Richmond University Medical Center

Community Health Needs Assessment & Community Service Plan for Richmond County (Staten Island)

December 2022

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Executive Summary

About Richmond University Medical Center

Richmond University Medical Center (RUMC) is an award-winning 470+ bed healthcare facility and teaching institution serving Staten Island residents as a leader in acute, medical, and surgical care.

RUMC is a not-for-profit healthcare provider. We provide premier quality patient care through a full spectrum of emergent, acute, primary, behavioral health, and educational services. We do this in an environment that promotes the highest satisfaction among patients, families, physicians, and staff.

As a trusted local healthcare leader, RUMC is committed to understanding and addressing the most pressing health and wellness concerns for Staten Island residents. Every three years, RUMC conducts a Community Health Needs Assessment (CHNA) in partnership with community agencies and creates a corresponding Community Service Plan (CSP) to address the health priorities identified by the CHNA. The 2022 CHNA builds upon previous assessments and will continue to guide our community benefit and community health improvement efforts.

CHNA and CSP Leadership

The 2022 CHNA was overseen by a Steering Committee of representatives from RUMC with advisory from New York City (NYC) Department of Health and Mental Hygiene. RUMC contracted Community Research Consulting, a public health consultant to assist in all phases of the CHNA, including project management, data collection and analysis, and report writing.

RUMC CHNA Planning Committee

Kathy Connors, PT, MPH, Board Member

Sara Gardner, MPH, Board Member

Alex Lutz, Assistant Vice President of Public Relations and Marketing

Jasmin Eversley-Danso, Director of Network Population Health and Clinical Informatics

Cheryl Garber, MPA, Manager of Richmond Health Network Administrative Services

Meredith Gaskins, Senior Public Relations & Marketing Specialist

Community Research Consulting

Colleen Milligan, MBA

Catherine Birdsey, MPH, CHES

Methodology

The 2022 CHNA included quantitative and qualitative research methods to determine health trends and disparities affecting Staten Island residents. Through a comprehensive view of statistical health indicators and community stakeholder feedback, a profile of priority areas that align with the New York State Prevention Agenda was determined. The findings will guide healthcare services and health improvement efforts, as well as serve as a community resource for grant making, advocacy, and to support the many programs provided by health and social service partners.

The following research methods were used to determine community health needs:

- Statistical analysis of health and socioeconomic indicators; a full listing of data references is included in Appendix A
- Electronic survey of key stakeholders, including health and social service providers, community and public health experts, civic and religious leaders, and policy makers and elected officials; a list of key stakeholders and their respective organizations is included in Appendix C
- Systemwide conversations to align RUMC population health management strategy with the 2022-2024 CHNA priorities and CSP

Community Engagement

Community engagement was an integral part of the 2022 CHNA. In assessing community health needs, input was solicited and received from persons who represent the broad interests of the community, as well as underserved, low-income, and minority populations. These individuals provided wide perspectives on health trends, expertise about existing community resources available to meet those needs, and insights into service delivery gaps that contribute to health disparities and inequities.

RUMC is an active community partner and participating member of cross-agency coalitions serving Staten Island residents, including the following:

- Staten Island Behavioral Health Infrastructure Project (BHIP), with the goal to help strengthen mental health and substance use disorder infrastructure across Staten Island systems, reduce unnecessary hospitalizations, and increase access to quality behavioral health services
- Staten Island Performing Provider System (SI PPS), an integrated network of medical, behavioral, and social service agencies with the goal of improving quality of care, reducing costs, and improving health outcomes for Staten Island's Medicaid and uninsured populations
- Tackling Youth Substance Abuse (TYSA), an initiative aimed at decreasing the use of alcohol and prescription drugs and promoting overall healthy choices among youth

As a partner in BHIP, RUMC has most recently been active in the Staten Island Veteran Suicide Prevention Collaborative (SIVSPC), a community-based collaborative of veteran and civilian organizations. The SIVSPC provides quarterly webinars on topics relating to veteran suicide prevention and partners with the Staten Island Retired Volunteer Program to hold community-based Veterans Taskforce meetings. The collaborative also provides ongoing outreach to Staten Island veterans to assess and respond to their social determinants of health needs.

RUMC was a founding member in helping construct and form the SI PPS. RUMC exited the PPS after the initial 5-year project, but remains an active participant, particularly around behavioral health initiatives. Since its formation in 2014, SI PPS has become a national model for how to use data driven strategic business intelligence to create multi-agency collaboration, improve care quality, reduce costs, and achieve population-level outcomes for people with behavioral health conditions. As part of the SI PPS, RUMC has implemented within its system the emergency department (ED) Peer Counselor Warm Handoff Program and E–Recovery Addiction Treatment Platform, among other initiatives. Both programs assist patients with substance use disorder access recovery services and supports in real time and have proven outcomes in reducing relapse and increasing treatment adherence.

The RUMC Center for Young Adults is a member of the TYSA coalition to advocate for and respond to youth substance use concerns. In addition to its work with TYSA, the Center for Young Adults has been actively engaged in the community, providing education and facilitating service linkages with other youth-focused organizations. The program supervisor has targeted education to local schools and facilitated service delivery linkages with the Department of Education and a large charter school organization on Staten Island.

In addition to partnering with community coalitions, RUMC fostered and deepened relationships with school districts across the borough to provide tobacco prevention education. This service was initiated in response to the 2019 CHNA identified issue of e-cigarette use among youth. In 2019 alone, RUMC provided more than 30 tobacco prevention sessions, reaching over 5,000 students across Staten Island. Other community health promotion partners have included the Jewish Community Center, Staten Island Economic Development Corporation, and Community Health Action of Staten Island.

The collective initiatives of community coalitions and partners have and will continue to be integral to the CHNA and CSP. The individuals who comprise these partnerships, as well as other diverse stakeholders across the community, were invited to provide feedback as part of the 2022 CHNA to inform both priority needs and ongoing health improvement efforts.

Identified Health Priorities and Evidence-Based Strategies

To work towards health equity, it is imperative to prioritize resources toward the most pressing and cross-cutting health needs within the community. Priorities were determined by the RUMC CHNA Planning Committee, taking into consideration research findings and community stakeholder feedback.

Based on CHNA findings and taking into account the health system's expertise and resources, RUMC will focus efforts on the following New York State Prevention Agenda priorities as part of its 2022-2024 CSP:

- **Prevent Chronic Diseases**
- **Promote Well-Being and Prevent Mental and Substance Use Disorders**

Strategies to address the Prevention Agenda priorities will target communities on the North Shore, where residents continue to experience disparate health outcomes largely due to socioeconomic differences and racial inequities. While Staten Island is one of the wealthiest boroughs in NYC, boasting a higher median household income and the lowest poverty rate, wealth is not equally distributed across communities. North Shore residents are two to three times as likely to live in poverty as other borough residents, a disparity that disproportionately affects Black/African Americans who comprise 25% or more of North Shore residents. Across Staten Island, the median household income for Black/African Americans is nearly half the median household income for Whites, and more than 1 in 4 Black/African Americans live in poverty, a higher proportion than Black/African Americans living citywide or nationally.

The RUMC 2022-2024 CSP prioritizes evidence-based strategies to address disparities and promote optimal health improvement outcomes. The following is a list of select strategies implemented by RUMC to address the identified priorities areas, and metrics for tracking progress and improvement.

- **Breast Health Patient Navigation Initiative** to address social determinants of health barriers to breast health screening, diagnosis, and treatment
  - Metrics: Patients who receive appropriate follow-up care regardless of identified care access barriers (e.g., transportation, cost, childcare)
- **Community Tobacco Cessation Program**, led by a Certified Tobacco Treatment Specialist
  - Metrics: Program enrollment, completion, and cessation outcomes
- **Diabetes Self-Management Education and Support**, led by an American Diabetes Association Certified Diabetes Care Education Specialist
  - Metrics: Program enrollment, completion, and health outcomes (e.g., participant glucose levels, medication adherence, decreased healthcare costs)
- **National Diabetes Prevention Program**, a CDC recognized program for adults with pre-diabetes
  - Metrics: Program enrollment, completion, and health outcomes (e.g., participant weight loss, glucose levels)
- **Project LAUNCH** (Linking Actions for Unmet Needs in Children's Health), a federal initiative funded by the Substance Abuse and Mental Health Services Administration (SAMHSA) to prepare children for success in school
  - Metrics: Child development outcomes and academic readiness
- **Opioid Overdose Prevention Program** to provide clinical and community based Narcan training and free Narcan and fentanyl test kits
  - Metrics: Number of people trained in Narcan administration, distribution of Narcan and fentanyl test kits, and incidence of opioid overdose and related death
- **Peer Counselor Warm Handoff Program**, connecting patients with substance use disorder seen in the ED with timely and appropriate withdrawal management and other treatment services
  - Improvement metrics: Number of ED interventions, provision of follow-up services, and incidence of opioid overdose
- **Relay**, a NYC Department of Health and Mental Hygiene-led nonfatal overdose response system
  - Improvement metrics: Number of ED interventions, provision of follow-up services, and incidence of opioid overdose
- **Columbia-Suicide Severity Rating Scale** (C-SSRS) depression screening among patients with gambling addiction
  - Improvement metrics: Identification of coexisting mental health conditions and provision of follow-up services

In addition to deploying evidence-based strategies to address disparities and identified priority areas, the 2022-2024 CSP reflects RUMC's ongoing commitment to provide free or low-cost health promotion services. These services include community-based education on diverse health topics and screening and referral services, targeting at-risk or underserved communities.

Board Approval

The 2022 CHNA and CSP were conducted in a timeline to comply with both New York State Department of Health and federal IRS Tax Code 501(r) requirements to conduct an assessment every three years and develop a corresponding health improvement plan. The research findings will be used to guide community benefit and population health initiatives for RUMC and to engage local partners to collectively address identified health needs.

RUMC is committed to advancing initiatives and community collaboration to support the New York State Prevention Agenda priorities identified through the CHNA. The 2022 CHNA and CSP report were presented to the RUMC Board of Directors and approved in July 2022.

Following the Board's approval, the CHNA and CSP report was made available to the public via the RUMC website at https://www.rumcsi.org/about/community-health-needs-assessment/.

Community Health Assessment

Richmond University Medical Center Service Area Description

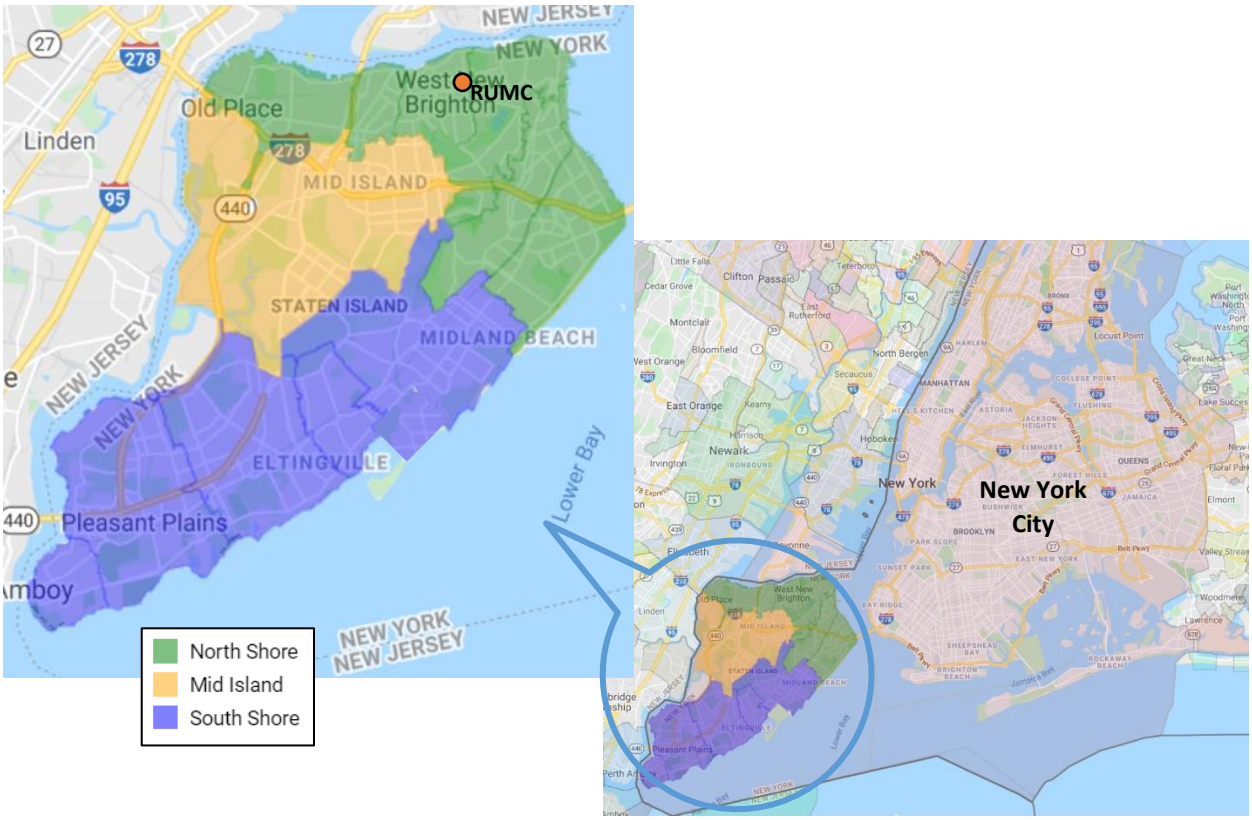
RUMC serves residents of Staten Island, one of the five boroughs comprising NYC. Staten Island is divided geographically into three areas: North Shore, Mid-Island, and South Shore. RUMC is located on the North Shore and primarily serves residents of this area.

The North Shore is Staten Island's oldest and most densely populated area. The population of the North Shore is uniquely diverse with nearly equal representation of White, Black/African American, and Latinx residents, coming from diverse countries such as Sri Lanka, Albania, Trinidad, Liberia, and the Philippines.

Staten Island overall is the wealthiest of the five NYC boroughs, boasting higher median household income and the lowest poverty rate. However, wealth disparities exist across the borough, contributing to wide differences in lifestyle and health and social indicators. The highest proportion of Staten Islanders living in poverty is concentrated in the North Shore.

Staten Island, including the North Shore, has been targeted for a number of revitalization efforts, including investment in small business and non-profit anchors, workforce development, and arts and culture. As one of Staten Island's largest employers, RUMC is committed to supporting these efforts with critical investments and capital improvements to answer the future healthcare needs of the community.

Richmond University Medical Center Service Area



Summary of CHNA Findings

Staten Island had a total population of 495,747 as of the 2020 Census, reflecting slightly lower 10-year growth (+5.8%) than NYC (+7.7%) and the nation (+7.4%) overall. The majority of Staten Island residents continue to identify as White, but consistent with other NYC boroughs, population growth occurred exclusively among people of color. Of note, the multiracial population more than doubled from 2010 to 2020. When viewed at the zip code-level, population diversity is concentrated in the North Shore, and strengthened by a prominent immigrant community. In zip codes 10303 and 10304, approximately half of residents identify as non-White, with larger concentrations of Black/African Americans and/or Latinx.

The multiracial population on Staten Island more than doubled from 2010 to 2020

Staten Island is aging at a faster rate than NYC overall

Staten Island is an aging community. Approximately 16% of residents are aged 65 or older, an increase from prior years, and slightly higher than the NYC average of 14.5%. Older adult health needs were the top identified concern for Staten Island by 41% of Key Informant Survey participants.

As reported by the CDC, half of every person's health profile is determined by a combination of socioeconomic factors and physical environment, also known as social determinants of health (SDoH). Social determinants of health comprise economic stability, education access and quality, healthcare access and quality, neighborhood and built environment, and social and community context.

Viewed as whole, Staten Island has an abundance of social and environmental amenities and economic and educational opportunities, making it a healthy place to live a long life. Measures for most social indicators are better in Staten Island than in other NYC boroughs and as compared to the nation, including higher income, lower and declining poverty and uninsured, and better availability of healthcare services. However, this Staten Island experience is not shared by all residents. While significant portions of the community benefit from a high quality of life, whole neighborhoods and populations experience notable disparities that often point toward underlying social inequities.

Staten Island overall benefits from positive social determinants of health, but inequities among North Shore and Black/African American residents persist

Data across virtually all measures of health and social indicators consistently demonstrate that North Shore residents and Black/African Americans experience more poverty and less homeownership; achieve lower levels of education than their neighbors; are more likely to be linguistically isolated; and are less likely to receive preventive healthcare. The North Shore is a primary care Health Professional Shortage Area for Medicaid-eligible residents. These disparities culminate in poorer birth outcomes, higher death rates from preventable diseases, and increased trauma.

Life expectancy and premature death are key metrics of well-being and potential inequities. Staten Island overall reports high life expectancy of 81 years, but it declines to an average of 74-78 years in the North Shore. In portions of zip codes 10301 and 10304, where socioeconomic barriers are stark, life expectancy is as low as 61.9-71.5 years. Across Staten Island, the premature death rate is higher for Black/African Americans, exceeding the White premature death rate by 50%. Black/African American

residents of Staten Island experience disproportionate death due to preventable and manageable chronic conditions like diabetes and heart disease.

Birth outcomes for North Shore and Black/African American residents also reflect health and social inequities. While Staten Island overall reports better birth outcomes than NYC and the nation, including fewer teen births, more pregnant people receiving early prenatal care, and fewer low birth weight births, North Shore residents are less likely to experience these positive outcomes. This disparity is most evident in the infant death rate per 1,000 live births, which is more than twice as high on the North Shore than the South Shore. Similarly, across NYC, the infant death rate is more than twice as high for Black/African Americans than other racial or ethnic groups.

More than 1 in 10 Staten Island residents were unemployed in 2020; child food insecurity increased more than 50%

The COVID-19 pandemic exacerbated socioeconomic risk factors and highlighted health inequities among people of color. Across Staten Island in 2020, more than 1 in 10 residents were unemployed and child food insecurity was projected to have increased more than 50%. While both indicators declined in 2021, the potential long-term economic and social impacts from these experiences should continue to be monitored. People of color disproportionately experienced socioeconomic hardship during the pandemic, as well as negative health outcomes. As of February 2022, the COVID-19 hospitalization rate among Staten Island Black/African American and Latinx residents was approximately 80% higher than the rate among Whites, and the death rate was approximately 50%-60% higher.

Key Informant Survey responses reinforced the need to address SDoH to improve health outcomes. Approximately one-third of informants identified SDoH, such as economic stability, housing, and ability to afford healthcare as the top concerns for Staten Island. When asked to identify resources that are needed within the community to improve health and quality of life for residents, the top responses included the need for affordable, healthy foods; enhanced employment and educational opportunities; affordable healthcare; public transportation; safe, affordable housing; and supports for aging in place.

Health risk factors like smoking and obesity continue to contribute to higher chronic disease prevalence and death on Staten Island

While negative health indicators disproportionately impact North Shore and Black/African American residents, it is worth noting that residents across Staten Island generally experience more health challenges than their peers citywide and nationally. It is also worth noting that these challenges exist despite overall positive socioeconomic indicators, a finding that can be partially attributed to negative health risk factors like smoking and obesity. Nearly 20% of Staten Island adults report smoking cigarettes, nearly double the citywide average. Approximately 29% of Staten Island adults have obesity, the second highest average in NYC and an increase from prior years.

Staten Island youth are also at risk for negative health risk factors. Obesity prevalence has increased since 2013, and as of 2019, slightly exceeded the NYC average (14.3% vs. 13.8%). While traditional cigarette use among youth has declined, a historically higher proportion report using e-cigarettes. As of 2019, 19.9% of Staten Island high school students used e-cigarettes compared to 15.2% citywide.

Negative health risk factors contribute to higher chronic disease prevalence and death rates on Staten Island. Of note, the diabetes death rate increased nearly 10 points on Staten Island from 2016 to 2020 and exceeds citywide and national rates. Staten Island also has a higher rate of death due to heart disease and cancer, the leading causes of death nationally. Consistent with having higher smoking rates, lung cancer and chronic lower respiratory disease death rates are higher on Staten Island than NYC overall, although lower than national rates.

Approximately 22% of Staten Island older adult Medicare beneficiaries have six or more chronic conditions

Chronic disease prevalence is also higher among Staten Island's aging population. Approximately 22% of older adult Medicare beneficiaries have six or more chronic conditions compared to 18% nationally. Hypertension and high cholesterol are the most prevalent conditions among Staten Island older adult Medicare beneficiaries, although diabetes prevalence exceeds the national average by nearly 20 points.

Substance use disorder, particularly related to opioid use, continues to be a primary concern for Staten Island residents. Staten Island has historically had a higher rate of accidental overdose death than NYC and the nation. The COVID-19 pandemic exacerbated the opioid epidemic, and from 2019 to 2020, the number of accidental overdose deaths occurring on Staten Island increased 22.5%, from 111 to 136. According to the NYC Department of Health and Mental Hygiene, Staten Island saw 44 confirmed overdose deaths in the first quarter of 2021, and from April 2020 to March 2021, the North Shore region had one of the highest overdose death rates in NYC, estimated at 50-95 per 100,000 residents.

Accidental overdose deaths on Staten Island increased 22.5% in 2020

Staten Island has historically reported more positive mental health outcomes, including fewer adults with a diagnosed mental disorder and a historically lower suicide death rate than the nation. Anecdotal feedback from RUMC clinical leaders suggests that mental health concerns were exacerbated by the pandemic, particularly among youth. The health system has seen a rise in both adult and child inpatient and emergency psychiatric demand. Youth admissions for suicidal ideation and attempts have increased from prior years. Children who had previously never experienced psychosis are being seen for severe psychological issues. Clinical leaders attributed these trends to family stress, educational disruptions, and social media usage during the pandemic. RUMC is actively working with the NYC Department of Health and Mental Hygiene as part of the Youth Mental Health and Suicide Learning Collaborative to identify youth suicide risk factors and implement prevention strategies.

The COVID-19 pandemic exacerbated mental health concerns, particularly for youth

A full summary of statistical data findings for Staten Island follows.

Service Area Population Statistics

Demographics

Since 2010, NYC overall saw a similar increase in population (+7.7%) as the nation (+7.4%). Population growth on Staten Island was slightly lower at +5.8%, reflecting a total population gain of 27,017 people.

2020 Total Population

	Total Population	Percent Change Since 2010
Staten Island	495,747	+5.8% ⬆
New York City	8,804,190	+7.7%
United States	331,449,281	+7.4%

Source: US Census Bureau, Decennial Census

Consistent with the nation and NYC overall, population growth on Staten Island occurred exclusively among people of color and multiracial individuals. From 2010 to 2020, the White population declined -13.5%, a faster rate of decline than the nation (-8.6%). The largest population growth was seen among multiracial (+26,702 people), Asian (+24,115 people), and other race (+18,251) individuals. The number of individuals identifying as American Indian/Alaska Native also more than doubled with an added +1,904 individuals.

When viewed at the zip code-level, population diversity is concentrated in the North Shore. In zip codes 10303 and 10304, approximately half of residents identify as non-White. Within these zip codes, approximately one-third of individuals identify as Black/African American. Nearly 40% of residents in zip code 10303 and neighboring zip code 10302 identify as Latinx.

2020 Population by Race and Ethnicity

	American Indian / Alaska Native	Asian	Black/ African American	Native Hawaiian / Pacific Islander	White	Other Race*	Two or More Races	Latinx origin (any race)
Staten Island	0.7%	12.0%	10.5%	0.0%	59.6%	9.3%	7.8%	19.6%
New York City	1.0%	15.7%	22.1%	0.1%	34.1%	17.0%	10.1%	28.3%
United States	1.1%	6.0%	12.4%	0.2%	61.6%	8.4%	10.2%	18.7%

Source: US Census Bureau, Decennial Census

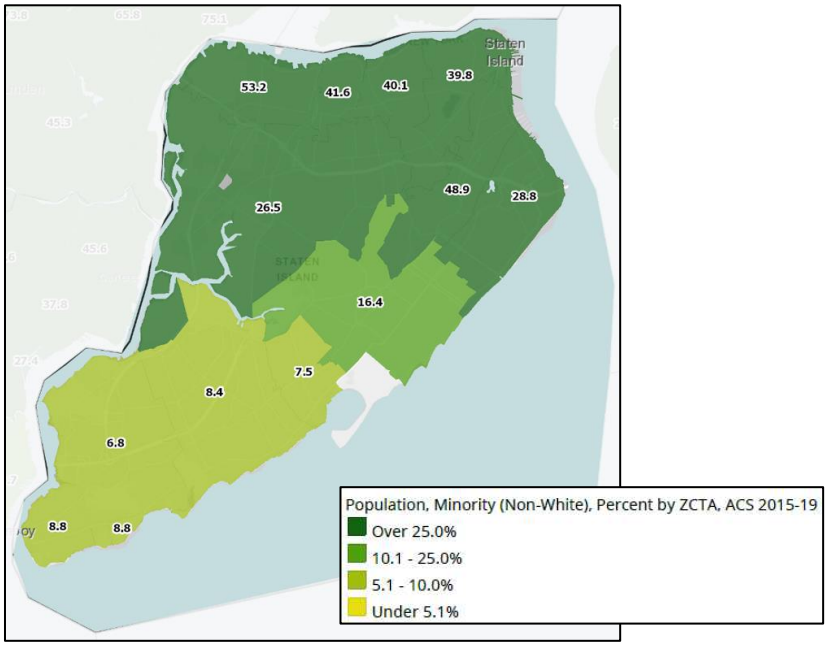
*Other Race has historically captured ethno-racially mixed individuals, as well as Latinx individuals who do not consider ethnicity as separate or distinct from race.

Population Change among Racial and Ethnic Groups, 2010 to 2020

	American Indian / Alaska Native	Asian	Black/ African American	Native Hawaiian / Pacific Islander	White	Other Race	Two or More Races	Latinx origin (any race)
Staten Island	+112.3%	+68.6%	+4.4%	+9.9%	-13.5%	+65.2%	+220.3%	+19.6%
New York City	+49.9%	+33.4%	-6.9%	+33.6%	-16.6%	+40.7%	+172.2%	+6.6%
United States	+27.1%	+35.5%	+5.6%	+27.8%	-8.6%	+46.1%	+275.7%	+23.0%

Source: US Census Bureau, Decennial Census

2015-2019 Non-White Population by Zip Code



Health needs change as individuals age. Therefore, the age distribution of a community impacts its social and healthcare needs. **The age distribution and median age of Staten Island is similar to the nation and older than NYC overall.** Approximately 16% of Staten Island residents are aged 65 or older and 13.7% are aged 55-64, a slightly higher proportion than the nation (12.9%).

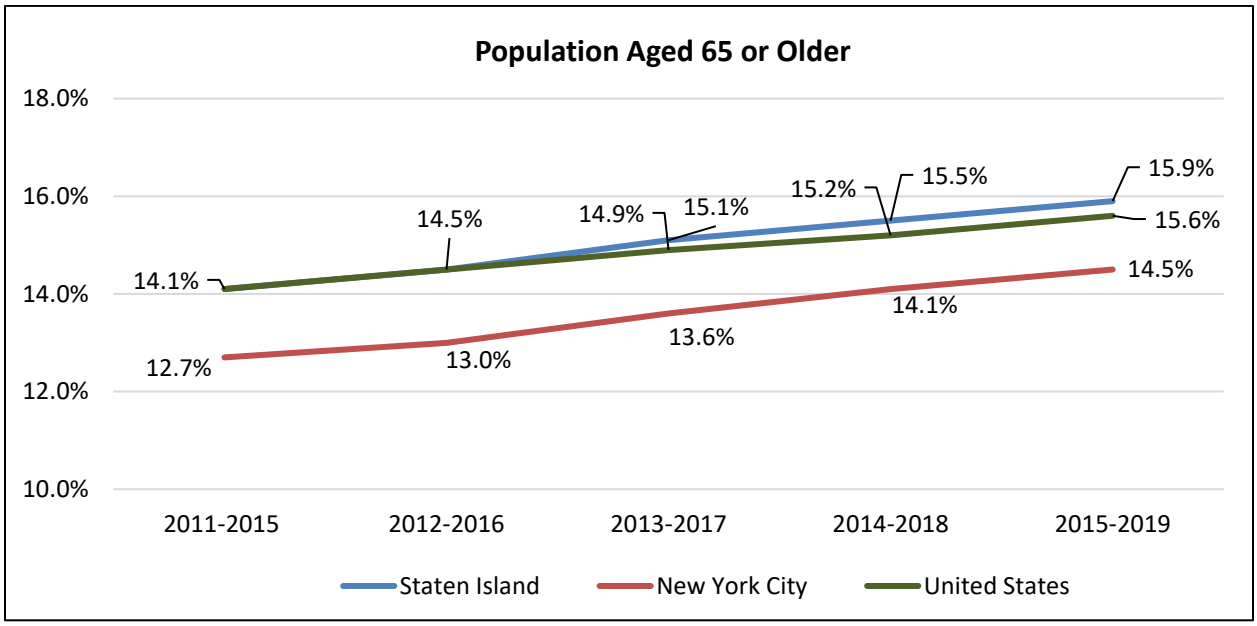
The proportion of older adult residents increased across Staten Island, NYC, and the nation. Nationally, among older adults aged 65 or older, the 65-74 age category is the fastest growing demographic, largely due to the aging of the baby boomer generation. This finding suggests health needs and support services for older adults will likely continue to grow in coming years.

While the older adult population increased across Staten Island, youth under age 18 comprise nearly 1 in 4 residents.

2015-2019 Population by Age

	Gen Z/ Gen C	Gen Z	Millennial	Millennial/ Gen X	Gen X	Boomers	Boomers/ Silent	Median Age
	Under 18 years	18-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65 years and over	
Staten Island	21.9%	8.4%	13.5%	12.6%	14.0%	13.7%	15.9%	40.1
New York City	20.8%	8.7%	17.8%	13.7%	12.7%	11.8%	14.5%	36.7
United States	22.6%	9.4%	13.9%	12.6%	13.0%	12.9%	15.6%	38.1

Source: US Census Bureau, American Community Survey



Source: US Census Bureau, American Community Survey

Staten Island and NYC overall are home to proportionately more immigrants than the nation. Approximately 74.5% of Staten Island residents were born in the US compared to a national average of 85%. Consistent with this finding, more residents across Staten Island and NYC speak a primary language other than English.

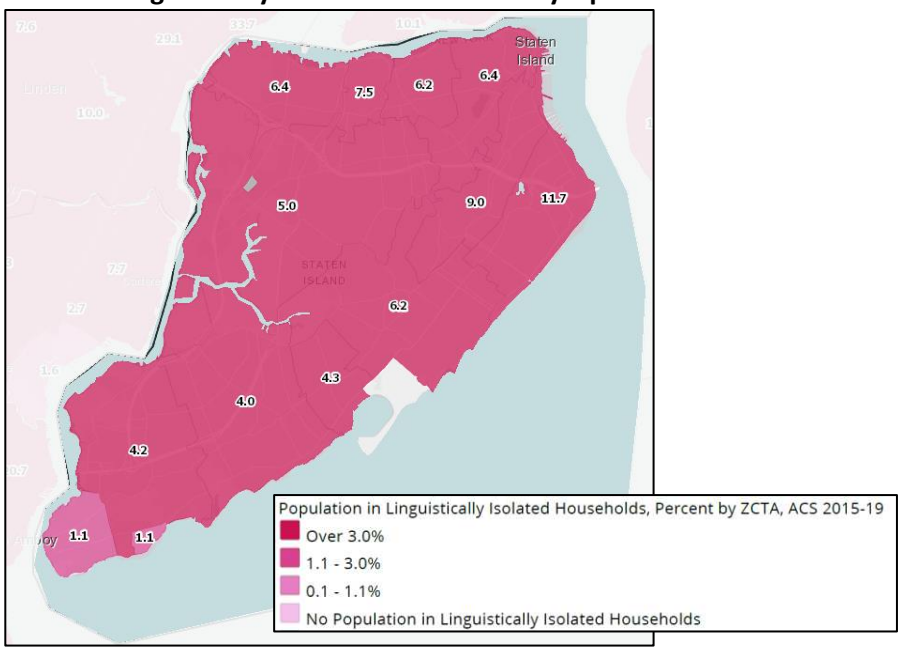
On the North Shore, nearly 12% of households in zip code 10305 and 9% of households in zip code 10304 are considered linguistically isolated. Linguistically isolated households are defined as persons who cannot speak English at least 'very well' or who do not live in a household where an adult speaks English 'very well'. Of note, 14.9% of residents in zip code 10305 identify as Asian and 9.7% as Chinese. Approximately 11% of residents in zip code 10304 identify as Asian and 4.9% as Chinese.

2015-2019 Nativity and Citizenship Status

	US citizen, born in the US	US citizen, born in Puerto Rico or US Island Areas	US citizen, born abroad of American parent(s)	US citizen by naturalization	Not a US citizen	Speak Primary Language Other Than English
Staten Island	74.5%	1.4%	0.9%	15.6%	7.6%	32.6%
New York City	59.5%	2.2%	1.5%	20.9%	15.9%	48.5%
United States	84.9%	0.6%	1.0%	6.7%	6.8%	21.6%

Source: US Census Bureau, American Community Survey

2015-2019 Linguistically Isolated Households by Zip Code



Poverty

Consistent with the nation and NYC, **poverty declined in Staten Island since the 2019 CHNA. Staten Island residents overall continue to have higher incomes and lower poverty when compared to city and national averages.** Poverty largely declined in 2015-2019, reflecting improvement for the total population, as well as youth and older adults. Of note, older adults in Staten Island continue to have a slightly higher rate of poverty than the nation (11.1% vs. 9.3%).

Staten Island is one of the wealthiest boroughs in NYC, boasting a higher median household income and the lowest poverty rate. However, wealth is not equally distributed across the borough. On the North Shore, approximately 12%-23% of all people live in poverty compared to 5%-9% of people in other areas. Residents of zip codes 10303 and 10304 have the highest poverty rates, affecting nearly 1 in 4 people and 1 in 3 children. These findings disproportionately affect Black/African American residents who comprise approximately one-third of residents in these zip codes. **The median household income for Black/African Americans residing on Staten Island is nearly half the median household income for**

Whites. More than 1 in 4 Black/African Americans live in poverty, a higher proportion than Black/African Americans living citywide or nationally.

Note, income and poverty data reflect pre-COVID-19 findings and likely do not demonstrate economic hardship experienced by individuals and families during the pandemic. Unemployment and food insecurity data for 2020 and 2021 provide insight into the economic impact of the pandemic.

COVID-19 had a significant impact on unemployment rates across the nation. By the end of 2020, average unemployment for the US was approximately double what it was at the beginning of the year. Staten Island and NYC overall saw a larger increase in unemployment than the nation in 2020, with more than 1 in 10 residents citywide unemployed. **While national unemployment has since declined, falling below pre-pandemic levels, unemployment in Staten Island and NYC remains more than twice as high as pre-pandemic levels.**

Economic Indicators

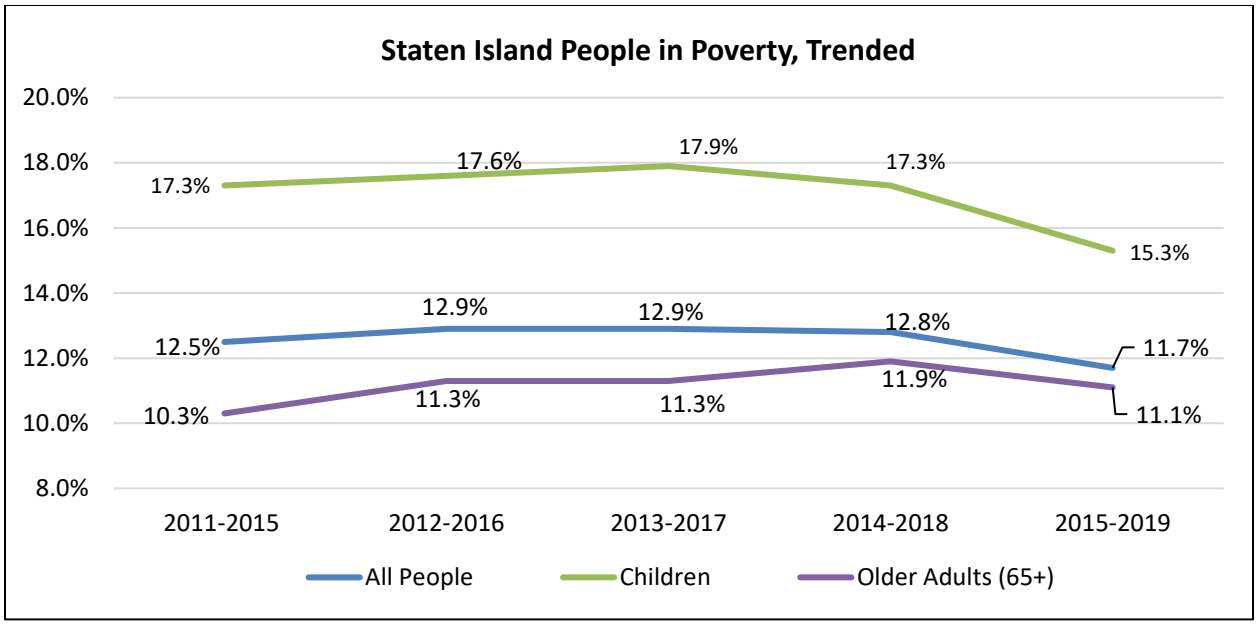
	Staten Island	New York City	United States
Income and Poverty (2015-2019)			
Median household income	$82,783	$63,998	$62,843
People in poverty	11.7%	17.9%	13.4%
Children in poverty	15.3%	25.1%	18.5%
Older adults (65+) in poverty	11.1%	18.2%	9.3%
Households with SNAP* Benefits	11.7%	19.4%	11.7%
Unemployment			
January 2020	3.7%	3.8%	4.0%
2020 average	10.6%	12.3%	8.1%
November 2021	7.2%	8.0%	3.9%

Source: US Census Bureau, American Community Survey & US Bureau of Labor Statistics
*Supplemental Nutrition Assistance Program.

2015-2019 People in Poverty among Prominent Racial and Ethnic Groups

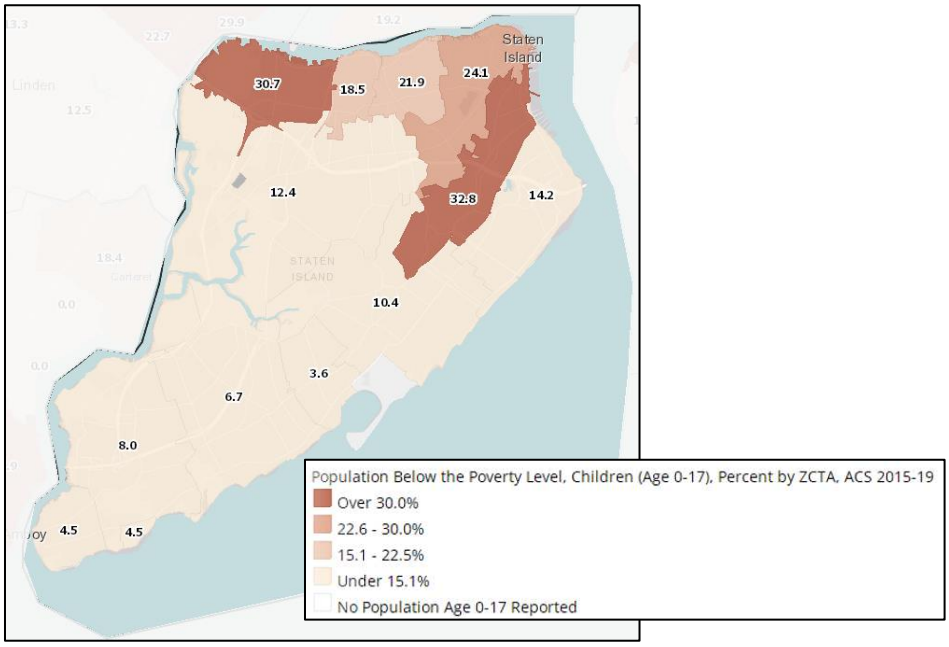
		Asian	Black/ African American	White	Two or More Races	Latinx origin (any race)
Staten Island	Median Household Income	$86,134	$47,370	$88,975	$81,915	$58,599
	Living in Poverty	11.4%	26.3%	8.7%	15.9%	20.9%
New York City	Median Household Income	$69,839	$48,717	$83,768	$62,993	$43,909
	Living in Poverty	16.3%	21.1%	13.4%	18.0%	24.7%
United States	Median Household Income	$88,204	$41,935	$66,536	$59,184	$51,811
	Living in Poverty	10.9%	23.0%	11.1%	16.7%	19.6%

Source: US Census Bureau, American Community Survey



Source: US Census Bureau, American Community Survey

2015-2019 Children in Poverty by Zip Code



Food Insecurity

Food insecurity is defined as not having reliable access to a sufficient amount of nutritious, affordable food. Food insecurity is associated with lower household income and poverty, as well as poorer overall health status. Similar to unemployment rates, COVID-19 had a profound impact on food insecurity, particularly among children. **From 2019 to 2020, the percentage of food insecure children was projected to increase 8 percentage points on Staten Island and 5 percentage points across the US. In**

2020, approximately 1 in 5 children on Staten Island were projected to be food insecure. Projected food insecurity declined only slightly in 2021 and continues to be higher than pre-pandemic years.

Food Insecurity

	Staten Island	United States
All Residents		
2021 (projected)	**12.3%**	**12.9%**
2020 (projected)	**13.1%**	**13.9%**
2019	8.7%	10.9%
Children		
2021 (projected)	**19.0%**	**17.9%**
2020 (projected)	**20.8%**	**19.9%**
2019	12.8%	14.6%

Source: Feeding America

Education

High school graduation is one of the strongest predictors of longevity and economic stability. Staten Island residents are more likely to complete high school or pursue higher education when compared to NYC and/or the US, although a higher proportion conclude their education with a high school diploma.

Consistent with national trends, Staten Island adults of Asian descent are the most likely of any other population group to attain higher education. **Black/African American and Latinx residents are more likely to attain higher education compared to their peers citywide and nationally but continue to experience educational disparity relative to other racial groups.** Consistent with this finding, educational disparities are most prevalent among North Shore zip codes.

2015-2019 Population (Age 25 or older) by Educational Attainment

	Less than high school diploma	High school graduate (includes GED)	Some college or associate's degree	Bachelor's degree	Graduate or professional degree
Staten Island	11.3%	30.4%	24.5%	20.2%	13.7%
New York City	17.9%	24.0%	20.0%	22.2%	15.9%
United States	12.0%	27.0%	28.9%	19.8%	12.4%

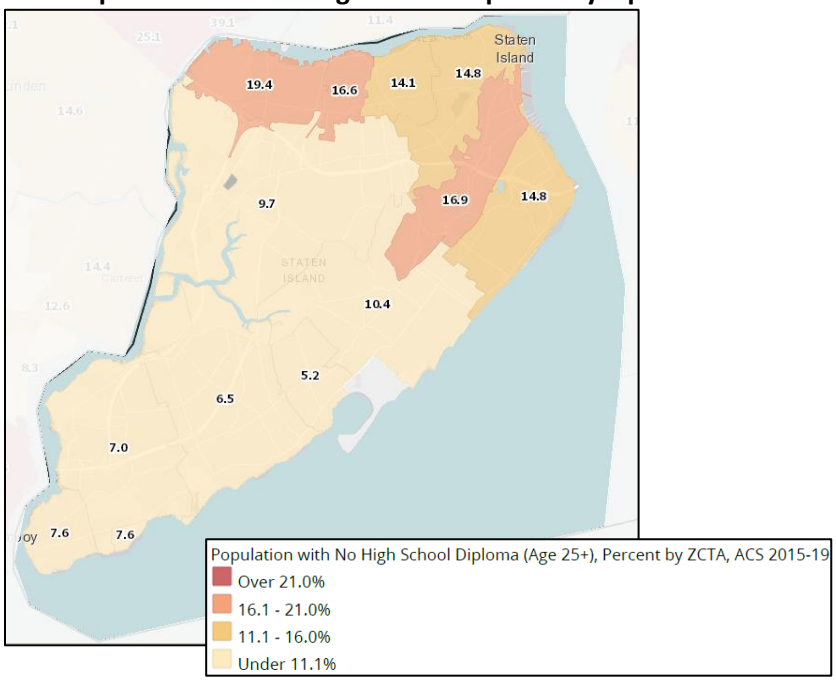
Source: US Census Bureau, American Community Survey

2015-2019 Population (Age 25 or older) with a Bachelor's Degree or Higher by Prominent Racial and Ethnic Group

	Asian	Black/African American	White	Two or More Races	Latinx origin (any race)
Staten Island	45.2%	26.5%	33.9%	37.5%	19.1%
New York City	42.4%	24.4%	51.0%	38.4%	18.6%
United States	54.3%	21.6%	33.5%	31.9%	16.4%

Source: US Census Bureau, American Community Survey

2015-2019 Population with No High School Diploma by Zip Code



Housing

Housing is the largest single expense for most households and should represent 30% of a household's monthly income. The median home value for NYC and Staten Island is more than double the national median. **More than 40% of homeowners in NYC and Staten Island are considered housing cost burdened, although consistent with the nation, the proportion decreased from 2019 CHNA findings.** Approximately 41% of homeowners in Staten Island are considered housing cost burdened compared to 44.3% reported at the time of the 2019 CHNA.

Staten Island residents are more likely to own their home when compared to both citywide and national averages. However, **nearly 54% of Staten Island renter households are considered housing cost burdened, a higher proportion than the city and nation overall.** The percentage of Staten Island households cost burdened by monthly rent expenses declined slightly from the 2019 CHNA, from 54.5% to 53.7%.

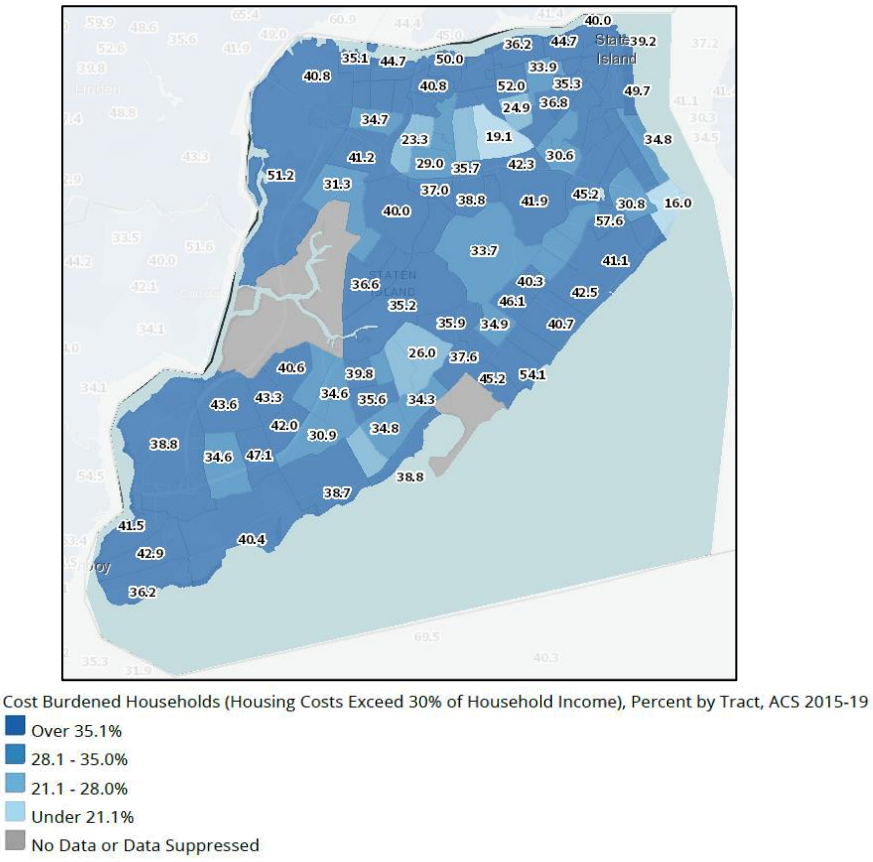
2015-2019 Housing Indicators

	Owners			Renters		
	Occupied Units	Median Home Value	Cost-Burdened*	Occupied Units	Median Rent	Cost-Burdened*
Staten Island	69.3%	$504,800	40.7%	30.7%	$1,319	53.7%
New York City	32.7%	$606,000	43.3%	67.3%	$1,443	52.5%
United States	64.0%	$217,500	27.8%	36.0%	$1,062	49.6%

Source: US Census Bureau, American Community Survey
*Defined as spending 30% or more of household income on rent or mortgage expenses.

The following map depicts the percentage of cost burdened households by census tract on Staten Island. Housing cost burden is prevalent across Staten Island, although it is worth noting that **on the North Shore, as many as 56%-58% of households are considered housing cost burdened.**

2015-2019 Cost Burdened Households by Census Tract



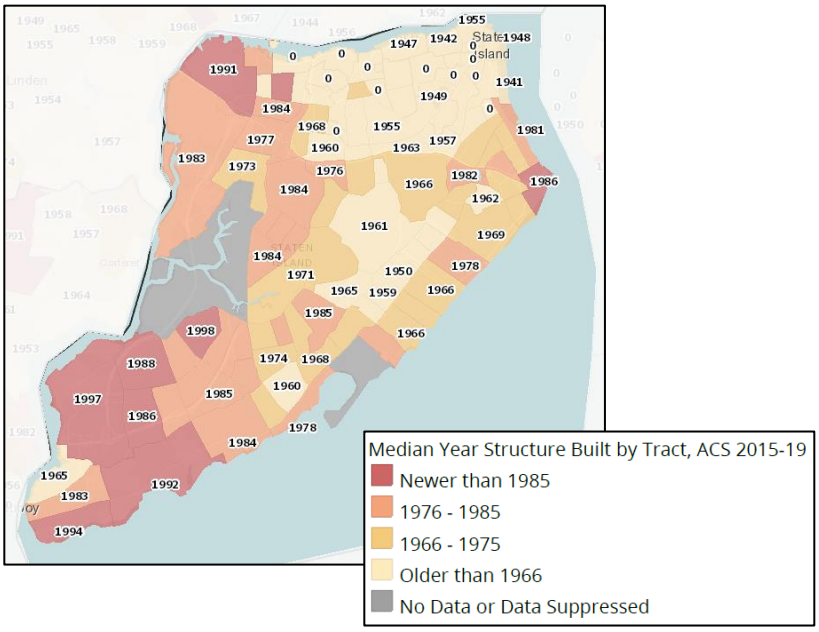
New York City overall has older housing stock in comparison to the nation, with more than 80% of housing units built before 1980. Staten Island also has older housing stock than the nation, although newer stock when compare to the city as a whole. **Newer housing on Staten Island was largely built between 1980 and 2009; less than 2% of units were built after 2009 compared to 5% nationally.** When viewed at the census tract-level, newer housing in Staten Island is largely concentrated on the South Shore.

2015-2019 Housing by Year Built

	Before 1980	1980-1999	2000-2009	2010-2013	2014 or Later
Staten Island	63.0%	26.0%	9.0%	1.2%	0.7%
New York City	83.1%	8.5%	5.6%	1.7%	1.1%
United States	53.6%	27.3%	14.0%	2.7%	2.5%

Source: US Census Bureau, American Community Survey

2015-2019 Median Year of Housing Build by Census Tract

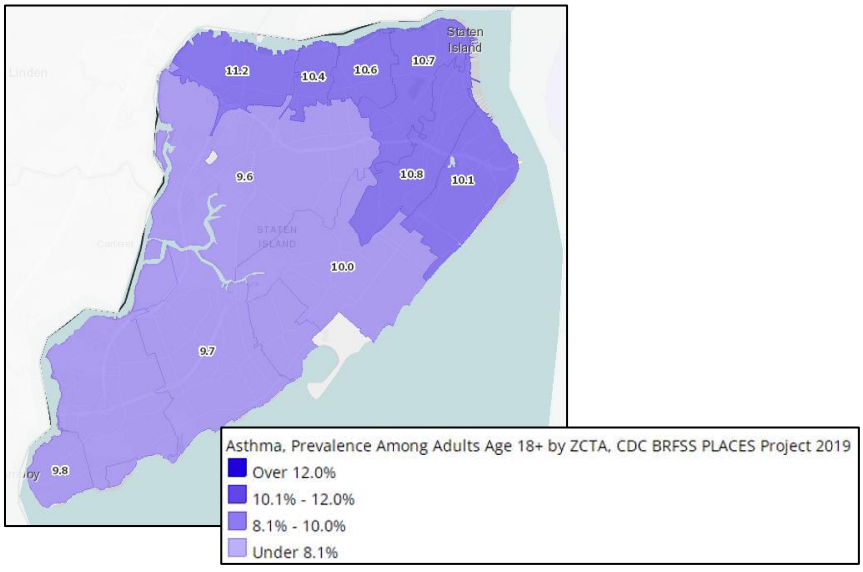


Quality housing has a direct impact on health. Unhealthy housing puts residents at risk of health issues including lead poisoning, asthma, injury, and other chronic diseases. Housing built before 1979 may contain lead paint and other hazardous materials like asbestos.

Staten Island has a slightly higher prevalence of asthma (9.6%) than the nation (8.9%). Consistent with having older housing and more social determinants of health barriers, North Shore residents have a higher prevalence of asthma than other parts of the borough, estimated at 10%-11%.

Richmond University Medical Center served a total of 581 patients with asthma in 2019, 38% of patients had persistent asthma and 62% had mild-intermittent asthma. Patient counts for 2020 and 2021 are not available, but were consistent with prior years due to availability of telehealth during the pandemic.

2019 Adult Asthma Prevalence by Zip Code



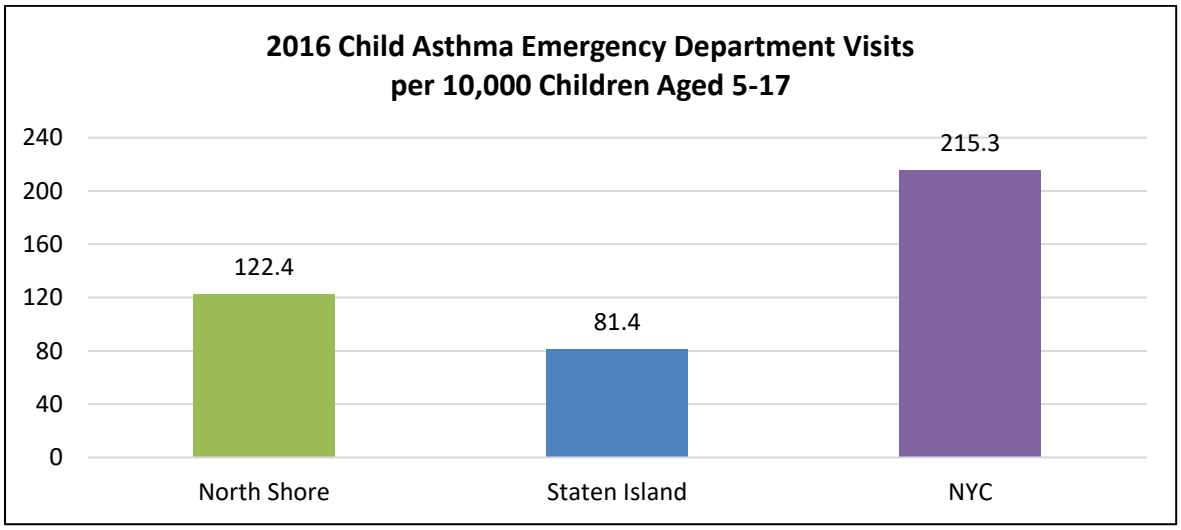
Asthma is the most common chronic condition among children, and a leading cause of school absenteeism and hospitalization. **In 2019, 27.7% of Staten Island children had ever been diagnosed with asthma, a higher proportion than NYC and the nation overall.** Across NYC, asthma prevalence was higher for Black/African American and Latinx children, largely due to disparities in housing conditions (rental, older) and other social determinants of health barriers.

2019 High School Students Ever Diagnosed with Asthma

	Staten Island	New York City	United States
Total	27.7%	24.6%	21.8%
Asian	NA	17.9%	22.6%
Black/African American	NA	27.8%	29.2%
White	NA	16.8%	19.8%
Latinx origin (any race)	NA	28.6%	21.0%

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention

Child emergency department (ED) visits due to asthma are considered avoidable by reducing the presence of pests, mold, secondhand smoke, and other triggers, and by daily healthcare maintenance practices. Consistent with 2019 CHNA findings, Staten Island has a lower rate of child asthma ED visits than the city overall, but the rate of visits is 50% higher on the North Shore. Of note, the rate of child asthma ED visits declined annually since 2014, both citywide and in Staten Island.



Source: New York City Department of Health and Mental Hygiene

Related to housing concerns is access to computers and internet service. Termed the "digital divide," there is a growing gap between the underprivileged members of society—especially poor, rural, elderly, and disabled populations—who do not have access to computers or the internet and the wealthy, middle-class and young Americans living in urban and suburban areas who have access.

Staten Island and NYC overall have similar digital access as the nation. Related to computer device access, Staten Island residents are more likely to have a desktop or laptop device and less likely to have a smartphone when compared to the city and nation.

2015-2019 Households by Digital Access

	With Computer Access			With Internet Access	
	Computer Device	Desktop / Laptop	Smartphone	Internet Subscription	Broadband Internet
Staten Island	89.7%	80.2%	77.0%	82.2%	81.7%
New York City	89.1%	76.6%	80.5%	81.8%	81.5%
United States	90.3%	77.8%	79.9%	83.0%	82.7%

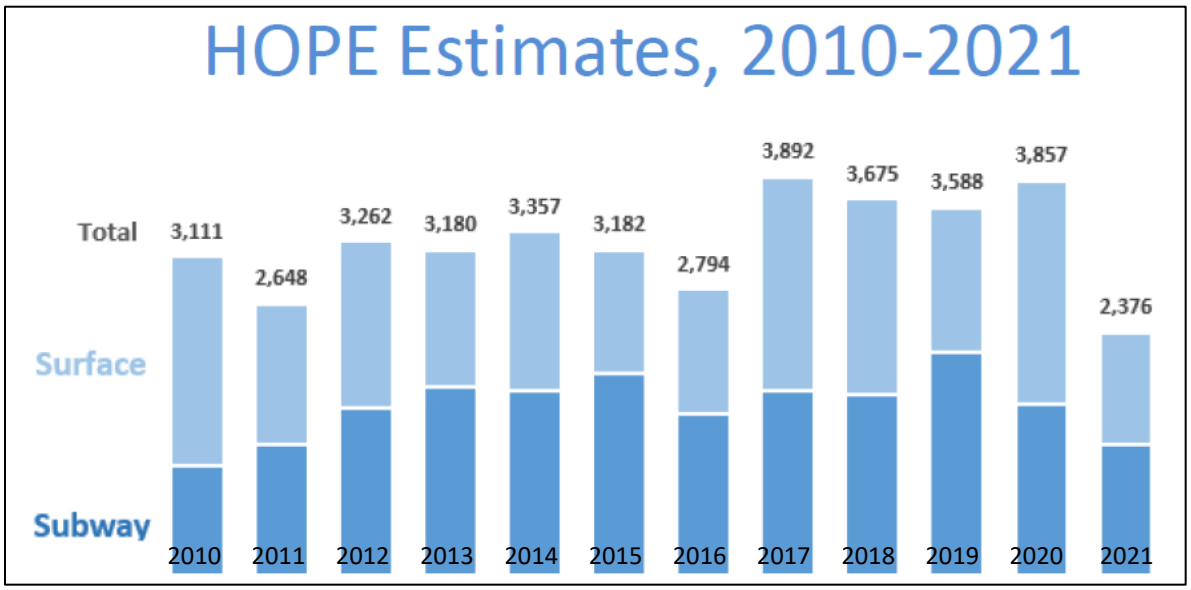
Source: US Census Bureau, American Community Survey

Homelessness

Every January, thousands of volunteers across the five NY boroughs participate in an annual Homeless Outreach Population Estimate (HOPE). Over a single night, volunteers canvass streets, subway stations, parks, and other public spaces across the city to identify individuals living unsheltered. HOPE is required by the U.S. Department of Housing and Urban Development (HUD) to receive funding. Using a consistent sampling methodology since 2005, HOPE remains one of the most methodologically rigorous efforts nationwide to estimate the number of individuals experiencing street homelessness.

Due to COVID-19 health and safety concerns, canvassing in 2021 was led by outreach providers and city services staff over the course of four nights (versus volunteers on one night). Canvassing took place earlier in the evening and did not employ decoys, as in past years, to measure the accuracy of the count.

The HOPE survey, conducted on January 26, 2021, identified an estimated 2,376 unsheltered individuals across NYC, a 38% decrease compared to January 2020. **Homelessness estimates decreased for all five boroughs, including a 16% decrease on Staten Island from 55 individuals in 2020 to 46 individuals in 2021.**

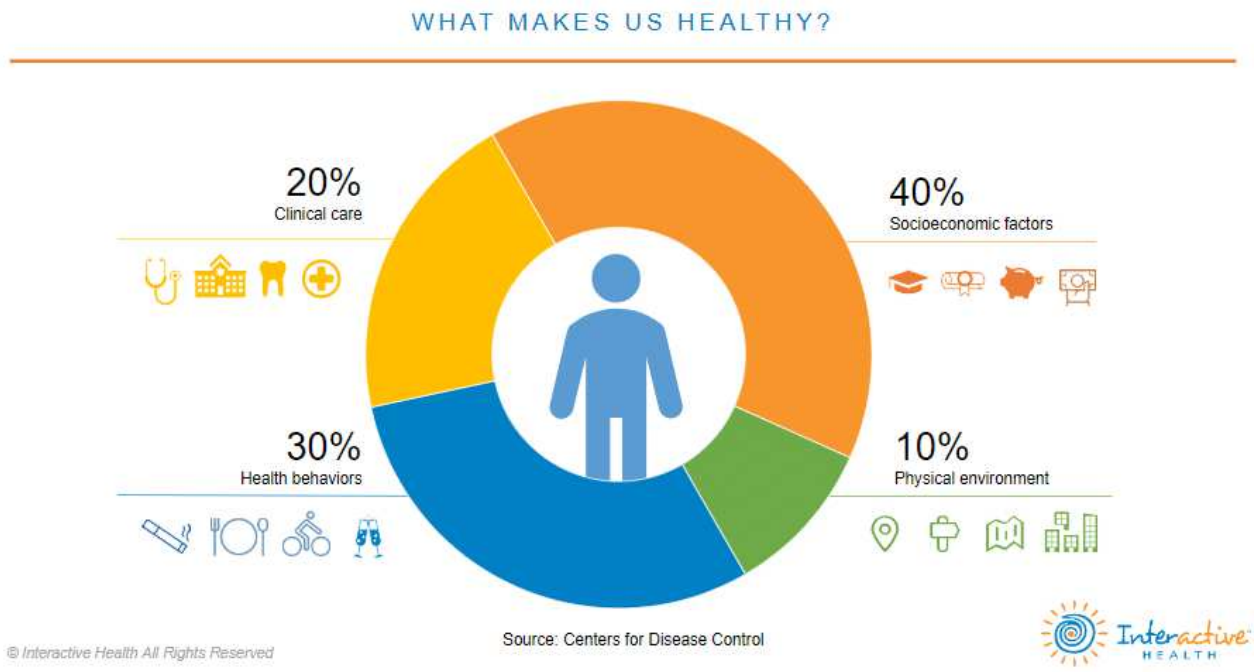


Source: New York City Department of Homeless Services

Social Determinants of Health: The connection between our communities and our health

Social determinants of health (SDoH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health risks and outcomes. Healthy People 2030, the CDC's national benchmark for health, recognizes SDoH as central to its framework, naming "social and physical environments that promote good health for all" as one of the four overarching goals for the decade. Healthy People 2030 outlines five key areas of SDoH: economic stability, education access and quality, healthcare access and quality, neighborhood and built environment, and social and community context.

The mix of ingredients that influence each person's overall health profile include individual behaviors, clinical care, environmental factors, and social circumstance. While health improvement efforts have historically targeted health behaviors and clinical care, public health agencies, including the US Centers for Disease Control and Prevention (CDC), widely hold that at least **50% of a person's health profile is determined by SDoH.**



Addressing SDoH is a primary approach to achieving *health equity.* Health equity encompasses a wide range of social, economic, and health measures but can be simply defined as "a fair opportunity for every person to be as healthy as possible." In order to achieve health equity, we need to look beyond the healthcare system to dismantle systematic inequities born through racism and discrimination like power and wealth distribution, education attainment, job opportunities, housing, and safe environments, to build a healthier community for all people now and in the future.

A host of indexes are available to illustrate the potential for health disparities and inequities at the community-level based on SDoH. A description of each index is provided below followed by data

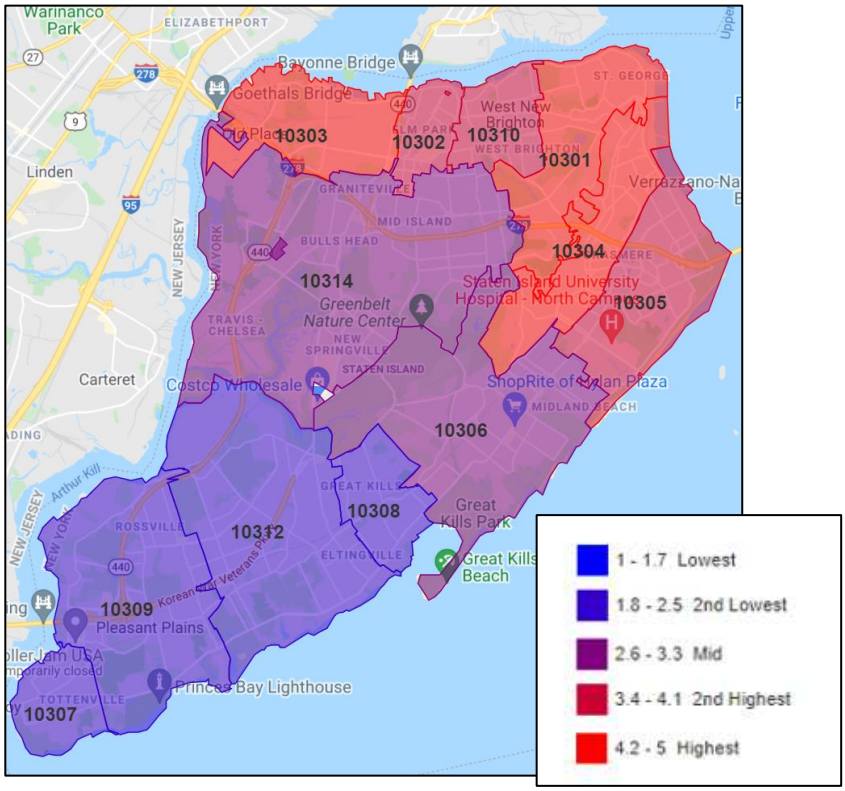
visualizations of each tool that show how well Staten Island communities fare compared to state and national benchmarks.

Tools for Identifying Disparity

The following data visualizations illustrate the potential for health disparities and inequities at the community-level based on SDoH barriers. A description of each data visualization tool is provided below:

- **Community Need Index (CNI)**: The CNI is a zip code-based index of community socioeconomic need calculated nationwide. The CNI scores zip codes on a scale of 1.0 to 5.0, with 1.0 indicating a zip code with the least need and 5.0 indicating a zip code with the most need compared to the US national average of 3.0. The CNI weights, indexes, and scores zip codes by socioeconomic barriers, including income, culture, education, insurance, and housing.
- **Vulnerable Population Footprint**: The Vulnerable Population Footprint identifies areas where high concentrations of people living in poverty and people living without a high school diploma overlap. Areas are reported by census tract. Census tracts are statistical subdivisions of a county that have roughly 4,000 inhabitants.
- **Area Deprivation Index (ADI)**: The ADI provides a census block group measure of socioeconomic disadvantage based on income, education, employment, and housing quality. ADI scores are displayed at the block group level on a scale from 1 (least disadvantaged) to 10 (most disadvantaged). A block group is a subdivision of a census tract and typically contains between 250 and 550 housing units.

Community Need Index

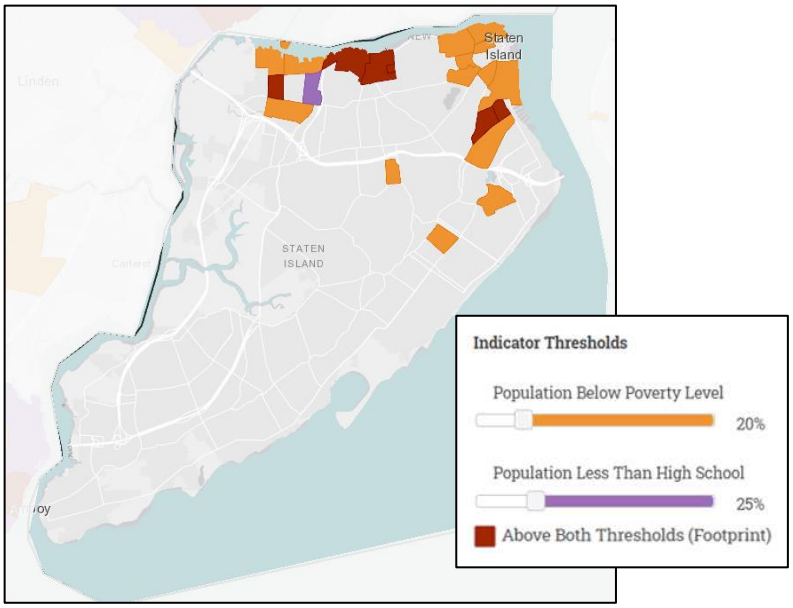


Zip Code	CNI Score
10308	2.0
10312	2.0
10307	2.2
10309	2.2
10306	3.0
10314	3.0
10305	3.4
10302	4.0
10310	4.0
10301	4.2
10304	4.4
10303	4.6

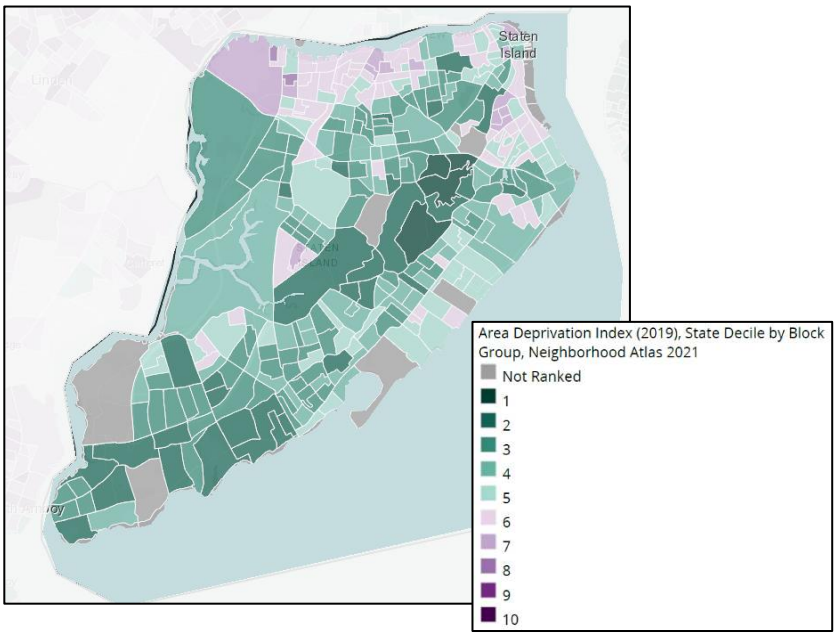
Lowest need

Highest need

Vulnerable Population Footprint



Area Deprivation Index



Consistent with the 2019 CHNA, Staten Island has an average CNI score of 3.2, indicating moderate community need. Zip codes with higher CNI scores continue to be concentrated on the North Shore. **Zip code 10303 has the highest CNI score, and the score increased from the 2019 CHNA from 4.4 to 4.6 out of 5.0.** Vulnerable Population Footprint findings indicate that need is concentrated in the eastern portion of zip code 10303, where residents experience significant poverty and/or education disparities. Across the zip code, nearly 1 in 4 people and 1 in 3 children live in poverty and 1 in 5 adults have not completed high school.

It is worth noting that while all of the zip codes located Mid-Island and on the South Shore have a similar or lower CNI score compared to the 2019 CHNA, half of the zip codes located on the North Shore have a higher CNI score. In zip code 10304, the percentage of all people living in poverty was consistent with 2019 CHNA findings, but the percentage of children living in poverty increased. In zip code 10301, the percentage of individuals speaking a primary language other than English and/or not completing high school increased from the 2019 CHNA.

Comparing health indicators with population statistics demonstrates the adverse impact of social determinants on populations that historically and continually experience inequities. **The areas with the highest CNI scores have among the most diverse populations in Staten Island.** In this way we can begin to see how inequities perpetuate persistent disparities in health and social outcomes.

The following table lists SDoH that contribute to zip code CNI scores and are often indicative of health disparities. Zip codes are shown in descending order by CNI score.

2015-2019 Social Determinants of Health by Geography
Red = Higher CNI Score from the 2019 CHNA

ZIP Code	Population in Poverty	Children in Poverty	Primary Language Other Than English	Less than HS Diploma	Without Health Insurance	2022 CHNA CNI Score	2019 CHNA CNI Score
10303	23.0%	30.7%	44.4%	19.5%	6.1%	4.6	4.4
10304	21.6%	32.8%	39.2%	16.9%	5.9%	4.4	4.0
10301	18.7%	24.1%	31.2%	14.8%	7.4%	4.2	3.8
10302	16.9%	18.5%	40.2%	16.6%	10.3%	4.0	4.2
10310	16.4%	21.9%	33.9%	14.0%	6.4%	4.0	4.0
10305	12.3%	14.2%	46.7%	14.9%	4.5%	3.4	3.6
10306	9.2%	10.4%	33.1%	10.4%	3.8%	3.0	3.2
10314	9.1%	12.4%	36.7%	9.7%	3.5%	3.0	3.0
10307	4.7%	4.5%	16.8%	7.6%	3.4%	2.2	2.6
10309	6.6%	8.0%	22.8%	7.0%	1.9%	2.2	2.6
10308	4.4%	3.6%	21.6%	5.2%	2.2%	2.0	2.4
10312	5.9%	6.7%	19.7%	6.5%	2.1%	2.0	2.0
New York City	17.9%	25.1%	48.5%	17.9%	7.5%	NA	NA
United States	13.4%	18.5%	21.6%	12.0%	8.8%	NA	NA

Source: US Census Bureau, American Community Survey

2015-2019 Population (Pop.) by Prominent Racial and Ethnic Groups

ZIP Code	Total Pop.	Asian	Black/ African American	White	Two or More Races	Latinx origin (any race)
10303	27,401	7.7%	34.3%	46.8%	3.1%	39.4%
10304	41,112	11.1%	29.0%	51.2%	1.5%	23.5%
10301	38,280	6.3%	23.6%	60.2%	4.6%	24.7%
10302	18,037	9.4%	22.0%	58.4%	2.9%	38.9%
10310	23,800	5.7%	21.4%	59.9%	3.6%	31.1%
10305	42,726	14.9%	7.4%	71.2%	2.2%	16.0%
10306	53,877	7.3%	3.4%	83.7%	3.1%	15.6%
10314	89,792	16.9%	3.7%	73.5%	2.6%	15.3%
10307	14,906	4.5%	0.4%	91.3%	1.0%	10.0%
10309	34,058	3.4%	0.7%	93.2%	1.0%	9.7%
10308	29,512	5.0%	1.2%	92.5%	0.5%	8.7%
10312	61,392	5.3%	0.9%	91.6%	1.0%	11.3%
New York City	8,419,316	14.1%	24.3%	42.7%	3.6%	29.1%
United States	324,697,795	5.5%	12.7%	72.5%	3.3%	18.0%

Source: US Census Bureau, American Community Survey

Life expectancy and premature death are other measures of the impact of social determinants of health. Staten Island overall reports high average life expectancy of 81 years and a low rate of years of potential life lost or premature death before age 75. However, **across Staten Island, the premature death rate is higher for Black/African Americans, exceeding the White premature death rate by approximately 50%**. This finding is reflected in the all-cause death rate for 2020, which shows disproportionate death among Black/African Americans relative to other population groups.

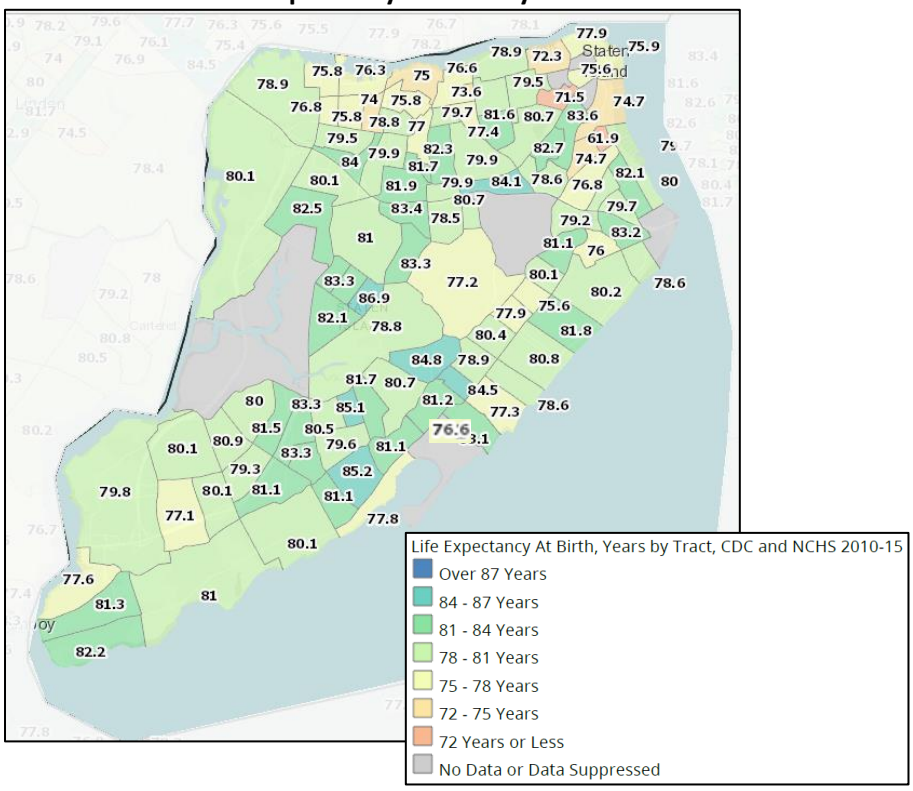
2017-2019 Overall Life Expectancy and Years of Potential Life Lost by Race and Ethnicity

	Overall Life Expectancy	Premature Death: Years of Potential Life Lost Before Age 75 per 100,000 Population				
		Overall	Asian	Black/African American	White	Latinx origin (any race)
Staten Island	81.0	5,541	3,049	7,784	5,172	4,680
New York	81.4	5,406	2,642	7,772	5,350	4,477

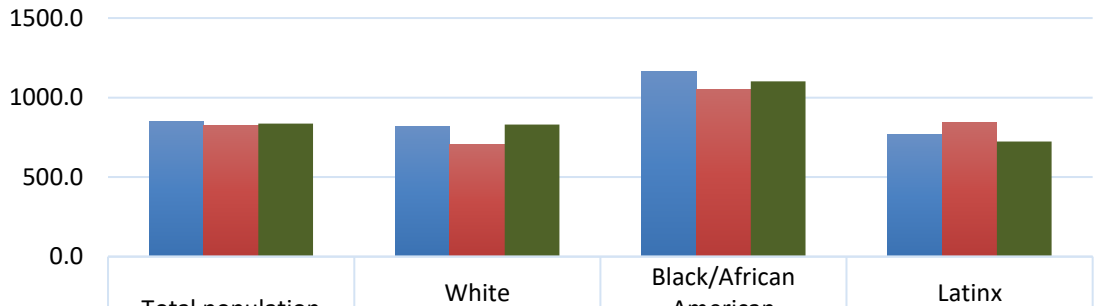
Source: National Vital Statistics System

The following map shows average life expectancy at the census tract-level. **Staten Island overall reports high life expectancy of 81 years, but wide variability exists across the community. Areas of lower life expectancy largely align with areas of socioeconomic disadvantage on the North Shore.** In the northernmost part of Staten Island, many communities report life expectancy of 74-78 years. In portions of zip codes 10301 and 10304, life expectancy is as low as 61.9-71.5 years.

2010-2015 Life Expectancy at Birth by Census Tract



2020 All Cause Death Rate by Race/Ethnicity per Age-Adjusted 100,000



	Total population	White (Non-Hispanic)	Black/African American (Non-Hispanic)	Latinx (any race)
Staten Island	848.5	820.3	1161.6	764.8
New York City	823.4	705.4	1050.9	840.3
United States	835.4	831.2	1101.7	723.6

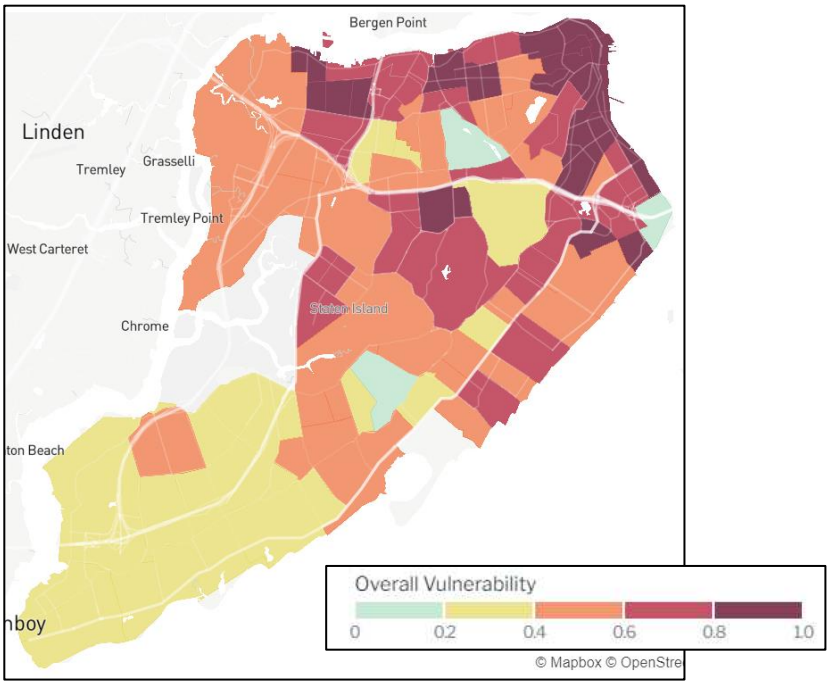
Source: Centers for Disease Control and Prevention

COVID-19 Impact on Communities

COVID-19 is the name of the disease caused by the SARS-CoV-2 virus. "CO" stands for corona, "VI" for virus, and "D" for disease. The number "19" refers to the year 2019 when the first case of COVID-19 was identified. COVID-19 has not impacted all people equally. Rather, certain structural issues—population density, low income, crowded workplaces, etc.—contribute to higher levels of spread and worse outcomes from COVID-19 in select communities. Surgo Ventures developed the Community Vulnerability Index to measure how well any community in the US could respond to the health, economic, and social consequences of COVID-19 without intentional response and additional support.

Using this scale, **Staten Island has "High" vulnerability compared to other parts of the US.** Among the factors impacting this score are population density, disparities experienced by people of color, language barriers among non-English speaking populations, and health system challenges (e.g., bed availability, access to pharmacies, etc.). On Staten Island, the North Shore has the highest vulnerability to COVID-19. This finding is consistent with existing socioeconomic disadvantages in these communities that may make it hard to respond to and recover from a COVID-19 outbreak.

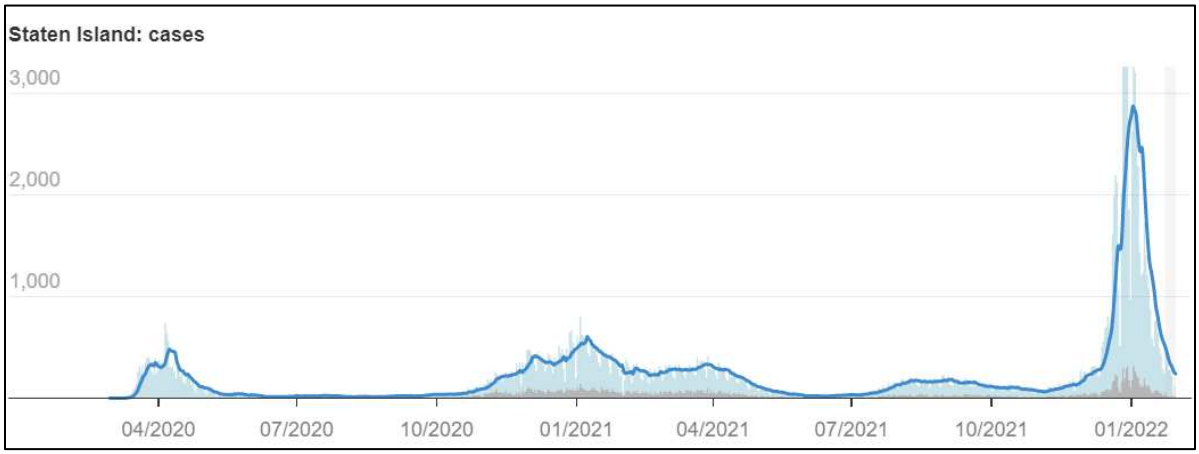
COVID-19 Community Vulnerability Index



As of February 2, 2022, Staten Island reported approximately 158,412 confirmed cases of COVID-19. The following graph looks at cases since the onset of the pandemic. Consistent with NYC and the nation overall, case counts peaked in December 2021 and January 2022 as a result of the more infectious Omicron variant. The increased case count also resulted in more hospitalizations and deaths. Of note, **Staten Island had the highest rate of COVID-19 hospitalizations and deaths among NYC boroughs from July to November 2021.** The hospitalization rate more than tripled in Staten Island in December 2021 due to the Omicron variant and was the third highest among NYC boroughs. The death rate increased

approximately 30% on Staten Island in December 2021 and was the second highest among NYC boroughs.

Staten Island COVID-19 Cases Through January 2022



Source: New York City Department of Health and Mental Hygiene

COVID-19 Hospitalizations per 100,000, Six-Month Trends, July – December 2021

July	Aug	Sept	Oct	Nov	Dec	Area
16.2	51.2	38.1	21.6	19.9	196.2	Bronx
16.1	41.4	33.9	22.1	20.0	137.1	Brooklyn
15.9	**41.0**	**32.1**	**20.2**	**18.6**	**133.4**	**Citywide**
24.8	56.1	39.5	28.4	30.0	115.5	Staten Island
16.7	39.4	30.1	19.1	19.2	110.2	Queens
11.4	29.0	24.3	14.9	10.9	110.1	Manhattan

Source: New York City Department of Health and Mental Hygiene

COVID-19 Deaths per 100,000, Six-Month Trends, July – December 2021

June	July	Aug	Sept	Oct	Nov	Dec	Area
2.9	1.4	4.7	5.4	3.8	3.7	9.4	Brooklyn
2.9	2.1	7.1	5.5	5.7	6.5	8.6	Staten Island
1.9	1.5	3.1	5.1	3.1	2.5	8.3	Bronx
2.4	**1.5**	**3.8**	**4.8**	**3.7**	**3.1**	**7.8**	**Citywide**
2.6	1.7	3.5	5.5	4.8	3.3	7.6	Queens
1.8	1.3	2.4	2.5	2.0	1.2	4.9	Manhattan

Source: New York City Department of Health and Mental Hygiene

COVID-19 has disproportionately impacted people of color, including higher infection rates, hospitalizations, and deaths. **On Staten Island, the hospitalization rate among Black/African American and Latinx residents is approximately 80% higher than the rate among Whites, and the death rate is approximately 50%-60% higher.** Black/African Americans have the highest death rate of any racial or ethnic group in the borough and the lowest vaccination rate. Low vaccine confidence, mistrust, and limited access have been commonly cited as barriers to COVID-19 vaccination among Black/African Americans.

Staten Island COVID-19 Hospitalization, Vaccination, and Deaths per 100,000 by Race and Ethnicity

	Hospitalizations	Deaths	Fully Vaccinated
Asian/Pacific Islander	721	252	92%
Black/African American	2,218	533	57%
White	1,315	337	60%
Hispanic/Latinx	2,368	495	62%
Staten Island	1,816	458	72%

Source: New York City Department of Health and Mental Hygiene, February 2, 2022

Consistent with existing social determinants of health barriers and disparities experienced by people of color, COVID-19 hospitalizations and deaths on Staten Island have generally been higher on the North Shore. However, it is worth noting that Mid-Island zip codes also have among the highest death rates in the borough. This finding may be due in part to the older demographic residing in this area. Approximately 17%-18% of residents Mid-Island are aged 65 or over.

COVID-19 Hospitalization, Vaccination, and Deaths by Staten Island Zip Code (In descending order by death rate)

ZIP Code	December 2021 Hospitalization Rate per 100,000	Fully Vaccinated (all ages)	Total Deaths per 100,000	Community Need Index Score
10304	128.9	76.2%	749.6	4.4
10301	123.4	74.1%	580.9	4.2
10306	121.2	78.7%	566.2	3.0
10314	99.4	69.4%	506.9	3.0
10305	100.3	75.5%	401.3	3.4
10302	119.0	75.0%	389.5	4.0
10303	116.9	70.1%	358.3	4.6
10310	106.6	77.0%	332.7	4.0
10312	113.0	69.3%	316.1	2.0
10308	114.0	65.4%	315.2	2.0
10309	112.3	67.3%	294.5	2.2
10307	67.1	60.6%	268.2	2.2
Staten Island	115.5	72%	458.0	NA
New York City	133.4	75%	462.6	NA

Source: New York City Department of Health and Mental Hygiene, February 2, 2022

A Closer Look at Health Statistics

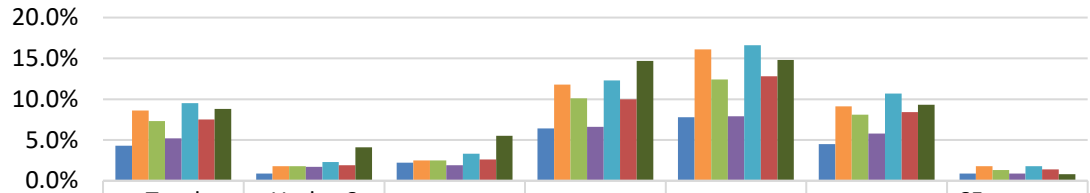
Access to Healthcare

Staten Island continues to have a lower percentage of uninsured residents than NYC and the nation and meets the HP2030 goal of 92.1% insured residents. Staten Island has the lowest percentage of uninsured residents of any NYC borough, and this finding is generally consistent across reported age groups. The percentage of uninsured Staten Island residents declined nearly 3 percentage points over the past five years.

Among insured Staten Island residents, more than 60% have employer-based insurance, a higher proportion than NYC and the nation. **In comparison to the 2019 CHNA, the proportion of individuals insured by Medicare (alone or in combination) increased slightly from 16.3% to 17.1%.** This finding is consistent with Staten Island's aging population. The proportion of Medicaid insured residents was similar at approximately 20%.

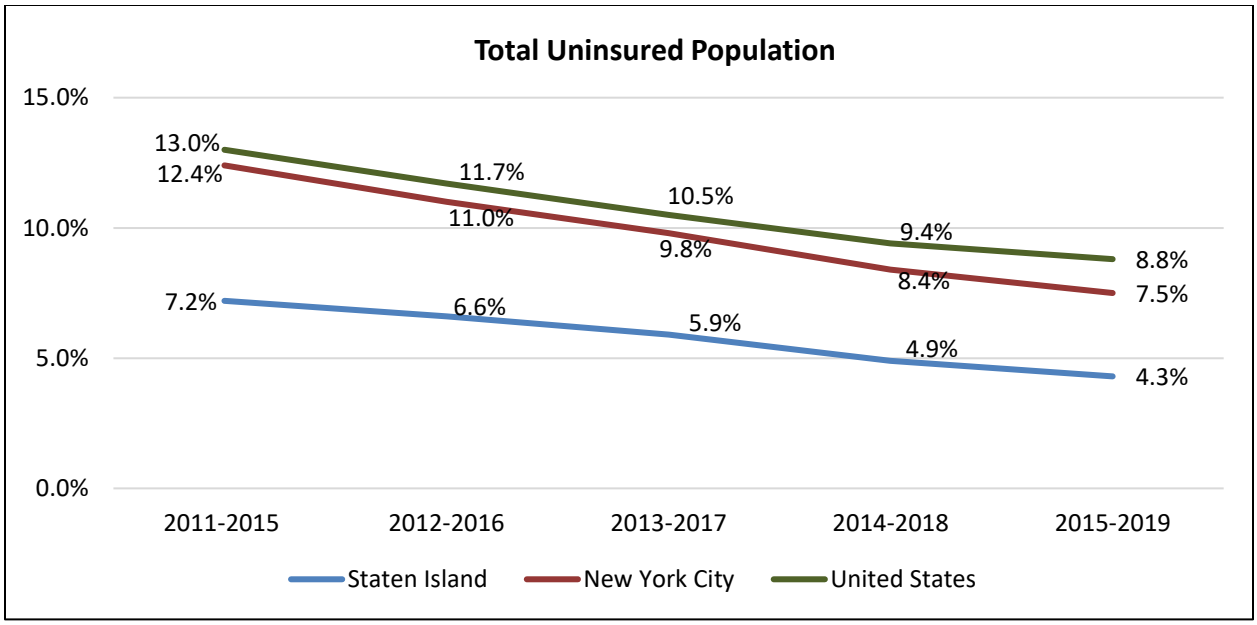
Staten Island has lower uninsured percentages for all reported racial and ethnic groups when compared to NYC and the nation, and percentages declined over the past five years. However, notable disparities in health insurance access still exist, with higher reported uninsured among other race (11.4%) and Latinx (9.1%) residents.

Uninsured Population by Age

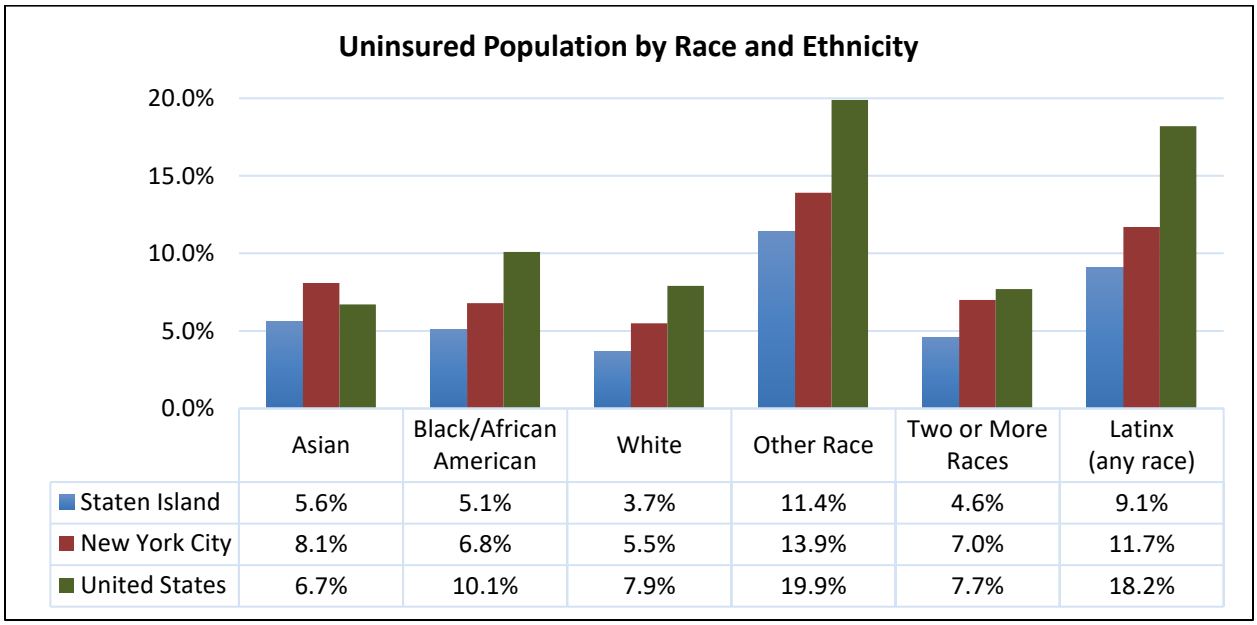


	Total Population	Under 6 years	6-18 years	19-25 years	26-44 years	45-64 years	65 years or over
Staten Island	4.3%	0.9%	2.2%	6.4%	7.8%	4.5%	0.9%
Bronx	8.6%	1.8%	2.5%	11.8%	16.1%	9.1%	1.8%
Brooklyn	7.3%	1.8%	2.5%	10.1%	12.4%	8.1%	1.3%
Manhattan	5.2%	1.7%	1.9%	6.6%	7.9%	5.8%	0.9%
Queens	9.5%	2.3%	3.3%	12.3%	16.6%	10.7%	1.8%
New York City	7.5%	1.9%	2.6%	10.0%	12.8%	8.4%	1.4%
United States	8.8%	4.1%	5.5%	14.7%	14.8%	9.3%	0.8%

Source: US Census Bureau, American Community Survey

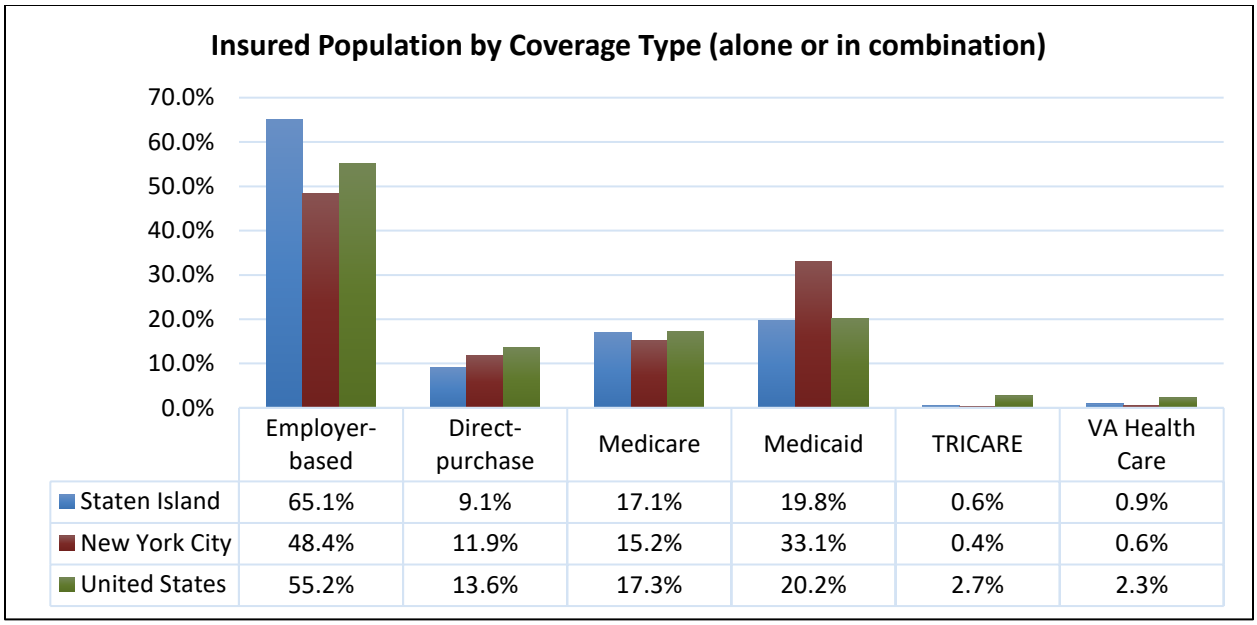


Source: US Census Bureau, American Community Survey



	Asian	Black/African American	White	Other Race	Two or More Races	Latinx (any race)
Staten Island	5.6%	5.1%	3.7%	11.4%	4.6%	9.1%
New York City	8.1%	6.8%	5.5%	13.9%	7.0%	11.7%
United States	6.7%	10.1%	7.9%	19.9%	7.7%	18.2%

Source: US Census Bureau, American Community Survey



	Employer-based	Direct-purchase	Medicare	Medicaid	TRICARE	VA Health Care
Staten Island	65.1%	9.1%	17.1%	19.8%	0.6%	0.9%
New York City	48.4%	11.9%	15.2%	33.1%	0.4%	0.6%
United States	55.2%	13.6%	17.3%	20.2%	2.7%	2.3%

Source: US Census Bureau, American Community Survey

Availability of healthcare providers also impacts access to care and health outcomes. Staten Island has more primary care providers than the nation, as indicated by the rate of primary care physicians per 100,000 population, and the second highest rate of providers among NYC boroughs. Consistent with this finding, **80.1% of adults on Staten Island accessed routine preventive care in 2019 compared to a national average of 75%.**

Staten Island also has the second highest rate of dentists among NYC boroughs, although the rate of providers is lower than the national average. **In 2018, the most recent year of data availability, 67.5% of all Staten Island adults accessed dental care, a similar percentage as the nation overall (66.2%). However, when viewed at the zip code-level, disparities in adult dental care access exist, primarily on the North Shore.** In all North Shore zip codes except 10305, fewer than 64% of adults received recent dental care. In zip code 10303, fewer than 59% of adults received recent dental care.

While Staten Island overall has better availability of healthcare providers, it is worth noting that **the North Shore is designated as a primary and dental care Health Professional Shortage Area (HPSA) for Medicaid-eligible residents.** This finding indicates a lack of healthcare providers to meet the needs of Medicaid-insured individuals and likely contributes to access disparities among North Shore residents.

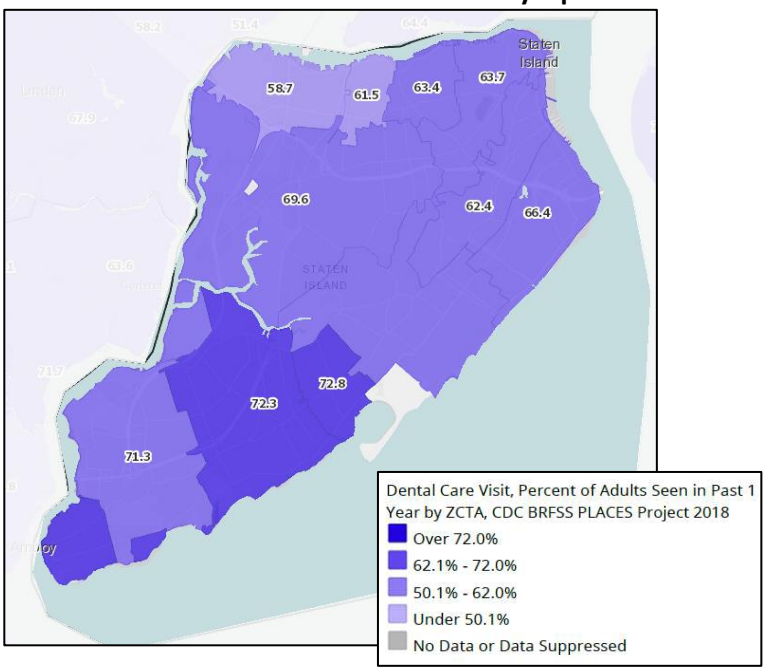
COVID-19 had a significant impact on access to care. Individuals nationwide delayed regular preventive and maintenance care due to fear of contracting COVID-19 in a healthcare setting and new financial constraints, among other concerns. **Nationally, the percentage of adults receiving a routine physical checkup declined from 77.6% in 2019 to 76% in 2020.** A similar trend was seen across New York, where the percentage of adults receiving routine care declined from 79.6% to 78.5%. Note: county-level data for 2020 are not yet available.

Primary and Dental Providers per 100,000 Population

	Primary Care Physicians (2018)	Dentists (2019)
Staten Island	97.7	68.5
Bronx	60.9	54.6
Brooklyn	67.6	67.3
Manhattan	136.8	185.6
Queens	65.4	77.0
United States	75.8	71.4

Source: Health Resources and Services Administration

2018 Adults with an Annual Dental Visit by Zip Code



Health Risk Factors and Chronic Disease

Staten Island residents generally experience more health challenges than their peers citywide and nationally, with more health risk factors and higher prevalence and mortality due to chronic disease. Of note, Staten Island adults are nearly twice as likely to report smoking cigarettes compared to other NYC residents, contributing to more negative outcomes related to asthma, lung cancer, and chronic lower respiratory disease.

The following report sections further explore health risk factors and chronic disease, and their connection to underlying social determinants of health. Social determinants of health not only lead to poorer health outcomes and the onset of disease, but they are also likely to impede disease management and treatment efforts, further exacerbating poorer health outcomes.

Age-Adjusted Adult Risk factors

	2019 No Leisure-Time Physical Activity in Past 30 Days[1]	2020 Current Smokers[2]
Staten Island	30.4%	19.9%
Bronx	39.1%	13.7%
Brooklyn	29.7%	11.2%
Manhattan	22.1%	8.1%
Queens	32.2%	9.6%
New York City	NA	10.9%
United States	25.6%	NA

Source: Centers for Disease Control and Prevention[1] & New York City Department of Health and Mental Hygiene[2]

Obesity and Diabetes

Across Staten Island, the proportion of adults with obesity has increased, rising nearly three percentage points from 2015 to 2019. While the overall proportion of adults with obesity is lower than the national average, it is the second highest within NYC.

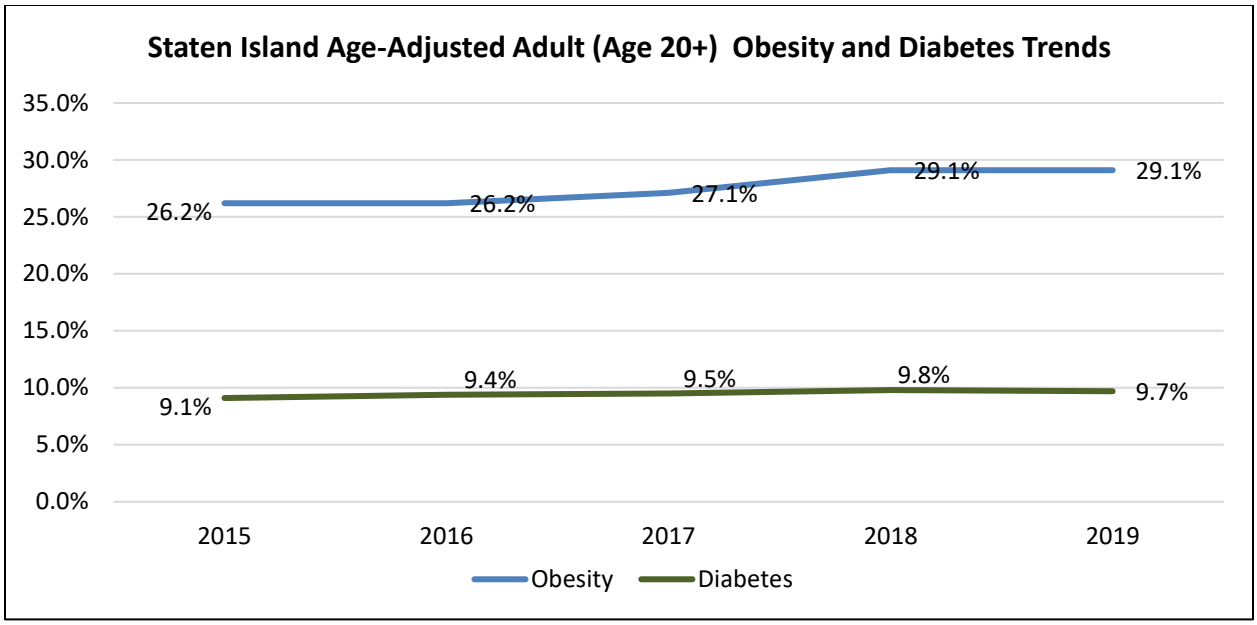
Obesity is a primary risk factor for diabetes. While a similar proportion of Staten Island adults have been diagnosed with diabetes as the nation overall, Staten Island has a higher rate of death due to diabetes compared to both NYC and national benchmarks. **Nationally, the diabetes death rate for Black/African Americans is double the death rate for Whites. In NYC, including Staten Island, the diabetes death rate for Black/African Americans is triple the death rate for Whites.**

The diabetes death rate had stabilized in Staten Island in 2019, but consistent with NYC and the nation, it increased in 2020. This trend is likely due in part to the pandemic and related healthcare access barriers.

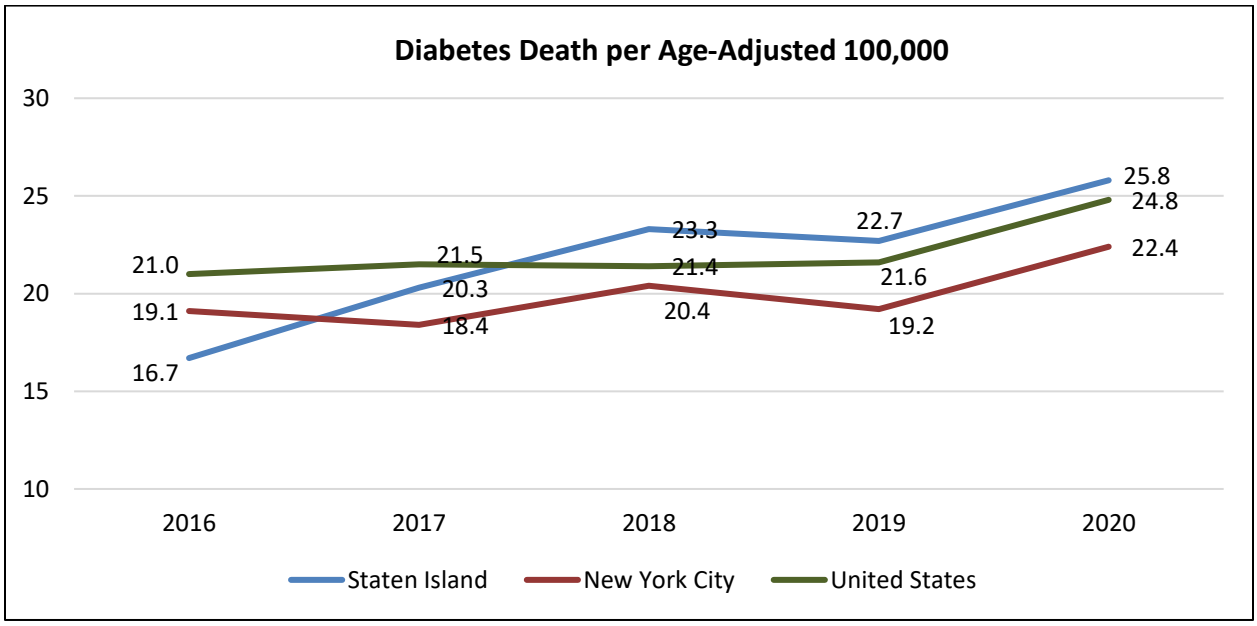
2019 Age-Adjusted Adult (Age 20+) Obesity and Diabetes Prevalence

	Obesity	Diabetes
Staten Island	29.1%	9.7%
Bronx	29.8%	12.0%
Brooklyn	24.2%	8.8%
Manhattan	18.9%	6.5%
Queens	24.6%	11.2%
United States	32.1%	9.4%

Source: Centers for Disease Control and Prevention



Source: Centers for Disease Control and Prevention



Source: Centers for Disease Control and Prevention

2020 Diabetes Death Rate per Age-Adjusted 100,000 by Race and Ethnicity

	Total Population	Asian, Non-Hispanic	Black/African American, Non-Hispanic	White, Non-Hispanic	Latinx (any race)
Staten Island	25.8	NA	65.9	21.3	29.4
Bronx	29.8	NA	36.2	18.1	29.3
Brooklyn	26.8	13.8	45.8	12.6	28.7
Manhattan	14.8	12.0	32.0	6.7	20.0
Queens	18.8	17.4	33.8	13.6	14.3
New York City	22.4	15.6	39.9	12.5	23.3
United States	24.8	19.4	46.8	21.1	30.9

Source: Centers for Disease Control and Prevention

Heart Disease

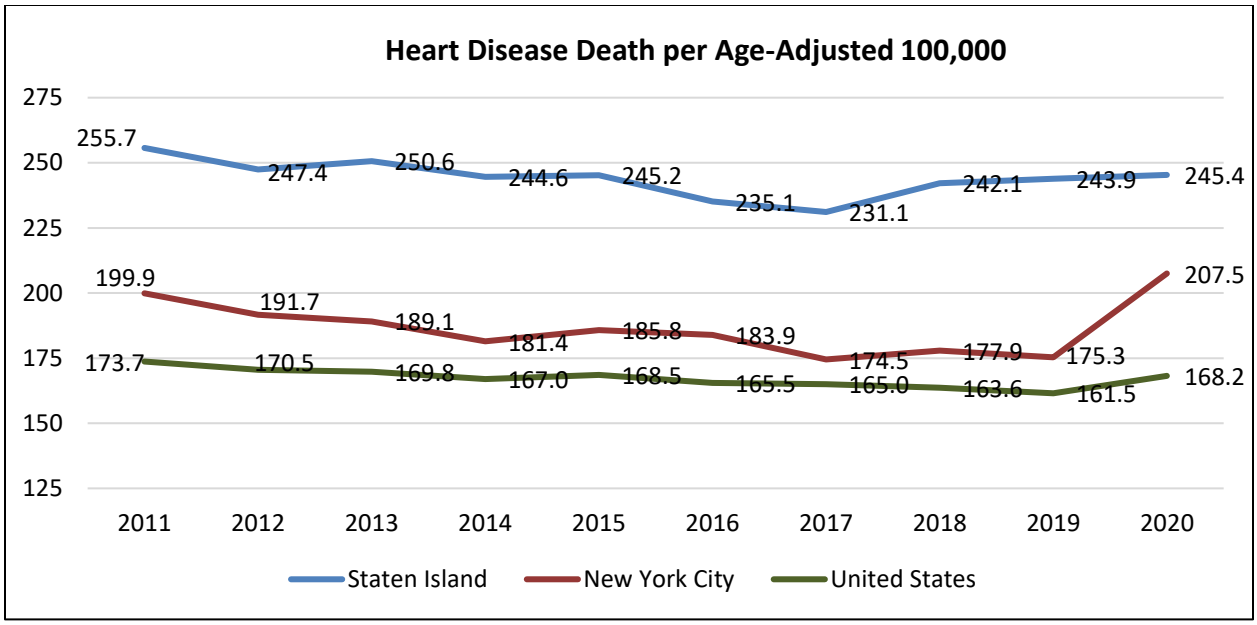
Heart disease is the leading cause of death nationally. High blood pressure and cholesterol are two of the primary causes of heart disease and can be preventable. Approximately 27% of Staten Island adults have high blood pressure and/or high cholesterol, a slightly lower proportion than the nation overall**. Despite this finding, Staten Island has historically had a higher rate of death due to heart disease.**

Across the nation, the heart disease death rate is higher for Black/African Americans than other racial or ethnic groups. This trend is consistent across NYC, and on Staten Island, the heart disease death rate for Black/African Americans is nearly 80 points than the death rate for Whites.

2019 Age-Adjusted Adult Heart Disease Risk Factors

	Adults with High Blood Pressure	Adults with High Cholesterol
Staten Island	27.0%	27.1%
Bronx	32.7%	29.7%
Brooklyn	28.4%	26.5%
Manhattan	24.5%	29.2%
Queens	27.1%	29.3%
United States	29.6%	28.7%

Source: Centers for Disease Control and Prevention



Source: Centers for Disease Control and Prevention

2020 Heart Disease Death Rate per Age-Adjusted 100,000 by Race and Ethnicity

	Total Population	Asian, Non-Hispanic	Black/African American, Non-Hispanic	White, Non-Hispanic	Latinx (any race)
Staten Island	245.4	141.4	320.5	242.0	184.3
Bronx	235.3	150.7	286.1	257.9	179.5
Brooklyn	234.5	141.3	265.3	228.0	198.4
Manhattan	149.1	106.6	278.0	119.2	144.2
Queens	202.4	128.3	270.0	230.6	150.2
New York City	207.5	129.0	273.1	200.9	167.3
United States	168.2	90.1	228.6	170.1	122.7

Source: Centers for Disease Control and Prevention

Cancer

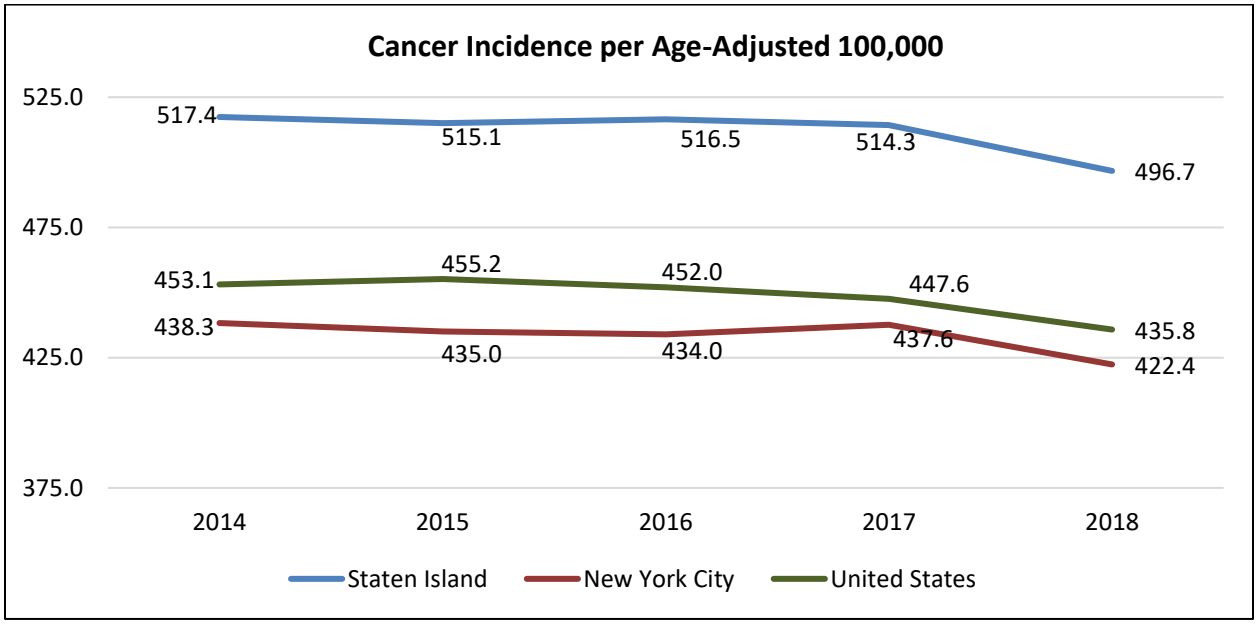
Cancer is the second leading cause of death nationally. **Staten Island has a higher cancer incidence rate than the nation, but a slightly lower cancer death rate, potentially indicating better access to preventive care and treatment**. Both cancer incidence and death rates generally declined in Staten Island, with some variability year-to-year. Note, despite these improvements, and contrary to NYC overall, Staten Island does not meet the Healthy People 2030 goal for cancer related deaths: 122.7 per 100,000.

Analysis of the four most common cancer types (female breast, colorectal, lung, and prostate) illuminates the following cancer-related trends:

- Staten Island has higher female breast and prostate cancer incidence rates than NYC and/or the nation, but lower death rates, potentially indicating earlier detection and access to treatment

- The colorectal cancer death rate for Staten Island is similar to the death rates for NYC and the nation, but far exceeds the Healthy People 2030 goal for this measure
- Consistent with having higher smoking rates, Staten Island has high incidence and death rates due to lung cancer, particularly when compared to other NYC boroughs and the Healthy People 2030 goal

Nationally, and in nearly all other NYC boroughs, Black/African Americans have disproportionately higher rates of cancer death compared to other racial and ethnic groups. Staten Island does not report cancer data for non-White residents due to low counts.



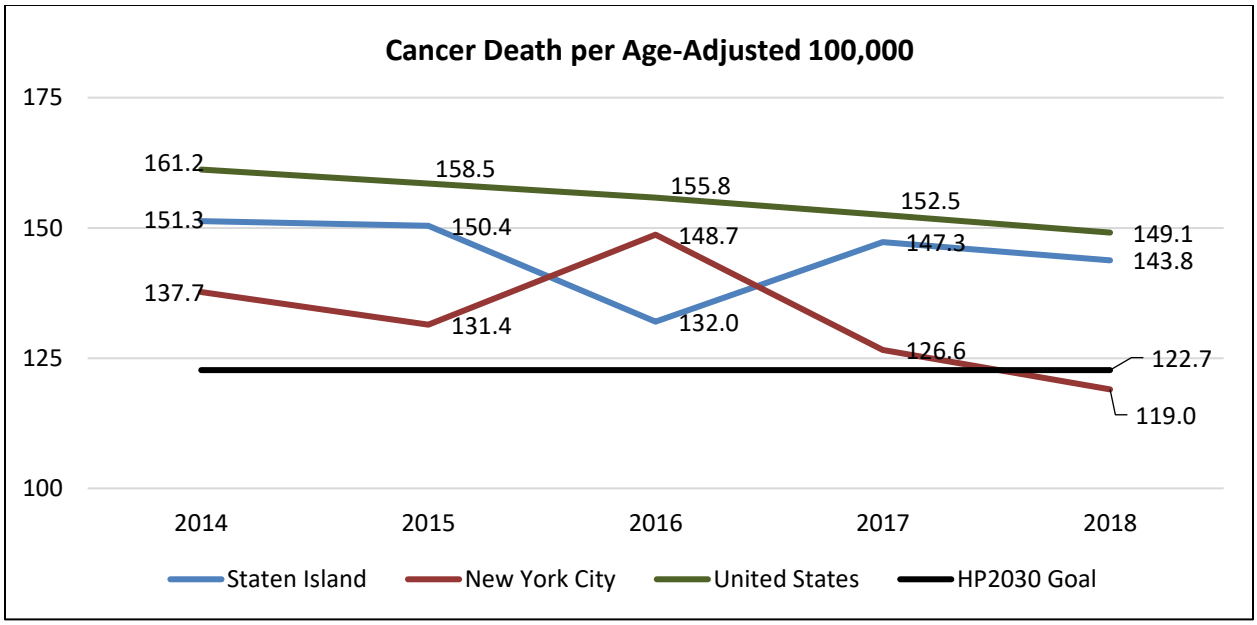
Source: New York State Department of Health & Centers for Disease Control and Prevention

Publicly available cancer data is reported through 2018. The following table displays the number of new cancer diagnoses at RUMC for 2019 to 2021 for the four most common cancer types (female breast, colorectal, lung, and prostate). **Consistent with delayed care practices and lower overall healthcare utilization during the pandemic, there was a general decline in newly diagnosed cancers in 2020.**

New Cancers Diagnosed at RUMC for Four Most Common Types

	2019	2020	2021
Breast	74	55	64
Colorectal	54	56	54
Lung	72	55	52
Prostate	35	27	57

Source: Richmond University Medical Center

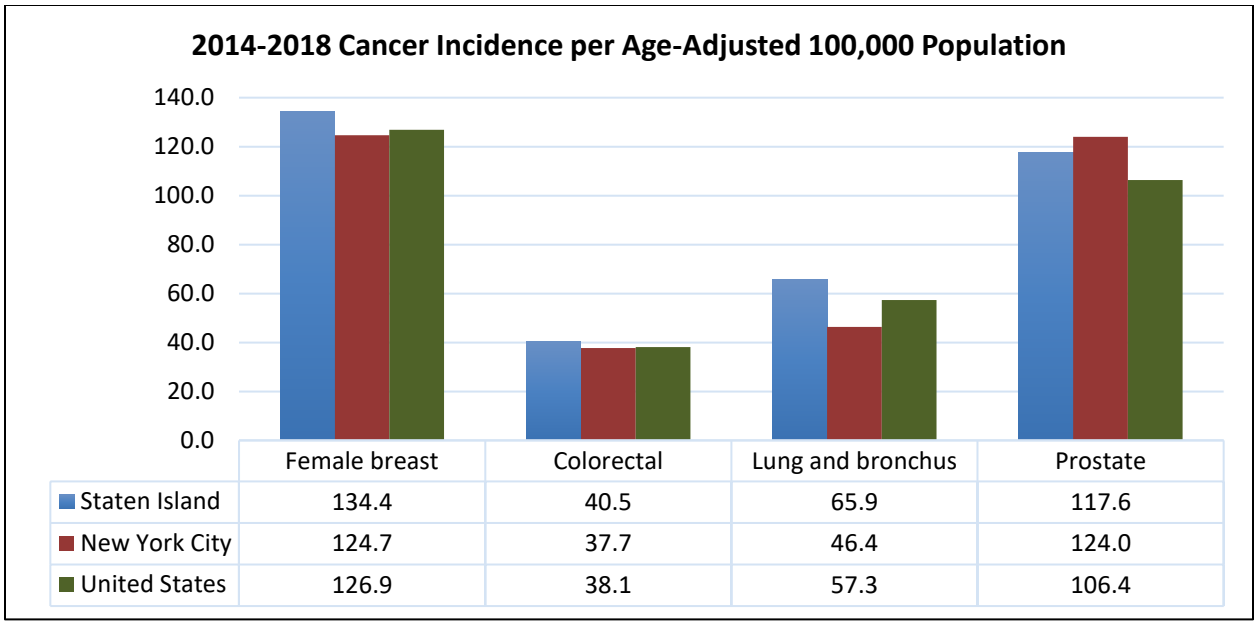


Source: New York State Department of Health & Centers for Disease Control and Prevention

2014-2018 Age-Adjusted Cancer Incidence and Death per 100,000 Population by Race and Ethnicity

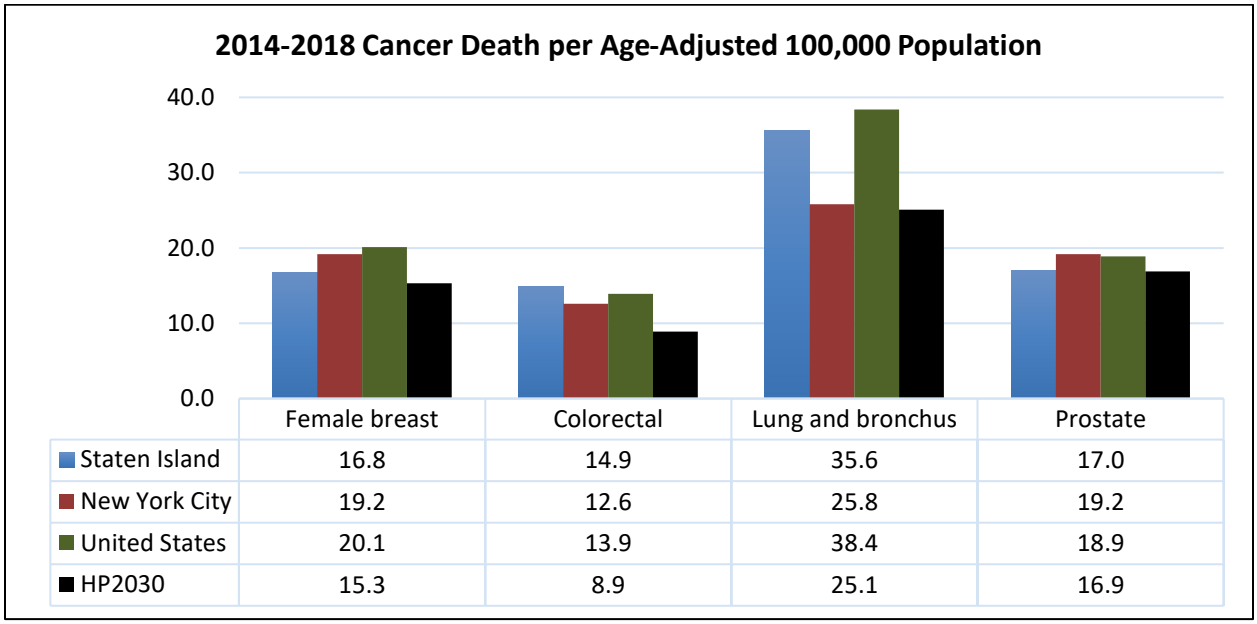
	Staten Island	Bronx	Brooklyn	Manhattan	Queens	New York City	United States
Cancer Incidence							
Total Population	526.2	441.2	441.7	449.2	421.3	442.5	449.0
Asian	NA	NA	389.8	352.9	352.6	357.8	291.5
Black/African American	NA	424.3	422.8	470.0	416.3	429.4	445.4
White	548.9	441.7	453.0	447.2	434.0	453.6	451.3
Latinx origin (any race)	NA	387.0	364.2	356.4	336.0	363.1	345.5
Cancer Death							
Total Population	145.0	158.1	129.5	140.0	114.3	132.5	155.3
Asian	NA	NA	103.4	114.1	86.6	94.9	97.4
Black/African American	NA	135.7	133.0	162.5	122.9	135.5	177.6
White	148.4	172.7	126.6	133.0	118.1	133.8	156.4
Latinx origin (any race)	NA	127.5	117.8	113.8	86.4	111.3	111.3

Source: New York State Department of Health & Centers for Disease Control and Prevention



	Female breast	Colorectal	Lung and bronchus	Prostate
Staten Island	134.4	40.5	65.9	117.6
New York City	124.7	37.7	46.4	124.0
United States	126.9	38.1	57.3	106.4

Source: New York State Department of Health & Centers for Disease Control and Prevention



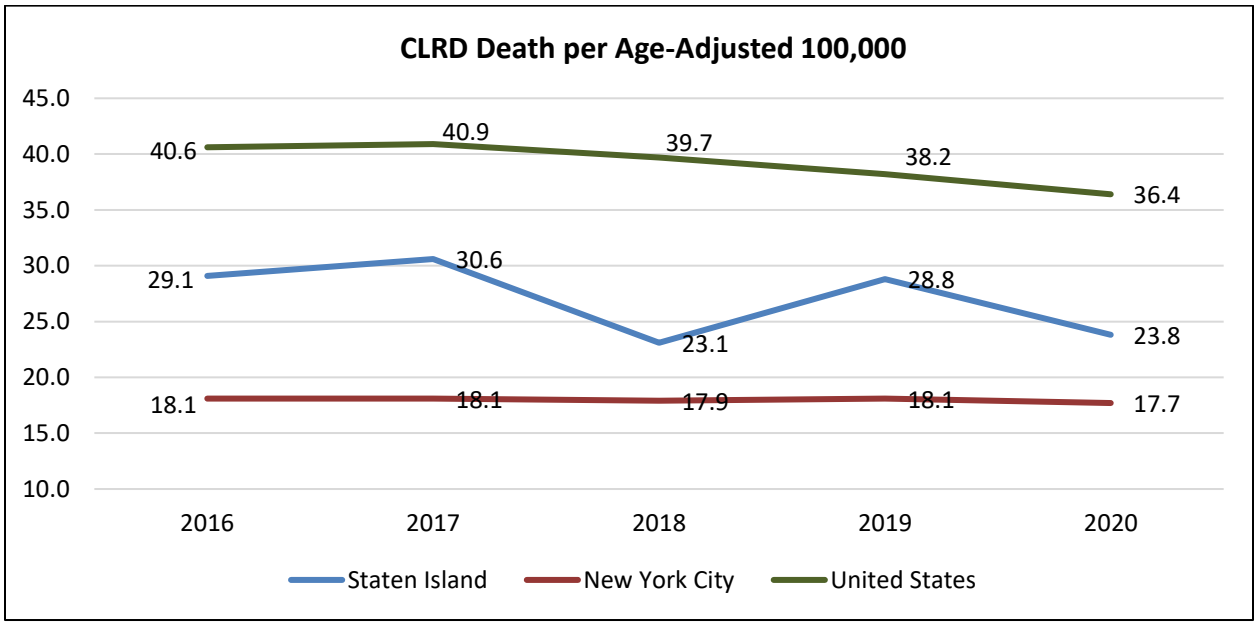
	Female breast	Colorectal	Lung and bronchus	Prostate
Staten Island	16.8	14.9	35.6	17.0
New York City	19.2	12.6	25.8	19.2
United States	20.1	13.9	38.4	18.9
HP2030	15.3	8.9	25.1	16.9

Source: New York State Department of Health & Centers for Disease Control and Prevention

Respiratory Disease

Chronic lower respiratory disease (CLRD) includes several chronic conditions of the respiratory tract, including asthma. Staten Island adults and youth have a higher prevalence of asthma than their peers citywide and/or nationally. This finding is due in part to higher smoking rates among both youth and adults living in Staten Island, as well as other contributors like older housing stock. Staten Island

continues to have a higher CLRD death rate than NYC overall, although it is lower than the national death rate.



Source: Centers for Disease Control and Prevention

2020 CLRD Death Rate per Age-Adjusted 100,000 by Race and Ethnicity

	Total Population	Asian, Non-Hispanic	Black/African American, Non-Hispanic	White, Non-Hispanic	Latinx (any race)
Staten Island	23.8	NA	NA	27.3	NA
Bronx	27.7	NA	28.1	31.7	23.2
Brooklyn	16.6	9.3	18.5	16.4	16.7
Manhattan	15.1	13.9	21.6	12.4	15.0
Queens	14.1	7.4	15.2	19.6	8.0
New York City	17.7	9.1	20.1	18.3	15.9
United States	36.4	10.6	30.2	41.2	15.9

Source: Centers for Disease Control and Prevention

Aging Population

Staten Island is an aging community and older adults are generally less healthy than their peers in other NYC boroughs and nationwide. Approximately 16% of Staten Island residents are aged 65 or older compared to 14.5% citywide. Among older adult Medicare beneficiaries, 76% have two or more chronic conditions, an increase from the 2019 CHNA finding of 73.1%, and a higher proportion than the national average of 70.3%. **More than 1 in 5 Staten Island older adult Medicare beneficiaries have six or more chronic conditions.**

A positive finding is that fewer Staten Island older adults experience disability when compared to other NYC boroughs and the nation. Among older adults experiencing disability, the most common disability is ambulatory (walking), followed by independent living. Without appropriate support services, disabilities can impede disease management and treatment efforts and further exacerbate poorer health outcomes

2018 Chronic Condition Comorbidities among Medicare Beneficiaries 65 Years or Older

	Staten Island	Bronx	Brooklyn	Manhattan	Queens	United States
0 to 1 condition	24.0%	28.8%	23.1%	34.8%	26.2%	29.7%
2 to 3 conditions	27.9%	24.6%	22.5%	28.7%	26.4%	29.4%
4 to 5 conditions	26.6%	22.7%	24.3%	20.4%	24.5%	22.8%
6 or more conditions	21.6%	24.0%	30.1%	16.1%	23.0%	18.2%

Source: Centers for Medicare & Medicaid Services

2015-2019 Older Adult Population by Disability Status

	Staten Island	Bronx	Brooklyn	Manhattan	Queens	United States
Total population	9.8%	15.2%	10.0%	10.3%	9.6%	12.6%
65 years or older	29.3%	43.6%	37.2%	32.3%	32.1%	34.5%
Ambulatory	21.4%	33.1%	28.8%	23.9%	23.2%	21.9%
Hearing	9.6%	10.1%	9.4%	9.0%	9.3%	14.3%
Independent living	15.6%	22.3%	20.6%	15.7%	17.4%	14.2%
Cognitive	7.1%	13.8%	10.5%	9.1%	8.9%	8.6%
Vision	5.4%	11.3%	7.0%	6.7%	6.2%	6.3%

Source: US Census Bureau, American Community Survey

Older adult healthcare utilization and costs increase significantly with a higher number of reported chronic diseases. Tracking these indicators helps plan allocation of resources to best anticipate and serve need in the community. Healthcare utilization and cost metrics vary widely across NYC boroughs. On Staten Island, older adult Medicare beneficiaries generally have fewer ED visits and lower per capita spending than the nation overall. However, it is worth noting that 21.6% of Staten Island older adult Medicare beneficiaries have six or more chronic conditions and per capita spending for these individuals is estimated at nearly $28,000.

2018 Per Capita Standardized Spending* for Medicare Beneficiaries Age 65 Years or Older

	Staten Island	Bronx	Brooklyn	Manhattan	Queens	United States
0 to 1 condition	$1,602	$1,185	$1,467	$2,278	$1,521	$1,944
2 to 3 conditions	$5,300	$5,115	$5,074	$6,520	$5,341	$5,502
4 to 5 conditions	$9,147	$9,940	$9,063	$11,788	$9,821	$10,509
6 or more conditions	$27,833	$31,278	$26,604	$30,927	$28,045	$29,045

Source: Centers for Medicare & Medicaid Services

*Standardized spending takes into account payment factors that are unrelated to the care provided (e.g. geographic variation in Medicare payment amounts).

2018 ED Visits per 1,000 Medicare Beneficiaries Age 65 Years or Older

	Staten Island	Bronx	Brooklyn	Manhattan	Queens	United States
0 to 1 condition	90.4	105.6	93.5	115.9	84.9	122.6
2 to 3 conditions	230.4	307.7	243.9	304.5	237.4	318.4
4 to 5 conditions	427.5	573.4	423.9	588.2	452.2	621.1
6 or more conditions	1,446.0	1,580.3	1,195.2	1,587.0	1,349.2	1,719.1

Source: Centers for Medicare & Medicaid Services

Nationally, the most common chronic conditions among older adult Medicare beneficiaries, in order of prevalence, are hypertension, high cholesterol, and arthritis. Staten Island differs from the nation with diabetes ranked as the third most prevalent condition among beneficiaries. **Nearly 44% of Staten Island older adult Medicare beneficiaries have diabetes compared to 27% nationally.**

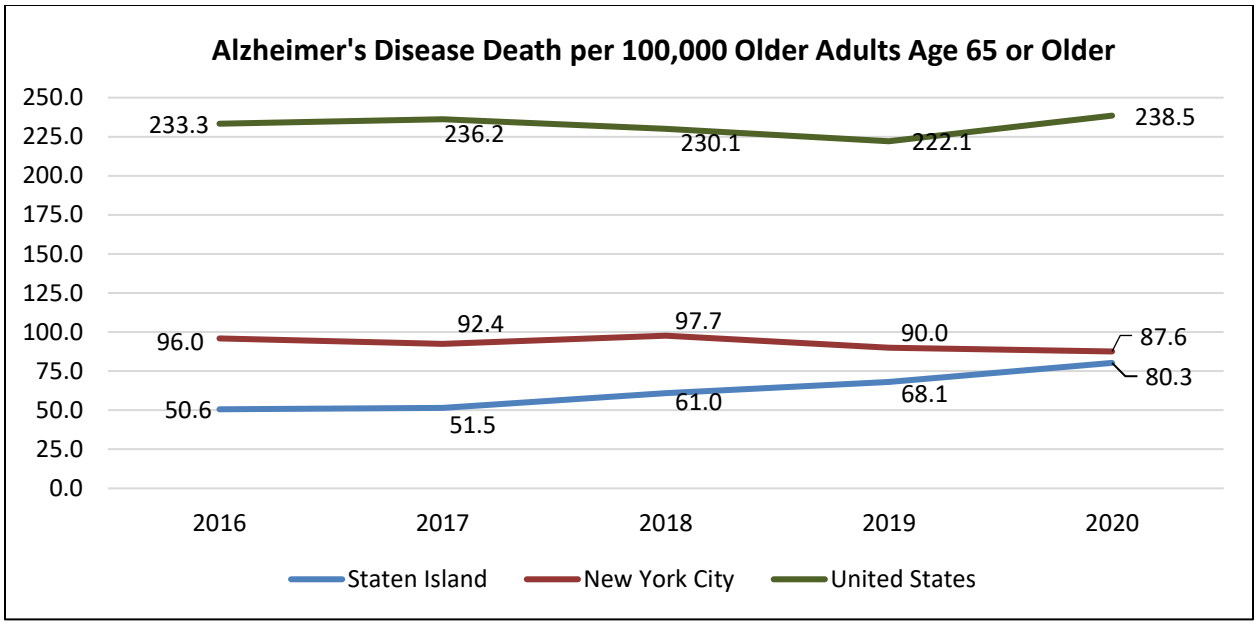
Staten Island older adult Medicare beneficiaries have a higher prevalence of nearly all reported chronic conditions when compared to the nation. In addition to diabetes, other disparities of note include a markedly higher prevalence of high cholesterol, hypertension, and ischemic heart disease.

Staten Island has a slightly higher prevalence of Alzheimer's disease among older adults than the nation, but a historically lower death rate. The Alzheimer's disease death rate increased annually since 2016, rising nearly 30 points.

2018 Chronic Condition Prevalence among Medicare Beneficiaries Age 65 Years or Older

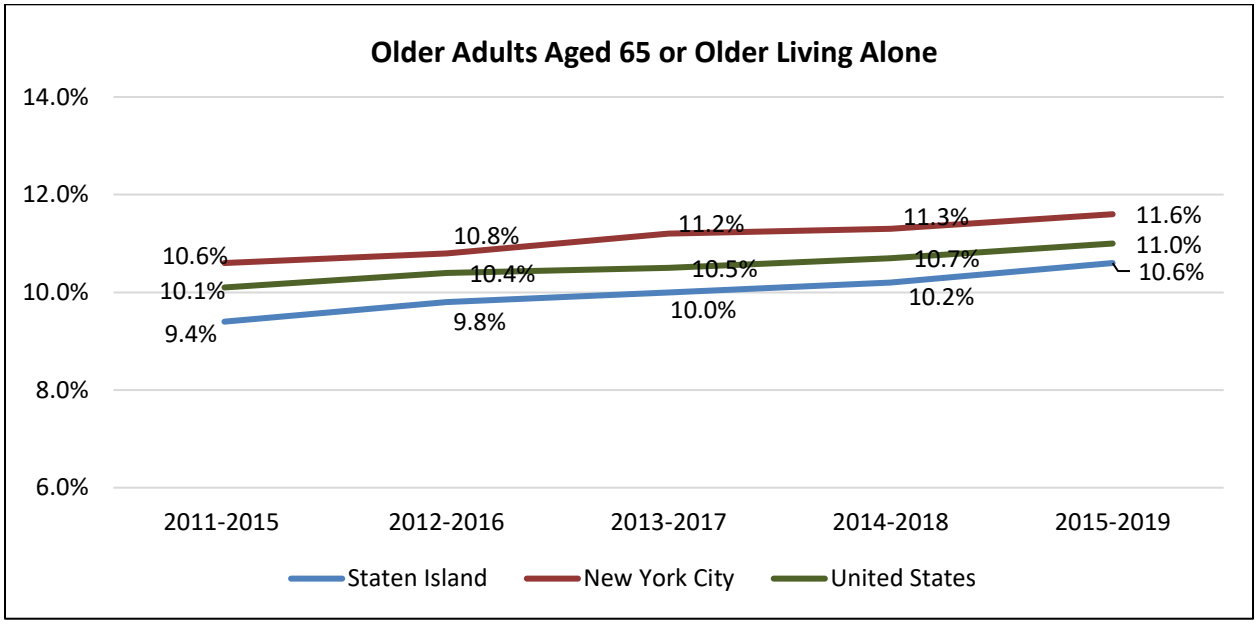
	Staten Island	Bronx	Brooklyn	Manhattan	Queens	United States
Alzheimer's Disease	12.7%	17.8%	19.7%	13.3%	16.3%	11.9%
Arthritis	35.6%	32.4%	40.2%	34.9%	35.0%	34.6%
Asthma	4.7%	7.7%	5.9%	5.2%	5.7%	4.5%
Cancer	10.9%	9.2%	9.6%	10.9%	9.9%	9.3%
Chronic Kidney Disease	26.2%	28.8%	28.5%	19.0%	25.0%	24.9%
COPD	11.4%	10.4%	10.9%	8.0%	10.1%	11.4%
Depression	12.6%	15.7%	16.5%	15.4%	13.6%	16.0%
Diabetes	43.8%	41.5%	47.5%	25.4%	40.2%	27.1%
Heart Failure	16.2%	18.9%	24.3%	12.5%	17.0%	14.6%
High Cholesterol	58.8%	45.2%	57.0%	43.3%	55.0%	50.5%
Hypertension	63.1%	62.6%	66.9%	47.8%	62.7%	59.8%
Ischemic Heart Disease	34.9%	30.2%	42.5%	29.0%	34.8%	28.6%
Stroke	4.1%	5.3%	5.5%	3.9%	5.2%	3.9%

Source: Centers for Medicare & Medicaid Services



Source: Centers for Disease Control and Prevention

In older adults, chronic illness often leads to diminished quality of life and increased social isolation. Social isolation may also impede effective chronic illness management and accelerate the negative impact of chronic diseases. One indicator of social isolation among older adults is the percentage of adults age 65 years or older who live alone. **Consistent with the nation, the proportion of older adults living alone increased across NYC and Staten Island, although Staten Island older adults are less likely to live alone when compared to their peers elsewhere.**



Source: US Census Bureau, American Community Survey

Behavioral Health and Substance Use Disorder

Staten Island overall has similar access to mental health providers as the nation, as indicated by the rate of providers per 100,000 population. In comparison to the 2019 CHNA, the rate of mental health providers increased from 202.7 to 235.6 per 100,000. While providers are available across Staten Island, they are more heavily concentrated on the North Shore and Mid-Island.

Note: The mental health provider rate includes psychiatrists, psychologists, licensed clinical social workers, counselors, and mental health providers that treat alcohol and other drug abuse, among others. It does not account for potential shortages in specific provider types.

2020 Mental Health Providers per 100,000 Population

	Provider Rate
Staten Island	235.6
Bronx	215.2
Brooklyn	231.9
Manhattan	900.8
Queens	171.8
United States	263.2

Source: Centers for Medicare and Medicaid Services

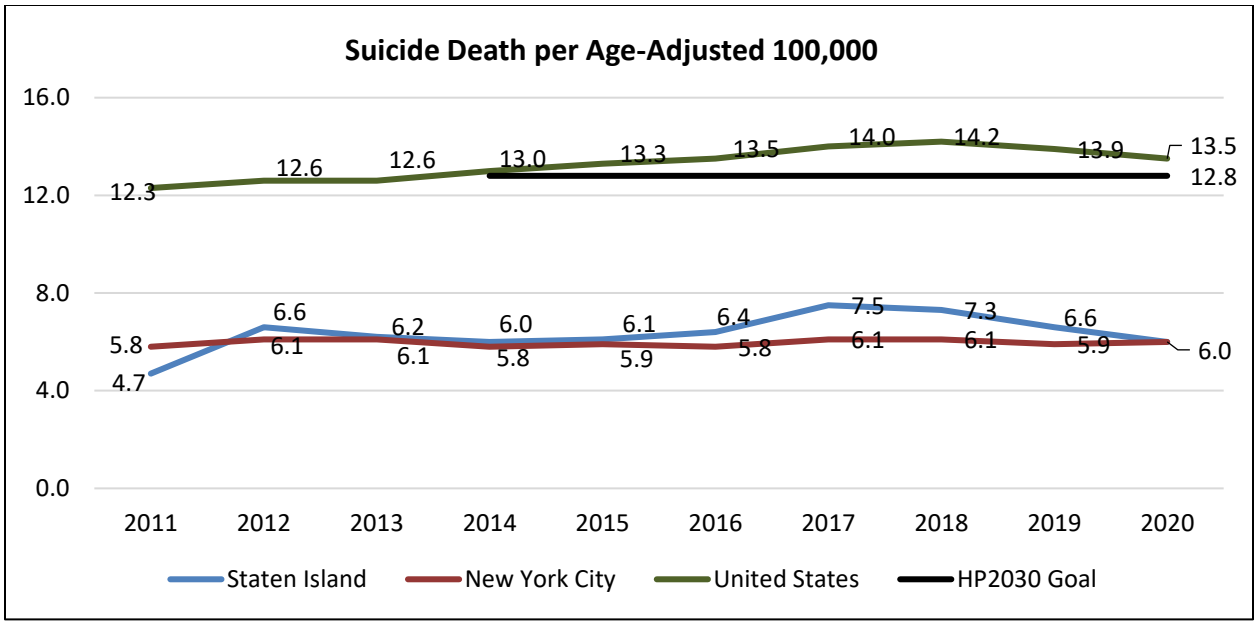
Fewer Staten Island adults have been diagnosed with depression when compared to the nation, although the proportion encompasses nearly 1 in 5 adults. Additionally, nearly 14% of Staten Island adults report experiencing frequent mental distress, a similar proportion as the nation overall. Frequent mental distress is defined as having poor mental health on 14 or more days during a 30-day period.

Frequent mental distress and depression are risk factors for suicide. Suicide deaths steadily increased across the US over most of the past decade, although a decline in deaths was seen in 2019 and 2020. **New York City, including Staten Island, has historically experienced fewer suicide deaths than the nation** overall, and the rate of deaths has been generally stable over the past decade.

2019 Age-Adjusted Adult Mental Health Indicators

	Diagnosed Depression	Frequent Mental Distress
Staten Island	15.8%	13.4%
Bronx	16.0%	15.3%
Brooklyn	15.1%	13.1%
Manhattan	18.3%	11.9%
Queens	13.3%	12.1%
United States	18.9%	13.9%

Source: Centers for Disease Control and Prevention



Source: Centers for Disease Control and Prevention

2018-2020 Staten Island Suicide Deaths, Demographic Characteristics

	Suicide Deaths	Age-Adjusted Rate per 100,000
Gender		
Female	22	3.1
Male	77	10.6
Age*		
15-24	NA	NA
25-34	18	NA
35-44	19	NA
45-54	14	NA
55-64	21	10.6
65+	18	NA
Race and Ethnicity		
Asian, Non-Hispanic	10	NA
Black/African American, Non-Hispanic	NA	NA
White, Non-Hispanic	76	8.4
Latinx origin (any race)	NA	NA

Source: Centers for Disease Control and Prevention
*Rates are not age-adjusted.

Substance use disorder affects a person's brain and behaviors and leads to an inability to control the use of substances which include alcohol, marijuana, and opioids, among others. Alcohol is the most prevalent addictive substance used among adults.

Across Staten Island, nearly 17% of adults report binge drinking, a lower proportion than the nation overall and most other NYC boroughs. Consistent with this finding, Staten Island also has fewer alcohol-impaired driving deaths. Binge drinking includes males having five or more drinks on one occasion and females having four or more drinks on one occasion.

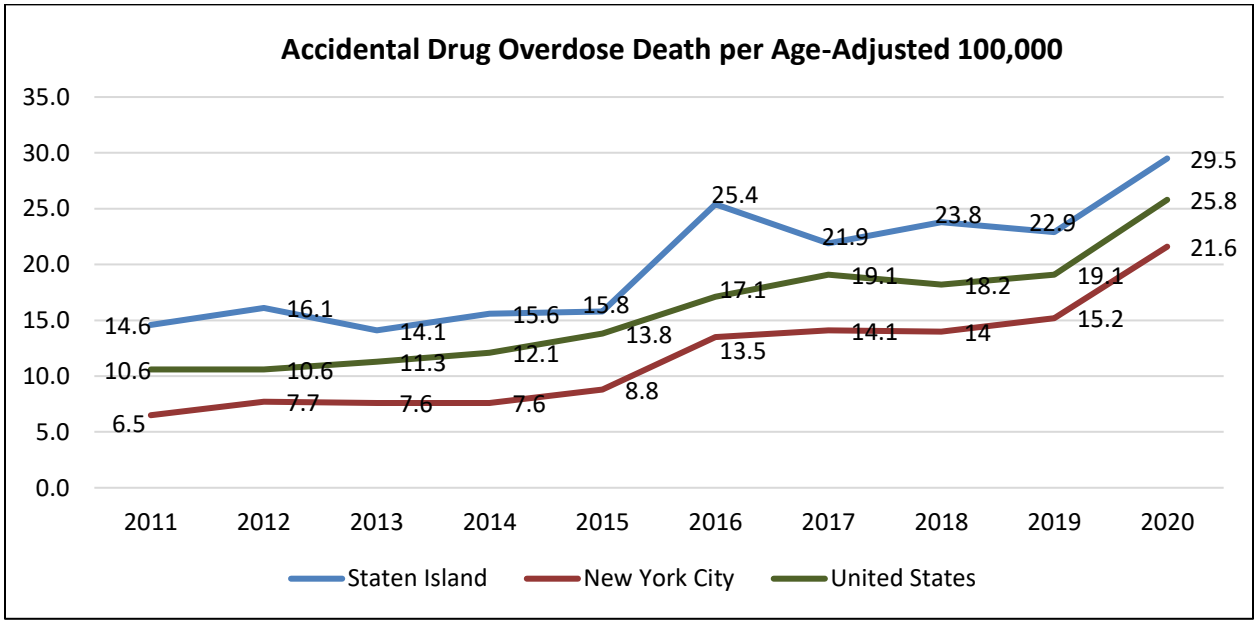
2019 Alcohol Use Disorder Indicators

	Binge Drinking	Percent of Driving Deaths due to Driving Under the Influence (DUI)
Staten Island	16.7%	13.5%
Bronx	16.9%	13.0%
Brooklyn	17.6%	11.1%
Manhattan	21.5%	9.5%
Queens	15.2%	16.7%
United States	17.9%	27.0%

Source: Centers for Disease Control and Prevention

The CDC predicts that 2020 and 2021 brought the highest number of overdose deaths ever in the US. **According to the NYC Department of Health and Mental Hygiene, there were a total of 596 confirmed overdose deaths in the first quarter (Q1) of 2021, a 31% increase from Q1 2020 and 73% increase from Q1 2019.** Consistent with the nation, the majority of deaths (80%) across NYC involved opioids and synthetic opioids, such as fentanyl. Synthetic opioids are laboratory produced and can have far greater potency, increasing the risk for overdose and death.

Staten Island has historically had a higher rate of accidental overdose death than NYC and the nation. **From 2019 to 2020, the number of accidental overdose deaths occurring in Staten Island increased 22.5%, from 111 to 136.** Deaths continued to be higher among males and middle-age adults.



Source: Centers for Disease Control and Prevention

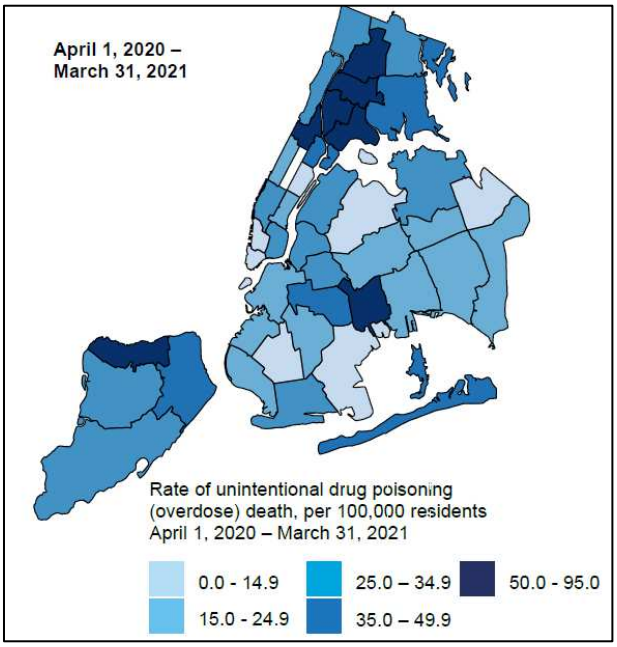
2020 Staten Island Accidental Overdose Deaths, Demographic Characteristics

	Accidental Overdose Deaths	Age-Adjusted Rate per 100,000
Gender		
Female	32	14.3
Male	104	45.4
Age*		
15-24	NA	NA
25-34	29	45.2
35-44	37	62.7
45-54	39	61.7
55-64	21	31.7
65+	NA	NA
Race and Ethnicity		
Asian, Non-Hispanic	NA	NA
Black/African American, Non-Hispanic	16	NA
White, Non-Hispanic	99	38.0
Latinx origin (any race)	12	NA

Source: Centers for Disease Control and Prevention
*Rates are not age-adjusted.

According to the NYC Department of Health and Mental Hygiene, Staten Island saw 44 confirmed overdose deaths in Q1 2021. **Staten Island comprises approximately 5.6% of the total NYC population, but 8.1% of all overdose deaths occurring in Q1 2021. From April 2020 to March 2021, the North Shore region had one of the highest overdose death rates in NYC, estimated at 50-95 per 100,000 residents.**

Accidental Drug Overdose Deaths by NYC Borough



Source: New York City Department of Health and Mental Hygiene

RUMC is Staten Island's leading provider of behavioral healthcare for children, adolescents, and adults, offering both inpatient and outpatient services. RUMC also sees a large volume of behavioral health patients in its emergency department (ED). Nationally, behavioral health-related ED visits have increased, reflecting barriers in access to care, including provider availability and health insurance coverage. A 2020 study published by the Journal of Clinical Psychiatry found that between 2007 and 2016, behavioral health-related ED visits increased from 6.6% to 10.9%. Visits in which Medicaid was the primary source of insurance coverage showed the largest increase during this time frame.

Between 2019 and 2021, RUMC saw a total of 11,969 behavioral health-related ED visits. There was a drop in visits in 2020, likely due in part to the pandemic, but visits increased in 2021 and are anticipated to be higher in 2022 due to delayed care practices during the pandemic.

RUMC Behavioral Health-Related ED Visits by Year

	ED Visits
2019	4,600
2020	3,466
2021	3,903

Source: Richmond University Medical Center

In late 2019, RUMC initiated the Peer Recovery program to support patients with substance use disorder that visit the ED. As part of the program, certified peer recovery specialists provide Narcan kits and facilitate treatment referrals. In 2021, RUMC saw an increase in both bedside interventions and Narcan kits distributed by peer recovery specialists. This finding is consistent with the increase in opioid use and accidental overdose deaths seen during the pandemic.

Substance Use Disorder Peer Counselor Interventions within the RUMC ED by Year

	Bedside Interventions	Narcan Kits Distributed
2020	1,395	1,718
2021	1,651	3,541

Source: Richmond University Medical Center

Youth Health

Overweight and Obesity

Childhood obesity is a persistent and significant threat to the long-term health of today's youth. The CDC reports that children who have obesity are more likely to have high blood pressure and high cholesterol; glucose intolerance, insulin resistance and type 2 diabetes; breathing problems like asthma and sleep apnea; joint and musculoskeletal problems; and psychological and social problems, such as anxiety, depression, low self-esteem, and bullying; among other concerns.

Fewer Staten Island high school students have obesity when compared to the nation, although a higher proportion have obesity when compared to NYC overall. **Consistent with NYC and the nation, the**

proportion of Staten Island students with obesity increased since 2013. Within Staten Island, the most at-risk populations for youth obesity are males and students of color.

High School Students with Obesity

	2013	2015	2017	2019
Staten Island	11.3%	12.5%	12.4%	14.3%
New York City	11.8%	12.4%	13.5%	13.8%
United States	13.7%	13.9%	14.8%	15.5%

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention

2019 High School Students with Obesity

	Staten Island	United States
Gender		
Female	10.1%	11.9%
Male	18.3%	18.9%
Race and Ethnicity		
Asian	3.2%	6.5%
Black/African American	18.3%	21.1%
White	14.1%	13.1%
Latinx origin (any race)	17.9%	19.2%

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention

Behavioral Health and Substance Use Disorder

In 2015 and 2019, approximately 10% of high school students on Staten Island reported an attempted suicide compared to 8%-9% citywide and nationally. On Staten Island, the most at-risk populations for suicide were males and students of color. Of note, **approximately 1 in 5 Black/African American students reported an attempted suicide compared to 3.6% of White students.**

More suicide attempts among NYC and Staten Island students may be due in part to increased feelings of sadness or hopelessness. From 2013 to 2019, the percentage of high school students who reported feeling consistently sad or hopeless increased from 27.4% to 35.9% across NYC, and from 26.6% to 36.2% in Staten Island.

High School Students Reporting an Attempted Suicide

	2013	2015	2017	2019
Staten Island	8.8%	10.1%	6.9%	10.2%
New York City	8.1%	8.3%	11.0%	9.2%
United States	8.0%	8.6%	7.4%	8.9%

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention

2019 High School Students Reporting an Attempted Suicide

	Staten Island	United States
Gender		
Female	9.4%	11.0%
Male	10.2%	6.6%
Race and Ethnicity		
Asian	9.4%	7.7%
Black/African American	19.8%	11.8%
White	3.6%	7.9%
Latinx origin (any race)	14.2%	8.9%

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention

Staten Island has historically had a higher prevalence of both adult and youth tobacco use. However**, the proportion of Staten Island high school students using traditional cigarettes declined nearly 8 percentage points from 2013 to 2019 and is on par with the citywide average.**

While traditional cigarette use declined among Staten Island students, approximately 1 in 5 report using e-cigarettes, a lower proportion than the nation, but a higher proportion than NYC overall. Reported use is disproportionately higher among Latinx and White students.

High School Students Reporting Current (within past 30 days) Cigarette Use

	2013	2015	2017	2019
Staten Island	11.8%	7.4%	6.2%	3.9%
New York City	8.2%	5.8%	5.0%	3.3%
United States	15.7%	10.8%	8.8%	6.0%

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention

High School Students Reporting Current (within past 30 days) E-Cigarette Use

	2015	2017	2019
Staten Island	19.0%	22.1%	19.9%
New York City	15.9%	17.3%	15.2%
United States	24.1%	13.2%	32.7%

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention

2019 High School Students Reporting Current (within past 30 days) E-Cigarette Use

	Staten Island	United States
Gender		
Female	18.2%	33.5%
Male	19.3%	32.0%
Race and Ethnicity		
Asian	6.5%	13.0%
Black/African American	10.7%	19.7%
White	21.1%	38.3%
Latinx origin (any race)	22.9%	31.2%

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention

New York City high school students overall are less likely to use substances than their peers nationwide, and the proportion has been generally stable or declined in recent years. Alcohol continues to be most commonly used substance among students, with approximately 1 in 5 students citywide reporting use within the past month.

High School Students Reporting Current (within past 30 days) Alcohol Use

	2013	2015	2017	2019
Staten Island	28.5%	22.6%	19.1%	20.6%
New York City	24.7%	20.9%	17.9%	20.8%
United States	34.9%	32.8%	29.8%	29.1%

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention

2019 High School Students Reporting Current (within past 30 days) Alcohol Use

	Staten Island	United States
Gender		
Female	22.3%	31.9%
Male	18.2%	26.4%
Race and Ethnicity		
Asian	12.0%	13.9%
Black/African American	21.5%	16.8%
White	19.9%	34.2%
Latinx origin (any race)	23.6%	28.4%

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention

High School Students Reporting Current (within past 30 days) Marijuana Use

	2013	2015	2017	2019
Staten Island	20.4%	17.5%	14.1%	17.2%
New York City	16.2%	15.9%	16.2%	17.7%
United States	23.4%	21.7%	19.8%	21.7%

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention

2019 High School Students Reporting Current (within past 30 days) Marijuana Use

	Staten Island	United States
Gender		
Female	18.1%	20.8%
Male	15.7%	22.5%
Race and Ethnicity		
Asian	NA	8.5%
Black/African American	21.9%	21.7%
White	13.8%	22.1%
Latinx origin (any race)	24.5%	22.4%

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention

Sexually Transmitted Infections (STIs)

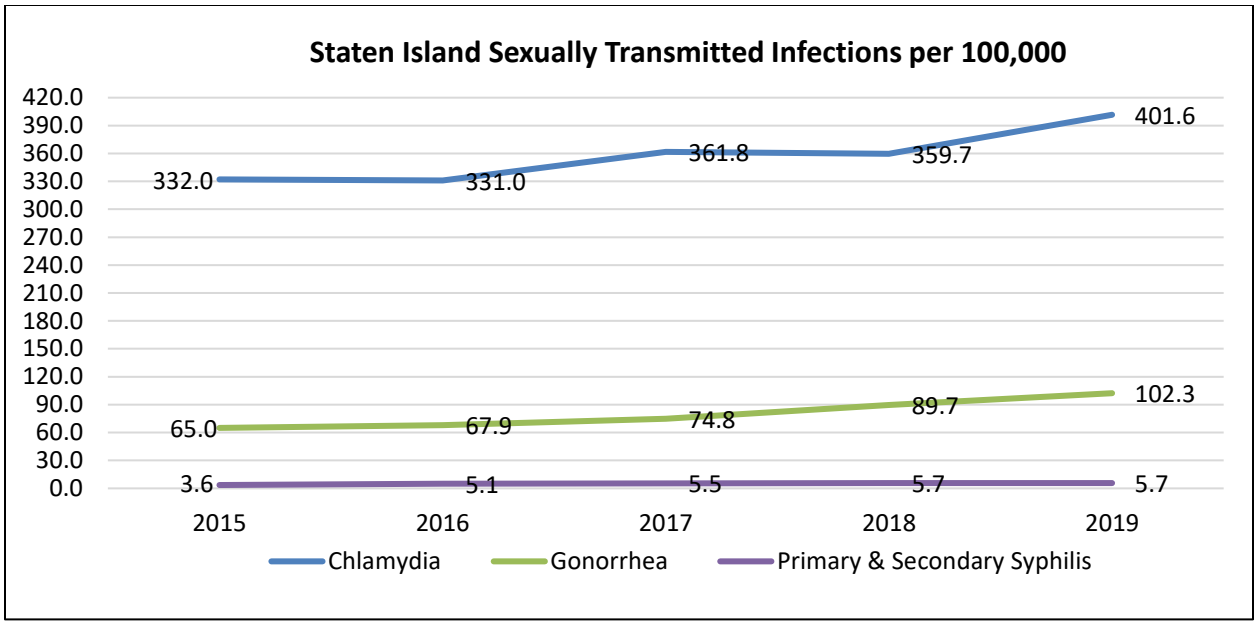
According to citywide preliminary data released by the New York City Department of Health and Mental Hygiene, from 2019 to 2020, rates of primary and secondary syphilis increased 9% for men and 24% for women. Rates of gonorrhea also increased 5% for women. Chlamydia rates decreased for both men (-29%) and women (-23%). Preliminary data for 2021 indicate that STI rates are rebounding to levels observed in 2019, though chlamydia cases remain much lower.

Consistent with 2019 CHNA findings, **Staten Island has a lower prevalence of STIs than other NYC boroughs and the nation overall. However, the rate of these conditions increased annually.** Of note, the rate of gonorrhea infection increased nearly 60% from 2015 to 2019.

2019 Sexually Transmitted Infection Rates per 100,000

	Chlamydia	Gonorrhea	Primary & Secondary Syphilis
Staten Island	401.6	102.3	5.7
Bronx	1,289.0	416.9	30.1
Brooklyn	902.6	350.1	19.3
Manhattan	1,094.0	566.1	41.9
Queens	657.1	190.7	15.5
New York City	908.3	345.3	23.7
United States	551.0	187.8	11.9

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention



Source: Centers for Disease Control and Prevention

Maternal and Infant Health

Consistent with the nation, the NYC birth rate declined gradually over the past 10 years. Staten Island also saw a declining birth rate and has a lower rate of birth than the city overall. The North Shore has the highest rate of birth at 11.9 per 1,000 compared to a boroughwide rate of 10.9 per 1,000. In 2019, the citywide birth rate was highest among Asians and Pacific Islanders, followed by non-Hispanic Whites.

2019 Births and Birth Rate per 1,000 Population

	Total Live Births	Birth Rate per 1,000
Staten Island	5,174	10.9
Bronx	17,747	12.5
Brooklyn	36,512	14.3
Manhattan	16,122	10.0
Queens	23,363	10.3
New York City	110,442	13.2
United States	3,747,540	11.4

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention

2019 Birth Rate per 1,000 Population by Race and Ethnicity

	Asian/Pacific Islander, Non-Hispanic	Black/African American, Non-Hispanic	White, Non-Hispanic	Latinx (any race)
New York City	15.2	11.0	14.6	12.5
United States	13.0	13.4	9.8	14.6

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention

Staten Island overall reports better birth outcomes than NYC and the nation, including fewer teen births, more pregnant people receiving early prenatal care, fewer low birth weight births, and a similar or lower proportion of preterm births. Of note, in 2019, only 2% of pregnant people on Staten Island received late or no prenatal care, the lowest proportion among NYC boroughs, and lower than the national average of 6.4%.

An area of opportunity for Staten Island is breast feeding. In 2019, only 32% of new parents exclusively breastfed their infant(s) during the first five days of life, the second lowest proportion among NYC boroughs and lower than the citywide average of 43.4%.

While Staten Island overall experiences mostly positive birth outcomes, these outcomes are not shared equally across communities. The North Shore experiences more negative birth outcomes, including a higher percentage of teenage, low birth weight, and preterm births, and a higher infant death rate. **In 2019, the infant death rate for the North Shore was double the infant death rate for the South Shore.**

Birth disparities within the North Shore are largely rooted in social determinants of health differences. Across NYC, communities with a high or very high percentage of residents living in poverty have worse birth outcomes than other communities. These outcomes have generally remained unchanged or with only marginal improvement over the past decade.

Nationally, Black/African Americans experience poorer birth outcomes than other racial or ethnic groups. Nearly 10% of Black/African Americans receive late or no prenatal care compared to 4.5% of Whites. Approximately 14% of Black/African American babies have low birth weight compared to 6.9% of White babies. The Black/African American infant death rate is more than twice as high as the White infant death rate.

2019 Maternal and Infant Health Indicators

	Teen (15-19) Birth Rate per 1,000	Late or No Prenatal Care	Low Birth Weight Births	Preterm Births	Exclusive Breast Feeding*
Staten Island	8.0	2.0%	7.4%	9.5%	32.0%
Bronx	18.5	13.1%	10.2%	10.4%	28.2%
Brooklyn	12.4	5.3%	7.7%	8.5%	42.5%
Manhattan	7.9	5.2%	7.5%	8.4%	61.9%
Queens	9.1	7.9%	8.9%	9.1%	43.0%
New York City	11.8	6.8%	8.5%	9.2%	43.4%
United States	16.7	6.4%	8.3%	10.2%	NA
Asian, Non-Hispanic	2.7	5.0%	8.7%	8.7%	NA
Black/African American, Non-Hispanic	25.8	9.6%	14.2%	14.4%	NA
White, Non-Hispanic	11.4	4.5%	6.9%	9.3%	NA
Latinx (any origin)	25.3	8.2%	7.6%	10.0%	NA
HP2030 Goal	NA	NA	NA	9.4%	NA

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention
*During the first five days of life.

2019 Staten Island Maternal and Infant Health Indicators by Neighborhood

	North Shore	Mid-Island	South Shore
Birth rate per 1,000	11.9	10.2	10.2
Late or no prenatal care	2.5%	2.1%	1.4%
Low birth weight births	9.0%	5.5%	6.9%
Preterm births	10.7%	8.6%	8.7%
Exclusive breast feeding	32.0%	31.1%	32.4%
Infant death per 1,000 live births	5.8	4.8	2.6

Source: New York City Department of Health and Mental Hygiene

2019 New York City Maternal and Infant Health Indicators by Neighborhood Poverty

	Low (<10%)	Medium (10-<20%)	High (20-<30%)	Very High (≥30%)
Birth rate per 1,000	10.0	11.1	12.3	15.6
Late or no prenatal care	4.4%	7.1%	7.8%	9.3%
Low birth weight births	7.6%	8.3%	8.5%	9.2%
Preterm births	8.4%	8.9%	9.2%	9.6%
Exclusive breast feeding	56.2%	44.3%	36.6%	32.0%
Infant death per 1,000 live births	2.8	3.4	3.5	5.5

Source: New York City Department of Health and Mental Hygiene

Across NYC, the infant death rate has declined 14.3% since 2010. However, **consistent with the nation, the NYC infant death rate is more than twice as high for Black/African Americans as other racial or ethnic groups.** Similar disparities are seen in the maternal death rate**.** In 2019, the US maternal death rate was twice as high for Black/African Americans than Whites. Across NYC in 2019, there were a total of 21 maternal deaths; one of these deaths occurred on Staten Island.

2019 Infant Deaths per 1,000 Live Births

	Infant Deaths per 1,000 Live Births
New York City	4.2
Asian, Non-Hispanic	NA
Black/African American, Non-Hispanic	8.6
White, Non-Hispanic	2.6
Latinx (any origin)	3.9
United States	5.6
Asian, Non-Hispanic	3.4
Black/African American, Non-Hispanic	10.6
White, Non-Hispanic	4.5
Latinx (any origin)	5.0
HP2030 Goal	5.0

Source: New York City Department of Health and Mental Hygiene & Centers for Disease Control and Prevention

2019 Maternal Deaths per 100,000 Live Births

	Total Death Rate	Black/African American Death Rate	White Death Rate	Latinx Death Rate
United States	20.1	42.0	17.6	12.6
HP2030 Goal	15.7	--	--	--

Source: Centers for Disease Control and Prevention

Research findings from secondary data analysis were compared to qualitative research findings to compare perceptions to statistical data, identify root causes, and contextualize data trends and contributing factors for identified health needs.

Key Informant Survey Results

Background

An online Key Informant Survey was conducted with community representatives to solicit information about perceived health priorities, perspectives on emerging health trends, including COVID-19, and recommendations to advance community health and well-being strategies. Representatives included healthcare and social service providers; public health experts; civic and faith-based organizations; policy makers and elected officials; and others representing diverse community populations.

A total of 35 individuals responded to the survey. A list of the represented community organizations and the participants' respective titles is included in Appendix B. Key informant's names are withheld for confidentiality.

Key informants were asked to identify any specific populations that their organization serves, as applicable. More than half of informants served all populations. Among informants who served specific population groups, the most served populations were older adults/elderly (25.7%), low-income/poor individuals or families (22.9%), and children aged 0-11 (17.1%).

Primary Populations Served by Key Informant Survey Participants

	Number of Participants	Percent of Total
No specific focus-serve all populations	19	54.3%
Older adults/Elderly	9	25.7%
Low income/poor individuals or families	8	22.9%
Children (age 0-11)	6	17.1%
African American/Black	5	14.3%
Hispanic/Latinx	5	14.3%
Religious community	5	14.3%
Other*	5	14.3%
Adolescents (age 12-18)	4	11.4%
Young adults (19-24)	4	11.4%
Disabled/Differently abled	4	11.4%
LGBTQ+ Community	3	8.6%
Immigrant/Refugee populations	3	8.6%
Homeless individuals or families	3	8.6%
Uninsured/Underinsured individuals or families	3	8.6%
Asian/South Asian	2	5.7%
American Indian/Alaska Native	1	2.9%
Pacific Islander/Native Hawaiian	1	2.9%

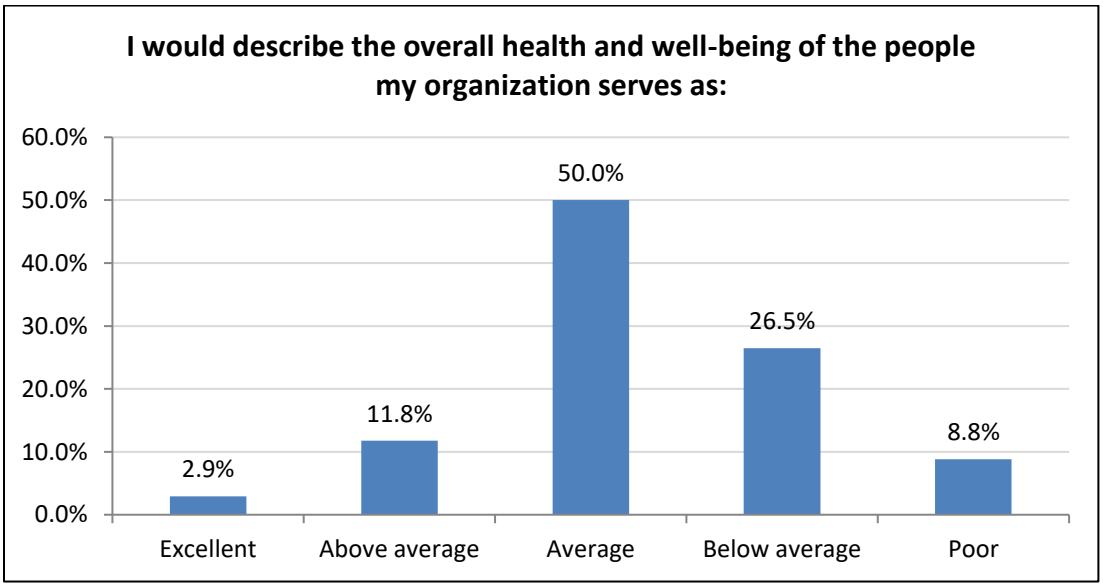
*Other responses: Business community, people with substance use disorder, subacute rehab aged 16 or over, women with breast cancer, veterans.

Survey Findings

Health and Quality of Life

Thinking about the people their organization serves, key informants were asked to describe the overall health and well-being of individuals and the most pressing concerns affecting them. Key informants selected up to five concerns, choosing from a wide-ranging list of concerns. An option to "write in" any issue not included on the list was provided.

Approximately 50% of informants described the overall health and well-being of the people their organization serves as "average" and 35.3% described it as "below average" or "poor." The top concerns identified by key informants as affecting the people their organization serves indicated consistent issues related to older adults, the COVID-19 pandemic, and social determinants of health (SDoH). The largest proportion of key informants (41.2%) selected older adult health concerns as a top concern, and approximately one-third of informants selected COVID-19. The top SDoH barriers identified by informants included economic stability (32.4%), affordable and quality housing (32.4%), and ability to afford healthcare (29.4%). Other top SDoH barriers selected by nearly 1 in 5 informants were community crime/violence and lack of transportation.



In your opinion, what are the top five most pressing concerns affecting the people that your organization serves? Top Key Informant Selections.

	Number of Participants	Percent of Total
Older adult health concerns	14	41.2%
COVID-19 pandemic	11	32.4%
Economic stability (employment, poverty, cost of living)	11	32.4%
Housing (affordable, quality)	11	32.4%
Ability to afford healthcare	10	29.4%
Heart disease and stroke	9	26.5%
Cancers	7	20.6%
Community crime/violence	6	17.7%
Diabetes	6	17.7%
Lack of transportation	6	17.7%
Mental health conditions	6	17.7%
Overweight/Obesity	6	17.7%
Substance use disorder (dependence/ misuse of opiates, heroin, etc.)	6	17.7%
Availability of healthy food options	5	14.7%
Racial/Ethnic disparities	5	14.7%
Stress (work, family, school, etc.)	5	14.7%

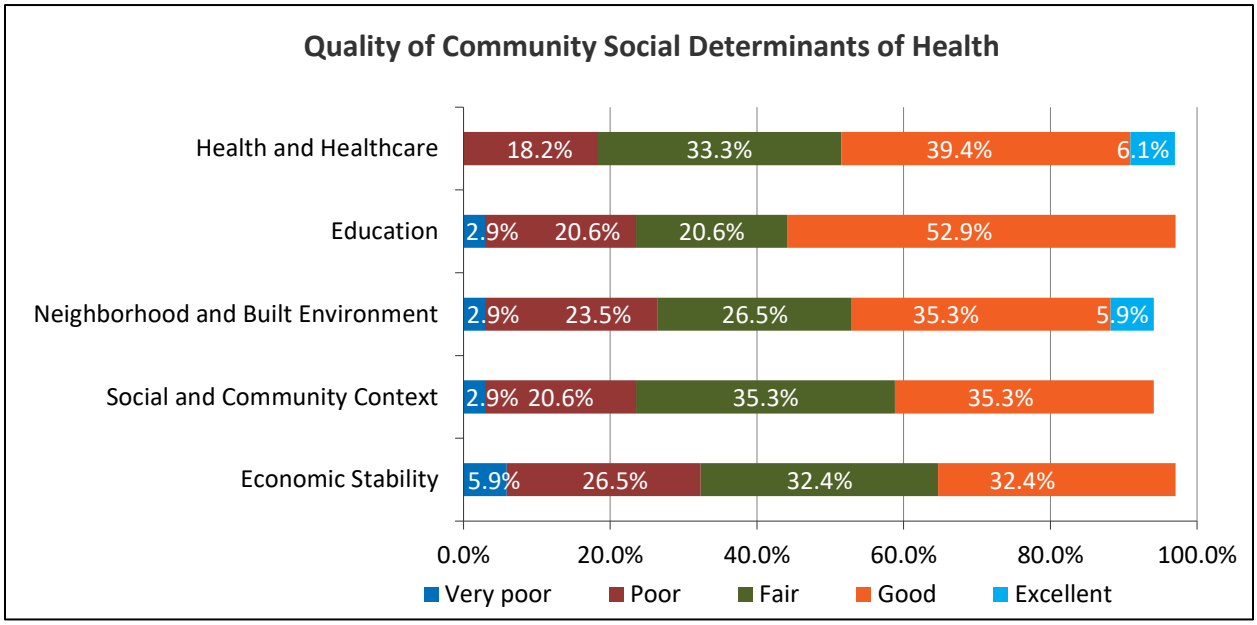
In a follow-up question, key informants were asked to rate the quality of the SDoH within the community their organization serves, focusing on the five key domains identified by Healthy People 2030: economic stability, education access and quality, healthcare access and quality, neighborhood and built environment, and social and community context. Ratings were provided using a scale of (1) “very poor” to (5) “excellent.”

The mean score for each SDoH domain is listed in the table below in rank order, followed by a graph showing the scoring frequency. Mean scores were between 2.94 and 3.34, with most respondents rating the listed areas as “fair” or “good.” Health and healthcare was seen as the strongest community SDoH with 6.1% of informants rating it as “excellent” and 39.4% rating it as “good.” Economic stability was seen as the weakest SDoH, with 5.9% rating it as “very poor” and 26.5% rating it as “poor.”

Approximately 41.2% (n=18) of informants stated that their organization currently screens or assesses the people their organization serves for the needs related to SDoH.

Ranking of Social Determinants of Health in Descending Order by Mean Score

	Mean Score
Health and Healthcare (e.g., access to healthcare, access to primary care, health literacy)	3.34
Education (e.g., high school graduation, enrollment in higher education, language and literacy, early childhood education and development)	3.27
Neighborhood and Built Environment (e.g., access to healthy foods, quality of housing, crime and violence, environmental conditions, transportation)	3.19
Social and Community Context (e.g., sense of community, civic participation, perceptions of discrimination and equity, incarceration/institutionalization)	3.09
Economic Stability (e.g., poverty, employment, food security, housing stability)	2.94



COVID-19 Insights and Perspectives

Thinking about the people their organization serves, key informants were asked to rate their level of agreement with a variety of statements about COVID-19, including availability of testing, vaccination, and reliable information; susceptibility to misinformation; and likeliness to follow recommended safety protocols. Their responses are shown in the table on the following page.

More than 60% of key informants "agreed" or "strongly agreed" that the people their organization serves received COVID testing and vaccination and reliable and culturally appropriate information about the pandemic. Additionally, nearly 64% of informants "agreed" or "strongly agreed" that the people their organization serves wore recommended personal protective equipment (PPE) to protect themselves and others. When asked about the influence of politics on the likeliness to follow recommended COVID safety protocols, approximately 24% of informants "agreed" or "strongly agreed" that individuals were influenced TO participate in protocols, while 12% "agreed" or "strongly agreed"

that individuals were influenced NOT to participate. Approximately one-third of informants were unsure of the influence of politics on COVID practices.

Based on key informant responses, additional efforts may be needed to promote uptake of COVID booster vaccination and vaccination among children. Approximately 51.5% of informants "agreed" or "strongly agreed" that the people their organization serves were likely to receive a COVID booster vaccination, and 36.4% of informants "agreed" or "strongly agreed" that individuals were/are hesitant to vaccinate their children. Nearly 40% of informants "agreed" or "strongly agreed" that general vaccine hesitancy (regardless of age) was due to due to safety or efficacy concerns and/or mistrust in government or health organizations.

Approximately 65% of key informants "agreed" or "strongly agreed" that the people their organization serves sought information from healthcare leaders, local providers, and/or public health experts about COVID. Despite this finding, 36.4% of key informants "agreed" or "strongly agreed" that individuals were susceptible to misinformation about COVID.

The people my organization serves…

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
received COVID testing when they needed it.	3.0%	0.0%	9.1%	51.5%	24.2%
received at least one COVID vaccination.	0.0%	3.0%	12.1%	51.5%	15.2%
were/are hesitant to vaccinate their children (ages 5-11).	0.0%	6.1%	15.2%	18.2%	18.2%
were/are hesitant to receive COVID vaccination due to safety and/or efficacy concerns.	0.0%	18.2%	15.2%	33.3%	6.1%
were/are hesitant to receive COVID vaccination due to mistrust in government and/or health organizations.	0.0%	15.2%	15.2%	33.3%	6.1%
are likely to receive a COVID booster vaccination.	0.0%	6.1%	18.2%	39.4%	12.1%
received reliable and culturally- and linguistically-appropriate information about COVID.	0.0%	3.0%	18.2%	33.3%	27.3%
were susceptible to misinformation about COVID.	3.0%	9.1%	24.2%	30.3%	6.1%
wore recommended personal protective equipment to protect themselves and others.	3.0%	9.1%	12.1%	42.4%	21.2%
were influenced by politics TO participate in COVID masking , vaccination, social distancing, etc.	3.0%	9.1%	30.3%	21.2%	3.0%
were influenced by politics NOT to participate in COVID masking , vaccination, social distancing, etc.	3.0%	9.1%	33.3%	12.1%	0.0%
sought information from healthcare leaders, local providers, and/or public health experts about COVID.	0.0%	3.2%	16.1%	51.6%	12.9%

Key informants were asked to identify the most likely sources of COVID-19 information for the people their organization serves. Key informants rank ordered up to three responses with #1 the most likely source for information. An option to "write in" any source not included on the list was provided.

Key informant responses reflected wide use of reliable sources of COVID-19 information, with local or state health departments, healthcare providers, and the Centers for Disease Control and Prevention (CDC) selected among the top sources.

What were the most trusted sources of information about COVID-19 among the people your organization serves?

	Selected as #1 Source		Selected as a Top 3 Source	
	Number of Participants	Percent of Total	Number of Participants	Percent of Total
Local or state health departments	8	26.7%	18	60.0%
Other healthcare providers	5	16.7%	10	33.3%
Centers for Disease Control and Prevention (CDC)	4	13.3%	12	40.0%
Church/Religious leaders	4	13.3%	8	26.7%
Richmond University Medical Center	2	6.7%	4	13.3%
National news source/media	2	6.7%	7	23.3%
Don't know	2	6.7%	6	20.0%
Friends/Family	1	3.3%	10	33.3%
Social media	1	3.3%	4	13.3%
Other*	1	3.3%	3	10.0%
Health insurance providers	0	0.0%	1	3.3%
Local news source/media	0	0.0%	5	16.7%
Political leadership	0	0.0%	2	6.7%

*Responses included local political figures and leaders, Staten Island University Hospital, pharmacies, federally qualified health center.

Key Informants were asked to share open-ended recommendations for how the community can rebuild trust in reliable sources of public health information (e.g., CDC, health departments, healthcare providers, etc.). Recommendations for improvement largely identified the need for clear, simple, and consistent language that is available where individuals frequent and presented by trusted community voices. Select verbatim comments by informants are included below.

- *"Clear and consistent reports of actual hospitalizations and deaths."*
- *"Commit to making a physical presence at community events, houses of worship, civic meetings, etc."*
- *"Encourage elected officials to support reliable scientific and medical sources of information."*
- *"Have trusted sources in the community giving out the information, including clergy, community leaders, etc."*
- *"More advocacy and education events led by local physicians."*
- *"Offer future vaccinations through trusted personal physicians and healthcare providers."*

- *"Partnerships with houses of worships, seminars at local houses of worship, transparency when the health profession is uncertain, more visibility in community."*
- *"Reinforce education through grass roots and public health boots on the ground."*
- *"Some of the feedback we received from the community was that they had never met or seen the healthcare providers that were showing up in their neighborhoods to give them "the jab" and there was a lack of trust. The community members indicated that unlike the neighborhood police officers who have been there to build up trust for years, the healthcare workers were unknown to them. This would be a good starting place as trust takes time to build. Consistent healthcare outreach by the same faces would go a long way to support basic health initiatives and provide important resources when there is a critical message to deliver. Bottom line is people trust people they know."*
- *"Use CBOs to assist with communicating to the members of the community through ongoing programming and lectures."*
- *"Use trusted messengers from the community who are properly trained and supported to deliver health information."*

Community Health Improvement Recommendations

Key informants were asked to identify resources that are needed within the community to improve health and quality of life for residents. Key informants rank ordered up to three free-form responses for each question. A summary of their responses is included below.

The top missing resources identified by key informants addressed the need to improve underlying social determinants of health barriers. Informants identified the need for affordable, healthy foods; enhanced employment and educational opportunities; affordable healthcare; public transportation; safe, affordable housing; and supports for aging in place. Select comments by key informants emphasized that these resources need to be community-based and targeted to underserved populations and areas (e.g., food deserts), and that community members need to be included in developing solutions.

Other missing resources identified by key informants largely included specific healthcare services, such as behavioral healthcare (n=4), physician home visiting program (n=2), pediatric cancer treatment (n=1), rehab center (n=1), visiting nurses (n=1), home healthcare (n=1), and pregnancy health center (n=1).

Key informants were asked how community organizations, including RUMC, can better serve priority populations (Black, indigenous, immigrant, people of color, and others) to achieve health and social equity. Recommendations by informants included partnering with community-based organizations to bring services to residents, promoting diversity, equity, and inclusion training among staff, and engaging residents in developing community solutions. Select verbatim comments are included below.

- *"Building rapport with said communities, by being present in community, supporting initiatives that build community, collaborations with houses of worship."*
- *"Care management programs that include field resources."*

- *"Continued efforts to provide services on site in communities that are currently not receiving access for one reason or another, including bringing services to places of business where employees may gain access."*
- *"Identify and address structural racism within the institution by examining individual and aggregate beliefs and behavior that lead to policies and procedures that maintain structural inequity."*
- *"Increase communication and integration of trusted messengers into RUMC's power structure."*
- *"Make services more affordable and accessible through grass-roots outreach, transportation support, and place-based services."*
- *"Team up with local nonprofits whose mission is to serve these priority populations. Host 1:1 events to increase awareness and access to available resources."*
- *"Train all RUMC providers and frontline staff on how racism shapes healthcare. Provide patient-centered care where sites are welcoming. Provide transportation assistance and childcare."*
- *"Train community ombudsman/CHWs to engage individuals. Provide more mobile access to services. Hire people of color."*

Lastly, informants were asked for recommendations on how RUMC can better collaborate with organizations to improve health and well-being for residents. Recommendations were provided as free-form comments. Select verbatim comments are included below by overarching theme.

- *"Collaborate with transportation companies (government entities, Uber, Lyft) to help with access to care; partner with existing organizations, corner stores, bodegas and farm stands to increase access to healthier foods."*
- *"Consider collaborating with the business community to assist with messaging and education."*
- *"Continued constant communication and collaboration. Alignment on priorities. More focus on community health and funding CBO's."*
- *"Form a community advisory panel to solicit input and involvement from underrepresented groups."*
- *"Hold open forum with community where they feel listened to and no mixed message is given or heard."*
- *"More Mobile Pop-Up Health Sites in areas of need."*
- *"Partner with our organization for events, including information sessions."*
- *"Support initiatives like our church community health fair, supporting our Health Ministries by providing seminars or speakers on health concerns, allow a visit to the hospital to tour and get familiar with the services you provide to community (open house for clergy), opportunities to sit on boards and or committees that pertain to the constituents served."*
- *"There are several community coalitions that would benefit from RUMC participation - early childhood, behavioral health, workforce, etc."*

Community Assets to Address Identified Health Priorities

Community assets and resources, including organizations, people, policies, and physical spaces, elevate the quality of life of residents. Identifying the assets that exist on Staten Island is an important component of the CHNA, both to mobilize and employ resources to address identified health issues, as well as to address existing gaps in services.

The following section highlights available assets and resources on Staten Island to address the priorities of Prevent Chronic Diseases and Promote Well-Being and Prevent Mental and Substance Use Disorders, with specific focus on tobacco prevention; preventive care and management; and preventing mental and substance use disorders. Note: The following list is not intended to be a comprehensive assessment of all services available to Staten Island residents and may not capture the many critical programs and initiatives offered by agencies across the borough.

Priority Need: Prevent Chronic Diseases, Focus on Tobacco Prevention
Available Assets and Resources:

- NYC Department of Health and Mental Hygiene
  - NYC Quits resource page
  - Youth Tobacco and E-Cigarette Prevention Action Kit
  - Nicotine Replacement Therapy (NRT) Toolkit
- New York State Smoker's Quitline: 866-NY-QUITS (866-697-8487)
- Richmond University Medical Center, https://www.rumcsi.org/
  - Certified Tobacco Cessation Program
  - Lung screening services
  - Tobacco use disorder treatment
- Tobacco Free Staten Island boroughwide cessation resources

Priority Need: Prevent Chronic Diseases, Focus on Preventive Care and Management
Available Assets and Resources:

- Community Health Action of Staten Island
  - Food Pantry and Assistance
  - Mobile health units
  - Healthcare and health home
- Richmond University Medical Center, https://www.rumcsi.org/
  - Breast Health Patient Navigation Initiative
  - Cancer Services Program
  - Care Transitions Program
  - Diabetes Self-Management Education and Support
  - National Diabetes Prevention Program
- Staten Island Performing Provider System, https://statenislandpps.org/
  - City Harvest Mobile Market
  - Diabetes Management Program
  - Jewish Community Center of Staten Island Kosher Food Pantry

- Medicaid Accelerated Exchange (MAX)
- Project Hospitality Mobile Pantry
- Staten Island University Hospital free fruit and vegetable kiosks

Priority Need: Promote Well-Being and Prevent Mental and Substance Use Disorders
Available Assets and Resources:

- City of New York NYC Well hotline: 1-888-NYC-WELL or text "WELL" to 65173
- New York State Office of Addiction Services and Support Treatment Availability Dashboard
- Richmond University Medical Center, https://www.rumcsi.org/
  - The Center for Integrative Behavioral Medicine
  - Opioid Overdose Prevention Program
  - Peer Counselor Warm Handoff Program
  - Project LAUNCH (Linking Actions for Unmet Needs in Children's Health)
  - Relay
- Staten Island Partnership for Community Wellness
  - Substance use treatment agencies resource page
  - Support groups and resource centers page
  - Tackling Youth Substance Abuse resource page
- Staten Island Performing Provider System, https://statenislandpps.org/
  - E-Recovery Addiction Treatment Platform
  - Heroin Overdose Prevention & Education (HOPE) Program
  - Opioid Safe Prescriber Pledge
  - SI Connect for healthcare professionals: 844-877-7828
  - Staten Island Veteran Suicide Prevention Collaborative

Evaluation of Impact from 2019 Community Service Plan

In 2019, Richmond University Medical Center (RUMC) completed a CHNA and developed a supporting three-year Implementation Plan for community health improvement. The Implementation Plan outlined strategies for measurable impact on identified priority health needs, including Prevent Chronic Diseases and Promote Well-Being and Prevent Mental and Substance Use Disorders. The priority needs aligned with the top needs of Staten Island residents and the New York State Prevention Agenda.

Within six months of the release of the 2019 Implementation Plan, the COVID-19 pandemic shifted the priorities of our community and RUMC adapted our work to respond to the emergent needs of residents. The following sections outline our work to impact the 2019 CHNA priority health areas and respond to COVID-19 in our communities.

Priority: Prevent Chronic Diseases, Tobacco Prevention

The 2019 CHNA identified that among current and former adult smokers on Staten Island, 64.9% reported initiating smoking before the age of 18. The proportion of Staten Island teens who smoke was estimated to be the highest of any other NYC borough, and 1 in 5 teen smokers were heavy smokers. Additionally, nearly 1 in 4 teens reported using e-cigarettes, a higher proportion than NYC overall.

In response to these identified needs, RUMC initiated tobacco prevention education, targeting high school students and led by a Certified Lung Nurse Navigator. Additionally, RUMC continued to conduct tobacco use screenings and cessation referrals as part of the patient intake process and offered free tobacco cessation programming and support groups.

In 2019 alone, RUMC provided over 30 tobacco prevention presentations in the community, reaching over 5,000 students at schools across Staten Island. Schools included both private and public schools, community organizations, and faith-based groups. Presentations were provided in auditorium style settings and in individual classrooms. Due to COVID-19 restrictions, RUMC was not able to conduct in-person presentations to school students in 2020 or 2021. A virtual education session was conducted as part of the Jewish Community Center Town Hall in 2021. RUMC also presented a vaping education session as part of the mid-year Academy of Oncology Nurse Navigator Conference.

RUMC's community tobacco cessation program is run by a Certified Tobacco Treatment Specialist over the course of five to six weeks. The program provides participants with information, individual counseling, and coping mechanisms to better fight their tobacco addiction. In 2019, the program was offered three times with a total of 16 participants. Individuals who completed the program were invited to join a support group, "The Conquerors," for additional support. Tobacco cessation programming was offered virtually or in one-on-one settings in 2020 and 2021. All lung screening patients were offered one-on-one counseling via telephone, as were Center for Cancer Care patients seeking support. RUMC employees seeking tobacco cessation were seen on a one-to-one basis.

In 2017, RUMC made it a priority to address the high percentage of people with behavioral health issues who also use tobacco. The system implemented screening and treatment for tobacco use disorders in their Office of Mental Health-licensed and Office of Alcoholism and Substance Abuse Services-certified

programs located at the Center for Integrative Behavioral Medicine. These efforts resulted in over 140 new lung screenings and 150 follow-up annual screenings in 2019 alone. RUMC employs a lung nurse navigator who serves as a patient advocate throughout the lung screening process. The nurse navigator tracks patient outcomes and ensures follow-up screening and treatments. For the patient, this coordinated effort translates into faster treatment, better outcomes, and more coordinated care.

Priority: Prevent Chronic Diseases, Preventive Care and Management

The 2019 CHNA identified that while the incidence of cancer was higher on Staten Island than NYC and the nation overall, the rate of cancer death was similar or lower than city or national benchmarks. This finding suggested that overall, cancers on Staten Island were being identified early and effectively treated. However, this finding did not reflect disparities in care access among low-income individuals. RUMC is located on the North Shore where as many as 1 in 4 households experienced poverty.

To increase cancer screening and treatment access for individuals with low-income, RUMC continued to use electronic medical record (EMR) and patient portals to provide screening reminders; offered free breast and colorectal screenings and diagnostic services to eligible individuals; and provided the Breast Health Patient Navigator program to increase access to mammography and follow-up care.

RUMC provided free at-home colorectal cancer Fecal Immunochemical Test (FIT) kits at community events across Staten Island. The first distribution occurred in the hospital's COVID-19 Vaccination Center. As people were observed following their COVID-19 vaccinations, members of the oncology team provided information on colorectal cancer and offered free FIT kits. The second distribution occurred in March 2021 (National Colorectal Cancer Awareness Month). RUMC also placed ads in local media and on social media to promote the importance of screening and information for obtaining free FIT Kits. The most recent distribution was in November 2021 at the Staten Island Economic Development Corporation's Health and Wellness Expo. Members of the oncology department discussed screening and distributed free FIT kits. All three outreach activities resulted in over 145 kits being distributed. The kits were assessed by the oncology tam at no cost and the results provided to the patients. As a result of this effort, RUMC performed over 20 follow-up colonoscopies.

To increase access to breast cancer screenings and care, free mammograms were offered to individuals without health insurance during the month of October, National Breast Cancer Awareness Month. Information about RUMC's Breast and Women's Center and the importance of breast cancer screenings was also sent as a direct mailing piece to over 1,000 nearby residential addresses. RUMC's oncology team attended the Staten Island Economic Development Corporation's annual Health and Wellness Expo to discuss breast cancer risk factors, symptoms, and treatment options and to schedule mammograms. These activities combined led to over 1,900 screenings and several first-time mammography appointments.

RUMC continued to offer the Breast Health Patient Navigation Initiative. As part of the initiative, women with abnormal screening findings and those who attend the hospital's breast or oncology clinic are assessed for barriers to care. These barriers include medical transportation, childcare, inability to pay for care or high co-pay, culture, language, anxiety, or fear of diagnosis. The goal is to guide, educate, and support women through screening and diagnosis by providing services that address identified barriers.

The program began in April 2010 and since then, has served hundreds of women in our community. Primarily focused on navigation for women with few resources and multiple obstacles, the program is available to help any woman who needs assistance.

The 2019 CHNA found that diabetes impacted more than 1 in 10 Staten Island adults. While the overall diabetes death rate on Staten Island was lower than NYC and national rates, Black/African Americans had a disproportionately higher death rate, exceeding state and national benchmarks.

In response to these identified needs, RUMC launched its National Diabetes Prevention Program (NDPP) in 2019. The NDPP is a Centers for Disease Control and Prevention recognized, evidenced-based program for adults with prediabetes. The goal of the program is to prevent type 2 diabetes and to assist participants to make positive lifestyle changes. Participants are supported in making moderate changes in diet and physical activity with the goal of losing 5-7% of their body weight during the 12-month program. The NDPP has 26 modules presented over the course of 16 weekly, one-hour sessions, followed by monthly maintenance sessions.

The NDPP is facilitated by a Certified Diabetes Care Education Specialist and Lifestyle Coach who provide nutrition and physical education, including how to shop and cook, how to manage stress and cope with triggers of unhealthy behaviors, how to keep the heart healthy, nutrition label comprehension, and getting support to maintain a healthy lifestyle. The last 10 modules help participants to stay motivated. The program emphasizes self-monitoring, self-efficacy, and problem-solving. Participants are actively engaged by providing a forum for sharing healthy tips and discussing resources for food and weight management.

In 2019, a total of nine people participated in NDPP. Nearly every participant lost between eight and 24 pounds. In 2021, there were 11 participants who completed the program with average weight loss of 6-19 pounds. The 2022 program started in January and had 15 active participants as of April with average weight loss of 3.1%.

In 2021, RUMC's Certified Diabetes Care Education Specialist was accredited by the American Diabetes Association Education Recognition Program. This accreditation recognizes that RUMC's diabetes programming follows the 2022 National Standards for Diabetes Self-Management Education and Support (DSMES). The DSMES program provides comprehensive diabetes education and skill-building for better disease control and outcomes. Participants receive 1:1 support, attend group sessions, and are referred to a Registered Dietician for nutrition education and support. As of April 2022, 14 participants had completed the DSMES program.

Throughout 2019, RUMC provided free diabetes assessments and blood pressure tests at community events. Individuals determined to be at high risk for heart disease or diabetes were provided information on risk factors and instruction on following up with a primary care physician. Nearly 1,000 people received these screenings at over 30 community events.

Priority: Promote Well-Being and Prevent Mental and Substance Use Disorders

The 2019 CHNA identified that while the percent of Staten Island high school students who reported drinking alcohol decreased from the 2016 CHNA, it remained higher than the NYC benchmark and represented nearly 1 in 5 students. High school students on Staten Island were also more likely to report binge drinking than their peers across NYC.

In response to this need, RUMC initiated The Center for Young Adults Program in October 2019. The program is in its third year of operation and had 88 participants as of November 2021. The program provides individual, group, and family counseling as well as supportive psychiatric and medical services. The age range of program participants is 16 to 24 years, an age group that has shown to be responsive to intervention.

The Center for Young Adults has been actively engaged in the community, providing education and facilitating service linkages with other youth organizations. In fall 2021, the program supervisor and addiction psychiatrist presented to the Staten Island medical community on adolescent substance use. The program supervisor also provided multiple presentations to the community and facilitated service delivery linkages with the Department of Education and a large charter school organization.

RUMC also offers Youth Achieving Independence and South Shore SafeTY.net. These programs are designed to provide transitional age supports to relieve emerging substance use disorder and emotional challenges among adolescents in the community. The programs' supervisor has targeted outreach to local schools and has forged a linkage with a large charter school organization and relationships with multiple public schools and two therapeutic schools. The programs maintain networking relationships with other providers and advocates through participation in organizations that combat adolescent addiction, including Tackling Youth Substance Abuse (TYSA).

At the time of the 2019 CHNA, the drug-induced death rate on Staten Island had increased nearly 40% from the 2016 CHNA. Accidental overdose, largely due to opioids, comprised a majority of these deaths. Staten Island saw an 18% increase in overdose deaths and had the second highest rate of overdose death among NYC boroughs.

The Silberstein Clinic at RUMC became an Opioid Overdose Prevention Program in 2015, which facilitated the center's provision of Narcan training for staff, clients, and family members and the distribution of free Narcan kits. Narcan is a lifesaving medication designed to reverse the effects of an opioid overdose in minutes. RUMC distributed 3,787 Narcan kits in 2021 and 482 kits as of March 2022. New in 2022, RUMC began offering fentanyl test kits, and had distributed 150 kits as of March. Fentanyl test kits are a simple and evidence-based method of averting drug overdose by testing substances for the presence of fentanyl, a synthetic opioid that is more than 50 times stronger than heroin.

The Silberstein Clinic also provides Medication Assisted Treatment (MAT) to treat substance use disorders. Medication-Assisted Treatment is the use of medications, in combination with counseling and behavioral therapies, to provide a "whole-patient" approach to the treatment of substance use disorders. Research shows that a combination of medication and therapy can successfully treat these disorders, and for some people struggling with addiction, help sustain recovery. To increase accessibility

to MAT, RUMC provides induction services in the ED. Patients receive their initial MAT dose in the ED and follow up the next day at Silberstein for continued treatment and medication.

The RUMC Peer Counselor Warm Handoff Program connects patients with substance use disorder that visit the ED with timely and appropriate withdrawal management and other treatment services. The program provides a 24/7 single access number for ED personnel to connect with community treatment providers and refer patients in need of ambulatory withdrawal management. As part of the program, certified recovery peer counselors are available in the ED to better engage clients, offering Narcan kits and facilitating treatment referrals. In 2021 alone, recovery peer counselors conducted 1,651 bedside interventions and facilitated 957 initial follow-up calls and 971 subsequent follow-up calls.

In addition to the Peer Counselor Warm Handoff Program, the RUMC ED is a collaborating partner in Relay, a NYC Department of Health and Mental Hygiene sponsored nonfatal overdose response system. The NYC Department of Health and Mental Hygiene contracts with Community Health Action of Staten Island (CHASI) to implement Relay. As part of the response system, Relay Peers are deployed to collaborating EDs to engage and follow up with consenting patients who have suffered a nonfatal overdose, offering risk reduction counseling, overdose rescue training, Naloxone distribution, support, and linkage to services for up to 90 days.

The legalization of mobile sports betting in New York has contributed to an increase in gambling addiction on Staten Island. Individuals with gambling addiction often have a coexisting mental health condition, most commonly depression. Among individuals seen for gambling addiction, RUMC began conducting screenings for suicide risk using the Columbia-Suicide Severity Rating Scale (C-SSRS) and a modified mini screen for mood, anxiety, and psychotic disorders. Individuals with a positive screen receive follow up evaluation from a psychiatrist.

Individuals with gambling addiction have often incurred significant financial loss (upwards of two to three times their annual income). RUMC's gambling addiction program integrates financial planning into therapy, helping clients develop and implement plans, financial protection strategies, realistic budgets, and limit access to funds. When appropriate, family members are included in therapy sessions to support the patient and their financial plan.

RUMC is actively working to hire a peer outreach specialist as part of the gambling addiction program to specifically support underage gambling prevention efforts. In the last year alone, $220 million were spent on gambling ads, many targeting youth on social media platforms. The staff is anticipated to help raise awareness and prevention efforts around underage gambling and strengthen relationships with other state and local agencies to expand gambling awareness and screening options.

At the time of the 2019 CHNA, nearly 1 in 10 Staten Island adults experienced depression symptoms, but only two-thirds of individuals with symptoms received counseling or treatment services. On the North Shore, the rate of psychiatric hospitalizations among adults was higher than Staten Island and NYC overall, indicating potential difficulty in accessing care and/or greater exposure to stressors.

RUMC continues to be represented on the Staten Island Behavioral Health Infrastructure Project (BHIP). The goal of BHIP is to help strengthen mental health and substance use disorder infrastructure across Staten Island systems, including on the North Shore, to reduce unnecessary hospitalizations and increase access to quality behavioral health services. As a partner organization, RUMC has most recently been active in the Staten Island Veteran Suicide Prevention Collaborative (SIVSPC), a community-based collaborative of veteran and civilian organizations. The SIVSPC provides quarterly webinars on topics relating to veteran suicide prevention and partners with the Staten Island Retired Volunteer Program to hold community-based Veterans Taskforce meetings. The collaborative also provides ongoing outreach to Staten Island veterans to assess and respond to their social determinants of health needs.

In October 2017, RUMC initiated Bridges to Wellness, a partial hospitalization program for patients with mental illness. The program provides a therapeutic environment for individuals discharged from a psychiatric unit who need assistance transitioning home. RUMC is in the process of reevaluating the program for potential service expansion. Since the onset of the COVID-19, RUMC also initiated a Mindfulness Trauma Group and Art Therapy Group to assist individuals experiencing trauma as a result of the pandemic. The Mindfulness Trauma Group was available for virtual or in-person attendance.

2022-2024 Community Service Plan

Prioritization Process and Identified Priorities

To work towards health equity, it is imperative to prioritize resources toward the most pressing and cross-cutting health needs within the community. In assessing and prioritizing community health needs, RUMC conducted an electronic survey of key stakeholders to solicit and receive input from persons who represent the broad interests of the community, as well as underserved, low-income, and minority populations. These individuals provided wide perspectives on health trends, expertise about existing community resources available to meet those needs, and insights into service delivery gaps that contribute to health disparities and inequities.

RUMC also engaged in conversation with the NYC Department of Health and Mental Hygiene to better understand existing and planned health improvement initiatives on Staten Island and to align the CSP with Take Care New York, the city's blueprint for achieving health equity. Additionally, RUMC engaged with internal clinical leaders to align the CSP with system population health management strategies and integrated provider networks, such as the Staten Island Performing Provider System.

The 2022 CHNA continued to support ***Prevent Chronic Diseases*** and ***Promote Well-Being and Prevent Mental and Substance Use Disorders*** as the most significant needs for Staten Island residents. These needs are aligned with the New York State Prevention Agenda and are consistent with those identified as part of the 2019 CHNA. RUMC, in partnership with community agencies, has made significant progress in addressing these needs, and will continue to build on this success while recognizing new health challenges and a focus on health equity.

RUMC 2022-2024 Community Service Plan Priority Areas

- Prevent Chronic Diseases
  - Focus Area: Tobacco Prevention
  - Focus Area: Preventive Care and Management

- Promote Well-Being and Prevent Mental and Substance Use Disorders
  - Focus Area: Prevent Mental and Substance Use Disorders

RUMC 2022-2024 Community Service Plan

The 2022-2024 CSP builds upon previous health improvement activities, while recognizing new health needs and a changing healthcare delivery environment identified in the 2022 CHNA. The following is a summary of RUMC's 2022-2024 CSP, outlining goals, objectives, strategies, and process measures for addressing the identified priority areas.

Priority Area: Prevent Chronic Diseases
Focus Area #1: Tobacco Prevention

Goal #1: Prevent initiation of tobacco use, including combustible tobacco and electronic vaping products (electronic cigarettes and similar devices) by youth and young adults.
Objectives:

- Decrease the prevalence of tobacco use, including vaping products, by high school students (2019 Staten Island benchmarks: 3.9% cigarette use, 19.9% e-cigarette use).

Intervention Strategy	Process Measures
Provide tobacco prevention education, targeting high school students and led by a Certified Lung Nurse Navigator, to highlight the dangers of tobacco, promote effective tobacco control policies, and reshape social norms	• Number of education programs and participants • Participants who report change in tobacco knowledge and/or intent to abstain from tobacco

Goal #2: Promote tobacco use cessation, especially among populations disproportionately affected by tobacco use, including adults with frequent mental distress and/or substance use disorder.
Objectives:

- Increase the percentage of smokers who received assistance from their healthcare provider to quit smoking.
- Decrease the prevalence of cigarette smoking by adults aged 18 years and older (2019 Staten Island benchmarks: 19.9%).
- Decrease the prevalence of cigarette smoking by adults aged 18 years and with frequent mental distress and/or substance use disorder.

Intervention Strategy	Process Measures
Screen for tobacco use and initiate tobacco cessation program referrals using the "5 A's" embedded in patient Electronic Medical Records	• Percent of patients screened for tobacco use • Percent of positively screened patients referred to tobacco cessation programs
Screen for tobacco dependence and initiate cessation treatment plans among individuals with behavioral health issues seen at the Center for Integrative Behavioral Medicine	• Percent of patients screened for tobacco use • Percent of positively screened patients receiving lung screening and initiating a cessation treatment plan and/or offered nicotine replacement therapies • Percent of cessation program participants that successfully quit smoking
Initiate lung screenings for current and past chronic smokers, supported by a lung nurse navigator to facilitate follow-up screenings and treatments	• Percent of patients with lung cancer identified in earlier disease stage • Percent of positively screened patients connected with appropriate and timely follow-up care
Offer a free tobacco cessation program led by a Certified Tobacco Treatment Specialist and providing information, individual counseling, and coping mechanisms to better treat tobacco addiction	• Number of program events and participants • Percent of program participants that successfully quit smoking
Offer "The Conquerors" Support Group for past smokers who completed a tobacco cessation program	• Number of support groups and participants • Percent of participants who maintain tobacco cessation

Priority Area: Prevent Chronic Diseases
Focus Area #1: Preventive Care and Management

Goal #1: Increase cancer screenings rates for breast and colorectal cancers.
Objectives:

- Increase the percentage of women with an annual household income less than $25,000 who receive a breast cancer screening based on most recent guidelines.
- Increase the percentage of adults who receive a colorectal cancer screening based on the most recent guidelines (ages 50 to 75 years).

Intervention Strategy	Process Measures
Embed cancer screening reminders in Electronic Medical Records and Patient Portals to prompt patients and providers	• Percent of patients up to date on recommended cancer screening practices
Provide the Breast Health Patient Navigator Program to increase access to mammography and support women in accessing care, targeting underserved women	• Number of community screening events • Number of newly diagnosed participants and percent identified in earlier disease stage • Percent of diagnosed participants receiving follow-up care
Conduct community screening events and group education to increase awareness and access to breast and colorectal cancer screenings and guidelines	• Number of community events and participants • Number of newly diagnosed participants and percent identified in earlier disease stage • Percent of diagnosed participants receiving follow-up care

Goal #2: Promote the use of evidence-based care to manage chronic diseases.

Objectives:

- Increase identification of social barriers to care and facilitate linkages to community-based organizations.
- Increase early-stage prevention interventions for adult patients at-risk for diabetes.
- Decrease the percentage of adult members with diabetes whose most recent HbA1c level indicated poor control (>9%).
- Reduce hospital readmissions and ED visits for Medicaid members.

Intervention Strategy	Process Measures
In partnership with SI PPS, conduct social determinants of health screening and referral to identify social needs and facilitate linkages to community-based organizations	• Number of screenings conducted and percent of patients with identified social barriers • Number of patients without health insurance and/or primary care providers who are connected with these services • Number of scheduled primary care appointments for patients who have not been to their medical doctor in last 12 months • Number of patients with identified social barriers that are linked with community-based organizations within 4 weeks

Intervention Strategy	Process Measures
Provide the Breast Health Patient Navigator Program to assess and address barriers to care, including medical transportation, childcare, inability to pay for care or high co-pay, culture, language, anxiety, or fear of diagnosis	• Percent of patients with an abnormal mammogram who are assessed for barriers to care • Percent of patients with identified access barriers who are connected with appropriate social services • Percent of patients with identified access barriers who receive recommended follow-up care (e.g., no cancelled appointments)
Offer the National Diabetes Prevention Program, a CDC recognized, evidenced-based program for adults with prediabetes	• Number of program participants • Participants who achieve the program goal of losing 5-7% of their body weight • Participants who report confidence in ability to maintain a healthy lifestyle and manage their health
Offer the Diabetes Self-Management Education and Support program, led by an American Diabetes Association Certified Diabetes Care Education Specialist	• Number of program participants • Participants whose most recent HgA1c test indicates a managed condition • Participants who report confidence in ability to maintain a healthy lifestyle and manage their health
In partnership with SI PPS, provide the Diabetes Management Program to ensure evidence-based protocols for diabetes management in the clinical setting and increase patient utilization of self-management programs	• Number of RUMC provider locations that implement care management protocols • Percentage of adult patients with diabetes or pre-diabetes who receive at least one HgA1c test annually • Percentage of adult patients with diabetes whose most recent HgA1c test indicates a managed condition
In partnership with the Visiting Nurse Association of Staten Island, provide the Care Transitions Program to reduce 30-day readmission rates within the Medicaid population by engaging with patients during hospitalization and developing comprehensive care transition plans	• Number of RUMC Medicaid patients enrolled in the program • Hospital readmission rate among program participants compared to the general population
In partnership with SI PPS, provide the Medicaid Accelerated Exchange (MAX) program to identify frequent users of ED services and connect them with needed health and social services to prevent future unnecessary visits	• Number of RUMC Medicaid patients identified as frequent ED users • Percentage of patients connected with appropriate health and social services • ED visit rate among program participants compared to the general population

Priority Area: Promote Well-Being and Prevent Mental and Substance Use Disorders
Focus Area #1: Prevent Mental and Substance Use Disorders

Goal #1: Prevent underage drinking and other substance use by youth.
Objectives:

- Reduce the percentage of youth in grades 9-12 reporting the use of alcohol on at least one day for the past 30 days (2019 Staten Island benchmark: 20.6%).
- Increase access to youth substance use disorder treatment services.
- Prevent and address adverse childhood experiences (ACEs) as contributors to substance use.

Intervention Strategy	Process Measures
Collaborate in the Tackling Youth Substance Abuse initiative aimed at decreasing the use of alcohol and prescription drugs and promoting overall healthy choices among youth	• Increased access to prevention and treatment options • Expanded awareness and prevention strategies within schools and the community • Change in adult and youth attitudes and behaviors (social norms) • Advancement of policies that impact availability of substances and treatment access
Provide the Center for Young Adults, an OASAS-licensed addiction program exclusively focused on the treatment of adolescents and young adults aged 16 to 24, and including drug, alcohol, and mental health screening and assessment, individual and group psychotherapy/counseling, family therapy/counseling, and referral for additional community supports	Outcomes to be measured relative to the three primary components of the program: • Medication assisted treatment, including maintenance or withdrawal management • Behavioral therapy • Recovery support services, with an emphasis on peer support
Provide the Youth Achieving Independence and South Shore SafeTY.net programs, designed to provide transitional age supports to relieve emerging substance use disorder and emotional challenges among adolescents	• Program participants who achieve their personal goals, including employment/career, education, living situation, personal well-being, and community-life functioning
Implement Project LAUNCH, a SAMHSA funded initiative with the goal of preparing children for success in school; the program is open to children ages eight and younger, their caregivers, and expecting caregivers living on the North Shore	• Child development outcomes and academic readiness • Child and family member access to prevention, wellness, and physical and behavioral health services

Goal #2: Prevent opioid and other substance misuse and deaths.

Objectives:

- Reduce the age-adjusted accidental overdose death rate (2020 Staten Island benchmark: 29.5 per 100,000).

Intervention Strategy	Process Measures
Maintain Silberstein Clinic designation as an Opioid Overdose Prevention Program, providing Narcan training for staff, clients, and family members and the distribution of free Narcan kits and fentanyl test kits	• Number of staff, clients, and family members trained in Narcan administration • Number of free Narcan kits and fentanyl test kits distributed
Provide Medication-Assisted Treatment (MAT) induction services in the ED and next day referrals to the Silberstein Clinic for continued treatment	• Number of patients receiving ED MAT induction services • Number of patients receiving ED MAT induction services that are then seen in the Silberstein Clinic
Offer the Peer Counselor Warm Handoff Program connecting patients with substance use disorder that visit the ED with timely and appropriate withdrawal management and other treatment services	• Percent of patients who see a peer counselor • Percent of patients connected to treatment referrals • Percent of patients provided with Narcan • Number of repeat ED patients with an overdose
In partnership with Community Health Action of Staten Island, implement Relay, deploying peer counselors to EDs to engage and follow up with consenting patients who have suffered a nonfatal overdose	• Percent of patients who see a Relay counselor • Percent of patients who receive risk reduction counseling and/or overdose rescue training • Percent of patients connected to treatment referrals • Percent of patients provided with Narcan

Goal #3: Reduce the prevalence of major depressive disorders and prevent suicides.

Objectives:

- Increase the number of residents identified as having a behavioral health condition who receive treatment and/or counseling.
- Increase or strengthen community partnerships to enhance and support mental health and substance use disorder treatment services.

Intervention Strategy	Process Measures
Collaborate in the SI PPS Behavioral Health Infrastructure Project (BHIP) to strengthen mental health and substance use disorder infrastructure across systems and increase access to quality behavioral health services in the community	• Reduction in avoidable hospital visits due to mental and/or substance use disorders • New or expanded capacity to provide standalone or integrated behavioral health services
In partnership with BHIP, collaborate on the Staten Island Veteran Suicide Prevention Collaborative (SIVSPC) to provide veteran suicide prevention programming and hold community-based taskforce meetings	• Number of veterans assessed and treated for social determinants of health and suicide risk
Provide and explore expansion opportunities for Bridges to Wellness, a partial hospitalization program for patients with mental illness	• Number of psychiatric hospitalizations among patients • Percentage of patients reporting increased coping skills

Intervention Strategy	Process Measures
Conduct screenings for suicide risk using the Columbia-Suicide Severity Rating Scale (C-SSRS) among patients seen for gambling addiction	• Number of patients screened for suicide risk • Number of patients with a positive screening receiving follow up evaluation from a psychiatrist
Provide financial planning services as part of the gambling addiction program	• Patients who develop and implement a financial plan, including financial protection strategies and budgets
Continue to explore opportunities to hire a peer outreach specialist to support underage gambling prevention efforts	• Hiring of a peer outreach specialist • Increased awareness and prevention efforts around underage gambling

Community and Partner Engagement

RUMC is an active community partner and participating member of cross-agency coalitions serving Staten Island residents. These coalitions include the Staten Island Behavioral Health Infrastructure Project, Staten Island Performing Provider System, and Tackling Youth Substance Abuse, among others. RUMC is committed to maintaining partnership within these organizations, and to identifying and implementing initiatives that respond to the needs of residents, beyond the CHNA.

The RUMC CHNA Planning Committee meets regularly to review CSP process measures and maintain an active workplan, as provided by the New York State Department of Health. The workplan is submitted annually and describes the actions RUMC has taken to address the identified priority areas.

RUMC thanks our community partners for their commitment to the health and well-being of Staten Island residents and welcomes the opportunity to continue to strengthen our community together.

CHNA and CSP Dissemination Plan

RUMC intends to electronically disseminate the full CHNA and CSP and Executive Summary to all individuals and organizations that participated in the Key Informant Survey. The CSP will also be sent electronically to local and state elected officials.

RUMC made the CHNA and CSP available on its website, and posted their release on social media outlets. RUMC will maintain a printed copy of the CHNA and CSP at the hospital at all times for public inspection upon request.

Appendix A: Public Health Secondary Data References

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Appendix B: Secondary Data Research Notes

Secondary data sources were used to collect demographic, socioeconomic, and public health statistics for RUMC's primary service area, comprising all of Staten Island in New York City (NYC). Data were analyzed to accurately portray community health status, track relevant indicators, and identify emerging trends. Key data were depicted over time to reflect changes from prior years' CHNAs.

Data were compared to NYC and national benchmarks to assess areas of strength and opportunity. Where applicable, Healthy People 2030 (HP2030) goals were included as measures. Healthy People 2030 is a US Department of Health and Human Services health promotion and disease prevention initiative that sets science-based, 10-year national objectives for improving the health of all Americans.

As available, data were collected and compared across zip codes or populations to demonstrate different experiences among places and people. These comparisons underscored disparities and illuminated inequities, particularly among priority populations including people of color, seniors, youth, and pre-and postpartum mothers. Age-adjusted rates are referenced throughout the report to depict a comparable burden of disease among residents. Age-adjusted rates are summary measures adjusted for differences in age distributions allowing data from one year to another, or between one geographic area and another, to be compared as if the communities reflected the same age distribution.

All reported demographic and socioeconomic data were accessed from the US Census Bureau, American Community Survey, unless otherwise noted. Public health data were reported and analyzed to demonstrate access to care; health behaviors and outcomes; chronic disease prevalence and mortality; mental health and substance use disorder; maternal and child health; adolescent health; and older adult health. Data were compiled from secondary sources including the NYC Department of Health and Mental Hygiene, The New York State Department of Health, the Centers for Disease Control and Prevention (CDC), the University of Wisconsin County Health Rankings & Roadmaps program, COVID Act Now, and other relevant sources.

Appendix C: Key Informant Survey Participants

- Assemblyman Michael Cusick, 63rd Assembly District, District Office Manager
- Brighton Heights Reformed Church, Senior Minister
- Cancer Tamer Foundation, CEO
- Carmel Richmond Healthcare and Rehabilitation Center, Executive Director
- Church of the Ascension, Parish Administrator
- Community Agency for Senior Citizens, Inc. (CASC), President and CEO
- Community Board 1, Chair of Health Hospitals and Human Service
- Community Health Action of Staten Island, Executive Director
- Eger Health Care and Rehabilitation Center, President and CEO
- JCC of Staten Island, CEO
- JCC of Staten Island, Director of Marketing & Communications
- Kids Against Cancer, Chairman
- Meals on Wheels of Staten Island, President and CEO
- Mt. Sinai United Christian Church, Inc., Senior Pastor
- Northfield Bank Foundation, Executive Director
- NY Senate, Deputy Chief of Staff
- Office of Staten Island Borough President, Director, Health and Wellness
- Real Estate, Realtor
- Richmond Center, Administrator
- Richmond County Savings Foundation, Program Officer
- Robin Hood, Director of Governance and Board Placement
- South Beach Civic Association, President
- St Paul's Episcopal Church, Priest
- St Teresa Church, Pastor
- St. Mary's Episcopal Church, Parish Administrator
- Staten Island CB #2, Board Member
- Staten Island Chamber of Commerce, President and CEO
- Staten Island Economic Development Corporation, Sr. VP
- Staten Island Economic Development Corporation, VP of Development
- Staten Island Partnership for Community Wellness, Executive Director
- Staten Island Performing Provider System, Executive Director
- The Staten Island Foundation, Executive Director
- United States House of Representatives - NY11, Representative Nicole Malliotakis
- Veterans, Advocate
- VNA Staten Island, President