NORTHWELL HEALTH Community Health Needs Assessment 2022–2024





A Message from Our Leaders



Michael J. Dowling President and CEO Northwell Health



Debbie Salas-Lopez Senior Vice President, Community and Population Health

We are only as strong as our most vulnerable communities.

That's a lesson we learned when COVID-19 took hold of the communities we serve. It showed us that we must not perpetuate the longstanding inequities that result in healthcare disparities. Where economic and social circumstances have a negative impact on communities, it is our work, as an anchor institution in the region to face these problems head on.

As we do this, we also must recognize that medical care is not just about treating physical ailments. It is about treating the whole person — and importantly, it's about creating access to the right care at the right time and place.

That takes partnership as we cannot do it alone.

With the help of community-based, faith-based, tribal and governmental leaders, we can construct the change we need to create a better and healthier future for the communities we serve and "Raise Health for All."

Importantly, we continue to listen and shift our work as needs change. And so, we have begun a new cycle of assessing the needs of the many unique communities we serve and aligning our work so we can collaboratively create that change.

Since the last Community Health Needs Assessment cycle, Northwell's culture of dedication and ingenuity has led to innovative programs like mobile COVID testing and vaccinations that helped to end the COVID outbreak in our region. Once we perfected it, we took it on the road to help others in need around the country.

Education for the youth in our communities has been a top priority with a goal to provide them with viable career paths and livable wages. To help achieve this vision we launched the Northwell Community Scholars program, a career pipeline program for high school students in four Long Island School Districts with plans to extend this program to other areas. Through scholarships administered by the Long Island Community Foundation, Northwell has awarded community college scholarships to 72 graduating seniors from these school districts, as well. The scholarships not only pay for 85% of college tuition, but also cover additional expenses such as books, food, public transportation and other wraparound services.

Though many people don't think of Long Island as a place where food insecurity exists, about 1.4 million community members do not have reliable access to enough affordable, nutritious food. It puts them at risk for chronic disease, longer hospital stays, hospital readmission and a reduced life span. We are working to solve this problem with the Food as Health Program, a first-of-its-kind initiative, working with local food banks to deliver healthy, affordable and tasty food right to community centers or in patients' homes. The program addresses the full range of factors that can lead to food insecurity — affordability, a lack of nutritional awareness, transportation/mobility challenges and difficulty preparing meals.

Though COVID-19 exposed and exacerbated many disparities, it also has shown us that equity and partnership must be at the center of everything we do as a health system. It's our responsibility and our privilege to do this ongoing work. These partnerships take care and vigilance, but ultimately allow us to understand and innovate so we can align resources to improve the vitality, health and well-being of each and every one we serve. Together, we are tackling the most pressing needs of our communities to address vulnerabilities and improve health outcomes to sustainably Raise Health for All.

Thank you for your commitment to this ongoing effort.

Muluhed J Dewling

Michael J. Dowling President and CEO Northwell Health

Uni Dalo - 65

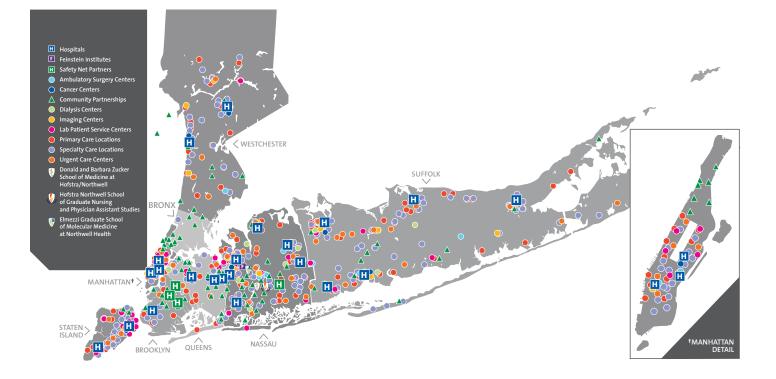
Debbie Salas-Lopez, MD, MPH

Senior Vice President, Community and Population Health Northwell Health

Contents

Who We Are	5
About Northwell	3
Our Service Area	8
Our Journey	9
Our 2022 CHNA Process	21
Our Priorities	
Our Neighborhoods of Focus	
Our Commitment in Action	
Our Ongoing System Initiatives	
Hospital Awards and Accomplishments	
Governance	102
CHNA/CSP Dissemination	102
Community Health Resource Directory	103
Acknowledgments	
Works Cited	

Who We Are



About Us

We are Northwell Health, New York State's largest healthcare provider and private employer. As an academic medical center, composed of over 21 hospitals across 13 campuses and with more than 850 outpatient facilities, we are committed to raising the standard of care for all.

Our mission is to always strive to improve the health of the communities we serve, provide the highest quality clinical care, educate our current and future generations of healthcare professionals, advance medicine through ongoing biomedical research, promote health education and health equity and care for our entire community regardless of the ability to pay.

Northwell Health is an integrated network of collaborators, research pioneers, entrepreneurs and educators. Our team is made up of more than 80,000 individuals who are dedicated to our patients, caregivers and our communities. We are made of almost 19,000 nurses, over 12,000 credentialed physicians, including nearly 4,200 members of our integrated physician network, Northwell Health Physician Partners (NHPP), and over 5,000 volunteers. We care for over 2 million patients every year, with over 5.5 million patient encounters, nearly 260,000 hospital discharges, 825,000 visits to our emergency rooms, over 1 million home health visits, 225,000 ambulatory surgeries and over 100,000 ambulance transports every year. In 2020, we contributed more than

\$2.7 billion in community benefit initiatives (22.63% of operating expenses).¹ We have participated in more than 13,000 community health programs, and trained more than 39,000 health professionals, annually.

But we are more than just a health system. We are an organization that:

- Is named a Best Place to Work by both Fortune and Glassdoor and one of Fortune's 100 Best Places to Work for Diversity and Best Workplaces in Health Care and Biopharma
- Has nine Magnet-designated hospitals recognized for nursing excellence
- Has four hospitals that received top-50 national ratings in 22 adult medical specialties in U.S. News & World Report's 2021-22 Best Hospital rankings
- Includes Cohen Children's Medical Center, ranked No. 1 in New York State in U.S. News & World Report's 2021-22 Best Children's Hospital rankings and earned top 50 national rankings for exceptional care in nine pediatric specialties
- Has one of the top two cardiac surgery programs in U.S. & Canada, the Sandra Atlas Bass Heart Hospital
- Has the largest physician group in the New York area
- Delivers more than 30,500 babies annually 15% of all births in NYS and 1% nationally
- Treats more New Yorkers for cancer than any other healthcare provider
- Created New York State's first Center for Cancer, Pregnancy and Reproduction
- Has one of the largest medical residency programs in the U.S., with over 1,900 residents and fellows
- Pioneers bioelectronic medicine research at the Feinstein Institutes, including national clinical trial sites for treating lupus, rheumatoid arthritis and paralysis
- Runs the only hospital-based helicopter emergency transport service in the tristate area
- Operates the largest hospital-based laboratory in North America
- Has the first hospital on the East Coast to use the 3D video exoscope for neurosurgery, Lenox Hill Hospital
- Is recognized as one of the nation's top employers for military veterans
- Raises Health for ALL

About our Office of Community & Population Health (CPH)

The Office of Community and Population Health exists to co-create solutions with community stakeholders that address the major health concerns in the communities we serve. The work of our Office of Community and Population Health (CPH) is embedded in Northwell's overarching mission to provide excellent patient-centered care, eliminate health disparities and improve health outcomes for our patients and community members. Our function is to advance Northwell's mission, by going further upstream in providing healthcare services and develop programs that care for our communities at a population level and address their social determinants of health. The work we do at CPH is organized under two divisions: Community Health, and Community Relations.

Through our Community Health division, we identify our community's needs through ongoing dialogue with our patients, families, caregivers and community members. We also engage with individuals from within and outside of Northwell, including community, faith, government and tribal leaders to take step to advance our mission to improve the health and well-being of the communities we serve. As you'll read further into this report, the work we have done since our last CHNA, specifically our ongoing community listening **Our Mission:** To Measurably Improve the Health and Well-Being of Our Community

tours, combined with the insight that our collaborative partners have, informed our mission-driven work with three of New York State's Prevention Agenda priority areas.

Our Community Relations division directly interfaces with our communities on a dayto-day basis, building a foundation of trust with community members by implementing programs dedicated to maximizing physical, social and mental well-being of those served. The Community Relations team brings our programs to life by forging collaborations with local businesses, faith-based organizations, school districts and charitable organizations. Our Community Relations team dedicates its efforts to ongoing outreach and education, as well as access to community screenings, vaccinations and workshops, with a particular emphasis on the most vulnerable communities within our service area.

About Northwell Health

Northwell Health is New York State's largest healthcare provider, caring for over two million people annually in the New York metropolitan region. Northwell operates 21 hospitals across 13 campuses, 830 outpatient facilities and has more than 16,600 affiliated physicians on its medical staff, 4,200+ of which are members of Northwell's multi-specialty physician's group. Northwell is also home to the Feinstein Institutes for Medical Research, and we train the next generation of medical professionals at the innovative Zucker School of Medicine at Hofstra/Northwell, and the Hofstra Northwell School of Nursing and Physician Assistant Studies.

Northwell has a long-standing commitment to providing exceptional care and investing in our most vulnerable and underrepresented communities. We have developed an extensive network of community partnerships to impact the health and well-being of the diverse communities we serve. Our goal is to measurably improve health and wellness in the communities we serve and to provide the highest quality of care for all regardless of race, ethnicity, cultural background, language proficiency, literacy, age, gender, gender identity, sexual orientation, religion, disability, geographic location or socioeconomic status. Northwell's integrated community and population health strategy includes data-driven approaches to screening for and addressing non-medical factors (social determinants of health). In doing so, our purpose is to empower the communities we serve to eliminate disparities and create sustainable change. This work is aligned with the Surgeon General's National Prevention strategy,² and we believe is fundamental to delivering the highest quality of care to all.



Our Journey

Since the 2019 CHNA

For our 2019 Community Health Needs Assessment,³ the priorities we chose as an organization to align our efforts around were:

Preventing Chronic Disease	Promoting Well-being and Preventing Mental and Substance Use Disorders
 Healthy Eating and Food 	 Promote Well Being
Security	 Prevent Mental and
 Physical 	Substance
Activity	Use Disorders
 Tobacco 	
Prevention	
 Preventive 	
Care &	
Management	

In the three years since our last CHNA, the nation, our state and our communities have all experienced unprecedented times. We have experienced the impact of a two year long global pandemic, and national social unrest and violence, all of which shined a light on the long-standing social inequities negatively impacting the health and well-being of our most vulnerable, largely Black, and Brown communities. The communities we serve have also dealt with the challenges of rising rates of chronic and age-related disease, and high levels of social determinants of health such as poverty, food insecurity and lack of access to high quality healthcare.

These challenges have only strengthened our commitment to our mission and among the many important lessons of the last three years, we learned that to measurably improve the health and well-being of our communities, we must find community-based solutions beyond clinical care to address the underpinning health-related social factors. We also learned that to do this effectively we cannot do it alone. We are part of a broader ecosystem of stakeholders dedicated to our communities. Collaboration and cooperation are the only way to make positive and lasting change.

Since the completion of our last CHNA, the data and more importantly, the conversations we had with our community leaders have shown us that more investment is needed to prevent chronic diseases like diabetes and obesity, and related health behaviors like smoking, physical activity and healthy eating. The data also shows us that the last few years have not led to reductions in obesity rates and poor health behaviors for children and adults in our most vulnerable neighborhoods. We saw similar trends related to well-being; outcomes related to mental health and substance use disorders have yet to noticeably improve in our communities; in several regards, these outcomes have worsened. We also identified new priorities, such as the need to invest in the health of our most vulnerable moms. Perhaps most notable

of all, the work we have done to listen to and learn from our communities has confirmed what we have known from providing clinical care. Longstanding social inequities have affected the health and well-being of some of our most vulnerable residents and neighborhoods. These inequities must be addressed. Our patients, their families, caregivers and community members who have shared their lived experiences with us have all reaffirmed that improving health is determined by factors beyond what medical care alone can address. To measurably improve the health and well-being of our communities, we need to address the root causes and go further upstream.

Northwell Health was chosen to be the "Regional Vaccination Hub Coordinator" for the Long Island region and coordinate the equitable distribution of over **85,000** tests and **600,000** vaccinations across more than 875 community- and faith-based locations.

Lessons from a Pandemic

In Spring 2020, the New York metropolitan area became the nation's epicenter of the COVID-19 outbreak. From March to May of 2020 alone, there were over 200,000 confirmed COVID-19 cases reported to the New York City Department of Health and Mental Hygiene (NYC DOHMH).⁴ As the data were pouring in on COVID-19 hospitalizations and mortalities, we quickly learned that the communities hardest hit by the virus were largely Black and Brown communities with higher rates of poverty and long-standing social risks, consistent with national data: African American and Hispanic/ Latino populations across the country were being hospitalized or dying at 3 to 4 times the rates of White residents. Community members with pre-existing health conditions, higher rates of substance misuse and chronic disease were at higher risks of getting the virus, dying from it or taking more time to recover. The University of Albany prepared a report commissioned by the Governor of New York, which showed that

communities with a history of disparities in health outcomes and high rates of health-related social factors such as poverty food insecurity and unemployment, all were disproportionately impacted by the pandemic.⁵ But in the face of a global public health crisis, Northwell emerged as a national leader in addressing the pandemic and its outsized impact on our communities of color and higher risk populations.

As hospitals and ICUs were filling up and the death toll was rising across the State, Northwell sped up the efforts to leverage our network and collaborative work with our government, community, faith and tribal leaders to deliver large-scale COVID testing and vaccination services. As the pandemic surged, we completed a thorough assessment of our community's available resources to strategically deploy our COVID testing and vaccination resources to those most in need. The Office of Community and Population Health met with key Northwell leaders to gain insight into how we launched large-scale rapid response campaigns successfully in the past. We held a series of more than 55 community 'listening tours' to learn from community leaders across our service area about existing community assets and unmet needs. And we utilized publicly available data on sociodemographic and healthcare resource utilization to get a clearer picture of our neighborhoods where there was a higher burden of certain social vulnerabilities and rates of disease, which could be made worse by the onslaught of the virus. Our most significant efforts to reduce the impact of the pandemic were through our strategic partnerships. We collaborated with our community partners to mobilize a massive campaign to bring COVID-19 testing services to our most vulnerable neighborhoods across our service area.

As the pandemic entered a new phase of vaccination deployment, our successful track record with testing services led to the NYS Governor designating Northwell as the "Regional Vaccination Hub" for Long Island.⁶ As a part of this designation and at the request of the Governor, we established the Health Equity Taskforce (HET), that brought together over 100 Nassau and Suffolk County communityand faith-based organizations, the leaders of Tribal Nations and local and state government officials, all working together to distribute vaccinations safely and equitably to our most vulnerable communities. The Taskforce had two subcommittees, Education, Outreach and Community Planning, chaired by community leaders to identify and prioritize historically and medically underserved communities and advocate for equitable resources that were accessible, of high-quality, culturally sensitive and translated into the languages most

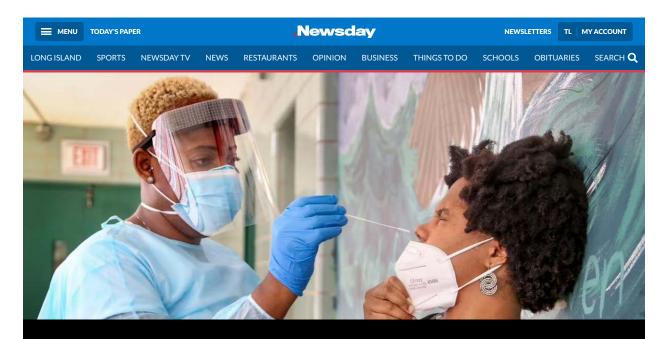
commonly spoken in these communities. With our HET partners, we helped our neighbors with access and digital literacy challenges by helping them register for vaccine appointments. We partnered with United Way of Long Island to offer free transportation for members to doctors and vaccine appointments. We also partnered with Project Hope to provide education, information and access to crisis counseling services at our vaccination sites. Additionally, mobile vaccine units were deployed in collaboration with local leaders of homeless service organizations, to bring our services to our hardest-to-reach neighbors, including the homeless and migrant populations. We also held a Faith Leaders forum featuring experts and trusted leaders of multiple faith communities, to provide updates on the pandemic, address questions and continue listening to the concerns they voiced on behalf of the community. Our community testing and vaccination efforts through the pandemic, combined with our model of building a collaborative network of organizations to rapidly respond to the crisis, are the hallmarks of our commitment to raise the health of our vulnerable communities. In collaboration with our more than 100 Health Equity Taskforce partners, we equitably distributed over 85,000 COVID-19 tests, and over 600,000 vaccinations across more than 875 faith-based and community pop-up testing and vaccine locations.

The impact we had on our communities was recognized across the nation. As a September 27th, 2020, *Newsday* article stated⁷ "Long Island's predominantly minority communities have driven down COVID infection rates that were the Island's highest at the peak of the pandemic. It's a public health victory described by experts as one of the most successful turnarounds in the United States." Notable statistics detailed in the publication were as follows:

- 1. In April, predominantly Black and Hispanic communities experienced an average of 1.5 confirmed infections per 1,000 residents daily, more than twice the rate recorded in other Long Island communities, (an average of 0.64 cases per 1,000 residents daily).
- 2. Since July, per-capita infection rates of predominantly Black and **Hispanic communities rarely** differed by more than 0.01 cases per 1,000 residents with those of white/nonminority communities on any single day until August 28th, 2020, when the infection rate in minority communities as a whole became less than the infection rate in other communities by as much as 0.03 cases per 1,000 residents.

Another Newsday article,⁸ "LI's Black, Latino communities make COVID vaccination gains," published on June 9th, 2021, highlighting our vaccination efforts had the following key findings:

- 3. Seven of the ten Long Island zip codes with the largest increase in COVID vaccination rates are predominantly Black and Latino.
- 4. The increase over about two weeks was 4 percentage points in majority Black and Latino areas and 2.9 points in places without a Black and Hispanic majority.
- 5. Uniondale, which is more than 86% Black and Latino, had the second largest increase on Long Island: 5.1 percentage points, from 39.1% to 44.2% of residents with at least one dose.
- 6. Experts and community leaders say more intensive outreach by trusted local nonprofits and residents, greater accessibility and the vaccinations of family and friends are among the reasons.



Blacks, Hispanics drive down virus infection rates

"As the largest health care provider in the world's most diverse metropolitan area, Northwell has a responsibility to support the communities that entrust us with their care," said Michael J. Dowling, president, and CEO of the health system. "We are steadfast in our focus on improving health outcomes for our vulnerable and underrepresented communities that have suffered because of the prevalence of chronic disease, a problem that led to the disproportionately higher death rate among African-Americans and Latinos during the COVID-19 pandemic. We are committed to using every tool at our disposal — as a provider of health care, employer, purchaser, and investor — to combat disparities and ensure the equity of care that everyone deserves."

A historic moment

Our success in coordinating an equitable distribution of the COVID-19 vaccine across our communities, started with one of our very own Northwell team members, Dr. Sandra Lindsay.

Sandra Lindsay, DHSc, MBA, MSN, RN, CCRN-K, NE-BC, served as a critical care nurse in Northwell's Long Island Jewish Hospital for more than 29 years. She led from the front lines of the pandemic during the First Wave from March-June 2020. On December 14, 2020, Dr. Lindsay made history by volunteering to become the first American to receive with a COVID-19 vaccination. Her vaccination, the first in the U.S., resonated around the globe.

Since her historic vaccination, Dr. Lindsay has worked tirelessly to spread a message to eliminate vaccine hesitancy in the U.S. and abroad. As a woman of color and a proud Jamaican immigrant, Dr. Lindsay's message also struck an authentic tone with communities of color and Caribbean peoples alike.

In acknowledgement of being an example of exemplary civic service in becoming the first



American to receive an approved COVID-19 vaccine, Dr. Lindsay was awarded the Presidential Medal of Freedom by President Joseph R. Biden in July 2022. She was also invited to a White House ceremony to be honored by President Biden and presented with the U.S. Citizenship and Immigration Services (USCIS) Outstanding Americans by Choice (ABC) recognition, during a special naturalization ceremony. Her ID badge and scrubs reside at the Smithsonian's National Museum of American History.

"I came to this country for the opportunities — not only for myself but to be able to help others. As a nurse, I do everything to care for the sickest patients and lead by example. More than 24 years after becoming a naturalized citizen, I could never have imagined where I am today, at the White House receiving high honors from the President. It's truly a privilege to be a part of this great nation and I will continue to lead and help those in need."

- Sandra Lindsay, DHSc, MBA, MSN, RN, CCRN-K, NE-BC

Dr. Lindsay continues her work as an advocate for global health equity, dispelling misinformation, eliminate vaccine hesitancy. She now serves her community as the Northwell's Vice President of Public Health Advocacy, and our ambassador to raise health locally, nationally and globally. She leads the health system's initiatives in expanding knowledge of issues affecting public policy, community health and health equity.



"During the height of the pandemic, Sandra poured her heart and soul, working with patients and keeping her fellow nurses safe. When the time came she became the first person in America to get fully vaccinated outside the trials. She can now hug her grandson. She's out there making sure her patients and folks in the community get vaccinated"

- President Joseph R. Biden

A wake-up call for health equity

While we were successful in responding to the immediate needs of our community throughout the pandemic, it was clear that COVID was a wake-up call for all who influence the health of the communities we serve. The pandemic made it clear that Black, Brown and LatinX communities were bearing the brunt of this pandemic with disproportionate levels of poverty, less access to healthcare, pre-existing conditions and other adverse social determinants of health. Generational disinvestment and socioeconomic disadvantages led to communities of color being medically underserved and having higher rates of illness and death. The pandemic only brought to light the reality that hospitals, health systems and community organizations can no longer overlook – that we as health systems and hospitals must play a larger role in dismantling systemic inequalities.

We see racism as a public health issue

These social and health inequities exposed by the pandemic were only further magnified by the social unrest that came to a national boiling point from the killings of several unarmed Black people. Moved by the deaths of George Floyd, Rayshard Brooks, Ahmaud Arbery, Breonna Taylor and so many others, Northwell joined 38 other health systems across the nation and declared racism as a public health crisis. As a former member of the Healthcare Anchor Network.9 Northwell signed the HAN statement "Racism is a Public Health Crisis" and committed to taking concrete steps to address the impact of systemic racism in our society. As a healthcare organization, the actions we are taking to overcome systemic racism and reduce healthcare disparities in our communities

is a core philosophy that will guide our work in the coming years. We will continue to invest, procure and hire locally from our communities. What this means in our clinical and operational spaces, is that we must actively engage and listen to our patients and colleagues of color, modify behaviors where needed and learn from our collective experiences. These concrete steps have only been a continuation of our ongoing efforts to focus on diversity, equity and inclusion in everything we do. In May of 2020, at the height of the pandemic, we were named the nation's top health system for diversity by DiversityInc¹⁰ for our efforts on diversity, inclusion and health equity for the patients we treat and the communities we serve.

Northwell has been recognized nationally for its commitment to integrating the tenets of diversity, equity and inclusion (DEI) to delivering healthcare; this is with a particular focus on enhancing the health and well-being of underserved communities and the diverse patients it serves. According to the 2022 DiversityInc ranking of Top Hospitals and Health Systems, Northwell was rated the No. 1 health system for diversity in the United States, for the third time in a row.

"Leadership has a responsibility. Any kind of prejudice or discrimination that affects people's health, their wellbeing, and their state of mind, I think we have an opportunity to act on it."

- Michael Dowling

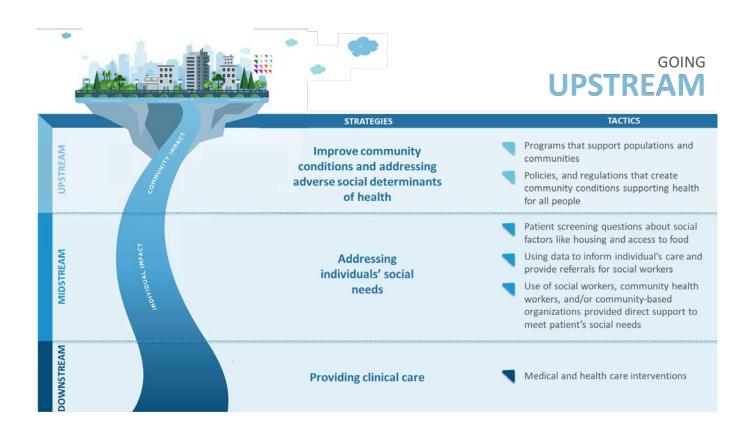


We are Going Upstream

While our COVID-19 response to broaden access to free testing and vaccinations drew long lines of community members, we noticed that the same members were also walking over to our food pantries just a few feet away, because they were food insecure. It only became clearer to our community health outreach team, that while addressing the immediate needs of the pandemic was critical, true, and lasting change would only come if we prioritized community health equity and addressed how systemic inequities disproportionately impact our communities of color. To address these inequities for our most vulnerable communities, how we measure our success must move beyond helping in times of crisis with immediate life and death concerns.

Now more than ever, the lessons we've learned in the last three years have shown us that to truly address health equity at a community level, we need to go beyond medical care, to go further upstream and work together — with our community partners — with our faith-based and tribal partners — with government leaders and with the members of our community — to improve community conditions that cause poor health outcomes — and raise health for ALL. We must go further upstream and improve the conditions within our community that create the inequities and foster poor health outcomes in the first place. The COVID pandemic taught us that these conditions, or social determinants of health exist at an outsized rate in neighborhoods that have a history of socioeconomic disadvantages and largely fall in our communities of color.

Our decision to address systemic racial injustices and respond to health disparities disproportionately impacting our communities of color, served as the motivation to commit even greater investments in our vulnerable neighborhoods, particularly our Black, Brown and indigenous communities. To accomplish this, we are focusing on prevention programs and policies, health promotion at a population level and addressing our communities' unmet social needs. It is the voices of our community members and leaders, and our collective experiences and learnings through some of the most challenging times in history, that guided our approach to this Community Health Needs Assessment and our ongoing mission to measurably improve the health of our communities.



The Future of Community Health Equity is Built on Partnership

Achieving health equity means ensuring that all members of our communities have full and equal access to opportunities that enable them to lead a healthy life regardless of who they are or where they live. One of the most meaningful lessons learned from the COVID-19 pandemic is that we cannot act alone. To achieve community health equity, we need to meet our community members where they work, live and play and collaborate with trusted partners to reduce barriers to health and well-being.

Our success in reducing infection rates during the pandemic was largely due to our establishment of the Health Equity Task Force (HET), which brought together the expertise of over 100 state and local government agencies, leaders of tribal nations and communityand faith-based organizations in the Long Island regions. It was only in collaboration and strategic partnership that we were able to effectively and quickly deploy a grassroots campaign to equitably distribute vaccinations to our hardest-hit communities. These gains could not have been achieved without the power of collaboration; in fact, we see our model of strategic partnerships as the path forward to advancing community health equity and raising health for all.

Northwell Community Health Alliance (CHA)

As we enter a post-pandemic environment, we continue sustaining the HET and the relationships we have built through it to address ongoing disparities in our communities. This past year alone, we have used our successful HET model to develop the Northwell Community Health Alliance (CHA), which has representation from all the counties in the Northwell Service Area (Nassau, Suffolk, Queens, Staten Island, Manhattan and Westchester). The Alliance, comprised of more than 30 members, is focusing on providing the voice of the community to help guide Northwell's effort to address health disparities and related underlying social needs in a manner that is culturally sensitive and that is translated into the primary languages spoken by the community members — at the right time, in the right place and using the most appropriate media.

"The other 80% is social determinants of health. And that could be choices we make with food, with alcohol, with drugs, sidewalks that are safe, parks that are safe to exercise in places to get good nutrition, shelter, things like that. If we want to raise the health of the community... And we try to do it as a hospital alone, we will be wholly ineffective. We need to look to partners."

- Northwell CHNA 2022 Suffolk County Focus Group Discussions

Northwell partners with FQHCs

In May 2021, we entered into a Community Healthcare Collaborative Program Agreement to partner with Federally Qualified Health Centers (FQHCs) that provide access to primary services to underserved populations within our service area. Our partners include the Long Island FOHC (LIFOHC), Sun River and the Charles Evans Center. The goal of this partnership is to collaborate in creating solutions to improving access to primary, preventive and specialized services. This is done by improving the coordination of care for our shared patients so that disruptions to our patients' continuity of care can be minimized. As an example, Northwell established a Transition of Care process with LIFQHC, where inpatient discharge summaries with vital clinical information can be shared with LIFQHC providers for those patients who seek follow-up care at their facilities.

SDoH Screening and Unite/ Us Referral Platform

In the Spring of 2021, Northwell accelerated a multi-year effort to develop a screening tool and referral protocol to address challenges to the social determinants of health of our patient population. Under the leadership of Northwell's Center for Equity of Care, we established the Northwell Social Determinants of Health (SDoH) Screener Workgroup, bringing together more than 35 experts across our organization to collaborate on the design, implementation and the standardization of processes to collect, stratify and leverage data on our patient's social needs. We conducted a review of the scientific research on social screening to inform this process. We then consolidated our findings to develop a comprehensive screener that incorporates 15 standardized questions across the major SDoH

domains of housing, food, transportation, utilities, safety, income, legal assistance and digital access.

To address the needs of individuals who screen positive for unmet health-related social needs, such as food or housing insecurity, we link them to community resources and social services via the NowPow social referral platform (now known as Unite Us), The platform connects these individuals to appropriate community resources to address their needs. The platform is comprised of nearly 20,000 community-based organizations across Northwell's service area.

The NowPow referral platform has been fully integrated into our inpatient and ambulatory electronic medical record systems. We look forward to continuing to help raise the health of our communities by identifying and partnering to address their health and social needs.

The future of community health equity is in working together. Our strategic partnerships and 'listening tours' were essential to our success through a global public health crisis. As we enter a post-pandemic era, we know that collaboration and partnership will continue to be the key to our success in equitably improving the health of our communities.

Since the pandemic began, we've forged more important collaborations with organizations throughout our service area, many of which will be highlighted later in this report. A few key partnerships to be detailed further in this report are our affiliation with Walgreens Pharmacy, our Interfaith Clergy Advisory Council, school districts, including the Northwell Community Scholars Program, FutureReadyNYC Program and the Queens Farm Museum. These strategic partnerships are mutually aligned towards addressing the unmet social needs in our communities and supporting our community health priorities for the years to come.

Our 2022 CHNA Process

Since 2013 and as part of the Affordable Care Act (ACA), all non-profit hospitals and health systems are required to prepare a Community Health Needs Assessment (CHNA) every three years¹¹. The report examines the factors that contribute to the health and wellness of all people within our service area. Beyond our regulatory obligations, Northwell sees the CHNA as an important component of our ongoing efforts to listen to and learn from our communities about their top health concerns. This helps to guide our decisions about where to invest our resources to address unmet healthand related social needs. Our CHNA provides an important overview of the major healthcare needs identified across our communities, and the priorities we have selected in alignment with New York State's Prevention Agenda and Health Improvement Plan to address them. The report also highlights the programs, partnerships and initiatives we have developed and plan to set up in the future, to address our chosen priorities.

How we prepared our CHNA

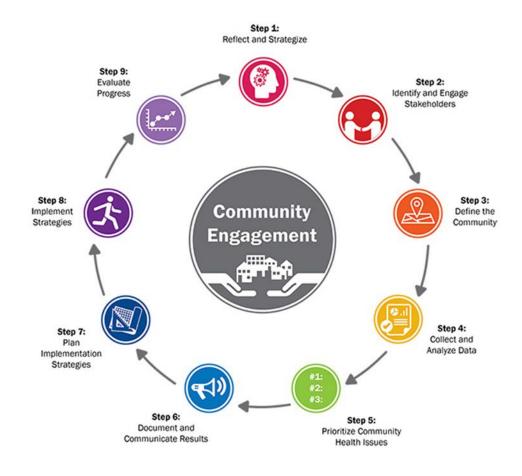
AWe began preparing our Community Health Needs Assessment (CHNA) in January of 2022, immediately after submitting the annual statewide 2021 update of our Community Service Plan activities to the New York State Department of Health. The work we have done to prepare the CHNA report is only part of our ongoing effort to better understand, engage and collaborate with our communities. Since our last report was submitted in 2019, and more importantly due to the COVID-19 global pandemic that shed light on persistent health inequities within our communities, we have been ever more committed to listening, learning from and partnering with our communities – and to co-creating solutions that improve health outcomes on a community level.

CHNA Framework

To guide our efforts through the CHNA process, we referred to AHA Community Health Improvement's (ACHI) Community Health Assessment (CHA) framework.¹² The CHA framework provides a nine-step pathway for conducting a community health assessment and developing strategies to prioritize community health concerns and implement strategies to address them.

We determined this framework was the most appropriate for our CHNA process because one

of its central components was the importance of ongoing community engagement. This has been the strategic approach of all Northwell efforts to improve the health and well-being of our communities. Therefore, the preparation of our CHNA needed to be based on ongoing community engagement.



Source: American Hospital Association - Community Health Improvement; Health Needs Assessment Toolkit

CHNA Leadership

While Northwell's CHNA efforts were led by the Office of Community and Population Health (CPH), it was completed with extensive collaboration with stakeholders both internal and external to our organization. To start our CHNA process, we established Northwell Health's CHNA Steering Committee, which brought together team members within the organization who have expertise in community health program planning, development and implementation, as well data analysis, healthcare strategy, health equity, project management and public health research.

Our Steering Committee was the platform through which we engaged our system- and site-leaders, board members, clinical service lines and community health program leads, all to raise awareness of the purpose of the CHNA and align the necessary resources to initiate and complete the work. Guided by the ACHI's Community Health Assessment framework, our Northwell CHNA Steering Committee drove our work forward by coordinating focus group discussions, planning survey design and implementation, identifying our communities' assets, aligning with the NYS Prevention Agenda, and developing the programmatic strategies to address the priorities of our communities.

CHNA Partners

In the Spring of 2022, our CHNA Steering Committee held a series of focus group discussions with a total of 82 community leaders across the six counties of our service area. The focus group discussions helped us learn from our community leaders and gain insight into the major healthcare concerns and needs of the communities they serve and live in.

To gain insight into the needs of our community members directly, we partnered with the Greater New York Hospital Association (GNYHA), (and its member hospitals across the New York metropolitan region under the auspices of the GNYHA 2022 Community Survey Collaborative),¹³ to design a community health survey. The Collaborative held regular working sessions bringing together several GNYHA member hospitals to review the aims and best practices that could be applied in the survey's design and implementation across our sites and communities.

CHNA Methodology & Community Engagement

Our Steering Committee contributed to its design and review, and deployment across various patient- and community-facing settings across the health system's service area. Engaging our community members to participate in the survey was a collective effort by all members of the GNYHA Survey Collaborative. We took a multi-pronged approach to distribute the survey and garner participation across our service area. This involved reaching our 48,000+ Northwell patients who completed a Press Ganey Patient Experience Survey in the first half of 2022, and our 17,000+ patients seen in our Northwell GoHealth Urgent Care network. We also engaged over 180 community leaders through the partnerships we built through our Health Equity Taskforce (HET) made up of several community-based organizations (CBOs), faith-based organizations (FBOs), businesses, and schools. To broaden our reach further, we

used additional means, such as developing a QR Code and website link to the survey, making it available for access in our community health events, our 33 Innovare advertising and phonecharging kiosks located throughout our health system, and on our Northwell Health CHNA webpage. Our combined efforts over a threemonth survey period resulted in almost 11,647 completed survey responses from our six-county service area.

Being that we are also the largest healthcare provider in New York State, with a service area of more than 8 million residents, we supplemented our findings from primary analysis (focus group discussions and community health survey) results with an in-depth secondary data analysis of the sociodemographic characteristics, health outcomes and trends in healthcare utilization, all to enrich our understanding of our service area. The data sources we used for our secondary analysis were all publicly available. Our statewide data sources were the NYS Prevention Agenda Dashboard metrics, NYS Community Health Indicator Reporting System (CHIRS), the NYS Cancer Registry and the NYS Statewide Planning and Research Cooperative System (SPARCS). Our national data sources were the U.S. Census & American Community Survey (ACS), the National Vital Statistics System (NVSS) part of the National Center for Health Statistics, the Agency for Healthcare Research and Quality (AHRQ), the County Health Rankings & Roadmaps, and the Center for Disease Control and Prevention (CDC). Our extensive analysis of our six-county service area and our neighborhoods of focus helped us to build a broader and more comprehensive picture of the health of our communities.

Our Findings

Our work to complete our 2022 CHNA has better shaped our ongoing efforts to measurably improve the health and well-being of the communities we serve.

As part of the CHNA process, the significant health needs we have identified within our communities are:

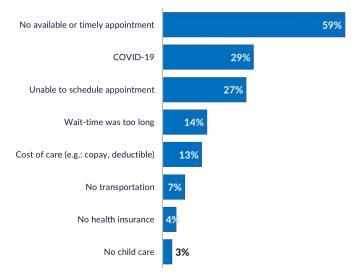
- Disruptions in care for chronic conditions
- Worsening mental health and substance use disorders
- A greater need for women and children's care

Disruptions in Care for Chronic Conditions

The results of our focus groups with 82 community leaders and community health surveys with nearly 12,000 completed responses confirmed what communities have told us throughout our listening tours. COVID-19 disproportionately impacted populations that were already vulnerable. Our community members lived the realities of what the science has now shown us: the aging/ elderly, the socioeconomically disadvantaged and the chronically ill, were at higher risk of the virus and its effects. Residents and patients with pre-existing chronic conditions such as cardiovascular disease, obesity, diabetes, as well as respiratory illnesses such as asthma and COPD, had higher risks of hospitalization, admissions to the ICU, longer recovery times or death. Our community members who continue to endure inequities to their well-being, such as food insecurity, poverty, inadequate housing and transportation, were unduly impacted by the pandemic and our necessary responses to mitigate the spread of the virus.

In addition to adverse health outcomes, a common theme was the disruptions to routine and preventive healthcare measures such as annual exams, check-ups and vaccinations, all of which were delayed because of COVID's impact on healthcare providers and hospitals across our service area and the state overall. Nearly 20% of our survey respondents noted that they were not able to get medical care in-person when they needed it. Focus group discussions highlighted the disruptions our community members faced in accessing their providers physically or remotely because of digital literacy challenges. The discussions also raised concerns about adverse social determinants of health such as inadequate access to healthy food, housing, transportation barriers and general economic instability. Participants across several of our focus group discussions who work in the equitable distribution of food and promoting healthy eating told us that the demand for food assistance has never been higher.

Main Challenges to Accessing In-Person Medical Care in Northwell Health's Service Area



Northwell CHNA 2022, Community Health Survey, Northwell Service Area Counties | Note: Respondents could multi-select, therefore percentages do not add up to 100% "We really do struggle with trying to make sure that our clients are able to have annual physical exams, get treatment for some of their chronic conditions and really establish a relationship with a primary healthcare provider that will improve their overall health outcomes."

- Northwell CHNA 2022, Manhattan, Focus Group Participant

"Certainly, among the populations who I work with, who are basically lowincome folks is, people over the last two years, **ignored certain health conditions and they've fallen way behind in things like managing their medication**. So, things like diabetes, hypertension, heart disease, people are not getting their regular care... the routine care that people were getting. I think [it is] because of COVID and a combination of avoiding going out and avoiding going to appointments..."

- Northwell CHNA 2022, Staten Island, Focus Group Participant

"Healthcare is a tremendously important aspect of society that **not everybody has equal access** to, and it can certainly speak to the difficulties we had in terms of COVID testing"

- Northwell CHNA 2022, Suffolk, Focus Group Participant

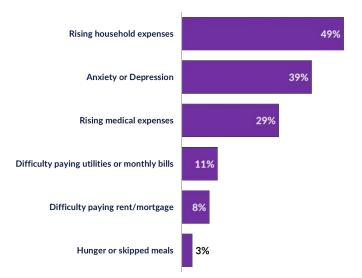
There is a lack of access to follow-up care and there are not enough clinicians for specialized care for the homeless population
— Northwell CHNA 2022, Westchester, Listening Tour

Worsening Mental Health & Substance Use Disorders

Through our CHNA efforts we also learned that the mental health and well-being of our communities has also suffered since the pandemic. Nearly 40% of our survey respondents noted they experienced anxiety or depression in the last 12 months. Participants in our focus group discussions also shared their concerns about increased depression, anxiety and substance use disorders within their communities. While important during the height of the pandemic's surge, the costs of the social isolation to limit the spread of the virus has been high, particularly for our already vulnerable members such as the elderly, impoverished and chronically ill. Federal, state and local protocols on quarantine and social distancing that were necessary and successful in mitigating COVID's impact, had the unfortunate effect of exacerbating epidemics of loneliness and social isolation which have negative consequences for overall health and well-being. Such effects were felt harder by older adults already vulnerable to isolation, as they are more dependent on family members, caregivers or social support services in their communities. We also learned that our community members perceived our existing mental health resources to be inadequate, especially for people for whom English is not their first language.

Experiences of depression, anxiety and mental illnesses during the pandemic were also compounded for many with substance use disorders who were at risk of being hospitalized or dying from overdoses. Rates of substance use soared across the state as loneliness, social isolation and social factors like unemployment and lack of adequate social support caused more people to either start using or increasing their use of drugs and alcohol at a time when support groups and treatment centers were shuttered.

Community Member Experiences in the Past Year



Northwell CHNA 2022, Community Health Survey, Northwell Service Area Counties | Note: Respondents could multi-select, therefore percentages do not add up to 100% "There's a **growing need for mental health counseling** coming away from COVID. And I'm not just talking seniors that I work with, but many individuals that I've spoken to have said, you know what, we just need to talk to somebody....

"For me, I spent a lot of time with **young people** and one of the things that is a common theme is just really **coping with anxiety**, **borderline depression**."

- Northwell CHNA 2022, Queens, Focus Group Participant

Mental health is still at the forefront and you're talking about these levels of severity that schools just have not seen in the past, that the pandemic has exacerbated tremendously. And when you don't have normalcy running in your schools or in your community, and that's what the students truly need in order to move forward, that made it much more difficult. And again, the lack of the resources outside or the ability to get access to them quickly has been the greatest challenge for me. — Northwell CHNA 2022, Nassau, Focus Group Participant

Greater Need for Women and Children's Care

Our focus group and community surveys reinforced what we knew from our ongoing listening tours and the statewide trends related to women's health and maternal and pediatric health. The pandemic exacerbated women's health needs nationwide, contributing to further gender inequalities and poorer health outcomes.

Women as Caregivers

Two out of three caregivers are women, particularly in our Black, and Brown communities.^{14,15} Women as caregivers provided regular support to children, adults, the elderly and people with chronic diseases and disabilities before and throughout the pandemic. The strain of being a caregiver was compounded by the pandemic, not just because of its toll on their mental health and well-being, but also because they were at greater risk of exposure and infection to the virus by the very nature of their role. Women who were caregivers were also more likely to compromise their own health and delay seeking medical services for themselves and prioritize their family and loved ones. Caregivers during COVID-19 also experienced higher rates of social vulnerabilities such as food insecurity, financial distress, violence and challenges with transportation and secure housing. 16

Impact on Maternal Health

New York State has been undergoing a multifaceted initiative to address inequities in maternal health, specifically maternal mortality since the last CHNA cycle.¹⁷ However, the pandemic only shined a brighter light into the ongoing challenges and inequities surrounding the issue. Expectant mothers had to balance the fear of COVID-19, with questions on whether they could safely deliver their babies in a healthcare facility. The Center for Disease Control (CDC) determined that pregnant women were at increased risk of severe illness due to COVID-19.18 Black and Brown pregnant patients were at even higher risks of severe illness and were more likely to be admitted to intensive care units, receive invasive ventilation and had higher chances of death.¹⁹

COVID-19's impact on Children

Our ongoing efforts and work related to the CHNA also highlighted inequities to access and health outcomes for the youngest in our communities. Through our focus group discussions with community leaders, we learned that there is a greater need for mental health resources and support services for children and adolescents. An analysis prepared by the United Hospital Fund identified that New York State homes with children under 18, that had a parent or guardian die to COVID-19, were more likely to enter poverty or near poverty because of the pandemic. The analysis showed that between March and July of 2020, 4,200 children experienced a parental death, and 325,000 children were pushed into or near poverty as a result of the economic downturn tied to the pandemic.²⁰ Parental and caregiver deaths from COVID-19 occurred at a rate of 1 per 1,000 children in New York State. The inequities in parental deaths among Black and Hispanic children were even more profound, at twice the rates of Asian and White children. Black and Hispanic children were disproportionately affected by parental and caregiver deaths, with 1 per 600 Black children, and 1 per 700 Hispanic children affected. This is in contrast to 1 per 1,400 Asian children and 1 per 1,500 White children that were affected by a parental/caregiver death. It is estimated that up to 50% of children who lost a parent or caregiver because of COVID-19 may enter poverty. Additionally, up to 23% of children who lost a parent or caregiver because of COVID-19 may be at risk of entry into foster care or kinship care.

Our focus groups with community leaders highlighted the fact that the pandemic has especially impacted the mental health and well-being of our children, which often go unnoticed or unaddressed. Children faced their own burdens of social isolation during the pandemic as social distancing measures were implemented. In responses to surging rates of infection, schools had to temporarily shutter their classrooms and adapt - with mixed success — to a digital platform of learning, which may have impacted the learning, development and overall well-being of its students. For many children, for whom schools were a refuge from unstable homes and a place to have two of their three meals a day, school closures meant worsened neglect, isolation and food insecurity.



"...since COVID, preventative care screenings are tremendously down, especially for the kids and the moms."

- Northwell CHNA 2022, Suffolk, Focus Group Participant

"One of the things that we as an island continue to see are very high rates of tobacco, both in the youth and the adult population. And also, ... there were **more alcohol related deaths in young people**. We've always had a **problem with binge drinking on Staten island, especially in young women**, but I'm sure the pandemic has sort of exacerbated those alcohol related issues."

- Northwell CHNA 2022, Staten Island, Focus Group Participant

Unmet Health-Related Social Needs

What we learned to be some of the most significant health needs of our community were not identified in a vacuum independently of each other, nor did they originate recently. The issues of rising trends in chronic conditions, worsening mental health and issues in women's and children's health have pre-existed before COVID-19 but were only further exacerbated and brought to the surface because of it. Our listening tours and strategic partnerships forged during the pandemic, and the work we did through our community health needs assessment, made it clear that longstanding and unmet social needs embedded within our communities have significantly defined the health and well-being of our communities. Social determinants of health (SDoH) factors such as food insecurity and access to adequate transportation were consistently raised as concerns as being closely linked to higher rates of diabetes, hypertension and other chronic diseases. Isolation, anxiety and depression influenced the rising rates of alcohol and substance related issues among the youth. And perhaps most impactful of all, long-standing conditions of poverty, inadequate housing, unemployment and interrupted education, all underpinned access to care disruptions to care, especially for vulnerable populations such as the elderly, women and families.

"Being poor is a health hazard in and of itself because it leads to so much — not being able to access healthy foods... you have stressors and hypertension because you're going to a job that doesn't pay a fair wage. All those things compound on a person that's living in poverty"

- Northwell CHNA 2022, Queens, Focus Group Participant

"I think one of the things they have to point to is the whole housing issue. Because when we work with people, if people are not safely and adequately housed, you can't get at any of the rest of this stuff. You can't deal with behavioral health issues. You can't deal with domestic violence. You can't deal with chronic illness that needs ongoing support. If you're not in a safe place to live, all those things, they come secondary to that."

- Northwell CHNA 2022, Staten Island, Focus Group Participant

Our Priorities

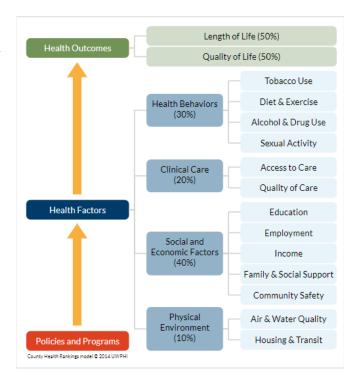
Our findings from the focus group discussions and the community health survey indicated that more investment and resources need to be allocated to address chronic disease, mental health and substance abuse and the conditions that affect the health of women, infants, children and families in our communities. We also learned that these complex challenges were underpinned by the fact that our communities continue to endure unmet health-related social needs and that these needs must be addressed at a community level. These results only confirmed and further resonated what the voices of our community members and our partners have told us for the last two years.

What is the NYSDOH Prevention Agenda 2019-2024?

The Prevention Agenda 2019-2024 is New York State's health improvement plan which serves as a guide to improve the health and well-being of all New Yorkers at the state and local level.²³ As part of our CHNA process, we are required to select community health priorities from the 2019-2024 Prevention Agenda, which our organization would commit to advance within our service area. The overarching strategy of the Prevention Agenda is to implement public health approaches that improve the health and well-being of entire populations and achieve health equity for all populations. The vision of the Prevention Agenda for 2019 -2024 is that New York become the Healthiest State in the Nation for People of All Ages.²⁴

It is a comprehensive statewide assessment of health status and disparities, changing demographics and the underlying causes of death and diseases. The Prevention Agenda is prepared and updated by the New York State Public Health and Health Planning Council (PHHPC), in partnership with more than 100 organizations across the state.

The framework is based on the County Health Rankings model which emphasizes the social determinants of health, as defined by Healthy People 2020, as the conditions in the environments in which people are born, live, learn, work, play, worship and age, all of which affects a wide range of health functioning and quality-of-life outcomes and risks.^{25,26}

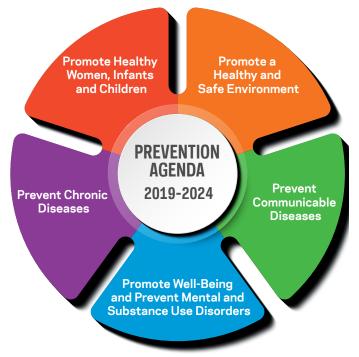


Northwell's alignment with the NYS Prevention Agenda

Advancing New York State's Prevention Agenda priorities are in direct alignment with Northwell's mission to measurably improve the health and well-being of the communities we serve across our service area. As a result of our CHNA process, and to advance our mission of measurably improving the health and well-being of our communities, Northwell Health selected the following priorities and focus areas from New York State DOH's Health Improvement Plan, 2019–2024 Prevention Agenda.

The selection of our community health priorities in alignment with the NYSDOH Prevention Agenda has been reviewed and formally approved by the Committee on Community Health of the Northwell Board of Trustees.

NEW YORK STATE PREVENTION AGENDA



Source: Adapted from National Prevention Council, National Prevention Strategy, Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2011.

Prevent Chronic Diseases	Promote Well-Being and Prevent Mental and Substance Use Disorders	Promote Healthy Women, Infants, and Children
 Healthy Eating and Food Security Physical Activity Tobacco Prevention Chronic Disease Preventive Care and Management 	 Well-Being Mental and Substance UseDisorders Prevention 	 Maternal & Women's Health Perinatal and Infant Health Child and Adolescent Health Cross Cutting Healthy Women, Infants, and Children

How we chose our priorities this time

Our process to identify and prioritize the major health concerns of our community was informed by the data and information we collected from our focus group discussions with community leaders, and nearly 12,000 respondents to our community health survey. These findings were enriched with an extensive secondary analysis of health outcomes and sociodemographic characteristics, to provide a fuller picture of the health of our communities. It is important to note that our needs assessment was not conducted in a vacuum but in the context of our ongoing efforts to improve the health and well-being of our communities and reduce social inequities by forging strong and strategic partnerships.

Guided by the American Hospital Association's Community Health Improvement (ACHI) community health assessment framework and its criteria for prioritizing major health issues, our three chosen priorities from the NYS Prevention Agenda were based on the:

- Magnitude of the problem: The number or size of community members affected by the issue
- Severity of the problem: The risks of morbidity and mortality related to the problem
- Need among vulnerable populations: The evidence of a disproportionately higher rate of poor outcomes among certain populations
- Community's capacity & willingness to act on the issue
- Ability to have a measurable impact on the issue
- Availability of hospital and community resources to address the issue
- Existing interventions focused on the issue
- Whether the issue is a root cause of other problems
- Trending health concerns in the community.

Our work also considered additional criteria for prioritization such as:

- The importance of the problem to our community members
- Evidence that an intervention can change the problem
- Alignment with an organization's existing priorities
- Hospital's ability to contribute finances and resources to address the health concern
- Potential challenges or barriers to address the need
- The opportunity to intervene at the prevention level.

The priorities we chose will guide our work for the next three years in advancing health and well-being in our communities. We chose them based on the criteria mentioned above, noting particularly the severity of the issues, its impact on our vulnerable communities and the community's willingness to act and prioritize the issue with us. Our priorities are also a continuation, and an expansion of the community health concerns we prioritized in 2019. We need to continue our commitment to invest resources and assets to these priorities.

Preventing chronic disease and promoting well-being and preventing mental health and substance use disorders are still a major priority for us, as our communities continue to be burdened by these health issues. Chronic disease, and the strain on well-being and mental health, and substance use disorders have only been exacerbated because of the pandemic and have shown a higher prevalence among our more vulnerable neighborhoods.

Expanding our Community Health Priorities

This year, we expanded our community health priorities to include the promotion of healthy women, infants and children. While a big part of this decision was the impact of COVID-19 and our learnings from our community members and leaders, there have been concerning trends and disparities in maternal health even before the pandemic. Nationally, rates of maternal deaths have been nearly double for non-Hispanic Black moms, compared to overall rates.27,28,29 A review of the data and the experience of our patients and clinicians focused on women's health also showed us that Black women in our communities continue to endure higher risks of maternal deaths and severe maternal morbidity. Our report will further explain the programs we have launched to tackle this health concern, but we intend to continue in our model of collaboration and partnership with community-based organizations to connect women in medically underserved communities and ensure access to our highquality clinical services for maternal and perinatal health.

Our upcoming programs

This is also our first CHNA since a global pandemic that shed light on unmet social needs and health disparities that have gone unaddressed for too long. Our most vulnerable neighborhoods have the highest risks for diseases and conditions that fall within these priorities. We have seen this time and again since 2019, and in our fight against the pandemic.

> In alignment with our chosen Prevention Agenda priorities, Northwell is committed to building partnerships, developing programs and investing in the following key areas: :

- Food insecurity
- Diabetes & obesity
- Mental health
- Youth education and career development
- Maternal morbidity and mortality

We are taking an inventory of all of our existing programs at Northwell focused on these priorities and finding opportunities to streamline them and find synergies where possible. We are researching regional and national best practices so that our programs and initiatives are culturally sensitive and evidence-based. As our mission is to measurably improve the health and well-being of our communities, we intend to define and apply key metrics of success for all programs that are built out and deployed. And finally, we believe that the most impactful of our efforts to address these priorities will be in working together. We will continue to identify key community- and faith-based partners to collaborate with and co-create solutions for our most vulnerable neighborhoods.

Our Neighborhoods of Focus

Identification of 11 priority neighborhoods

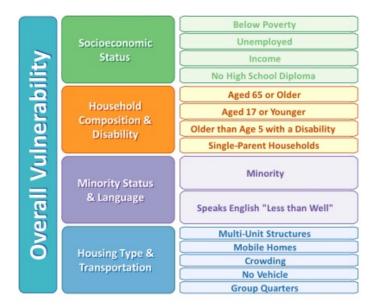
To maximize our resources and efforts and direct them to our most under-resourced communities, Northwell conducted secondary data analyses to identify neighborhoods within our six-county service area that had a disproportionate burden of adverse social determinants of health and poor health outcomes. This assessment was composed of two overlapping parts: (1) an extensive data analysis to identify neighborhoods of concentrated social vulnerability and poor health and (2) an inventory of Northwell Health's partnerships with community- and faith-based organizations. This exercise identified 11 neighborhoods of focus across our service area, that had the highest need.

Methodology

The neighborhoods of focus were identified using secondary data sources such as the Center for Disease Control's (CDC) Social Vulnerability Index (SVI), the National Vital Statistics System and the 2019 version of the NYSDOH Statewide Planning and Research Cooperative System (SPARCS). These data sources were used to identify 'hot spots' locations with high social vulnerability, and disparities in life-expectancy, preventable hospitalizations and avoidable Emergency Department visits. Once these neighborhoods were identified, we overlayed the locations of our existing partnerships to identify the areas where there were gaps between need and available services.

Social Vulnerability

The CDC's purpose in designing the Social Vulnerability Index³⁰ was to provide specific socially and spatially relevant information to help public health officials and local planners, better prepare communities to respond to emergency events such as severe weather, floods, disease outbreaks and chemical exposure. The SVI identifies relative vulnerability of every U.S. Census tract and ranks census tracts on 15 social factors, including unemployment, minority status and disability. It groups these measures into four related themes, as well as an overall ranking.



Source: CDC / ATSDR Social Vulnerability Index

Preventable Hospitalizations

Preventable hospitalizations were defined by the Prevention Quality Indicators (PQIs), from the Agency for Healthcare Research Quality (AHRQ).³¹ PQIs use hospital discharges from SPARCS to identify admissions that might have been avoided if adequate access to quality outpatient care and appropriate follow-up care was available and utilized. The PQIs used to identify our neighborhoods of focus were composite measures for acute, chronic and diabetes related discharges.

Avoidable ED visits

Using SPARCS, we applied the New York University Emergency Department (ED) Algorithm to identify ED visits that could have been avoided if they were treated in a primary care setting.³²

Life Expectancy

Using the National Vital Statistics System (NVSS) estimated life expectancy tables, we identified variations between the average number of years of life for residents of neighborhoods of interest in comparison to its county overall. ³³

Neighborhood Profiles

Each of our 11 neighborhoods of focus were given a brief description, an overview of health outcomes, and neighborhood hot-spotting

maps localized down to the census tract. We also identified a list of the neighborhood's assets and resources that could improve the quality of life for its residents. While this list is not exhaustive, we acknowledge that a comprehensive list of assets in a neighborhood may not give a full picture of that respective neighborhood's means to measurably improve its outcomes. As an example, a neighborhood can have several public parks that may not contribute to its residents' quality of life if they do not feel safe spending time in such public spaces. Similarly, there may be grocery stores within the neighborhood but if there is no adequate or safe transportation to get there, its value as a community asset is limited.

In collaboration with our partners, we hope to encourage the use of existing community assets in our selected neighborhoods and support the creation of new ones. To highlight this, we added data points within our hot-spotting maps to identify the existing CBOs and FBOs that Northwell has strategically partnered with. Over the next few years, the intention of our partnerships in these neighborhoods is to serve as a platform to coordinate and build upcoming programs that address our three chosen priority areas from the NYS Prevention Agenda, all to advance community health equity and 'Raise Health' for all.

RAISE THEALTH

Raising health goes beyond providing care. It's raising communities. Standing up to societal ills. And raising expectations of what health can be. Join us—become a health raiser. Because when we raise the health of our communities, we raise everyone.

BRENTWOOD

A hamlet in the Town of Islip in Suffolk County, Brentwood is the most populous Census Designated Place on Long Island outside of New York City. Approximately 41% of residents were born outside the country. The 3 largest ethnic groups in Brentwood are: White (Hispanic), Other (Hispanic), and Black or African-American (Non-Hispanic). The poverty rate in Brentwood is 9.3%.

COMMUNITY ASSETS

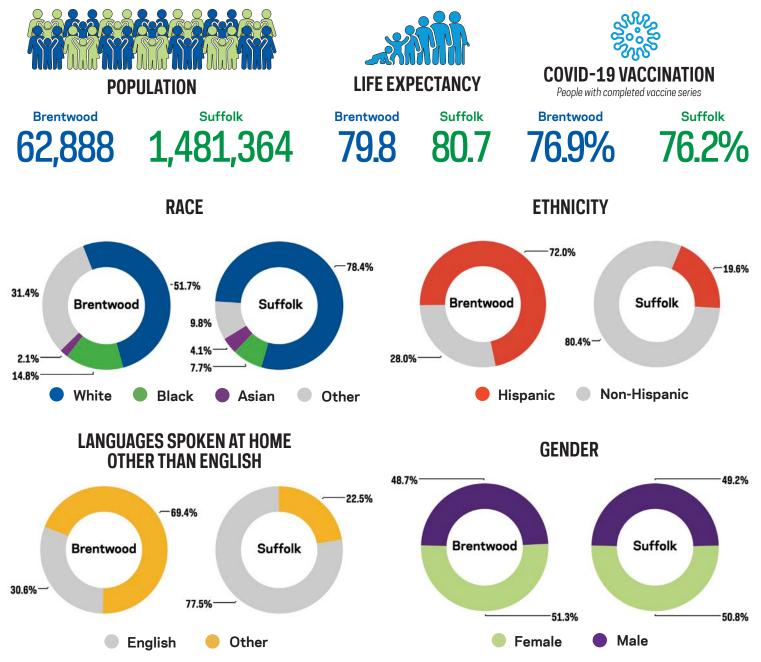
Food Pantries: St. Anne's Roman Catholic Church

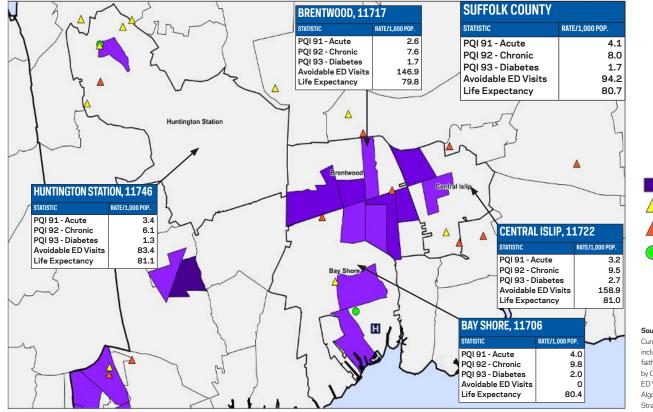
Northwell Community Programs: Northwell Community Scholars, Wellness on Wheels

Parks: Brentwood State Park

School District(s): Brentwood Union Free School District

Transportation: Long Island Rail Road, Suffolk County Transit





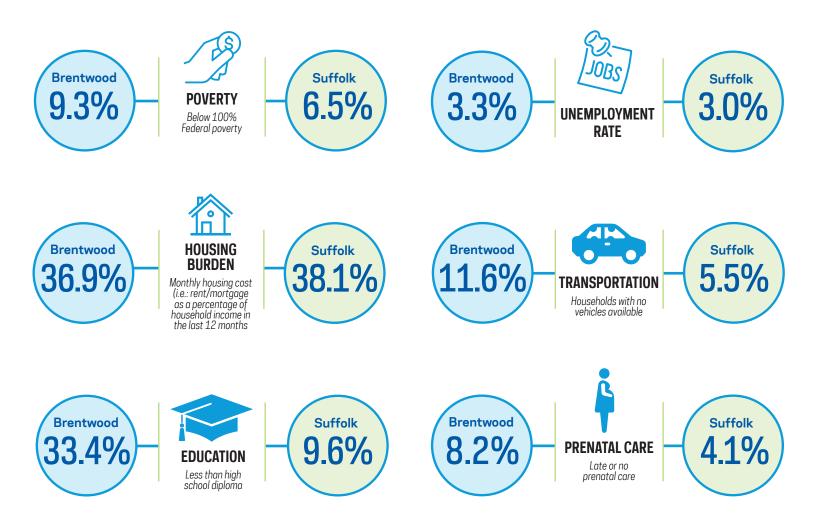


High SVI Score

CPN - HUB

CPN - SPOKE

Source: NYSDOH SPARCS/mc Current faith-based centers include permanent sites; Other faith-based centers were provided by Community Relations; Avoidable ED Visits defined by NYU Algorithm; Prepared by the Office of Strategic Planning



CENTRAL ISLIP

A hamlet in the Town of Islip in Suffolk County. Approximately 33% of residents were born outside the country. The 3 largest ethnic groups in Central Islip are: White (Hispanic), Black or African American (Non-Hispanic), and White (Non-Hispanic). The poverty rate in Central Islip is 9.8%.

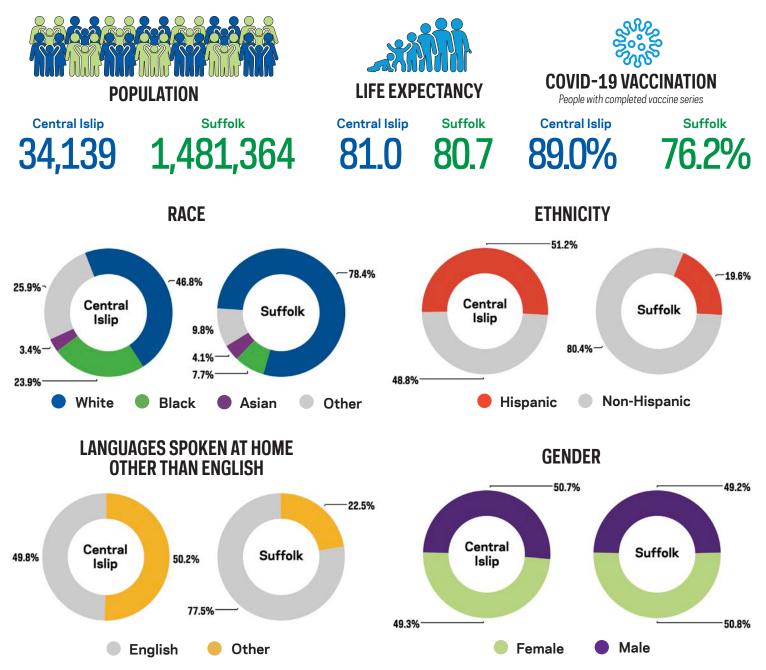
COMMUNITY ASSETS

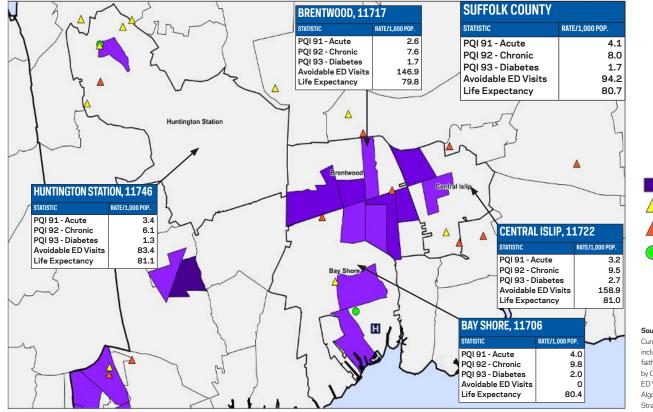
Food Pantries: Hands Across Long Island (HALI) Community Wellness and Recovery Center, Hope Missionary Bapstist Church — Bethany Hospitality Kitchen, Lighthouse Mission Central Islip Food Pantry, St. John of God Roman Catholic Church

Parks: Central Islip Community Park

School District(s): Central Islip Union Free School District

Transportation: Long Island Rail Road, Suffolk County Transit





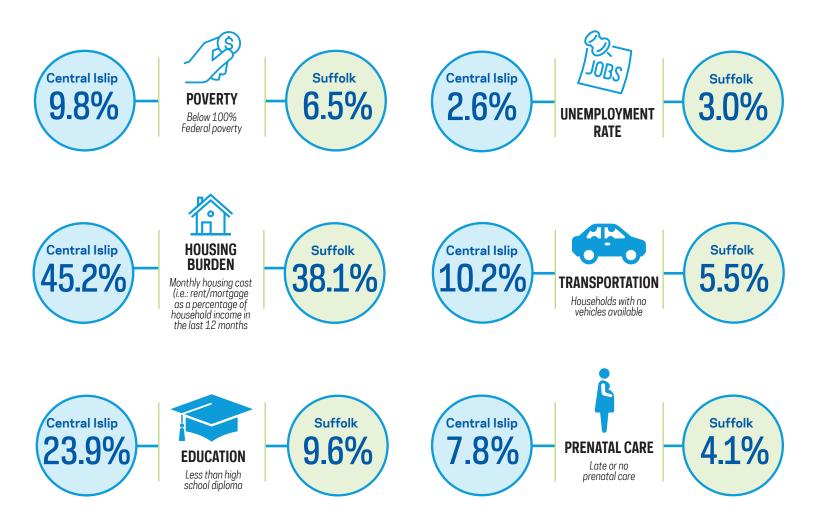


High SVI Score

CPN - HUB

CPN - SPOKE

Source: NYSDOH SPARCS/mc Current faith-based centers include permanent sites; Other faith-based centers were provided by Community Relations; Avoidable ED Visits defined by NYU Algorithm; Prepared by the Office of Strategic Planning



HUNTINGTON STATION

A hamlet in the Town of Huntington in Suffolk County. Approximately 24% of residents were born outside the country. The 3 largest ethnic groups in Huntington Station are: White (Non-Hispanic), Other (Hispanic), and White (Hispanic). The poverty rate in Huntington Station is 7.4%.

COMMUNITY ASSETS

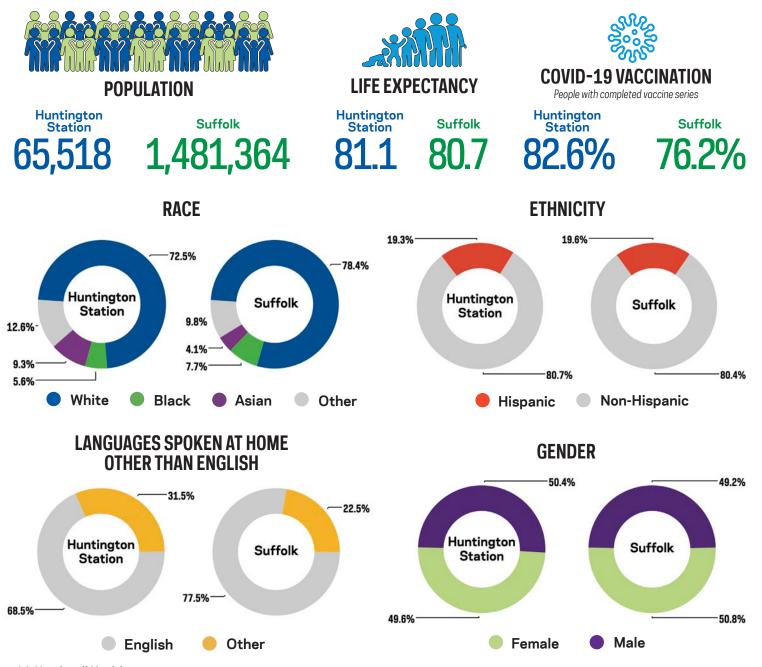
Food Pantries: Long Island Cares Inc.— Harry Chapin Food Bank and Humanitarian Center, St. Hugh of Lincoln Roman Catholic Church, The Redeemed Christian Church of God Chapel of New Songs

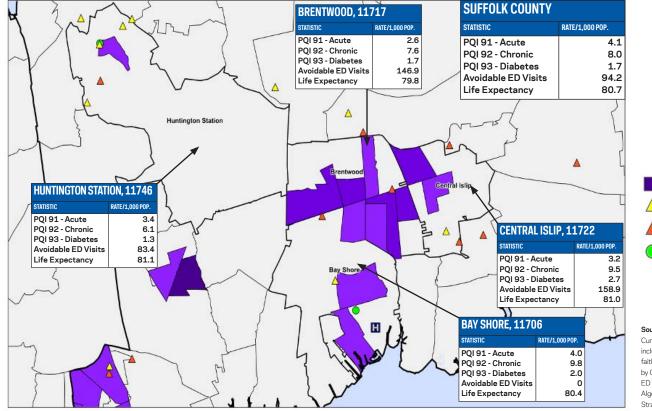
Northwell Community Programs: Nutrition Pathways Program

Parks: Froehlich Farm Nature Preserve, Manor Field Park

School District(s): Harborfields Central School District, Huntington Union Free School District, South Huntington Union Free School District

Transportation: Long Island Rail Road, Suffolk County Transit, Huntington Area Rapid Transit (HART) buses



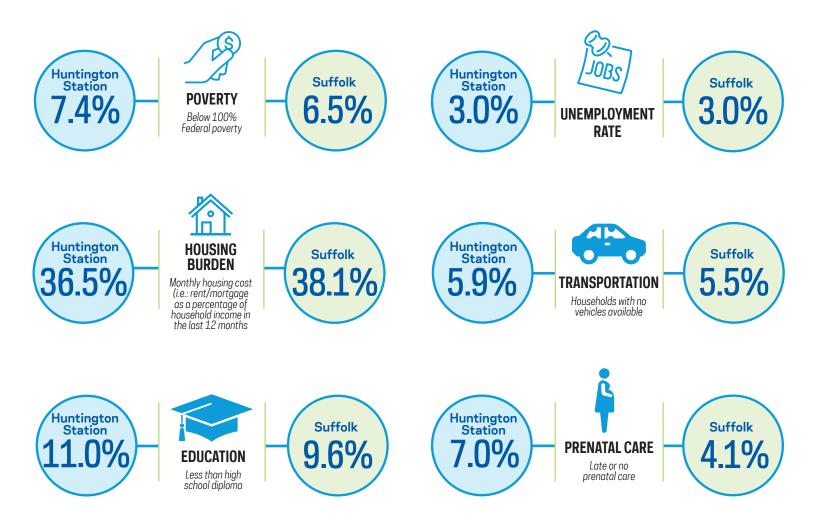




High SVI Score

CPN - HUB

Source: NYSDOH SPARCS/mc Current faith-based centers include permanent sites; Other faith-based centers were provided by Community Relations; Avoidabe ED Visits defined by NYU Algorithm; Prepared by the Office of Strategic Planning



BAY SHORE

Bay Shore is a hamlet in the Town of Islip in Suffolk County on the South Shore of Long Island. Approximately 29% of residents were born outside the country. The 3 largest ethnic groups in Bay Shore are: White (Non-Hispanic), White (Hispanic), and Black or African American (Non-Hispanic). The poverty rate in Bay Shore is 7.4%.

COMMUNITY ASSETS

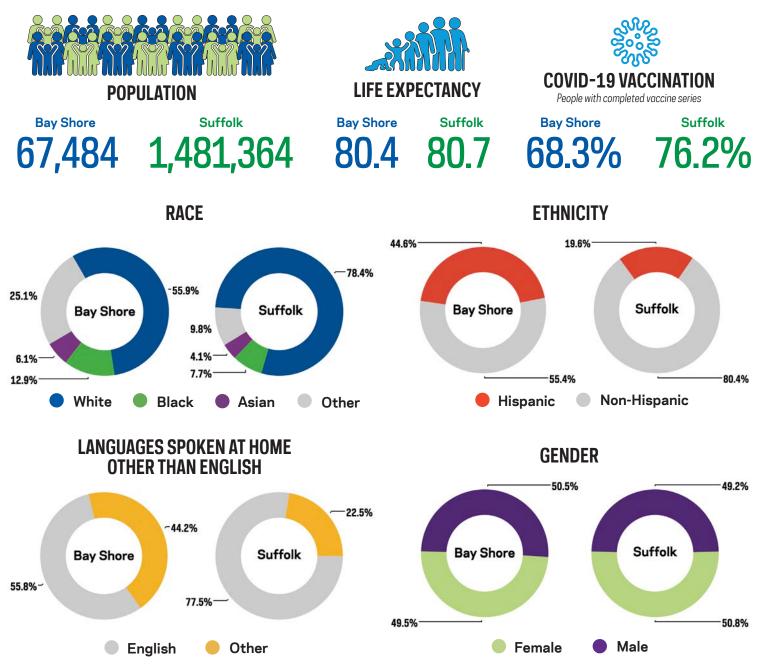
Food Pantries: Bay Shore Emergency Food Pantry, CenterPoint Church, First Baptist Church of Bay Shore, PRONTO of Long Island, St. Patrick Roman Catholic Church of Bay Shore, United Veterans Beacon House, Inc.

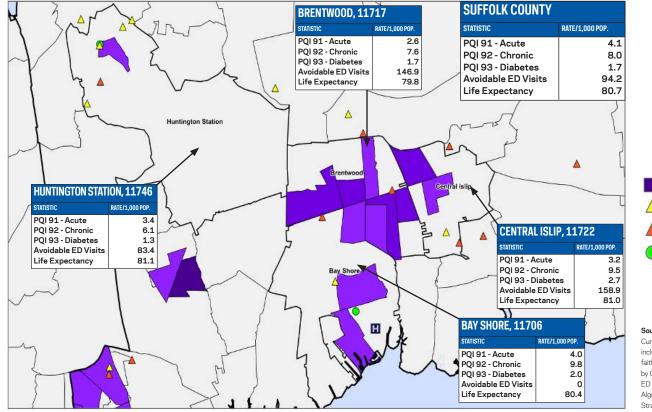
Northwell Community Programs: Community Health Storefront at Westfield Mall in Bay Shore, Food as Health, Northwell Community Scholars

Parks: Benjamin's Memorial Beach, Shipwreck Cove Spray Park

School Districts: Bay Shore Union Free School District

Transportation: Long Island Rail Road, Suffolk County Transit





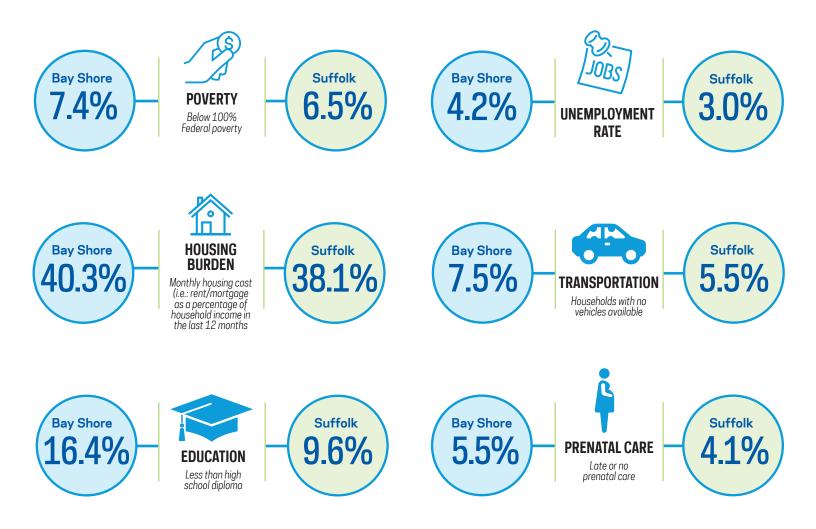


High SVI Score

CPN - HUB

CPN - SPOKE

Source: NYSDOH SPARCS/mc Current faith-based centers include permanent sites; Other faith-based centers were provided by Community Relations; Avoidable ED Visits defined by NYU Algorithm; Prepared by the Office of Strategic Planning



FREEPORT

A village in the Town of Hempstead located on the South Shore of Long Island in Nassau County. Approximately 32% of residents were born outside the country. The 3 largest ethnic groups in Freeport are: Black or African American (Non-Hispanic), White (Non-Hispanic), and White (Hispanic). The poverty rate in Freeport is 8.0%.

COMMUNITY ASSETS

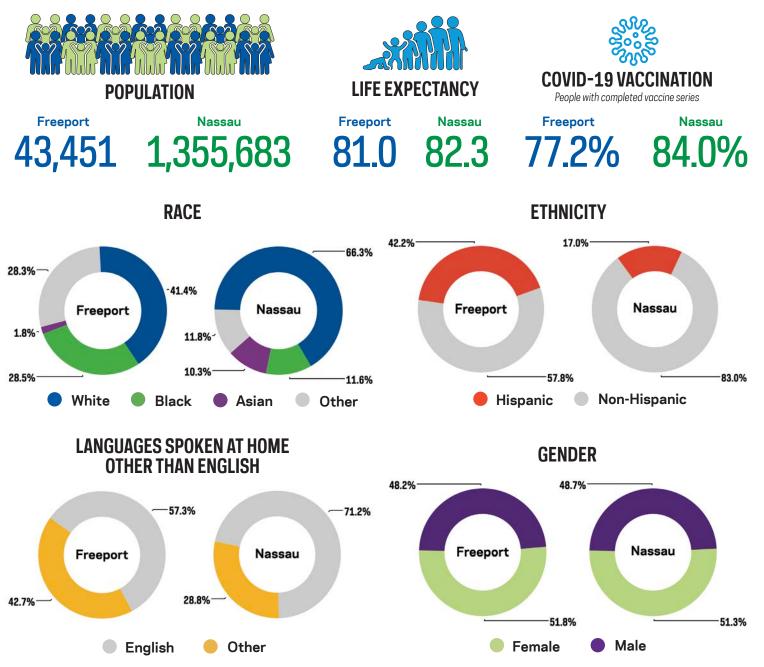
Food Pantries: Ebenezer SDA Church SK, Long Island Cares/The Nassau Center for Collaborative Assistance, Long Island Council of Churches, Our Holy Redeemer, Perfecting Care Food Pantry, Renacer Outreach Program, Soup to Nuts Inc. Soup Kitchen, The Salvation Army

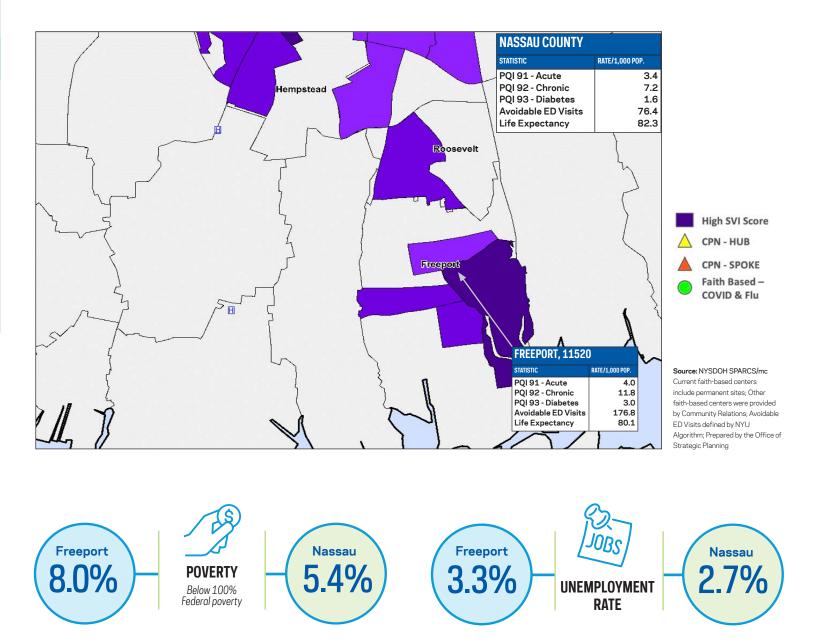
Northwell Community Programs: Northwell Community Scholars

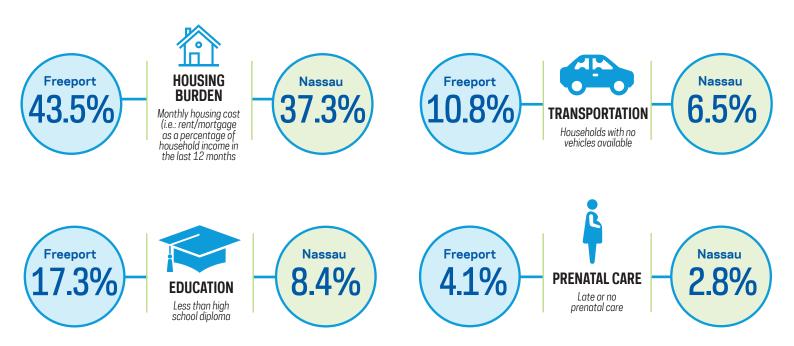
Parks: Cow Meadow Park, Milburn Creek Park; Freeport Northeast Park, Waterfront Park

School District(s): Freeport Union Free School District

Transportation: Long Island Rail Road, Nassau Inter-County Express Bus







UNIONDALE

Uniondale is a hamlet and census-designated place in the Town of Hempstead in Nassau County. Approximately 36% of residents were born outside the country. The 3 largest ethnic groups in Uniondale are: Black or African American (Non-Hispanic), White (Hispanic), and White (non-Hispanic). The poverty rate in Uniondale is 12.0%.

COMMUNITY ASSETS

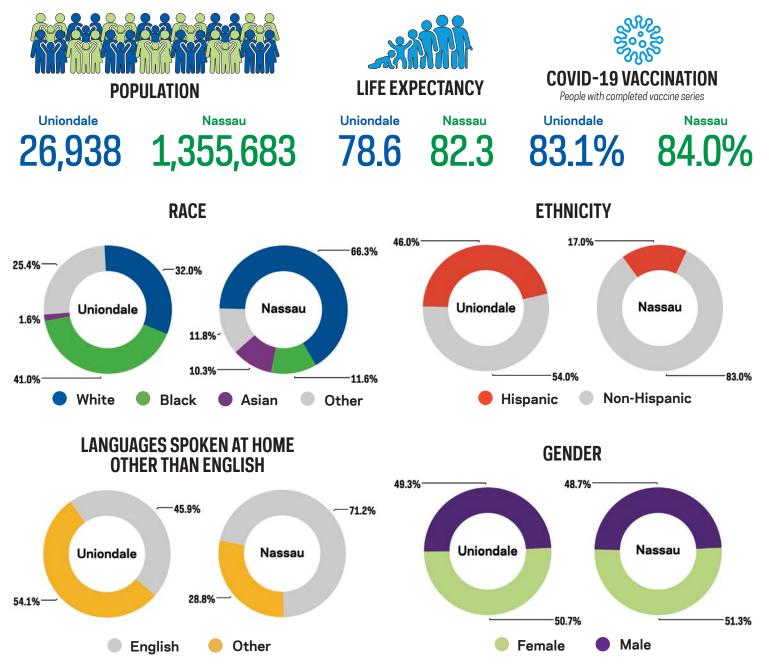
Food Pantries: Lutheran Social Services of NY/New Life Center of LI, St. Matha's Roman Catholic Church

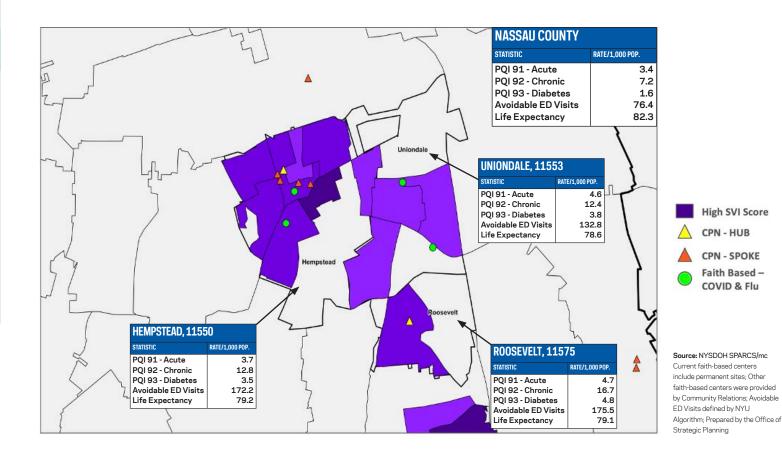
Northwell Community Programs: Wellness on Wheels

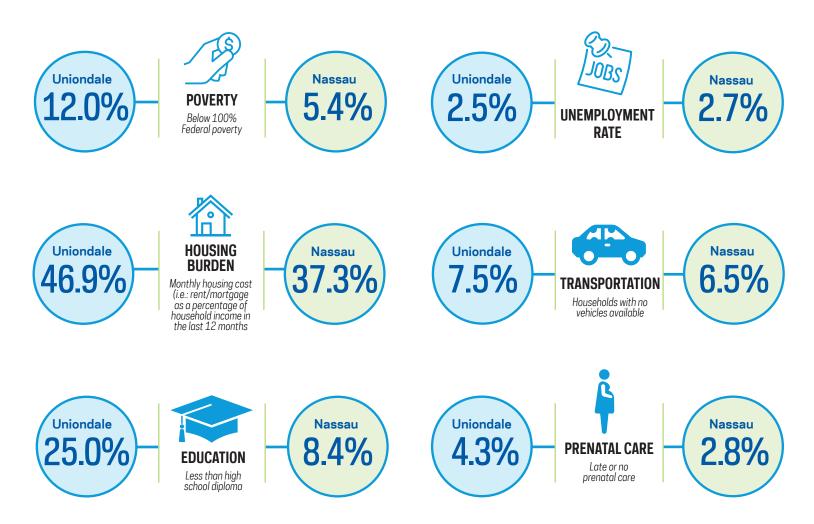
Parks: Cedar Street Park, Smith Street Park, Uniondale Park

School District(s): Uniondale Public School District

Transportation: Long Island Rail Road, Nassau Inter-County Express Bus







HEMPSTEAD

The village of Hempstead is located within the Town of Hempstead in Nassau County. Approximately 39% of residents were born outside the country. The 3 largest ethnic groups in Hempstead are: Black or African American (Non-Hispanic), Other (Hispanic), and White (Hispanic). The poverty rate in Hempstead is 17.3%.

COMMUNITY ASSETS

Food Pantries: EAC Network, EOC of Nassau County, Faith Baptist Church FP, Hempstead Assembly of God, Interfaith Nutrition Network (INN), New Life Ministries

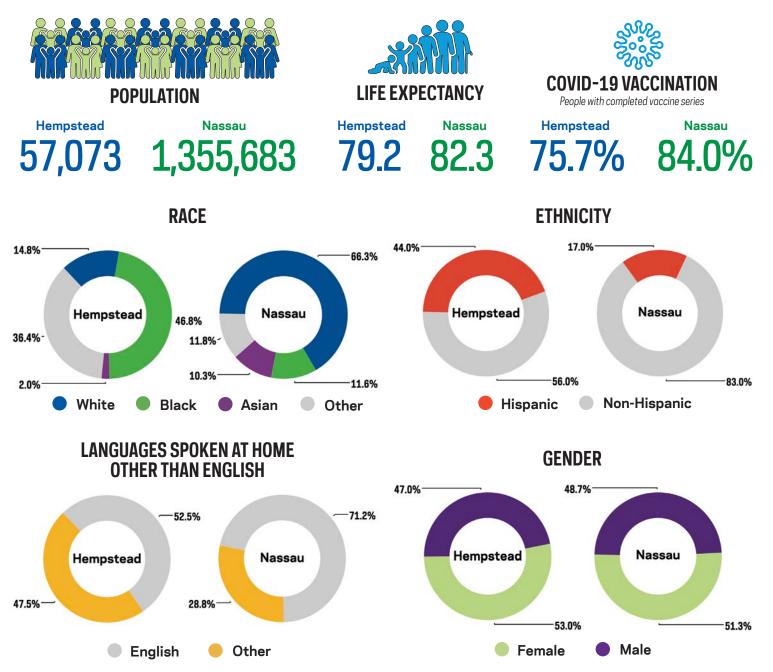
Northwell Community Parnters: The INN

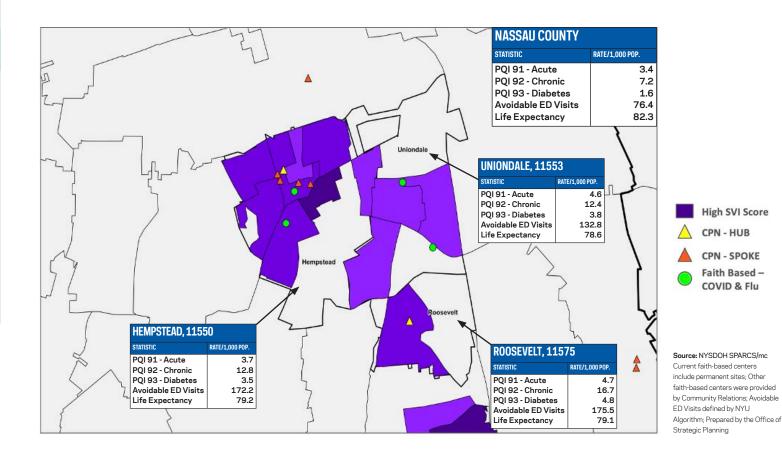
Northwell Community Programs: Northwell Community Scholars, Wellness on Wheels

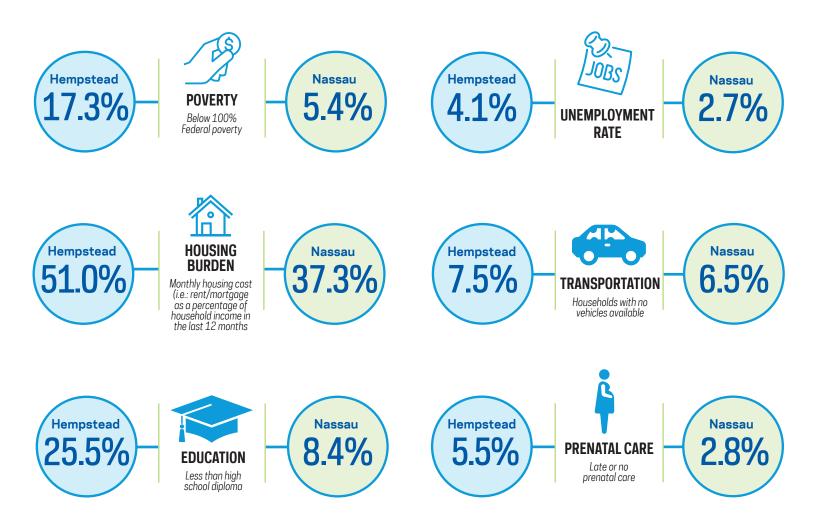
Parks: Brierley Park, Campbell Park, Kennedy Memorial Park, Lincoln Park

School District(s): Hempstead Union Free School

Transportation: Long Island Rail Road, Nassau Inter-County Express Bus







ROOSEVELT

A hamlet in the Town of Hempstead in Nassau County, on the South Shore of Long Island. Approximately 34% of residents were born outside of the country. The 3 largest ethnic groups in Roosevelt are: Black or African American (non-Hispanic), White (Hispanic), and Other (Hispanic). The poverty rate in Roosevelt is 10.0%.

COMMUNITY ASSETS

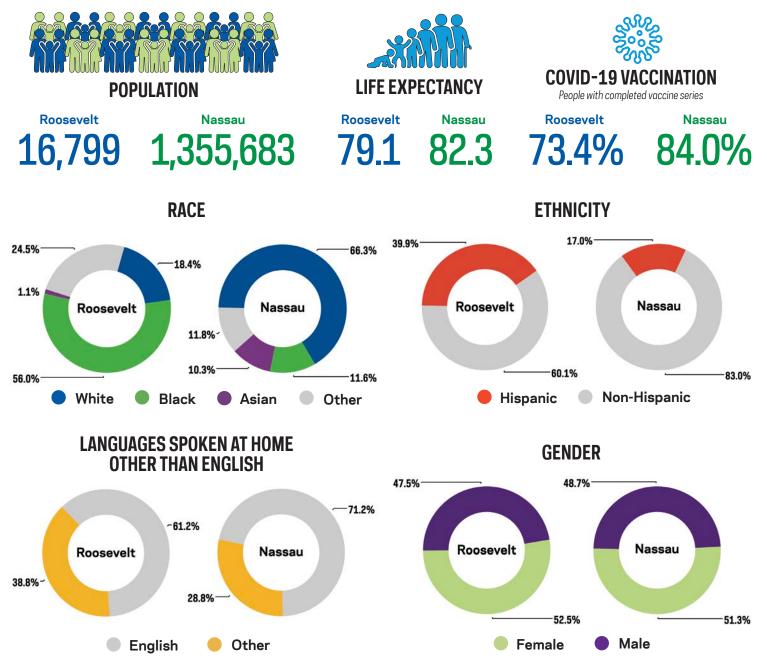
Food Pantries: EOC of Nassau County, Presbyterian Memorial Church, Queen of the Most Holy Rosary, Triumphant Agape House

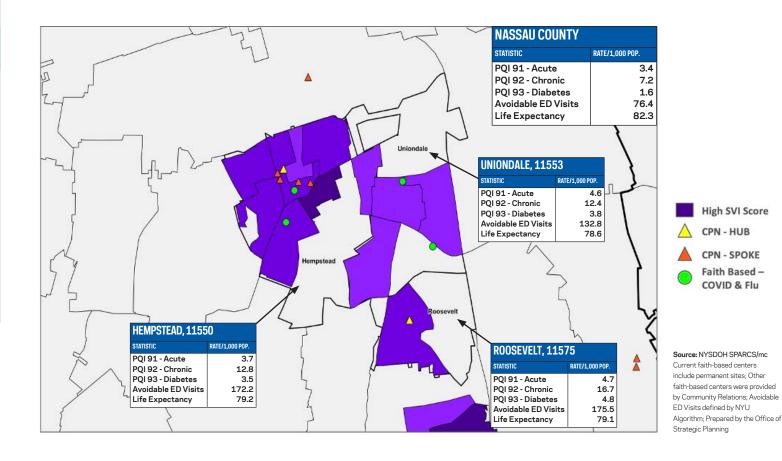
Northwell Community Programs: Healthy Corner Stores

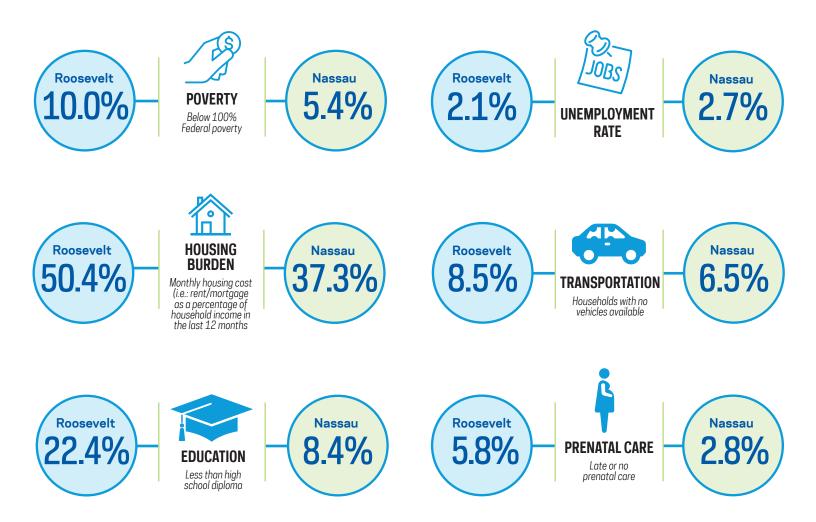
Parks: Centennial Park, Rev. Arthur Macky Sr. Park

School District(s): Roosevelt Union Free School District

Transportation: Long Island Rail Road, Nassau Inter-County Express Bus







SOUTHEAST JAMAICA

A working-class and middle-class neighborhood located south of downtown Jamaica in the borough of Queens in New York City. Southeast Jamaica is part of Queens Community District 12. Southeast Jamaica has a racial diversity index of .60. The poverty rate in Southeast Jamaica is 10.0%.

COMMUNITY ASSETS

Food Pantries: Beacon Community Center at Richard S. Grossley Campus JHS 8, Bethel Gospel Tabernacle, Community Church of Christ Soup Kitchen, Greater Allen AME Cathedral, Harding Ford Vision, St. Benedict the Moor Catholic Church

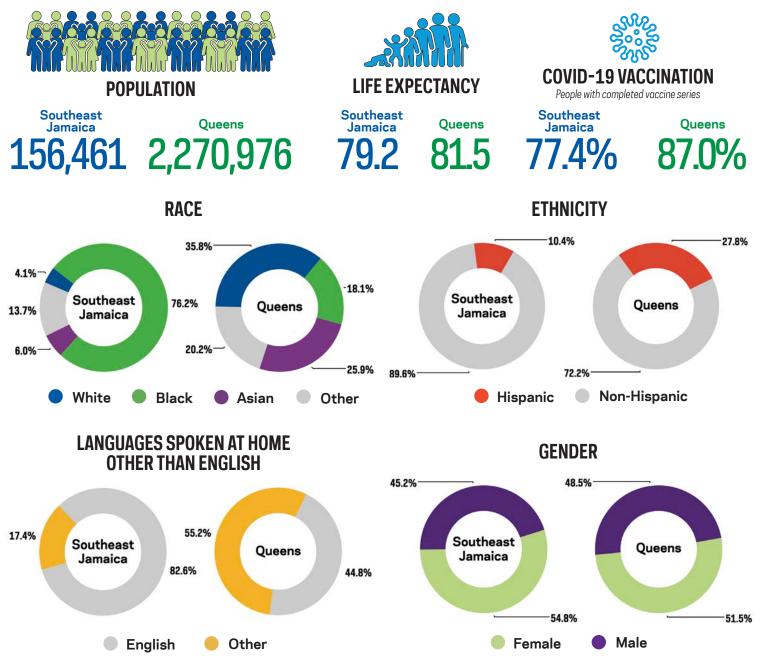
Northwell Community Partners: Greater Springfield Community Chruch

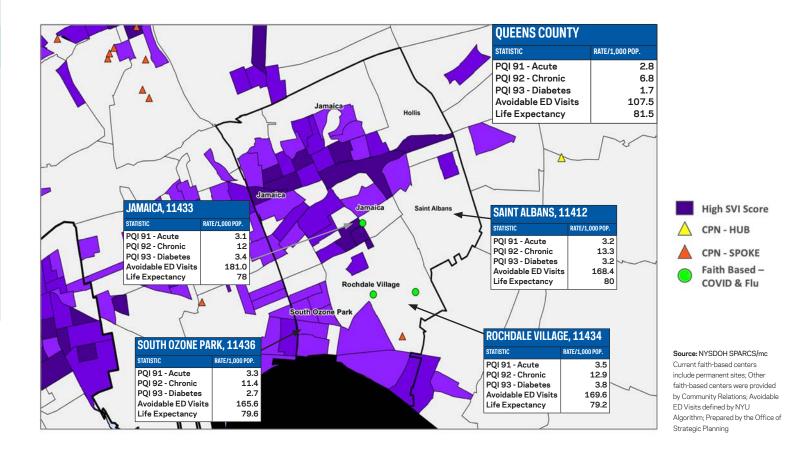
Northwell Community Programs: Northwell Community Scholars (planned 2023), Wellness on Wheels

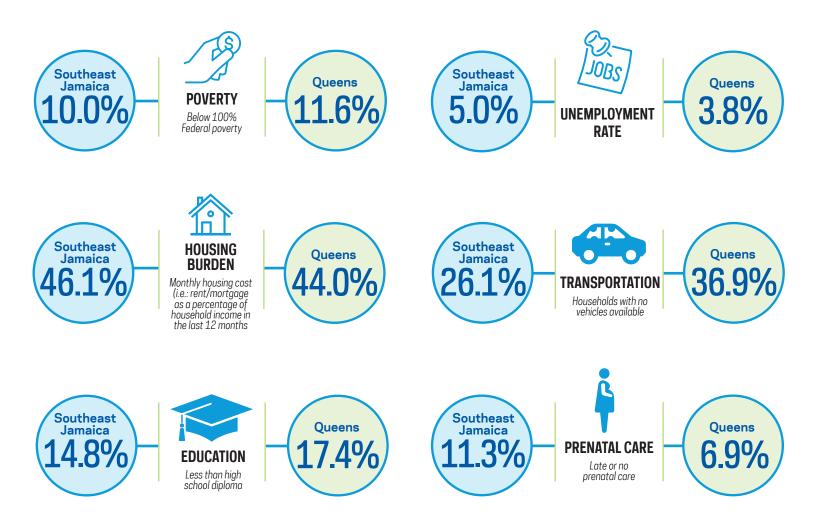
Parks: Baisley Pond Park, Dr. Charles R. Drew Park

School District(s): NYC Department of Education

Transportation: Long Island Rail Road, MTA Bus, MTA Subway







CENTRAL HARLEM

Located in Upper Manhattan in New York City, the neighborhood of Central Harlem has been known as a Black mecca and cultural center since the Harlem Renaissance. Central Harlem is part of Manhattan Community District 10. Central Harlem has a racial diversity index of .62. The povery rate in Central Harlem is 23.9%.

COMMUNITY ASSETS

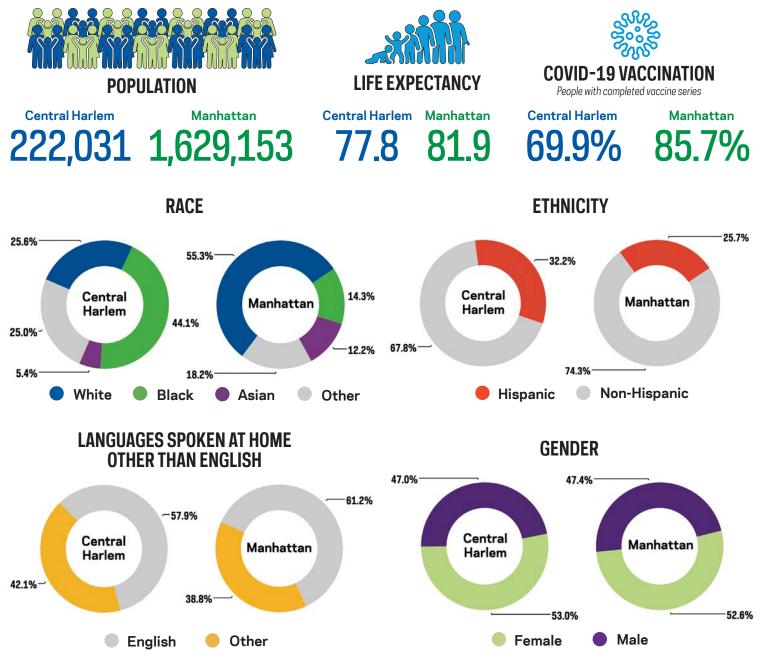
Food Pantries: First Corinthian Baptist Church, Food Bank for New York City, Safe Horizon, West Side Center for Children & Family Services

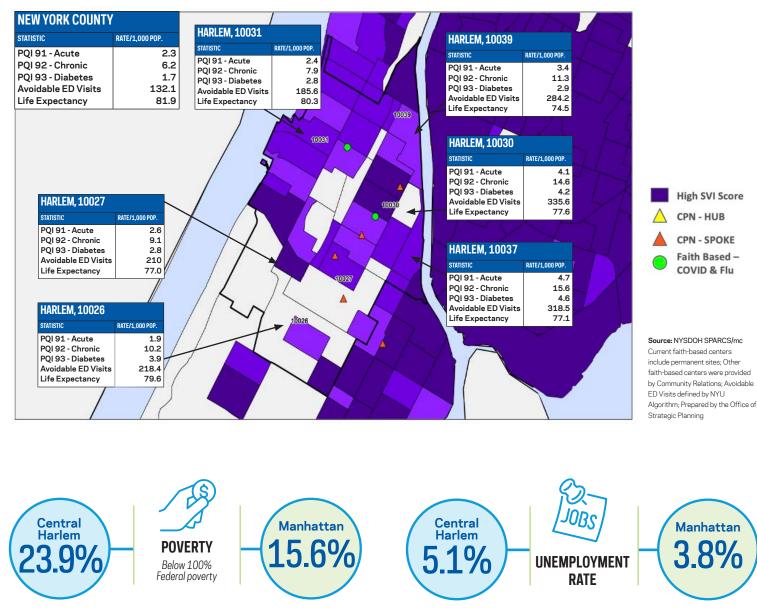
Northwell Community Partners: Mother AME Zion Church

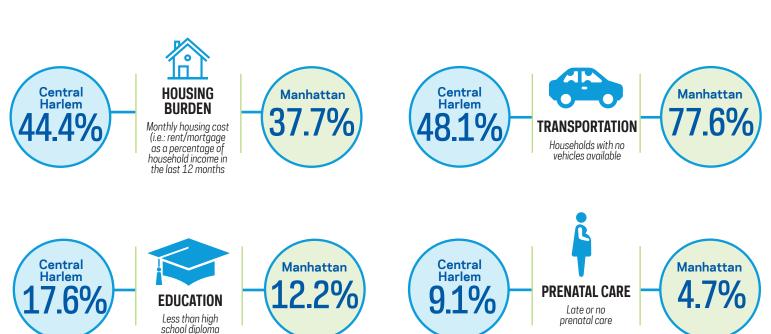
Parks: Central Park, St. Nicholas Park, Jackie Robinson Park, Marcus Garvey Park, Morningside Park

School District(s): NYC Department of Education

Transportation: MTA Bus, MTA Subway







STAPLETON

Stapleton is one of the oldest waterfront neighborhoods in New York City, located in northeastern Staten Island. Stapleton is part of Staten Island Community District 1. Stapleton has a racial diversity index of .72. The poverty rate in Stapleton is 17.4%.

COMMUNITY ASSETS

Food Pantries: BJ House of Community, Project Hospitality, City Harvest, Trinity Lutheran, Staten Island Liberian Community, Christian Pentecostal Church

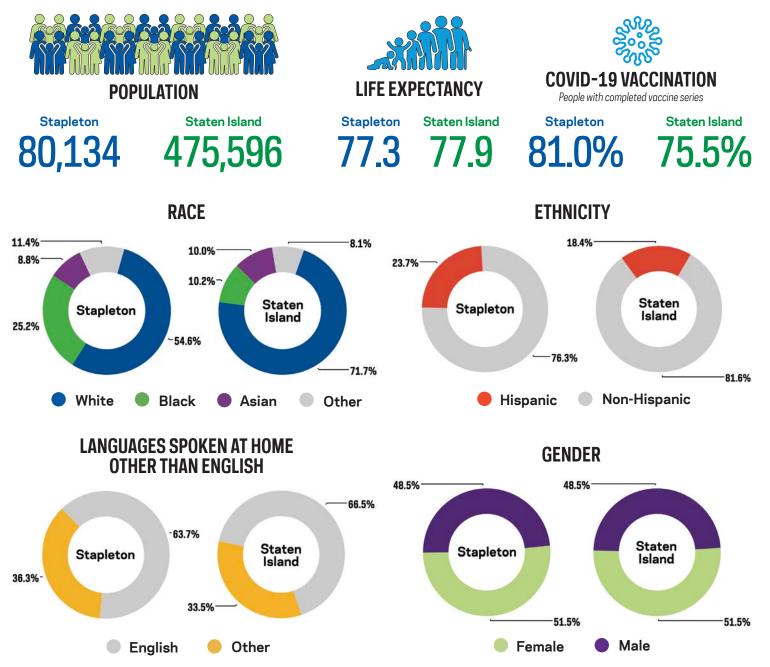
Northwell Community Partners: City Harvest

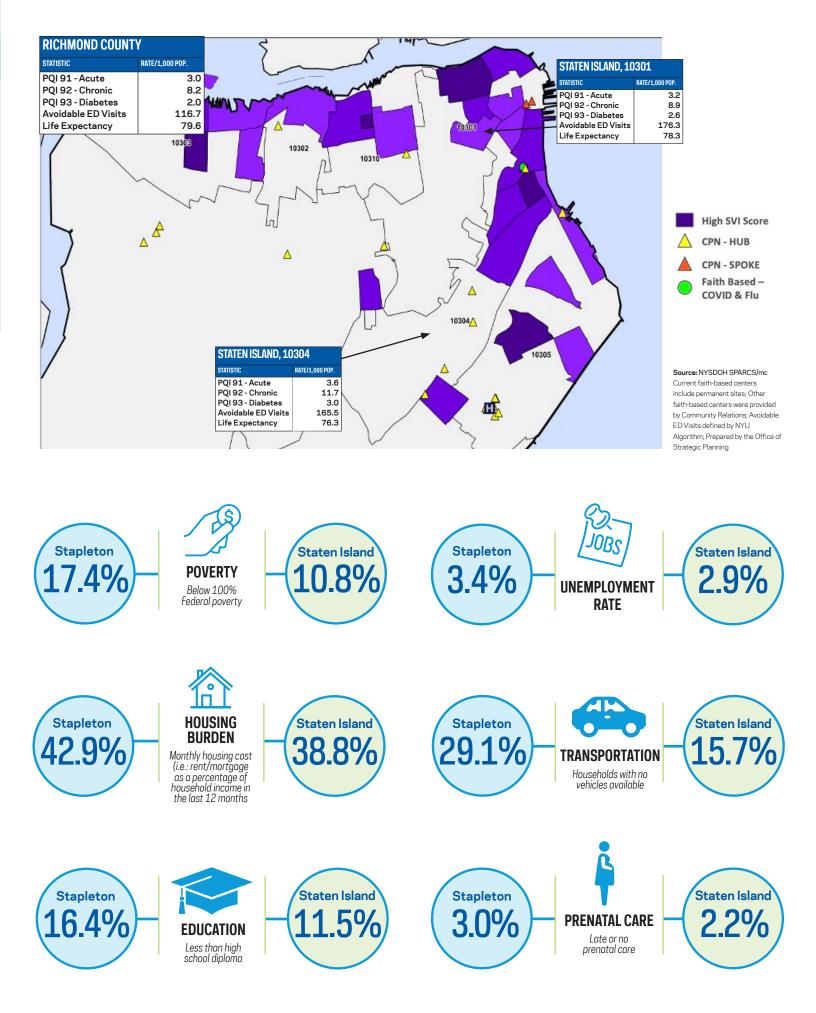
Northwell Community Programs: Wellness on Wheels

Parks: Stapleton Waterfront Park, Tappen Park

School District(s): NYC Department of Education

Transportation: MTA Bus, Staten Island Ferry, Staten Island Railway





Our Commitment in Action

Implementation of Community Programs

The section below highlights some of our major initiatives and partnerships, that are aligned with our selected NYS Prevention Agenda priority areas, and our mission to measurably improve the health and well-being of our communities. We intend to continue expanding our programs and networks in our service area, particularly within our neighborhoods of focus, to advance equitable care in our communities. For a more comprehensive overview of our current initiatives addressing our significant health needs, please refer to our Implementation Plan 2022. For more detail on programs and initiatives occurring locally within our hospital sites, please refer to our Community Service Plans 2022-2024 prepared for our facilities.

Preventing Chronic Disease Wellness on Wheels (WOW)

This is a mobile van-based school and community program for elementary school children (pre-K-4) and their families. The program offers a sustainable platform for students to learn about the importance of nutrition and exercise. Students participate in hands-on learning activities and learn about healthy fresh food, a balanced diet and about growing plants. The goals of the program are to support the reduction of childhood obesity and diabetes, provide more equitable access to healthy food and increase family mealtime. The program was recently launched in elementary schools of our two high-risk neighborhoods, Brentwood and Hempstead. Since its launch in 2021, 13,000 students have participated, with 8,000 so far this year. By the end of this year, we anticipate approximately 10,000 students from our most underserved communities will have participated in the program. We have also secured \$300,000 in funding from Rite Aid Foundation to expand programming in 2023 to Valley Stream and are awaiting additional grant funds to continue our work in Hempstead.

The WOW program is also deployed as an 8-week summer program in collaboration with the Interfaith Nutrition Network and Greater Springfield Community Church, providing SNAP enrollments, education and fresh produce. Additionally, education is provided at two Nassau County run summer camps. For more information on the program, please clink the link for our latest video https://youtu.be/ZNHUOC2NBB



10,000+Children to participate in the program in 2022

In 2022, thanks to funding of \$465,000 from Rite Aid and Mother Cabrini, the program will be expanded.

Nutrition Pathways Program

In 2021, with the support of the Mother Cabrini Health Foundation, we launched the Nutrition Pathways Program (NPP). The goal of the NPP is to improve the health and wellbeing of the poor, underserved, vulnerable and disadvantaged patients in the communities served by Northwell's Dolan Family Health Center (Dolan Center). In partnership with the Dolan Family Health Center in Huntington, Island Harvest provides patients who screen positive for food insecurity with 12 personalized nutrition counseling sessions and access to nutritious foods from their onsite food pantry. The program also allows for referrals to additional community resources through our partnership with NowPow, assistance with SNAP benefits enrollment, as well as weekly community food distribution to area residents in need. Below are the key highlights since its launch:





AS OF AUGUST 31, 2022 - AFTER 1 YEAR OF OPERATION

PROGRAM DETAILS:

- 162 individuals enrolled
- 1,139 counseling sessions conducted
- 250 individuals participate in the weekly food box distribution
- 15,024 meals provided to participating patients through weekly one-on-one sessions
- 25,650 meals provided through the weekly on-site community food box distribution

OUTCOMES:

- 44% improvement in Body Mass Index
- 42% reduction in blood pressure
- **51%** reduction in A1C
- 55% increased consumption of healthy foods
- 58% reduced consumption of unhealthy foods
- 25% reduction in number of meals eaten away from home
- 45% increased physical activity

Food as Health

Launched in 2018 at LIJ Valley Stream in collaboration with Island Harvest, Long Island's largest food bank, and God's Love We Deliver, a not-for-profit provider of homedelivered medically tailored home meals, Northwell's Food as Health program was New York State's first-ever hospital-based initiative to comprehensively address food insecurity among hospitalized patients. The goals of the program are to address the full range of factors that can lead to food insecurity, including affordability issues, a lack of nutritional awareness, transportation/mobility impairments and difficulty preparing meals. In 2019, the program was expanded to South Shore University Hospital. Current partners include Long Island Cares Inc., the Harry Chapin Food Bank, US Foods and Baldor.

Patients at South Shore University Hospital and Long Island Jewish Valley Stream Hospital who are screened positive for food insecurity and have a diagnosis impacted by nutrition, receive a nutrition consultation and navigation to community food resources by an on-site dietitian. The process is either held at the Food as Health Center within the hospitals or directly in the patient's room. At discharge, the patient is provided with a two-day supply of fresh produce and non-perishable food and a "prescription" for two refills. If patients have transportation or mobility issues, Long Island Cares will deliver emergency food supplies to their homes. The Program dietitians assess and assist patients with resource support programs including ongoing nutrition programs as needed.



As of January 2022, the following measures were observed:

- 5,343 SDoH screenings for food insecurity
- 839 positive screens (14%)
- 110 patients newly enrolled this year

Northwell, Queens County Farm Museum

On National Farmer's Day on October 12th, 2022, a day that pays tribute to hardworking farmers around the country at the height of the harvest season, Northwell Health and the Queens County Farm Museum announced a new community collaborative and strategic partnership to advance our priorities of healthy eating and access to healthy food to curb diabetes, obesity, cancer and improve mental health while serving economically disadvantaged communities and communities of color. This is an unprecedented five-year collaboration with the Queens County Farm Museum which showcases 325 years of farming through educational programming, public events, its farmstand program and local food work. Four key pillars of this strategic partnership include:

Access to agriculture through education

Northwell Health and the Queens farm will create co-branded educational programming and materials to strengthen our community's connection to healthy food and healthy eating.

Farm-to-Table

Northwell will procure farm fresh food from Queens Farm for its patients and staff to reinforce healthy eating. Queens Farm will provide recipes, cooking demos and tastings to complement this work and create a holistic experience around healthy eating for Northwell's community at large.

Volunteer and apprenticeship-based opportunities

The Northwell Health Community Scholars Program will give high school and college students access to the 47-acre working farm. In



addition, a new Student Ambassador program will be created as a service-based model of agricultural training for high school and college students, with the intent of cultivating future leaders, advocates and a green workforce.

All new sensory experience program

The program will be developed with Zucker Hillside Hospital in Queens and Cohen Children's Medical Center in New Hyde Park, as an extension of Northwell's award-winning Bee Mindful Program. This program will serve children with autism and other disabilities and support the development of their socialemotional and independent living skills and self-awareness through seeing, smelling, feeling, tasting and working at Queens Farm.



Center for Tobacco Control

Our Center for Tobacco Control (CTC) provides free cessation services to our community members. The program is facilitated by specialty-trained nurses and nurse practitioners. Its services include individual telephonic or telehealth counseling and coaching, relapse prevention strategies, cessation medications and virtual support groups. Though the pandemic halted in-person services at the CTC, the program effectively adapted to the crisis by expanding its telehealth strategies which have significantly expanded its outreach and footprint, from the east end of Long Island through the five boroughs of New York City, and up to Westchester County.

ionally in the first seven months of 2022, the CTC received 1,390 tobacco cessation referrals from physician practices with 527 enrollments, and 5,929 follow-up encounters. Over 1,000 community members were educated about their eligibility and the importance of lung cancer screening. The CTC also provided 550

Center for Tobacco Control successes:

- 2,060 referrals received
- 802 enrollments
- 9,191 follow-up encounters (from prior enrollments)

education and guidance related to the evidencebased practice of treating tobacco use and dependence. The CTC also guides leaders in the healthcare organizations to develop policies that mandate tobacco dependence treatment for all tobacco users, in both the inpatient and outpatient settings. For more information about the CTC program 516-466-1980, or email tobaccocenter@nortwell.edu.

The Cancer Services Program

The Cancer Services Program (CSP) at Northwell is in partnership with the New York State Department of Health (NYSDOH) Division of Chronic Disease Prevention, Bureau of Cancer Prevention and Control. The NYSDOH has 21 funded contractors across the state, three of which contracts are allocated to Northwell:

- CSP of Staten Island at Staten Island University Hospital (SIUH),
- CSP of Nassau County at Long Island Jewish Hospital (LIJH),
- CSP of Suffolk County at Peconic Bay Medical Center (PBMC)

The mission of the CSP program is to reduce the burden of cancer for all New Yorkers through the implementation of populationbased and evidenced-based strategies across the cancer care continuum, from prevention Since the program's launch we have screened **20,089 uninsured individuals** for cancer.

and risk reduction to early detection, diagnosis and treatment through survivorship. The CSP program's priority population are those disproportionately affected by breast, cervical or colon cancer, or are medically underserved and lack healthcare options. Patients who want to participate in the program need to be New York State residents and must meet minimum age requirements. The program caters to the uninsured and is inclusive of sexual orientation, gender identity, immigration status or physical address.



- Despite the challenges of the pandemic, the CSP programs at Northwell Health met and exceeded all of its deliverables for community outreach and education
- Approximately 9,000 members were educated among the 3 Northwell-CSP programs
- Over 609 education and 1:1 programs were conducted.

Promoting Well-Being and Preventing Mental Health and Substance Use Disorders

Inter-Faith Leaders' Mental Health Forum

Following the pandemic, behavioral health needs soared throughout the nation. We have been determined to enhance access to resources to address the mental health crisis in our communities. Our work in this space has been focused on providing education to increase awareness of mental health issues and reduce associated stigma. We've partnered with our trusted community- and faith-based leaders to develop holistic and equitable community-based solutions to mental health needs such as the Nassau and Suffolk Mental Health Resource List in English and Spanish. We have established models to bring mental health services into the community, and explored innovative solutions to expand access, such as embedding Community Health Ambassadors in houses of worship and community-based organizations.



Dr. Salas-Lopez (center) pictured with faith leader participants at Faith Leaders Forum Part II: An Interfaith Dialogue on Solutions and Next Steps

Recent Accomplishments in 2022

- 3/29: Northwell hosted the "Faith Leaders Forum Part I: Addressing Mental Health Crisis Post COVID-19, " an interfaith dialogue on the mental health crisis in our communities and potential ideas on how to collaborate to address those needs. Over 50 faith leaders of diverse religious faiths and cultures attended from across New York City, Long Island, and Westchester.
- 6/29: Northwell held a Stress First Aid workshop for Faith Leaders to support the self-care needs of over 55 faith clergy.
- 9/28: Northwell partnered with the Mental Health Association of Nassau County to offer Mental Health First Aid (MHFA) in-person with a total of 22 faith leaders.
- 10/19: Northwell partnered with the Association for Mental Health and Wellness to offer MHFA virtually with a total of 12 participants; 7 of these participants were Northwell team members and 5 were faith leaders.
- 11/1: Part II of the Faith Leaders Mental Health Forum. Over 65 FBOs of diverse religious faiths and cultures and CBOs of a variety of sectors attended this event. Discussions were held to gauge what was needed to address the stigma of mental health in their communities and how to bring mental health resources into their places of worship.

Human Trafficking Response Program

Human trafficking is a public health issue that requires cooperation and collaboration between healthcare, law enforcement, community-based organizations and society as a whole. The Northwell Health Human Trafficking Task Force was created in 2018 to assure a population approach to the crisis of human trafficking. The mission of Northwell's Human Trafficking Task Force is to provide a medical safe haven for survivors and those at risk of human trafficking at the local, national and global level and to educate, promote advocacy, respond and train in mitigating this public health crisis. The Task Force has already become a recognized leader in rallying the healthcare industry to combat the social injustice of human trafficking on a local, national and international level. The Task Force has identified team leaders at Northwell hospitals to become experts on the topic, train co-workers and identify potential victims and contribute to best practices. The Task force was recently honored as one of six health systems nationwide and selected to participate in a pilot study by the United Nations through **Global Strategic Operatives for the Eradication** of Human Trafficking (GSO). The study will aid the World Health Organization (WHO) in



creating a standardized set of protocols and guidelines aimed at properly identifying human trafficking victims and helping them find safety.

Signs of human trafficking

Some of the many signs of human trafficking that trainees learn to identify in patients include:

- Sharing a scripted or inconsistent history
- An unwillingness to answer questions about their injury or illness
- Being accompanied by an individual who won't let them speak for themselves
- Being unable to provide their address or identification; and being unaware of their location
- Collectively, the Task Force has had over 8,000 attendees and participants at external educational series and symposiums.
- The Task Force has trained over 7,000 Northwell Health clinical and non-clinical staff members.
- Created community partnerships with the Empowerment Collaborative of LI, Clean State Living, Suffolk County, Anti-Trafficking Initiative, NOMI Networks and RestoreNYC.
- Prepared and distributed human trafficking education materials for the Emergency Department and Labor & Delivery service lines to display within their respective sites and locations.

Combating Anti-AAPI Violence

The pandemic exposed the disproportionate impact of COVID-19 on our communities of color who also experienced a rise in racial tensions and bias attacks fueled by political rhetoric and racism. StopAAPIHate, a nonprofit organization tracking incidents of hate and discrimination against Asian Americans and Pacific Islanders in the U.S., reported 10,905 hate incidents occurring between March 19th, 2020 and December 31st, 2021; this is a 339% increase from 2020 to 2021.

In response, Northwell's cultural Business Employee Resource Group (BERG) Bridges, (an umbrella BERG consisting of the African American/Caribbean, Asian, Jewish, LatinX BERGs and other cultural ambassadors) took action to advance equity, diversity, inclusion and belonging efforts. In partnership with Northwell's Office of Community Relations, the Center for Equity of Care, Human Resources Fair Employment Practices, the Bridges BERG coordinated organization-wide programming to support workforce members and the community to recognize contributions of and increase solidarity and allyship with the AAPI community.

Northwell's Bridges Asian BERG facilitated a variety of programs to raise awareness and advocacy. Last year, for October's Filipino American Heritage month, and the AAPI heritage month in May, we celebrated our AAPI team members in the front lines of the pandemic through our Healthcare Heroes series.

A few additional events we held for our workforce and community members are:

- "Healthcare disparities in AAPIs: How far have we come?": a panel discussion on health disparities, language access for limited English proficient patients, COVID-19, Anti-Asian sentiments and Northwell Health's Dignity and Respect campaign.
- Unraveling Race & Racism Allyship led by the Bridges BERG was implemented during 2020, which led to a larger Let's Talk About Racism series continuing throughout 2021. Each segment discussed racism's impact on their respective communities, available resources and actions. This created a safe forum to discuss racism and effective allyship to overcome adversity.
- Bystander Intervention Training: In 2021, our Asian BERG partnered with Hollaback! to offer Bystander Intervention Training to all team members and their families and friends on how to stop Anti-AAPI and xenophobic harassment and be an ally.
- Corona Conversations within the Black & Brown Community & Stop Asian Hate: a conversation series exploring the complex relationship between the AAPI and Black/Brown communities.

Screening, Brief Intervention, and Referral to Treatment (SBIRT)

The Screening, Brief Intervention, and Referral to Treatment (SBIRT) program is helps identify patients in our hospitals whose drinking or substance use may be interfering with their health before it becomes a lifelong addiction. In the SBIRT program, adults who visit a participating healthcare setting are pre-screened during their visit with questions relating to their drinking, smoking and drug use. If they meet a certain threshold based on that pre-screening, the patient is connected with a health coach for further assessment. Based on that interaction, patients may receive a brief motivational and awarenessraising intervention and, if necessary, a In five years, Northwell Health has assessed more than **300,000** patients for substance misuse and addiction through the SBIRT protocol

referral for treatment. The program promotes compassionate engagement with patients to identify potential issues. This helps reduce the stigma often associated with drug addiction and alcoholism and helps connect patients to the right treatments at the right time.



Promote Healthy Women, Infants, and Children

Northwell's Center for Maternal Health

In the Spring of 2022, we launched our Center for Maternal Health to address the disproportionate rates of pregnancy-related health risks and maternal deaths among Black women. Black women in New York are three to 12 times more likely to die of childbirth-related causes than white women. The Center is a suite of programs through our sites to support highrisk women in and out of the hospital and to train clinicians on best practices. It will strive to establish a truly integrated best practice care model, going further upstream in care delivery, for our high-risk maternal patients in the community.

The initiatives of its programs are focused on providing ongoing support to our highest risk mothers and newborns through individualized navigation by a team of healthcare professionals. The Center will address the causes of disparities in maternal health by addressing outcomes for all birthing patients through its Maternal Mortality & Severe Maternal Morbidity (SMM) Review Committee. It will focus on improving maternal health within our communities by establishing a Patient and Family Advisory Council with members that have a lived experienced with maternal morbidity and mortality. The reach the most in need, the Center will also work with community-based organizations, to connect women in medically underserved communities to our maternal health services.

A few additional events we held for our workforce and community members are:

- Improve Northwell's workforce knowledge of the impact of structural racism and implicit bias
- Further investigate the increased prevalence of comorbidities in **Black women**
- Address inherent underlying preeclampsia rate in Black women
- **Address increased Cesarean** delivery rate in Black women
- Explore challenges in access to care (underinsured, lack of trust, limited provider choices, language, and literacy)
- **Explore every maternal death to** identify factors that can be modified to prevent future tragedies



Truly Integrated/Best Practice Care: Need to Bring

Northwell's Affiliation with Walgreen, Co.

In March 2019, we began conversations with Walgreens to explore potential collaborative opportunities. In July 2021, Northwell and Walgreens entered into an enterprise affiliation agreement to work together on our shared goals of improving the health of the communities we serve. Our collaboration allowed us to develop innovative healthcare models and services and find strategies to reduce costs of healthcare by working to improve the delivery of retail health services to access, quality, satisfaction and efficiency of care.

This past year, and as part of our efforts to address the disparities in maternal mortality and morbidity, our Obstetrics & Gynecology service line and our Office of Community and Population Health, worked with Walgreens to launch a Low Dose Aspirin Distribution initiative for moms at risk of preeclampsia. Preeclampsia is a condition of persistent high blood pressure during pregnancy. Preeclampsia is one of the main drivers of pregnancy-related deaths among non-Hispanic Black women representing 11.6% of deaths among Black maternal patients; in stark contrast to 5.2% of deaths among White maternal patients.

This summer, and with the support and donation of Walgreens, we began distributing 1,000 bottles of Low Dose Aspirin and preeclampsia education materials to high-risk expectant women in four of our clinics.

- LIJ Medical Center in New Hyde Park
- Center for Women's Care in Great Neck
- Long Island Jewish in Forest Hills
- Center for Women's Health in Staten Island

As of November 2022, we dispensed low dose aspirin to **221 maternal patients** at risk of preeclampsia.







Northwell Health Obstetrics and Gynecology

how sick you can get from it.

Speak to your provider to see if you are at risk.

Northwell Health

EDUCATION ON PREECLAMPSIA

 Preeclampsia is persistent high blood pressure that develops during or right after pregnancy that can affect many of your body's organs.

Low dose aspirin can prevent early onset of preeclampsia and decrease





Katz Institute for Women's Health

The Katz Institute for Women's Health, a resource center dedicated to improving all aspects of a woman's health at every stage of her life. KIWH offers women seamless, coordinated access to all Northwell Health's clinical programs and services across the continuum of care.

Go Red for Women

Go Red for Women is a national movement by the American Heart Association (AHA) to end heart disease and stroke in women. Cardiac conditions such as heart attacks manifest differently for women than men. In a 2012 American Heart Association study, 56% of women identified heart disease as the leading cause of death compared to 30% in 1997. Fewer women than men survive their first heart attack. Hispanic women are also likely to develop heart disease 10 years earlier than white women, and cardiovascular diseases are the leading cause of death for African American women, killing 48,000 annually.

Northwell, through the Department of Cardiology and the Katz Institute for Women's Health, partners with the AHA to raise awareness and empower women with knowledge on the prevention, recognition and treatment of cardiovascular disease, including stroke. Northwell Health is a proud Live Fierce. Go Red Sponsor in New York City, Long Island and Westchester. This year, and throughout February the Go Red for Women campaign held over 25 health promotion events throughout Northwell Health's network of providers, to raise awareness, promote heart health and offer free and accessible preventive services, such as blood pressure screenings, education seminars, wellness sessions, lunch and learn sessions and exercise events.



Women's Heart Health Program

In partnership with Northwell Health's Katz Institute of Women's Health (KIWH), Northwell Health's Department of Cardiology established a Women's Heart Health program, specifically for the purpose of providing staff development, training and education to clinicians who provide sex and genderspecific cardiovascular care to the patients we serve; The program is composed of clinical experts and leaders of all regions within Northwell's service area. Northwell Health's Department of Cardiology identifies clinicians that are then certified by the Katz Institute for Women's Health to become clinical providers as part of the Women's Heart Health program. The program serves as the central source for all education and training for sex- and gender-specific cardiovascular health and treatment. The program holds monthly lectures and trainings for all levels of faculty, along with the "Women Heart" conference that functions as a journal club, where complex cases of sex and gender-specific cardiovascular care are reviewed. As part of the program, clinicians are trained through grand rounds for approximately 40 weeks of the year where sex- and gender-specific cardiac cases are specifically selected for review; the latest speaker for the conference discussed the differences in cardiac care for women. specifically related to heart failure.

Northwell Cancer Institute's Center for Cancer, Pregnancy, and Reproduction

Although cancer during pregnancy is rare, occurring at about 1 per 1,000 pregnancies, its treatment is a complex challenge requiring specialized expertise. The Northwell Cancer Institute's Center for Cancer, Pregnancy, and Reproduction connects pregnant patients with cancer to highly trained experts from a variety of fields, including maternal-fetal medicine (high-risk pregnancy), medical oncology/ hematology, surgical oncology, neonatology and reproductive endocrinology (fertility).

This multidisciplinary team provides treatment that is individually customized for mother and baby, providing a personal nurse navigator for all patients, so that care is coordinated across all specialties within Northwell.

Specialized resources from the Center are:

- Nutrition support: A registered dietitian provides individualized nutritional guidance and support for women going through chemotherapy and other cancer treatment.
- Counseling: Our clinical social workers provide compassionate support and counseling to patients and their families. If needed, psychologists and psychiatrists are also available.
- Peer support: We connect women in small groups to share their experiences and find support from others who understand what they're going through.
- Breastfeeding advice and assistance: Our doctors provide guidance regarding the safety of breastfeeding after cancer treatment. When breastfeeding is an appropriate choice, our lactation counselors help new mothers feel comfortable and competent as they establish and maintain lactation.
- Financial assistance: Our support staff can assist pregnant patients in getting health insurance if they are not already covered. In some cases, other forms of assistance may also be available.



Northwell Community Scholars Program

As part of our commitment to our youth, we launched the Northwell Community Scholars (NCS) Program, an innovative youth education and scholarship program to create a pathway to college and future employment for adolescents of underserved and underrepresented communities in our service area. This is a five-year, \$5 million effort that will focus on mentorship and support for students from school districts in four vulnerable neighborhoods burdened by health and social inequities: Bay Shore and The goal is to expand the Community Scholars Program to **600** students by 2026

Brentwood in Suffolk County, and Hempstead and Freeport in Nassau County. The program is also in partnership with Nassau and Suffolk Community Colleges. The program addresses education, health and wellness and social inequities prevalent in these neighborhoods that were hard hit by the pandemic. The program will support students with continued growth and development, mentorship, college preparation, career advisement and internship and shadowing opportunities. Northwell members will also mentor students about employment opportunities within the organization, educating students on careers in clinical services, health administration, information technology, operational support and care coordination.

The Scholars program will have two parts:

- Students who are college-bound in the fall: A total of 88 students are receiving awards of up to \$19,000 in scholarships to obtain two-year associate degrees or certificates at Nassau and Suffolk counties' community colleges. The scholarships will be administered through the Long Island Community Foundation and will reimburse up to 85% of tuition and cover the cost of books, transportation, food and other wraparound services.
- High School sophomore students entering the career pathways program: Northwell will support 40 sophomore students with mentorship and shadowing opportunities and increase their awareness of careers they can go into at Northwell. In their senior year of high school, they will be eligible to receive college scholarships as well. Once the students graduate from college, they will be equipped to apply for career opportunities at Northwell and our partner organizations

FutureReadyNYC

In 2022, Northwell became a partner with the New York City Department of Education (NYC DOE), as part of its FutureReadyNYC program. The FutureReadyNYC is a program that will grow career-connected learning and allows students to get early college credit, real-world skills and paid work experiences in high-growth fields like healthcare, technology and education is a program recently launched by the New York City Department of Education.

Northwell Health has joined the initiative as the first Student Pathways anchor employer partner for New York City Schools, providing up to 150 internships to 12th graders this school year.

Northwell will also advise and help ensure the program's curriculum meets employer standards while employees participate in student-learning days at four high schools to give students meaningful, career-connected learning from healthcare professionals.

As an anchor employer partner, Northwell will also increase student exposure to the healthcare industry, provide opportunities for students to explore career experiences, and participate in career-connected learning days to directly support student instruction in four high schools:

- Hillcrest High School
- The Urban Assembly School for Emergency Management
- The High School for Health Professions and Human Services
- The International High School for Health Sciences



Center for Gun Violence Prevention

Gun violence is a public health crisis traumatizing communities and killing more than 40,000 Americans nationwide. The effects of gun violence disproportionately impact communities of color. For young Black men, gun violence is the leading cause of death, more than the next nine leading causes of death combined. Firearms are also the leading cause of death among children in the U.S..

The goal of Northwell's Center for Gun Violence Prevention is to reduce gun violence so that it is not a driver of hospital admissions for injuries or deaths. The Center is charting a public health approach to end gun violence for our patients, families and our communities. It is investing in gun violence research, developing best practices for hospitals, and mobilizing a national coalition of healthcare leaders to depolarize gun safety.

The Center for Gun Violence Prevention will:

- Partner with key internal/ external stakeholders to prevent gun violence in targeted communities
- Develop and implement Community and School-Based Education Programs
- Collaborate with Community-Based Organizations and Faith-Based Organizations
- Partner with law enforcement and responsible gun owners

GUNS ARE NOW THE LEADING CAUSE OF DEATH FOR KIDS

RAISING FIREARM SAFETY AWARENESS WE ASK EVERYONE

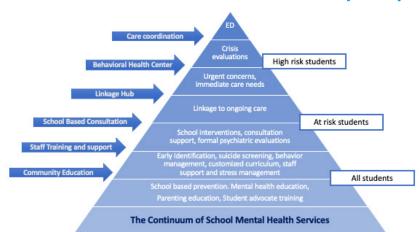
Northwell School Mental Health Partnership: A School District Collaborative

One in five children and adolescents have a mental health diagnosis. Suicide is the second leading cause of death among the 10-24-yearold age group, more than all medical illnesses combined. In early 2021, ER visits for suicide attempts increased by 51% in adolescent girls. In late 2021, the American Academy of Pediatrics, the American Academy of Child and Adolescent Psychiatry and the Children's Hospital Association, declared a national youth mental health crisis. The U.S. Surgeon General also issued a Youth Mental Health Advisory. Our current state of youth mental health makes it necessary for organizations to partner and collaborate and find integrated solutions to help provide access to mental health services for children and adolescents.

The Northwell School Mental Health Partnership is a new initiative between Cohen Children's Medical Center and surrounding school districts, organized to support schools meet the mental health needs of all students. Northwell's teams work closely with school

SUPPORTING MENTAL HEALTH THROUGH SCHOOLS

Partnering with 38 School Districts to Provide Behavioral Care Services and Access to Child Psychiatry



counselors, psychologists and social workers to help determine the various needs of students in the district.

The initiative also provides access to a dedicated Behavioral Health Center (BHC) for students in crisis, in need of an evaluation, immediate treatment or connection to care in the community or at a hospital. The BHC is operational at Mineola, serving the North Shore Mental Health Consortium (Carle Place, Great Neck, Garden City, Herricks, Jericho, Locust Valley, Manhasset, Mineola, Roslyn, Sewanhaka and Uniondale,) in Rockville Centre serving the South Shore Mental Health Consortium (East Rockaway, Freeport, Hewlett-Woodmere, Lawrence, Malverne, Oceanside, Rockville Centre, Valley Stream CHS and West Hempstead) and in Commack serving the Suffolk Consortium (Commack, Half Hallow Hills, Hauppauge, Sachem, Smithtown and South Huntington). The services in these sites can be accessed by families directly as well as through referrals from their schools, pediatricians or outpatient providers. The partnership also provides community and professional education and close collaboration between the clinical and administrative teams of the participating districts and the Northwell team.

2022-2023 School Year

- Adding school refusal program
- Adding short term suicide crisis program
- Increasing care coordination

Recent Accomplishments

- Our partnering districts after joining the partnership sent 60% fewer students to our ED's
- Starting a parent advisory council to increase community engagement and education
- Grant Awards:
 - \$100,000 New York State Grant (sponsor Senator Kaminsky)
 - \bullet \$150,000 UJA Grant for increasing services and education

Social Health Alliance to Promote Equity (SHAPE)

Started in 2016, the Social Health Alliance to Promote Health Equity (S.H.A.P.E.) started as a pipeline program for under-represented college students that trains them as Patient Navigators. The program partnered with local colleges and universities (Adelphi, St. John's, Queens College, Hofstra, etc.) to recruit students from NYC and Long Island enrolled in healthcare related majors. Benefits for the patient navigators include skill building, shadowing and mentoring opportunities with clinical staff, CV development, and participation in a social network with other like-minded peers. The program strongly encourages students of diverse backgrounds who have been historically underrepresented to apply, as well as bilingual candidates. This ensures Patient Navigators reflect the patient population being served. The program took place at two adult medicine sites and one pediatric clinic site. As of 2022, the program is only taking place at the general pediatric clinic. As of May 2022, the patient navigator workforce has transitioned from undergraduate and graduate students to mainly gap-year research students, with one post-graduate student remaining on board. Patient navigators undergo a one-week training to acclimate them to the screening tools, data management systems, partner community organizations and clinic settings and procedures.

Northwell Health Physician Partners LGBTQ Transgender Program

According to the Trevor Project, transgender youth report higher rates of depression, suicidality and victimization compared to their cisgender peers. Northwell Health's Center for Transgender Care provides comprehensive, culturally competent services to address many of the health needs of trans and gender nonconforming patients in our community. The Center offers primary care, immunization, HIV prevention, (PrEP) and treatment, screening for sexually transmitted infections and endocrine evaluation (evaluation and treatment with hormone replacement therapy or puberty blockers). The Center also provides psychotherapy services specifically around gender transition challenges, health and sexuality education, risk reduction counseling and surgical specialty care for gender-affirming surgery (i.e., transitioning). Transgender patients deserve better care and Northwell is committed to training providers to understand their unique needs to deliver gender-affirming and compassionate care.



Our Ongoing System Initiatives

Access to Care for the Underserved Financial Assistance Program (FAP)

In accordance with current policy at Glen Cove Hospital and for all Northwell Health facilities and services, the ability to pay will not be a factor in the process of accepting patients. Every effort will be made to ensure that appropriate payment is made, but in no circumstance will a patient be refused medically necessary treatment due to inability to pay. In addition to our generous Financial Assistance Program that is available to patients and their families with household incomes under 500%, Northwell Health has a sliding fee scale program offering services at a reduced fee. All services will be offered to those in need of care who satisfy admission requirements, regardless of age, sex, sexual orientation, race, creed, religion, disability, source of payment or any other personal characteristic.

Northwell Health is dedicated to providing accessible and affordable care to the individuals, families and communities we serve. Through our financial assistance program, we provide discounted services — based on financial need — to those who are uninsured, underinsured, ineligible for government programs or other third-party coverage or otherwise unable to pay for emergency or other medically necessary care. The program is designed to help patients who have received emergency or other medically necessary services but are uninsured, underinsured or have exhausted their benefits for a particular service. Eligibility of the program is based on current income and family size (i.e.: less than or equal to \$138,750 for a family of four).

The program is promoted through:

- Multilingual signage throughout Northwell facilities
- Multilingual educational brochures at key points of patient contact
- Northwell's Financial Assistance Programs & Policies website
- Patient bills all bills include a notice about the FAP, along with the program's toll-free number 800-995-5727

Additionally, the application process for financial assistance is simplified; patients can apply online for the fastest turnaround time. Application by mail and telephone is also accepted. Applications are simplified to one page and are also available in 22 languages.

MedShare

Northwell Health partners with MedShare, an organization that recovers valuable, unused surplus medical supplies and equipment in the United States, which would otherwise be discarded. This past year 1.67 million pounds of quality and unused medical supplies and equipment were successfully diverted from landfills. This partnership successfully bridges the gap between surplus in the U.S. and healthcare institutions in developing countries, which have a significant need for medical supplies and expertise. Over half of Northwell Health Hospitals and the Integrated Distribution Center provide donations, including beds, biomedical equipment and other assorted medical supplies. In 2020, Northwell Health donated more than 59,000 pounds of unused medical supplies and equipment; and in 2021, Northwell Health donated more than 120,000 pounds of unused medical supplies and equipment.



These donations achieve multiple objectives, especially for women and children in vulnerable communities:

- Decrease global health disparities
- Increase the capacity to effectively care for more women and children in local health care systems
- Strengthen global health systems
- Improve health outcomes at the institutional and community level
- Save lives and increase the capacity to deliver quality health care

Employee Programs

Business Employee Resource Groups (BERGs)

At Northwell, embodying the values of diversity, inclusion and health equity from within, is key to advancing our mission to improve health and well-being. That is why we have leveraged national best practices in creating employee networks to help make our organization a better place to work and receive care. Northwell's Business Employee Resource Group (BERG) program was established to enhance engagement, innovation, talent development and promote an inclusive culture ensuring the delivery of culturally sensitive quality patient care. As a Northwell's BERGs contribute to providing high quality patient care and community wellness by advancing the following:

- Improve Northwell's workforce = Employee engagement
- Enhancing talent recruitment, retention and development
- Serving as ambassadors to internal/ external communities

platform for workforce networking, BERGs are a national best practice and are aligned with goals and objectives of our organization.

Below are Northwell's BERGs that contribute to the health and well-being of our team members and our communities at large:

Bridges: Brings together employees passionate about cultural diversity, and embracing relationship building with diverse communities, through understanding and supporting the cultural, spiritual and ethical values of the communities we serve. Bridges BERG has teams focused on Asian, Black, Jewish and LatinX communities.

Expressions: Bringing together team members of the LGBTQIA+ communities and their allies who are passionate about promoting unity and health equity. The Expressions BERG is dedicated to raising awareness of LGBTQIA+ issues through education and development activities to foster a safe and inclusive environment. The Expressions BERG also works to sustain national recognition for Northwell Health as a LGBTQIA+ leader.

VALOR: The mission of VALOR (Veterans and Allies: Liaisons of Reintegration) is to engage and positively impact military personnel, veterans and their family members through community reintegration. Teams work with service members to connect them with resources that support their physical and psychological well-being, as well as our talent development and recruitment programs.

GreenBERG: Members of the GreenBERG are focused on the environmental impact of Northwell's operations. They leverage sustainable and social responsive initiatives to advance health and environmental equity among our organization and in our communities.

Women in Health Care: Team members connect and inspire women by providing opportunities for advocacy, community service and development. Team members are committed to mentoring and developing women leaders at all levels within Northwell, including the executive level.

Caregiver: Brings together members who may be caregivers and provides support by sharing resources to help foster a workplace environment designed to lighten the load and ease the stresses of caregiving.

N-Able: team members of this BERG are committed to connecting individuals with disabilities to the right healthcare resources and services. Team members also educate their peers and the community at large around issues of acceptance and inclusion.

Donate Life: Team members of this employee network help to inspire others to give the gift of life through organ, tissue and eye donation. They raise awareness among colleagues and the wider community to ultimately increase organ donor registrations in New York State.

Northwell Health HR Employee Wellness Challenges

Each year, Northwell's HR Employee Wellness team coordinates an organization wide virtual walking step challenge to promote physical activity and wellness amongst our workforce. In 2022, Northwell's annual system-wide step-based physical activity was entitled "Walk Across Asia." Employees who joined the initiative could form teams of six and participate in a virtual journey of over 2 million steps across six destinations. All teams of 6 who reached their final destination would qualify to win a cash prize of \$5,000 and Northwell's myRecognition points that are redeemable for lifestyle gifts. In addition, the health system continues to promote site-specific walking challenges, and promotes videos for exercise and movement in its Northwell Employee Wellness YouTube channel.

Center for Wellness and Integrative Medicine

Northwell Health's Center for Wellness and Integrative Medicine is an educational wellness and retreat center dedicated to the health and well-being of the mind, body and spirit. The Center's offers access to resources and services that promote health, mindfulness and well-being for patients and team members. It is composed of multidisciplinary staff that includes a holistic nurse practitioner, massage therapist, acupuncturist, reflexologist, nutritionist, certified yoga instructors and integrative health professionals. It also works with community organizations, local schools, clinics and healthcare institutions to broaden its services.

Walk across

Explore the beauty and diversity of Asia as we take two million steps and unlock new destinations, well-being tips and healthy recipes.

Oct. 3 - Nov. 13

First 5,000 team members to register will automatically win a prize.



Made for this

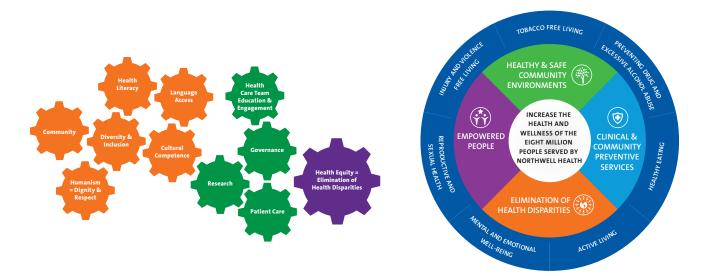
Center for Equity of Care

The Center for Equity of Care (CEC) focuses on redesigning Northwell's healthcare delivery, to provide high-quality equitable care to all our patients and the communities we serve. The CEC is focused on eliminating healthcare disparities through a focus on diversity, equity and inclusion. The CEC's mission is to advance the delivery of culturally and linguistically appropriate healthcare in partnership with our communities with the goal of achieving health equity. To do this, the CEC establishes policies, procedures and programs, in addition to training our Northwell team members. In partnership with others, some of our programs include a robust health literacy and language-access program, the establishment of the Hofstra/Northwell medical-legal partnership, a system-wide social determinants of health screening and navigation program. The CEC has educated and trained our workforce on issues such as diversity & inclusion, unconscious bias, racism, social justice, health literacy and cultural and linguistic competencies. Through these trainings, we have created culturechange to establish a healthcare system that aims for belonging and social justice. Alongside our

programs and trainings has been CEC's efforts to empower our patients & communities to be partners in their care. Collectively through these endeavors, the CEC has been Northwell's impetus in mitigating health disparities across race, ethnicity, language, sex and gender.

Effective Communication in Healthcare

The Center for Equity of Care is a system wide resource and offers numerous educational opportunities to ensure the integration of cultural and linguistic competency into the fabric of the organization. To ensure meaningful access to healthcare services for persons with Limited English Proficiency (LEP) or persons whose preferred language is other than English, free medical interpretation and document translation services are available 24/7. Sign language interpretation services for the Deaf/Hard-ofhearing, as well as specific communication tools for visually and speech impaired patients are also available. For more information, please call the Center for Equity of Care at 516-881-7000.



Military Liaison Services

It is Time for "Thank You for Your Service" to Mean More

Year over year, approximately 200,000 service members transition from active duty with only an average of 30% of the annual military end-of-service discharges qualifying for some form of VA healthcare coverage; the remaining 70% receive coverage through Tricare for only 90 days post-discharge. As a direct response to the ongoing needs of active-duty personnel, veterans and their families, we established the Northwell Health Military Liaison Services (NHMILS) department in 2021. In keeping with its tradition for the past sixteen years, Northwell Health is helping to ease the burdens for those who have sacrificed tremendously to safeguard our nation; NHMILS encapsulates administrative, social and clinical services and support for our nation's heroes under one roof. The change will be ongoing through 2022, strategically standing a new service line dedicated to supporting Northwell Health's clinicians and partners in the community.

Caring for service members and their loved ones extends far beyond behavioral health. As the largest healthcare provider and private employer in New York State, Northwell Health is uniquely positioned to meet these challenges

The NHMILS is organized into three (3) Foundational Pillars:

- Exceptional Care Utilizing a proactive holistic approach to care coordination, licensed master social workers connect to service members, Veterans, and their families and offer additional support post-discharge; aspects of care routinely covered include but are not limited to patient transfers, critical care, pre-surgical testing, appointment coordination and scheduling and conducting needs assessments,
- Life After Service Reimagining how veterans thrive when they return home from active-duty, Military Talent is assisting Talent Acquisition with an additional 100 Veteran, service member and spouses new hires per year by conducting one on one career planning sessions and advocating with recruiters and hiring managers on their behalf, and
- Innovation Advancing research and discovery to treat our heroes, in close partnership with the Feinstein Institute for Medical Research and the Center for Learning and Innovation, NHMILS works to ensure that every physician across Northwell's system is prepared to fully understand and care for the needs of Veterans and their families.

head-on. We provide leadership development, support for military families, advocacy for veterans, physical services and employment opportunities. Applying the Community Care Coordination Model to strengthen the privatepublic partnership between Northwell and the VA, we can address the social determinants of health of Veterans and their families and schedule all aspects of clinical and behavioral services.

Furthermore, enveloping existing services, programs and processes under the umbrella of the Community Care Coordination Model, NHMILS can support ongoing programs and efforts including SkillBridge (DoD "Career Skills" program) and Pay Differential Programs. Moreover, the development of the "Side by Side" series has added value to both the Veteran population and the community as a whole; this two-part event provides an opportunity, that is open to the general public, to honor and celebrate our military, and an evening ticketed concert that applies all revenue captured to support our Military Liaison Services. We launched this yearly event in 2019 and over the years, we connected with all the communities we serve in NYC and Long Island, and our efforts have been recognized by national publications and the NY Emmy's for Content. The collective efforts across the organization have earned Northwell awards in 2022 to include Military Friendly Top 10 Company, Military Friendly Top 10 Employer, Military Friendly Top 10 Spouse Employer, Military Friendly Supplier Diversity Program and Military Friendly Brand.

Health Solutions

Northwell Health Solutions supports our providers to care for patients with complex medical conditions and social needs, as well as the challenges of navigating access to healthcare resources. The Health Solutions team supports our patients in navigating the challenges of accessing healthcare resources and coordinating care in our clinically integrated delivery network.

Health Home

Northwell Health's Health Solutions also oversees the organization's Health Home program. Northwell's Health Home is an NYS Medicaid program for patients with 2 or more chronic medical conditions that are susceptible to poor outcomes. A 'Health Home' is not a physical place but rather a group of healthcare and service providers working together to make sure members get the care and services they need to stay healthy. Once enrolled in a Health Home, each member will have a care manager that works with him/her to develop a care plan. A care plan maps out the services needed, to put the member on the road to better health.

Some of the services may include:

- Connecting to healthcare providers
- Connecting to mental health and substance abuse providers
- Connecting to needed medications
- Help with housing
- Social services (such as food, benefits and transportation) or
- Other community programs that can support and assist members

Health Home's CMPA Program

The Care Management Peer Assistant (CMPA) (previously known as the Community Health Workers) role transitioned to a completely remote workforce protocol since April 2020 due to COVID. We have also seen a year-overyear increase in the productivity of services. We can track the services provided by the CMPAs and measure their outcome. CMPAs have proven to be an asset to the organization, have become fully engaged, and are an integral part of the healthcare delivery model for Health Home members. In addition to services provided for Health Home patients, CMPAs provide support specific to relieving the SDOH burden such as:

- Connecting members to services post-ED visits as part of the Care Transitions process
- Accompanying members home post discharge from mental health admission as part of the ZHH Rapid Transition program
- Assisting members in maintaining/reestablishing Medicaid active status

Environmental Sustainability

As an industry, healthcare contributes to more than 4.4% of net global climate emissions. If healthcare was a country, it would be the 5th largest polluter on the planet. If left unchanged, healthcare emissions will more than triple by 2050. Climate changes impact the health of our communities by exacerbating respiratory conditions, causing fatalities from extreme weather events, heat and infectious and vectorborne diseases. Our climate crisis is also a health equity crisis. While climate change presents health threats for all of us, marginalized and vulnerable populations such as people of color, the elderly, children and lower-income communities, all face disproportionate risks due to societal inequities. Northwell Health is committed to improving the health and wellbeing of the communities we serve in the most socially responsible way. From an environmental standpoint, this means helping to mitigate the impacts of climate change and reducing our carbon footprint.

In May 2022, Northwell established an Environmental Sustainability Committee (ESC), with the main objective of coordinating sustainability best practices and green initiatives across our health system, to improve the lives of our patients, team members and communities.

The Committee's approach is guided by the following framework:

Mitigation:

 DECARBONIZATION — reduce emissions across Northwell's entire facilities portfolio through energy efficiency, renewable energy and behavioral changes

Resilience:

- PREPAREDNESS preparing for the impacts of climate change by building resilient healthcare systems that serve as anchors for healthy, sustainable communities
- HEALTH EQUITY Develop clinical best practices in the prevention and management of diseases amplified by climate change, and establish community partners to build climate-resilient infrastructure and programming

Leadership: Advocating for climate-smart policies at all levels of government, and acting as critical messengers for communicating the health impacts of climate change

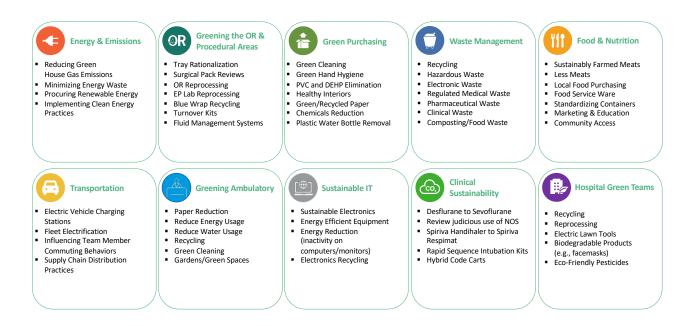
Through the coordination and oversight of the ESC, Northwell is actively leading several sustainability initiatives across the health system that will positively impact our communities and how we deliver healthcare. Organizational sustainability initiatives include:

- Resource conservation
- Waste prevention and reduction
- Efficient waste sorting
- Robust recycling
- Single-use device reprocessing



These initiatives have a meaningful impact on our environment. For example, in 2021, almost 200 tons of cardboard were diverted from landfills through Northwell Health's Integrated Distribution Center Cardboard Recycling Program.

A comprehensive set of our sustainability initiatives are below:



Our organizational commitments towards environmental sustainability are informed by, and in alignment with, our nation's priority to reduce the healthcare sector's impact on climate change. On Earth Day 2022, the U.S. Department of Health & Human Services and the White House issued a call to action to the healthcare sector to reduce its greenhouse gas emissions and increase climate resilience. Additionally, on September 2022, the Committee on Ways and Means of the United States House of Representatives held a hearing in Washington D.C. entitled "Preparing America's Health Care Infrastructure for the Climate Crisis" and issued a Request for Information (RFI) soliciting input from 12 healthcare organizations regarding their work to combat the climate crisis. The request sought

Northwell gained national recognition by signing the pledge on June 3rd, 2022, and committing to the following sustainability goals:

- Reduce organizational emissions (Scopes #1 and #2) by 50% by 2030
- Achieve Net-Zero by 2050
- Share publicly our strategies for reducing on-site emissions
- Designate an executive-level lead for our work on reducing emissions
- Conduct inventory of Scope 3 (supply chain) emissions by the end of 2024
- Develop and release a climate resilience plan for continuous operations by the end of 2023, anticipating the needs of groups in our community that experience a disproportionate risk of climate-related harm

feedback from organizations that were viewed as "early adopters" of efforts to address climaterelated issues. Northwell Health, viewed as a climate innovator, was one of the 12 health systems to receive and respond to the RFI. Over time, sixty-three providers from across the country and 13 trade associations representing members across the care continuum provided insights to the Ways and Means Committee about how they are preparing for extreme weather events and reducing their carbon footprint to produce a healthier America. The Committee's key findings from the RFI process were that legislative action is required to urge decarbonization.

Climate change is one of the greatest threats to human health today. Our most vulnerable community members are facing the greatest

Northwell's pledge to achieve net zero by 2050 will be facilitated by efforts such as these

- Invest in zero-emissions buildings & infrastructure
- Transition to zero emissions, sustainable travel, & transport
- Provide healthy and sustainably grown food
- Implement sustainable waste management

risks. The Office of Community and Population Health partnered with the Office of Sustainability to give trees to community and faith-based organizations within our communities of focus. These organizations were given trees as part of our 'trees for babies' program to increase the canopy of trees in these communities. Uncontrolled climate change will continue to exacerbate the global burden of disease and health inequities, increase healthcare costs, and overwhelm the public health infrastructure. Led by our Environmental Sustainability Committee, Northwell is committed to reducing its carbon footprint and waste in all forms and expanding access to equitable high-quality healthcare in a socially responsible and sustainable way, so that we can 'Raise Health for All!'



Donald & Barbara Zucker School of Medicine at Hofstra / Northwell

The Donald and Barbara Zucker School of Medicine at Hofstra/Northwell was established in 2008 and founded by two equal partners: Hofstra University and Northwell Health. The school is built upon the strong clinical and graduate medical education programs of Northwell, as well as the robust research and academic programs of both Hofstra and Northwell's Feinstein institute of Medical Research. The Zucker School of Medicine has been recognized among the top medical schools nationwide for medical research and enrolls a diverse community of over 400 students. This past year, the School of Medicine (SOM) received the 2022 Health Professions Higher Education Excellence in Diversity (HEED) Award for INSIGHT into Diversity magazine, the oldest and largest diversity-focused publication in higher education and was ranked as one of the top colleges for diversity.

Zucker School of Medicine Office of Pipeline Programs

The Office of Pipeline Programs is an offering of Zucker School of Medicine Office of Diversity and Inclusion, which oversees several distinguished programs focused on serving medical students and high school and college students from the community. The Office supports these programs by organizing learning sessions, experiences and events.

The Office of Pipeline Programs supports the following programs for the SOM:

- Medical Scholars Pipeline Program (MSPP): The program is in its twelfth year of existence and provides an educational pathway for students underrepresented in medicine from the five boroughs of NYC and Nassau County, to enter the healthcare professions. In 2018, the program was expanded to students in Suffolk County. The MSPP is in collaboration with the Gateway to Higher Education Program at City College.
- College Pipeline Program: The SOM-CPP program is to enhance the matriculation of underrepresented and economically disadvantaged students to the Zucker School of Medicine. The three-year summer intensive academic enrichment program is designed to provide high achieving college students who are interested in a career in medicine an opportunity for direct matriculation to the Zucker School of Medicine
- Medical Science Youth Program (MSYP): Created in 2017 in partnership with the Gaining Early Awareness and Readiness for Undergraduate Program (GEAR UP Program) at Nassau Community college. Goal of the program is to provide college and career readiness for students from lowincome areas with a poverty level of 50% or higher. The MSYP program is designed to connect the SOM with K-12 students in surrounding community through mentorships and foster an interest in a career in medicine.
- Healthy Living Long Island Program for third graders: Created in 2018 in partnership with medical students in the Community Service Club of the SOM and the principal at the Barack Obama Elementary School in Hempstead, New York. The program is a model on how to teach children healthy lifelong habits from an early age.

ENHANCE: ENgaging in Health Advocacy through Neighborhood Collaboratives and Education

The SOM's ENHANCE track was formed in 2018 and is a joint 2-year track for Northwell residents in internal medicine, pediatrics, family medicine, interested in learning more about how to evaluate populations by partnering with CBOs to improve the health of those populations in the community. The vision of the ENHANCE track is to build the skills of internal medicine. pediatric and family medicine residents in population health, social determinants of health and community engagement, preparing them for leadership roles in medicine. The track has three main components: 1) Professional Development, 2) Systems-based practice/quality improvement at the population level, and 3) Community Engagement. The program is in partnership with the Child Center of New York, Interfaith Nutrition Network (INN) and the Glen Cove Senior Center.

Medical-Legal Partnership (MLP)

The Medical Legal Partnership (MLP) is a collaboration of the Gitenstein Institute for Health Law & Policy, the Maurice A. Deane School of Law and Northwell Health. The program provides legal services for Northwell patients facing adverse social determinants of health and legal issues that contribute to poor health, such as unsanitary housing conditions, denial of health benefits, immigration issues, domestic violence, access to healthy food and water, lack of consistent or affordable childcare and other factors that stand in the way of achieving good health outcomes for individuals and communities.



Hofstra Northwell School of Nursing & Physician Assistant Studies (SONPAS)

The Hofstra Northwell School of Nursing & Physician Assistant Studies (SONPAS) aims to be the global leader in interprofessional education preparing the next generation of healthcare professionals. The School of Nursing and Physician Assistant Studies incorporates the diverse academic programs and infrastructure of Hofstra University, and the significant clinical activities and educational resources of Northwell Health. Hofstra's SONPAS will graduate its first 19 doctoral graduates with 4 implementation projects focused on SDoH factors, including access to care, health literacy and mortality. Additionally, SONPAS is leading its DEI efforts through the IDEALS grant. IDEALS stands for: Inclusion, Diversity, Equity, Access, Leadership and Success. The IDEALS program is a set of initiatives funded by a 4-year, 2.1 million-dollar HRSA Nursing Workforce Diversity Grant.

Key highlights of its DEI initiative through this program are highlighted below.

- Creation of a Long Island chapter of the National Black Nurses Association (NBNA)
- Creation of a Long Island chapter of the National Association of Hispanic Nurses (NAHN)
- Creation of a Hofstra Northwell Chapter of the American Association of Men in Nursing (AAMN)
- Creation of a Truth in Racial Healing and Transformation (TRHT) Campus Center (Truth, Racial Healing & Transformation (healourcommunities.org))
- Joint Faculty/Admin DEI committee with the PA Program
- Nursing collaboration with the Medical School via the Medical Scholar's Pipeline Program
- Nursing collaboration with the Center for Educational Access and Success via the Science and Technology Entry Program (STEP) Saturday Scholar's
- Navigating Your Journey to Success Nursing Pipeline (student outreach program to Uniondale, Baldwin, and Roosevelt High Schools)
- Scholarships and stipends to underrepresented students in nursing (Black, Hispanic, Men and LGBTQIA+)
- Yearly CAPS Poverty Simulation (The Poverty Simulation - Poverty Simulation)

- Mentorship Program for Nursing Students
- External Partnership with the Long Island Latino Teacher's Association (LILTA) and Economic Opportunity Commission of Nassau County — Port Washington CAC
- Career/Parent Orientation Days at Roosevelt, Brentwood, and Uniondale High Schools, and Roosevelt Middle School
- Holistic Admissions
- Faculty Education in DEI, including the Groundwater Workshop through the Racial Equity Institute (REI), Workshops through the American Association of Colleges of Nursing (AACN), and Student Retention/Cultural Competency workshops from Dr. Marianne Jeffreys (About Dr. Jeffreys (mariannejeffreys.com))
- DEI conference attendance/presentations by students, faculty and admin, including the AACN Diversity Symposium, Accelerating Health Equity conference through the American Hospital Association (AHA), Addressing Disparities to Create Equitable Outcomes through the NAHN
- Individual education of SON Admin in DEI, including the "Leading for Equity, Diversity and Inclusion in Higher Education" Certificates from the University of Michigan and the Harvard Macy Institute Program for Educators in Health Professions.

Feinstein Institutes for Medical Research at Northwell Health

The Feinstein Institutes for Medical Research at Northwell Health. Through strategic partnerships with academia, industry, government and philanthropy, Feinstein strives to advance knowledge and make innovative therapies a reality for our communities. It is composed of over 5,000 researchers and staff members, conducting more than 3,000 clinical research studies and has over 1,331 papers published annually.

Feinstein is comprised of 5 institutes:

- Institute of Behavioral Science
- Institute of Bioelectronic Medicine
- Institute of Cancer Research
- Institute of Health System Science
- Institute of Molecular Medicine

Improving Health Equity One Text Message at a Time

To advance research in health inequities in chronic conditions the Feinstein Institutes is studying innovative ways to address the disparities in cardiovascular disease affecting the African American community within our service area. In 2022, researcher and principal investigator, Mark Butler, PhD, from the Institute of Health System Science will lead Northwell's first clinical trial using text-message-delivered reminders to encourage people to follow their prescribed regimens for lifesaving medicines. Medication adherence is crucial for improving health and yet half of the prescriptions filled in the United States are taken incorrectly, according to the Centers for Disease Control and Prevention. The research will use smart-tech enabled prescription bottles to learn when individuals take their cholesterol-lowering medication and prompt text messages to remind or encourage participants in the study to adhere to their regimen. The trial is made possible through a shared commitment to health equity, between the Feinstein Institutes and TD Bank which has funded this trial with a \$150,000 grant.

The Feinstein Institutes also partners with the Elmezzi Graduate School of Molecular Medicine at Northwell Health. The graduate school provides an accelerated three-year academic training program with a strong emphasis on translational research and awarding a PhD degree to individuals who hold an MD or equivalent.

"Closing health disparity gaps will increase the equity and quality of health care for our communities"

 Kevin J. Tracey, MD, President and CEO, Feinstein Institutes for Medical Research

Partnership with the CDC on Developing a Health Equity Indicators Toolkit

In early 2022, Northwell Health participated in a pilot study organized by the Centers for Disease Control's (CDC), Division of Heart Disease and Stroke Prevention (DHDSP), that surveyed best practices in health equity data collection for cardiovascular disease. Out of an application pool of nearly 100 healthcare organizations across the nation, Northwell was one among 9 selected healthcare organizations to participate in this three-month project.

The purpose of the pilot was to contribute insight into the development and implementation of health equity measures and data collection processes and the potential to apply an equitylens to analyze patient health outcomes. The project with the CDC consisted of a methodological review of existing and proposed data collection processes, a series of key informant interviews to identify opportunities and challenges throughout the process and voluntary submission of aggregated findings of health equity measures as applied to outcomes.

Northwell provided insight into its multiyear, system-wide process of designing and implementing a Social Determinants of Health Screening Tool, to measure SDoH factors and connect patients to additional services within the community to address their health-related social needs. Additionally, Northwell also emphasized the importance of adapting existing governance structures with a greater focus on Equity, Diversity & Inclusion, to embed EDI processes into existing healthcare operations and enrich the measurement of health outcomes data with an equity-lens. Northwell's insight will contribute to the CDC's development and publication of a national toolkit on health equity metrics and data collection, as applicable to cardiovascular disease.



Hospital Awards and Accomplishments

- Best Hospitals, Four Northwell Health hospitals received top 50 national ratings in 22 adult medical specialties (Huntington Hospital, Lenox Hill Hospital, Long Island Jewish Medical Center and North Shore University Hospital) — including three among the top 20. Three hospitals – Lenox Hill Hospital, Long Island Jewish Medical Center and North Shore University Hospital – rate among the top 7 hospitals in the New York (NY) metropolitan area and the entire state. Huntington Hospital was ranked 10th best in the state and 12th in the region, U.S. News & World Report (2021-22).

- Best Children's Hospitals, Cohen Children's Medical Center is the topperforming children's hospital in NYS. The medical center earned top national rankings for exceptional care in nine pediatric specialties, U.S. News & World Report (2021-22).
- **100 Best Companies to Work For,** *Fortune.*
- **100 Best Workplaces for Diversity,** *Fortune.*

Accredited Center of Excellence
(ACE), International Academies of Emergency Dispatch (IAED); Accredited, Commission on Accreditation of Ambulance Services (CAAS); Accredited Air Medical Program, Commission on Accreditation of Medical Transport Systems (CAMTS). Center for Emergency Medical Services (CEMS) is one of the few triple-accredited agencies in the country and the only one in NYS.

- Age-Friendly "Committed to Care Excellence," John H. Hartford Foundation, Institute for Healthcare Improvement (IHI), American Hospital Association (AHA) and the Catholic Health Association of the United States. Highest designation that can be awarded.
 - Glen Cove Hospital
 - Long Island Jewish Forest Hills
 - Mather Hospital
 - North Shore University Hospital
 - Phelps Memorial Hospital
 - Peconic Bay Medical Center

- Bariatric Surgery Center Accreditation, Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP):
 - Huntington Hospital
 - Lenox Hill Hospital
 - · Long Island Jewish Forest Hills
 - Mather Hospital
 - Northern Westchester Hospital
 - North Shore University Hospital
 - Peconic Bay Medical Center
 - South Shore University Hospital
 - Staten Island University Hospital
 - Syosset Hospital
- Best Places to Work, Glassdoor.
- Best Workplaces in Healthcare and Biopharma, *Fortune*.
- CEO Cancer Gold Standard Accreditation, CEO Roundtable on Cancer.
- Center of Excellence, Endovascular and Vascular Surgery, Northwell Health Endovascular Program, Surgical Review Corporation (SRC).
- Community Health Improvement Award, Advancing Health Equity through Community-based
 Partnerships to Fight COVID-19, Healthcare Association of New York State (HANYS).

- **Diversity Inc. 2021.** Nationally ranked #1 top health system for Diversity and Inclusion; Awarded 3 consecutive years in a row. DiversityInc.
- Emergency Communication Nursing Accredited Center of Excellence designation, Northwell Health Clinical Call Center, Board of Accreditation of the International Academies of Emergency Dispatch (IAED).
- Emergency Medical Services (EMS) Innovation Award in Organizational Innovation, NYS Department of Health (DOH) Bureau of EMS and Trauma Systems.
- Excellence Award for Leadership and Management, Honorable Mention, American College of Healthcare
 Executives, International Hospital
 Federation (IHF) Review Committee.
- Excellence in Health Care Award, recognition of individuals from 12 Northwell Health hospitals, the Department of Community and Population Health, and the Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, United Hospital Fund (UHF).
- Epilepsy Center Accreditation, National Association of Epilepsy Centers:
 - Cohen Children's Medical Center, Comprehensive Epilepsy Center, Pediatric Level IV

- Lenox Hill Hospital, Comprehensive Epilepsy Center, Adult Level IV
- North Shore University Hospital, Comprehensive Epilepsy Center, Adult Level IV
- South Shore University Hospital, Epilepsy Monitoring Unit, Level III
- Staten Island University Hospital, Epilepsy Monitoring Unit, Adult and Pediatric Level III
- Geriatric Emergency Department Accreditation, 17 Northwell Health EDs recognized. First health system in the nation to receive this recognition, American College of Emergency Physicians (ACEP).
- Gold Award Target: Type 2 Diabetes, Northwell Health Solutions, American Heart Association (AHA).
- Gold Award Check.Change.Control. Cholesterol[™], Northwell Health Solutions, AHA.
- Healthiest Employers in Healthcare and Healthiest Employers in NYC-Ranked #1, Healthiest 100 listing – Ranked #2, Springbuk.
- Interprofessional Continuing Education-Accredited Provider, Joint Accreditation Agency in collaboration with the Accreditation Council for Continuing Medical Education (ACCME), Accreditation Council for Pharmacy Education (ACPE), and

American Nursing Credentialing Center (ANCC).

- LGBTQ Healthcare Equality Named one of the nation's top health systems and first in NYS, Human Rights
 Campaign Foundation Healthcare
 Equality Index: 20 Northwell Health
 hospitals received this designation.
- Magnet[®] Designation for Nursing Excellence, nine Northwell Health hospitals attained this designation as of 2021, ANCC:
 - Cohen Children's Medical Center
 - Glen Cove Hospital
 - Huntington Hospital
 - Lenox Hill Hospital
 - Long Island Jewish Medical Center
 - Mather Hospital
 - Northern Westchester Hospital
 - North Shore University Hospital
 - Phelps Memorial Hospital
- Network of Excellence in Minimally Invasive Gynecologic Surgery, SRC.
- Network of Excellence in Robotic Surgery, SRC.
- Pinnacle Award for Quality and Patient Safety, HANYS.
- Pinnacle of Excellence Award for Employee Engagement, Press Ganey.

- Quality Oncology Practice Initiative (QOPI) Program Certification, an affiliate of the American Society of Clinical Oncology (ASCO):
 - Imbert Cancer Center
 - Monter Cancer Center
 - Northwell Health Cancer Center at Huntington Hospital
 - Northwell Health Cancer Center at Phelps Memorial Hospital
- Top Hospitals and Health Systems for Diversity, best health system in the nation for diversity, DiversityInc.
- Verified Trauma Center, American College of Surgeons (ACS):
 - Cohen Children's Medical Center, Level 1-Pediatrics
 - Huntington Hospital, Level 3-Adult

- North Shore University Hospital, Level 1-Adult
- South Shore University Hospital, Level 2-Adult
- Staten Island University Hospital, Level 1-Adult and Level 2-Pediatrics
- Workplace Health Index Gold Status, AHA.
- World's Most Ethical Companies, Northwell Health ranks among 135 companies recognized for exemplifying and advancing corporate citizenship, transparency and the standards of integrity, Ethisphere Institute.



Governance

Northwell Health is a non-profit organization overseen by its Board of Trustees. The supervision of care delivered by Northwell Health is overseen by the Board of Trustees, which is responsible for establishing policy, overseeing management and evaluating and improving patient care. The Board of Trustees is also responsible for the review of the Community Health Needs Assessment and Community Service Implementation to ensure that these efforts best meet the needs of our community. On September 20th, 2022, the Community Health Needs Assessment and Community Service Implementation Plans were reviewed and approved by the Committee on Community Health, a committee overseen by the Board of Trustees. On November 21st, 2022, The Board of Trustees reviewed and unanimously ratified and approved the Community Health Needs Assessment, the Community Service Implementation plans, as well as the selection of the NYSDOH Priority Areas.

CHNA/CSP Dissemination

Northwell is committed to ensuring our community members have easy access to our 2022-2024 Community Health Needs Assessment (CHNA), Community Service Plan (CSP) and implementation plan. To ensure that the reports are accessible and easy to navigate, the CHNA and CSP are posted on the Northwell Community Health Investment website with instructions for downloading. There is no need to create an account or submit any personally identifying information to access the reports. The reports can be accessed at the following URL:

 https://www.northwell.edu/education-andresources/community-engagement/communityhealth-investment/needs-assessmentcommunity-health-implementation-plan The Office of Community and Population Health also provides hard copies of the CHNA and CSP available to anyone upon request and at no charge. To request a hard copy of the reports, please email CommunityHealth@northwell. edu with 'CHNA/CSP hard copy request' in the subject line and indicate in the email which reports(s) you would like and to what mailing address they should be sent. Hard copies of the CHNA and CSP can be distributed to community-based organizations, faith-based organizations, community board members, policymakers, local health centers, community members, patients and other interested stakeholders. We have solicited written comments from the public on our 2019 CHNA and CSP reports through our website, although no written comments were received.

Community Health Resource Directory

Northwell Health is committed to improving the quality of life and health across our service areas through education, discussion and community networking with a special attention to the social determinants of health. Northwell Health provides annually updates to our Implementation Plan which lists our community health improvement programs available to individuals in our service areas. As part of this submission, the latest iteration is also available to residents in our service area in print or on the Northwell Health's website on the following link:

 https://www.northwell.edu/education-andresources/community-engagement/communityhealth-investment/needs-assessmentcommunity-health-implementation-plan

Although, the Implementation Plan do not incorporate all of Northwell Health's programs and resources, we prioritize reaching all individuals in our service areas to provide important and relevant information pertaining to social determinants of health needs. Our community events page displays all events Northwell Health engages both in our communities as well as online classes providing education on a variety of topics.

 https://www.northwell.edu/education-andresources/community-engagement/communityrelations/community-events The Community Resource Center is a webpage which provides information to all individuals in our service area on a variety of topics. The most updated resources are stored on this webpage and are available to download and print.

https://communityresources.northwell.edu/

Outside of Northwell Health, the following organizations offers the most comprehensive, current and easily searchable inventory of community resources within our service areas:

211 Long Island

211 Long Island is a free, non-emergency information service that connects Long Island residents to health and human resources, in Nassau and Suffolk Counties, they may need daily or during a disaster.

211 Long Island has a searchable directory with the most comprehensive lists of programs for: elderly parents, healthy recreation for teens, after-school childcare, financial counseling, health resources, emergency food or programs for veterans and returning military, help for emergency financial assistance, food, household needs, healthcare, housing, legal assistance, safety services, mental health, addiction, transportation and volunteer opportunities.

- Phone: 211
- Online: https://www.211li.org/

Health Information Tool for Empowerment (HITE)

The Health Information Tool for Empowerment (HITE) is an online directory which offers information on more than 6,000 health and social services. HITE helps to connect individuals to community services and resources. These resources are available to low-income, uninsured and underinsured individuals in New York City, Long Island and Westchester. All resources are free and open to the public.

Online: https://hitesite.org/

Long Island Health Collaborative (LIHC)

The Long Island Health Collaborative is a partnership of Long Island's hospitals, county health departments, health providers, community-based social and human service organizations, academic institutions, health plans, local government and the business sector, all engaged in improving the health of Long Islanders.

The LIHC offers resources which commit to improving the health of people living with chronic disease, obesity and behavioral health conditions in Nassau and Suffolk counties.

• Online: https://www.lihealthcollab.org/ healthy-resources/

New York State Department of Health (NYSDOH) Office of Minority Health and Health Disparities Prevention (OMH-HDP)

The NYSDOH provides a resource directory for information related to vulnerable populations and resources specific to Health Equity resources.

 Online: https://www.health.ny.gov/ community/minority/resources.htm

Partnerships — Northwell Community Health Alliance (CHA)

ORGANIZATION	COUNTY/REGION	ТҮРЕ
Adelante of Suffolk County	Suffolk	СВО
Central Family Life Center	Staten Island	СВО
Comunilife	Manhattan	СВО
Eastern Suffolk BOCES	Suffolk	GOV
El Tabernaculo De Gozo	Nassau	FBO
Family and Children Association	Mineola	СВО
Family Community Life Center	Suffolk	СВО
First Baptist Church of Corona	Queens	FBO
First Baptist Church of Riverhead	Suffolk	FBO
Greater Springfield Community Church	Queens	FBO
Hispanic Counseling Center	Long Island-wide, Nassau	СВО
Islamic Center of Long Island	Nassau	FBO
LI Family Service League	Long Island-wide	СВО
LI Hispanic Chamber of Commerce	Long Island-wide, Nassau	СВО
LIFE Camp, Inc.	Queens	СВО
Long Island Coalition For the Homeless	Suffolk	СВО
Long Island FQHC	Long Island-wide	FQHC
Montaukett Indian Nation	-	СВО
Mother African Methodist Episcopal (A.M.E.) Zion Church	Manhattan	FBO
NAACP	Long Island-wide, Nassau	СВО
Nassau County DOH	Nassau	GOV
National Congress of American Indian and Shinnecock Indian Nation Council	Suffolk	СВО
Neighbors Link	Westchester	СВО
St. Phillips Baptist Church	Staten Island	FBO
Suffolk County Health Commissioner	Suffolk	GOV
The Interfaith Nutrition Network	Nassau	СВО
Trinity Church	Westchester	FBO
Walker SCM, LLC	Nassau	СВО

Partnerships — Health Equity Task Force (HET)

Nassau County

ORGANIZATION	ТҮРЕ
BAPS Hindu Temple	FBO
Catholic Charities	СВО
Central Nassau Guidance	СВО
Choice for All	СВО
Church of Transfiguration	FBO
Community Development Corporation of LI	СВО
Erase Racism	СВО
Family and Children's Association	СВО
First Baptist Cathedral of Westbury	FBO
Health and Welfare Council of LI	СВО
Hempstead Hispanic Civic Association	СВО
Hispanic Brotherhood, Inc	СВО
Hispanic Counseling Center	СВО
Islamic Center of Long Island	FBO
Island Harvest	СВО
Jewish Community Relations Council (JCRC) of LI	FBO
LI African American Chamber of Commerce	СВО
Long Island Coalition for the Homeless	СВО
Long Island FQHC	FQHC
Long Island NAACP	СВО
Minority Affairs for Nassau County	GOV
Muslims for Progress	FBO
Nassau County Department of Health	GOV
Nassau County Legislature	GOV
Nassau County Office of Hispanic Affairs	GOV
NCBW Long Island Chapter	СВО
NYRA	СВО
Office of Governor	GOV
Shinnecock Nation	СВО
STRONG Youth	СВО
Suburban Hospital Alliance of NY State	СВО
The Interfaith Nutrition Network	СВО
Town of Hempstead	GOV
Union Baptist Church of Hempstead	FBO
United Way of Long Island	СВО
Unkechaug Indian Nation	СВО
Woodbury Jewish Center	FBO

Suffolk County

ORGANIZATION	ТҮРЕ
Adelante	СВО
Association for Mental Health and Wellness	СВО
Beacon House	СВО
Childcare Council of Suffolk	СВО
Dioceses of Rockville Centre Eastern Vicariate	FBO
Eastern Suffolk Boces	GOV
Elijah Foundation	СВО
Faith Alive Ministries	FBO
Family Service League	СВО
First Baptist Church	FBO
First Baptist Church of Riverhead	FBO
Gordon Heights Civic Association	СВО
Greek Orthodox Church of Southampton	FBO
Health Information Technology	СВО
Healthcare Welfare Council of Long Island	СВО
Hispanic Counseling Center	СВО
Island Harvest	СВО
Jewish Community Relations Council (JCRC) of LI	FBO
LI Cares	СВО
LI Head Start	СВО
LI Inclusive Communities Against Hate	СВО
LI Wine Countries	СВО
Long Island Farm Bureau	СВО
Make the Road	СВО
Masjid Dar Quran (Mosque)	FBO
Montaukett Indian Nation	СВО
NAACP	СВО
North Fork Spanish Apostolate	FBO
Office of Governor	GOV
OLA of Eastern Long Island	СВО
Pronto	СВО
Rural Migrant Ministries	FBO
SC Hispanic Advisory Board	GOV
SC Native American Advisory Board	GOV
Senior Center-Town of Huntington	СВО
Sepa Mujer	СВО
Sisters Keeping It Positive	СВО
Suffolk County (District Office 15)	GOV
Suffolk County Dept. of Health Services	GOV
Sun River Health	FQHC
Tobacco Action Coalition of LI	СВО
United Way of Long Island	СВО
Urban League	CBO

Acknowledgments

Executive Leadership

Debbie Salas-Lopez, MD, MPH, Senior Vice President, Office of Community and Population Health

Jeffrey Kraut, MBA, Executive Vice President, Office of Strategic Planning

CHNA Steering Committee Members

Mitchell Cornet, MPP, MHSA, Vice President of Public Health and Community Vaccines, Office of Community and Population Health Jack Tocco, PhD, MPH, Advisor, Office of Community and Population Health Sabrina Lutchman, MPA, Project Manager, Office of Community and Population Health Jerald Chandy, MBA, MSc, Senior Project Manager, Office of Strategic Planning Erica Peralta, MPA, PP, Advisor of Operations, Office of Community and Population Health Richard LaRochelle, Senior Advisor of Operations, Office of Community and Population Health

Supporting System Experts

Joynetta Bell-Kelly, DHSc, MA, Vice President, Health Equity Research and Strategic Partnerships, Feinstein Institutes for Medical Research/Institute of Health System Science Edgar Cerna, Director of Community Outreach, Community Relations Vincent Cunningham, Senior Director of Operations, Community Relations Christine Essig, MPA, Assistant Vice President, Operations, Office of Community and Population Health Thomas Feeney, Senior Director of Operations, Community Relations Edward Fraser, MHA, Vice President of Community Relations Stacey Isaacson, Program Manager, Office of Community and Population Health Stephanie Kubow, MPH, Principal, Office of Community and Population Health Olushola Latus-Olaifa, Program Manager, Office of Community and Population Health Michelle Raider, MPH, MCHES, Director of Operations, Office of Community and Population Health

Northwell Community Program Leads

Ileana Alfonso, Patient & Customer Experience Specialist, Long Island Jewish Valley Stream Kayla Altoonian, MPH, CHES, Community Outreach Program Manager, Cohen's Children Medical Center Nicole Benincasa, Senior Director, Patient & Customer Experience, North Shore University Hospital Peg Butler, Vice President, Marketing, Lenox Hill Hospital Angela Capone, Principal, Public & Media Relations, South Shore University Hospital Kaitlin Doyle, MSPH, Director, Community Health, Long Island Jewish Medical Marybeth Esposito, Senior Advisor Grants Management, Mather Hospital Natcha Gazemar P-MHNP, RNC, CM, Manager, Care Management, Health Solutions Catherine Greer, Senior Marketing Project Manager, Lenox Hill Hospital Kathy Giffuni, MSN, RN, NE-BC, AMB-BC, Senior Manager, Patient Care, **Dolan Family Health Center** Claudette Hill, RN BSN, Administrative Director of Community Health, Staten Island University Hospital Amy Ferraro, Senior Program Manager Community Outreach, Phelps Hospital Evan Feuer, Manager, Behavioral Health, Zucker Hillside Hospital Wayne Kawadler, Principal, Public & Media Relations, Lenox Health Greenwich Village Anita Mancini, LCSW, Advisor, Business Development, Zucker Hillside Hospital Frank Morisano, Senior Director, Operations, Staten Island University Hospital Princes Bay Campus Grace O'Shaughnessy, LMSW, Director of Community Health, Northern Westchester Hospital Edie Marden, RN, MHA, AVP, Operations, Surgery Trauma Institute Victoria Palacio, MBA, Director of Marketing, Peconic Bay Medical Center Maureen Pecorella, Director of Community Relations and Public Affairs, South Oaks Hospital Susan Rassekh, Senior Director, Patient & Customer Experience, Glen Cove Hospital Michelle Rossetti, Senior Director, Patient & Customer Experience, Long Island Jewish Valley Stream Stancy Saji, Program Manager, Government/Community Relations, Long Island Jewish Forest Hills Jilian Savino, Manager, Injury Prevention Program, Cohen's Children Medical Center Gila Singer, RDN, CSG, CDN, Manager, Nutrition & Dietetics, Phelps Hospital Shayla Superior, Community Relations Program Manager, Planview and Syosset Hospital Nancy Uzo, Vice President, Public Affairs, Mather Hospital Roy Timm, Program Manager, Community Outreach, Huntington Hospital Steven Vulpis, Marketing Specialist, Peconic Bay Medical Center

Keeva Young Wright, Assoc Exec Dir Ops & President Foundation, Northern Westchester Hospital.

Works Cited

¹Northwell Health - Office of Community & Population Health. "'Creating Healthy Communities Together' - Community Benefit Report, 2020. Accessed August 2022. https:// www.northwell.edu/sites/northwell.edu/ files/2022-08/Creating-Healthy-Communities-Together.pdf

² National Institutes of Health, Office of Disease Prevention. The National Prevention Strategy: Prioritizing Prevention to Improve the nation's Health, 2014. Accessed August 2022. https://prevention.nih.gov/education-training/ methods-mind-gap/national-prevention-strategyprioritizing-prevention-improve-nations-health

³Northwell Health - Office of Community & Population Health. Northwell Health 2019 Community Health Needs Assessment. Accessed August 2022. https://www.northwell.edu/sites/ northwell.edu/files/2019-12/Northwell-Health-2019-CHNA-FINAL.pdf

⁴Centers for Disease Control and Prevention (CDC). Morbidity and Mortality Weekly Report (MMWR). "COVID-19 Outbreak - New York City, February 29 - June 1, 2020". Accessed August 2020. https://www.cdc.gov/mmwr/volumes/69/ wr/mm6946a2.htm

⁵University at Albany, State University of New York (SUNY). "Differential Impacts of COVID-19 in New York State. Understanding and eliminating minority health disparities in a 21st-century pandemic" Issue Brief 1: Quantifying the Extent of Disparities between Black, Hispanic and White New Yorkers in the Context of COVID-19. July 2020. Accessed August 2022. https://www.albany.edu/ communicationsmarketing/covid-19-documents/ Racial%20Disparities%20in%20COVID-19%20 Bonus%20Briefing%20Paper%5B2%5D.pdf

⁶ Crain's New York Business. "Phase 2 Covid vaccinations could start by late January". December 16th 2020. Accessed August 2022. https://www.crainsnewyork.com/health-care/ phase-2-covid-vaccinations-could-start-latejanuary

⁷Newsday. "Blacks, Hispanics drive down virus infection rates" September 27, 2020. Accessed August 2022. https://www.newsday.com/ news/health/coronavirus/covid-19-infectionminority-056653

⁸Newsday. "LI's Black, Latino communities make COVID-19 vaccination gains". June 9th 2021. Accessed August 2022. https:// www.newsday.com/news/health/coronavirus/ vaccination-rates-minorities-y89122

⁹Healthcare Anchor Network. "It is undeniable: Racism is a public health crisis" September 27, 2020. Accessed August 2022. https:// healthcareanchor.network/2020/09/it-isundeniable-racism-is-a-public-health-crisis/ ¹⁰DiversityInc. Northwell Health. Accessed August 2022. https://www.diversityinc.com/ northwell-health/

¹¹Internal Revenue Service (IRS). Requirements for 501(c)(3) Hospitals Under the Affordable Care Act - Section 501(r). Accessed August 2022. https://www.irs.gov/charities-non-profits/ charitable-organizations/requirements-for-501c3-hospitals-under-the-affordable-care-actsection-501r

¹²AHA Community Health Improvement (ACHI). Community Health Assessment Toolkit. Accessed April 2022. https://www. healthycommunities.org/resources/communityhealth-assessment-toolkit

¹³ Greater New York Hospital Association (GNYHA). GNYHA Survey Collaborative 2022. https://www.gnyha.org/topic/communityhealth-planning/

¹⁴Centers for Disease Control and Prevention (CDC). Women, Caregiving, and COVID-19. Accessed July 2022. https://www.cdc.gov/ women/caregivers-covid-19/index.html

¹⁵ Kaiser Family Foundation (KFF) - Women's Health Policy. "Women, Work, and Family During COVID-19: Findings from the KFF Women's Health Survey". March 2021. Accessed July 2022. https://www.kff.org/ womens-health-policy/issue-brief/women-workand-family-during-covid-19-findings-from-thekff-womens-health-survey/

¹⁶ Boyd K, Winslow V, Borson S, Lindau ST, Makelarski JA. Caregiving in a Pandemic: Health-Related Socioeconomic Vulnerabilities Among Women Caregivers Early in the COVID-19 Pandemic. Ann Fam Med. 2022 Sep-Oct;20(5):406-413. doi: 10.1370/afm.2845. Epub 2022 Sep 2. PMID: 36228073; PMCID: PMC9512563.

¹⁷New York State Department of Health (NYSDOH). Taskforce on Maternal Mortality and Disparate Racial Outcomes. Accessed July 2022. https://www.health.ny.gov/community/ adults/women/task_force_maternal_mortality/

¹⁸ Centers for Disease Control and Prevention (CDC). Data & Surveillance - Special Population Data. Investigating the Impact of COVID-19 During Pregnancy. Accessed September 2022. https://www.cdc.gov/coronavirus/2019-ncov/ cases-updates/special-populations/pregnancydata-on-covid-19/what-cdc-is-doing.html

¹⁹ Centers for Disease Control and Prevention (CDC). Working Together to Reduce Black Maternal Mortality. April 2022. Accessed July 2022. https://www.cdc.gov/healthequity/ features/maternal-mortality/index.html

²⁰United Hospital Fund (UHF). "COVID-19 Ripple Effect - The Impact of COVID-19 on Children in New York State" September 2020. Accessed July 2022. https://uhfnyc.org/ publications/publication/covid-19-ripple-effectimpact-covid-19-children-new-york-state/

²³ New York State Department of Health (NYSDOH). Prevention Agenda 2019-2024: New York State's Health Improvement Plan. February 2020. Accessed February 2022. https://www.health.ny.gov/prevention/ prevention_agenda/2019-2024/ ²⁴ Health Affairs. "Making New York the Healthiest State: A Population Health Summit", Health Affairs Blog, December 12, 2013. DOI: 10.1377/hblog20131212.035776. Accessed May 2022.

²⁵ Centers for Disease Control and Prevention (CDC). National Center for Health Statistics.
Healthy People 2020. December 2020. https:// www.cdc.gov/nchs/healthy_people/hp2020.htm

²⁶ University of Wisconsin Population Health Institute. County Health Rankings & Roadmaps
Building a Culture of Health, County by County. County Health Rankings Model. https:// www.countyhealthrankings.org/explore-healthrankings/county-health-rankings-model

²⁷ Centers for Disease Control and Prevention (CDC). National Center for Health Statistics. Maternal Mortality Rates in the United States, 2020. February 2022. Accessed July 2022. https://www.cdc.gov/nchs/data/hestat/maternalmortality/2020/maternal-mortality-rates-2020. htm

²⁸ Kaiser Family Foundation (KFF). Racial Equity and Health Policy. "Racial Disparities in Maternal and Infant Health: Current Status and Efforts to Address Them" November, 2022. Accessed November 2022.

²⁹ Crandall K. Pregnancy-related death disparities in non-Hispanic Black women. Womens Health (Lond). 2021 Jan-Dec;17:17455065211019888. doi: 10.1177/17455065211019888. PMID: 34041996; PMCID: PMC8165831. Accessed November 2022. ³⁰Centers for Disease Control and Prevention (CDC). Agency for Toxic Substances and Disease Registry (ATSDR). CDC/ATSDR Social Vulnerability Index. Accessed October 2022. https://www.atsdr.cdc.gov/placeandhealth/svi/ index.html

³¹Agency for Healthcare Research and Quality (AHRQ). Prevention Quality Indicators Overview (PQI). Accessed January 2022. https://qualityindicators.ahrq.gov/measures/ pqi_resources

³² New York University (NYU) Wagner Faculty & Research. NYU-ED Algorithm. Accessed December 2020. https://wagner.nyu.edu/faculty/ billings/nyued-background

³³ Centers for Disease Control and Prevention (CDC). National Center for Health Statistics (NCHS). National Vital Statistics System (NVSS). Life Expectancy Tables. Accessed December 2020. https://www.cdc.gov/nchs/nvss/lifeexpectancy.htm

