

Suffolk County Community Health Assessment and Improvement Plan 2022-2024

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Suffolk County, New York

2022-2022 Community Health Assessment and Improvement Plan

Suffolk County Department of Health Services

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The Suffolk County Community Health Assessment and Improvement Plan was created in collaboration with community agencies based on priorities determined by the Long Island Health Collaborative (LIHC). The LIHC is a coalition established in January 2013 through a Population Health Improvement Program (PHIP) grant from the New York State Department of Health. The LIHC is overseen by the Nassau-Suffolk Hospital Council. Coalition membership includes the Suffolk and Nassau County Departments of Health, Long Island’s hospitals, and local academic institutions, community-based organizations, medical societies, and other organizations dedicated to improving the health of the population of Long Island. The LIHC provided oversight and management of the Community Health Assessment processes, including data collection and analysis. Participating hospitals and hospital systems included the following:

Catholic Health

Good Samaritan University Hospital	1000 Montauk Hwy, West Islip, NY 11795
St. Catherine of Siena Hospital	50 NY-25A, Smithtown, NY 11787
St. Charles Hospital	200 Belle Terre Rd, Port Jefferson, NY 11777

Northwell Health

Huntington Hospital	270 Park Ave, Huntington, NY 11743
Mather Hospital	75 N. Country Rd., Port Jefferson, NY 11777
Peconic Bay Medical Center	1300 Roanoke Ave. Riverhead, NY 11901
South Shore University Hospital	301 E. Main Street, Bay Shore, NY 11706

Stony Brook Medicine

Stony Brook Southampton Hospital	240 Meeting House Ln, Southampton, NY 11968
Stony Brook University Hospital	101 Nicolla Rd, Stony Brook, NY 11794
Stony Brook Eastern Long Island Hospital	201 Manor Pl, Greenport, NY 11944



Suffolk County Department of Health Services (SCDHS)
Community Health Assessment & Improvement Plan 2022-2024



Long Island Community Hospital

101 Hospital Road, Patchogue, NY 11722

Northport Veterans Affairs Medical Center

79 Middleville Rd, Northport, NY 11768





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Executive Summary

Suffolk County, New York, is located in the easternmost part of Long Island and is home to approximately 1.5 million residents. The present document provides a comprehensive description of the health status of Suffolk County’s residents and outlines a plan to improve it. The assessment is based on the analysis of community demographics, publicly available morbidity and mortality information, and recent surveys of community members and community-based organizations conducted by one of our partners. These data show that while Suffolk County is, *on aggregate*, an affluent, healthy, and well-resourced community, there are significant socioeconomic disparities, with geographic pockets of both extreme wealth and poverty. The county’s low-income communities face significant health challenges, including a high prevalence of obesity and significant morbidity and mortality from chronic diseases including cardiovascular disease, diabetes, and respiratory diseases. Suffolk County has a higher incidence of cancer than New York State as a whole, as well as higher mortality and hospitalization rates due to cardiovascular disease, heart disease, and coronary heart disease. Additionally, the county has higher rates of opioid use and opioid-related fatalities than the state as a whole, a significantly higher motor vehicle mortality rate, and a higher rate of alcohol-related motor vehicle injuries and deaths.

Every three years, each local health department in New York State completes a Community Health Assessment (CHA) to identify the county’s most pressing health priorities, and a Community Health Improvement Plan (CHIP) designed to address these priorities. For the 2022-2024 community health planning cycle, the Suffolk County Department of Health Services (SCDHS) is focusing on the following priorities, selected from the 2019-2024 New York State Department of Health Prevention Agenda:¹

1. Prevent Chronic Disease
Focus Area 4: Chronic Disease Preventive Care and Management
2. Promote Well-Being and Prevent Mental and Substance Use Disorders
Focus Area 2: Mental and Substance Use Disorders Prevention

¹ *Prevention Agenda 2019-2024: New York State’s Health Improvement Plan.*
https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/



These priorities are unchanged from those of the 2019 – 2021 cycle. Within these priorities, SCDHS is focusing its efforts on addressing health disparities faced by low income communities of color. Within the ‘chronic disease’ focus area, SCDHS is particularly targeting disparities in cancer incidence and mortality, and prevalence of obesity and diabetes. Programming within the ‘mental and substance use disorder’ focus is designed to benefit the entire community, but with specific messaging and outreach tailored to minority groups. Such tailoring ensures that public health interventions benefit the entire community. Unfortunately, for example, a recent study suggests that non-Hispanic Black New Yorkers have not benefited as much from opioid prevention and treatment efforts as their White counterparts.²

On Long Island, the community health needs assessment process is overseen by the Long Island Health Collaborative (LIHC). The LIHC was created in 2013 as a regional partnership between SCDHS, the Nassau County Department of Health, and the hospitals of Nassau and Suffolk Counties to facilitate the community health needs assessment process. The LIHC has subsequently expanded its membership to include academic institutions, community-based organizations, physicians, health plans, schools, libraries, local municipalities, and other community partners who hold a vested interest in community health and in supporting the New York State Department of Health (NYSDOH) Prevention Agenda (see LIHC membership directory in *Appendix F*). As a multi-disciplinary initiative, the LIHC is overseen by the Nassau-Suffolk Hospital Council, the organization that represents Long Island’s hospitals and serves as a coordinating agency.

A primary responsibility of LIHC is collecting and analyzing data to inform selection of Prevention Agenda priorities for the region for the current Community Health Needs Assessment cycle. The priorities for 2022-24 were selected by LIHC members based on review of publicly available morbidity and mortality data, demographic data, and results from several studies conducted by the LIHC. These include a community health needs assessment survey of community members, a similar survey of community-based organization leaders, and two qualitative studies exploring the region’s health issues in greater depth.

The SCDHS develops and implements its CHIP for each assessment cycle based on the findings of the Community Health Needs Assessment and the selected Prevention Agenda

² MR Larochelle, et al. Disparities in opioid overdose death trends by race/ethnicity, 2018-2019, from the HEALing Communities Study. *American Journal of Public Health*. DOI: 10.2105/AJPH.2021.306431 (2021).



priorities. The work plan (*Appendix E*) outlines SCDHS' CHIP projects, including anticipated measures and activities for 2023. CHIP projects typically involve collaboration between multiple divisions or units within SCDHS and a variety of community partners, including academic institutions, hospitals, federally qualified health centers (FQHCs), K-12 schools, and community-based organizations, in addition to the LIHC. SCDHS offices/ programs heavily involved in CHIP projects include: the Office of Minority Health, which performs outreach to minority communities and ensures that programming is culturally competent; the Office of Health Education, which designs and delivers evidence-based health education programming and trains peer educators; Emergency Medical Services, which distributes naloxone and runs community overdose prevention classes; the Division of Community Mental Hygiene, which coordinates programming related to suicide prevention and medication-assisted treatment (MAT) for prevention of opioid addiction; and the Cancer Prevention and Health Promotion Coalition, which designs public health programming and messaging pertaining to cancer prevention.

SCDHS' clinical partners include Sun River Health, a regional FQHC, as well as Suffolk County's Hospitals and associated outpatient clinics. These partners provide clinical services related to CHIP projects, including provision of services such as patient navigators and extended clinic hours, and innovative solutions such as distributing FIT kits within a mobile mammography van to help boost rates of breast and colorectal cancer screening. Clinical partners also provide space for public programming and assist with public educational campaigns by distributing educational material to patients.

The LIHC offers expertise in evidence-based intervention, and encourages and facilitates members' collaboration on CHIP projects through quarterly stakeholder meetings. LIHC also disseminates wellness information to the community through the bi-weekly *Collaborative Communications* e-newsletter, distributed to more than 580 recipients, and social media platforms. Topics include the importance of proper nutrition and physical activity, mental health disorder prevention and treatment services and programming, and information about substance misuse.

Additional key partners include K-12 schools, and community-based organizations (CBOs). The SCDHS is working with school districts on peer education projects for vaping, suicide, and bullying prevention. The schools and districts are active partners in these projects, assigning staff and arranging students' schedules to facilitate training activities. CBOs are



instrumental in multiple CHIP projects, and provide community outreach as well as insight into the needs of the communities they serve.

Engagement of the broader community, for assessment processes, is achieved through the LIHC's and its partners' ongoing distribution of the Community Health Assessment Survey (CHAS). This survey is offered online and in paper format to county residents at public events, workshops, and educational programs offered by LIHC partners, as well as physician offices, hospital waiting areas, libraries, schools, federally-qualified health clinics, and other public venues. The survey is also available in several languages, as well as a large print version to increase accessibility. The LIHC aggressively promotes the survey through social media and partner organizations. Results from the CHAS are analyzed yearly, and findings are shared with all LIHC participants, with the media, and posted on the LIHC website. For this assessment cycle, surveys were distributed from January 1 through December 31, 2021, with 883 surveys collected in Suffolk County. Results of this survey are summarized in **Appendix A**.

The LIHC additionally distributed a survey to community-based organization leaders from December 1, 2021, through January 15, 2022, the results of which are presented in **Appendix B**. Follow-up key informant interviews were conducted with a subset of respondents to delve more deeply into the health needs of the communities they serve, yielding the qualitative research analysis presented in **Appendix C**.

For implementation processes, SCDHS engages the community through a variety of outreach and education efforts, including health fairs, classes, and provider chats. Several CHIP projects involve training peer educators from the target community to help disseminate health information and encourage positive health behaviors. Additionally, LIHC's quarterly meetings, are open to the public.

SCDHS' CHIP projects address a variety of goals related to prevention of chronic diseases, prevention of mental and substance use disorders, promotion of a healthy and safe environment, and promotion of healthy women infants and children. These projects are detailed in the workplan (**Appendix E**) and were selected to address the areas of greatest need in the community in a cost-effective manner while capitalizing on the strengths of SCDHS and our partners, and the resources available to us. Evidence-based interventions include implementation of an employee / client reminder system for cancer screening, peer education to improve cancer screening rates, a Diabetes Prevention Program recognized by the CDC, high school peer



education for vaping cessation and suicide prevention, naloxone distribution and opioid overdose prevention training, provider training and awareness activities to increase availability of MAT for opioid addiction, engagement in the Zero Suicide initiative, and establishment of an active Tai Chi for Arthritis and Fall Prevention program. SCDHS also participates in LIHC's Walk Safe with a Doc walking events.

The impacts of the CHIP programs are collectively and regularly tracked by evaluation of attendance, changes in knowledge and behavior, and improvements in health parameters through various methods that include periodic reviews of hospitalization, death, and other vital statistics data. The NYS Prevention Agenda Dashboard serves as an online reporting medium that records the progress of the set priorities and serves as an important reference for feedback to the community. The overarching goal of the SCDHS is to provide the tools, programs, and services to enable Suffolk County residents to lead healthier lives and attain greater quality of life and better overall health outcomes.



Community Health Assessment (CHA)

Chapter 1. Community Served

Geography

Suffolk County is the easternmost county in New York State and occupies the eastern two-thirds of Long Island, with a land area of 912 square miles. Suffolk County is bordered by Nassau County to the west, and extends through the eastern forks of Long Island. It comprises ten towns: Babylon, Huntington, Islip, Smithtown, Brookhaven, Southampton, Riverhead, East Hampton, Shelter Island and Southold. In addition, Suffolk County is also home to two Indian reservations, the 830 acre Shinnecock Reservation in Southampton and the 72 acre Poospatuck Reservation, Unkechaug Nation in Shirley.

Demographics

1. Total Population, Age and Gender Profiles

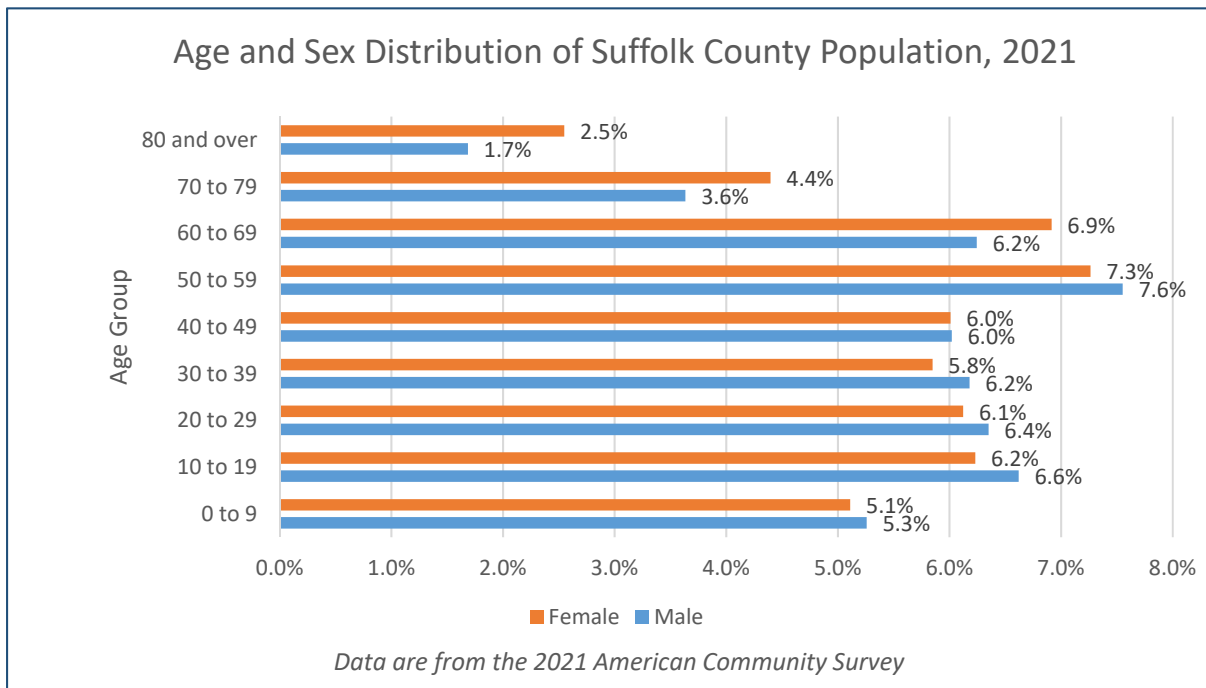


Figure 1.



According to the 2021 American Community Survey, Suffolk County’s total resident population is 1,526,344, with an average population density of 1675.6 people per square mile.³ 49.5% of the Suffolk County population identifies as male, and 50.5% identifies as female, similar to gender distribution of the United States as a whole. With a median age of 41.8 years, Suffolk County is a slightly older community compared to New York State (median age 39.8 years) and the United States (median age 38.8 years).⁴ A breakdown of the total county population according to specific age groups reveals that 5.2% of the total population is under 5 years, 20.7 % under 18 years and 17.6% over 65 years of age (Figure 1). Suffolk County has a larger population of persons aged 65 and over compared to that of New York State (17.5% 65 and older) and the United States (17.1% 65 and older). After declining every year from 2011 to 2019, Suffolk County’s population grew by 3% between 2019 and 2020 and has now reached an all-time high.

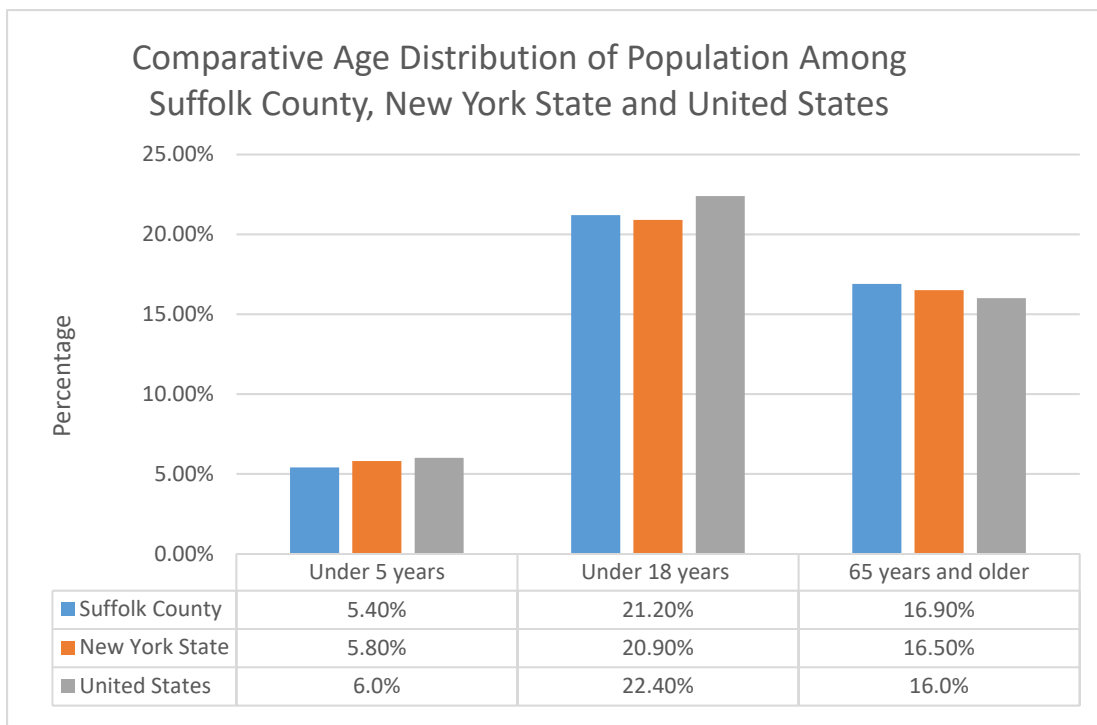


Figure 2.

³ 2021 American Community Survey, <https://www.census.gov/programs-surveys/acs>

⁴ Census profile: Suffolk County, NY, Census Reporter, <https://censusreporter.org/profiles/05000US36103-suffolk-county-ny/>



2. Race and Ethnicity Profile

Suffolk County’s population is rich in diversity. According to the American Community Survey 2016-2020, 16.5 % of Suffolk County residents were foreign-born and 59.5 % of them were naturalized U.S. citizens.⁵ Persons identifying as White Non-Hispanic make up a majority of the population at 78.2 percent (over 1 million persons). The Hispanic population is the largest minority group represented, accounting for 21.8 percent of the population (333,000 people).⁶ Persons identifying as Black or African American make up 7.7 percent of the population; American Indian and Alaska Native make up 0.3 percent; Asian residents make up 4.1 percent; Native Hawaiian and Other Pacific Islander make up the smallest minority group at 0.0 percent; 5.3 percent identify as another race, and 4.2 percent identify as two or more races.

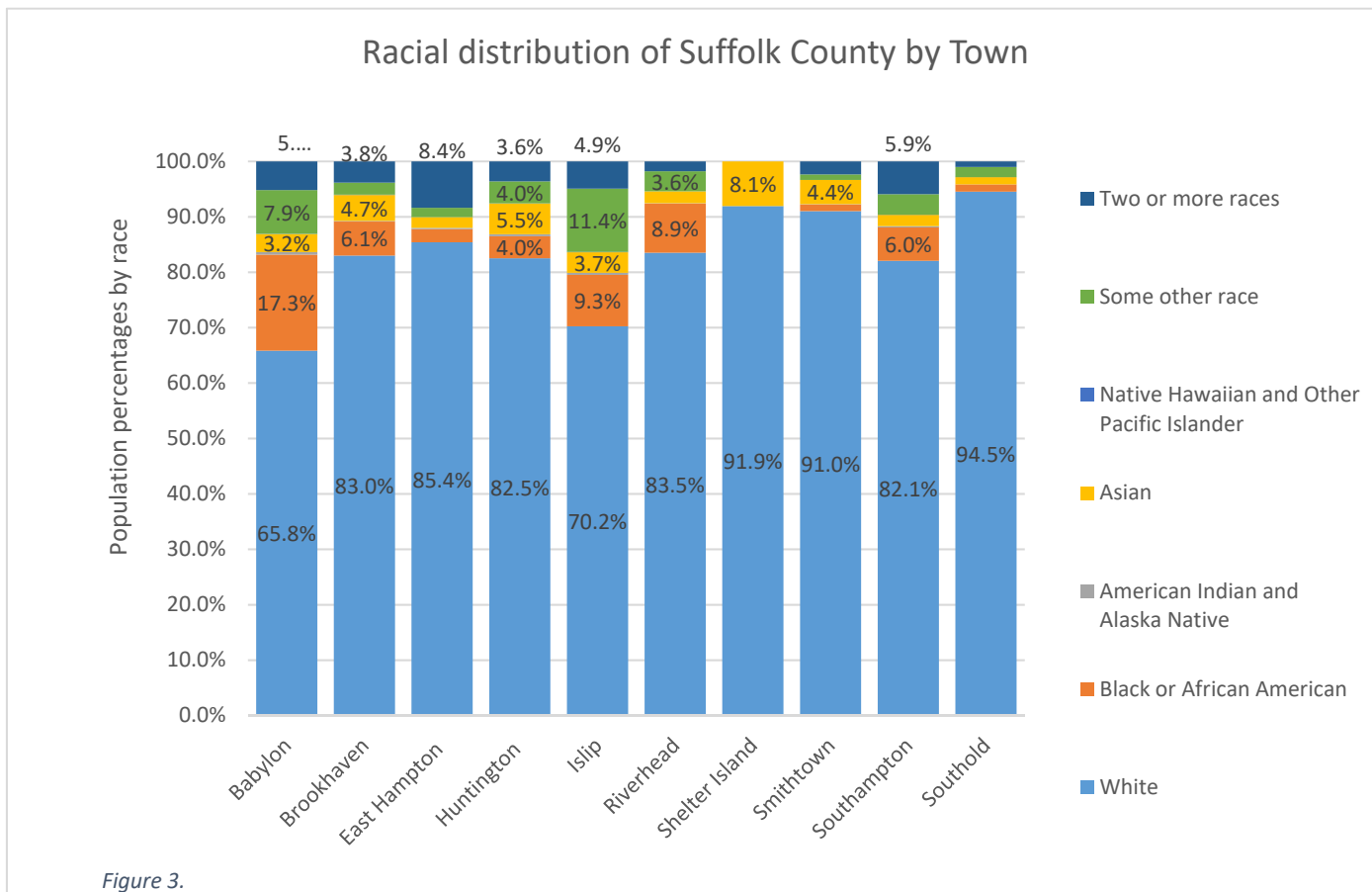


Figure 3.

⁵ United States Census Bureau, Suffolk County, New York, Census.gov
<https://data.census.gov/cedsci/profile?g=0500000US36103>

⁶ United States Census Bureau, Suffolk County, New York, Census.gov
<https://data.census.gov/cedsci/profile?g=0500000US36103>

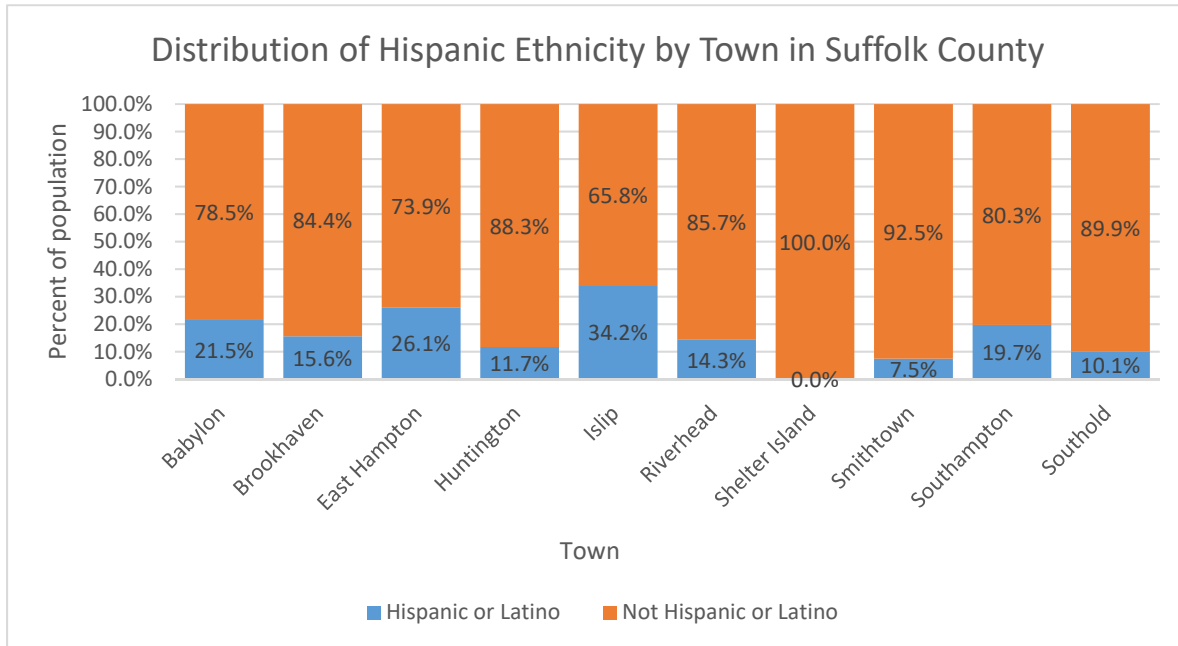


Figure 4.

Within Suffolk County, ethnic and racial minority groups are geographically concentrated, as shown in Figures 3 and 4. For example, the town of Babylon has a large Black or African American population (17% of the population, compared with 7.7% for Suffolk County as a whole), and greater than 34% of the population in the town of Islip identifies as Hispanic. The diversity of Suffolk County is also reflected in the languages spoken by county residents: 22.5% of the population age five years and older (315,000 persons) report that they primarily speak a language other than English. Common languages spoken by Suffolk County residents include Spanish, Italian and Chinese.⁷ Of those who speak a language other than English, 8.2 percent (114K) report they speak English “less than very well.”

3. Household and Family Profile

A housing unit is a house, an apartment, a group of rooms, or a single room occupied or intended for occupancy as separate living quarters.⁸ In 2021, according to data from the American Community Survey Suffolk County had 511,951 occupied housing units, of which 83 percent

⁷ Suffolk County Spoken Language Statistics | LiveStories, <https://www.livestories.com/statistics/new-york/suffolk-county-language>

⁸United States Census Bureau, Suffolk County New York, Occupancy Characteristics, data.census.gov, <https://data.census.gov/cedsci/table?q=Suffolk%20County,%20New%20York%20median%20value%20of%20an%20owner-occupied%20&tid=ACSST5Y2020.S2501>



were owner-occupied, and 17 percent renter-occupied. The average household size in Suffolk County is 2.9 persons per household, which is 20 percent higher than the average household size of 2.5 persons for both New York State and the USA. Suffolk County residents face relatively high housing costs — the median gross rent in Suffolk County, New York in 2021 was \$2,202, inclusive of utility payments, which is 56% higher than the median gross rent of \$1,409 for New York as a whole.⁹ Similarly, according to data from the NY Department of taxation and finance, the median home sale price in Suffolk County in 2021 was \$510,000, a \$90,000 increase from 2019, and 38% higher than the median 2021 home sales price of \$370,000 in New York State as a whole.¹⁰

4. Education Profile

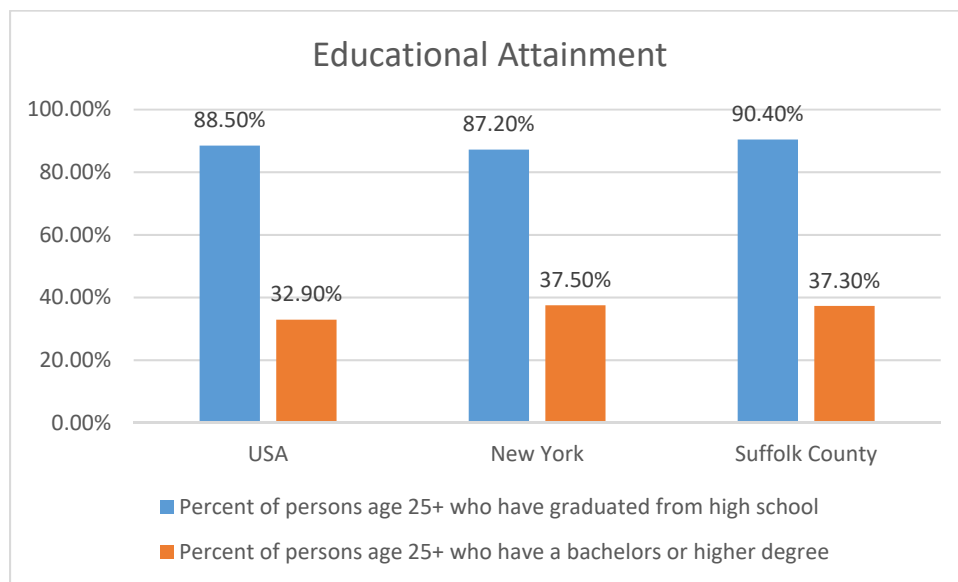


Figure 5.

Educational attainment refers to the highest level of education a person has completed. According to the American Community Survey 2016-2020, Suffolk County has a greater percentage of residents aged 25 and over who have completed high school-level education than

⁹ Explore Census Data, Selected Housing Characteristics, data.census.gov, <https://data.census.gov/cedsci/table?q=Suffolk%20County,%20New%20York%20median%20gross%20rent>

¹⁰ Residential Median Sale Price Information by County, tax.ny.gov, <https://www.tax.ny.gov/research/property/assess/sales/resmedian.htm>



both New York State and the nation as a whole (Figure 5). Suffolk County’s percentage of college graduates among persons aged 25 and over is also above the national average.¹¹

5. Income, Unemployment and Poverty

In Suffolk County in 2021, 66.3 percent of the population 16 and over were part of the labor force, with 62.5 percent employed and 3.8 percent unemployed; 33.6 percent were not currently in the labor force.¹² An estimated 76.9 percent of the people employed were private wage and salary workers; 18.3 percent were federal, state, or local government workers; and 4.6 percent were self-employed in their own (not incorporated) business. The unemployment rate for Suffolk County in 2021 for those aged 16 and older was 5.7%, which was lower than the rate of 8.7% reported for New York State as a whole.

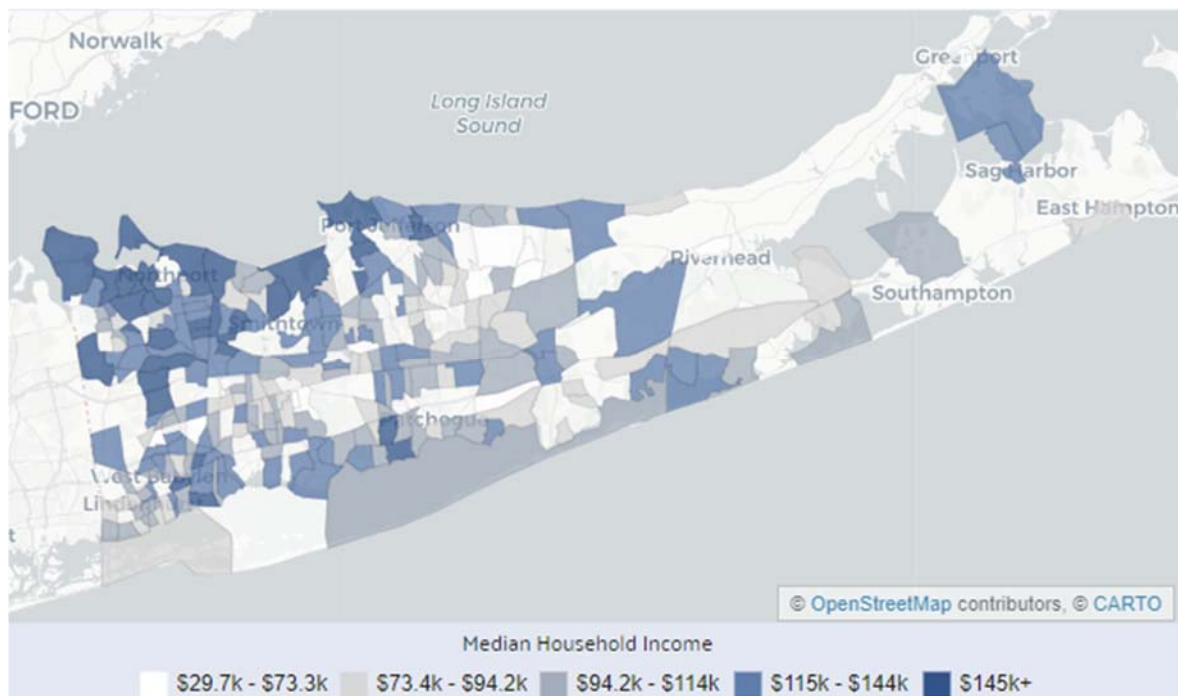


Figure 6. Median household income by census tract in Suffolk County in 2020. From: <https://datausa.io/profile/geo/suffolk-county-ny/>

Income is an important socioeconomic determinant of health. Low-income individuals may have trouble accessing medical care due to their inability to afford healthcare payments if

¹¹ United States Census Bureau, QuickFacts, US; NY; Suffolk County, NY
<https://www.census.gov/quickfacts/fact/table/US,NY,suffolkcountyny/PST045221>

¹² United States Census Bureau, Suffolk County, New York Employment,
<https://data.census.gov/cedsci/table?q=Suffolk%20County,%20New%20York%20employment%20%20>



uninsured, or inability to afford co-payments and deductibles if insured. In addition, financially stressed individuals encounter difficulties in affording nutritious foods, which makes them vulnerable to worsening chronic diseases outcomes, as diet and nutrition play important roles in the management of chronic morbidities. The inability to afford co-pays and deductibles has consistently been cited by Suffolk County residents as a major barrier to healthcare access on the Long Island Health Collaborative Community Health Assessment Survey (*Appendix A*).

It is important to understand that socioeconomic disparity exists in Suffolk County, with geographic pockets of both extreme wealth and poverty (Figure 6).¹³ In 2021, the median household income for the county was \$111,660 with a per capita income of \$49,404 in the last 12 months, and 6.4% of people living in poverty.¹⁴ In 2020, 35 percent of households earned less than \$75,000 per year, with 15 percent of that group earning less than \$34,999 annually; an estimated 3.1 percent of households had an income below \$10,000 a year, while 18.0 percent reported an income over \$200,000 per year.¹⁵ There is significant disparity in income among different racial groups in Suffolk County. The median annual household income for the past 12 months was reported as \$107,422 (White); \$85,840 (Black); and \$91,711 (Hispanic/Latino), while mean per capita income for the same period for Whites, Blacks and Hispanics/Latino were \$50,352; \$33,170 and \$28,414, respectively.¹⁶

In 2016-2020, the percent of persons living below the poverty level in Suffolk County was estimated to be 6.1 percent (94,000). An estimated 8.0 percent of children under 18 were below the poverty level, compared with 6.0 percent of people 18 to 64, and 6.1 percent of people 65 years old and over.¹⁷ Ethnic minority groups in Suffolk County are disproportionately affected, with 10.9% of Latino/Hispanic families and 9.6% of Black/African American families living below the poverty level, compared with 2.7% of Non-Hispanic White families (Figure

¹³ United States Census Bureau, QuickFacts, US; NY; Suffolk County, NY
<https://www.census.gov/quickfacts/fact/table/suffolkcountyny/PST045221>

¹⁴ Ibid.

¹⁵ Data USA | Suffolk County New York 2020 <https://datausa.io/profile/geo/suffolk-county-ny>

¹⁶ U.S. Census Bureau, 2016 – 2020 American Community Survey 5-Year Estimates

¹⁷ United States Census Bureau, QuickFacts, US; NY; Suffolk County, NY
<https://www.census.gov/quickfacts/suffolkcountyny>



7).¹⁸ Of the ten towns that make up Suffolk County, Riverhead, East Hampton, and Babylon have the highest percentage of residents living in poverty (Figure 8).

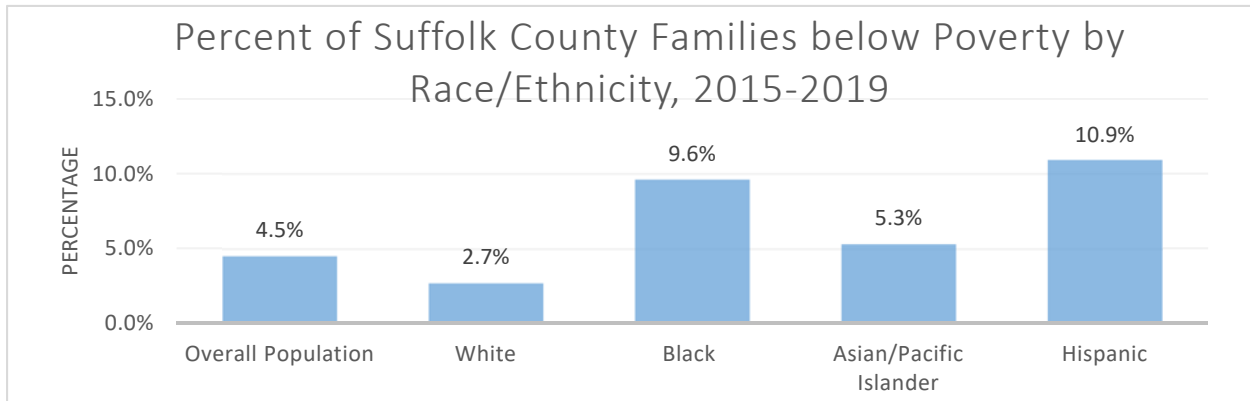


Figure 7.

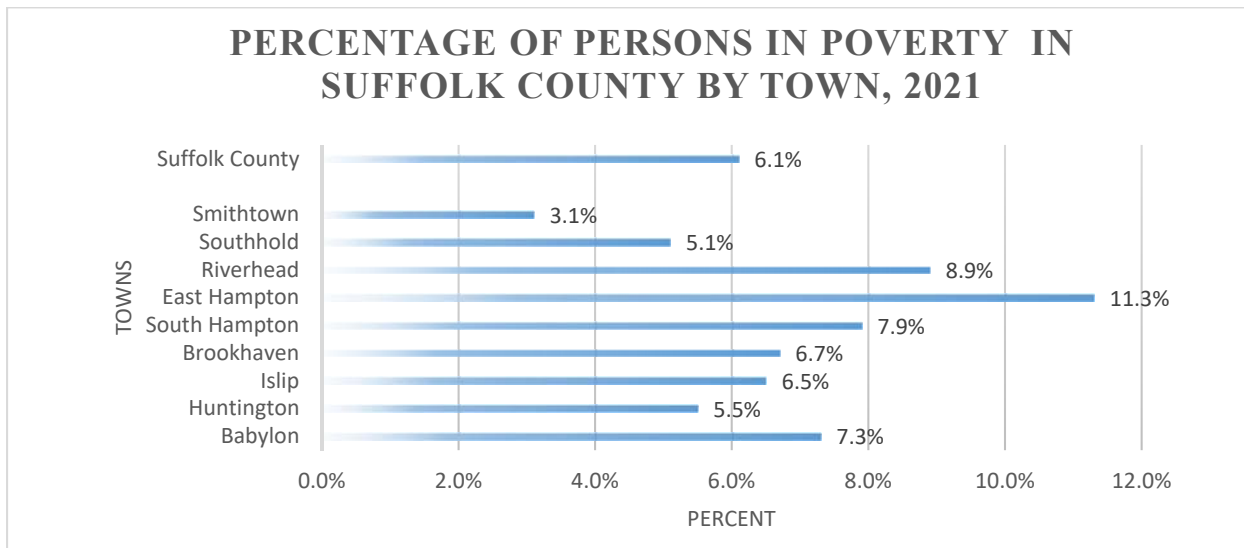


Figure 8.

The Supplemental Nutrition Assistance Program (SNAP) helps low-income working people, senior citizens, the disabled and others feed their families.¹⁹ In 2016-2020, 6.0 percent (29.7K) of Suffolk County households received SNAP compared to 14.3 percent of households in New York State. This assistance program heavily serves our most vulnerable populations. In 2021, 51.3 percent of households receiving SNAP had a disabled member, 38.1 percent had

¹⁸ Suffolk County Health Indicators by Race/Ethnicity, 2017-2019, <https://www.health.ny.gov/statistics/community/minority/county/suffolk.htm>

¹⁹ U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates



children under 18, and 57.2 percent of had one or more person aged 60 and over (Figure 9). An estimated 29.2 percent of all households receiving SNAP were families with an unmarried female head of household.²⁰

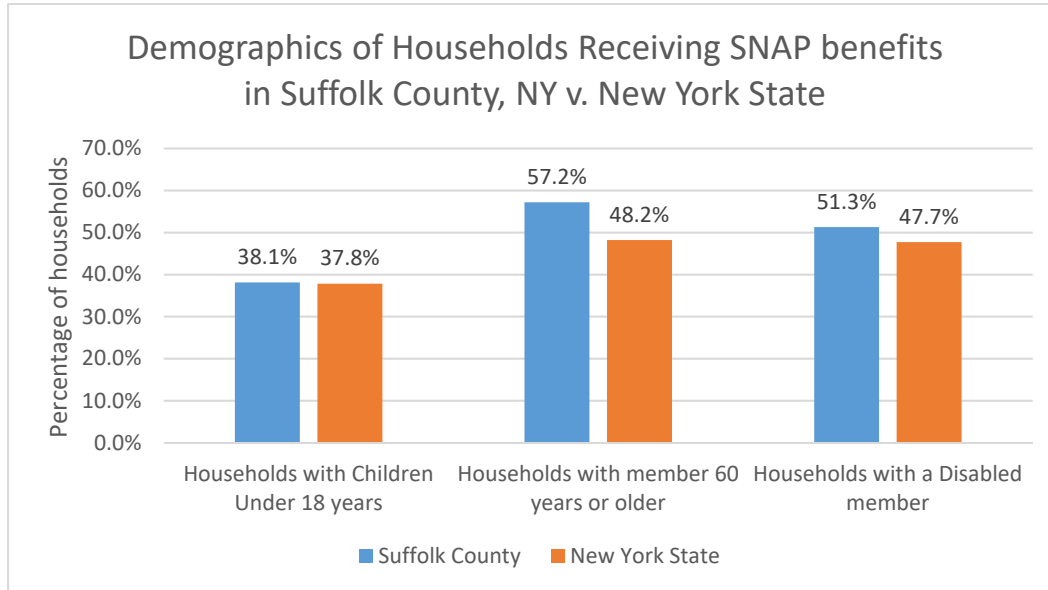


Figure 9. Data from 2021 American Community Survey²¹

6. Health, Insurance and Health Care Resources

Suffolk County’s medical needs are predominantly served by several large, regional health systems, which operate a majority of the county’s 13 hospitals, and manage a network of primary and specialty care practices. Sun River Health, a regional Federally Qualified Health Center (FQHC), also provides affordable, accessible care to Suffolk County residents through ten community health centers situated throughout the county. The Suffolk County Department of Health Services contracts with eight of the Sun River health centers to provide care to County residents.

According to the New York State Prevention Agenda Dashboard for Suffolk County 2020, the age-adjusted percentage of adults who have a regular health care provider is 77.5 percent compared to 79.1 percent for New York State.²² Among the civilian noninstitutionalized

²⁰ United States Census Bureau, American Community Survey, <https://data.census.gov/cedsci/table?q=Suffolk%20County,%20New%20York%20SNAP%20&tid=ACSST1Y2021.S2201>

²¹ Ibid.

²² NYS DOH New York Prevention Agenda Dashboard – State Level, https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/dashboard/pa_dashboard&p=sh



population in Suffolk County for 2016-2020, 95.8 percent had health insurance coverage while 4.2 percent did not have coverage.²³ Private coverage for health insurance was 79.4 percent and government coverage was 30.4 percent. As shown in Figure 10, in 2021, public insurance was utilized by over 30% of both unemployed residents and those not in the labor force. The uninsurance rate was greatest among unemployed persons, with 10% of this group having no insurance coverage, however, 6.7% of employed persons were also uninsured. The percentage of children under the age of 19 with no health insurance coverage was 2.4 percent. According to the 2020 NYS Expanded BRFSS data, the age-adjusted percent of adults in Suffolk County who did not receive medical care due to cost was 13.2 percent, compared to 8.8 percent for New York State.²⁴

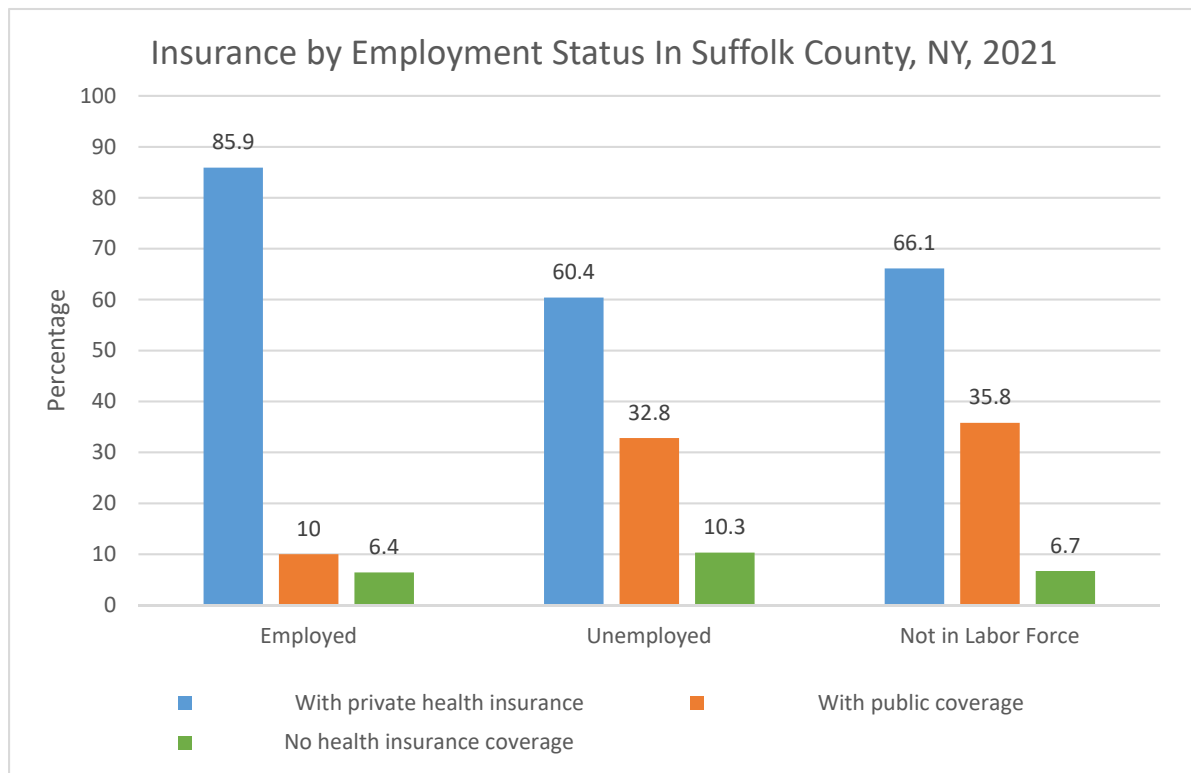


Figure 10. Data from the 2021 American Community Survey:
<https://data.census.gov/cedsci/table?q=Suffolk%20County,%20New%20York%20Insurance%20by%20employment%20>

²³ United States Census Bureau, American Community Survey
<https://data.census.gov/cedsci/all?q=Suffolk%20County,%20New%20York%20%20uninsured>

²⁴ NYS DOH New York State Community Health Indicator Reports (CHIRS)
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/chir_dashboard/chir_dashboard&p=it&ind_id=Ng104



7. Disability

In Suffolk County, among the civilian noninstitutionalized population in 2016-2020, 9.6 percent of persons reported a disability. The likelihood of having a disability varied by age – from 3.2 percent of people under 18 years old, to 7.1 percent of people 18 to 64 years old, and 27.2 percent of those 65 years and over.²⁵ The prevalence of disability also varied by race, as shown in Figure 11. The highest rate of disability was reported among persons identifying as American Indian/Alaska Native, who account for less than one percent of the county’s population.²⁶

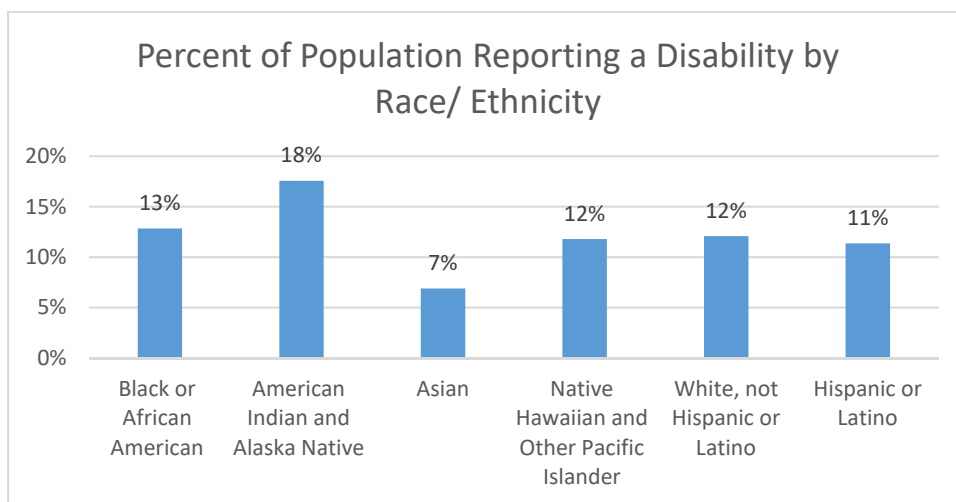


Figure 11.

Chapter 2. Population Health Status

Based on socioeconomic factors, health behaviors, clinical care and physical environment, Suffolk County was ranked 8th in Health Factors among New York counties by the 2022 Wisconsin County Health Ranking, meaning its population is one of the healthiest in the state.²⁷ However, data presented within this report will demonstrate the existence of health disparities within the county linked to a range of socioeconomic factors. Elimination of such disparities is a priority throughout the Long Island region and will ultimately improve health outcomes and quality of life for community members.

²⁵ 2016-2020 American Community Survey

²⁶ U.S. Census Bureau, 2016-2020 American Community Survey, Five-year Estimates

²⁷ University of Wisconsin Population Health Institute. County Health Rankings New York State Report 2022. https://www.countyhealthrankings.org/sites/default/files/media/document/CHR2022_NY_0.pdf



1. Chronic Diseases

The Center for Disease Control (CDC) defines chronic diseases as ailments that endure for a year or longer and necessitate continuing medical care or restrict everyday activities. These can be controlled but may not be cured. Chronic diseases, namely, diabetes, cancer, and heart disease are the main causes of death and disability in the US.²⁸ They are also the main contributors to the \$4.1 trillion annual health care costs for the country.²⁹

Cancer

Cancer is the second leading cause of death in the United States and in Suffolk County. As shown in Figure 13 and 16, Suffolk County has a lower age-adjusted cancer mortality rate than the state as a whole, despite having a higher age adjusted cancer incidence and cancer hospitalization rates. Overall, Suffolk County has higher age-adjusted incidence rates for several types of cancer when compared with New York State as a whole, including colon, lung, bronchus, prostate, and ovarian cancers (Figure 12). Review of the cancer incidence and mortality data by race / ethnicity reveals that, while White women have a higher age-adjusted incidence rate of breast cancer than other persons in Suffolk County, Black women have a higher mortality rate (Figure 14 and 15). This may be due to lower breast cancer screening rates among Blacks / African Americans, and also because Black women are more likely to have aggressive types of breast cancers.³⁰ Unfortunately, cervical cancer incidence is much higher among Black and Hispanic women than among White women, with Hispanic women having an age-adjusted incidence rate that is 85% higher (Figure 14). This may be due to lower rates of HPV vaccination as well as lower rates of routine PAP screening among these minority groups.³¹

²⁸ *About Chronic Diseases*. Centers for Disease Control and Prevention, 2021

<https://www.cdc.gov/chronicdisease/about/index.htm>

²⁹ *Health and Economic Costs of Chronic Disease*. Centers for Disease Control and Prevention, 2019

<https://www.cdc.gov/chronicdisease/about/costs/index.htm>

³⁰ American Cancer Society. Breast Cancer Facts & Figures 2022-2024. <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/breast-cancer-facts-and-figures/2022-2024-breast-cancer-fact-figures-acf.pdf>

³¹ Correlates of Human Papillomavirus Vaccination Rates in Low-Income, Minority Adolescents: A Multicenter Study. *Journal of Women's Health*, 21(8), 813–820. <https://doi.org/10.1089/jwh.2011.3364>

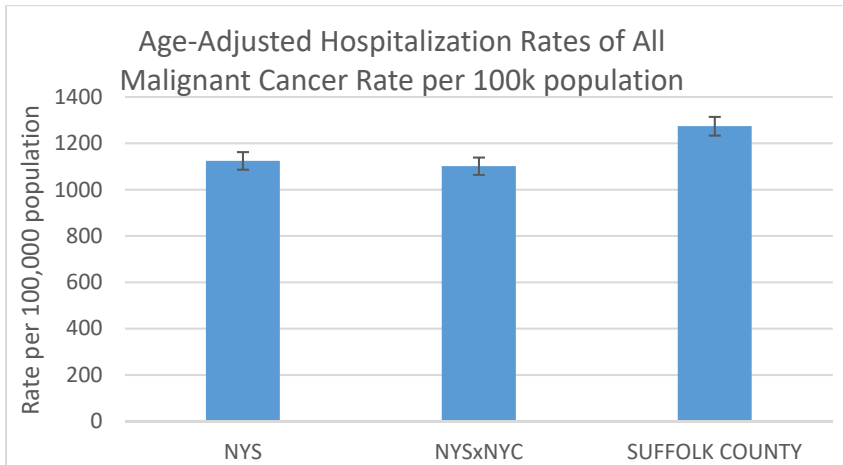


Figure 12. Source: Statewide Planning and Research Cooperative System (SPARCS) data 2016-18

COUNTY	Age-adjusted Cancer Hospitalization Rate per 100k population	SQRT of Variance	Margin of Error	Sig Dif NYS	Sig Dif NYSxNYC
NYS	1124.22	19.36	37.94	No	No
NYSxNYC	1101.27	19.16	37.55		
SUFFOLK COUNTY	1273.83	20.61	40.39		

Figure 13. Source: Statewide Planning and Research Cooperative System (SPARCS) data 2016-18

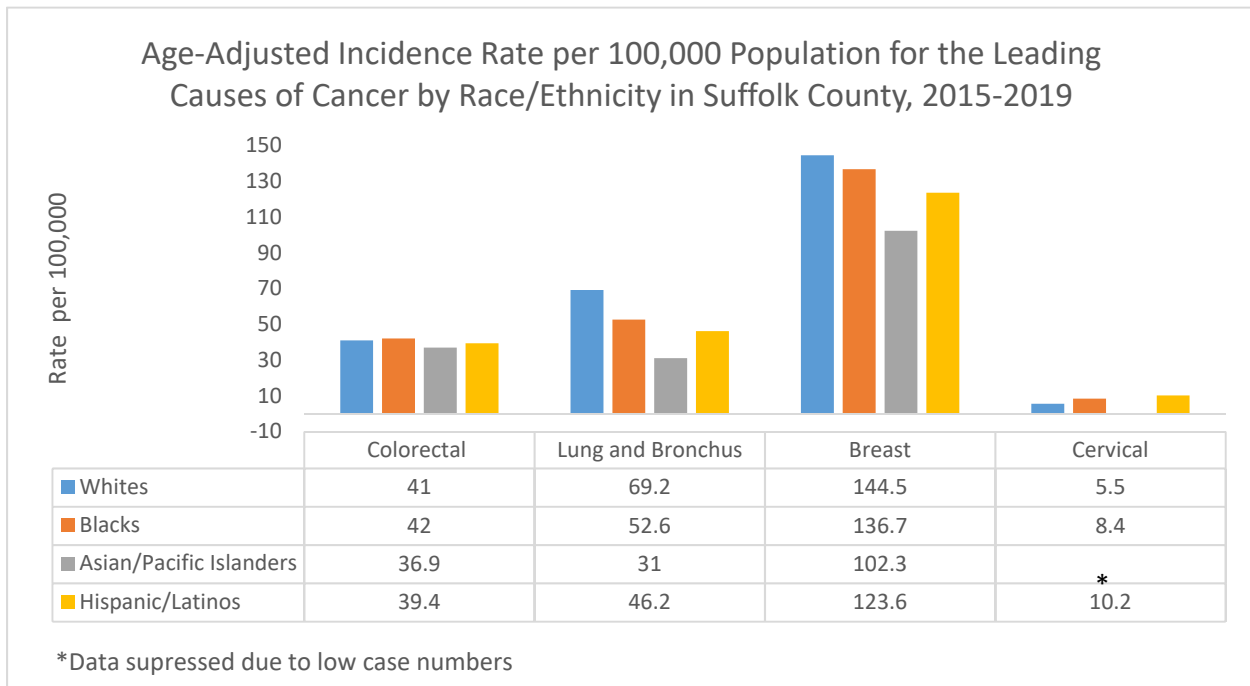


Figure 14. Source: National Cancer Institute State Cancer Profiles: <https://statecancerprofiles.cancer.gov/risk/index.php>

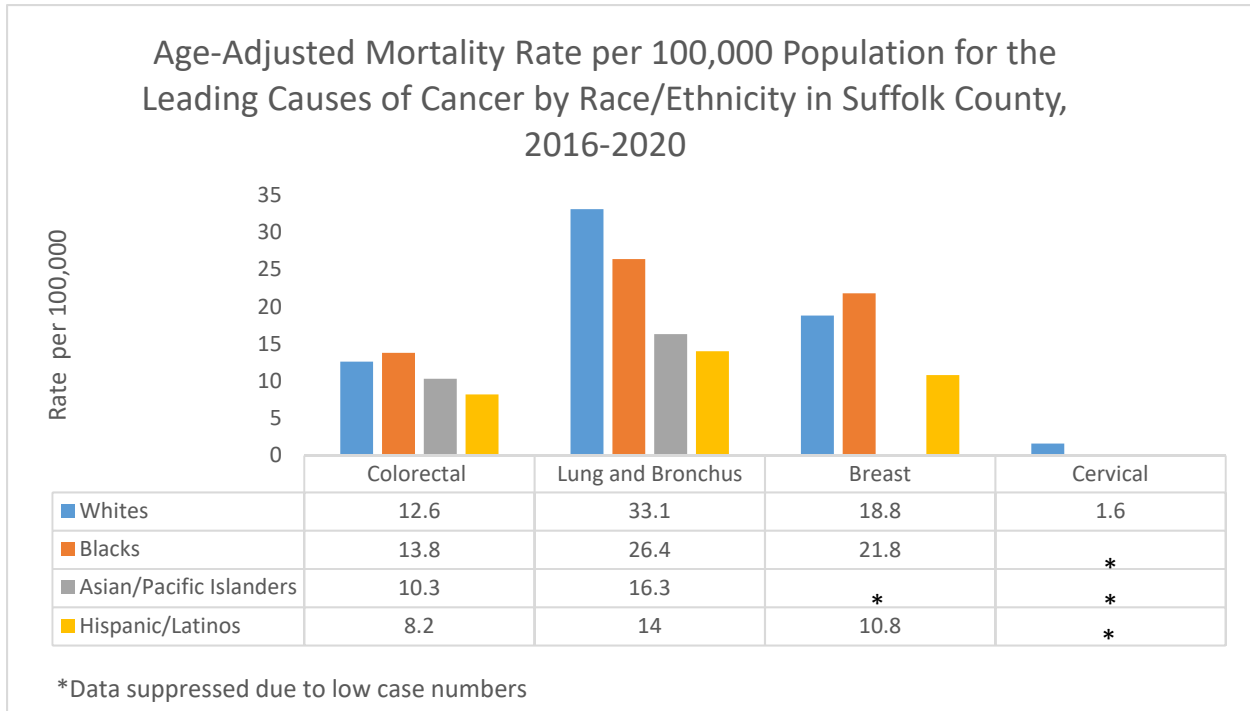


Figure 15. Source: National Cancer Institute State Cancer Profiles: <https://statecancerprofiles.cancer.gov/risk/index.php>

The following 2 tables present CHIRS indicators for age, race and sex adjusted incidence and mortality rates for the types of cancers in Suffolk County.

	Suffolk County	NYS excluding NYC	New York State
CHIRS Indicators (2016-2018)	Percentage	Percentage	Percentage
	(or) Rate	(or) Rate	(or) Rate
	(or) Ratio	(or) Ratio	(or) Ratio
Cancer Indicators			
All cancer incidence rate per 100,000	670.3	656.8	587.7
Age-adjusted all cancer incidence rate per 100,000	527.4	507.3	480.7
All cancer mortality rate per 100,000	180.2	194.7	175.5
Age-adjusted all cancer mortality rate per 100,000	138	144.8	139.6
Oral cavity and pharynx cancer incidence rate per 100,000	15.6	16.2	14.1
Age-adjusted oral cavity and pharynx cancer incidence rate per 100,000	11.9	12.3	11.4
Oral cavity and pharynx cancer mortality rate per 100,000	2.3	3	2.7



Age-adjusted oral cavity and pharynx cancer mortality rate per 100,000	1.8	2.2	2.2
Colon and rectum cancer incidence rate per 100,000	51	48.8	45.7
Age-adjusted colon and rectum cancer incidence rate per 100,000	40.3	38.1	37.6
Colon and rectum cancer mortality rate per 100,000	15.7	15.7	15.1
Age-adjusted colon and rectum cancer mortality rate per 100,000	12.1	11.8	12.1
Lung and bronchus cancer incidence rate per 100,000	87.4	87.6	72.6
Age-adjusted lung and bronchus cancer incidence rate per 100,000	66.8	64.9	57.6
Lung and bronchus cancer mortality rate per 100,000	41.8	48.1	39.6
Age-adjusted lung and bronchus cancer mortality rate per 100,000	31.7	35.5	31.3
Female breast cancer incidence rate per 100,000	176.4	180	164.6
Age-adjusted female breast cancer incidence rate per 100,000	136.3	139.2	133.8
Female breast cancer mortality rate per 100,000	25.2	26.3	25.1
Age-adjusted female breast cancer mortality rate per 100,000	17.9	18.5	18.7
Female breast cancer late stage incidence rate per 100,000	52	50.9	49.3
Age-adjusted female breast cancer late stage incidence rate per 100,000	41.3	41.1	41.4
Cervix uteri cancer incidence rate per 100,000	6.7	7.1	8.3
Age-adjusted cervix uteri cancer incidence rate per 100,000	6.2	6.7	7.6
Cervix uteri cancer mortality rate per 100,000	2.1	2.2	2.5
Age-adjusted cervix uteri cancer mortality rate per 100,000	1.8	1.7	2
Ovarian cancer incidence rate per 100,000	16.2	15.2	14.2
Age-adjusted ovarian cancer incidence rate per 100,000	12.2	11.5	11.4
Ovarian cancer mortality rate per 100,000	9.6	9.3	8.7
Age-adjusted ovarian cancer mortality rate per 100,000	6.7	6.4	6.4
Prostate cancer incidence rate per 100,000	171.9	174.8	158.7
Age-adjusted prostate cancer incidence rate per 100,000	134.3	131.6	129.4
Prostate cancer mortality rate per 100,000	17	18.9	18.5
Age-adjusted prostate cancer mortality rate per 100,000	15.4	16.5	17.5



Prostate cancer late stage incidence rate per 100,000	32.4	33.3	30.5
Age-adjusted prostate cancer late stage incidence rate per 100,000	25.8	25.4	25.2
Melanoma cancer mortality rate per 100,000	2.7	2.7	2.1
Age-adjusted melanoma cancer mortality rate per 100,000	2	2	1.6
Percentage of women aged 21-65 years receiving cervical cancer screening based on most recent guidelines	92.2 (88.6-95.7)	86.1	84.7
Percentage of women aged 50-74 years receiving breast cancer screening based on recent guidelines	79.9 (73.9-85.8)	80.9	82.1
Percentage of women (aged 50-74 years) who had a mammogram between October 1, 2017 and December 31, 2019	65.7	65.9	71

Figure 16.

Suffolk County Health Indicator	Non-Hispanic			Hispanic	Total
	White	Black	Asian/Pacific Islander		
Cancer Indicators					
Lung cancer incidence per 100,000 population, age-adjusted (2016-2018)	72.8	49.3	30.3	34.2	66.8
Colorectal cancer mortality per 100,000 population, age-adjusted (2016-2018)	13.0	10.3	10.4	7.5	12.1
Colorectal cancer incidence per 100,000 population, age-adjusted (2016-2018)	41.7	41.3	40.5	29.7	40.3
Female breast cancer mortality per 100,000 female population, age-adjusted (2016-2018)	18.3	19.9	11.9	10.5	17.9
Female late stage breast cancer incidence per 100,000 female population, age-adjusted (2016-2018)	42.1	43.2	41.9	36.0	41.3
Cervix uteri cancer mortality per 100,000 female population, age-adjusted (2016-2018)	1.7	<u>s</u>	<u>s</u>	2.2*	1.8
Cervical cancer incidence per 100,000 female population, age-adjusted (2016-2018)	5.4	6.9	<u>s</u>	9.2	6.2

Figure 17. From: <https://www.health.ny.gov/statistics/community/minority/county/suffolk.htm>



Several types of cancer, including colon, breast, and cervical cancer can be prevented or detected at an early stage through regular screening. The Prevention Agenda 2019-2024 set an objective to increase cancer-screening rates for New York counties, and the state as a whole. According to the most recent recommendations, Suffolk County has seen an improvement in screening rates for colorectal cancer over the past several years. In 2018, 65.3% of persons aged 50–64 years were up-to-date with colorectal cancer screening according to current guidelines, compared with 49.1% in 2016. However, this still fell slightly short by of the 2024 prevention agenda goal (Figure 18). As shown in figure 16, cervical cancer screening rates are significantly higher in Suffolk County than in New York State as a whole, while breast cancer screening rates are slightly lower than the state as a whole.

Prevention Agenda (PA),2024 Percentage of adults who receive a colorectal cancer screening based on the most recent guidelines, aged 50-64 years	
Region County	Percentage (95% CI)
Suffolk	65.2 (59.4 - 71.0)
New York State (excluding NYC)	66.5 (64.4 - 68.6)
New York State	65.4 (63.6 - 67.3)
Prevention Agenda 2024 Objective	66.3

Figure 18

Cardiovascular disease

Cardiovascular diseases are defined as diseases affecting the heart and blood vessels, including heart disease, heart attacks, strokes, heart failure, arrhythmias, and heart valve problems. Heart disease was the leading cause of death in Suffolk County, New York State, and the United States in 2019. Cerebrovascular disease is the fifth-leading cause of death for Suffolk County, as it is for the United States as a whole. Up to 80% of heart attacks and strokes could be avoided with interventions that address risk factors including high cholesterol, high blood pressure, smoking, and inactivity.³²

³² Prevent 1 Million Heart Attacks & Strokes. CDC 2018 <https://www.cdc.gov/vitalsigns/million-hearts/index.html>



Mortality and hospitalization rates due to cardiovascular disease, heart disease, and coronary heart disease are higher in Suffolk County compared New York State excluding New York City, though the difference in hospitalization rates is not statistically significant (Figures 19-22; 24). Age adjusted rates for hospitalizations and deaths from heart disease, coronary heart disease, and congestive heart failure were much higher among Black Suffolk County residents than among other ethnic groups (Figure 23 and 25). For cerebrovascular disease, both Hispanic and Black residents had considerably higher age-adjusted hospitalization and mortality rates when compared to White and Asian county residents.

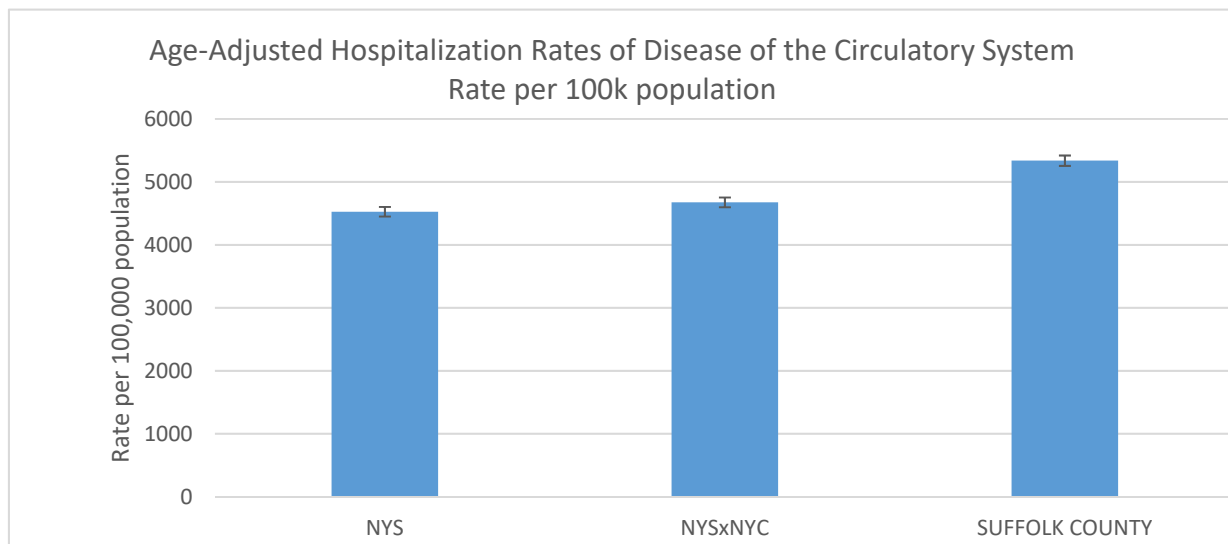


Figure 19. Source: Statewide Planning and Research Cooperative System (SPARCS) data 2016-2018

Disease of the Circulatory System: Hospitalization rate in Suffolk County vs. New York State

COUNTY	Age-adjusted hospitalization rate per 100k population	SQRT of Variance	Margin of Error	Sig Dif NYS	Sig Dif NYSxNYC
NYS	4526.24	38.84	76.13	No	No
NYSxNYC	4675.01	39.48	77.37		
SUFFOLK COUNTY	5337.18	42.18	82.67		

Figure 20. Source: Statewide Planning and Research Cooperative System (SPARCS) data 2016-2018

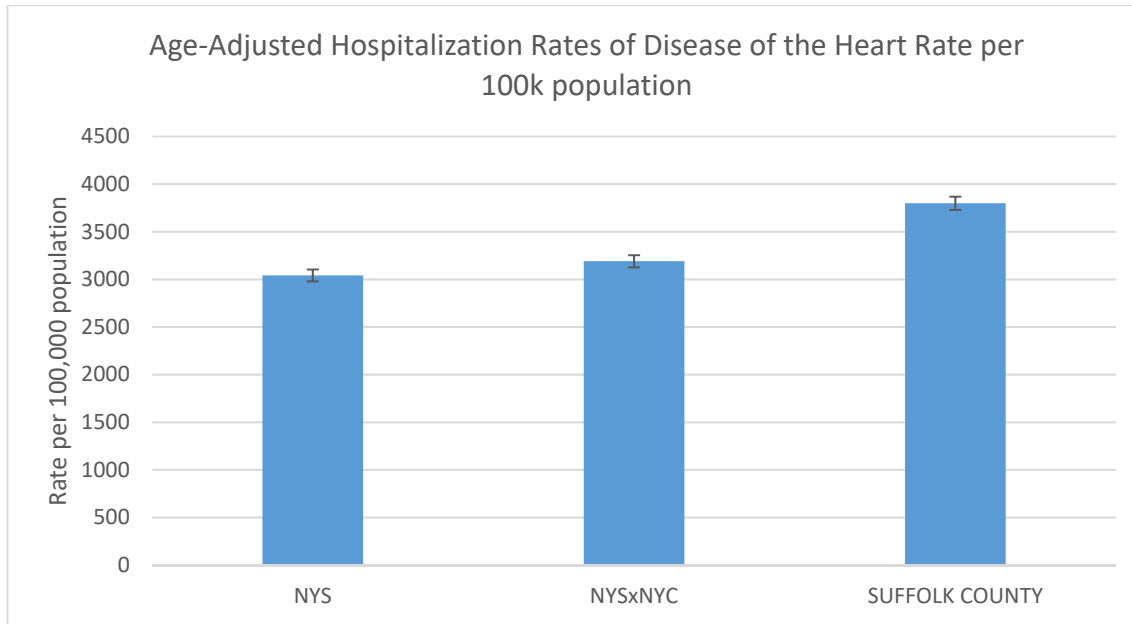


Figure 21. Source: Statewide Planning and Research Cooperative System (SPARCS) data 2016-2018

Disease of the Heart: Hospitalization in Suffolk County vs. New York State

COUNTY	Hospitalizations per 100k population	SQRT of Variance	Margin of Error	Sig Dif NYS	Sig Dif NYSxNYC
NYS	3041.67	31.84	62.41	No	No
NYSxNYC	3190.29	32.61	63.92		
SUFFOLK COUNTY	3799.19	35.59	69.75		

Figure 22. Source: Statewide Planning and Research Cooperative System (SPARCS) data 2016-2018

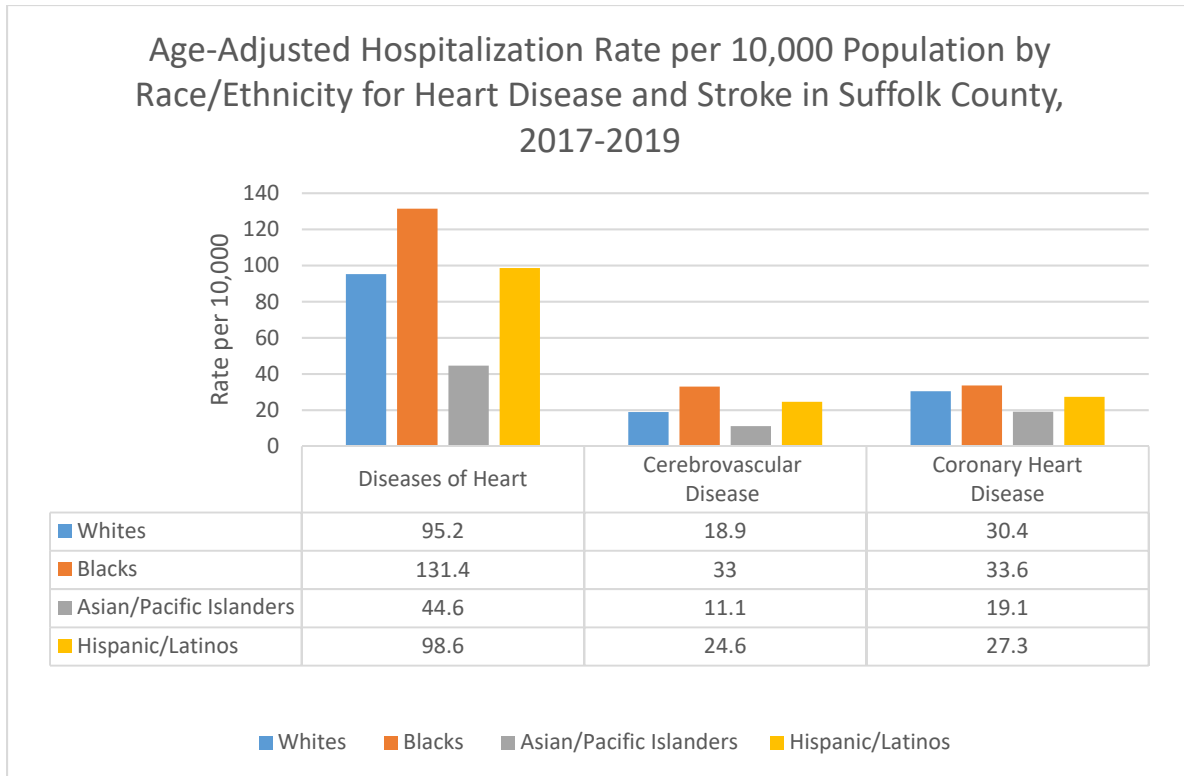


Figure 23. Source: Suffolk County Health Indicators by Race/ Ethnicity 2017-2019

	Suffolk	NYS excluding NYC	New York State
CHIRS Indicators (2017-2019)	Percentage	Percentage	Percentage
	(or) Rate	(or) Rate	(or) Rate
	(or) Ratio	(or) Ratio	(or) Ratio
Cardiovascular Disease Indicators			
Cardiovascular disease mortality rate per 100,000	289.8	295.9	278.3
Age-adjusted cardiovascular disease mortality rate per 100,000	212.4	209.4	210.8
Cardiovascular disease premature death (aged 35-64 years) rate per 100,000	81.8	102.4	104.2
Cardiovascular disease pretransport mortality rate per 100,000	172.7	179.5	163.6
Cardiovascular disease hospitalization rate per 10,000	184.8	161.7	155.2
Age-adjusted cardiovascular disease hospitalization rate per 10,000	143	122.9	125
Diseases of the heart mortality rate per 100,000	233.2	234	224
Age-adjusted diseases of the heart mortality rate per 100,000	170.5	165.3	169.4



Diseases of the heart premature death (aged 35-64 years) mortality rate per 100,000	65.5	82.4	83.9
Diseases of the heart pretransport mortality rate per 100,000	140.8	147.2	138.7
Diseases of the heart hospitalization rate per 10,000	131.4	111.2	105.1
Age-adjusted diseases of the heart hospitalization rate per 10,000	101	84	84.2
Coronary heart disease mortality rate per 100,000	171.9	162.4	173.4
Age-adjusted coronary heart disease mortality rate per 100,000	125.6	114.6	131
Coronary heart disease premature death (aged 35-64 years) rate per 100,000	51.1	59.7	66.4
Coronary heart disease pretransport mortality rate per 100,000	106.1	106.6	112.4
Coronary heart disease hospitalization rate per 10,000	42.2	32.9	31.5
Age-adjusted coronary heart disease hospitalization rate per 10,000	32.1	24.9	25.2
Heart attack hospitalization rate per 10,000	19.3	19.2	16.7
Age-adjusted heart attack hospitalization rate per 10,000	14.8	14.6	13.4
Heart attack mortality rate per 100,000	24.7	36.2	30
Age-adjusted heart attack mortality rate per 100,000	18.2	25.8	22.8
Congestive heart failure mortality rate per 100,000	21	22.3	15.1
Age-adjusted congestive heart failure mortality rate per 100,000	15	15.3	11.1
Congestive heart failure premature death (aged 35-64 years) rate per 100,000	2.8	3.2	2.4
Congestive heart failure pretransport mortality rate per 100,000	13	13.7	8.7
Potentially preventable heart failure hospitalization rate per 10,000 - Aged 18 years and older	45	42	42.4
Cerebrovascular disease (stroke) mortality rate per 100,000	32.9	38.2	31.5
Age-adjusted cerebrovascular disease (stroke) mortality rate per 100,000	24.2	27.2	24.1
Cerebrovascular disease (stroke) premature death (aged 35-64 years) rate per 100,000	8.6	11.2	10.8
Cerebrovascular disease (stroke) pretransport mortality rate per 100,000	17.9	18	13.2
Cerebrovascular disease (stroke) hospitalization rate per 10,000	27.6	28.2	26.6



Age-adjusted cerebrovascular disease (stroke) hospitalization rate per 10,000	21.4	21.3	21.3
Potentially preventable hypertension hospitalization rate per 10,000 - Aged 18 years and older	8.2	6.1	7.7
Hypertension without heart failure hospitalization rate per 10,000 (any diagnosis) - Aged 18 years and older	553.5	502.2	478.9
Hypertension without heart failure emergency department visit rate per 10,000 - Aged 18 years and older	27.1	27.3	31.2
Hypertension without heart failure emergency department visit rate per 10,000 (any diagnosis) - Aged 18 years and older	970.6	1,034.20	1,070.30
Chronic kidney disease hospitalization rate per 10,000 (any diagnosis)	160	155.3	153.6
Age-adjusted chronic kidney disease hospitalization rate per 10,000 (any diagnosis)	123.2	116.6	122.6
Chronic kidney disease emergency department visit rate per 10,000 (any diagnosis)	170.8	186.1	187.8
Age-adjusted chronic kidney disease emergency department visit rate per 10,000 (any diagnosis)	132.1	140.7	150.1
Age-adjusted percentage of adults with cardiovascular disease (heart attack, coronary heart disease, or stroke)	7.3 (5.6-9.1)	7.4	7
Age-adjusted percentage of adults ever had blood cholesterol checked	85.3 (81.1-89.5)	83.2	83.4
Age-adjusted percentage of adults with physician diagnosed high blood pressure	27.5 (23.2-31.8)	29.4	28.9

Figure 24.

Suffolk County Health Indicator	Non-Hispanic			Hispanic	Total
	White	Black	Asian/ Pacific Islander		
Heart Disease and Stroke Indicators					
Diseases of the heart mortality per 100,000 population, age-adjusted	174.6	198.7	91.2	105.3	170.5
Diseases of the heart hospitalizations per 10,000 population, age-adjusted	95.2	131.4	44.6	98.6	101
Cerebrovascular disease (stroke) mortality per 100,000 population, age-adjusted	23.1	24.8	19	29.6	24.2



Cerebrovascular disease (stroke) hospitalizations per 10,000 population, age-adjusted	18.9	33	11.1	24.6	21.4
Coronary heart disease mortality per 100,000 population, age-adjusted	128	150.5	78	79.6	125.6
Coronary heart disease hospitalizations per 10,000 population, age-adjusted	30.4	33.6	19.1	27.3	32.1
Congestive heart failure mortality per 100,000 population, age-adjusted	15.2	18.6	<u>4.8*</u>	11.7	15
Potentially preventable heart failure hospitalization rate per 10,000 population - Aged 18 years and older (2017-2018)	46.5	65.9	11.4	28.7	45

Figure 25.

Cirrhosis, Diabetes, Kidney Disease

CHIRS indicators for Cirrhosis, Diabetes, and kidney disease are shown in Figure 26. For most of the disease incidence, hospitalization, and mortality indices reported, Suffolk County performed similarly to, or better than New York State as a whole.

CHIRS Indicators (2017-2019)	Suffolk	NYS excluding NYC	New York State
	Percentage	Percentage	Percentage
	(or) Rate	(or) Rate	(or) Rate
	(or) Ratio	(or) Ratio	(or) Ratio
Cirrhosis mortality rate per 100,000	8.5	10.1	8.4
Age-adjusted cirrhosis mortality rate per 100,000	6.7	7.9	7
Cirrhosis hospitalization rate per 10,000	4	3.7	3.9
Age-adjusted cirrhosis hospitalization rate per 10,000	3.4	3.2	3.4
Diabetes mortality rate per 100,000	16.9	22.5	22.5
Age-adjusted diabetes mortality rate per 100,000	12.6	16.6	17.6
Diabetes hospitalization rate per 10,000 (primary diagnosis)	19	18.9	21.4
Age-adjusted diabetes hospitalization rate per 10,000 (primary diagnosis)	16.1	16.5	18.9



Diabetes hospitalization rate per 10,000 (any diagnosis)	264	252	262.7
Age-adjusted diabetes hospitalization rate per 10,000 (any diagnosis)	206.5	195.6	214.2
Diabetes short-term complications hospitalization Rate per 10,000 - Aged 6-17 Years	2.3	2.2	2.3
Potentially preventable diabetes short-term complications hospitalization rate per 10,000 - Aged 18 years and older	4.8	6	6.2
Chronic kidney disease hospitalization rate per 10,000 (any diagnosis)	160	155.3	153.6
Age-adjusted chronic kidney disease hospitalization rate per 10,000 (any diagnosis)	123.2	116.6	122.6
Chronic kidney disease emergency department visit rate per 10,000 (any diagnosis)	170.8	186.1	187.8
Age-adjusted chronic kidney disease emergency department visit rate per 10,000 (any diagnosis)	132.1	140.7	150.1
Age-adjusted percentage of adults with physician diagnosed diabetes	8.7 (6.9-10.4)	9.2	10

Figure 26.

Diabetes was the nation’s seventh-leading cause of death in 2019, accounting for 87,647 deaths annually.³³ Diabetes is also a major risk factor for cardiovascular disease – those with diabetes are twice as likely to have heart disease or a stroke than those without diabetes. Diabetes is also the leading cause of kidney failure, non-traumatic lower-limb amputations, and blindness among adults. The diabetes hospitalization rate in Suffolk County is not significantly different than for the state as a whole (Figure 28), and diabetes mortality rates in Suffolk County are lower than those of New York State as a whole (Figure 26).

However, within the county, there are striking racial disparities in diabetes incidence, hospitalizations, and deaths. From 2017- 2019, the age-adjusted diabetes hospitalization rate was three times greater for Black Suffolk County residents than for white residents, and the age-adjusted diabetes mortality rate was 2.8 times greater (Figure 31). During this timeframe, the age-adjusted diabetes hospitalization rate was also greater for the Black population in Suffolk County than for the New York State as a whole (Figure 30). While the diabetes mortality rate for Hispanic and non-Hispanic white residents in Suffolk County from 2017- 2019 were similar, Hispanic residents were 37% more likely to be hospitalized for diabetes.

³³ *Explore Diabetes in New York | 2020 Annual Report.* (n.d.). America’s Health Rankings <https://www.americashealthrankings.org/explore/annual/measure/Diabetes/state/NY>



The best way to prevent type 2 diabetes and diabetes-related negative health outcomes is through screening asymptomatic adults for prediabetes and type 2 diabetes, which will allow earlier diagnosis and treatment. The 2024 Prevention Agenda established an objective for 71.7% of adults aged 45+ to have a test for high blood sugar or diabetes within the past 3 years. Suffolk County has continued to fall short of this goal, with no significant change in diabetes screening rates from 2016 (Figure 31).

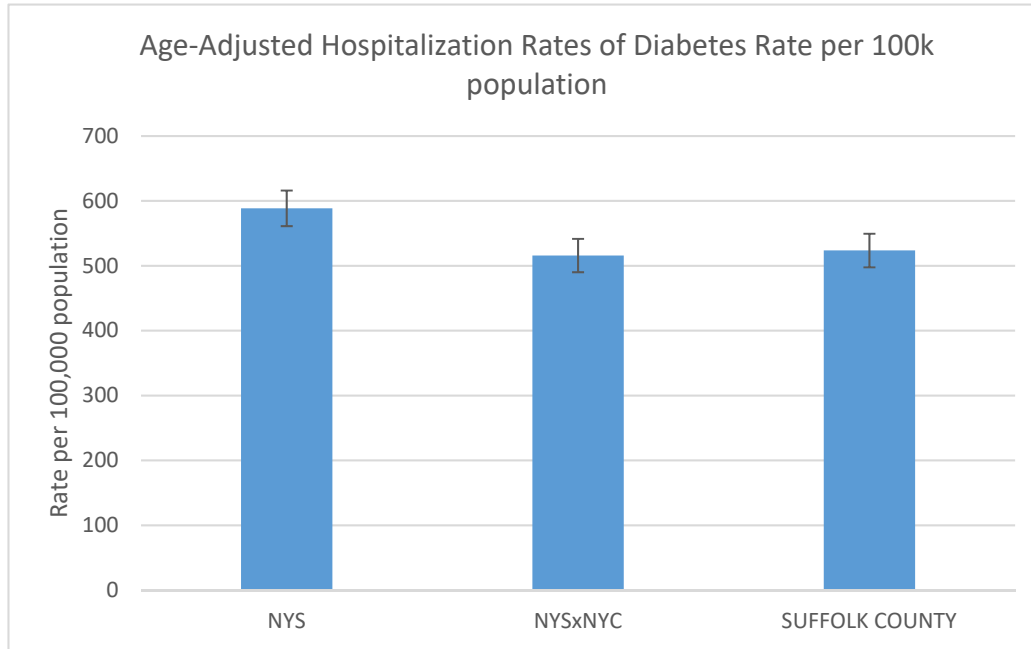


Figure 27. Source: Statewide Planning and Research Cooperative System (SPARCS) data 2016-2018

Diabetes hospitalization rate in Suffolk County vs. NYS

COUNTY	Hospitalization Rate per 100k population	SQRT of Variance	Margin of Error	Sig Dif NYS	Sig Dif NYSxNYC
NYS	588.54	14.01	27.45	No	No
NYSxNYC	515.81	13.11	25.70		
SUFFOLK COUNTY	523.52	13.21	25.89		

Figure 28.



Health Indicator	Non-Hispanic			Hispanic	Total
	White	Black	Asian/Pacific Islander		
Diabetes Indicators					
Diabetes mortality per 100,000 population, age-adjusted	11.2	31.0	11.4	11.9	12.6
Diabetes (primary diagnosis) hospitalizations per 10,000 population, age-adjusted	13.3	42.3	4.9	18.2	16.1
Diabetes (any diagnosis) hospitalizations per 10,000 population, age-adjusted	175.7	398.2	114.4	268.7	206.5
Potentially preventable diabetes short-term complications hospitalization rate per 10,000 population - Aged 18+ Years	3.8	14.5	0.7	4.1	4.8

Figure 29.

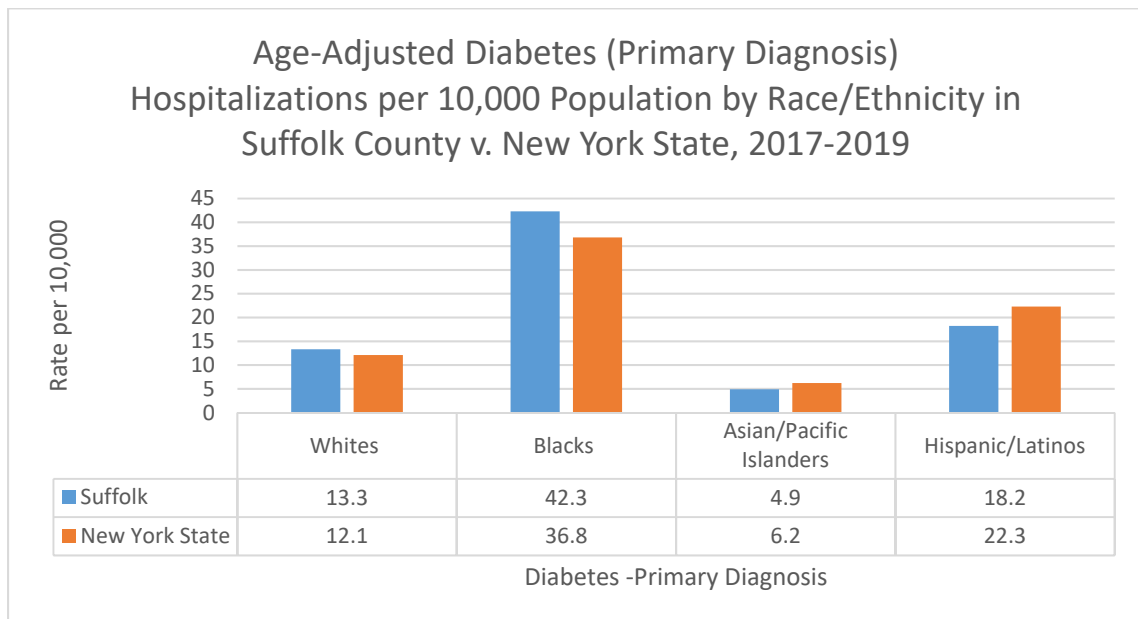


Figure 30. Source: Suffolk County Health Indicators by Race/ Ethnicity, 2017-2019



Prevention Agenda (PA), 2024	
Percentage of adults who had a test for high blood sugar or diabetes within the past three years, aged 45+ years	
Region County	Percentage (95% CI)
Suffolk	63.0 (58.3 - 67.8)
New York State (excluding NYC)	61.0 (59.4 - 62.7)
New York State	63.8 (62.3 - 65.3)
Prevention Agenda 2024 Objective	71.7

Figure 21.

Respiratory Diseases

Chronic lower respiratory diseases. Chronic lower respiratory diseases are the fourth leading cause of death in the United States and in Suffolk County³⁴. The bulk of these deaths are from Chronic obstructive pulmonary disease (COPD), a chronic lung disease that slowly damages air sacs in the lungs, decreasing airflow and making it difficult to breathe. The chronic lower respiratory disease hospitalization and mortality rates from 2017-2019 were lower for Suffolk County than for New York State exclusive of New York City (Figure 32). In Suffolk County, Hispanic and Black residents are considerably more likely to be hospitalized for chronic lower respiratory disease than White residents, despite the fact that the disease-specific mortality rate is higher for White residents. COPD is usually caused by smoking; according to the CDC, smoking accounting for nearly 8/10 COPD-related deaths.³⁵ The 2024 Prevention Agenda set a goal to reduce the prevalence of adults who smoke cigarettes to 11%. While cigarette use has been declining, Suffolk County is still slightly short of this goal (Figure 34).

Asthma. Asthma is a chronic respiratory condition affecting children and adults. Prevalence, hospitalization, and mortality rates are similar for Suffolk County and New York State exclusive of New York City (Figure 32). Asthma disproportionately affects minority groups in Suffolk County, with Hispanic and Black children hospitalized for asthma at twice and four times the

³⁴ America's Health Rankings | AHR <https://www.americashealthrankings.org/explore/annual/measure/COPD/state/NY>

³⁵ U.S. Department of Health and Human Services. The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014



rate as White children, respectively (Figure 33). The Prevention Agenda 2024 set a goal of reducing emergency department visits for asthma to 131.1 per 10,000 population for children aged 0-17. Suffolk County surpassed this goal by reaching a rate of 49.6 visits per 10,000 in 2019 (Figure 35). However, the county still has significant room for improvement regarding management of asthma in lower-income and minority populations. An additional Prevention Agenda 2024 goal is for at least 59% of Medicaid managed care members aged 5-18 who were identified as having persistent asthma to be dispensed appropriate asthma controller medications for at least 50% of the treatment period. Suffolk County fell slightly short of this goal, at 57% (Figure 36).

CHIRS Indicators (2017-2019)	Suffolk	NYS excluding NYC	New York State
	Percentage	Percentage	Percentage
	(or) Rate	(or) Rate	(or) Rate
	(or) Ratio	(or) Ratio	(or) Ratio
Chronic lower respiratory disease mortality rate per 100,000	39.7	48.3	36.7
Age-adjusted chronic lower respiratory disease mortality rate per 100,000	29.8	34.7	28.3
Chronic lower respiratory disease hospitalization rate per 10,000	27.4	28.7	29.7
Age-adjusted chronic lower respiratory disease hospitalization rate per 10,000	22.5	23.2	25.8
Asthma hospitalization rate per 10,000	6.3	6.2	9.8
Age-adjusted asthma hospitalization rate per 10,000	6.6	6.6	10.3
Asthma hospitalization rate per 10,000 - Aged 0-4 years	25.8	24.9	35.6
Asthma hospitalization rate per 10,000 - Aged 5-14 years	8.8	9.4	16.6
Asthma hospitalization rate per 10,000 - Aged 0-17 years	12	12.4	20.3
Asthma hospitalization rate per 10,000 - Aged 5-64 years	5	5.1	8
Asthma hospitalization rate per 10,000 - Aged 15-24 years	3.2	3	5.1
Asthma hospitalization rate per 10,000 - Aged 25-44 years	3.9	4.2	5
Asthma hospitalization rate per 10,000 - Aged 45-64 years	5.1	5.2	8.8



Asthma hospitalization rate per 10,000 - Aged 65 years or older	6.3	4.9	9.3
Asthma mortality rate per 100,000	0.6	0.9	1.4
Age-adjusted asthma mortality rate per 100,000	0.6	0.7	1.2
Age-adjusted percentage of adults with current asthma	9.1 (7.1-11.2)	10.8	10.1
Potentially avoidable antibiotic prescribing rates per 100 outpatient acute upper respiratory infection visits in Medicaid population - Aged 18-64 years	52.5		41.1

Figure 32.

Suffolk County Health Indicator	Non-Hispanic			Hispanic	Total
	White	Black	Asian/Pacific Islander		
Respiratory Disease Indicators					
Asthma hospitalizations per 10,000 population, age-adjusted	4.3	16.1	3.4	8.9	6.6
Asthma hospitalizations per 10,000 population, aged 0-17 years	6.8	27.5	9.4	13.5	12.0
Chronic lower respiratory disease mortality per 100,000 population, age-adjusted	32.3	20.3	5.5*	12.7	29.8
Chronic lower respiratory disease hospitalizations per 10,000 population, age-adjusted	19.6	39.9	5.7	25.7	22.5

Figure 33.

Prevention Agenda (PA), 2024	
Prevalence of cigarette smoking among adults	
Region/County	Percentage (95% CI)
Suffolk	11.2 (9.0 - 13.4)
New York State (excluding NYC)	13.9 (13.1 - 14.7)
New York State	12.8 (12.2 - 13.5)
Prevention Agenda 2024 Objective	11.0

Figure 34.



Prevention Agenda (PA), 2024 Asthma emergency department visits, rate per 10,000, aged 0-17 years			
Region/ County	Emergency department visits	Population	ED visit rate
Suffolk	1,555	313,314	49.6
New York State (excluding NYC)	13,414	2,333,922	57.5
New York State	40,709	4,074,414	99.9
Prevention Agenda 2024 Objective			131.1

Figure 35

Prevention Agenda (PA),2024 The percentage of Medicaid managed care members who were identified as having persistent asthma and were dispensed appropriate asthma controller medications for at least 50% of the treatment period, aged 5-18 years			
Region/ County	Members met criteria	Members with persistent asthma	Percentage
Suffolk	849	1,483	57
New York State (excluding NYC)	8,281	13,686	61
New York State	19,611	32,919	60
Prevention Agenda 2024 Objective			59

Figure 36.

2. Injury

Unintentional injury. Unintentional injury was the third leading cause of death in the USA and in Suffolk County in 2019, and the leading cause of death for Americans aged 1-44. Significant causes of unintentional injuries include opioid overdoses (categorized as unintentional poisoning), motor vehicle crashes, and unintentional falls). Opioid use is discussed separately in section 7 of this chapter; motor vehicle crashes and unintentional falls are addressed below. From 2017-2019, the gross and age-adjusted hospitalization and mortality rates due to unintentional injuries were considerably higher in Suffolk County than New York State as a whole (Figure 37). Hospitalization rates for unintentional injuries were similar for Suffolk



County and NYS in children ages 0-14, but in children ages 15+ and adults in all age groups, hospitalization rates for unintentional injuries in Suffolk County exceeded those in NYS excluding NYC by 30%.

Motor vehicle crashes. From 2017-2019, Suffolk County had a 23% higher age-adjusted motor vehicle mortality rate than New York State exclusive of New York City, and also had a slightly higher rate of alcohol-related motor vehicle injuries and deaths than the state as a whole (Figure 37). The age-adjusted motor vehicle-related mortality was 92% greater among Black than White Suffolk County residents, and 107% greater among Latino residents (Figure 38).

Unintentional falls. From 2017-2019, the age-adjusted hospitalization rate for falls in Suffolk County exceeded that for New York State exclusive of NYC by 29%. Hospitalization due to falls is predominantly a problem in older age groups. The Prevention Agenda 2024 set a goal of reducing fall hospitalizations to 173.7 per 10,000 for adults 65+, Suffolk County fell far short of this goal with a hospitalization rate of 281.4 per 10,000 for this age group (Figure 39). Suffolk County residents aged 65-74 hospitalized for falls at a rate of 106 per 10,000 compared with 311 per 10,000 for ages 75-84, and 821 per 10,000 for ages 85+ (Figure 37). For the 75-84 and 85+ age groups, the hospitalization rate due to falls in Suffolk County exceeded that for NYS exclusive of NYC by more than 30%.

Suicide. Nationally, suicide is the second leading cause of death for persons aged 1-44. The gross and age-adjusted mortality rates from 2017-2019 in Suffolk County are comparable to New York State as a whole (Figure 37). Suicide mortality rates are considerably higher among White county residents than other ethnic groups (Figure 38). The Prevention Agenda 2024 set a goal of reducing suicide deaths to an age adjusted rate of 7.0 per 100,000 population; Suffolk County fell short of this goal with a rate of 8.3 per 100,000 from 2017-2019, which is unchanged from the 2016-2018 timeframe (Figure 40). Fortunately, for youth aged 15-19, the suicide mortality rate in Suffolk County has decreased from the 2016-18 to 2017-19 measurement period, and suicide mortality rates for this age group are lower than the Healthy People 2024 benchmark (Figure 41).



CHIRS Indicators (2017-2019)	Suffolk	NYS excluding NYC	New York State
	Percentage	Percentage	Percentage
	(or) Rate	(or) Rate	(or) Rate
	(or) Ratio	(or) Ratio	(or) Ratio
Suicide mortality rate per 100,000	8.7	10.4	8.7
Age-adjusted suicide mortality rate per 100,000	8.3	9.9	8.2
Suicide mortality rate per 100,000 - Aged 15-19 years	3.8	7.3	6.0
Self-inflicted injury hospitalization rate per 10,000	3.6	4.4	3.7
Age-adjusted self-inflicted injury hospitalization rate per 10,000	3.6	4.6	3.8
Self-inflicted injury hospitalization rate per 10,000 - Aged 15-19 years	8.2	10.3	9.0
Homicide mortality rate per 100,000	1.7	2.6	3.0
Age-adjusted homicide mortality rate per 100,000	1.7	2.8	3.1
Assault hospitalization rate per 10,000	2.4	2.1	3.0
Age-adjusted assault hospitalization rate per 10,000	2.6	2.2	3.1
Unintentional injury mortality rate per 100,000	53.4	45.1	37.9
Age-adjusted unintentional injury mortality rate per 100,000	50.4	41.4	34.4
Unintentional injury hospitalization rate per 10,000	101.7	80.5	72.4
Age-adjusted unintentional injury hospitalization rate per 10,000	84.4	65.5	61.5
Unintentional injury hospitalization rate per 10,000 - Aged <10 years	18.4	17.7	18.4



Unintentional injury hospitalization rate per 10,000 - Aged 10-14 years	14.6	12.7	13.2
Unintentional injury hospitalization rate per 10,000 - Aged 15-24 years	31.1	23.1	22.6
Unintentional injury hospitalization rate per 10,000 - Aged 25-64 years	64.9	51.1	48.1
Unintentional injury hospitalization rate per 10,000 - Aged 65 years and older	359.7	275.1	249.9
Falls hospitalization rate per 10,000	59.7	47.6	42.4
Age-adjusted falls hospitalization rate per 10,000	46.6	36.0	34.2
Falls hospitalization rate per 10,000 - Aged <10 years	7.1	6.2	6.8
Falls hospitalization rate per 10,000 - Aged 10-14 years	4.4	3.4	4.0
Falls hospitalization rate per 10,000 - Aged 15-24 years	5.6	4.0	4.4
Falls hospitalization rate per 10,000 - Aged 25-64 years	24.7	19.7	18.8
Falls hospitalization rate per 10,000 - Aged 65-74 years	106.1	84.6	80.3
Falls hospitalization rate per 10,000 - Aged 75-84 years	311.3	235.3	215.9
Falls hospitalization rate per 10,000 - Aged 85 years and older	821.4	619.4	553.5
Poisoning hospitalization rate per 10,000	7.8	7.6	8.0
Age-adjusted poisoning hospitalization rate per 10,000	7.7	7.5	7.6
Motor vehicle injury mortality rate per 100,000	8.6	7.2	5.5
Age-adjusted motor vehicle injury mortality rate per 100,000	8.4	6.8	5.1
Non-motor vehicle injury mortality rate per 100,000	44.8	37.9	32.5



Age-adjusted non-motor vehicle injury mortality rate per 100,000	41.9	34.6	29.3
Traumatic brain injury hospitalization rate per 10,000	11.2	9.0	8.5
Age-adjusted traumatic brain injury hospitalization rate per 10,000	9.8	7.6	7.5
Alcohol related motor vehicle injuries and deaths per 100,000	35.4	34.7	28.9

Figure 37.

Suffolk County Health Indicators by Race/Ethnicity, 2017-2019	Non-Hispanic			Hispanic	Total
	White	Black	Asian/Pacific Islander		
Injury-Related Indicators					
Motor vehicle-related mortality per 100,000 population, age-adjusted	6.5	12.5	2.8*	13.5	8.4
Unintentional injury mortality per 100,000 population, age-adjusted	57.4	38.9	14.8	36.4	50.4
Unintentional injury hospitalizations per 10,000 population, age-adjusted	82.5	73.0	26.2	79.9	84.4
Fall hospitalizations per 10,000 population, aged 65+ years	273.7	131.1	79.5	247.8	267.3
Poisoning hospitalizations per 10,000 population, age-adjusted	8.2	8.8	1.9	4.4	7.7
Opioid burden per 100,000 population	430.1	199.0	22.5	152.7	351.4
Suicide mortality per 100,000 population, age-adjusted	10.2	2.6	5.4	4.5	8.3

Figure 38. From: <https://www.health.ny.gov/statistics/community/minority/county/suffolk.htm>



Prevention Agenda (PA),2024 Hospitalizations due to falls among adults, rate per 10,000 population, aged 65+ years			
Region/ County	Hospitalizations	Population	Hospitalization rate
Suffolk	7,202	255,941	281.4
New York State (excluding NYC)	42,402	2,015,741	210.4
New York State	63,923	3,296,146	193.9
Prevention Agenda 2024 Objective			173.7

Figure 39.

Prevention Agenda (PA),2024 Suicide mortality, age-adjusted rate per 100,000 population, 2017-2019			
Region/ County	Deaths, aged 15-19	Average population, aged 15-19	Rate
Suffolk	388	1,482,804	8.3
New York State (excluding NYC)	3,473	11,150,374	9.9
New York State	5,080	19,560,682	8.2
Prevention Agenda 2024 Objective			7.0

Figure 30.

Prevention Agenda (PA),2024 Suicide mortality among youth, rate per 100,000, aged 15-19 years, 2017-2019			
Region/ County	Deaths, aged 15-19	Average population, aged 15-19	Rate
Suffolk	11	97,291	3.8
New York State (excluding NYC)	163	747,375	7.3
New York State	215	1,192,433	6.0
Prevention Agenda 2024 Objective			4.7

Figure 41.

3. Child and Adolescent Health

Suffolk County performs favorably compared with the remainder of New York State across a range of health indicators (Figure 42). Mortality rates across all pediatric age groups, as well as hospitalization rates, are lower than those for New York State as a whole. Suffolk County is also



performing comparatively well at providing preventive care to economically disadvantaged children, with a higher percentage of children in government-sponsored insurance programs completing the recommended number of well-child visits. While rates of childhood lead poisoning are significantly lower in Suffolk County than in New York State as a whole, Suffolk County is lagging in performance of recommended childhood lead screening, with only 44% of children born in 2016 completing at least two lead screenings by 36 months.

Breastfeeding affords infants health benefits that persist into adulthood. Breastfed babies have a lower risk of asthma, obesity, type 1 diabetes, sudden infant death syndrome (SIDS), and are less likely to have ear or gastrointestinal infections.³⁶ The American Academy of Pediatrics recommends exclusive breastfeeding for the first 6 months of life. The Prevention Agenda set a goal for 45.5% of infants enrolled in WIC to be breastfed at 6 months. While Breastfeeding rates for WIC clients in Suffolk County improved steadily from 2014 to 2017, the county still fell short of the Prevention Agenda goal, with 36.2% of infants enrolled in WIC breastfeeding at 6 months in 2017 (Figure 43).

One measure used in the Prevention Agenda to assess the quality of social supports provided to families of young children is the ‘Percentage of families participating in the Early Intervention Program who meet the state’s standard for the NY Impact on Family Scale.’ The Impact on Family Scale is a rating scale administered to parents or caregivers of children with medical conditions, to assess impact of pediatric illness on the family. Suffolk County far exceeded the benchmark for this measure established in the Prevention Agenda (Figure 44).

CHIRS Indicators (2017-2019)	Suffolk	NYS excluding NYC	New York State
	Percentage	Percentage	Percentage
	(or) Rate	(or) Rate	(or) Rate
	(or) Ratio	(or) Ratio	(or) Ratio
Child and Adolescent Indicators			
Mortality rate per 100,000 - Aged 1-4 years	14.6	18.9	17.7
Mortality rate per 100,000 - Aged 5-9 years	5.6	10.1	10.3
Mortality rate per 100,000 - Aged 10-14 years	11.6	12.1	12.4
Mortality rate per 100,000 - Aged 5-14 years	8.7	11.1	11.3

³⁶ *Five Great Benefits of Breastfeeding*. Centers for Disease Control and Prevention. 2020
<https://www.cdc.gov/nccdphp/dnpao/features/breastfeeding-benefits/index.html>



Mortality rate per 100,000 - Aged 15-19 years	27.4	31.3	30.1
Gastroenteritis hospitalization rate per 10,000 - Aged 0-4 years	5.5	7.5	10.4
Otitis media hospitalization rate per 10,000 - Aged 0-4 years	2.4	1.5	1.8
Pneumonia hospitalization rate per 10,000 - Aged 0-4 years	22.2	20.3	25.2
Percentage of children born in 2016 with a lead screening aged 0-8 months	0.9	1.2	1.7
Percentage of children born in 2016 with a lead screening - aged 9-17 months	62.7	73.0	75.6
Percentage of children born in 2016 with a lead screening - aged 18-35 months	64.0	72.9	76.1
Percentage of children born in 2016 with at least two lead screenings by 36 months	44.1	57.8	63.3
Incidence of confirmed high blood lead level (5 micrograms or higher per deciliter) - rate per 1,000 tested children aged <72 months	4.5	18.9	12.1
Incidence of confirmed high blood lead level (10 micrograms or higher per deciliter) - rate per 1,000 tested children aged <72 months	1.5	6.6	3.8
Percentage of children with recommended number of well child visits in government sponsored insurance programs	78.0	73.9	75.2
Percentage of children (aged 0-15 months) with recommended number of well child visits in government sponsored insurance programs	89.3	84.5	83.4
Percentage of children (aged 3-6 years) with recommended number of well child visits in government sponsored insurance programs	87.8	84.6	85.9
Percentage of children (aged 12-21 years) with recommended number of well child visits in government sponsored insurance programs	72.3	67.5	69.3

Figure 42.



Prevention Agenda (PA),2024 Percentage of infants enrolled in WIC who are breastfed at 6 months			
Region/ County	Breastfed at 6 months	Infants enrolled in WIC	Percentage
Suffolk	655	1,809	36.2
New York State	17,087	40,684	42.0
Prevention Agenda 2024 Objective			45.5

Figure 43.

Prevention Agenda (PA),2024 Percentage of families participating in the Early Intervention Program who meet the state’s standard for the NY Impact on Family Scale, July 2019-June 2020			
Region/ County	Families meeting NYS standard	Surveys returned	Percentage
Suffolk	4,226	4,500	93.9
New York State (excluding NYC)	37,147	39,303	94.5
New York State	59,596	63,460	93.9
Prevention Agenda 2024 Objective			73.9

Figure 44

Prevention Agenda (PA),2024 Indicated reports of abuse/maltreatment, rate per 1,000 children - aged 0-17 years			
Region/ County			Rate
Suffolk			10.5
New York State (excluding NYC)			16.1
New York State			14.6
Prevention Agenda 2024 Objective			15.6

Figure 45.

4. Family Planning, Natality, Maternal and Infant Health

Suffolk County has a lower teen fertility rate and a higher percentage of births to women aged 35 years and older compared with New York State as a whole (Figure 46). While a majority of



pregnant women in Suffolk County receive adequate prenatal care, there is a clear racial disparity, with only 73.5% of Black women, 73.8% of Hispanic women, and 79.8% of Asian/Pacific Islander women receiving first trimester prenatal care, compared with 87.1% of Non-Hispanic White women (Figure 47). Black women are also significantly more likely than white women to have premature births (14.8% vs. 9.3%), and teen pregnancy rates are considerably higher for Black and Hispanic girls compared to their White counterparts. Unfortunately, though the infant mortality rate in Suffolk County is low overall, the infant mortality rate for Hispanic mothers is twice that for White mothers, and that for Black mothers is 4.6 times as high. In 2017-2019, Suffolk County had a higher maternal mortality rate and higher percentage of preterm births than New York State as a whole, and fell short of Prevention Agenda 2024 benchmarks for these metrics (Figure 48 and 50). The rate of newborns with neonatal withdrawal symptoms and/or affected by maternal use of drugs of addiction in Suffolk County also exceeded the Prevention Agenda goal in 2019, reflecting the County’s ongoing struggle with opioid abuse (Figure 51).

CHIRS Indicators (2017-2019)	Suffolk	NYS excluding NYC	New York State
	Percentage	Percentage	Percentage
	(or) Rate	(or) Rate	(or) Rate
		(or) Ratio	(or) Ratio
Percentage of live births conceived within 18 months of a previous live birth	27.8	32.6	30.4
Percentage of births to teens - Aged 15-17 years	0.8	0.8	0.7
Percentage of births to teens - Aged 15-19 years	3.0	3.5	3.1
Percentage of births to women aged 35 years and older	26.9	22.3	24.5
Fertility rate per 1,000 females - Aged 15-44 years	57.0	57.1	57.5
Teen fertility rate per 1,000 (births to mothers aged 10-14 years/female population aged 10-14 years)	0.07	0.1	0.1



Teen fertility rate per 1,000 (births to mothers aged 15-17 years/female population aged 15-17 years)	3.9	4.7	4.9
Teen fertility rate per 1,000 (births to mothers aged 15-19 years/female population aged 15-19 years)	9.7	11.3	11.9
Teen fertility rate per 1,000 (births to mothers aged 18-19 years/female population aged 18-19 years)	19.2	20.1	21.5
Pregnancy rate per 1,000 (all pregnancies/female population aged 15-44 years)	71.7	72.3	79.7
Teen pregnancy rate per 1,000 females aged <18 years	2.9	3.7	4.7
Teen pregnancy rate per 1,000 females aged 15-19 years	16.5	19.2	23.9
Teen pregnancy rate per 1,000 females aged 18-19 years	32.1	32.8	41.1
Abortion ratio (induced abortions per 1,000 live births) - All ages	215.0	226.1	333.1

Figure 46.

Suffolk County Health Indicators, 2017-2019	Non-Hispanic			Hispanic	Total
	White	Black	Asian/Pacific Islander		
Birth-Related Indicators					
Number of births per year (3 year average)	7,810	1,193	770	5,148	15,192
Percentage of births with early (1st trimester) prenatal care	87.10%	73.50%	79.80%	73.80%	81.00%
<u>Percentage of births with adequate prenatal care (APNCU)^</u>	78.20%	69.70%	72.60%	69.60%	74.10%



Percentage of premature births (< 37 weeks gestation - clinical estimate)	9.30%	14.80%	9.30%	9.90%	10.00%
Percentage of low birthweight births (< 2.5 kg)	6.90%	13.70%	8.70%	7.90%	8.00%
Teen pregnancies per 1,000 females aged under 18 years	0.9	5	<u>0.4*</u>	7.2	2.9
Pregnancies per 1,000 females aged 15-44 years	58.4	80.3	53.9	97.8	71.7
Fertility per 1,000 females aged 15-44 years	47.7	47	53.1	83	57
Infant mortality per 1,000 live births	2.3	10.6	<u>2.6*</u>	4.6	4.1

Figure 47.

Prevention Agenda (PA),2024 Maternal mortality, rate per 100,000 live births			
Region/ County	Maternal deaths	Average number of live births	Rate
Suffolk	9	15,192	19.7
New York State (excluding NYC)	66	117,134	18.8
New York State	130	224,733	19.3
Prevention Agenda 2024 Objective			16.0

Figure 48.

Prevention Agenda (PA),2024 Infant mortality, rate per 1,000 live births			
Region/ County	Deaths <1 year	Births	Rate
Suffolk	56	15,001	3.7
New York State (excluding NYC)	541	116,242	4.7
New York State	954	220,536	4.3
Prevention Agenda 2024 Objective			4.0

Figure 49.



Prevention Agenda (PA),2024 Percentage of births that are preterm			
Region/ County	Preterm births	Births	Percentage
Suffolk	1,498	14,439	10.0
New York State (excluding NYC)	10,710	115,783	9.3
New York State	20,185	220,071	9.2
Prevention Agenda 2024 Objective			8.3

Figure 50.

Prevention Agenda (PA),2024 Newborns with neonatal withdrawal symptoms and/or affected by maternal use of drugs of addiction (any diagnosis), crude rate per 1,000 newborn discharges			
Region/ County	Newborns with neonatal withdrawal symptoms	Number of newborn discharges	Rate
Suffolk	156	14,439	10.8
New York State (excluding NYC)	1,328	104,656	12.7
New York State	1,594	201,815	7.9
Prevention Agenda 2024 Objective			9.1

Figure 51.

5. Obesity

Obesity is a significant risk factor for a myriad of other diseases including diabetes, heart disease, and several types of cancer, and is associated with increased morbidity and mortality.³⁷ From 1997 to 2020, the percentage of adult New York State residents who were *overweight or obese* (BMI > 25) increased from 42% to 63.3% and those with obesity increased from 16% to 26.3%.³⁸ From 2017-2019, Suffolk County had a higher age-adjusted percentage of adults who

³⁷ *The Health Effects of Overweight and Obesity*. Centers for Disease Control and Prevention. 2020. <https://www.cdc.gov/healthyweight/effects/index.html>

³⁸ Obesity Prevention. NY.gov. Published 2019. <https://www.health.ny.gov/prevention/obesity/>



were classified as *overweight or obese* (BMI > 25) than New York State as a whole (Figure 52). However, the age-adjusted percentage of adults categorized as *obese* (BMI > 30) in Suffolk County was actually lower than that of the state as a whole. Obesity statistics by race are not currently available for Suffolk County, but on a state and national level certain racial / ethnic minority groups are disproportionately affected. In New York State in 2020, 35.1% of the Black adult population was obese (BMI of 30 or higher), compared with 30.4% of Hispanic adults and 25.8% of non-Hispanic White adults.³⁹

Obesity in the pediatric population is especially concerning, as it leads to development of chronic diseases including diabetes and heart disease at younger ages, and also has a significant negative impact on children’s mental health.⁴⁰ Unfortunately, Suffolk County has higher percentages of obesity among school-aged children than New York State as a whole (Figure 52). Pediatric obesity in Suffolk County shows a distinct geographic distribution, with higher rates of obesity seen in school districts with higher percentages of Hispanic and Black students.

CHIRS Indicators (2017-2019)	Suffolk	NYS excluding NYC	New York State
	Percentage	Percentage	Percentage
	(or) Rate	(or) Rate	(or) Rate
	(or) Ratio	(or) Ratio	(or) Ratio
Percentage overweight but not obese (85th- <95th percentile) - Students (with weight status information in SWSCRS) in elementary, middle and high school	17.0	16.5	
Percentage obese (95th percentile or higher) - Students (with weight status information in SWSCRS) in elementary, middle and high school	18.8	17.3	
Percentage overweight or obese (85th percentile or higher) - Students (with weight status information in SWSCRS) in elementary, middle and high school	35.8	33.8	

³⁹ CDC. Behavioral Risk Factor Surveillance System, 2020 data.

⁴⁰ Sahoo K, Sahoo B, Choudhury AK, Sofi NY, Kumar R, Bhadoria AS. Childhood obesity: causes and consequences. J Family Med Prim Care. 2015 Apr-Jun;4(2):187-92. doi: 10.4103/2249-4863.154628. PMID: 25949965; PMCID: PMC4408699.



Percentage overweight but not obese (85th- <95th percentile) - Students (with weight status information in SWSCRS) in elementary school	16.2	15.8	
Percentage obese (95th percentile or higher) - Students (with weight status information in SWSCRS) in elementary school	18.4	16.2	
Percentage overweight or obese (85th percentile or higher) - Students (with weight status information in SWSCRS) in elementary school	34.6	31.9	
Percentage overweight but not obese (85th- <95th percentile) - Students (with weight status information in SWSCRS) in middle and high school	18.0	17.5	
Percentage obese (95th percentile or higher) - Students (with weight status information in SWSCRS) in middle and high school	19.0	19.1	
Percentage overweight or obese (85th percentile or higher) - Students (with weight status information in SWSCRS) in middle and high school	36.9	36.6	
Percentage of pregnant women in WIC who were pre-pregnancy overweight but not obese (BMI 25 to less than 30)	31.8	27.1	27.6
Percentage of pregnant women in WIC who were pre-pregnancy obese (BMI 30 or higher)	27.2	31.1	26.6
Percentage obese (95th percentile or higher) children (aged 2-4 years) in WIC	20.5	15.2	13.8
Age-adjusted percentage of adults overweight or obese (BMI 25 or higher)	65.5 (61.9- 69.0)	64.4	62.5
Age-adjusted percentage of adults with obesity (BMI 30 or higher)	26.1 (22.9- 29.4)	29.7	27.9
Age-adjusted percentage of adults who participated in leisure time physical activity in the past 30 days	78.9 (76.0- 81.9)	78.3	76.4

Figure 42.



Percentage of children and adolescents with obesity, school years 2017-2019
Suffolk County School District Map

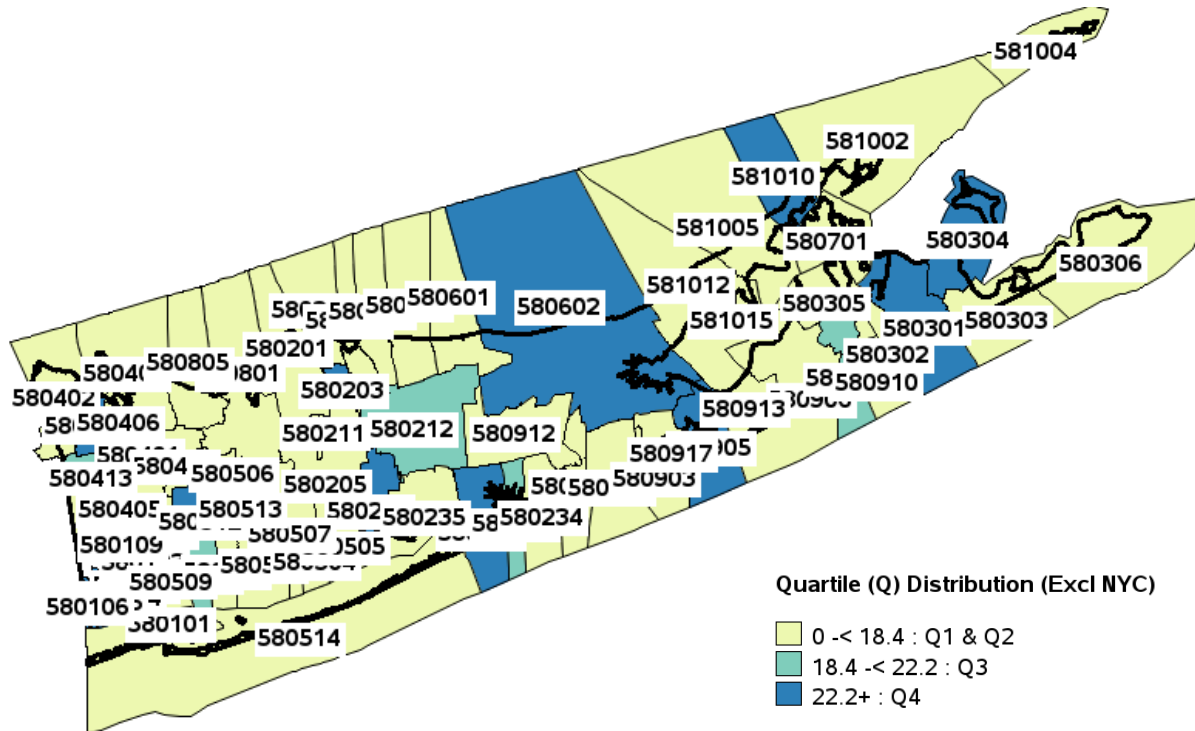


Figure 53. From: NYS Prevention Agenda Dashboard:
https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=%2FEBI%2FPHIG%2Fapps%2Fdashboard%2Fpa_dashboard&p=mp&ind_id=pa22_1&cos=47#map

6. Communicable Disease

Prevention and control of communicable diseases is a major function of public health. Suffolk County compares favorably with New York State with respect to a number of indicators related to communicable diseases, as described below.

Sexually-transmitted infections. In Suffolk County, the incidence of gonorrhea, chlamydia and syphilis has actually increased over the past ten years, but incidence rates for these diseases are still considerably lower than those seen for New York State as a whole (Figure 54), and well below the Prevention Agenda benchmarks set for these diseases. For HIV, the rate of new diagnosis in Suffolk County improved from 7.2 per 100,000 in 2014-2016 to 6.6 per 100,000 in 2017-2019, though this still did not meet the Prevention Agenda 2024 benchmark of 5.2 per 100,000.



Vaccine-preventable diseases. For vaccine-preventable diseases including hepatitis A, hepatitis B, Haemophilus influenzae, pertussis and mumps, the disease incidence in Suffolk County is similar to the state as a whole (Figure 54). A measure used to gauge adequacy of a region's routine childhood immunization in the NYS Prevention Agenda is 'Percentage of 24-35-month old children with the 4:3:1:3:3:1:4 immunization series.' This series includes: four doses DTaP; three doses polio; one dose MMR; three or four doses Hemophilus influenza type b [Hib], depending on product type; three doses hepatitis B; one dose varicella; and four doses pneumococcal conjugate vaccine. In 2020, Suffolk County performed better than NYS as a whole with respect to this measure but failed to meet the PA 2024 goal (Figure 55). Vaccination rates in Suffolk County had improved from 2016 to 2020, though some of this progress has likely been eroded by pandemic-related delays in seeking routine medical care.

COVID-19. Since early 2020, COVID-19 has caused an enormous amount of morbidity and mortality worldwide. In 2020, COVID-19 was the third leading cause of death in the US, and the second leading cause of death in New York State.^{41,42} In Suffolk County, more than 4500 people have died of COVID-19 since the beginning of the pandemic, and many more have suffered long-term health complications because of COVID infection. COVID has disproportionately affected communities of color, with considerably higher rates of hospitalization and death among Latino and Black populations (Figure 56).

While COVID deaths have declined thanks to a combination of viral mutation and population immunity from vaccines and prior infection, COVID is predicted to remain a leading cause of death in the US for the foreseeable future.⁴³ Communities including Suffolk County are also still dealing with the fallout from the pandemic, including the economic toll of shutdowns, as well as the exacerbation of the US mental health crisis.⁴⁴ Nationwide, babies born during or just before the pandemic are experiencing higher rates of developmental delays due to lack of

⁴¹ Leading Causes of Death. CDC, 2022 <https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm>

⁴² National Center for Health Statistics, CDC, 2022 <https://www.cdc.gov/nchs/pressroom/states/newyork/ny.htm#lcod>

⁴³ COVID-19 leading cause of death ranking. KFF. <https://www.kff.org/coronavirus-covid-19/issue-brief/covid-19-leading-cause-of-death-ranking/>

⁴⁴ *The implications of COVID-19 for mental health and substance use.* The Henry J. Kaiser Family Foundation; KFF. <https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/>



socialization, and school-aged children have fallen behind academically due to extended school closures, quarantines, and ineffective remote learning.^{45,46}

CHIRS Indicators (2017-2019)	Suffolk	NYS excluding NYC	New York State
	Percentage	Percentage	Percentage
	(or) Rate	(or) Rate	(or) Rate
	(or) Ratio	(or) Ratio	(or) Ratio
Pneumonia/flu hospitalization rate per 10,000 - Aged 65 years and older	97.3	95.2	85.5
Pertussis incidence per 100,000	3.0	5.0	3.8
Mumps incidence per 100,000	0.4	1.3	1.7
Meningococcal incidence per 100,000	0.1*	0.1	0.1
Haemophilus influenza incidence per 100,000	2.5	2.3	2.0
Hepatitis A incidence per 100,000	1.2	1.4	1.3
Acute hepatitis B incidence per 100,000	0.6	0.4	0.4
Chronic Hepatitis C cases per 100,000	49.8	56.1	55.0
Tuberculosis incidence per 100,000	2.0	1.7	3.9
E. coli Shiga Toxin incidence per 100,000	2.4	3.1	4.1
Salmonella incidence per 100,000	15.1	12.9	14.0
Shigella incidence per 100,000	3.3	3.4	6.3
Lyme disease incidence per 100,000	32.2	70.7	44.7
Percentage of adults 65 years and older with flu immunization in the past year	46.1 (38.7-53.5)	43.4	44.8
Percentage of adults aged 65 years and older with pneumococcal immunization	65.2 (58.1-72.3)	69.4	64.0

⁴⁵ Bendix A., *Babies born during the pandemic may have delayed communication skills*. NBC News. 2022. <https://www.nbcnews.com/health/health-news/babies-born-pandemic-delayed-communication-skills-rcna51877>

⁴⁶ Dorn E, et al., *COVID-19 and education: The lingering effects of unfinished learning* | McKinsey. McKinsey. 2021 <https://www.mckinsey.com/industries/education/our-insights/covid-19-and-education-the-lingering-effects-of-unfinished-learning>



Newly diagnosed HIV case rate per 100,000	6.6	5.7	13.1
Age-adjusted newly diagnosed HIV case rate per 100,000	7.2	6.1	13.2
AIDS mortality rate per 100,000	0.9	0.9	2.2
Age-adjusted AIDS mortality rate per 100,000	0.7	0.7	1.9
Early syphilis case rate per 100,000	10.5	11.7	34.5
Gonorrhea case rate per 100,000 males - Aged 15-44 years	164.5	267.8	614.9
Gonorrhea case rate per 100,000 females - Aged 15-44 years	91.1	218.3	252.5
Gonorrhea case rate per 100,000 - Aged 15-19 years	92.2	246.4	401.5
Chlamydia case rate per 100,000 males - Aged 15-44 years	548.1	721.7	1,175.10
Chlamydia case rate per 100,000 males - Aged 15-19 years	513.8	766.4	1,142.60
Chlamydia case rate per 100,000 males - Aged 20-24 years	1,189.80	1,513.30	2,107.10
Chlamydia case rate per 100,000 females - Aged 15-44 years	1,273.20	1,455.20	1,741.10
Chlamydia case rate per 100,000 females - Aged 15-19 years	2,164.70	2,623.60	3,535.70
Chlamydia case rate per 100,000 females - Aged 20-24 years	2,905.40	3,203.90	3,912.50
Percentage of sexually active young women (aged 16-24) with at least one chlamydia test in Medicaid program	74.6	68.6	75.8
Pelvic inflammatory disease (PID) hospitalization rate per 10,000 females - Aged 15-44 years	1.8	1.9	2.5

Figure 54.



Prevention Agenda (PA),2024 Percentage of 24-35-month old children with the 4:3:1:3:3:1:4 immunization series, 2020			
Region/ County	Fully immunized children	Children aged 24-35 months	Percentag e
Suffolk	9,901	15,948	62.1
New York State (excluding NYC)	79,911	120,462	66.3
New York State Prevention Agenda 2024 Objective	147,066	222,502	66.1 70.5

Figure 55.

COVID Hospitalizations and Deaths in New York State by race, through March 7, 2021

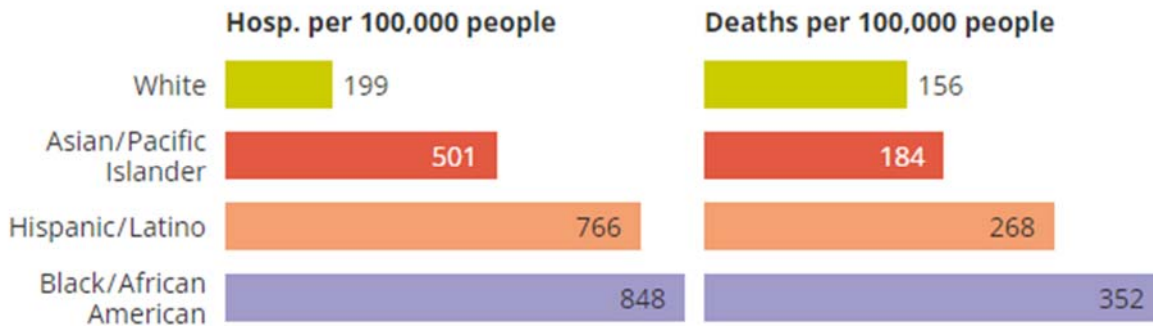


Figure 56. From: <https://covidtracking.com/data/state/new-york/race-ethnicity>

7. Opioid and Illicit Substance Abuse

Suffolk County continues to be significantly impacted by the opioid epidemic. In 2019, the age-adjusted hospitalization rate for opioid use in Suffolk County was 33% greater than that for New York State excluding NYC (404 vs. 298 per 100,000 population; Figure 57). The age-adjusted rate of overdose deaths involving any opioids in Suffolk County is also 50% higher than that for New York State excluding NYC, and considerably exceeded the Prevention Agenda 2024 goal (Figure 58). Rates of Emergency Department visits involving any opioid overdose were, likewise, approximately 33% higher than those of New York State excluding NYC (figure 51). Thankfully, overdose deaths involving any opioid in Suffolk County fell 30% from 2017 to 2019 after an approximately 100% increase from 2015-2017 (Figure 59).



COUNTY	Rate per 100k population	SQRT of Variance	Margin of Error	Sig Dif NYS	Sig Dif NYSxNYC
NYS	324.18	10.40	20.37	No	No
NYSxNYC	297.94	9.97	19.53		
SUFFOLK COUNTY	403.83	11.60	22.74		

Figure 57. Age-Adjusted Hospitalization Rates for Opioid Abuse and Dependence in Suffolk County compared with NYS.

Prevention Agenda (PA) 2024	Suffolk County	New York State excluding NYC	Prevention Agenda Objective
Overdose deaths involving any opioids, age-adjusted rate per 100,000 population	21.0	17.3	14.3
Patients who received at least one buprenorphine prescription for opioid use disorder, age-adjusted rate per 100,000 population	649.8	638.7	415.6
Opioid analgesic prescription, age-adjusted rate per 1,000 population	340.0	342.6	350.0
Emergency department visits (including outpatients and admitted patients) involving any opioid overdose, age-adjusted rate per 100,000 population	86.0	66.1	53.3

Figure 58.

Suffolk County - Overdose deaths involving any opioid, crude rate per 100,000 population

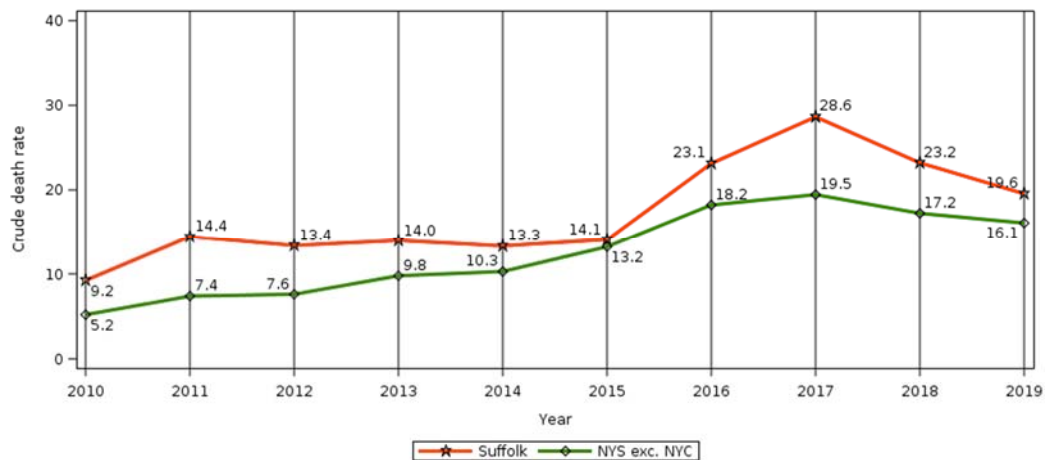


Figure 59. NYS Opioid Data Dashboard – County Level: Suffolk County
(https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/opioid_dashboard/op_dashboard&p=ctr&in_d_id=op51%20&cos=47)



8. Mental and Behavioral Disorders

Mental and behavioral disorders are very common in the U.S., with nearly one in five adults aged 18 or over reporting a mental, emotional, or behavioral disorder in 2020.⁴⁷ Mental and behavioral disorders are most prevalent in the adolescent and young adult age groups; among U.S. adolescents aged 12-17 in 2020, 14% reported a major depressive episode in the past year.⁴⁸ Mental, emotional, and behavioral disorders can have a profound negative impact on social and cognitive functioning, and increase the risk of substance use disorder and communicable and chronic diseases.

Mental health indicators for Suffolk County are similar to those of New York State as a whole. In 2016-2018, age-adjusted Hospitalization rates for mental, behavioral, and neurodevelopmental disorders in Suffolk County were lower than for New York State as a whole, though this difference is not statistically significant (Figures 60 and 61). There is also no significant difference between age-adjusted hospitalization rates for mental, behavioral, and neurodevelopmental disorders due to psychoactive substances in Suffolk County vs. New York State as a whole (Figures 62 and 63). In 2018, adults in Suffolk County experienced frequent mental distress (during the past month) at an age-adjusted percentage of 12.3%, compared with 11.8% in New York State excluding NYC. Unfortunately, this represents a 4% increase from 2016 and exceeds the Prevention Agenda objective of 10.7% (Figure 64).

Suicide is among the leading causes of death in the U.S. and was the second leading cause of death in the U.S. for ages 10-34 in 2020. The age-adjusted suicide mortality rate for Suffolk County in 2018 was 8.3/100,000 population, which represents only a 7% decrease from 2010-2012, and failed to meet the Prevention Agenda 2024 goal of 7.0 per 100,000 (Figure 64). Fortunately, from 2014-16 to 2017-19, the suicide mortality rate for youth aged 15-19 in Suffolk County decreased from 7.2 to 3.8 per 100,000, exceeding the Prevention Agenda 2024 goal (Figure 65).

⁴⁷ Substance Abuse and Mental Health Services Administration, 2020 National Survey on Drug Use and Health.

⁴⁸ Substance Abuse and Mental Health Services Administration 2020 National Survey on Drug Use and Health.

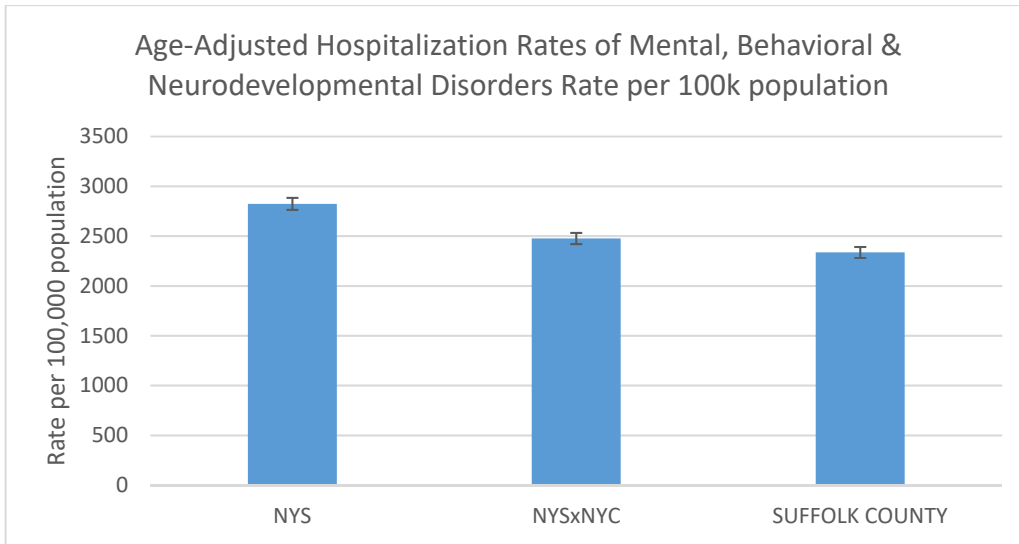


Figure 50. Source: Statewide Planning and Research Cooperative System (SPARCS) data 2016-2018 (Graph of data in figure 61)

COUNTY	Rate per 100k population	SQRT of Variance	Margin of Error	Sig Dif NYS	Sig Dif NYSxNYC
NYS	2824.04	30.68	60.14	No	No
NYSxNYC	2476.32	28.73	56.31		
SUFFOLK COUNTY	2336.19	27.91	54.70		

Figure 61. Source: Statewide Planning and Research Cooperative System (SPARCS) data 2016-2018; Age Adjusted Hospitalization Rates for Mental, Behavioral and Neurodevelopmental disorders in Suffolk County vs. NYS

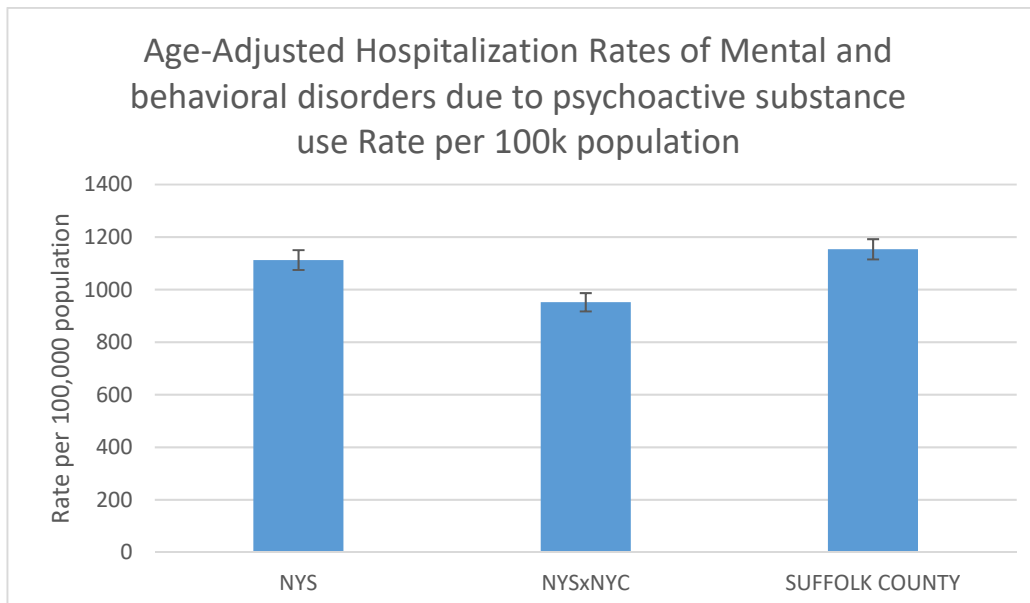


Figure 62. Source: Statewide Planning and Research Cooperative System (SPARCS) data 2016-2018 (Graph of data in figure 63)



COUNTY	Rate per 100k population	SQRT of Variance	Margin of Error	Sig Dif NYS	Sig Dif NYSxNYC
NYS	1112.55	19.26	37.74	No	No
NYSxNYC	951.94	17.81	34.91		
SUFFOLK COUNTY	1153.61	19.61	38.43		

Figure 63. Rates of Mental and Behavioral Disorders Hospitalizations Due to Psychoactive substance in Suffolk County vs. NYS; Source: Statewide Planning and Research Cooperative System (SPARCS) data 2016-2018

Prevention Agenda (PA) Indicator	Data Year(s)	Suffolk County Percentage (or) Rate (or) Ratio	NYS x NYC Percentage (or) Rate (or) Ratio	PA (2024) Objective Percentage (or) Rate (or) Ratio
Frequent mental distress during the past month among adults, age-adjusted percentage	2018	12.3	11.8	10.7
Binge drinking during the past month among adults, age-adjusted percentage	2018	18	18.4	16.4
Percentage of adults who have experienced two or more adverse childhood experiences (ACEs)	2016	38.3	36.1	33.8
Indicated reports of abuse/maltreatment, rate per 1,000 children – aged 0-17 years	2020	10.5*	16.1	15.6
Suicide mortality, age-adjusted rate per 100,000 population	2017-2019	8.3	9.9	7.0

*PA 2024 Objective satisfied

Figure 64. Data from Prevention Agenda Dashboard – County Level: Suffolk County

https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/dashboard/pa_dashboard&p=ct&cos=47



Suffolk County - Suicide mortality among youth, rate per 100,000, aged 15-19 years

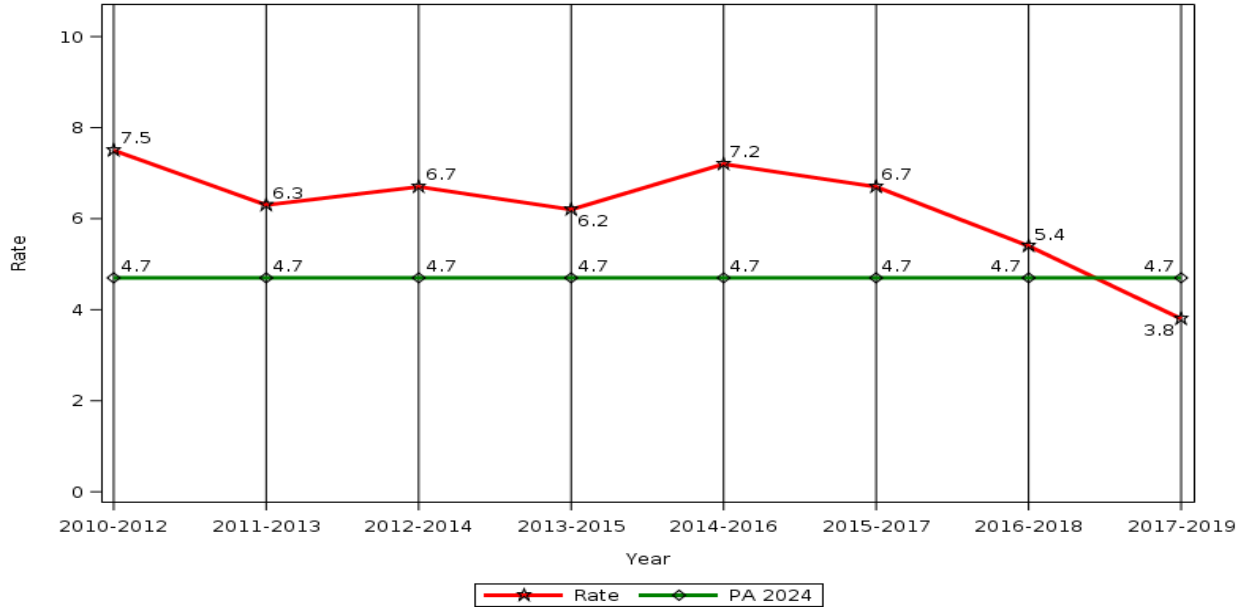


Figure 65. From: https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=%2FEBI%2FPHIG%2Fapps%2Fdashboard%2Fpa_dashboard&p=ctr&ind id=pa63 0&cos=47

Death in Suffolk County: Leading Causes

The leading causes of death for Suffolk County in 2018-2019 were:

1. Heart Disease
2. Cancer
3. Unintentional injury
4. Chronic lower respiratory disease
5. Cerebrovascular disease

The top five leading causes of death were the same in Suffolk County and New York State as a whole (Figure 66). In New York State excluding NYC, chronic lower respiratory disease was the third leading cause of death, and unintentional injury the fourth leading cause of death. This likely reflects lower rates of smoking, and higher rates of opioid abuse in Suffolk County compared with other areas of the state excluding New York City. The top five causes of death in Suffolk County remained unchanged from 2010-2019 (Figure 67). Over that time, age-adjusted mortality rates from heart disease decreased from 193 to 170 per 100,000, age-adjusted mortality rates for cancer decreased from 165 to 135 per 100,000 and mortality from unintentional injury



(a category that consists predominantly of motor vehicle accidents, drug overdoses, unintentional falls, and unintentional drowning) increased from an age-adjusted rate of 34 per 100,000 in 2010 to 56 per 100,000 in 2017 before decreasing to 46 per 100,000 in 2019.

No county-level mortality data are available for children or adolescents, but in New York State from 2010-2019, unintentional injury was the leading cause of death for adolescents ages 15 to 19, followed by suicide and homicide (Figure 68). Cancer was the fourth leading cause of death this age group. For children aged 5 to 14, the leading cause of death from 2010-2019 was unintentional injury, followed by cancer, birth defects, suicide, and chronic lower respiratory diseases (CLRD). In children, most CLRD deaths are from asthma, and high CLRD mortality rates are associated with cigarette smoking in the household and low socioeconomic status (SES).⁴⁹

In 2020, COVID-19 was the third leading cause of death nationally, behind heart disease and cancer (Figure 70). The highest age-adjusted death rates by race/ethnicity were among non-Hispanic American Indian or Alaskan Natives, followed by Hispanics persons and non-Hispanic Black persons.⁵⁰ New York State was severely affected by the first wave of the COVID-19 pandemic, and COVID-19 was the 2nd leading cause of death for the state in 2020.⁵¹ As discussed in section 6 of this chapter, although COVID deaths have declined, COVID is predicted to remain a leading cause of death in the US for the foreseeable future.⁵²

2018-2019	Total Number of Deaths	Heart Disease	Cancer	Unintentional Injury	Chronic Lower Respiratory Disease	Cerebrovascular Disease
Suffolk County	12,515 639 per 100k	3,482 170 per 100k	2666 135.7 per 100k	739 45.9 per 100k	606 30.5 per 100k	498 24.8 per 100k
NYS (excluding NYC)	102,344 673.5 per 100k	25,602 161.3 per 100k	21,782 143.1 per 100k	4,832 39.6 per 100k	5,255 33.7 per 100k	4,225 27.0 per 100k
NYS	156,405 622.4 per 100k	43,472 167.1 per 100k	33,418 133.6 per 100k	7,308 33.8 per 100k	7,065 27.7 per 100k	6,125 23.9 per 100k

Figure 66. Leading causes of Death in Suffolk County vs. New York State, 2018-2019.

⁴⁹ Lee Y, Chang K, Sethi S. Association of Chronic Lower Respiratory Disease With County Health Disparities in New York State. *JAMA Netw Open*. 2021;4(11):e2134268. doi:10.1001/jamanetworkopen.2021.34268

⁵⁰ Ahmad FB, Cisewski JA, Miniño A, Anderson RN. Provisional Mortality Data — United States, 2020. *MMWR More Mortal Wkly Rep* 2021;70:519–522. DOI: <http://dx.doi.org/10.15585/mmwr.mm7014e1external icon>

⁵¹ National Center for Health Statistics – New York 2021 <https://www.cdc.gov/nchs/pressroom/states/newyork/ny.htm>

⁵² Ortaliza, J. et al., COVID-19 leading cause of death ranking, CDC 2022 <https://www.kff.org/coronavirus-covid-19/issue-brief/covid-19-leading-cause-of-death-ranking/>



**Leading Causes of All Deaths for Total Population
Selected Counties: Suffolk**

Top 5 Causes

		Number of deaths and age-adjusted death rate					
		Total Deaths	#1 Cause of Death	#2 Cause of Death	#3 Cause of Death	#4 Cause of Death	#5 Cause of Death
Suffolk	2019	Total Deaths 12,515 639.0 per 100,000	Heart Disease 3,482 170.0 per 100,000	Cancer 2,666 135.7 per 100,000	Unintentional Injury 739 45.9 per 100,000	CLRD 606 30.5 per 100,000	Cerebrovascular Disease 498 24.8 per 100,000
	2018	Total Deaths 12,445 637.1 per 100,000	Heart Disease 3,517 172.4 per 100,000	Cancer 2,682 135.9 per 100,000	Unintentional Injury 768 48.9 per 100,000	CLRD 574 28.6 per 100,000	Cerebrovascular Disease 479 23.5 per 100,000
	2017	Total Deaths 12,302 644.9 per 100,000	Heart Disease 3,374 169.2 per 100,000	Cancer 2,738 140.8 per 100,000	Unintentional Injury 868 56.3 per 100,000	CLRD 587 30.3 per 100,000	Cerebrovascular Disease 485 24.4 per 100,000
	2016	Total Deaths 12,121 647.1 per 100,000	Heart Disease 3,413 174.3 per 100,000	Cancer 2,772 146.6 per 100,000	Unintentional Injury 802 51.3 per 100,000	CLRD 540 28.7 per 100,000	Cerebrovascular Disease 475 24.8 per 100,000
	2015	Total Deaths 11,812 639.4 per 100,000	Heart Disease 3,374 176.7 per 100,000	Cancer 2,690 143.8 per 100,000	Unintentional Injury 652 41.6 per 100,000	CLRD 534 28.9 per 100,000	Cerebrovascular Disease 481 25.8 per 100,000
	2014	Total Deaths 11,563 638.1 per 100,000	Heart Disease 3,377 181.6 per 100,000	Cancer 2,819 154.2 per 100,000	Unintentional Injury 595 37.8 per 100,000	CLRD 488 27.0 per 100,000	Cerebrovascular Disease 459 24.9 per 100,000
	2013	Total Deaths 11,546 649.0 per 100,000	Heart Disease 3,321 182.1 per 100,000	Cancer 2,786 156.1 per 100,000	Unintentional Injury 661 41.0 per 100,000	CLRD 550 30.4 per 100,000	Cerebrovascular Disease 431 23.8 per 100,000
	2012	Total Deaths 11,527 661.2 per 100,000	Heart Disease 3,213 180.1 per 100,000	Cancer 2,828 161.2 per 100,000	Unintentional Injury 688 43.1 per 100,000	CLRD 577 33.6 per 100,000	Cerebrovascular Disease 441 25.0 per 100,000
	2011	Total Deaths 11,342 667.4 per 100,000	Heart Disease 3,249 187.6 per 100,000	Cancer 2,776 162.4 per 100,000	Unintentional Injury 642 41.0 per 100,000	CLRD 585 34.8 per 100,000	Cerebrovascular Disease 435 25.4 per 100,000
	2010	Total Deaths 11,135 668.3 per 100,000	Heart Disease 3,273 193.2 per 100,000	Cancer 2,771 165.2 per 100,000	Unintentional Injury 525 33.8 per 100,000	CLRD 519 31.8 per 100,000	Cerebrovascular Disease 446 26.6 per 100,000

CLRD: Chronic Lower Respiratory Diseases

*Rates based on fewer than 10 events in the numerator are unstable.

Note: Ranks are based on numbers of deaths, then on mortality rates. Where county's death counts and rates are tied, '(tie)' appears at the bottom of the corresponding cells, and causes are further ranked alphabetically.

If a cell is blank, then there were no deaths from any of the 25 causes used in our tables. These causes are listed in the technical notes.

Source: Vital Statistics Data as of January 2022

Figure 67. From: https://apps.health.ny.gov/public/tabvis/PHIG_Public/lcd/reports/#county



Leading Causes of Death, Ages 15 - 19 years, New York State, 2010-2019

Top 5 Causes

Number of deaths and crude death rate						
	Total Deaths	#1 Cause of Death	#2 Cause of Death	#3 Cause of Death	#4 Cause of Death	#5 Cause of Death
2019	Total Deaths 330 27.8 per 100,000	Unintentional Injury 83 7.0 per 100,000	Suicide 70 5.9 per 100,000	Homicide and Legal Intervention 40 3.4 per 100,000	Cancer 31 2.6 per 100,000	Heart Disease 11 0.9 per 100,000
2018	Total Deaths 358 30.1 per 100,000	Unintentional Injury 90 7.6 per 100,000	Suicide 68 5.7 per 100,000	Homicide and Legal Intervention 61 5.1 per 100,000	Cancer 43 3.6 per 100,000	Heart Disease 10 0.8 per 100,000
2017	Total Deaths 389 32.4 per 100,000	Unintentional Injury 128 10.7 per 100,000	Suicide 77 6.4 per 100,000	Homicide and Legal Intervention 50 4.2 per 100,000	Cancer 32 2.7 per 100,000	Heart Disease 18 1.5 per 100,000
2016	Total Deaths 406 33.3 per 100,000	Unintentional Injury 128 10.5 per 100,000	Suicide 68 5.6 per 100,000	Homicide and Legal Intervention 55 4.5 per 100,000	Cancer 29 2.4 per 100,000	Birth Defects 12 1.0 per 100,000
2015	Total Deaths 390 31.6 per 100,000	Unintentional Injury 132 10.7 per 100,000	Homicide and Legal Intervention 61 4.9 per 100,000	Suicide 54 4.4 per 100,000	Cancer 34 2.8 per 100,000	Birth Defects 9 0.7* per 100,000 (tie)
2014	Total Deaths 372 29.7 per 100,000	Unintentional Injury 116 9.3 per 100,000	Suicide 67 5.4 per 100,000	Homicide and Legal Intervention 53 4.2 per 100,000	Cancer 29 2.3 per 100,000	Heart Disease 16 1.3 per 100,000
2013	Total Deaths 401 31.4 per 100,000	Unintentional Injury 150 11.7 per 100,000	Suicide 54 4.2 per 100,000	Homicide and Legal Intervention 41 3.2 per 100,000	Cancer 38 3.0 per 100,000	Heart Disease 23 1.8 per 100,000
2012	Total Deaths 413 31.6 per 100,000	Unintentional Injury 122 9.3 per 100,000	Suicide 77 5.9 per 100,000	Homicide and Legal Intervention 75 5.7 per 100,000	Cancer 29 2.2 per 100,000	Birth Defects 16 1.2 per 100,000
2011	Total Deaths 491 36.9 per 100,000	Unintentional Injury 147 11.0 per 100,000	Homicide and Legal Intervention 89 6.7 per 100,000	Suicide 81 6.1 per 100,000	Cancer 39 2.9 per 100,000	Heart Disease 18 1.4 per 100,000
2010	Total Deaths 502 36.9 per 100,000	Unintentional Injury 151 11.1 per 100,000	Homicide and Legal Intervention 126 9.3 per 100,000	Suicide 63 4.6 per 100,000	Cancer 40 2.9 per 100,000	Heart Disease 16 1.2 per 100,000

CLRD: Chronic Lower Respiratory Diseases
 *Rates based on fewer than 10 events in the numerator are unstable.
 Note: Ranks are based on numbers of deaths, then on mortality rates. Where death counts and rates are tied, '(tie)' appears at the bottom of the corresponding cells, and causes are further ranked alphabetically.
 If a cell is blank, then there were no deaths from any of the 25 causes used in our tables. These causes are listed in the technical notes.
 The tables do not present rates for the Native American/Alaska Native population due to small population size.

Source: Vital Statistics Data as of January 2022

Figure 68. From: https://apps.health.ny.gov/public/tabvis/PHIG_Public/lcd/reports/#county



Leading Causes of Death, Ages 5 - 14 years, New York State, 2010-2019

Top 5 Causes

Number of deaths and crude death rate						
	Total Deaths	#1 Cause of Death	#2 Cause of Death	#3 Cause of Death	#4 Cause of Death	#5 Cause of Death
2019	Total Deaths 265 11.8 per 100,000	Unintentional Injury 54 2.4 per 100,000	Cancer 49 2.2 per 100,000	Birth Defects 22 1.0 per 100,000	Suicide 16 0.7 per 100,000	Homicide and Legal Intervention 15 0.7 per 100,000
2018	Total Deaths 259 11.6 per 100,000	Cancer 56 2.5 per 100,000	Unintentional Injury 48 2.1 per 100,000	Birth Defects 20 0.9 per 100,000	Suicide 19 0.8 per 100,000	CLRD 10 0.4 per 100,000
2017	Total Deaths 240 10.6 per 100,000	Unintentional Injury 54 2.4 per 100,000	Cancer 39 1.7 per 100,000	Suicide 18 0.8 per 100,000	Birth Defects 14 0.6 per 100,000	CLRD 11 0.5 per 100,000
2016	Total Deaths 253 11.2 per 100,000	Unintentional Injury 58 2.6 per 100,000	Cancer 40 1.8 per 100,000	Suicide 23 1.0 per 100,000	Birth Defects 18 0.8 per 100,000	CLRD 17 0.7 per 100,000
2015	Total Deaths 227 9.9 per 100,000	Unintentional Injury 55 2.4 per 100,000	Cancer 43 1.9 per 100,000	Birth Defects 22 1.0 per 100,000	Suicide 11 0.5 per 100,000	CLRD 10 0.4 per 100,000
2014	Total Deaths 259 11.2 per 100,000	Unintentional Injury 51 2.2 per 100,000	Cancer 46 2.0 per 100,000	Birth Defects 20 0.9 per 100,000	Suicide 14 0.6 per 100,000	CLRD 13 0.6 per 100,000 (tie)
2013	Total Deaths 246 10.6 per 100,000	Unintentional Injury 50 2.2 per 100,000	Cancer 44 1.9 per 100,000	Suicide 20 0.9 per 100,000	Pneumonia and Influenza 14 0.6 per 100,000	Homicide and Legal Intervention 11 0.5 per 100,000
2012	Total Deaths 260 11.1 per 100,000	Unintentional Injury 61 2.6 per 100,000	Cancer 53 2.3 per 100,000	Birth Defects 21 0.9 per 100,000	Homicide and Legal Intervention 14 0.6 per 100,000	Suicide 12 0.5 per 100,000
2011	Total Deaths 265 11.3 per 100,000	Cancer 63 2.7 per 100,000	Unintentional Injury 43 1.8 per 100,000	Birth Defects 22 0.9 per 100,000	Heart Disease 17 0.7 per 100,000	Homicide and Legal Intervention 13 0.6 per 100,000 (tie)
2010	Total Deaths 254 10.7 per 100,000	Unintentional Injury 64 2.7 per 100,000	Cancer 59 2.5 per 100,000	Birth Defects 17 0.7 per 100,000	CLRD 15 0.6 per 100,000	Homicide and Legal Intervention 14 0.6 per 100,000

CLRD: Chronic Lower Respiratory Diseases

*Rates based on fewer than 10 events in the numerator are unstable.

Note: Ranks are based on numbers of deaths, then on mortality rates. Where death counts and rates are tied, '(tie)' appears at the bottom of the corresponding cells, and causes are further ranked alphabetically.

If a cell is blank, then there were no deaths from any of the 25 causes used in our tables. These causes are listed in the technical notes.

The tables do not present rates for the Native American/Alaska Native population due to small population size.

Source: Vital Statistics Data as of January 2022

Figure 69. From: https://apps.health.ny.gov/public/tabvis/PHIG_Public/lcd/reports/#county



Table. Number of Deaths for Leading Causes of Death, US, 2015-2020^a

Cause of death	No. of deaths by year					
	2015	2016	2017	2018	2019	2020
Total deaths	2 712 630	2 744 248	2 813 503	2 839 205	2 854 838	3 358 814
Heart disease	633 842	635 260	647 457	655 381	659 041	690 882
Cancer	595 930	598 038	599 108	599 274	599 601	598 932
COVID-19 ^b						345 323
Unintentional injuries	146 571	161 374	169 936	167 127	173 040	192 176
Stroke	140 323	142 142	146 383	147 810	150 005	159 050
Chronic lower respiratory diseases	155 041	154 596	160 201	159 486	156 979	151 637
Alzheimer disease	110 561	116 103	121 404	122 019	121 499	133 382
Diabetes	79 535	80 058	83 564	84 946	87 647	101 106
Influenza and pneumonia	57 062	51 537	55 672	59 120	49 783	53 495
Kidney disease	49 959	50 046	50 633	51 386	51 565	52 260
Suicide	44 193	44 965	47 173	48 344	47 511	44 834

^a Leading causes are classified according to underlying cause and presented according to the number of deaths among US residents. For more information, see the article by Heron.⁴ Source: National Center for Health Statistics. National Vital Statistics System: mortality statistics (<http://www.cdc.gov/nchs/deaths.htm>). Data for 2015-2019 are final; data for 2020 are provisional.

^b Deaths with confirmed or presumed COVID-19, coded to *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision* code U07.1 as the underlying cause of death.

Number of Deaths for Leading Causes of Death, US, 2015-2020^{aa} Leading causes are classified according to underlying cause and presented according to the number of deaths among US residents. For more information, see the article by Heron. Source: National Center for Health Statistics. National Vital Statistics System: mortality statistics (<http://www.cdc.gov/nchs/deaths.htm>). Data for 2015-2019 are final; data for 2020 are provisional.

^b Deaths with confirmed or presumed COVID-19, coded to International Statistical Classification of Diseases and Related Health Problems, Tenth Revision code U07.1 as the underlying cause of death.

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Figure 70. From: Ahmad FB, Anderson RN. The Leading Causes of Death in the US for 2020. *JAMA*. 2021;325(18):1829–1830. doi:10.1001/jama.2021.5469



Chapter 3. Determinants & Criteria for Health Status

Social determinants of health are characteristics of the environments where people live that affect a range of outcomes related to health, functioning, and quality-of-life (Figure 71).



Figure 61.

In 2022, Suffolk County was ranked 10th out of the 62 counties in New York State for overall health outcomes, and 8th for health factors by County Health Rankings & Roadmaps, a program at the University of Wisconsin Population Health Institute.⁵³ The health outcomes ranking is meant to reflect residents’ physical and mental wellbeing, and is a composite score based on a variety of measures of residents’ length and quality of life. Health factors are modifiable variables that can influence health outcomes. These include health behaviors, access to and quality of clinical care, social and economic factors, and physical environment. These factors can be viewed as indicators of how our communities are thriving and/or areas on which to focus to improve the health of the community. While Suffolk County was ranked among the healthiest counties in New York in regard to overall health outcomes and the factors that influence them, the rankings do reveal some notable areas for improvement, as discussed below (Figure 72).

⁵³ County Health Rankings and Roadmaps, 2022 State Report, New York 2022
https://www.countyhealthrankings.org/sites/default/files/media/document/CHR2022_NY_0.pdf



Suffolk County Health Outcome and Health Factor Rankings of 62 counties in New York State 2022	
Rank (out of 62 counties in NYS) Areas of Strength are in GREEN Areas to Explore are in RED	
<u>Health Outcomes</u> #10 of 62 NY Counties	
Overall Health Outcomes Determined through measurements of Length of Life and Quality of Life below	#10 of 62 NY Counties
Length of Life Including: Premature Death	#13 of 62 NY Counties
Quality of Life Including: Poor or Fair Health, Poor Physical Health Days, Poor Mental Health Days, Low Birthweight	#10 of 62 NY Counties
<u>Health Factors</u> #8 of 62 NY Counties	
Health Behaviors Including: Adult Smoking , Adult Obesity , Food Environment Index , Physical Inactivity, Access to Exercise Opportunities , Excessive Drinking, Alcohol-Impaired Driving Deaths, Sexually Transmitted Infections, Teen Births	#7 of 62 NY Counties Area of Strengths are in Green Food Environment Index: Suffolk: 9.3% , compared with 9.0% for NYS and 7.8% for U.S. (higher % is better) Access to Exercise Opportunities: Suffolk: 86% , compared with 88% for NYS and 80% for U.S. (higher % is better) Teen Births: Suffolk: 10% , compared with 13% for NYS, and 19% for U.S. (lower % is better) Adult Smoking (age-adjusted %, 2019): Suffolk: 14% , compared with 13% for NYS, and 16% for U.S. (lower is better) Adult Obesity: Suffolk: 27% , compared with 27% for NYS, and 32% for U.S. (lower is better)
Clinical Care Including: Uninsured , Primary Care Physicians , Dentists , Mental Health	#19 of 62 NY Counties Uninsured:



	<p>Providers, Preventable Hospital Stays, Mammography Screening, Flu Vaccinations</p>	<p>Suffolk: 5%, compared with 6% for NYS, and 11% for U.S. (lower % is better)</p> <p>Primary Care Physicians: Suffolk: 1390:1, compared with 1180:1 for NYS, and 1310:1 for U.S. (lower is better)</p> <p>Mental health providers: Suffolk: 340:1, compared with 310:1 for NYS, and 350:1 for U.S. (lower is better)</p> <p>Dentists: Suffolk: 1200:1, compared with 1190:1 for NYS, and 1400:1 for U.S. (lower is better)</p> <p>Flu Vaccinations: Suffolk: 54%, compared with 49% for NYS, and 48% for U.S. (higher is better)</p>
	<p>Social & Economic Factors Including: High School Completion, Some College, Unemployment, Children in Poverty, Income Inequality, Children in Single-Parent Households, Social Associations, Violent Crime, Injury Deaths</p>	<p>#9 of 62 NY Counties</p> <p>High School Completion: Suffolk: 90%, compared with 87% for NYS, and 89% (higher is better)</p> <p>Some College: Suffolk: 69%, compared with 70% for NYS, and 67% for U.S. (higher is better)</p> <p>Children in Poverty: Suffolk: 6%, compared with 17% for NYS, and 16% for U.S. (lower is better)</p> <p>Unemployment: Suffolk: 8.5%, compared with 10.0% for NYS, and 8.1% for U.S. (lower is better)</p>
	<p>Physical Environment Including: Air Pollution, Drinking Water Violations, Severe Housing Problems, Driving Alone to Work, Long Commute (driving alone)</p>	<p>#61 of 62 NY Counties</p> <p>Severe Housing Problems: Suffolk: 22%, compared with 23% for NYS, and 17% for U.S. (lower is better)</p> <p>Driving Alone to Work: Suffolk: 78%, compared with 52% for NYS, and 75% for U.S. (lower is better)</p>

Figure 72. From: https://www.countyhealthrankings.org/sites/default/files/media/document/CHR2022_NY_0.pdf



Environmental risk factors

In the 2022 County Health Rankings, Suffolk County ranked 61st of 62 NY counties for physical environment. This low ranking was largely related to the high percentage of individuals that drive alone to work and have a long commute. Most Long Islanders are car-dependent, in part because the Long Island Railroad was designed to transport people to and from New York City rather than between points on Long Island, and there is poor interconnectivity between the bus and train systems.⁵⁴ Most Suffolk Communities are also not walkable, as shown in Figure 73. Improving pedestrian safety remains an issue, as Suffolk County has a much higher rate of crash-related pedestrian fatalities than the state as a whole (2.57 vs. 1.72 per 100,000 population in 2019).⁵⁵

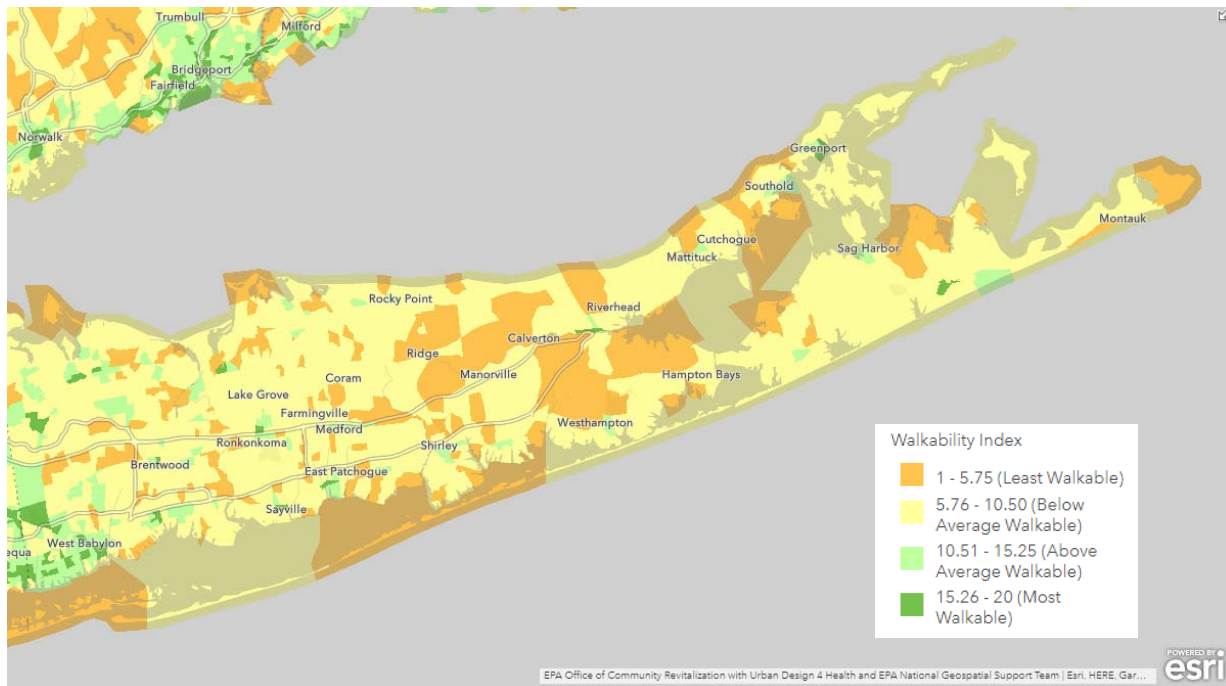


Figure 73. From: <https://epa.maps.arcgis.com/home/webmap/viewer.html?webmap=f16f5e2f84884b93b380cfd4be9f0bba>

Another area with room for improvement is Clinical Care, where Suffolk County ranked only 19th out of the 62 New York counties in in the 2022 County Health Rankings. A major factor in this ranking is that Suffolk County has a shortage of primary care physicians, with 73 primary care physicians per 100,000 population in 2018 compared with 84 per 100,000 for New York State as a whole. There is also a relative shortage of mental health

⁵⁴ Four Transit Issues On Long Island, Regional Plan Association RPA 2002 <https://rpa.org/work/reports/four-transit-issues-on-long-island>

⁵⁵ NYS Vital Records data as of February 2022



providers in the county, with 278 per 100,000 population, compared with 304 per 100,000 for New York State.

One of the County’s strengths is that it provides ample opportunities for recreation. Suffolk County residents enjoy numerous parks and beaches, as well as more than 300 miles of bike lanes. According to the 2022 County Health Rankings, 86% of people in Suffolk County live close to a park or recreation facility.

Air quality in Suffolk County compares favorably to New York and the United States, and has been improving over the past two decades thanks to the state’s aggressive air pollution control measures (Figure 74). Suffolk County tap water meets state and federal drinking water standards. However, tap water in Suffolk County is not fluoridated. Water fluoridation is recommended by the American Dental Association and the American Academy of Pediatrics to prevent cavities in children and adults.⁵⁶

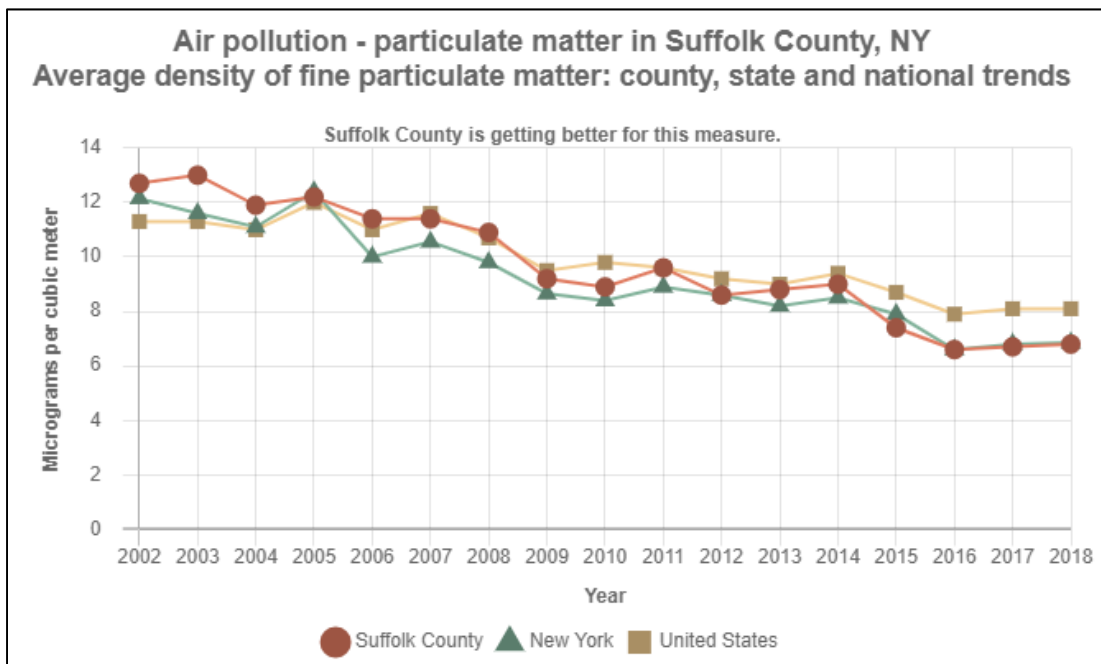


Figure 74. From: <https://www.countyhealthrankings.org/explore-health-rankings/new-york/suffolk?year=2022>

Suffolk County has a relatively affluent population, with only 6.8 percent of people living below the poverty line in 2019, and a median income 46% higher than the state as a whole. However, housing costs are also quite high. From 2015-2019, 59% of renter-occupied units had gross rent greater than 30% of household income. The high cost of living impedes

⁵⁶ Community Water Fluoridation, CDC 2019 <https://www.cdc.gov/fluoridation/index.html>



residents' ability to afford other necessities such as healthcare. In 2018, 13% of adults reported that they did not receive medical care because of cost.⁵⁷

Policy environment

The Suffolk County Code contains a variety of provisions protecting residents' health and safety. Regulations address food safety for restaurants and food service establishments (§ 700-1 - 700-23), firearms / weapons requirements and restrictions (§ 467-1 - 467-11), hazardous waste disposal (§512-1 - 512-5), water quality (§ 840-1 - 840-15), streets and sidewalks (§765-1 - 765-9), drug enforcement and abuse prevention (§ 913-1 - 913-13), and numerous other issues. See: <http://ecode360.com/SU0867>.

Suffolk County has a variety of laws limiting the use and sale of tobacco products. The Suffolk County Code prohibits smoking in most indoor venues and on the grounds of childcare facilities, primary and secondary schools, prohibits the sale of tobacco products in vending machines, and imposes fines for code violations.⁵⁸ Section 792-8 of the Suffolk County Code specifically prohibits sale of e-cigarettes to persons under 21. Additionally, Suffolk County passed legislation banning smoking at County parks and beaches in 2012.⁵⁹ All of this legislation has contributed to a sharp decline in smoking rates; the adult smoking rate in Suffolk County decreased from 17.8% in 2016 to 11.2% in 2018.⁶⁰

Several provisions of the Suffolk County Code protect cyclists and operators of other non-motorized vehicles. Suffolk County Code Chapter 319 requires helmets for minors operating bicycles, scooters or in-line skates. In 2021, Suffolk County passed a law instituting fines for motorists who pass cyclists within a three foot distance on the road.⁶¹ As discussed in Chapter 2, the motor vehicle fatality rate in Suffolk County is markedly higher than that of New York State as a whole, and is also considerably higher than neighboring

⁵⁷ New York State Community Health Indicator Reports (CHIRS), data as of February 2022

⁵⁸ Suffolk County Code Chapter 754

⁵⁹ Suffolk County Code Chapter 643 section 4

⁶⁰ New York State Prevention Agenda Dashboard, 2020

https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/dashboard/pa_dashboard&p=ctr&ind_id=pa30_0%20&cos=47

⁶¹ *New Suffolk County Law Establishes "Safe Distance" Between Bikes And Cars*. WSHU. 2021

<https://www.wshu.org/news/2021-04-27/new-suffolk-county-law-establishes-safe-distance-between-bikes-and-cars>



Nassau County (8.4 vs. 5.2 deaths per 100,000 population for the period 2017-2019), with the highest motor vehicle mortality rates among Black and Latino residents as discussed in Chapter 2. Recreational use of marijuana was legalized in New York in 2021, and the impact on motor vehicle accidents is yet to be determined. When Colorado legalized marijuana, effective 2014, they unfortunately saw a 6% increase in motor vehicle accidents and 4% increase in fatal crashes.⁶²

Behavioral risk factors

Substance abuse continues to be a significant issue on Long Island. Opioid abuse is prevalent, as detailed in Chapter 2 of this report. Thankfully, opioid overdose deaths declined 30% from 2017 to 2019, probably in part to Narcan training distribution efforts by SCDHS and other agencies. Alcohol abuse also continues to be a concern for the county. In 2018, 18% of Suffolk County adults reported binge drinking in the past month (age-adjusted rate); this is slightly higher than for New York State as a whole. Suffolk County also had a slightly higher rate of alcohol-related motor vehicle injuries and deaths than the state as a whole, as noted in the ‘Injury’ section of Chapter 2 of this document.

Regarding smoking, as discussed above, the cigarette smoking rate in Suffolk County had declined to 11.2% by 2018. The 2022 County Health Rankings listed an age-adjusted adult smoking rate of 14% for Suffolk County; because of methodological difference in the surveys used to collect the 2018 and 2019 data, the rates are not directly comparable. Suffolk County data is not available for teen smoking.

Physical inactivity continues to be a concern for Suffolk County residents, as it is for the country as a whole. In 2019, 27% of adults reported no physical activity outside of work; this is comparable to rates for New York and the U.S.⁶³

⁶² *Crash rates jump in wake of marijuana legalization, new studies show*. 2021. IIHS-HLDI Crash Testing and Highway Safety. <https://www.iihs.org/news/detail/crash-rates-jump-in-wake-of-marijuana-legalization-new-studies-show>

⁶³ County Health Rankings & Roadmaps – Suffolk County, NY 2022 <https://www.countyhealthrankings.org/explore-health-rankings/new-york/suffolk?year=2022>



Chapter 4. Assets and Resources to Address Health Issues

The Suffolk County Department of Health Services (SCDHS) is a large and active health department with a wide range of programs addressing all aspects of public health, including the Long Island Health Collaborative priority areas of chronic disease and mental health/substance use. SCDHS is addressing **chronic disease** through programming in the Division of Patient Care Services, as well as the Bureau of Public Health Nursing and the Office of Health Education. Initiatives of the Office of Health Education include school-based youth and adult smoking cessation programs and support groups, a tobacco enforcement unit, and a robust Diabetes Prevention Program.

Additionally, SCDHS chairs the Suffolk County Cancer Prevention and Health Promotion Coalition. This organization provides education and outreach to county residents regarding healthy lifestyles and environmental risk factors to help lower their risk of cancer and other chronic diseases. The Suffolk County Cancer Prevention and Health Promotion Coalition is described in greater detail below.

The SCDHS Division of Community Mental Hygiene Services plays an instrumental role in addressing **mental health and substance abuse** issues in Suffolk County. This division operates several community mental health clinics, an opioid treatment program and a methadone clinic, offers drug abuse prevention resources, and partners with EMS agencies including Suffolk County EMS to offer opioid overdose prevention classes that provide Naloxone training. The Division also operates an adult and child single point of access program to provide referrals for mental health services, and a single point of access program for housing.

SCDHS addresses **health disparities** in Suffolk County through a variety of programs, including those operated by our Office of Minority Health (OMH). Our partner organizations involved in addressing health disparities include the Long Island Health Collaborative, Sun River Health (a regional federally qualified health center), the County's thirteen hospitals, the Cornell Cooperative Extension of Suffolk County, the Suffolk County Medical Society, and many community-based organizations. Most of these organizations participate in the Long Island Health Collaborative and are involved in addressing the priority issues identified by the Collaborative.



Following are the partners of SCDHS and the CHA process:

1. Long Island Health Collaborative

Since 2013, the Long Island Health Collaborative (LIHC) has been a valued stakeholder in the Community Health Assessment and Improvement process for both health departments and local hospitals. The LIHC provides resources, data, and guidance to assist various hospitals and healthcare organizations in the drafting and implementation of their Community Health Assessment and Community Health Improvement Plans. In addition, LIHC has undertaken various initiatives that address the chosen Prevention Agenda priorities in Suffolk County. This has included programming to promote walking and increased activity, and provision of information related to chronic disease prevention. The LIHC also collaborates with local community-based organizations to increase access to evidence-based programs to prevent and reduce the burden of chronic disease. Their goal is to reduce disparities in health outcomes by addressing social determinants of health, cultural competency, and health literacy.

2. Federally Qualified Health Centers

Key community resources in Suffolk County include Federally Qualified Health Centers (FQHCs) that provide primary and preventive health care services, as well as behavioral health and dental services to County residents regardless of insurance status or ability to pay. Within Suffolk County, these include Sun River Health and Long Island Select Healthcare., Inc, both of which operate clinic sites throughout Suffolk County. Sun River Health operates 10 health centers in Suffolk County, providing services to several hundred thousand patients yearly, including adult and pediatric primary care, obstetric services, dental care, behavioral health, and substance use treatment. The Suffolk County Department of Health Services (SCDHS) is strategically affiliated with eight of these health centers and provides Sun River Health with a subsidy for the care of un/underinsured residents. SCDHS also contracts with Sun River Health to provide certain services, including STD and tuberculosis services and rabies prophylaxis, free of cost to county residents.



3. Hospitals

Twelve hospitals located throughout Suffolk County provide medical and mental health care for residents: Good Samaritan Hospital Medical Center, Huntington Hospital, John T. Mather Memorial Hospital, Long Island Community Hospital, Peconic Bay Medical Center, South Shore University Hospital, Northport Veterans Affairs Medical Center, St. Catherine of Siena Hospital, St. Charles Hospital, and Stony Brook University Medical Center, Stony Brook Eastern Long Island Hospital, Stony Brook Southampton Hospital. In addition to providing inpatient, emergency, and outpatient hospital services, these hospitals are engaged in various health education and community outreach initiatives, including health sciences enrichment programs to encourage ethnic minority students to pursue careers in the health sciences. Many of these hospitals participate in the LIHC and perform their own Community Health Needs Assessments.

In addition, several freestanding psychiatric hospitals provide residents with mental health and addiction services, including Brunswick Hospital Center, South Oaks Hospital, Sagamore Children's Psychiatric Center, and Pilgrim Psychiatric Center.

4. Cornell Cooperative Extension of Suffolk County

The goal of the Cornell Cooperative Extension is to provide information to New York State residents about evidence-supported, research-based best agricultural practices. In addition to providing information on sustainable agriculture and horticulture, the Cornell Cooperative Extension of Suffolk County also engages in educational efforts with regard to nutrition and wellness, diabetes management, parenting, environmental protection, and marine restoration.

5. Suffolk County Medical Society

The Suffolk County Medical Society is a professional association of Suffolk County physicians that engages in medical education efforts and advocacy for physicians and patients. The Suffolk Academy of Medicine, a part of the Suffolk County Medical Society, organizes continuing medical education for Suffolk County physicians and medical providers to ensure that county residents receive healthcare that adheres to best practices.



Chapter 5. Process and Methods to conduct Community Health Assessment

The Long Island Health Collaborative performed several studies in 2021-2022 to determine the main health challenges facing Suffolk County residents. These include a Community Health Assessment Survey (CHAS) distributed to community members (*Appendix A*), a Community-Based Organization (CBO) Survey distributed to CBO leaders (*Appendix B*), and CBO Key Informant Interviews performed with a subset of these CBO leaders (*Appendix C*). The methodology and findings of these studies are summarized below.

Both the CBO leaders and community members surveyed identified chronic diseases (especially cancer), drugs and alcohol, and mental health issues as the most pressing health problems facing their communities. Respondents cited financial factors as a major barrier to healthcare, including lack of insurance coverage and inability to pay co-pays. Other major obstacles to seeking care identified by the respondents included fear of facing health problems, low health literacy, and language barriers. Participants in all three studies emphasized the need for more mental health services.

The Community Health Assessment Survey (CHAS)

The CHAS assesses individuals’ perceptions of health needs and barriers experienced by themselves and their communities. It provides a snapshot of the main health challenges facing communities at a particular point in time. The CHAS was distributed via paper and electronically through Survey Monkey, to community members from January 1st, 2021, through December 31st, 2021, with 883 surveys collected in Suffolk County. A certified translation of the survey is available in the following languages: Spanish, Polish, and Haitian Creole. Large print copies are also available to persons with vision impairment. Details of the CHAS are in *Appendix A*, and the survey results are summarized below:

Table 1. Biggest ongoing health concerns in individual community

2021 Rank	Suffolk County	Percentage
1	Cancer	35.07%
2	Drugs & Alcohol Abuse	31.15%
3	Mental Health Depression/Suicide	30.40%
4	Obesity/Weight Loss Issues	19.49%
5	Vaccine Preventable Diseases	17.67%
	Sum of Column Percentages	133.78%



Table 2. Biggest ongoing health concern for oneself

2021 Rank	Suffolk County	Percentage
1	Cancer	27.70%
2	Mental Health Depression/Suicide	25.53%
3	Heart Disease & Stroke	22.98%
4	Women’s Health & Wellness	22.80%
5	Obesity/Weight Loss Issues	22.55%
	Sum of Column Percentages	121.55%

Table 3. Potential barriers people face when getting medical treatment

2021 Rank	Suffolk County	Percentage
1	Fear (e.g. not ready to face/discuss health problem)	30.76%
2	Unable to Pay Co-pays/Deductibles	30.36%
3	No Insurance	28.85%
4	Don’t Understand Need to See a Doctor	25.03%
5	There are no Barriers	16.81%
	Sum of Column Percentages	131.81%

Table 4. What is most needed to improve the health of the community?

2021 Rank	Suffolk County	Percentage
1	Mental Health Services	33.58%
2	Healthier Food Choices	28.67%
3	Clean Air & Water	23.37%
4	Drug & Alcohol Rehabilitation Services	22.32%
5	Job Opportunities	17.30%
	Sum of Column Percentages	125.24%

Table 5. Necessary Health Screenings and Education Services

2021 Rank	Suffolk County	Percentage
1	Mental Health Services	23.83%
2	Cancer	21.01%
3	Drug & Alcohol	17.42%
4	Importance of Routine Well Check Ups	16.58%
5	Blood Pressure	15.07%
	Sum of Column Percentages	93.90%



Table 6. Sources of Health Information

2021 Rank	Suffolk County	Percentage
1	Doctor/Health Professional	84.71%
2	Family or Friends	35.90%
3	Internet	32.39%
4	Social Media (Facebook, Twitter, etc.)	20.72%
5	Television	18.35%
	Sum of Column Percentages	192.07%

Long Island Health Collaborative Community-Based Organization (CBO) Survey

Electronic surveys to gauge perception of health issues and barriers were distributed to community-based organization (CBO) leaders via Survey Monkey between December 1st, 2021 through January 15th, 2022. On March 12th, 2022, survey results were downloaded from Survey Monkey. Question #6 is an open-ended question; the top three themes are listed, according to greatest frequency of key words. Of 44 total surveys collected, 25 were for Suffolk County, 10 for Nassau County, and 9 with no location specified. Details of the CBO survey are in *Appendix B*, and the survey results are summarized below:

Table 1. Biggest health problems in one’s community

2022 Rank	Suffolk County	Percentage
1	Mental Health	64%
2	Drugs and Alcohol Abuse	56%
3	Cancer	44%
4	Women’s Health/Wellness	32%
5	Care for the Elderly	32%

Table 2. Most helpful to improve the health problems of the community you serve

2022 Rank	Suffolk County	Percentage
1	Mental Health Services	72%
2	Drugs and Alcohol Services	56%
3	Health Education Programs	56%
4	Affordable Housing	44%
5	Access to Healthier Food	32%



Table 3. Potential barriers people face when getting healthcare

When asked, “Do any people/communities you serve in Suffolk have problems getting needed health care? If yes, what do you think the reasons are?” 14 out of 25 respondents in Suffolk answered “yes.” Reasons are below:

2022 Rank	Suffolk County	Percentage
1	No Insurance/Unable to Pay for Healthcare	92.86%
2	Misinformation/Health Illiteracy	71.43%
3	Language Barriers	57.14%
4	Transportation	50%
5	Unable to Pay Copays/Deductibles	50%

Table 4. Health issues the community needs education about

2022 Rank	Suffolk County	Percentage
1	Mental Health/Depression	60%
2	Substance Misuse	44%
3	Blood Pressure	44%
4	Chronic Disease Management	36%
5	Suicide Prevention	28%

Table 5. Sources of Health Information

2022 Rank	Suffolk County	Percentage
1	Family or Friends	88%
2	Internet	80%
3	Facebook/Twitter	64%
4	Doctor/Healthcare Provider	64%
5	Television	60%

Table 6. “What do you think makes a community healthy?” (Open ended question)

Most common themes for Suffolk respondents	<ol style="list-style-type: none"> 1. “Access” 2. “Communication” 3. “Education”
Most pressing matters to respondents	<ol style="list-style-type: none"> 1. Access to healthcare (such as health insurance and transportation), 2. Communication (such as doctor-patient relationships and community programs)



	3. More available online resources to educate oneself and improve health literacy
--	---

Table 7. Rating the health of one’s community

2022 Rank	Suffolk County	Percentage
1	Somewhat Healthy	48%
2	Healthy	28%
3	Unhealthy	12%
4	Very Unhealthy	12%

Table 8. Necessary Health Screenings and/or Services

2022 Rank	Suffolk County	Percentage
1	Mental Health/Depression	48%
2	Substance Misuse	36%
3	Eating Disorders	32%
4	Chronic Disease Management	28%
5	Suicide Prevention	28%

Key Informant Interviews with Community Based Organization (CBO) Leaders

Twelve Long Island CBO leaders were interviewed for this study. Interviews were held between February 23rd, 2022, and March 4th, 2022, and the interviews were conducted and recorded via Zoom with two different interviewers. The interview instrument consisted of five questions. Two of these five questions were closed-ended: one asked about the most pressing concerns related to social determinants of health, and the other asked about the top two priority areas in the New York State Prevention Agenda for the CBO leader’s community. An analysis of this study is presented in *Appendix C*, and results are shown in Figures 75 and 76.



Long Island Health Collaborative CBO Key Informant Interview Final Report, May 2022

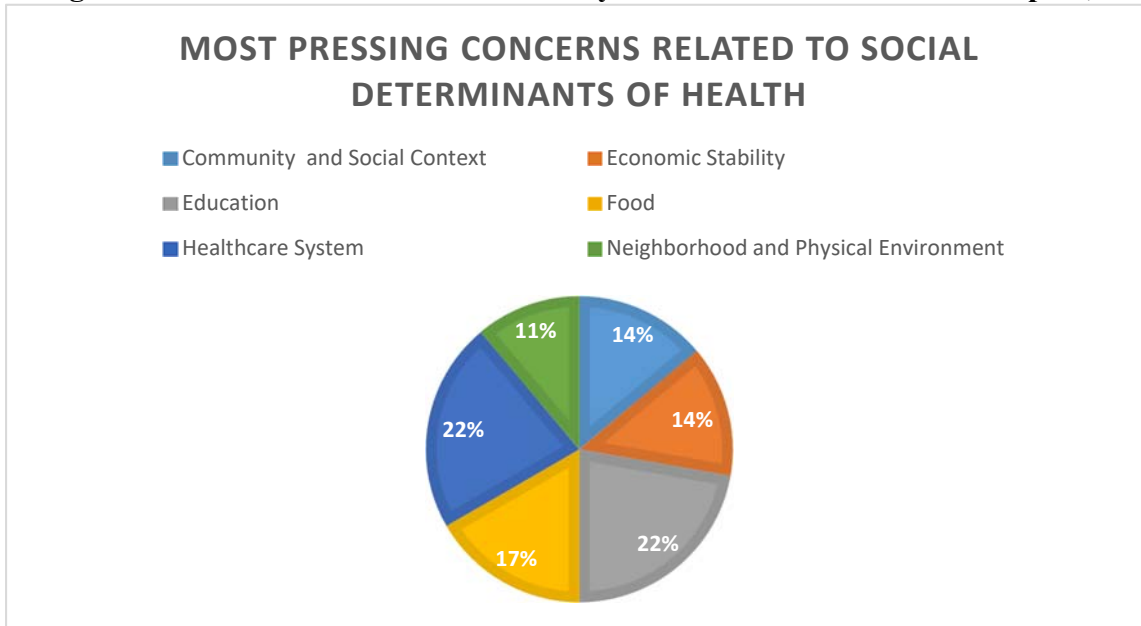


Figure 75.

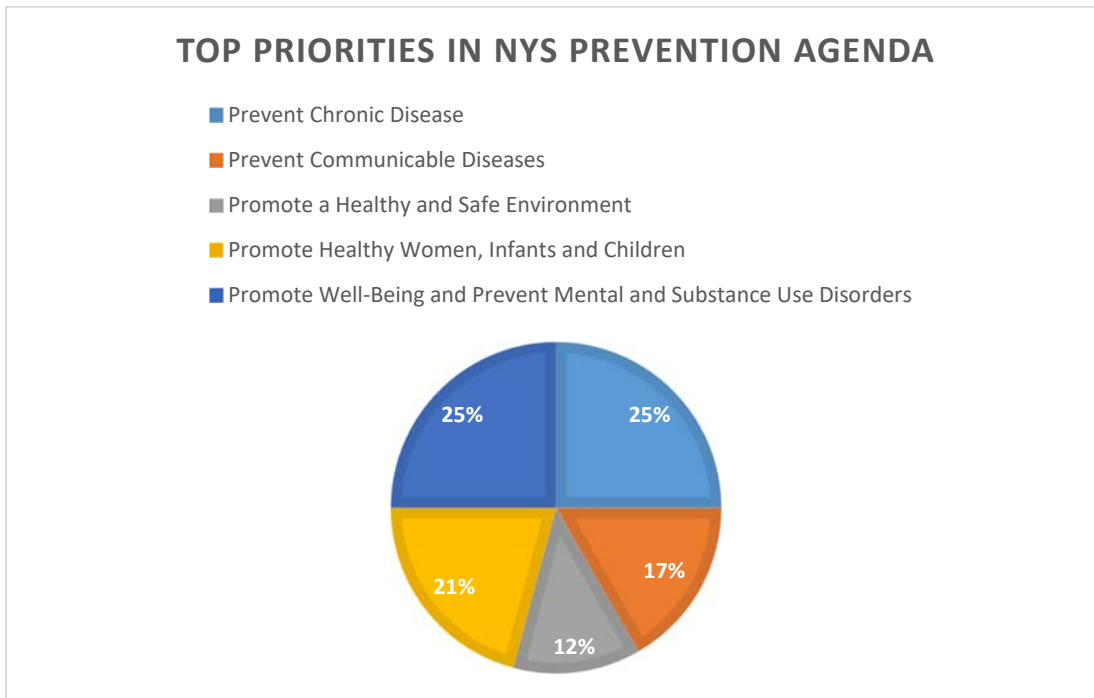


Figure 76.

Qualitative analysis for these CBO interviews was performed using an inductive to deductive reasoning process, formulating initial codes based on review of the interview transcripts, using deductive strategies to sort the data, then iteratively focusing in on a specific set of codes. A detailed open-coding format focused on coding topics including social



interactions, personal accounts of the key informant’s healthcare experiences on Long Island, the essential tasks and services that their organizations provided, and their thoughts on the most pressing health issues affecting Long Island. The inductive to deductive process uncovered primary domains and sub-domains addressing the healthcare issues and barriers (listed below).

Primary Domain	Sub-domain
Access/Barriers	Location, Qualify, Transportation
Chronic/Communicable Disease	Cancer, Cardiovascular, HIV, HPV, Hypertension, Obesity, Oral Health, Immunization, Physical Activity, Vaccination
Culture/Language	Culture, Ethnicity, Language, Minority, Race, Similarity
Economics/Financial Security	Cost of living, Inflation, Economics, Expenditures, Expenses, Money, Unaffordable
Education	College, High School, Knowledge, Literacy, Vocational School
Environment	Air Quality, Biking, Injury, Physical Environment, Road Quality, Traffic, Safety, Walk
Food Insecurity/Nutrition	Cooking, Food Desert, Nutrition
Inequality/Disparities	Elderly, Homeless, Racism, Red-Lining, Unemployed, Veteran
Infrastructure	Healthcare, Hospital, Insurance, System, Tax, Technology
Legislation/Government/Federal	Federal, Government, Lobbying, Medicaid, Medicare
Mental Health	Depression, Hopeless, Mental illness, Psychiatric, Psychotic, Stigma, Stress
Programs and Services	Application, Initiative, Partnership, Program, Project, Service, Solution, Volunteer
Substance Abuse	Addiction, Alcohol, Heroin, Opioids, Treatment
Support Groups	Empowerment, Outreach, Support
Women+Infants+Children	Baby, Child, Childcare, Maternal Mortality, Mother, Women, Reproductive Health

(From the Long Island Health Collaborative CBO Key Informant Interview Final Report, May 2022)



Several recurring themes arose from the CBO interviews: Interviewees felt that the most pressing challenges for the communities they serve included barriers to healthcare, rising economic pressures, systemic inequalities, the need to improve education, and the need for better access to and stigma reduction of mental health services. Barriers to healthcare access was the most voiced concern among the interviewees, with lack of health insurance being the greatest challenge cited. Rising economic pressures and financial insecurity were other voiced challenges, including wages not keeping up with increasing costs of living, and the subsequent negative effects that stress imparts on physical and mental health. Additionally, almost all key informants agreed that education was a vital need, with recommendations for completion of grades K through 12, college education, vocational training, and increased health literacy. Finally, key informants expressed concern over a deficiency of access to mental health services, as well as the considerable stigma associated with mental health diagnoses and treatment. Informants also discussed the cyclical relationship between mental health problems and substance abuse.

Chapter 6. Distribution of the Assessment to the Community

Results of the 2021 Community Health Needs Assessment, 2021-2022 CBO Survey and 2022 CBO Key Informant Interviews were presented to the hospitals, community-based organizations, academic institutions, and health department staff by the LIHC. The completed Community Health Assessment will be available on the Suffolk County Department of Health Services website following its submission to the New York State Department of Health. Continued feedback from the public and interested agencies will contribute to SCDHS' ongoing community health improvement efforts.



Community Health Improvement Plan/ Community Service Plan (CHIP)

The Community Health Improvement Plan (CHIP) is a collaborative effort that creates a roadmap toward better health for the people of Suffolk County based on input from residents and organizations. The CHIP is guided by the Prevention Agenda of the New York State Department of Health (NYSDOH) and is shaped by a Community Health Assessment (CHA) that includes a thorough analysis of available data and collective input from stakeholders. For the 2022-2024 community health planning cycle, the SCDHS is focusing on the following priorities, selected from the 2019-2024 New York State Department of Health Prevention Agenda:⁶⁴

3. Prevent Chronic Disease
Focus Area 4: Chronic Disease Preventive Care and Management
4. Promote Well-Being and Prevent Mental and Substance Use Disorders
Focus Area 2: Mental and Substance Use Disorders Prevention

These priorities are unchanged from the 2019 – 2021 community health planning cycle. Priorities were confirmed through a community health needs assessment process overseen by the Long Island Health Collaborative (LIHC). The LIHC is a regional partnership between SCDHS, the Nassau County Department of Health, and the hospitals of Nassau and Suffolk Counties, as well as academic institutions, community-based organizations, physicians, health plans, schools, libraries, local municipalities, and other community partners who hold a vested interest in the community’s health (see LIHC membership directory in **Appendix F**). The priorities for 2022-24 were selected by LIHC’s Community Health Needs Assessment 2022 Prep Work Group (**Appendix G**) based on review of publicly available demographic, morbidity and mortality data⁶⁵, as well as input from the broader community solicited via several studies conducted by the LIHC. These include The Long Island Community Health Assessment Survey (CHAS) (**Appendix A**), the Long Island Health Collaborative CBO Survey (**Appendix B**), and key informant interviews with CBO leaders (**Appendix C**), as well as interviews of library directors

⁶⁴ Prevention Agenda 2019-2024: New York State’s Health Improvement Plan. 2019
https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/

⁶⁵ Sources include NYS vital records, the American Community Survey, Statewide Planning and Research Cooperative System (SPARCS), and the Behavioral Risk Factor Surveillance System (BRFSS)



at sample of Long Island’s public libraries (*Appendix D*). The first three of these studies are summarized in Chapter 5 of the present Community Health Assessment.

Within the selected priorities, SCDHS is focusing its efforts on addressing health disparities faced by low income communities of color. Within the ‘chronic disease’ focus area, SCDHS is particularly targeting the disparities in cancer incidence and mortality, and prevalence of obesity and diabetes detailed in Chapter 2 of the present document. Programming within the ‘mental and substance use disorder’ focus is designed to benefit the entire community, but with specific messaging and outreach tailored to minority groups. Such tailoring ensures that public health interventions benefit the entire community. Unfortunately, a recent study showed that while opioid overdose death rates in New York declined by 18% among non-Hispanic White individuals from 2018 to 2019, they remained unchanged for non-Hispanic Black individuals. This suggests that non-Hispanic Black New Yorkers have not benefited as much from opioid prevention and treatment efforts as their White counterparts, and a more equitable approach is needed to address this issue.⁶⁶

Following the selection of priorities by LIHC members, stakeholder workgroups consisting of community partners invested in addressing each priority were convened and charged with the initial task of identifying the most pressing focus areas within the priority. These committees began to select goals, determine objectives and interventions, and develop the metrics necessary to monitor progress of their interventions.

Within each selected priority, SCDHS is addressing several focus areas through current programming. However, the major focus areas chosen for CHIP projects are *Chronic Disease Preventive Care and Management*, and *Mental and Substance Use Disorders Prevention*. For the Chronic Disease focus, SCDHS and partners are addressing racial and socioeconomic disparities in cancer screening rates, obesity, diabetes, and cardiovascular disease. Intervention efforts in Suffolk County are concentrated on aiding communities with low socioeconomic status and of color through evidence-based targeted outreach and educational programming, and by removing structural barriers to cancer screening services. In addition to the projects detailed in the present document and accompanying Workplan, SCDHS regularly disseminates information about chronic diseases including cardiovascular disease, diabetes, and cancer, via our social

⁶⁶ MR Larochelle, et al. Disparities in opioid overdose death trends by race/ethnicity, 2018-2019, from the HEALing Communities Study. *American Journal of Public Health*. DOI: 10.2105/AJPH.2021.306431 (2021).



media accounts. For the **Mental and Substance Use Disorder focus**, SCDHS and partners have concentrated their efforts on addressing the County's opioid epidemic and decreasing the number of opioid deaths. Interventions aim to increase access Medication-Assisted Treatment (MAT) for opioid use disorder, as well as access to naloxone and overdose prevention training. Overdose prevention efforts in Suffolk County have succeeded in reducing opioid overdose deaths by 30% between 2017 and 2019 (see Chapter 2, Figure 59).

The tables below detail projects implemented by the SCDHS and our partners to address these two focus areas, including their goal(s) and objectives, intervention strategies, process and outcome measures, progress to date, and plans for 2023. Details of all current CHIP projects are available in the Workplan (*Appendix E*). The SCDHS' CHIP projects typically involve collaboration between multiple divisions or units within the SCDHS and a variety of community partners, including academic institutions, hospitals, FQHCs, K-12 schools, emergency medical services, and community- and faith-based organizations, in addition to the LIHC. Partner engagement is maintained through quarterly LIHC meetings, workgroup membership, and communication via interactive online platforms. Workgroups associated with each priority area meet at least quarterly to discuss and develop the initiatives and interventions detailed in the Workplan.

Progress of CHIP projects is tracked by regular measurement of process and outcome measures. Measurement of process and intermediate outcome measures, such as number of views of a social media post, number of attendees for an event or class, or change in knowledge/ intended change in behavior following class/event attendance, allows mid-course adjustment if a program is not progressing as intended. For example, event locations and may be adjusted based on prior attendance, and course content may be adjusted according to participant feedback. Longer-term outcome data relevant to CHIP projects are reviewed on a yearly basis, and larger programmatic changes may be made at that time.

The completed Community Health Assessment and Community Health Improvement Plan/ Community Service Plan, Including the Executive Summary, will be available on the Suffolk County Department of Health Services website following its submission to the New York State Department of Health. Continued feedback from the public and interested agencies will contribute to SCDHS' ongoing community health improvement efforts.



Prevention Agenda Priority Area:	Prevent Chronic Diseases
Focus Area:	Focus Area 4: Preventative Care and Management
Overarching Goal:	Goal 4.1 Increase Cancer Screening Rates
Objectives through 2024:	<ol style="list-style-type: none"> 1. Increase the percentage of adults aged 50-64 who receive colorectal cancer screening. 2. Increase the percentage of adults who receive a colorectal cancer screening (adults with an annual household income less than \$25,000)
Disparity group	Improve colorectal cancer screening among adults with an annual household income less than \$25,000.
Intervention	<ol style="list-style-type: none"> 1. Institute a reminder system through the Suffolk County Employee Medical Health Plan (EMHP) for Suffolk County employees turning 50, informing them of the importance of colorectal cancer screening. <ol style="list-style-type: none"> 1a. Develop employee reminder letter and educational materials. 1b. Work with EMHP to implement reminder system. 2. Perform outreach to health clinics and providers, especially those that care for families with income less than \$25,000, to encourage interventions to boost CRC screening rates, using county's reminder process as an example. <p>Citation for Employee/Client Reminders: https://www.thecommunityguide.org/findings/cancer-screening-client-reminders-colorectal-cancer.html</p>
Process/Outcome Measures:	<p><u>Process Measures:</u></p> <ul style="list-style-type: none"> • Number of colorectal cancer screening reminders sent out to employees; • Number of clinics and providers who have been contacted to discuss implementing reminder system; • Number of clinics and providers (including clinics/providers who serve low income household) who implemented reminder system <p><u>Outcome Measures:</u></p> <ul style="list-style-type: none"> • Change in percentage of age-eligible employees who receive colorectal cancer screening • For clinics and providers who implement reminder system, change in colorectal cancer screening rate for eligible patients
By December 2023, we would have completed	<ol style="list-style-type: none"> 1. SCDHS worked with the Employee Medical Health Plan (EMHP) to institute a reminder system, so that when employees reach the eligible age for colorectal cancer screening a letter is sent out informing them of their eligibility and the benefits of screening. As of July 2021, EMHP had sent out 694 letters reminding county employees who turned 50 to



	<p>get screened for colorectal cancer. In 2022, the reminder letter was updated to reflect the change in guidance recommending screening begin at age 45. Implementation of this updated reminder letter was put on hold due to the cybersecurity incident at the County. In 2023, we will work with the EMHP to disseminate the updated letter and to obtain updated screening rates since the inception of the program. We anticipate continuing this program through 2024, and if the program is found to result in an increase in CRC screening rates, we may expand to include reminders for other recommended cancer screenings.</p> <ol style="list-style-type: none"> 2. The Cancer Services Program (CSP) facilitates access for uninsured/underinsured men and women to breast, cervical and colorectal cancer screening at no cost to them. We partner with providers throughout the county and reimburse them for clinical services they provide to CSP enrolled clients. We have a robust partnership with the 10 Sun River Health FQHCs in Suffolk County. All of these clinics provide access to colorectal cancer screening and have implemented a reminder system for these screenings. CSP also has a separate reminder system in place for all CSP-enrolled clients, regardless of whether they are patients of Sun River or another provider. For the time frame 1/2020-7/1/2021, CSP sent out 643 reminder letters to those uninsured men and women that were due for CRC screening; 1,867 men and women completed FIT kits through our program during the same time frame. From 07/31/21 to 11/1/2022 through the CSP program, 602 reminder letters were sent out to clients enrolled in the program through the FQHC clinics. In addition, 1,733 men and women completed FIT kits. 3. In 2023 and 2024, CSP plans to distribute FIT kits on the SBCC mammography van to encourage comprehensive cancer screening, and to distribute FIT kits at community events in geographically isolated areas on the East End, where cancer screening services may be less readily assessable.
<p>Partner Role and Resources</p>	<ul style="list-style-type: none"> • SCDHS prepared the employee reminder materials. • Suffolk County Employee Medical Health Plan negotiated with the plan administrator to implement the employee reminder letter program, and to provide data on employee cancer screening compliance rates annually. • The Cancer Services Program (CSP) facilitates access for uninsured/underinsured men and women to breast, cervical and colorectal cancer screening at no cost to them. CSP partners with providers throughout the county and reimburses them for clinical services they provide to-CSP enrolled clients.



	<p>Specifically, CSP has a robust partnership with the Sun River Health FQHCs in Suffolk County.</p> <ul style="list-style-type: none"> • All of the Sun River Health clinics provide access to colorectal cancer screening and have implemented a reminder system for eligible patients. • CSP also implemented a CRC screening reminder system for all clients, and conducts outreach with health care providers to encourage implementation of strategies to boost cancer screening rates. • Suffolk County Cancer Prevention and Health Promotion Coalition serves in advisory role on this project.
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Prevention Agenda Priority Area:	Prevent Chronic Diseases
Focus Area:	Focus Area 4: Preventative Care and Management
Overarching Goal:	Goal 4.1 Increase Cancer Screening Rates
Objectives through 2024	1. Increase the percentage of women with an annual household income less than \$25,000 who receive a breast cancer screening.
Disparity group	Improve breast cancer screening among African American women and women with an annual household income less than \$25,000.
Interventions	<ol style="list-style-type: none"> 1. Reduce barriers to cancer screening by providing flexible clinic hours, offering cancer screening in non-clinical settings (mobile mammography vans, flu clinics), offering on-site translation, transportation, patient navigation and other administrative services and working with employers to provide employees with paid leave or the option to use flex time for cancer screenings. 1a. Deploy the mobile mammography van to the East End of Suffolk County where access to breast cancer screening is limited. 2. Conduct community-based programs to educate the public about breast cancer screening. This Programming targets African American women and woman with an annual household income less than \$25,000. <p>Citation for Reducing Structural Barriers with use of mobile mammography: https://www.thecommunityguide.org/findings/cancer-screening-reducing-structural-barriers-clients-breast-cancer.html</p>
Process/Outcome Measures:	Process Measures: Number of community-based education programs offered; Number of participants of community-based education programs;



	<p>Number of participants of community-based education programs who are African American women and women with an annual household income less than \$25,000; Number of mammography van visits offered</p> <p>Outcome Measures: Change in program participants' knowledge/awareness of breast cancer screening after attending a community-based education program; Number of participants reporting that they will get breast cancer screening after community-based education program; Number of African American women and women with an annual household income less than \$25,000 reporting they will get breast cancer screening after community-based education program; Number of women who receive mammography screening in the van; Number of African American and Latino women and women with an annual household income less than \$25,000 who receive mammography screening in the van; number of uninsured women who receive mammography screening in the van</p>
<p>By December 2023, we will have completed...</p>	<p>In 2023, Cancer Services Program of Suffolk County (CSP) and SCDHS will be working on new educational programs to encourage breast cancer screening, and will work to increase availability of breast cancer screening (including mammography van availability) on the East End of Long Island.</p> <p>Community educational programs completed: 7/24/19 Long Island Breast Cancer Forum-100-200 attendees * 10/3/19 Long Island Goes Pink- 50 attendees * 10/24/19 Legislator's Senior Health Fair- 50 attendees * 10/31/19 WIC Annual Meeting- 50 attendees. In 2020-2021, all community programs were held virtually due to the pandemic. A social media campaign in September 2020 to encourage "Back To Screening", reached over 1500 people.</p> <p>Stony Brook Cancer Center Mobile Mammography Van: In 2021, 132 screening events were held with the mobile mammography van in Suffolk County where 1034 screenings took place; Of those screening events, 71 screening events took place in Eastern Suffolk where 453 mammography screens were completed. 613 screenings occurred in individuals who were uninsured. In 2022 as of November 4th, 98 screening events were held with the mobile mammography van in Suffolk County and 1201 mammography screenings were completed; Of those</p>



	<p>screening events, 29 of them were held in Eastern Suffolk where 369 mammography screenings were completed. 839 screenings occurred in individuals who were uninsured.</p> <p>Stony Brook Cancer Center Mobile Mammography Van:</p> <table border="1" data-bbox="553 422 1416 1182"> <thead> <tr> <th></th> <th>2021</th> <th>2022*</th> </tr> </thead> <tbody> <tr> <td># screening events Suffolk County</td> <td>132</td> <td>98</td> </tr> <tr> <td># patients screened Suffolk County</td> <td>1034</td> <td>1201</td> </tr> <tr> <td># screening events Eastern Suffolk County</td> <td>71</td> <td>29</td> </tr> <tr> <td># patients screened Eastern Suffolk County</td> <td>453</td> <td>369</td> </tr> <tr> <td>Uninsured patients screened in Suffolk County</td> <td>613</td> <td>839</td> </tr> <tr> <td colspan="3"><i>Ethnicity of persons screened:</i></td> </tr> <tr> <td>White</td> <td>35.7%</td> <td>23.2%</td> </tr> <tr> <td>Black</td> <td>5.5%</td> <td>5.3%</td> </tr> <tr> <td>Asian</td> <td>2.9%</td> <td>3.3%</td> </tr> <tr> <td>American Indian or Alaskan</td> <td>0.1%</td> <td>0.0%</td> </tr> <tr> <td>Hispanic/Latino non-Black</td> <td>55.8%</td> <td>68.2%</td> </tr> </tbody> </table> <p>*As of 11/4/22</p>		2021	2022*	# screening events Suffolk County	132	98	# patients screened Suffolk County	1034	1201	# screening events Eastern Suffolk County	71	29	# patients screened Eastern Suffolk County	453	369	Uninsured patients screened in Suffolk County	613	839	<i>Ethnicity of persons screened:</i>			White	35.7%	23.2%	Black	5.5%	5.3%	Asian	2.9%	3.3%	American Indian or Alaskan	0.1%	0.0%	Hispanic/Latino non-Black	55.8%	68.2%
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<p>Partner Role and Resources</p>	<p>SCDHS and Suffolk County Cancer Services Program (CSP) conduct community-based educational events. Suffolk County Cancer Prevention and Health Promotion Coalition helped to develop social media messages and disseminate the information. The Witness Project arranged logistics for mobile mammography van. Stony Brook Cancer Center provided mobile mammography van. Bridgehampton Child Care and Recreational Center are responsible for outreach to encourage women from hard-to-reach communities in eastern Suffolk to sign up for programs and screenings. Coalition for Women's Cancers at Stony Brook Southampton Hospital will work to expand time slots for breast cancer screening and provide transportation to the Cancer Center to improve access to breast cancer screening for women from underserved communities.</p>																																				



Prevention Agenda Priority Area:	Prevent Chronic Diseases
Focus Area:	Focus Area 4: Preventative Care and Management
Overarching Goal:	Goal 4.1 Increase Cancer Screening Rates
Objectives through 2024	<ol style="list-style-type: none"> 1. Increase the percentage of women with an annual household income less than \$25,000 who receive a breast cancer screening 2. Increase the percentage of women with an annual household income less than \$25,000 who receive a cervical cancer screening 3. Increase the percentage of adults aged 50-75 who receive a colorectal cancer screening 4. Increase the percentage of adults who receive a colorectal cancer screening (adults with annual household income less than \$25,000).
Disparity group	Improve cancer screening among women with an annual household income less than \$25,000.
Intervention	<p>Use small media such as videos, printed materials (letters, brochures, newsletters) to build public awareness and demand for breast and cervical cancer screening:</p> <ol style="list-style-type: none"> 1- Identify and/or develop small media outreach materials, such as bookmarks, pocket cards, brochures and flyers. Suffolk County Dept. of Health ensures availability of these educational materials to minority populations. 2- Disseminate small media at health clinics and group education events, targeting areas with underserved populations. <p>Citation for Small Media: https://www.thecommunityguide.org/findings/cancer-screening-small-media-targeting-clients-colorectal-cancer.html</p>
Process/Outcome Measures:	<p><u>Process Measures:</u> Number of health clinics that are distributing small media outreach materials; Number of group education events that are distributing small media outreach materials; Number of small media outreach materials distributed at health clinics; Number of small media outreach materials distributed at group education events</p> <p><u>Outcome Measures:</u> Number of county residents (including residents with annual household income less than \$25,000) who received small media outreach materials in health clinics who report that they will receive cancer screening and accept a referral for screening;</p>



	<p>Number of county residents and (including residents with annual household income less than \$25,000) who received small media outreach materials at group education events who report that they will receive cancer screening and accept a referral for screening</p>
<p>By December 2023, we will have completed....</p>	<p>SCDHS, in partnership with the Cancer Prevention and Health Promotion Coalition (CPHPC), created cancer prevention outreach materials in English and Spanish, including a colorectal cancer bookmark, a lung cancer bookmark, a Healthy Lifestyles pocket card, and a Top Ten Recommendations for a Healthy Lifestyle brochure. These materials are distributed by SCDHS and our Coalition members at community events. In 2023, the CPHPC plans to develop a brochure and website to highlight the benefits of being active, and to offer easy ways to incorporate physical activity into one's daily routine. Small media is provided at events held at local libraries such as Riverhead and Connetquot and other Suffolk County community based organizations such as Island Harvest, Long Island Cares and Helping Hands. In 2022, SCDHS and CPHPC partners distributed material at the Latina Sisters Health Fair in Brentwood, which drew 300 attendees. SCDHS also administered HPV vaccinations at this event. These efforts will continue in 2023-2024.</p> <p>Social Media: In 2020 and 2021, SCDHS posted information on social media encouraging healthy lifestyles and cancer prevention. We have focused especially on cervical, colorectal, lung, ovarian, breast and skin cancers, highlighting recommended cancer screening and promoting HPV vaccination. SCDHS currently has nearly 31,000 followers on Facebook, 1,200 followers on Instagram and nearly 7,000 followers on Twitter. By promoting the messaging of our community partners (Cancer Services Program, the National Ovarian Cancer Coalition and the Maurer Breast Health Education Foundation), we are able to magnify their reach. SCDHS collaborated with Stony Brook Cancer Center's Cancer Prevention in Action project by issuing several social media posts regarding cervical cancer, HPV and sun safety awareness. In addition, CPHPC identified the need to address mental health, as persons with untreated mental health issues are less likely to engage in positive health behaviors including preventative cancer screening. A social media Mental Health campaign was implemented in the fall of 2021 to highlight the need to care for one's mental health in order to stay healthy. For 2023- 2024, SCDHS plans to continue social media messaging and provision of support for local community organizations that focus on cancer prevention and health promotion.</p>



Partner Role and Resources	SCDHS is responsible for social media messaging. SCDHS and the Suffolk County Cancer Prevention and Health Promotion Coalition identify and/or develop the bookmarks and other small media outreach materials. Suffolk County Cancer Services Program distributes small media during group educational events. Stony Brook Cancer Center and other hospital and health clinic partners also distribute small media materials. Partners for community events have included the North Fork Spanish Apostolate, the Guatemalan and El Salvadorian consulates, and other organizations.
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Prevention Agenda Priority Area:	Prevent Chronic Diseases
Focus Area:	Focus Area 4: Preventative Care and Management
Overarching Goal:	Goal 4.1 Increase Cancer Screening Rates
Objectives through 2024:	<ol style="list-style-type: none"> 1. Increase the percentage of women with an annual household income less than \$25,000 who receive a breast cancer screening 2. Increase the percentage of women with an annual household income less than \$25,000 who receive a cervical cancer screening 3. Increase the percentage of adults aged 50-75 who receive a colorectal cancer screening 4. Increase the percentage of adults who receive a colorectal cancer screening (adults with annual household income less than \$25,000).
Disparity group	Improve cancer screening among adults of minority groups (Migrant/Seasonal workers, LGBTQIA, Blacks) with an annual household income less than \$25,000.
Intervention	<p>The Peer Education Project utilizes group education sessions facilitated by peer educators to help improve cancer screening rates among target low-income minority groups. Peer educators are trained from members of the NYS Dept. of Health. Populations of focus include: Migrant/Seasonal worker populations, LGBTQIA+ and African American men. Education is done in partnership with community-based organizations that are already serving medically vulnerable men and women in Suffolk County. The long-term goal of this project is to decrease breast, prostate and colorectal cancer mortality. Peer counseling is an evidence-based intervention for improvement of cancer screening rates.</p> <p>Peer educators conduct group educational sessions in accessible locations including libraries, businesses and educational facilities. Following the educational session, peer educators help identify</p>



	<p>individual participants' barriers to completion of cancer screening and connect participants with organizations that can address these barriers. These might include needs such as transportation, food, and housing. Peer Educators continue communicating with clients until their barriers to care have been addressed and the client has been referred to a primary care provider to address medical needs including assessment for appropriate cancer screening for that individual. Uninsured clients are sent to the Cancer Services Prevention program for breast cancer screening and/or to the FQHC system for care. Clients are followed until screening is completed.</p> <p>Reference for Group Education: Breast Cancer: https://www.thecommunityguide.org/findings/cancer-screening-group-education-clients-breast-cancer.html One-on-One education: https://www.thecommunityguide.org/findings/cancer-screening-one-one-education-clients-colorectal-cancer.html</p>
<p>Process/Outcome Measures:</p>	<p><u>Process Measures:</u> Number of group education sessions offered in libraries; Number of participants; Number of group education sessions offered in businesses; Number of participants; Number of group education sessions offered in educational facilities; Number of participants</p> <p><u>Outcome Measure:</u> Number of participants who are referred to a health care provider for cancer screening, after group educational session; Number of participants referred to assistance organizations; Number of participants that completed cancer screenings; Change in knowledge and awareness of cancer screening after group education session in businesses including participants with annual household income less than \$25,000; Number of participants who are referred to a health care provider for cancer screening, after group education in businesses including participants with annual household income less than \$25,000; Change in knowledge and awareness of cancer screening after group education session in educational facilities including participants with annual household income less than \$25,000; Number of participants who are referred to a health care provider for cancer screening, after group education in educational facilities including participants with annual household income less than \$25,000;</p>



	<p>Number of participants who comply with cancer screening guidelines including participants with annual household income less than \$25,000</p>
<p>By December 2023, we will have completed...</p>	<p>In 2023, the Cancer Services Program of Suffolk County (CSP) will be working to expand the Peer Education Project. This project has been very successful, but funding from NYSDOH ended 9/2022, so the CSP has continued this project with funding from other sources. In 2023, the CSP and Peconic Bay Medical Center are planning to target the population on the East End of Long Island/ PBMC service area for the Peer Education Program. PBMC plans to expand peer education for colorectal cancer to target persons 45 and older. Peer education currently focuses on breast, prostate and colorectal cancer; in 2023 the CSP plans to add lung cancer to the list of diseases for which education is offered and referral services are provided.</p> <p>The CSP has identified community organizations on the East End, including CAST and Eastern Farm Workers association, to host group and one-on-one education sessions for migrant/seasonal workers.</p> <p>Peconic Bay Medical Center continues to track data from the Peer to Peer Education program: In 2020, 35 males were educated and 26 were referred to an organization or provider for follow up screening. 192 females were educated and referred to an organization or provider for follow-up screening. In 2021, 1351 males were educated and 971 were referred to organizations or a provider for follow up screening. 1815 females were educated and 1000 were referred to an organization or provider for follow up screening. In 2020-2021, CSP provided virtual education with BOCES ESL, local libraries and other community organizations such as New Me, New You, Inc. and on social media platforms such as Facebook. On 7/2/20 CSP hosted a Virtual discussion (Instagram Live) with Health Commissioner Pigott and the BHCCRC, discussing Prostate Cancer with a focus on disparities in Black Men, and discussing how they can stay healthy and prevent disease - this received approximately 50 views. SCDHS launched a Social Media campaign in September 2020 to encourage "Back To Screening", over 1500 people were reached. In-person group education started again in 2022, focusing on outdoor events.</p>
<p>Partner Role and Resources</p>	<p>Suffolk County Cancer Services Program performs outreach with health care providers and provides speakers for group education events; NYS Dept. of Health trains the peer educators at Peconic Bay Medical Center (PBMC). PBMC tracks data the education</p>



	<p>numbers, those referred to assistance organizations, those referred to primary care provider and those that completed screening. Suffolk County Cancer Prevention and Health Promotion Coalition provides guidance and input regarding programming. Suffolk County Office of Minority Health (OMH) works with the Ellen Hermanson Foundation, Coalition for Women's Cancers at Stony Brook Southampton Hospital and other Breast Cancer Coalitions and CBOs to promote women's health and cancer screenings. OMH also works with these partners to identify low-to no-cost screenings and assist connecting those in need to transportation, support groups, and other resources. Partners for participant recruitment/ hosting group sessions include: North Fork Sanish Apostolate, Guatemalan Consulate and El Salvadorian Consulate.</p>
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Prevention Agenda Priority Area:	Prevent Chronic Diseases
Focus Area:	Focus Area 4: Preventative Care and Management
Overarching Goal:	Goal 4.3 Promote evidence-based care to prevent and manage chronic diseases including asthma, arthritis, cardiovascular disease, diabetes and prediabetes and obesity
Objectives through 2024:	4.4.3 Expand access to the National Diabetes Prevention Program (National DPP), for Suffolk County residents at risk for developing diabetes by facilitating DPP community programs and facilitating an annual Master DPP training.
Disparity group	Obesity and diabetes disproportionately affect minorities and low-income individuals. This program targets low-income communities of color.
Intervention	<p>The National Diabetes Prevention Program (NDPP) is an evidence-based, cost-effective program focusing on healthy eating and physical activity to decrease participants' risk of developing type 2 diabetes. The curriculum consists of weekly educational classes, as per the NDPP manual, promoting and educating participants on preparation of healthy food and strategies to increase physical activity. The goal is for participants to reduce their starting body weight by 5-7% and to increase their physical activity to 150 minutes per week. SCDHS and our partners are working to:</p> <ol style="list-style-type: none"> 1. Facilitate a minimum of 2, year-long, DPP programs, for 25-30 participants, in strict accordance with CDC program requirements. 2. Facilitate one Master Trainer Program for 12 new Lifestyle Coaches, in strict accordance with the CDC requirements.



	Reference: CDC, National Diabetes Prevention Program: https://www.cdc.gov/diabetes/prevention/about.htm
Process/Outcome Measures:	<p>Process Measures:</p> <ul style="list-style-type: none"> • Number of Food Journals submitted and commented on weekly • Number of weekly private weigh-ins for each participant • Number of weekly self-reported assessments of physical activity • Participant class attendance • % completion of Pre and Post program Glucose A1C assessment <p>Intermediate Measure:</p> <ul style="list-style-type: none"> • Change in participants' knowledge of healthy diet and physical activity • Number of participants who report they will use the knowledge and behaviors learned in the training <p>Outcome Measures:</p> <ul style="list-style-type: none"> • Percentage of participants who complete the Suffolk County Diabetes Prevention Program • Number of participants who achieve weight loss goals • Number of participants who achieve physical activity goals • Change in participants' A1C measurements
By December 2023, we will have completed...	<p>The Suffolk County DPP has received CDC recognition, and the curriculum has been approved by the CDC. SCDHS has been partnering with local hospitals and community health centers to establish locations for minimum of two DPP groups, holding them at times and locations chosen to be accessible. A minimum of 10 to 15 participants are enrolled per group using NYS criteria for eligibility. Three groups will have been instituted by 12/2023:</p> <ul style="list-style-type: none"> • Group One- Began on 6/17/2021 and completed the program on 6/2/2022: 11 participants started, 9 participants completed, 7 participants lost over 4% of body weight, and engaged in 150 minutes/weekly physical activity. • Group Two - Began on 3/8/2022 and program will conclude on 2/21/2023. As of 12/2022- 11 started, 8 participants lost over 5% of body weight and increased physical activity. • Group three - Began on 8/2022, program will be completed on 8/2024. • A Master Training has been scheduled for 3/2023



Partner Role and Resources	<p>Partners: State of Wellness (1of 13 CDC approved national sponsors); Suffolk County Divisions, Local hospitals, Local Libraries and Federally Qualified Health Centers (FQHC)</p> <p>Resources: Outreach and advertisement of program among constituents. Donation of classroom space, furniture, use of technology and security for use by and privacy of participants</p>
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Prevention Agenda Priority Area:	Prevent Chronic Diseases
Focus Area:	Focus Area 1: Healthy eating and food security
Overarching Goal:	Goal 1.2 Increase skills and knowledge to support healthy food and beverage choices
Objectives through 2024:	<p>Objective 1.4 Decrease the percentage of adults ages 18 years and older with obesity (among all adults)</p> <p>Objective 1.5 Decrease the percentage of adults ages 18 years and older with obesity (among adults with an annual household income of <\$25,000)</p>
Disparity group	This program targets middle-to-lower income minority populations including Black or Indigenous people of color (BIPOC).
Intervention	<p>The “Back on Track” health series includes educational presentations, virtual health chats with providers, and health fairs to encourage communities to obtain annual checkups. This series is designed to educate high-risk groups on the importance of managing weight and preventing chronic health conditions including type 2 diabetes and heart disease. At each health fair, participants are provided with education and an opportunity to ask questions of healthcare professionals, and are offered linkage to care. Virtual sessions have focused on the following topics:</p> <ol style="list-style-type: none"> (1) lifestyle modification to reduce the risk of type 2 diabetes; (2) recommended health screenings; (3) the importance of early detection and treatment for chronic health conditions
Process/Outcome Measures:	<p>Process Measures: Number of community presentations, health fairs and virtual health chats</p> <p>Outcome measures: Number of people who received information and resources Number of people who attended virtual health chat sessions Number of residents who attended the health fairs Number of residents who attended community presentations</p>
By December 2023, we will have completed...	Office of Minority Health (OMH) has coordinated 3 “Back on Track” virtual group presentations: 2 education sessions with



	<p>Cornell Cooperative Extension of Riverhead entitled "IDENTIFYING & PREVENTING DIABETES". The first program, in English, was held in 2022, and a second, in Spanish, is scheduled for 2023. An additional community conversation entitled "Women's Health Across the Life Span" was held in 2022 in collaboration with 3 Doctors and MPH Students from Stony Brook University Hospital.</p> <ul style="list-style-type: none"> • As of 2021, 16 Community Members attended the virtual sessions and 100 Suffolk County residents were engaged through health fairs • For 2023, OMH plans to expand their efforts to harder-to-reach populations and community members who primarily speak a language other than English. OMH will continue to work with community partners, agencies, businesses, CBOs, houses of worship and other stakeholders to promote and support evidence-based policy and structural changes geared toward diabetes prevention and promotion of healthy dietary habits. OMH will continue to foster key relationships with leaders in communities of color, in an effort to set up Health fairs, health discussions and projects that promote health screenings, access to care and health education.
<p>Partner Role and Resources</p>	<p>SCDHS-Office of Minority Health (OMH) partners with Cornell Cooperative Extension of Suffolk County, Healthcare systems, CBOs and houses of worship.</p> <p>Cornell Cooperative Extension of Suffolk County provides Nutrition Educators and Registered Dietitians to conduct virtual community presentations and/or table at community health fairs, and is interested in providing bilingual providers for future programs.</p> <p>Western Suffolk BOCES: Assist with coordinating chronic disease prevention and health promotion efforts across partners, for example, by promoting events organized by other partners to their communities</p> <p>SCDHS Office of Health Education: Diabetes Prevention Program Coordinator and Master Trainer provides information on the National Diabetes Prevention Program & diabetes prevention resources to the Office of Minority Health for distribution to communities of color.</p>



Prevention Agenda Priority Area:	Prevent Chronic Diseases
Focus Area:	Focus Area 2: Physical Activity
Overarching Goal:	Goal 2.1: Improve community environments that support active transportation and recreational physical activity for people of all ages and abilities.
Objectives through 2024:	Objective 1.7: Increase the percentage of adults 18 years and older who participate in leisure-time physical activity (among all adults))
Disparity group	Targets low-income communities of color, which experience higher prevalence of overweight/obesity
Intervention	<p>Walk Safe with a Doc community walking events combine pedestrian safety education with chronic disease education while walking. The LIHC maintains an active Walk Safe with a Doc chapter for the region. Walking is an evidence-based intervention that offers proven physical and mental health benefits.</p> <p>Selected References:</p> <ul style="list-style-type: none"> • 2018 Physical Activity Guidelines Advisory Committee. 2018 Physical Activity Guidelines Advisory Committee Scientific Report. Washington, DC: U.S. Department of Health and Human Services, 2018. From https://health.gov/paguidelines/second-edition/report/ • Chiu, Maria, et al. "Moving to a highly walkable neighborhood and incidence of hypertension: a propensity-score matched cohort study." Environmental health perspectives 124.6 (2016): 754. • Cohen, Deborah A., et al. "Physical activity in parks: a randomized controlled trial using community engagement." American Journal of Preventive Medicine 45.5 (2013): 590-597.
Process/Outcome Measures:	<p>Process measures: Number of attendees</p> <p>Intermediate measures: Knowledge gained via pre/post survey</p> <p>Outcome measures: Change in % population walking</p>
By December 2023, we will have completed...	LIHC plans to hold 10 Walk Safe with a Doc events by 2023, with SCDHS participation, and will analyze all pre/post data. In July 2022, Commissioner Dr. Pigott took part in a Walk Safe with a Doc Event at the Smithtown Library Kings Park Building in Kings Park, NY, and discussed the importance of physical activity in healthy daily living. 20-25 residents participated in this event.
Partner Role and Resources	<ul style="list-style-type: none"> • Long Island Health Collaborative organizes these events.



	<ul style="list-style-type: none"> • New York Coalition for Transportation Safety provides speakers to discuss pedestrian safety • SCDHS provides physician speakers to discuss health topics at these events, and provides event co-promotion
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Prevention Agenda Priority Area:	Promote Well-Being and Prevent Mental and Substance Use Disorders
Focus Area:	Focus Area 1: Promote Well-Being
Overarching Goal:	Goal 2.2 Prevent opioid overdose deaths
Objectives through 2024:	2.2.1 Reduce the age-adjusted overdose deaths involving any opioid by 7% to 14.3 per 100,000 population
Disparity Group	Specific messaging will target low income communities of color
Intervention	Messaging related to substance misuse, Narcan availability, treatment access via social media campaigns and traditional media outlets
Process/Outcome Measures:	<p><u>Process Measures:</u> Number of social media posts</p> <p><u>Intermediate measures:</u> Observed increase in social media traffic and media requests. Relevant social media platform analytics (engagements, mentions), and number of earned media mentions).</p> <p><u>Outcome measures:</u> Region-wide increase in use of Narcan (State Quarterly Opioid Reports)</p>
By December 2023, we will have completed...	Suffolk County Department of Health Services and the Long Island Health Collaborative plan to produce and promote monthly social media content on substance misuse, Narcan availability, and treatment access. This content will be accessible to the public on different social media platforms and blogs.
Partner Role and Resources	LIHC: Provision of air time/print space SCDHS: provides co-promotion, content development and expertise

Prevention Agenda Priority Area:	Promote Well-Being and Prevent Mental and Substance Use Disorders
Focus Area:	Focus Area 1: Promote Well-Being
Overarching Goal:	Goal 2.2 Prevent opioid overdose deaths



<p>Objectives through 2024:</p>	<p>2.2.1 Reduce the age-adjusted overdose deaths involving any opioid by 7% to 14.3 per 100,000 population.</p> <p>2.2.4 Reduce all emergency department visits (including outpatients and admitted patients) involving any opioid overdose, age-adjusted rate by 5% to 53.3 per 100,000 population</p>
<p>Disparity group</p>	<p>Opioid overdose workshops are provided to all family and community members (regardless of race, gender, sexual orientation, etc.) most likely to be first responders in an overdose situation.</p> <p>A recent study suggests that non-Hispanic Black New Yorkers have not benefited as much from opioid prevention and treatment efforts as their White counterparts. Between 2018 and 2019, there was an 18% decline in opioid overdose death rates among non-Hispanic Whites in New York State, while opioid overdose death rates for non-Hispanic Blacks were unchanged.</p> <p>Reference: MR Larochelle, et al. Disparities in opioid overdose death trends by race/ethnicity, 2018-2019, from the HEALing Communities Study. American Journal of Public Health. DOI: 10.2105/AJPH.2021.306431 (2021).</p>
<p>Intervention</p>	<p>Opioid overdose trainings are provided to the community in order to increase the number of community members who are able to recognize signs of an opioid overdose and are trained to administer Narcan. Each overdose prevention training session includes an educational Power Point presentation, video, and role play to practice response skills. Participants practice the protocol for administering naloxone. The session also reviews steps for requesting replacement naloxone kit</p> <p>Naloxone kits are distributed widely to community members, venues and hospitals (for redistribution to high-risk persons) to increase availability of Narcan in the community</p> <p>Reference: New York State's Opioid Overdose Prevention Program</p>
<p>Process/Outcome Measures:</p>	<p><u>Process Measures:</u> Number of opioid overdose workshops offered; Number of workshop participants</p> <p><u>Outcome Measures:</u> Number of naloxone kits distributed to workshop participants; Number of replacement Naloxone kits given to workshop participants and reasons for replacements (used vs. expired);</p>



	<p>Number of kits used for overdose prevention, among workshop participants; <i>Long-term outcome:</i> County-wide decrease in number of opioid overdose deaths</p>
<p>By December 2023, we will have completed...</p>	<p>SCDHS Emergency Medical Services (EMS) acts as a central hub for the distribution for naloxone kits and continues to work with healthcare systems, community based organizations and non-profit organizations in the region, to host Narcan trainings.</p> <ul style="list-style-type: none"> • In 2023, EMS will be working on combining fentanyl test strips with Naloxone kits, and will provide training and distribution of fentanyl test strips. • EMS will continue the distribution of Nalox-boxes for emergency access and use in public sector environments where high trend overdose data demonstrate need (e.g fast food establishments, public bathrooms, motels, restaurants, and clubs). • Continue support to local hospitals with Narcan for outpatient needs. • Establish pathway for education and access to Narcan for individuals exiting incarceration as well as families. • Provide Narcan Training in other languages spoken by underserved communities. <p>Office of Minority Health and Division of Mental Hygiene/Multicultural Advisory Committee plans on establishing ongoing Narcan trainings in underserved communities:</p> <ul style="list-style-type: none"> • Narcan Training: Wyandanch Wheatley Heights Ambulance Corp, September 30th, 2022, Wyandanch\Wheatley Heights. (Scheduled for 2023) • Narcan Training: Grace to Your Ministry, July 9th, 2022 (Scheduled for 2023) <p>Data on Narcan Distribution and Training: Total numbers of completed Narcan Training workshops:</p> <ul style="list-style-type: none"> • 2020: 20 Number of participants unknown • 2021: 29 with 740 trained participants • 2022: 51 with 1,038 trained participants <p>*EMS works with many stakeholders who run and host workshops. These numbers do not reflect their large contribution.</p> <p>Distribution of Narcan Kits to stakeholders</p> <ul style="list-style-type: none"> • 2020: data not currently available • 2021: 991 • 2022: 482 <p>Distribution of Narcan Kits to Probation/Corrections/Sheriffs</p> <ul style="list-style-type: none"> • 2020: data not available



	<ul style="list-style-type: none"> • 2021: 741 • 2022: 512 <p>Kits distributed replacing expired since July, 2021: 1,415</p>
Partner Role and Resources	<ul style="list-style-type: none"> • Suffolk County Emergency Medical Services provides the Narcan kits to stakeholders • Partnerships with schools across Suffolk County allowed us to train security and staff members to administer Narcan. • Integrated training with the County Probation Department for current parolees • Partnerships with ambulance, police departments and fire departments have allowed us to train traditional as well as non-traditional first responders. • Suffolk County Division of Community Mental Hygiene, Suffolk County (MAC) Multicultural Advisory Committee and Office of Minority Health are responsible for outreach and the engagement of minority communities to address health equity and disparities surrounding opioid prevention. • MAC Division and Office of Minority Health worked with Of Colors Creative Collective at Artspace Patchogue to host a community Narcan training and displayed artwork in their space from people in recovery to promote stigma reduction. • Working with Legislators to promote awareness and training with in their Districts • Suffolk County Exec’s Office of Community Affairs /SSS Program

Prevention Agenda Priority Area:	Promote Well-Being and Prevent Mental and Substance Use Disorders
Focus Area:	Focus Area 1: Promote Well-Being
Overarching Goal:	Goal 2.2 Prevent opioid overdose deaths
Objectives through 2024:	2.2.2 Increase the age-adjusted rate of patients who received at least one Buprenorphine prescription for opioid use disorder by 20% to 415.6 per 100,000 population.
Disparity group	All individuals impacted by opioid use or at risk for opioid use will benefit from the interventions regardless of race, gender, sexual orientation, etc.
Intervention	2.2.1 Increase availability of/access to and linkages to medication-assisted treatment (MAT) including Buprenorphine:



	<p>1. Increase the number of MAT providers via free waiver trainings and a Learning Collaborative established by the Suffolk County MAT Workgroup.</p> <p>2. Provide Compassion Fatigue training to clinicians and first responders treating patients with addiction issues, to increase empathy toward these patients and improve clinical outcomes.</p> <p>Reference: Larochelle, M. R., et al. (2018). "Medication for Opioid Use Disorder After Nonfatal Opioid Overdose and Association With Mortality: A Cohort Study." <i>Ann Intern Med</i>, 169(3): 137-145. Delaney, Martin C. "Caring for the caregivers: Evaluation of the effect of an eight-week pilot mindful self-compassion (MSC) training program on nurses' compassion fatigue and resilience." <i>PloS one</i> 13.11 (2018): e0207261. Sordo, L., et al. (2017). "Mortality Risk During and After Opioid Substitution Treatment: Systematic Review and Meta-analysis of Cohort Studies." <i>BMJ</i>; 357: j1550. FDA Drug Safety Communication: FDA Urges Caution about Withholding Opioid Addiction Medications from Patients Taking Benzodiazepines or CNS Depressants: Careful Medication Management Can Reduce Risks; Increasing Access to Medication-Assisted Treatment of Opioid Abuse in Rural Primary Care Practices. Content last reviewed July 2018. Agency for Healthcare Research and Quality, Rockville, MD.</p>
<p>Process/Outcome Measures:</p>	<p><u>Process Measures:</u> Number of free waiver trainings offered; Number of providers attending free waiver trainings; Number of Compassion Fatigue training offered to first responders; Number of first-responders attending training</p> <p><u>Outcome Measures:</u> Number of providers who attended training and obtain full waiver; Number of fully waived providers that prescribe buprenorphine for SUD</p>
<p>By December 2023, we will have completed...</p>	<p>By 2023, Division of Mental Hygiene will have multiple and varied MAT supportive activities which include:</p> <ul style="list-style-type: none"> • Establishment of a collaborative work group; providing technical support to provider agencies and educational resource sharing; • Promotion of a community educational campaign about MAT; • Continuation of first responder compassion fatigue trainings and anti-stigma activities, with the focus on supporting people who work in locations with high numbers of opioid-addicted patients.



	Despite restrictions and difficulties related to the COVID-19 pandemic, two free waiver trainings were provided in 2021, along with 3 continuous online trainings provided by PCSS for physicians/NP/PAs. In 2021, a total of 11 Compassion Fatigue trainings were offered, reaching 405 persons including 24 first responders.
Partner Role and Resources	SAMSHA funds the Providers Clinical Support System (PCSS), which provides free provider waiver trainings and clinical mentors for new MAT providers. SAMSHA collects data on number of MAT providers in the region.

Please refer to the complete CHIP workplan (Appendix E) for further details on current projects addressing Prevention Agenda Priorities.

Long Island Health Collaborative Community Member Survey Summary of Findings

Methodology:

Surveys were distributed by paper and electronically, through Survey Monkey, to community members. The electronic version placed rules on certain questions; for questions 1-5 an individual could select three choices, and each question was mandatory. For question 6, individuals could choose as many responses as they'd like. Although the rules were written on the paper survey, people often did not follow them. On January 25, 2022, we downloaded the surveys from Survey Monkey. Data collected includes January - December 2021. We needed to add weights to the surveys which did not follow the rules - for each of the questions that had more than three responses. The weight for each response was $3/x$, where x is the count of responses. No weight was applied to questions with less than three responses because they had the option to select more and chose not to do so. With the weight determined, we applied the formula to the data and then added the remaining surveys to the spreadsheet.

Analysis Results:

- When asked: ***What are the biggest ongoing health concerns in THE COMMUNITY WHERE YOU LIVE?***

Jan-Dec 2021 Rank	Suffolk County	Percentage	Nassau County	Percentage
1	Cancer	35.07%	Cancer	37.14%
2	Drugs & Alcohol Abuse	31.15%	Heart Disease & Stroke	34.41%
3	Mental Health Depression/Suicide	30.40%	Drugs & Alcohol Abuse	25.68%
4	Obesity/Weight Loss Issues	19.49%	Mental Health Depression/Suicide	24.70%
5	Vaccine Preventable Diseases	17.67%	Diabetes	24.02%
Sum of Column Percentages		133.78%		145.96%

- When asked: ***What are the biggest ongoing health concerns for YOURSELF?***

Jan-Dec 2021 Rank	Suffolk County	Percentage	Nassau County	Percentage
1	Cancer	27.70%	Heart Disease & Stroke	34.81%
2	Mental Health Depression/Suicide	25.53%	Women's Health & Wellness	34.01%
3	Heart Disease & Stroke	22.98%	Cancer	23.54%
4	Women's Health & Wellness	22.80%	Obesity/Weight Loss Issues	22.23%
5	Obesity/Weight Loss Issues	22.55%	Diabetes	20.05%
Sum of Column Percentages		121.55%		134.65%

Jan-Dec 2021				
Rank	Suffolk County	Percentage	Nassau County	Percentage
1	Fear (e.g. not ready to face/discuss health problem; immigration status)	30.76%	There are no Barriers	27.70%
2	Unable to Pay Co-pays/Deductibles	30.36%	No Insurance	26.94%
3	No Insurance	28.85%	Fear (e.g. not ready to face/discuss health problem; immigration status)	26.00%
4	Don't Understand Need to See a Doctor	25.03%	Unable to Pay Co-pays/Deductibles	23.42%
5	There are no Barriers	16.81%	Transportation	13.32%
Sum of Column Percentages		131.81%		117.37%

3. When asked: **What prevents you and your family from getting medical treatment?**

4. When asked: **Which is MOST needed to improve the health of your community?**

Jan-Dec 2021				
Rank	Suffolk County	Percentage	Nassau County	Percentage
1	Mental Health Services	33.58%	Mental Health Services	32.78%
2	Healthier Food Choices	28.67%	Clean Air & Water	30.53%
3	Clean Air & Water	23.37%	Healthier Food Choices	29.64%
4	Drug & Alcohol Rehabilitation Services	22.32%	Drug & Alcohol Rehabilitation Services	22.03%
5	Job Opportunities	17.30%	Job Opportunities	18.38%
Sum of Column Percentages		125.24%		133.36%

5. When asked: **What health screenings or education/information services are needed in your community?**

Jan-Dec 2021				
Rank	Suffolk County	Percentage	Nassau County	Percentage
1	Mental Health/Depression	23.83%	Blood Pressure	24.31%
2	Cancer	21.01%	Mental Health/Depression	22.81%
3	Drug & Alcohol	17.42%	Cholesterol	20.62%
4	Importance of Routine Well Check Ups	16.58%	Cancer	17.66%
5	Blood Pressure	15.07%	Importance of Routine Well Check Ups	16.12%
Sum of Column Percentages		93.90%		101.52%

6. Finally, when asked: *Where do you and your family get most of your health information?*

Jan-Dec 2021 Rank	Suffolk County	Percentage	Nassau County	Percentage
1	Doctor/Health Professional	84.71%	Doctor/Health Professional	80.75%
2	Family or Friends	35.90%	Internet	40.85%
3	Internet	32.39%	Family or Friends	30.52%
4	Social Media (Facebook, Twitter, etc.)	20.72%	Television	20.66%
5	Television	18.35%	Newspaper/Magazines	19.72%
Sum of Column Percentages		192.07%		192.49%

1143 surveys were collected between January 1st and December 31st, 2021. There were 213 respondents for Nassau, 883 for Suffolk.

For a full version of the spreadsheet that includes interactive tables to analyze results based on demographic factors you can visit: <https://www.lihealthcollab.org/data-resources.aspx>

About the Long Island Health Collaborative

The Long Island Health Collaborative is a partnership of Long Island’s hospitals, county health departments, physicians, health providers, community-based health and social service organizations, human service organizations, academic institutions, health plans, local government, and the business sector, all engaged in improving the health of Long Islanders. The initiatives of the LIHC are overseen by the Nassau-Suffolk Hospital Council.

Long Island Health Collaborative | 1383 Veterans Memorial Highway, Suite 26, Hauppauge, NY 11788

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LONG ISLAND COMMUNITY HEALTH ASSESSMENT SURVEY

Your opinion is important to us!

The purpose of this survey is to get your opinion about health issues that are important in your community. Together, the County Departments of Health and hospitals throughout Long Island will use the results of this survey and other information to help target health programs in your community. Please complete only one survey per adult 18 years or older. Your survey responses are anonymous. Thank you for your participation.

1. What are the biggest ongoing health concerns in THE COMMUNITY WHERE YOU LIVE? (Please check up to 3)

- | | | |
|--|--|---|
| <input type="checkbox"/> Asthma/lung disease | <input type="checkbox"/> Heart disease & stroke | <input type="checkbox"/> Safety |
| <input type="checkbox"/> Cancer | <input type="checkbox"/> HIV/AIDS & Sexually Transmitted Diseases (STDs) | <input type="checkbox"/> Vaccine preventable diseases |
| <input type="checkbox"/> Child health & wellness | <input type="checkbox"/> Mental health | <input type="checkbox"/> Women's health & wellness |
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> depression/suicide | <input type="checkbox"/> Other (please specify) _____ |
| <input type="checkbox"/> Drugs & alcohol abuse | | |
| <input type="checkbox"/> Environmental hazards | <input type="checkbox"/> Obesity/weight loss issues | |

2. What are the biggest ongoing health concerns for YOURSELF? (Please check up to 3)

- | | | |
|--|--|---|
| <input type="checkbox"/> Asthma/lung disease | <input type="checkbox"/> Heart disease & stroke | <input type="checkbox"/> Safety |
| <input type="checkbox"/> Cancer | <input type="checkbox"/> HIV/AIDS & Sexually Transmitted Diseases (STDs) | <input type="checkbox"/> Vaccine preventable diseases |
| <input type="checkbox"/> Child health & wellness | <input type="checkbox"/> Mental health | <input type="checkbox"/> Women's health & wellness |
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> depression/suicide | <input type="checkbox"/> Other (please specify) _____ |
| <input type="checkbox"/> Drugs & alcohol abuse | | |
| <input type="checkbox"/> Environmental hazards | <input type="checkbox"/> Obesity/weight loss issues | |

3. What prevents you and your family from getting medical treatment? (Please check up to 3)

- | | | |
|---|--|--|
| <input type="checkbox"/> Cultural/religious beliefs | <input type="checkbox"/> Lack of availability of doctors | <input type="checkbox"/> Unable to pay co-pays/deductibles |
| <input type="checkbox"/> Don't know how to find doctors | <input type="checkbox"/> Language barriers | <input type="checkbox"/> There are no barriers |
| <input type="checkbox"/> Don't understand need to see a doctor | <input type="checkbox"/> No insurance | <input type="checkbox"/> Other (please specify) _____ |
| | <input type="checkbox"/> Transportation | |
| <input type="checkbox"/> Fear (e.g. not ready to face/discuss health problem; immigration status) | | |

4. Which of the following is MOST needed to improve the health of your community? (Please check up to 3)

- | | | |
|---|---|---|
| <input type="checkbox"/> Clean air & water | <input type="checkbox"/> Mental health services | <input type="checkbox"/> Smoking cessation programs |
| <input type="checkbox"/> Drug & alcohol rehabilitation services | <input type="checkbox"/> Recreation facilities | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Healthier food choices | <input type="checkbox"/> Safe childcare options | <input type="checkbox"/> Weight loss programs |
| <input type="checkbox"/> Job opportunities | <input type="checkbox"/> Safe places to walk/play | <input type="checkbox"/> Other (please specify) _____ |
| <input type="checkbox"/> Safe worksites | | |

5. What health screenings or education/information services are needed in your community? (Please check up to 3)

- | | | |
|---|--|---|
| <input type="checkbox"/> Blood pressure | <input type="checkbox"/> Eating disorders | <input type="checkbox"/> Mental health/depression |
| <input type="checkbox"/> Cancer | <input type="checkbox"/> Emergency preparedness | <input type="checkbox"/> Nutrition |
| <input type="checkbox"/> Cholesterol | <input type="checkbox"/> Exercise/physical activity | <input type="checkbox"/> Prenatal care |
| <input type="checkbox"/> Dental screenings | <input type="checkbox"/> Heart disease | <input type="checkbox"/> Suicide prevention |
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> HIV/AIDS & Sexually Transmitted Diseases (STDs) | <input type="checkbox"/> Vaccination/immunizations |
| <input type="checkbox"/> Disease outbreak information | <input type="checkbox"/> Importance of routine well checkups | <input type="checkbox"/> Other (please specify) _____ |
| <input type="checkbox"/> Drug and alcohol | | |

6. Where do you and your family get most of your health information? (Check all that apply)

- | | | |
|---|---|---|
| <input type="checkbox"/> Doctor/health professional | <input type="checkbox"/> Library | <input type="checkbox"/> Social Media (Facebook, Twitter, etc.) |
| <input type="checkbox"/> Family or friends | <input type="checkbox"/> Newspaper/magazines | <input type="checkbox"/> Television |
| <input type="checkbox"/> Health Department | <input type="checkbox"/> Radio | <input type="checkbox"/> Worksite |
| <input type="checkbox"/> Hospital | <input type="checkbox"/> Religious organization | <input type="checkbox"/> Other (please specify) |
| <input type="checkbox"/> Internet | <input type="checkbox"/> School/college | _____ |

For statistical purposes only, please complete the following:

I identify as: Male Female Other

What is your age? _____

ZIP code where you live: _____ **Town where you live:** _____

What race do you consider yourself?

- | | | |
|---|---|---|
| <input type="checkbox"/> White/Caucasian | <input type="checkbox"/> Native American | <input type="checkbox"/> Multi-racial |
| <input type="checkbox"/> Black/African American | <input type="checkbox"/> Asian/Pacific Islander | <input type="checkbox"/> Other (please specify) |
- _____

Are you Hispanic or Latino? Yes No

What language do you speak when you are at home (select all that apply)

- | | | | | | |
|----------------------------------|-------------------------------------|----------------------------------|---|--|---------------------------------|
| <input type="checkbox"/> English | <input type="checkbox"/> Portuguese | <input type="checkbox"/> Spanish | <input type="checkbox"/> Italian | <input type="checkbox"/> Farsi | <input type="checkbox"/> Polish |
| <input type="checkbox"/> Chinese | <input type="checkbox"/> Korean | <input type="checkbox"/> Hindi | <input type="checkbox"/> Haitian Creole | <input type="checkbox"/> French Creole | <input type="checkbox"/> Other |

What is your annual household income from all sources?

- | | | |
|---|--|---|
| <input type="checkbox"/> \$0-\$19,999 | <input type="checkbox"/> \$20,000 to \$34,999 | <input type="checkbox"/> \$35,000 to \$49,999 |
| <input type="checkbox"/> \$50,000 to \$74,999 | <input type="checkbox"/> \$75,000 to \$125,000 | <input type="checkbox"/> Over \$125,000 |

What is your highest level of education?

- | | | |
|---|---|---|
| <input type="checkbox"/> K-8 grade | <input type="checkbox"/> Technical school | <input type="checkbox"/> Graduate school |
| <input type="checkbox"/> Some high school | <input type="checkbox"/> Some college | <input type="checkbox"/> Doctorate |
| <input type="checkbox"/> High school graduate | <input type="checkbox"/> College graduate | <input type="checkbox"/> Other (please specify) |
- _____

What is your current employment status?

- | | | |
|---|--|---|
| <input type="checkbox"/> Employed for wages | <input type="checkbox"/> Self-employed | <input type="checkbox"/> Out of work and looking for work |
| <input type="checkbox"/> Student | <input type="checkbox"/> Retired | <input type="checkbox"/> Out of work, but not currently looking |
| <input type="checkbox"/> Military | | |

Do you currently have health insurance? Yes No No, but I did in the past

What type of insurance do you have? (select all that apply)

- | | | | |
|-----------------------------------|-----------------------------------|---|---------------------------------------|
| <input type="checkbox"/> Medicaid | <input type="checkbox"/> Medicare | <input type="checkbox"/> Private/Commercial | <input type="checkbox"/> No Insurance |
|-----------------------------------|-----------------------------------|---|---------------------------------------|

Do you have access to reliable internet in your home? Yes No

<p>If you have health concerns or difficulty accessing care, please call the Long Island Health Collaborative for available resources at: 631-963-4767.</p>	<p>Please return this completed survey to: LIHC Nassau-Suffolk Hospital Council 1383 Veterans Memorial Highway, Suite 26 Hauppauge, NY 11788 Or you may fax completed survey to 631-716-6920</p>	<p>All non-profit hospitals on Long Island offer financial assistance for emergency and medically necessary care to individuals who are unable to pay for all or a portion of their care. To obtain information on financial assistance offered at each Long Island hospital, please visit the individual hospital's website.</p>
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Long Island Health Collaborative CBO Survey Summary of Findings

Methodology:

Surveys were distributed electronically via Survey Monkey to community-based organization leaders. Data was collected December 1st 2021 - January 15th 2022. Survey responses were downloaded from Survey Monkey on March 12th, 2022. For questions prompting a maximum of five choices, the first five selected are included in the analysis. For the open-ended question “6”, key words/codes were selected, entered in the Excel search function and resulted in a tally for number of times they appeared in the responses. This method revealed top three key themes. 44 surveys were collected; 25 for Suffolk County, 10 for Nassau County and 9 with no location specified.

Analysis Results:

- When asked “***What are the biggest health problems for the people/community you serve?***” (Maximum of 5 choices):

2022 Rank	Suffolk County	Percentage	Nassau County	Percentage
1	Mental Health	16/25	Drugs and Alcohol Abuse	6/10
2	Drugs and Alcohol Abuse	14/25	Obesity and Weight Loss	5/10
3	Cancer	11/25	Nutrition/Eating Habits	5/10
4	Women’s Health/Wellness	8/25	Mental Health	4/10
5	Care for the Elderly	8/25	Women’s Health/Wellness	4/10

- When asked “***What would be most helpful to improve the health problems of the people/community you serve?***” (Maximum of 5 choices):

2022 Rank	Suffolk County	Percentage	Nassau County	Percentage
1	Mental Health Services	18/25	Access to Healthier Food Choices	7/10
2	Drug and Alcohol Services	14/25	Mental Health Services	6/10
3	Health Education Programs	14/25	Affordable Housing	6/10
4	Affordable Housing	11/25	Transportation	5/10
5	Access to Healthier Food	8/25	Health Education Programs	5/10

3. When asked **“Do any people/communities you serve in Suffolk have problems getting needed health care? If yes, what do you think the reasons are?”** For Suffolk, 14 out of 25 answered **“Yes”** and the remainder answered **“No”**. For Nassau, 7 out of 10 answered **“Yes”** and the remainder answered **“No”** (Maximum of 5 choices).:

2022 Rank	Suffolk County	Percentage	Nassau County	Percentage
1	No Insurance/Unable to Pay for Healthcare	13/14	Misinformation/Health Illiteracy	6/7
2	Misinformation/Health Illiteracy	10/14	Transportation	5/7
3	Language Barriers	8/14	No Insurance/Unable to Pay for Healthcare	5/7
4	Transportation	7/14	Language Barriers	5/7
5	Unable to Pay Copays/Deductibles	7/14	Fear/Hesitancy	4/7

4. When asked **“What health issues do the people/community you serve need education about?”** (Maximum of 5):

2022 Rank	Suffolk County	Percentage	Nassau County	Percentage
1	Mental Health/Depression	15/25	Chronic Disease Management	7/10
2	Substance Misuse	11/25	Blood Pressure	6/10
3	Blood Pressure	11/25	Mental Health/Depression	5/10
4	Chronic Disease Management	9/25	Food Security	4/10
5	Suicide Prevention	7/25	Exercise/Physical Activity	3/10

5. When asked **“Where do the people/community you serve get most of their health information?”**

2022 Rank	Suffolk County	Percentage	Nassau County	Percentage
1	Family or Friends	22/25	Family or Friends	9/10
2	Internet	20/25	Internet	8/10
3	Facebook/Twitter	16/25	Church Group	8/10
4	Doctor/Healthcare Provider	16/25	Doctor/Healthcare Provider	5/10
5	Television	15/25	Facebook/Twitter	4/10

6. When asked ***“What do you think makes a community healthy?”*** (Open ended; summarized below).

“Access”, “Communication” and “Education” were the three most common themes for both the Nassau and Suffolk respondents. Access to healthcare (such as health insurance and transportation), communication (such as doctor-patient relationships and more community programs) and more available online resources to educate oneself and improve health literacy were the most pressing matters to responders.

7. When asked ***“How would you rate the health of the people/community you serve?”***:

2022 Rank	Suffolk County	Percentage	Nassau County	Percentage
1	Somewhat Healthy	12/25	Somewhat Healthy	8/10
2	Healthy	7/25	Unhealthy	2/10
3	Unhealthy	3/25	Healthy	0/10
4	Very Unhealthy	3/25	Very Unhealthy	0/10

8. When asked ***“What types of health screenings and/or services are needed to keep people healthy in the community you serve?”*** (Maximum of 5 choices):

2022 Rank	Suffolk County	Percentage	Nassau County	Percentage
1	Mental Health/Depression	12/25	Blood Pressure	8/10
2	Substance Misuse	9/25	Chronic Disease Management	8/10
3	Eating Disorders	8/25	Mental Health/Depression	6/10
4	Chronic Disease Management	7/25	Exercise/Physical Activity	5/10
5	Suicide Prevention	7/25	Heart Disease	4/10

About the Long Island Health Collaborative

The Long Island Health Collaborative is a partnership of Long Island's hospitals, county health departments, physicians, health providers, community-based health and social service organizations, human service organizations, academic institutions, health plans, local government, and the business sector, all engaged in improving the health of Long Islanders. The initiatives of the LIHC are overseen by the Nassau-Suffolk Hospital Council.

Long Island Health Collaborative | 1383 Veterans Memorial Highway, Suite 26, Hauppauge, NY 11788

www.lihealthcollab.org | info@lihealthcollab.org | (631) 257 - 6964

HEALTH SURVEY FOR ORGANIZATIONS AND AGENCIES

The county health departments (Nassau and Suffolk), local hospitals, and other community partners are in the process of deciding what health problems we will focus on for the next few years. We would like to find out **what problems are vital to the persons and community you provide care/services to**. We will use these results, along with other information, to plan to improve the health of persons in Nassau and Suffolk counties. Please give us your input by filling this out and sending it back by mail or email. **Or, complete the survey online (preferred method) through this link (insert link)**. The return information is listed at the end of this survey. Thank you.

1. What are the biggest health problems for the people/community you serve? (Please check up to 5)

- | | | |
|---|--|--|
| <input type="checkbox"/> Access to vaccinations | <input type="checkbox"/> HIV/AIDS & Sexually Transmitted Diseases (STDs) | <input type="checkbox"/> Smoking/Tobacco use |
| <input type="checkbox"/> Asthma/lung disease | <input type="checkbox"/> Infections | <input type="checkbox"/> Teen pregnancy |
| <input type="checkbox"/> Cancer | <input type="checkbox"/> Preventable Injuries | <input type="checkbox"/> Violence |
| <input type="checkbox"/> Care for the elderly | <input type="checkbox"/> Car crashes | <input type="checkbox"/> In the home or between partners |
| <input type="checkbox"/> Child health & wellness | <input type="checkbox"/> Pedestrian injuries | <input type="checkbox"/> Guns |
| <input type="checkbox"/> Memory loss | <input type="checkbox"/> Other: _____ | <input type="checkbox"/> Murders |
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> Mental health (including depression & suicide) | <input type="checkbox"/> Rape |
| <input type="checkbox"/> Drugs & alcohol abuse | <input type="checkbox"/> Nutrition / eating habits | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Environmental problems (water, pollution, air, etc.) | <input type="checkbox"/> Obesity/weight loss issues | <input type="checkbox"/> Women's health & wellness |
| <input type="checkbox"/> Falls in the elderly | <input type="checkbox"/> Premature births | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Heart disease & stroke | | |

2. What would be most helpful to improve the health problems of the people/community you serve? (Please check up to 5)

- | | | |
|---|--|--|
| <input type="checkbox"/> Access to healthier food | <input type="checkbox"/> Health education programs | <input type="checkbox"/> Safer places to walk/play |
| <input type="checkbox"/> Affordable housing | <input type="checkbox"/> Health screenings | <input type="checkbox"/> Safer work place |
| <input type="checkbox"/> Better schools | <input type="checkbox"/> Home care options | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Breastfeeding | <input type="checkbox"/> Insurance enrollment programs | <input type="checkbox"/> Weight loss programs |
| <input type="checkbox"/> Clean air & water | <input type="checkbox"/> Job opportunities | <input type="checkbox"/> Other (please specify) |
| <input type="checkbox"/> Drug & alcohol services | <input type="checkbox"/> Mental health services | _____ |
| <input type="checkbox"/> More grocery stores | <input type="checkbox"/> Parks and recreation | |
| <input type="checkbox"/> Farmers markets | <input type="checkbox"/> Safer childcare options | |

3. Do any people/communities you serve have problems getting needed health care?

- Yes (if 'yes', please answer question #4) No

4. If you answered 'yes' to question #3, what do you think the reasons are? (Please check up to 5)

- | | | |
|---|--|--|
| <input type="checkbox"/> Cultural/religious beliefs | <input type="checkbox"/> Lack of availability of doctors | <input type="checkbox"/> Unable to pay co-pays/deductibles |
| <input type="checkbox"/> Don't know how to find doctors | <input type="checkbox"/> Language barriers | <input type="checkbox"/> Other (please specify) |
| <input type="checkbox"/> Don't understand need to see a doctor | <input type="checkbox"/> No insurance and unable to pay for the care | _____ |
| <input type="checkbox"/> Fear (e.g. not ready to face/discuss health problem) | <input type="checkbox"/> Transportation | |

5. What types of health screenings and/or services are needed to keep people healthy in the community you provide care to? (Check up to 5)

- | | | |
|--|--|--|
| <input type="checkbox"/> Blood pressure | <input type="checkbox"/> Emergency preparedness | <input type="checkbox"/> Nutrition |
| <input type="checkbox"/> Cancer | <input type="checkbox"/> Exercise/physical activity | <input type="checkbox"/> Prenatal care |
| <input type="checkbox"/> Cholesterol (fats in the blood) | <input type="checkbox"/> Falls prevention in the elderly | <input type="checkbox"/> Quitting smoking |
| <input type="checkbox"/> Dental screenings | <input type="checkbox"/> Heart disease | <input type="checkbox"/> Suicide prevention |
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> HIV/AIDS & STDs | <input type="checkbox"/> Vaccination/immunizations |
| <input type="checkbox"/> Disease outbreak prevention | <input type="checkbox"/> Routine well checkups | <input type="checkbox"/> Weight loss help |
| <input type="checkbox"/> Drug and alcohol | <input type="checkbox"/> Memory loss | <input type="checkbox"/> Other (please specify) |
| <input type="checkbox"/> Eating disorders | <input type="checkbox"/> Mental health/depression | _____ |

6. What health issues do the people/community you provide care need education about? (Please check up to 5)

- | | | |
|--|--|--|
| <input type="checkbox"/> Blood pressure | <input type="checkbox"/> Eating disorders | <input type="checkbox"/> Mental health/depression |
| <input type="checkbox"/> Cancer | <input type="checkbox"/> Emergency preparedness | <input type="checkbox"/> Nutrition |
| <input type="checkbox"/> Cholesterol | <input type="checkbox"/> Exercise/physical activity | <input type="checkbox"/> Prenatal care |
| <input type="checkbox"/> Dental screenings | <input type="checkbox"/> Falls prevention in the elderly | <input type="checkbox"/> Suicide prevention |
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> Heart disease | <input type="checkbox"/> Vaccination/immunizations |
| <input type="checkbox"/> Disease outbreak prevention | <input type="checkbox"/> HIV/AIDS & STDs | <input type="checkbox"/> Quit smoking |
| <input type="checkbox"/> Drug and alcohol | <input type="checkbox"/> Routine well checkups | <input type="checkbox"/> Other (please specify) |

7. Where do the people/community you provide care to get most of their health information? (Check all that apply)

- | | | |
|--|--|---|
| <input type="checkbox"/> Doctor/health care provider | <input type="checkbox"/> Library | <input type="checkbox"/> TV |
| <input type="checkbox"/> Facebook or twitter | <input type="checkbox"/> Newspaper/magazines | <input type="checkbox"/> Worksite |
| <input type="checkbox"/> Family or friends | <input type="checkbox"/> Other social media | <input type="checkbox"/> Other (please specify) |
| <input type="checkbox"/> Health Department | <input type="checkbox"/> Radio | _____ |
| <input type="checkbox"/> Hospital | <input type="checkbox"/> Church group | |
| <input type="checkbox"/> Internet | <input type="checkbox"/> School or college | |

8. What do you think makes a community healthy? _____

9. How would you rate the health of the people/community you provide care to?

- Very healthy Healthy Somewhat healthy Unhealthy Very unhealthy

If you are able, please complete the following:

Your organization: _____

How old are you? : _____

Where did you receive this survey: _____

ZIP code or Town where you work: _____

What is your sex: Male Female

Are you Hispanic or Latino? Yes No

What race do you consider yourself?

- | | | |
|---|--|---|
| <input type="checkbox"/> White | <input type="checkbox"/> Asian/Pacific | <input type="checkbox"/> Native American |
| <input type="checkbox"/> Black/African American | Islander | <input type="checkbox"/> Other (please specify) _____ |

What is the highest grade you finished?

- | | | |
|--|---|---|
| <input type="checkbox"/> 8 th grade or less | <input type="checkbox"/> Technical school | <input type="checkbox"/> Graduate school |
| <input type="checkbox"/> Some high school | <input type="checkbox"/> Some college | <input type="checkbox"/> Doctorate |
| <input type="checkbox"/> High school graduate | <input type="checkbox"/> College graduate | <input type="checkbox"/> Other (please specify) _____ |

Your name: _____

Phone #: _____ Your email address: _____

Can we contact you so you can tell us more of your ideas regarding health problems in Nassau and Suffolk counties and what should be done about them?

- Yes No

Email to info@lihc.org or mail to:

Brooke Oliveri, LIHC, 1383 Veterans Memorial Highway, Suite 26, Hauppauge, NY 11788

PREFERRED METHOD OF RETURN IS TO COMPLETE THE SURVEY VIA THIS LINK:

surveymonkey.com/r/CBO2022. Questions: Please call 631-255-5678.



**Qualitative Research Analysis of Key Informant
Interviews Conducted Among Community-Based
Organizations on Long Island**

Presented May 3, 2022

EXECUTIVE SUMMARY

The Long Island Health Collaborative (LIHC) is a partnership of Long Island's hospitals, county health departments, health providers, community-based social and human service organizations, academic institutions, health plans, local government, and the business sector, all engaged in improving the health of Long Islanders. Collaborative members are committed to improving the health of people living with chronic disease, obesity, and behavioral health conditions in Nassau and Suffolk counties.

The LIHC assists its members with their Community Health Needs Assessment by providing data for members to use in their final CHNA reports. Members are charged with this task by both the federal and state government, and they are required to obtain feedback from community-based organizations (CBOs) during the CHNA process. The LIHC performed the following to gain feedback from CBOs.

METHODOLOGY

A purposeful sampling procedure was initiated: a form of non-probability sampling in which the researcher relies on their own discretion to choose variables for the sample population, deliberately selecting participants who have information in the phenomena being studied. As a first step, surveys were sent to 400+ community-based organization leaders, which yielded quantitative results about their observed health needs and barriers among the populations they serve. One question on this survey asked the CBO leaders if they would be interested in further discussion. 23 informants expressed interest in being interviewed and were contacted for further discussion. Consistent outreach (first two email correspondences,

then one phone call) and follow-through yielded 12 informants who were able to fully proceed to the interview stage. The interviews were conducted between February 23rd, 2022 and March 4th, 2022.

The interviews were conducted and recorded via Zoom with two different interviewers, reading from an interview instrument with five questions (Appendix A). Two of the five questions were closed-ended, and prior to the qualitative analysis, these two questions were analyzed separately. One asked about New York State Prevention Agenda topics, and the other asked about the most pressing social determinant of health needs (Appendix B). Audio recordings were transcribed and uploaded to Atlas TI Web software for analysis with interviewee permission. Participation in the interview was voluntary, with both interviewee identity and responses kept confidential.

The first necessary step of the data analysis was becoming informed on the history and goals of the Long Island Health Collaborative and the purpose of the Community Health Needs Assessment: to determine the health needs and barriers affecting Long Islanders at the individual and community level.

The interviews were revisited, reread and open-coded with a wide net. Atlas TI version 22 web-based software was used for the qualitative analysis. The variety in backgrounds and expertise of the key informants permitted an expansive open-coding format such as social interactions, personal accounts of the key informant's healthcare experiences on Long Island, the essential tasks and services their organizations provide, their thoughts on what are the most pressing health issues affecting Long Island's populace, and more were coded. The

interview instrument invited open-ended responses yet still kept the topic of discussion narrowly focused on Long Island's systemic health needs. These codes were then parsed through and related back to the interview transcripts, and several concepts reappeared frequently under these wide-ranging codes. These included economics, healthcare service infrastructure, burden of disease and systemic inequality. These frequent concepts shared a near identical level of abstraction yet remained exclusive enough in identity to be categorized separately and were then drafted as some of the initial focused codes. Open codes were read again alongside the interview transcripts to see if additional categories could be drafted, rearing a total of 15 categories to be established as the focused codes. The interviews were reread and aptly recoded with these 15 focused codes.

Borrowing classification schemes wholesale from external sources risks funneling the data through a biased filter, muddying levels of abstraction and running risk of trivializing crucial data points. The researcher defined the focused coding list and their meanings but still respected the Kaiser Family Foundation Social Determinants of Health (Merriam & Tisdell, 212). This was also the case for the five priorities identified in the [New York State Prevention Agenda](#). The focused codes aimed to encompass the entirety of the interview data featured, defined with apt exclusivity so several codes handled similar but not identical data points (Merriam & Tisdell, 213).

Across all 12 transcripts, the interviewees shared their professional background, organizational goals, social determinants and health issues most affecting Long Island and the communities they serve, along with personal stories on healthcare issues affecting their constituents. The process of establishing the focused codes was a gradient of transition from

inductive to deductive analysis, best defined as “grounded theory.” The process opened inductively, reading the transcripts and deriving tentative codes, then continuing to read additional transcripts and noting whether these early codes remained applicable. Proceeding through the data revealed some earlier codes to be of low value while others were only strengthened, and the latter half of the analysis process transitioned to a deductive stance of seeking data that supported the finalized set of codes. Viewing the transcripts through this complete set of parameters yielded several critical themes.

KEY FINDINGS

Despite the key informants hailing from a variety of different yet highly specialized education, expertise, and management experience, several common themes were drawn between all 12 transcripts (with the interviewees remaining anonymous).

Barriers to healthcare

Acknowledging and tackling barriers to healthcare was the strongest sentiment presented between the 12 transcripts. Health insurance tied to employment status or poor insurance options was the most outstanding healthcare access issue: many without insurance do not approach medical health services due to fear of extensive burden of costs, and many programs are trying to alleviate or outright eliminate this issue:

“A lot of people end up in emergency rooms because they don’t have primary care; they don’t have access so they end up with a bill that they can’t pay so we work with them to negotiate with the hospitals and advocate for them to expunge bills.”

Consistent marketing and outreach by healthcare services was also highlighted as being vital:

“I think that is the best strategy that I have is just keep on connecting and reaching out to everyone letting them know that we’re here. Let’s work it out. Let’s find out what we can do what people would like to see, what people need to see.”

Financial Insecurity

Rising costs of living put enormous pressure on Long Island’s residents. Several informants have lamented the United States healthcare system and that many of the systemic issues start at the very top:

“A fragmentation of funding for public health [...] and the barriers it creates to accessing whole care for individuals beyond demographics and beyond disease conditions, all of that is coming from our healthcare system that is broken. It is a barrier written, it is money driven exclusively if people are willing to admit it or not, that’s the underlying realities.”

There is still both respect and a need for local, smaller-scale community programs and services, but many of these are seen as effectively Band-Aid fixes that are not tackling the issue of a healthcare system that is driven to maintain a reasonable profit margin at the absolute top level. In addition, wages are not keeping up with the costs of living:

“It’s not true that people can live on \$15 an hour, I mean let’s just get right down to the basics [...] but if we look at the poverty uptick in Nassau County you know that the percentage of poverty in Nassau County is through the roof.”

An informant expressed that financial insecurity can be a permanent stressor and stress itself can yield physical health consequences in line with chronic disease. Stress can also cause mental health issues, demonstrating how several of these shared themes throughout the interviews can be interconnected:

“And in order to prevent cancer, you have to de-stress because yes stress is cancer causing, and it is a silent killer. So, and stress, little break you down mentally, so I think if you address those issues and find ways to, guess, alleviate. [...] Here in Suffolk County, most people have to work two to three jobs.”

Education

Education was a critical discussion point, with virtually all key informants cementing it as an absolute necessity. Multiple facets of education were strongly emphasized, including completion of K through 12, college education, vocational training and increased health and healthcare literacy:

“I think that on all levels, both adult education and traditional K through 12 education is the key to both a community’s survival and personal success.”

Creation of free and affordable programs that facilitate active learning and personal growth beyond a classroom was also emphasized, such as a six-week cooking and nutritional education program:

“Being able to consistently have healthy food, cook it and compare it. Vegetables and fruits are foreign to them. Touch base on all these components and additional nutrition education.”

Education leads to self-empowerment, which leads to making more informed choices and then proceeds to greater stability and income:

“...she’s able to get a job or to go for training, education or some skill to become more independent and more stable. That would be one prong of the fork.”

Mental Health

Multiple key informants expressed large concern with tackling the stigma of mental health and providing better access to mental health services. Despite the difficulty the COVID-19 pandemic caused every individual, it did provide greater clairvoyance on the societal issues of mental health stigma and perhaps provided a cultural shift towards lessening it:

“And it’s just that stigma that you need mental health care. However, when we move from that stigma and just say, you know, any small problem that you think you need to express your thoughts about and that we can listen, and perhaps together we can find a pathway to clear that.”

“People’s mental health needs to be supported and they need a helping hand. Tearing away at the stigma of mental health.”

The link between mental health issues and substance abuse and how they cyclically fuel each other was also a discussion point:

“And, you know, mental health, obviously substance use goes hand in hand, many times obviously people are using substances to mask the symptoms and the pain of the mental health issues.”

CONCLUSION

The key informants shared their expertise, personal histories and what social determinants of health are currently most important on Long Island’s healthcare landscape. The categorized codes were analyzed both on an individual level and across all collective interviews and yielded a narrative of rising economic pressure, infrastructure barriers to healthcare, a necessity in funding mental health awareness and a need to increase education endeavors at all levels. This analysis provided strong evidence that the themes of mental

health, education, economics, and barriers to healthcare most affect CBO leaders and the populations they serve. The primary domains and sub-domains uncovered through this inductive and deductive reasoning process provide a deeper understanding of the healthcare issues and barriers faced. The findings primarily align with results from the CBO quantitative assessment that asked closed-ended questions, and the [Community Health Assessment Survey](#) distributed to individuals. That survey sought to uncover individuals' perceptions about barriers to care and health concerns for themselves and their communities.

AUTHORS AND RESEARCHERS

Michael Pape, Masters in Public Health Student, Stony Brook University Program in Public Health performed the qualitative analysis and wrote this report to fulfill his degree's practicum requirement.

Janine Logan, MS, APR, Vice President, Communications and Population Health; and Brooke Oliveri, Manager of Communications, Health Outreach, and Research—both principals of the Long Island Health Collaborative— conducted the interviews and designed the study.

APPENDIX A - INTERVIEW INSTRUMENT

1. Please describe your organization?
 - a. Describe your role in the organization
 - b. What specific services does your organization provide?
 - c. Who is the target population?
 - d. Describe services your organization provides to minority populations
 - e. ...to low-income
 - f. ...to uninsured
 - g. ...to other specific populations?

2. Many factors affect the health care community members receive. Of the Kaiser Family Foundation Social Determinants of Health, which 3 most affect the healthcare of the community members you serve?

3. Please elaborate on why you chose those three determinants, and elaborate on how they affect the community you serve.

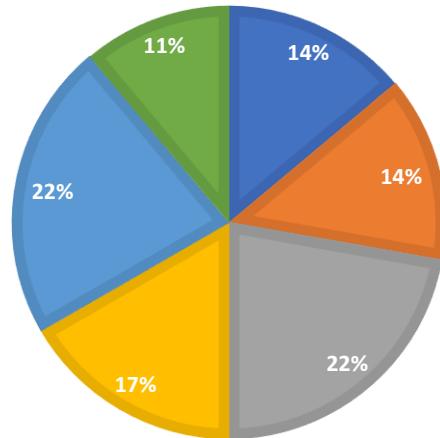
4. Of the three social determinants you identified, which are essentially barriers to care, what strategies do you recommend for overcoming these barriers?

5. The current New York State Department of Health Prevention Agenda has identified 5 health issues to address. Please choose your top 2 priorities for the community you serve.

APPENDIX B

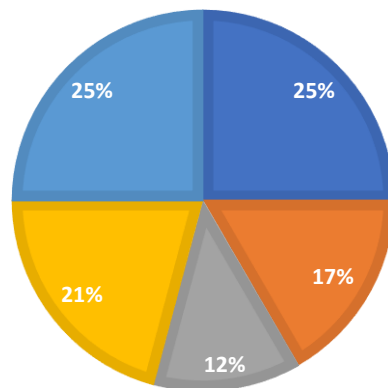
SOCIAL DETERMINANTS

- Community and Social Context
- Economic Stability
- Education
- Food
- Healthcare System
- Neighborhood and Physical Environment



PRIORITIES

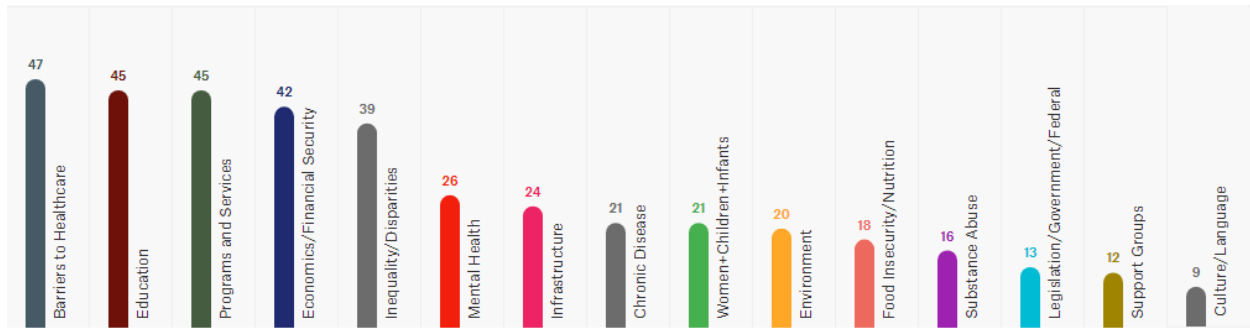
- Prevent Chronic Disease
- Prevent Communicable Diseases
- Promote a Healthy and Safe Environment
- Promote Healthy Women, Infants and Children
- Promote Well-Being and Prevent Mental and Substance Use Disorders



CODES

Primary Domain	Sub-domain
Access/Barriers	Location, Quality, Transportation
Chronic/Communicable Disease	Cancer, Cardiovascular, HIV, HPV, Hypertension, Obesity, Oral Health, Immunization, Physical Activity, Vaccination
Culture/Language	Culture, Ethnicity, Language, Minority, Race, Similarity
Economics/Financial Security	Cost of living, Inflation, Economics, Expenditures, Expenses, Money, Unaffordable
Education	College, High School, Knowledge, Literacy, Vocational School
Environment	Air Quality, Biking, Injury, Physical Environment, Road Quality, Traffic, Safety, Walk
Food Insecurity/Nutrition	Cooking, Food Desert, Nutrition
Inequality/Disparities	Elderly, Homeless, Racism, Red-Lining, Unemployed, Veteran
Infrastructure	Healthcare, Hospital, Insurance, System, Tax, Technology
Legislation/Government/Federal	Federal, Government, Lobbying, Medicaid, Medicare
Mental Health	Depression, Hopeless, Mental illness, Psychiatric, Psychotic, Stigma, Stress
Programs and Services	Application, Initiative, Partnership, Program, Project, Service, Solution, Volunteer
Substance Abuse	Addiction, Alcohol, Heroin, Opioids, Treatment
Support Groups	Empowerment, Outreach, Support
Women+Infants+Children	Baby, Child, Childcare, Maternal Mortality, Mother, Women, Reproductive Health

CODE DISTRIBUTION



SOURCE INDEX

Merriam, S. B. & Tisdell, E. J. (2016). Qualitative Research: A Guide to Design and Implementation [4th Edition]. Jossey-Bass.



Long Island's Libraries: Caretakers of the Region's Social Support and Health Needs

Results of a two-year study

*Conducted by researchers at
Stony Brook University, Program in Public Health
Adelphi University, Master in Public Health program
In partnership with the Long Island Health Collaborative (LIHC).*

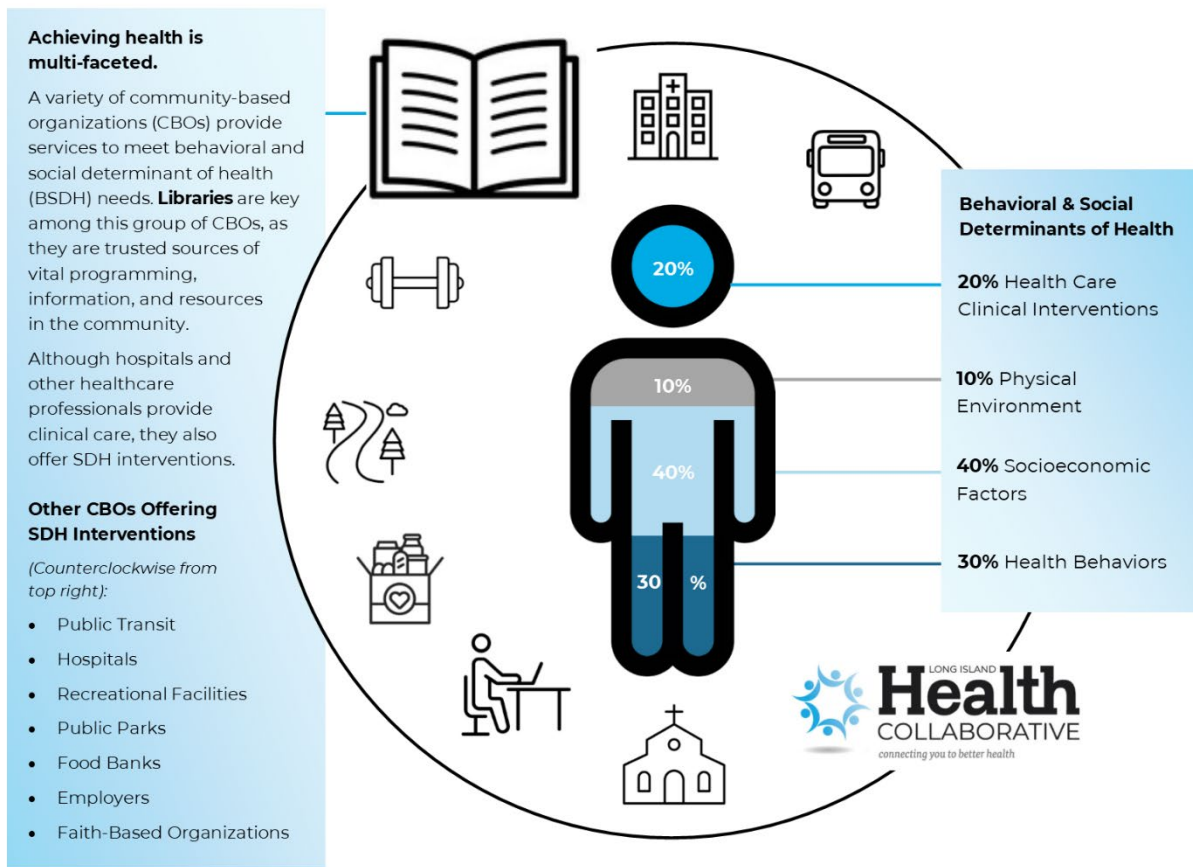
July 2021

Introduction

During a two-year period, from December 2017 to February 2020, researchers from Stony Brook University and Adelphi University interviewed library staff at randomly-selected public libraries throughout Long Island to gather information about the breadth and scope of the health and social support needs of library patrons. They also sought to learn about library staff members' ability to address these needs and their level of preparedness to do so, how staff make decisions about types of programming offered, and what additional resources libraries need to improve the health of their communities. Increasingly, empirical evidence points to the key role that public libraries play in delivering some of the health and social support services an individual requires to live his/her best life. Public libraries are invaluable community health partners, especially in socioeconomically-distressed neighborhoods.

Social determinants of health – those factors outside of medicine that influence an individual's health – account for nearly 80 percent of health outcomes, according to a growing body of public health and medical research.^{1 2 3 4} These factors include education, poverty, access to

transportation, safe and affordable housing, health insurance coverage, and access to nutritious and affordable foods, among others. Increasingly, it is these needs that public libraries often address in their community programming. In higher need communities, some libraries retain a full-time social worker. Others opt for part-time or per diem social workers to assist with meeting community health and social service needs.



Graphic: **Factors Influencing Health.** ©Nassau-Suffolk Hospital Council/Long Island Health Collaborative

Researchers found that there was a difference between the needs and program offerings based on the socioeconomic status of the neighborhood in which the library is located. Higher need communities (generally located in lower-income areas) sought programs assisting with more basic social service needs (such as unemployment, food scarcity, tech literacy, etc.) while in lower need communities (generally located in higher-income neighborhoods) patrons sought more enrichment assistance (such as cooking classes, art programs, etc.). But overall, when it

came to health needs, concerns related to **mental health/substance misuse, heart disease/diabetes, and cancer were consistent themes in most libraries.**

The research began when the New York State 2013 – 2018 [Prevention Agenda](#) and its priorities were in effect and so coding reflected themes embedded in that version of the state’s Prevention Agenda, as well as the Kaiser Family Foundation social determinants of health [rubric](#).

The research occurred prior to the start of the coronavirus pandemic, which was declared a national emergency on March 13, 2020. Library programming came to a halt as libraries were ordered to close before re-opening some months later for virtual programming only. The pandemic exacerbated the inequities in our social and health systems, and libraries, which had been an accessible resource for many communities, were shutdown perhaps at a time when they were needed the most. On June 24, 2021, New York State’s declaration of emergency was halted and many pandemic restrictions were lifted. As of this writing (July 2021), the federal public health emergency declaration remains in effect. Many of the region’s libraries have re-opened but with limited in-person services.

Social Determinants of Health

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Employment	Housing	Literacy	Hunger	Social integration	Health coverage
Income	Transportation	Language	Access to healthy options	Support systems	Provider availability
Expenses	Safety	Early childhood education		Community engagement	Provider linguistic and cultural competency
Debt	Parks	Vocational training		Discrimination	Quality of care
Medical bills	Playgrounds	Higher education			
Support	Walkability				

Health Outcomes

Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations

There are 113 public libraries on Long Island. Of these, 18 libraries in Suffolk County (from 26 randomly selected) and 14 libraries in Nassau County (from 27 randomly selected) consented to participate in the qualitative research study.

The Long Island Libraries Qualitative Research project grew out of a similar project that occurred among the public library system of Philadelphia known as the Free Library of Philadelphia. Investigators at the University of Pennsylvania published results of their research in [Health Affairs](#)⁵ and this caught the attention of the Long Island Health Collaborative and its academic partners. After reading the article “*Beyond Books: Public Libraries as Partners for Public Health*,” Long Island researchers reached out to investigators at the University of Pennsylvania to learn more about the Philadelphia project. After sharing ideas, the Long Island researchers collaborated with the team at University of Pennsylvania, approved by the University of Pennsylvania’s Institutional Review Board (IRB), to conduct interviews among Long Island public librarians and staff.

Selection and Recruitment Methods

The Long Island Health Collaborative staff worked with the researchers to develop a recruitment strategy that began with ensuring that a representative sample of public libraries was achieved. After a complete list of libraries was verified by the Nassau Library System and the Suffolk County Cooperative Library System each public library was sorted by zip code/location. Several towns had more than one zip code but only one library, and several different library locations were located within the same zip code. Researchers accommodated this by developing a selection process that (1) eliminated zip codes without library locations, and (2) included all libraries in the selection process, despite having multiple branches or more than one library in a single zip code.

Using the demographic factors pulled from 2014 American Community Survey, libraries were then sorted by county and categorized into need levels from “low-need” to “high-need” by the following demographic factors:

- **Education** – percentage of high school graduates or higher in the population that are 25 years and over and percentage of bachelor's degree or higher in the population that are 25 years and over.
- **Language** – percentage who speak only English
- **Unemployment** – unemployment rate for population 16 years and over
- **Poverty status** – percentage below poverty level (estimate) and population for whom poverty status is determined
- **Public assistance** – percentage of households with cash public assistance or food stamps/snap for the past 12 months
- **Income** – median household income (dollars)

- **Foreign born residents** – percentage of foreign born

Each demographic factor received a county score by using an inverse average formula used for: unemployment, poverty assistance, public assistance and foreign born and an average score determined for each zip code using the average of all demographic scores. Libraries were then sorted into need categories from highest need to lowest need. The top 20 percent of libraries were determined to be located in a “high need” area (quintile 5) and the bottom 20 percent of libraries were determined to be located in a “low need” area (Quintile 1). All other library locations were categorized as either “moderate high need,” “moderate need,” or “moderate low need” communities. (Appendix A) As a reference, there were 11 locations in Suffolk and 9 locations in Nassau that were categorized as high-need communities.

After the list of public libraries in each county was organized into “need” categories, the team used a simple block randomization strategy to select 50 percent of those in each category for an invitation to participate in the study. Using this method, on average there were five libraries from each quintile that were randomly selected to be recruited for participation in this study. The randomly selected list of libraries was sent to the outreach directors at the Suffolk Cooperative Library System and the Nassau Library System who then sent an email notification to each of the library directors from the selected list to inform them of the research project and encourage them to participate. Library directors were then contacted by the Long Island Health Collaborative for a more in-depth explanation of the research project, invite their participation, and to schedule the interview. Three attempts to connect (one email and two phone follow-ups) were made.

Interview Process

Total interview time lasted from 1.5 to 2 hours, including time for further project explanation and signing informed consent documents. Interviews were audio recorded. The goal was to interview three staffers at each library – always the library director and then such staff members as front desk clerk, reference librarian, security officer, and custodian. Directors chose the staff members. Interviewees were given a participant number to ensure anonymity and confidentiality. Letters were assigned to each of the libraries to ensure facility anonymity. The interviewers used a standardized set of questions and prompts so that there was consistency in the themes explored across each site. Interview recordings were uploaded to a secure HIPAA-compliant website approved by the University of Pennsylvania’s IRB and an IRB-approved transcription service transcribed each interview into a separate word file for each interview. A total of 96 interviews were completed.

Coding and Data Analysis

The transcribed interviews were reviewed by researchers at Stony Brook, and they trained and supervised a team of four research assistants to create a coding scheme for all of the interview files for both counties. The transcribed interviews were coded based on themes that emerged from the interviews across sites using a qualitative analyses software (DeDoose) licensed to Stony Brook's Program in Public Health. The analyses resulted in a robust coding schema with 11 categories and many subthemes within each category. A summary of primary findings is summarized below, and a peer-reviewed publication of more in-depth findings is expected to be available within the year (currently under review by a scholarly journal with LIHC included as a co-author). Once the journal publication of the more in-depth analyses is available for release, we will share it with all LIHC partners.

The overarching questions that were used to motivate the data analyses were:

- (1) What is the knowledge of library staff about the social support and health needs of their patrons?
 - What do the staff think are the most pressing health needs of the community they serve?
 - What do the staff think are the most pressing social support needs of the community they serve?
- (2) What do library staff feel about addressing the health/social support needs of their patrons?
- (3) How do libraries address the social determinants of health, if at all?
 - What do staff at libraries think is lacking in terms of addressing the social determinants of health in their library?
 - What do library staff wish they could do to address the social support and behavioral health needs of their community?
- (4) How do libraries make decisions about how to invest in their services?
- (5) How do libraries define and prevent/address/manage/respond to/resolve disturbances in the libraries?

Summary of Findings

Top 5 identified health needs	Top 5 identified social needs
Mental Health	Homelessness
Exercise	Technology Literacy
Diet	ESL/LOTE
Opioid Use	Unemployment
Personal Health	Food

Differences in types of programming were identified and there were some trends that higher need communities tended to have programs focused on social service needs, such as assistance with unemployment, access to economic stability support services, hunger solutions, homelessness, ESL/LOTE classes, health insurance assistance and technology literacy. Programs in lower need communities tended to have programs focused on enrichment, such as cooking classes, adult art, yoga, and other wellness opportunities to address loneliness. The moderate-need communities tended to have a mix of programs. The emphasis on social support programs in high-need communities is consistent with the health disparities and inequities individuals in these communities face. This finding, in particular, confirms the key role behavioral and social determinants of health play in health outcomes.

The health topics most likely to be the focus of library programs included exercise, access to health insurance (which is also a social support need), information about diet/nutrition, mental health, and Alzheimer's Disease/Dementia.

Usefulness of Research

Decisions about programs in libraries are largely based on community interests, access to content experts to deliver the programs at low or no cost to patrons, and scheduling. Interviewees' responses reflect the needs of the communities served by the libraries. The findings from the Long Island Libraries Qualitative Research project can be used to inform future health and social support service programming offered by libraries, including resource and staff allocation. This is also true of the partnering organizations with which many libraries work, such as the local hospital and health department, and the many community-based organizations that bring health and social support service programming to libraries.

In conjunction with the Long Island Qualitative Research project, graduate students from the Stony Brook University Program in Public Health and undergraduate students from the Hofstra University Community Health Degree program mapped the health and social support service programming at all of Long Island's libraries. Their efforts produced two interactive layered maps – one for use by [researchers](#) and one for the [public's](#) use. The latter map includes convenient links to library websites. The students reviewed data from 2016-2018 by analyzing publicly accessible newsletters, calendars, pamphlets, flyers, and websites. Content analysis was conducted for every program and coded by social determinants of health and Prevention Agenda (2013-2018) Priority Health topics and results were entered into an Excel spreadsheet.

Further Study

As this research was conducted prior to the COVID-19 pandemic, it would be helpful to conduct a limited follow-up study asking specific questions related to how libraries responded to

community needs during the pandemic. Libraries pivoted to virtual programming. It is likely this new mode of delivery had an effect (positive or negative) on the scope and breadth of programs and community members' access to such programming. Results from such a follow-up could also be compared to the current study results to determine the change in volume and type of programming offered before, during, and after the pandemic.

Acknowledgements

The Long Island Libraries Qualitative Research project is a good example of collaboration at its best. A public and a private university joined forces with local public libraries located in diverse communities under the organizational leadership of a multi-sector coalition – the Long Island Health Collaborative. The voluntary efforts of the academic researchers, public health students, and support staff who worked on this project are very much appreciated. Most importantly, we thank the individual library directors and each member of their staff for their time and graciousness in hosting the researchers and for participating in the study. Special acknowledgement goes to Valerie Lewis, the Administrator of Outreach Services for the Suffolk Cooperative Library System and Nicole Scherer, Assistant Director of the Nassau Library System. Without their assistance, this study never would have occurred.



Long Island's public libraries are led by exceptionally caring individuals with dedicated and compassionate staff. They are centers of community life and provide a place where patrons can go to learn, to be safe, and to be part of their community.

The LIHC acknowledges its partners in this research project.

About the Long Island Health Collaborative

The [Long Island Health Collaborative](#) is a partnership of Long Island's hospitals, county health departments, physicians, health providers, social service and health-related community-based organizations, academic institutions, health plans, local government, and the business sector, all engaged in improving the health of Long Islanders. The LIHC is overseen by the [Nassau Suffolk Hospital Council](#) (NSHC), the association that advocates for reasonable and rational healthcare legislation and regulation on behalf of Long Island's hospitals.

¹ <https://www.kff.org/racial-equity-and-health-policy/issue-brief/beyond-health-care-the-role-of-social-determinants-in-promoting-health-and-health-equity/>

² Hacker KA, Alleyne EO, Plescia M. Public Health Approaches to Social Determinants of Health: Getting Further Faster. *J Public Health Manag Pract.* 2021 Sep-Oct 01;27(5):526-528. doi: 10.1097/PHH.0000000000001410. PMID: 34292912.

³ Henize AW, Beck AF, Klein MD, Adams M, Kahn RS. A Road Map to Address the Social Determinants of Health Through Community Collaboration. *Pediatrics.* 2015 Oct;136(4):e993-1001. doi: 10.1542/peds.2015-0549. Epub 2015 Sep 21. PMID: 26391941.

⁴ Bhattacharya D, Bhatt J. Seven Foundational Principles of Population Health Policy. *Population Health Management* vol. 20,5 (2017): 383-388. doi:10.1089/pop.2016.0148

⁵ Morgan AU, Dupuis R, D'Alonzo B, Johnson A, Graves A, Brooks KL, McClintock A, Klusaritz H, Bogner H, Long JA, Grande D, Cannuscio CC. Beyond Books: Public Libraries as Partners for Population Health. *Health Affairs* 35, no.11 (2016):2030-2036 doi:10.1377/hlthaff.2016.0724.

Long Island Health Collaborative Membership Directory

Hospitals, Hospital Association and Hospital Systems	Website
Catholic Health	https://www.chsli.org/
Cohen Children’s Medical Center	https://childrenshospital.northwell.edu/
Stony Brook Eastern Long Island Hospital	https://elih.stonybrookmedicine.edu/
Glen Cove Hospital Northwell Health	https://glencove.northwell.edu/
Catholic Health Good Samaritan Hospital Medical Center	https://www.chsli.org/good-samaritan-hospital
Huntington Hospital Northwell Health	https://huntington.northwell.edu/
Long Island Community Hospital (Formerly Brookhaven Memorial Hospital Medical Center)	https://licommunityhospital.org/
Long Island Jewish Valley Stream Northwell Health	https://valleystream.northwell.edu/
Mather Hospital Northwell Health	https://www.matherhospital.org/
Catholic Health Mercy Hospital	https://www.chsli.org/mercy-hospital
Mount Sinai South Nassau	https://www.southnassau.org/sn
Nassau-Suffolk Hospital Council	https://suburbanhospitalalliance.org/nshc/
Nassau University Medical Center	https://www.numc.edu/
North Shore University Hospital Northwell Health	https://nsuh.northwell.edu/
Northern Metropolitan Hospital Association	http://suburbanhospitalalliance.org/normet/
Northwell Health System	https://www.northwell.edu/
NYU Langone Hospital – Long Island	https://nyulangone.org/locations/nyu-langone-hospital-long-island

Long Island Health Collaborative Membership Directory

Peconic Bay Medical Center Northwell Helth	https://www.pbmchealth.org/
Plainview Hospital Northwell Health	https://plainview.northwell.edu/
Catholic Health St. Catherine of Siena Medical Center	https://www.chsli.org/st-catherine-siena-hospital
Catholic Health St. Charles Hospital	https://www.chsli.org/st-charles-hospital
Catholic Health St. Francis Hospital & Heart Center	https://www.chsli.org/st-francis-hospital
Catholic Health St. Joseph Hospital	https://www.chsli.org/st-joseph-hospital
St. Mary's Healthcare System for Children	https://www.stmaryskids.org/
Stony Brook Southampton Hospital	https://southampton.stonybrookmedicine.edu/
South Oaks Hospital Northwell Health	https://southoaks.northwell.edu/
South Shore University Hospital Northwell Health	https://ssuh.northwell.edu/
Stony Brook University Hospital	https://www.stonybrookmedicine.edu/
Syosset Hospital Northwell Health	https://syosset.northwell.edu/
Veterans Affairs Medical Center	https://www.va.gov/northport-health-care/
Health Departments	Website
Nassau County Department of Health*	https://www.nassaucountyny.gov/1652/Health-Department
Suffolk County Department of Health Services*	https://www.suffolkcountyny.gov/health
New York State Department of Health	https://health.ny.gov/

Long Island Health Collaborative Membership Directory

Federally Qualified Health Centers	
Advantage Care Health Centers	https://advantagecaredtc.org/
Long Island FQHC, Inc.	https://www.lifqhc.com/
Long Island Select Healthcare, Inc.	https://www.lishcare.org/
Hudson River Healthcare *	https://www.sunriver.org/?referer=hrhcare.org
Medical Societies and Associations	Website
Long Island Dietetic Association	www.eatrightli.org
Nassau County Medical Society	www.nassaucountymedicalsociety.org
New York State Nurses Association	www.nysna.org
New York State Podiatric Medical Association	www.nyspma.org
Suffolk County Medical Society *	www.scms-sam.org
Community-Based Organizations	Website
AARP Long Island / NY	https://states.aarp.org/new-york/
Adelphi New York Statewide Breast Cancer Hotline and Support Program	www.breast-cancer.adelphi.edu
All Ability Wellness	www.allabilitywellness.com
Alzheimer's Association, Long Island Chapter	www.alz.org
American Cancer Society	www.cancer.org
American Diabetes Association	www.diabetes.org

Long Island Health Collaborative Membership Directory

American Foundation for Suicide Prevention	www.afsp.org
American Heart Association *	www.heart.org
American Lung Association of the Northeast	www.lung.org
Arbors Assisted Living	www.thearborsassistedliving.com
Association for Mental Health and Wellness *	www.mentalhealthandwellness.org
Asthma Coalition of Long Island	www.asthmacommunitynetwork.org
Attentive Care Services	www.attentivecareservices.com
Caring People	www.caringpeopleinc.com
Catholic Charities, Diocese of Rockville Centre	www.catholiccharities.cc
Community Growth Center	www.communitygrowthcenter.org
Cornell Cooperative Extension - Suffolk County *	www.ccesuffolk.org
EPIC Long Island	www.epicli.org
Epilepsy Foundation of Long Island	www.efli.org
Evolve Wellness	www.evolvewellness.net
Family & Children's Association	www.familyandchildrens.org
Family First Home Companions	www.familyfirsthomecompanions.com
Federation of Organizations	www.fedoforg.org
Girls Inc, LI	www.girlsincli.org

Long Island Health Collaborative Membership Directory

Health and Welfare Council of Long Island	www.hwcli.com
Health Education Project / 1199 SEIU *	www.healthcareeducationproject.org
Helping Hands Across Long Island	https://hali.tccm.tv/#:~:text=Hands%20Across%20Long%20Island%20(HALI,capacity%20of%20others%20to%20excel.
Hispanic Counseling Center	www.hispaniccounseling.org
Hudson River Healthcare *	www.hrhcare.org
Island Harvest	www.islandharvest.org
JDRF	www.jdrf.org
Life Trusts	www.lifetrusts.org
Long Island Association *	www.longislandassociation.org
Long Island Association of AIDS Care *	www.liaac.org
Long Island Council of Churches	www.licny.org
Long Island Community Foundation	www.licf.org
Make the Road NY	www.maketheroad.org
Maria Regina Skilled Nursing Facility	www.mariareginaresidence.org
Maurer Foundation	www.maurerfoundation.org
Mental Health Association of Nassau County *	www.mhanc.org
Music and Memory	www.musicandmemory.org
NADAP	www.nadap.org

Long Island Health Collaborative Membership Directory

Nassau Region PTA	www.nassaupta.com
National Aging in Place Council	www.ageinplace.org
National Eating Disorder Association	www.nationaleatingdisorder.org
National Health Care Associates	www.nathealthcare.com
New Horizon Counseling Center	www.nhcc.us
New York City Poison Control	www.nyc.gov
New York Coalition for Transportation Safety	nycts.org
NutriSense	www.nutri-sense.com
Options for Community Living	www.optionscl.org
People Care Inc	www.peoplecare.com
The Pulse Center for Patient Safety Education & Advocacy *	www.pulsecenterforpatientsafety.org
Retired Senior Volunteer Program *	www.rsvpsuffolk.org
RotaCare	www.rotacareny.org
SDC Nutrition PC	www.call4nutrition.com
Smithtown Youth Bureau	www.smithtownny.gov
Society of St. Vincent de Paul Long Island	www.svdpli.org
State Parks LI Regional Office	www.nysparks.com
Sustainable Long Island	www.sustainableli.org

Long Island Health Collaborative Membership Directory

The Crisis Center	www.thecrisisplanner.com
Thursday's Child	www.thursdayschildofli.org
Town of Smithtown Horizons Counseling and Education Center	www.smithtownny.gov
TriCare Systems	www.tricareystems.org
United Way of Long Island *	www.unitedwayli.org
Utopia Home Care	www.utopiahomecare.com
Visiting Nurse Services & Hospice of Suffolk	www.visitingnurseservice.org
Walk with a Doc	https://walkwithadoc.org/
YMCA of LI *	www.ymcali.org
School and Colleges	Website
Adelphi University *	www.adelphi.edu
Farmingdale State College	www.farmingdale.edu
Hofstra University *	www.hofstra.edu
Molloy College	www.molloy.edu
St. Joseph's College	www.sjcny.edu/long-island
Stony Brook University *	www.stonybrook.edu
Western Suffolk BOCES	www.wsboces.org
Healthy Schools NY *	

Long Island Health Collaborative Membership Directory

Insurers	Website
1199SEIU/Health Education Project	www.1199seiu.org
EmblemHealth	www.emblemhealth.com
Fidelis Care	https://www.fideliscare.org/
United Healthcare *	www.unitedhealthcare.com
VSNY CHOICE Health Plans	www.vnsnychoice.org
Regional Health Information Organizations	Website
Healthix Inc.	www.healthix.org
Businesses and Chambers	Website
Air Quality Solutions	www.iaqguy.com
Custom Computer Specialists	www.customtech.com
Feldman, Kramer & Monaco, P.C.	www.fkmlaw.com
Greater Westhampton Chamber of Commerce	www.westhamptonchamber.org
Honeywell Smart GRID Solutions	www.honeywellsmartgrid.com
LIFE, Inc. Pooled Trusts	www.lifetrusts.org
Marcum	www.marcumllp.com
PSEG of Long Island	www.psegliny.com
TeK Systems	www.teksystems.com

Long Island Health Collaborative Membership Directory

Temp Positions	www.tempositions.com
Time to Play Foundation	www.timetoplay.com
Wisselman & Associates	www.lawjaw.com
WSHU Public Radio (NPR News & Classical Radio)	www.wshu.org
Municipal Partners	Website
Nassau Library System	https://www.nassaulibrary.org/
New York State Association of County Health Officials	www.nysacho.org
New York State Department of Parks and Recreation	www.nyparks.com
NYC Poison Control Center	www1.nyc.gov
Suffolk County Legislature	www.legis.suffolkcountyny.gov
Suffolk Cooperative Library System	https://portal.suffolklibrarysystem.org/
* denotes a founding member of the Long Island Health Collaborative	

CHNA 2022 Prep Work Group Participants

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