psych.org/pnews/97-12-19/gay.html), was the source for information on possible psychological consequences of hate crimes. Data on national trends in hate crimes were obtained from the Federal Bureau of Investigation, *Hate Crime Statistics 2011*. Hate crime data are a subset of the data collected through the Uniform Crime Reporting Program. 1,944 law enforcement agencies participated in the Hate Crime program in 2011. Additional national hate crime data were provided by Marisol Bello, "FBI Report: Anti-gay Crimes Up," *USA Today*, October 28, 2008; and Rebecca Stotzer, *Comparison of Hate Crime Rates across Protected and Unprotected Groups*, The Williams Institute, UCLA School of Law, June 2007.

State and county data were obtained from the Department of Criminal Justice Services (DCJS). Information on hate crime in Suffolk County, especially with regard to the Marcelo Lucero case and the more recent decision to allow Justice Department oversight of the police department was obtained from: Ray Sanchez and Cindy Y. Rodriguez, "Hate Crime Killing Triggers Federal Oversight Of Town's Police," CNN.com, December 17, 2013; the United States Department of Justice, "United States Agrees to Comprehensive Settlement with Suffolk County Police Department to Resolve Investigation of Discriminatory Policing Against Latinos," December 3, 2013, [justice.gov/opa/pr/2013/December/13-crt-1273.html](http://justice.gov/opa/pr/2013/December/13-crt-1273.html); "Latinos in Suffolk County Face Racial Intolerance, Report Says," CNN.com, September 4, 2009, [cnn.com/2009/US/09/02/latino.newyork/index.html](http://cnn.com/2009/US/09/02/latino.newyork/index.html); "Justice and the Suffolk County Police," *The New York Times*, September 25, 2011; Taylor K. Vecsey, "Feds Probe Hate Crimes in Suffolk," *The East Hampton Star*, January 15, 2009; Anne Barnard, "Youth Charged With More Attacks on Latinos," *The New York Times*, January 28, 2009; and Anne Barnard, "Assaults on Latinos Spur Inquiry," *The New York Times*, January 13, 2009

## HEALTH INSURANCE

Given the topic's timeliness, information and data on healthcare coverage in the United States were available from a range of sources. Details on the Affordable Care Act (ACA) were obtained from: Rachel Garfield, Rachel Licata and Katherine Young, *The Uninsured at the Starting Line: Findings from the 2013 Kaiser Survey of Low-Income Americans and the ACA*, Henry J. Kaiser Family Foundation, February 6, 2014, [kff.org/uninsured/report/the-uninsured-at-the-starting-line-findings-from-the-2013-kaiser-survey-of-low-income-americans-and-the-aca](http://kff.org/uninsured/report/the-uninsured-at-the-starting-line-findings-from-the-2013-kaiser-survey-of-low-income-americans-and-the-aca); Ricardo Alonso-Zaldivar, "Poll: Uninsured Rate Drops As Health Law Rolls Out," AP, January 23, 2014; Henry J. Kaiser Family Foundation, *Interactive: A State-by-State Look at How the Uninsured Fare Under the ACA*, March 2014, [kff.org/interactive/uninsured-gap](http://kff.org/interactive/uninsured-gap); several federal websites, including [healthcare.gov](http://healthcare.gov) and [medicaid.gov/AffordableCareAct/Affordable-Care-Act.html](http://medicaid.gov/AffordableCareAct/Affordable-Care-Act.html); New York Health Plan Association, *Six Ways the Affordable Care Act Will Impact Individual Health Insurance*, [nyhpa.org/PDFs/6-Ways-ACA-6.11-\(4%20pages\).pdf](http://nyhpa.org/PDFs/6-Ways-ACA-6.11-(4%20pages).pdf); and the Congressional Budget Office, [cbo.gov](http://cbo.gov).

Background details on individual, household and social costs of uninsurance were gathered from: Institute of Medicine, *America's Uninsured Crisis: Consequences for Health and Healthcare*, Report Brief, February 2009, [iom.edu/-/media/Files/Report%20Files/2009/Americas-Uninsured-Crisis-Consequences-for-Health-and-Health-Care/Americas%20Uninsured%20Crisis%202009%20Report%20Brief.pdf](http://iom.edu/-/media/Files/Report%20Files/2009/Americas-Uninsured-Crisis-Consequences-for-Health-and-Health-Care/Americas%20Uninsured%20Crisis%202009%20Report%20Brief.pdf); Stan Dorn, *Uninsured and Dying Because of It: Updating the Institute of Medicine Analysis on the Impact of Uninsur-*

ance on Mortality, The Urban Institute, January 2008; the Commonwealth Fund, [commonwealthfund.org](http://commonwealthfund.org); the Henry J. Kaiser Family Foundation, "Key Facts about the Uninsured Population, September 26, 2013, [kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population](http://kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population); and Kelly Kennedy, "Up To \$49 Billion Unpaid by Uninsured For Hospitalizations," *USA Today*, May 13, 2011.

Statistics on rising healthcare expenditures were accessed from: "U.S. Health Spending Rose 3.7 Percent In 2012 As Economy Dragged," Reuters, January 6, 2014, [reuters.com/article/2014/01/06/us-usa-healthcare-spending-idUSBREA0510D20140106](http://reuters.com/article/2014/01/06/us-usa-healthcare-spending-idUSBREA0510D20140106); U.S. Centers for Medicare and Medicaid Services, *National Health Expenditure Projections 2012–2022*, [cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/downloads/proj2012.pdf](http://cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/downloads/proj2012.pdf); and Centers for Medicare and Medicaid Services, CMS.gov.

National data sources included Carmen DeNavas-Walt, Bernadette D. Proctor, and Jessica C. Smith, *Income, Poverty, and Health Insurance Coverage in the United States: 2012*, U.S. Census, September 2013; American Community Survey 2012; Henry J. Kaiser Family Foundation, *Health Insurance Coverage of the Total Population*, 2014, [kff.org/other/state-indicator/total-population](http://kff.org/other/state-indicator/total-population); and Mark Landler and Michael Shear, "Enrollments Exceed Obama's Target for Healthcare Act," *The New York Times*, April 17, 2014.

State data were obtained from: the U.S. Census, American Community Survey 2012; the New York State Department of Health; Henry J. Kaiser Family Foundation, *Health Insurance Coverage of the Total Population*, 2014, [kff.org/other/state-indicator/total-population](http://kff.org/other/state-indicator/total-population); Henry J. Kaiser Family Foundation, *How Will the Uninsured in New York Fare under the Affordable Care Act?* January 6, 2014, [kff.org/health-reform/fact-sheet/state-profiles-uninsured-under-aca-new-york](http://kff.org/health-reform/fact-sheet/state-profiles-uninsured-under-aca-new-york); and Glenn Blain, "New York State Obamacare Enrollment Tops 960K," *New York Daily News*, April 16, 2014.

Long Island data came from a mix of newspaper and database sources: The American Community Survey 2012; "Mapping Uninsured Americans," *The New York Times*, [nytimes.com/newsgraphics/2013/12/18/uninsured-map](http://nytimes.com/newsgraphics/2013/12/18/uninsured-map); "Uninsured People in New York," *Newsday*, [data.newsday.com/long-island/data/health/uninsured](http://data.newsday.com/long-island/data/health/uninsured); Olivia Winslow, "New Census Data Spotlight Health Insurance Coverage," *Newsday*, December 17, 2013; the New York State Department of Health; and North Shore-LIJ Health System (specifically details on inpatient payor trends).

## MENTAL HEALTH SERVICES

Background material on the prevalence of mental disorders, frequency of treatment and barriers to service came from: The National Institutes of Mental Health, *The Numbers Count: Mental Disorders in America*, [nimh.nih.gov/health/publications/the-numbers-count-mental-disorders-in-america/index.shtml](http://nimh.nih.gov/health/publications/the-numbers-count-mental-disorders-in-america/index.shtml); the National Alliance on Mental Illness, *About Mental Illness*, [nami.org/template.cfm?section=about\\_mental\\_illness](http://nami.org/template.cfm?section=about_mental_illness); and "Barriers to Mental Health Treatment by People of Color," [nami.org/Template.cfm?Section=Cultural\\_Competence&Template=/ContentManagement/ContentDisplay.cfm&ContentID=21588](http://nami.org/Template.cfm?Section=Cultural_Competence&Template=/ContentManagement/ContentDisplay.cfm&ContentID=21588); Substance Abuse and Mental Health Services Administration's National Survey on Drug Use and Health; R. Mojtabai et al., "Comparing Barriers To Mental Health Treatment And Substance Use Disorder Treatment Among Individuals With Comorbid Major Depression And Substance Use Disorders," *Journal Of Substance Abuse Treatment* 46, no. 2 (2014): 268–273; and P.S. Wang, M. Lane, M. Olfson, H.A. Pincus, K.B. Wells, and R.C. Kessler, "Twelve-Month Use Of Mental Health Services In

The United States: Results From The National Comorbidity Survey Replication," *Archives Of General Psychiatry* 62, no. 6 (2005): 629-640.

Sources on state budget cuts in mental health were: National Alliance on Mental Illness, *State Mental Health Cuts: The Continuing Crisis*, 2011, [nami.org/ContentManagement/ContentDisplay.cfm?ContentFileID=147763](http://nami.org/ContentManagement/ContentDisplay.cfm?ContentFileID=147763); Michael Ollove, "Medicaid Expansion May Be Key To Restoring State Mental Health Funding," *Kaiser Health News*, January 18, 2013; and Deanna Pan, "MAP: Which States Have Cut Treatment For the Mentally Ill the Most?" *Mother Jones*, April 29, 2013. Details on the Affordable Care Act and insurance coverage for mental health services were obtained from: the National Alliance on Mental Illness, *Health Reform and Mental Health*, [nami.org/Content/NavigationMenu/Inform\\_Yourself/About\\_Public\\_Policy/Issue\\_Spotlights/Health\\_Care\\_Reform/ACA-FactSheet1\\_HealthReformMH.pdf](http://nami.org/Content/NavigationMenu/Inform_Yourself/About_Public_Policy/Issue_Spotlights/Health_Care_Reform/ACA-FactSheet1_HealthReformMH.pdf).

National and State data for this indicator were accessed from: The Substance Abuse and Mental Health Services Administration's Uniform Reporting System (URS) database. Information about the 15 regional Centers of Excellence came from the New York State Office of Mental Health and Ridgely Ochs, "Sagamore Children's Psych Center Spared State Closure, For Now," *Newsday*, February 14, 2014. The New York State Office of Mental Health's Dashboard, specifically the Patient Characteristics Survey, [bi.omh.ny.gov/cmhp/dashboard](http://bi.omh.ny.gov/cmhp/dashboard), provided county data for this indicator.

## EARLY PRENATAL CARE

Contextual information for this indicator came from: C.A. Beckman, T.A. Buford, and J.B. Witt, "Perceived Barriers To Prenatal Care Services," *MCN Am J Matern Child Nurs* 25, no. 1 (2000): 43-6; U.S. Centers for Disease Control; the United States Department of Health and Human Services Administration, Maternal and Child Health; B. Lia-Hoagberg et al., "Barriers And Motivators To Prenatal Care Among Low-Income Women," *Social Science & Medicine* 30, no. 4 (1990): 487-494; and C.A.L. Cook, K.L. Selig, B.J. Wedge, and E.A. Gohn-Baube, "Access Barriers And The Use Of Prenatal Care By Low-Income, Inner-City Women," *Social Work* 44, no. 2 (1999): 129-139.

Data for this indicator came from: the U.S. Centers for Disease Control; the United States Department of Health and Human Services Office on Women's Health; the United States Department of Health and Human Services Administration, Maternal and Child Health; the New York State Department of Health, including the *New York State Minority Health Surveillance Report 2012*, [health.ny.gov/statistics/community/minority/docs/surveillance\\_report\\_2012.pdf](http://health.ny.gov/statistics/community/minority/docs/surveillance_report_2012.pdf) and the Statewide Planning and Cooperative Research System (SPARCS); and the Nassau County Department of Health's *Community Health Assessment 2014-2017*, [nassaucountyny.gov/agencies/health/documents/NCDOH\\_CHAFinal.pdf](http://nassaucountyny.gov/agencies/health/documents/NCDOH_CHAFinal.pdf). Demographic data were obtained from the U.S. Census, American Community Survey 2011, three-year estimates. Healthy People 2020 goals came from their website, [healthypeople.gov](http://healthypeople.gov).

## TEEN PREGNANCY AND TEEN BIRTHS

There are many studies and papers that focus on the health, social and economic issues related to teen pregnancy and teen births. This profile made use of information from the following organizations: Annie E. Casey Foundation, [aecf.org](http://aecf.org); The National Campaign to Prevent Teen Pregnancy, [thenationalcampaign.org](http://thenationalcampaign.org); the Centers for Disease Control; the Urban Institute, [urban.org/health](http://urban.org/health); the Alan Guttmacher Insti-

tute, guttmacher.org; the Planned Parenthood Federation of America; .plannedparenthood.org; and the U.S. Department of Health and Human Services, womenshealth.gov.

Specific reports included: P.K. Braverman and B.K. Snyder, "CDC Survey: Many Sexually Active Females Don't Know They Are at Risk for Pregnancy," *AAP News* 33, no. 5 (2012): 13-13; K. Perper, K. Peterson and J. Manlove, "Diploma Attainment Among Teen Mothers," Fact Sheet Publication #2010-01: Washington, D.C.: Child Trends; 2010; S.D. Hoffman, *Kids Having Kids: Economic Costs and Social Consequences of Teen Pregnancy*, Washington, D.C.: The Urban Institute Press, 2008; Saul D. Hoffman, *By the Numbers: The Public Costs of Teen Childbearing*, The National Campaign to Prevent Teen Pregnancy, October 2006; KIDS COUNT, AEC Foundation, 2004; R.A. Maynard (ed.). *Kids Having Kids: A Robin Hood Foundation Special Report on the Costs of Adolescent Childbearing*, New York: Robin Hood Foundation, 1996; S.K. Henshaw, J. Ermisch and D. Pevalin, *Who Has a Child as a Teenager?* ISER working paper 2003-30. Institute for Social and Economic Research, University of Essex, 2003, iser.essex.ac.uk/pubs/workpaps/pdf/2003-30.pdf; John Ermisch and Marco Francesconi, "Family Matters: Impacts of Family Background on Educational Attainments," *Economica*, New Series 68, no. 270 (May 2001); Ann Berrington et al., *Consequences of Teenage Parenthood: Pathways Which Minimise the Long Term Negative Impacts of Teenage Childbearing*, UK Department of Health; John Ermisch and David J. Pevalin, *Does a "Teen-birth" Have Longer-term Impacts on the Mother? Evidence from the 1970 British Cohort Study*, Institute for Social and Economic Research, October 2003, iser.essex.ac.uk/publications/working-papers/iser/2003-28.pdf; and Debra Boyer and David Fine, "Sexual Abuse as a Factor in Adolescent Pregnancy and Child Maltreatment," *Family Planning Perspectives* 24, no. 2 (1993).

Data for this indicator were retrieved from: the United States Department of Health and Human Services, Office of Adolescent Health, [hhs.gov/ash/oah/adolescent-health-topics/reproductive-health/teen-pregnancy/trends.html](https://hhs.gov/ash/oah/adolescent-health-topics/reproductive-health/teen-pregnancy/trends.html); Brady E. Hamilton, Ph.D., and Stephanie J. Ventura, M.A., "Birth Rates for U.S. Teenagers Reach Historic Lows for All Age and Ethnic Groups," CDC, NCHS Data Brief, no. 89, April 2012, [cdc.gov/nchs/data/databriefs/db89.pdf](https://cdc.gov/nchs/data/databriefs/db89.pdf); Centers for Disease Control, "Teen Pregnancy," [cdc.gov/teenpregnancy](https://cdc.gov/teenpregnancy); and "Teen Birth Rates Drop, But Disparities Persist," [cdc.gov/features/dsteenpregnancy](https://cdc.gov/features/dsteenpregnancy); New York State Department of Health Statewide Planning and Cooperative Research System (SPARCS); and the Nassau County Department of Health's *Community Health Assessment 2014-2017*, [nassaucountyny.gov/agencies/health/documents/NCDOH\\_CHAFinal.pdf](https://nassaucountyny.gov/agencies/health/documents/NCDOH_CHAFinal.pdf). Demographic data were obtained from the U.S. Census, American Community Survey 2012 and 2011, three-year estimates. Healthy People 2020 goals came from their website, [healthypeople.gov](https://healthypeople.gov).

## LOW BIRTH WEIGHT

Source data for this indicator came from: Joyce A. Martin, M.P.H., Brady E. Hamilton, Ph.D., Michelle J.K. Osterman, M.H.S., Sally C. Curtin, M.A., and T.J. Mathews, M.S., "Births: Final Data for 2012," *National Vital Statistics Report* 62, no. 9 (2013) and "Births: Final Data for 2011," *National Vital Statistics Report* 62, 7 (2013); Child Stats, "Preterm Birth and Low Birth Weight," [childstats.gov/americaschildren/health1.asp](https://childstats.gov/americaschildren/health1.asp); the New York State Department of Health, including the County Health Indicators by Race/Ethnicity; and U.S. Census, American Community Survey 2012. Additional information on disparities came from the CDC's Office of Minority Health, [cdc.gov/omh](https://cdc.gov/omh); the National Healthy Start Association; and the New York State Department of Health's *Minority Health Surveillance Report 2012*, [health.ny.gov/statistics/community/minority/docs/surveillance\\_report\\_2012.pdf](https://health.ny.gov/statistics/community/minority/docs/surveillance_report_2012.pdf) and Statewide Planning and Cooperative Research System (SPARCS). Healthy People 2020 goals came from their website, [healthypeople.gov](https://healthypeople.gov).

## INFANT MORTALITY

Data and context for historic, national and international trends in infant mortality were obtained from: U.S. Department of Health and Human Services; the CDC, "Infant Mortality," [cdc.gov/reproductivehealth/MaternalInfantHealth/InfantMortality.htm](http://cdc.gov/reproductivehealth/MaternalInfantHealth/InfantMortality.htm); Marian F. MacDorman, Ph.D., Donna L. Hoyert, Ph.D., and T.J. Mathews, M.S., "Recent Declines in Infant Mortality in the United States, 2005–2011," NCHS Data Brief, no. 120 (April 2013), [cdc.gov/nchs/data/databriefs/db120.pdf](http://cdc.gov/nchs/data/databriefs/db120.pdf); M.F. MacDorman and T.J. Mathews, "Behind International Rankings Of Infant Mortality: How The US Compares With Europe," *Int J Health Serv* 40, no. 4: 577–88; Abby Goodnough, "U.S. Infant Mortality Rate Fell Steadily From '05 to '11," *The New York Times*, April 17, 2013; and Sarah C.P. Williams, "Gone Too Soon: What's Behind the High U.S. Infant Mortality Rate," *Stanford Medicine* (2013), [stanmed.stanford.edu/2013fall/article2.html](http://stanmed.stanford.edu/2013fall/article2.html). Data for New York and Nassau and Suffolk counties, including ZIP code level data, were obtained from the New York State Department of Health Statewide Planning and Cooperative Research System (SPARCS) and the Nassau County Department of Health's *Community Health Assessment 2014–2017*, [nassaucountyny.gov/agencies/health/documents/NCDOH\\_CHAFinal.pdf](http://nassaucountyny.gov/agencies/health/documents/NCDOH_CHAFinal.pdf). Healthy People 2020 goals came from their website, [healthypeople.gov](http://healthypeople.gov).

## PEDIATRIC ASTHMA

Information on hospitalization and pediatric asthma in the United States came from: B. Bloom, R.A. Cohen, and G. Freeman, "Summary Health Statistics For U.S. Children: National Health Interview Survey 2011," *Vital Health Stat* 10, no. 254 (2012), [cdc.gov/nchs/data/series/sr\\_10/sr10\\_254.pdf](http://cdc.gov/nchs/data/series/sr_10/sr10_254.pdf); J.E. Moorman, L.J. Akinbami, and C.M. Bailey et al., "National Surveillance of Asthma: United States, 2001–2010," *Vital Health Stat* 3, no. 35 (2012), [cdc.gov/nchs/data/series/sr\\_03/sr03\\_035.pdf](http://cdc.gov/nchs/data/series/sr_03/sr03_035.pdf); and the Medical College of Wisconsin, August 30, 2005, [healthlink.mcw.edu/article/1031002539.html](http://healthlink.mcw.edu/article/1031002539.html). The source for New York State and county pediatric asthma rates was the New York State Department of Health, including Statewide Planning and Research Cooperative System (SPARCS) data. ZIP code level rates were determined by using Prevention Quality Indicators (PQI) guidelines for pediatric asthma (PQI #14), developed by the Agency for Healthcare Research and Quality, rather than New York State Department of Health definitions. These rates were calculated by North Shore-LIJ Health System. Additional data for ZIP code level analysis came from the U.S. Census, 2012 American Community Survey.

Information on Hurricane Sandy, mold and respiratory illness were obtained from: John Manuel, "The Long Road to Recovery: Environmental Health Impacts of Hurricane Sandy," *Environ Health Perspect* 121:A152–A159 (2013); Long Island Voluntary Organizations Active in Disaster. Long Term Recovery Group Housing Subcommittee Meeting, November 1, 2013, [hwcli.com/documents/652.pdf](http://hwcli.com/documents/652.pdf); Long Island Voluntary Organizations Active in Disaster. Long Term Recovery Group Housing Subcommittee meeting, December, 18, 2013, [hwcli.com/documents/656.pdf](http://hwcli.com/documents/656.pdf); and Vera Chinese, "Hurricane Sandy, One Year Later: Long Island Struggles for Normalcy," *New York Daily News*, October 26, 2013.

## DIABETES

Information on the consequences of diabetes-related lower-extremity amputations (LEA) were available from a number of sources, including: Karel Bakker, "The Year of the Diabetic Foot and Beyond," *Diabetes Voice*, 40, no. 4 (December 2005): 41–43; and Venkat Kalapatapu, M.D., "Lower Extremity Amputation," 2014, [uptodate.com/contents/lower-extremity-amputation](http://uptodate.com/contents/lower-extremity-amputation). Details on diabetes-related amputations and disparities were obtained from: Limb Loss Task Force/Amputee Coalition, *Roadmap for Preventing Limb Loss in America: Recommendations From the 2012 Limb Loss Task Force*, 2012; and D.J. Margolis et al., "Loca-

tion, Location, Location: Geographic Clustering of Lower-Extremity Amputation among Medicare Beneficiaries with Diabetes," *Diabetes Care* 34, no. 11 (2011): 2363–2367. Information on possible reasons for the decline in diabetes-related LEA and the benefits of preventive foot care came from: Y Li et al., "Declining Rates of Hospitalization for Nontraumatic Lower Extremity Amputation in the Diabetic Population Aged 40 Years or Older: U.S., 1988–2008," *Diabetes Care* 35, no. 2 (February 1, 2012): 273–7; Marijke Vroomen Durning, "Diabetes-Linked Amputations Declining, Study Finds," USNews.com, July 19, 2013, health.usnews.com/health-news/news/articles/2013/07/19/diabetes-linked-amputations-declining-study-finds; Christoph Trautner et al., "Reduced Incidence of Lower-Limb Amputations in the Diabetic Population of a German City, 1990–2005," *Diabetes Care* 30, no. 10 (2007); and Eskelinen, E. et al. "Major Amputation Incidence Decreases Both in Non-Diabetic and Diabetic Patients in Helsinki," *Scandinavian Journal of Surgery* 95 (2006). Discussion about the Affordable Care Act and diabetes can be found at: Ed Finkel, "Chronic and Complicated," *SSA Magazine* (Winter 2012), ssa.uchicago.edu/chronic-and-complicated; and Centers for Disease Control and Prevention, *Diabetes Report Card 2012*.

Statistics on diabetes and LEA rates were obtained from the CDC's National Diabetes Surveillance System and *2011 National Diabetes Fact Sheet*, [cdc.gov/diabetes/pubs/factsheet11.htm](http://cdc.gov/diabetes/pubs/factsheet11.htm). State data were accessed from: American Podiatric Medical Association, *Diabetes by the Numbers: New York*, [apma.org/files/FileDownloads/New%20York.pdf](http://apma.org/files/FileDownloads/New%20York.pdf); and the New York State Department of Health, including "Adult Diabetes Prevalence in New York State," [health.ny.gov/diseases/conditions/diabetes/docs/adult\\_diabetes\\_prevalence.pdf](http://health.ny.gov/diseases/conditions/diabetes/docs/adult_diabetes_prevalence.pdf) and *The State of Diabetes in New York State: A Surveillance Report*, [health.state.ny.us/statistics/diseases/conditions/diabetes/docs/1997-2004\\_surveillance\\_report.pdf](http://health.state.ny.us/statistics/diseases/conditions/diabetes/docs/1997-2004_surveillance_report.pdf). The source for Nassau and Suffolk data was the New York State Department of Health Statewide Planning and Cooperative Research System (SPARCS) and North Shore-Long Island Jewish Hospital System, who analyzed Prevention Quality Indicators (PQI) guidelines for lower-extremity amputations due to diabetes (PQI #16), developed by the Agency for Healthcare Research and Quality, in order to create ZIP code level rates. Additional ZIP code level analysis used data from the American Community Survey 2012. Healthy People 2020 goals came from their website, [healthypeople.gov](http://healthypeople.gov).

## SENIOR UNINTENTIONAL FALLS

Growing attention to this topic provided a range of sources on the causes, consequences and costs of falls, including: I.P. Donald and C.J. Bulpitt, "The Prognosis Of Falls In Elderly People Living At Home," *Age and Ageing* 28, (1999): 121–5; CDC, "Falls Among Older Adults: An Overview," [cdc.gov/homeandrecreationalafety/falls/adultfalls.html](http://cdc.gov/homeandrecreationalafety/falls/adultfalls.html); A.M. Tromp, S.M.F. Pluijm, and J.H. Smit et al., "Fall-Risk Screening Test: A Prospective Study On Predictors For Falls In Community Dwelling Elderly," *J Clin Epidemiol* 54, no. 8 (200): 837–844; J.A. Stevens, M.F. Ballesteros, K.A. Mack, R.A. Rudd, E. DeCaro, and G. Adler, "Gender Differences In Seeking Care For Falls In The Aged Medicare Population," *American Journal of Preventive Medicine* 43 (2012): 59–62; the World Health Organization, *WHO Global Report On Falls Prevention In Older Age*, 2007, [agefriendlyworld.org/sites/default/files/global\\_report\\_on\\_falls\\_prevention\\_in\\_older\\_age.pdf](http://agefriendlyworld.org/sites/default/files/global_report_on_falls_prevention_in_older_age.pdf); E. Brody, "Falls by Elderly, a Perilous Yet Preventable Epidemic," *The New York Times*, June 8, 1999; L. Dukas and E. Schacht, "Significant Lower Balance and Muscle Strength Performance and Higher Risk for Falls in Elderly People with a Decreasing Creatinine Clearance. Results from a Cross-Sectional Study," Presented at: ASBMR 29th Annual Meeting; Honolulu, HI, September 16, 2007; P. Kannus et al., "Alarming Rise in the Number and Incidence of Fall-Induced Cervical Spine Injuries Among Older Adults," *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences* 62, no. 2 (2007): 180–183; Suzele Fabricio and Cristina Coelho et al., "Falls Among Older Adults Seen at a São Paulo State Public Hospital: Causes and Consequences," *Rev. Saúde Pública* [online] 38, no 1 (2004); and S. Yoshida, *A Global Report*

on Falls Prevention: *Epidemiology of Falls*, World Health Organization, August 2007. National data on falls came from the CDC, specifically their Injury Prevention & Control: Data & Statistics system (WISQA-RSTM). State and county data were obtained from the New York State Department of Health, the New York State Department of Health Statewide Planning and Cooperative Research System (SPARCS). Healthy People 2020 goals came from their website, [healthypeople.gov](http://healthypeople.gov).

## DISEASES OF THE HEART

Diseases of the heart include the following codes from the *International Classification of Diseases* (ICD-10): 100-109, 111, 113, 120-151. Information on heart disease risk factors and data trends came from the American Heart Association; Erika Gebel, *Heart Disease a Leading Cause of Death Worldwide*, [america.gov](http://america.gov), July 2008, [america.gov/st/healthenglish/2008/July/20080724175631abretnuh0.9819757.html#ixzzOPEAt5H9G](http://america.gov/st/healthenglish/2008/July/20080724175631abretnuh0.9819757.html#ixzzOPEAt5H9G); and A.S. Go, D. Mozaffarian, V.L. Roger, E. Benjamin, J.D. Berry, M.J. Blaha, and M.B. Turner, "Heart Disease and Stroke Statistics—2014 Update: A Report From the American Heart Association," *Circulation* 129, no. 3 (2014): e28-e292.

National data were obtained from: Donna L. Hoyert, Ph.D., and Jiaquan Xu, M.D., "Deaths: Preliminary Data for 2011," *National Vital Statistics Reports* 61, no. 6 (2012), [cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\\_06.pdf](http://cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_06.pdf). New York State, county and ZIP code heart disease mortality and hospital discharge rates were obtained from the New York State Department of Health and the Nassau County Department of Health's "Community Health Assessment 2014-2017," [nassaucountyny.gov/agencies/health/documents/NCDOH\\_CHAFinal.pdf](http://nassaucountyny.gov/agencies/health/documents/NCDOH_CHAFinal.pdf) and Statewide Planning and Cooperative Research System (SPARCS). Additional ZIP code level data were accessed from the American Community Survey 2012 five-year estimates, and American Community Survey 2012 one-year estimates. ZIP code rates were calculated using 2010 population U.S. Census data.

## CANCER

The website of the National Cancer Institute has a large database that includes descriptions of different types of cancer, risk factors and prevention, treatment regimens, and data on both incidence and mortality rates, [cancer.gov](http://cancer.gov). The site presents data by state and county over time, allowing for trend analysis. The Centers for Disease Control's website also provides data on incidence and mortality. And the American Cancer Society website offers additional details on the cost of cancer. More extensive discussion about decreases in incidence and mortality were found in the following documents: B.K. Edwards et al., *Annual Report To The Nation On The Status Of Cancer, 1975-2010, Featuring Prevalence Of Comorbidity And Impact On Survival Among Persons With Lung, Colorectal, Breast, Or Prostate Cancer*, 2103; and C.R. Morris, J. Epstein, K. Nassere, B.M. Hofer, J. Rico, J.H. Bates, and K.P. Snipes, *Trends in Cancer Incidence, Mortality, Risk Factors and Health Behaviors in California*, Sacramento, CA: California Department of Public Health, Cancer Surveillance Section, January 2010. The New York State Department of Health's Cancer Registry provided additional data for the region. This website also contains historical trend data by county, gender and race/ethnicity, [health.state.ny.us/statistics/cancer/registry/nyscr.htm](http://health.state.ny.us/statistics/cancer/registry/nyscr.htm). New York State ZIP code level data for cancer incidence were retrieved from [health.ny.gov/statistics/cancer/registry/zipcode](http://health.ny.gov/statistics/cancer/registry/zipcode).

## HIV/AIDS

Data on national mortality and incidence rates came from the following sources: Lisa Sterman, "The AIDS Cocktail Turns 10," an Advocate.com exclusive, posted November 29, 2005; Kaiser Family Foundation, *HIV/AIDS Policy Fact Sheet: The HIV/AIDS Epidemic in the US*, 2012; and the Centers for Disease Control's National HIV Surveillance System.

Information on AIDS-related stigma came from the article, Gregory M. Herek et al., "HIV-Related Stigma and Knowledge in the United States: Prevalence and Trends, 1991-1999," *American Journal of Public Health* 92, no. 3 (2002). State data came from New York State Department of Health's *HIV/AIDS Surveillance Annual Report for Cases Diagnosed Through December 2011*. The HIV Reporting and Partner Notification Law implemented in June 2000 mandated that all healthcare providers and laboratories report cases of HIV infection to the New York State Department of Health. Long Island data were obtained from the New York State Department of Health *New York State HIV/AIDS County Surveillance Report: For Cases Diagnosed Through December 2011*, [health.ny.gov/diseases/aids/general/statistics/annual/counties/annual\\_rpt\\_including.pdf](http://health.ny.gov/diseases/aids/general/statistics/annual/counties/annual_rpt_including.pdf); and the New York State Department of Health Vital Statistics data.

## DRUG ABUSE

Drug-related discharges refer to records with International Statistical Classification of Diseases and Related Health Problems 9 codes 292, 304, 305.1-305.9, 648.3, 655.5, 763.5, 760.70, 760.72, 760.73, 760.75, 760.79, 779.4, 779.5, 965.0, 967.0, 968.5, 969.6, 969.7 or with a cause of injury coded E850-E858, E950.0-E950.2, E962.0, E980.0-E980.2.

For information on America's drug policy, see: David Morgan, "Data Suggests Drug Treatment Can Lower U.S. Crime," Reuters, May 17, 2012; and Jefferson M. Fish, "Rethinking Drug Policy Assumptions," *The Humanist*, February 15, 2013. A discussion of marijuana laws by state can be found at: Kelli B. Grant, "Marijuana Refugees: Looking for New Homes in Pot-Legal States," NBCNews.com, February 5, 2014, [nbcnews.com/business/consumer/marijuana-refugees-looking-new-homes-pot-legal-states-n22781](http://nbcnews.com/business/consumer/marijuana-refugees-looking-new-homes-pot-legal-states-n22781). Trends in drug abuse emergency room visits came from the Drug Abuse Warning Network (DAWN) at the Substance Abuse and Mental Health Services Administration, specifically the publication *Drug Abuse Warning Network, 2011: National Estimates of Drug-Related Emergency Department Visits*, 2013.

Additional information was obtained from the New York State Office of Alcohol and Substance Abuse Services (OASAS).

Inpatient discharge data came from the New York State Department of Health, Statewide Planning and Cooperative Research System (SPARCS). The 2012 American Community Survey was an additional source for ZIP code level data. Several sources provided context for Long Island's drug use epidemic: Ronni Berke and Poppy Harlow, "One Snapshot in a Tragic National Picture: Long Island Sees Exploding Heroin Use," CNN, February 9, 2014, [cnn.com/2014/02/07/us/long-island-heroin-youths](http://cnn.com/2014/02/07/us/long-island-heroin-youths); David M. Schwartz, "LI Lacks Drug Treatment Spots, Expert Tells Suffolk Lawmakers," *Newsday*, February 6, 2014, [newsday.com/long-island/suffolk/li-lacks-drug-treatment-spots-expert-tells-suffolk-lawmakers-1.6973391](http://newsday.com/long-island/suffolk/li-lacks-drug-treatment-spots-expert-tells-suffolk-lawmakers-1.6973391); and James King, "Report: Long Islanders Love Drugs," *The Village Voice*, May 25, 2012.

A 2012 Suffolk County Grand Jury Report includes statistics that show the growth of drug abuse in our region, finding that, between 2006 and 2010, Suffolk County arrests for heroin possession rose 170%, from 486 to 1,315. The report also noted widespread misuse of prescription painkillers. For example, the report observed that overdose victims with Oxycontin in their system rose 266% between 2004 and 2010. Healthy People 2020 goals came from their website [www.healthypeople.gov](http://www.healthypeople.gov).

## SUICIDE

Information on suicide risk factors, disparities, and outcomes came from several sources: The American Foundation for Suicide Prevention, [afsp.org](http://afsp.org), the Centers for Disease Control's National Vital Statistics System (NVSS) mortality data and data/fact sheet links such as [cdc.gov/ViolencePrevention/pdf/Suicide-DataSheet-a.pdf](http://cdc.gov/ViolencePrevention/pdf/Suicide-DataSheet-a.pdf) and [cdc.gov/violenceprevention/suicide/statistics/trends02.html](http://cdc.gov/violenceprevention/suicide/statistics/trends02.html); "Study: Suicide Risk Double Among Male U.S. Veterans," CNN.com, June 11, 2007, [cnn.com/2007/HEALTH/06/11/vets.suicide/index.html](http://cnn.com/2007/HEALTH/06/11/vets.suicide/index.html); William Yardley, "First Death for Washington Assisted-Suicide Law," *The New York Times*, May 22, 2009; Denise Gellene, "U.S. Suicide Rate Is Up," *Los Angeles Times*, October 21, 2008; E.K. Moscicki, "Epidemiology of Completed and Attempted Suicide: Toward a Framework for Prevention," *Clinical Neuroscience Research* 1 (2001): 310-23; National Institute of Mental Health, *In Harm's Way: Suicide in America: A Brief Overview of Suicide Statistics and Prevention*, 2003 rev. [nimh.nih.gov/publicat/harmaway.cfm#2](http://nimh.nih.gov/publicat/harmaway.cfm#2); and Mayo Clinic.com, "Suicide: Coping When a Loved One Takes Their Life," [mayoclinic.com/health/suicide/MH00048](http://mayoclinic.com/health/suicide/MH00048).

Suicide data include records with ICD 10 codes: X60-X84, and Y87.0. The Centers for Disease Control and Prevention's National Center for Health Statistics was the source for national data, specifically the National Vital Statistics System (NVSS) and the National Electronic Injury Surveillance System All Injury Program. Healthy People 2020 goals came from their website, [healthypeople.gov](http://healthypeople.gov). State and county data came from the New York State Department of Health Vital Statistics. ZIP code level data were made available through the Bureau of Biometrics and Health Statistics at the New York State Department of Health. ZIP code demographic data were accessed from the 2012 American Community Survey. ZIP code rates were calculated using 2010 population census data. Information on youth suicide on Long Island came from: Suffolk County Youth Bureau, *Indices of Youth Needs in Suffolk County*, 2013, [suffolkcountyny.gov/Portals/0/countyexecutive/Minorityaffairs/flyers/INDICES%20FINAL%202.pdf](http://suffolkcountyny.gov/Portals/0/countyexecutive/Minorityaffairs/flyers/INDICES%20FINAL%202.pdf).

## ALCOHOL-RELATED MOTOR VEHICLE DEATHS

The principle national, state and regional data sources for this indicator were: The National Center for Statistics and Analysis, National Highway Traffic Safety Administration (NHTSA); the United States Department of Justice (National Victim Assistance Academy); and the New York State Governor's Traffic Safety Committee (GTSC) in the Department of Motor Vehicles.

Also informative for background on alcohol-impaired driving policies were: Matthew Wald, "States Urged to Cut Limit on Alcohol for Drivers," *The New York Times*, May 14, 2013; R. Shults et al., "Reviews of Evidence Regarding Interventions to Reduce Alcohol-Impaired Driving," *American Journal of Preventive Medicine* 21, no. 4 (2001); and "Governor Announces .08 BAC Level for DWI Is Effective," New York State Division of State Police (press release), [troopers.state.ny.us/Public\\_Information/2003\\_news\\_releases/07-01-03\\_Governor\\_Announces\\_.08\\_Bac\\_Level\\_for\\_DWI\\_Is\\_Effective.cfm](http://troopers.state.ny.us/Public_Information/2003_news_releases/07-01-03_Governor_Announces_.08_Bac_Level_for_DWI_Is_Effective.cfm).

The Centers for Disease Control's Web-based Injury Statistics Query and Reporting System, National Center for Injury Prevention and Control and the NHTSA, particularly *Traffic Safety Facts 2010* and *Traffic Safety Facts, 2011* provided information on the disparities and risk factors associated with drunk driving. [nhtsa.dot.gov](http://nhtsa.dot.gov).

There are some limitations with using alcohol-related motor vehicle fatalities as an indicator of alcohol abuse. Differences in police enforcement, seatbelt use, miles traveled and roadway conditions may make comparisons between regions difficult.

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