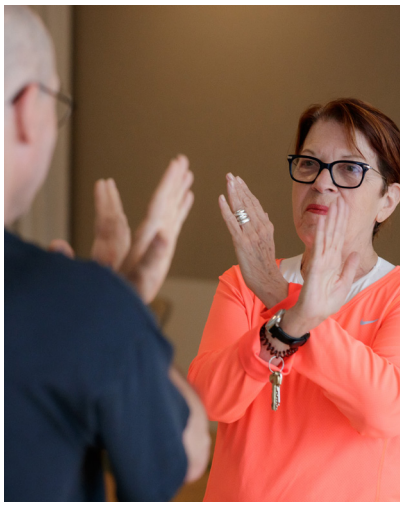
HSS

2022–2024
Community Health Needs Assessment
Report and Implementation Plan



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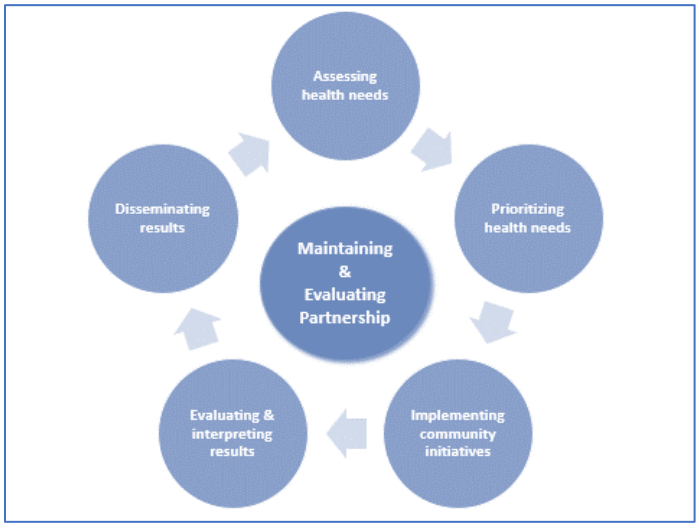
Introduction

In conducting a community health needs assessment (CHNA) and addressing musculoskeletal health disparities that exist in the diverse communities that HSS services, an evidence-based framework called the Community-Based Participatory Research (CBPR) model was utilized. The CBPR is a collaborative approach that involves a collective and systematic assessment and facilitates shared leadership among researchers and community stakeholders in the planning, implementation, and evaluation of interventions. This framework includes active community participation, which is critical to identifying health disparities, empowering vulnerable communities to make decisions, and identifying interventions that are responsive to the community's needs.

Figure 1. The Community-Based Participatory Research Model[1]



The HSS Community Health Needs Assessment was a systematic, data-driven approach to determining the health status, health behaviors and lifestyle, access and use of healthcare, and educational needs of residents in the primary and secondary service areas of the hospital. To gain a better understanding of the musculoskeletal health of HSS diverse communities, including the needs of medically underserved and low-income populations, a four-pronged approach was utilized. This was driven by:

- The collection and analysis of primary and secondary data to highlight health needs
- Creating a collaborative community environment to engage stakeholders and foster an open process to obtain community input
- Selecting and defining health priorities for health improvement
- Developing an action plan to address identified health challenges

This information continues to be the basis for the Hospital's strong dedication to improving mobility and quality of life, which are values that extend beyond its specialized focus on musculoskeletal and rheumatologic care.

[1] Israel, B.A., Eng. E., Schulz, A.J., and Parker, E. (2005). Methods in community-based participatory research for health. CA: Jossey-Bass; 2005;7-9.

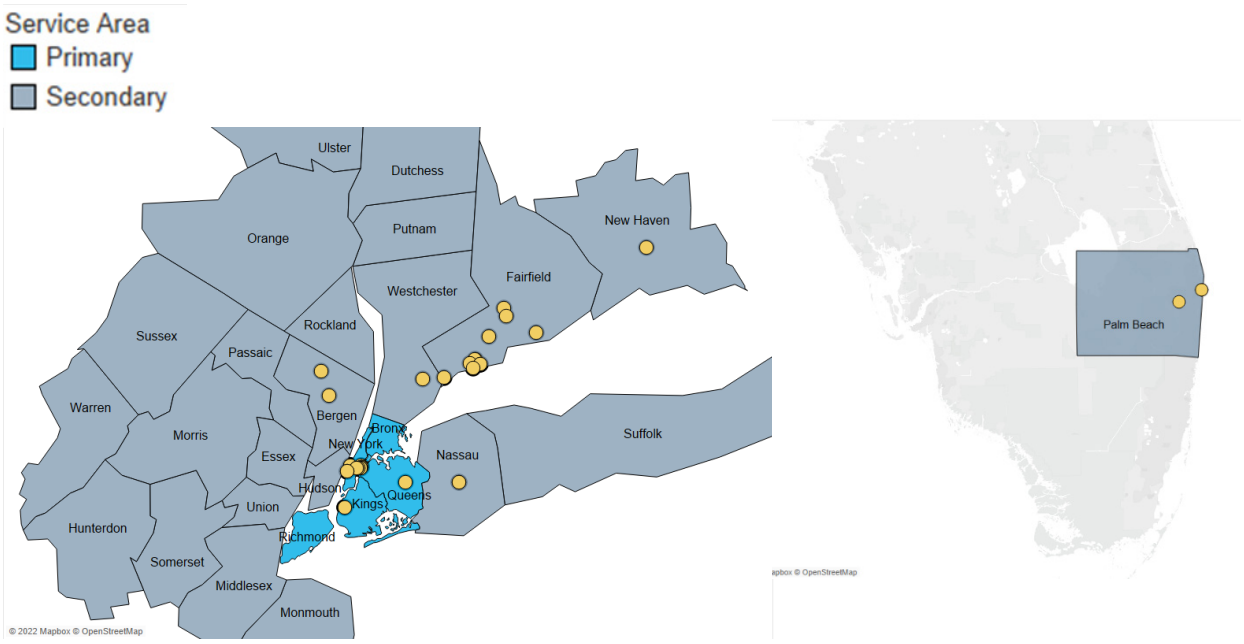
Section 1: Community Served and Description

Hospital for Special Surgery (HSS) is the nation's oldest orthopedic hospital, world-renowned for its expertise in musculoskeletal and rheumatologic conditions. The Hospital's dedication to community service is exemplified by its history of implementing interventions that improve the quality of life of patients and the public.

A. Service Areas

HSS's primary service area consists of the five boroughs of New York City (NYC) - Manhattan, Bronx, Brooklyn, Queens, and Staten Island, as depicted in cyan in Figure 2 below; while its secondary service area is comprised of suburban areas in the Hudson Valley, New York; Northern and Central New Jersey; Connecticut; Long Island, New York; and Palm Beach County, Florida, as depicted in dark gray in Figure 2 below.

Figure 2. HSS Primary and Secondary Service Areas [2]



There are 19 HSS locations across Manhattan, Brooklyn, Queens, Long Island, Westchester, New Jersey, Connecticut, and Florida; 19 HSS Rehabilitation locations across Manhattan, Brooklyn, Westchester, New Jersey, Connecticut, and Florida; and 3 Ambulatory Care Centers across NYC (Adult Orthopedic and Specialty Care; Adult Rheumatology Care; and Pediatric Orthopedic, Rheumatology, and Specialty Care), as represented by yellow dots in Figure 2 above. However, given its specialized focus on musculoskeletal and rheumatologic care, the Hospital's impact extends beyond its immediate service area to communities around the world, having reached over 89 countries.

[2] OpenStreetMap

B. Target Population

HSS is committed to improving the health needs of all New Yorkers, particularly culturally diverse communities, LGBTQ+ communities, children, adults, and older adults who experience or are at risk of musculoskeletal and rheumatologic conditions. Understanding the musculoskeletal health needs of the population we are serving is crucial in identifying gaps in service provision and health disparities that exist.

C. HSS Principal Functions

Size: HSS operates 205 licensed beds and 51 operating rooms, with approximately 36,870 surgeries and 45,849 outpatient visits annually. The hospital also employs 357 active medical staff and 282 advanced practice providers.

Specialties: HSS specializes in musculoskeletal medicine, serving as a leader in orthopedics, rheumatology, and rehabilitation nationally. HSS has been ranked by U.S. News and World Report as number one in the U.S. in Orthopedics for 12 years in a row, including from 2021-2022. HSS has also been recognized among the best hospitals in the Northeast for Rheumatology, and Lerner Children's Pavilion at HSS has been ranked among the best hospitals in Pediatric Orthopedics. HSS further extends its impact with its Education, Research, and Innovation Institutes, through which the hospital centers its commitment to the surrounding community and to advancing the musculoskeletal health of all.

D. Purpose, Mission, Vision, and Values

HSS' commitment to providing the highest quality of care to its patients and improving the quality of life and mobility of the communities it serves is articulated in its Purpose, Mission, Vision, and Values statements, which are reviewed annually by the Hospital's Board of Trustees.

- ***Purpose***: To help people get back to what they need and love to do better than any other place in the world.
- ***Mission:*** To provide the highest quality patient care, improve mobility and enhance the quality of life for all, and advance the science of orthopedic surgery, rheumatology, and their related disciplines through research and education.
- ***Vision:*** To lead the world as the most innovative source of medical care, the premier research institution, and the most trusted educator in the fields of orthopedics, rheumatology, and their related disciplines.
- ***Values:*** HSS sets and adheres to the highest possible standards in diversity, excellence, gratitude, innovation, integrity, passion, and teamwork.

The Hospital's Mission, Vision, and Values are the foundation that drives HSS' efforts to provide the highest quality care – inclusively, with cultural sensitivity, and without discrimination – to both patients and the public. This is accomplished by working collaboratively with its extensive community partners, empowering the community through in-depth support, outreach initiatives, and ongoing education and training on diverse populations (race, ethnicity, religion, and sexual orientation) while positioning itself to be the most trusted educator.

Section 2: Community Profile

Secondary Data Collection and Analysis

Secondary data collection and analysis were conducted using local, state, and federal data and surveillance systems to provide existing insight and knowledge on a broad range of health issues in our community. Data collected includes socio-demographic data, socioeconomic status, medically underserved areas and priority population in NY, social determinants of health and health outcomes. Sources of data include:

- U.S. Census Bureau
- New York City Department of Aging
- New York City Department of City Planning
- Centers for Disease Control and Prevention
- World Population Review
- Health Resources and Services Administration
- Bureau of Labor Statistics
- New York City Department of Health and Mental Hygiene
- New York City Department of Homeless Services
- Healthy People 2030
- Neighborhood Health Atlas
- County Health Rankings
- United Health Foundation
- National Council on Aging
- Arthritis Foundation

A. Demographics of the Community

According to U.S. census data, the NYC community consists of an estimated 8,467,513 people.[3] Key demographic characteristics of the community are listed below:

- **Race/ethnicity**: In 2020, 41% of NYC residents identified as White, 29% identified as Hispanic or Latino, 24% identified as Black or African American, and 14% identified as Asian. [3]
- **Immigrant population**: Between 2016-2020, over one-third (36%) of the city's population was foreign-born. [3]
- **Age**: Over one-fifth (21%) of the population is under the age of 18, and nearly 15% of the population is age 65 or older. [3]
- **Sex**: 52% of NYC residents are female.[3]
- **Sexual Orientation**: In the New York metropolitan area (New York-Newark-Jersey City), 706,000 adults (18+) identify as LGBT, which is the highest number in any metropolitan area.[4]

[3] United States Census Bureau. (2021, July 1). *QuickFacts*. Retrieved from United States Census Bureau: https://www.census.gov/quickfacts/newyorkcitynewyork
[4] Conron, K. J., Luhur, W., & Goldberg, S. K. (2021, March). *LGBT Adults in Large US Metropolitan Areas.* Retrieved from UCLA School of Law Williams Institute: https://williamsinstitute.law.ucla.edu/wp-content/uploads/MSA-LGBT-Ranking-Mar-2021.pdf

Race/Ethnicity

HSS is dedicated to improving the health of racially and ethnically diverse communities in our service areas through a strong focus on addressing health disparities and advancing health equity. Health disparities affecting communities in HSS service areas are highlighted below:

- According to New York State Department of Health 2017-2019 data, the percentage of premature deaths (below age 75) in New York City was highest among non-Hispanic Black NYC residents (55%), followed by Hispanic (51%), Asian/Pacific Islander (42%), and White residents (33%).[5]
- According to the National Council on Aging, Black women with postmenopausal osteoporosis experience poorer outcomes than White women after hip and other fractures and are less likely to receive medication for osteoporosis and fracture prevention.[6]
- The Arthritis Foundation reports that, in Manhattan, non-Hispanic Black women, Hispanic Black women, and non-Hispanic Asian women are at a higher risk of having Lupus than White women.[7]
- In the state of New York, American Indian or Alaska Native residents had the highest prevalence of arthritis (38%) of any racial or ethnic group in 2020, followed by Multiracial (32%), Other Race (25%), White (24%), Black (19%), Hispanic (17%), and Asian (9%) residents.[8]
- In both Chinatown and Flushing, the percentage of residents with limited English proficiency is higher than the NYC average of 23%, at 28% and 51% respectively.[9,10]
- Asian and Pacific Islander immigrants, along with Hispanic immigrants, have the highest poverty rate (24%) of all immigrant groups[11], which is higher than the overall NYC poverty rate of 17%.[3,9]
- Among older adults ages 65 years and older, falls-related hospitalizations were higher in Chinatown than the New York City average.[12]

Age

The older adult population continues to grow, with the New York City Department of Aging projecting that in 2040, approximately 21% of NYC residents will be ages 60 and older, up from 16% in 2000[12]. As seen in *Figure 3* below, the population of older adult residents (ages 65 and older) has been projected by the Department of City Planning to increase significantly from 1.0 million in 2010 to 1.4 million in 2040, based on 2010 estimates.[13] This has important implications for the health needs of an aging population in NYC, as older adults face unique health disparities:

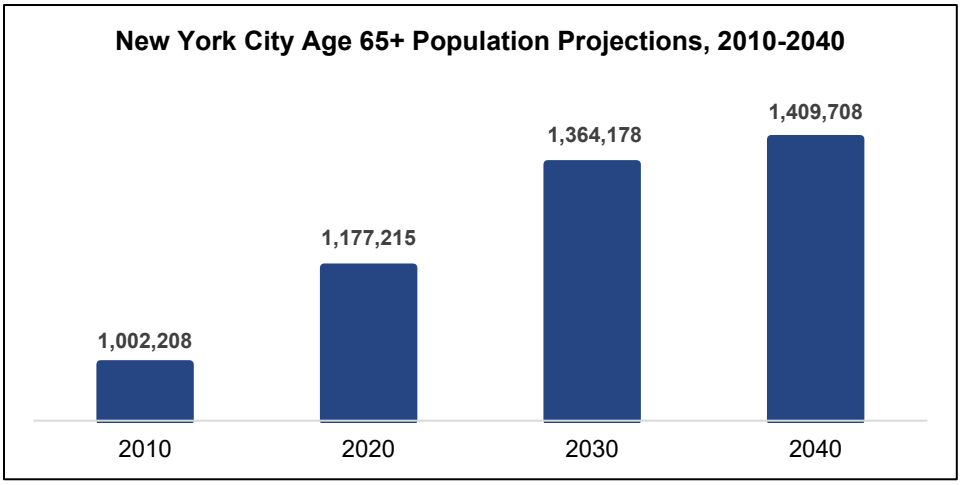
- Only about 16% of adults ages 65-74 and 10% of adults ages 75 and older in 2018 met the full Centers for Disease Control and Prevention (CDC) guidelines for both aerobic activity and

[5] New York State Department of Health. (2022, March). New York City Health Indicators by Race/Ethnicity, 2017-2019. Retrieved from New York State Department of Health: https://www.health.ny.gov/statistics/community/minority/county/newyorkcity.htm
[6] National Council on Aging. (2022, February 28). *Osteoporosis: The Risk Factors for Black Women*. Retrieved from: https://ncoa.org/article/osteoporosis-the-risk-factors-for-black-women
[7] Arthritis Foundation. (2019). *Arthritis by the Numbers: Book of Trusted Facts and Figures*. Retrieved from: https://www.arthritis.org/getmedia/e1256607-fa87-4593-aa8a-8db4f291072a/2019-abtn-final-march-2019.pdf
[8] United Health Foundation (2021). *Explore Arthritis in New York: 2021 Annual Report*. America's Health Rankings. Retrieved from: https://www.americashealthrankings.org/explore/annual/measure/Arthritis_65/state/NY
[9] Hinterland, K., Naidoo, M., King, L., Lewin, V., Myerson, G., Noumbissi, B., . . . Bassett, M. (2018). *Community Health Profiles 2018, Queens Community District 7: Flushing and Whitestone.* New York: NYC Health.
[10] Hinterland, K., Naidoo, M., King, L., Lewin, V., Myerson, G., Noumbissi, B., . . . Bassett, M. (2018). *Community Health Profiles 2018, Manhattan Community District 3: Lower East Side and Chinatown.* New York: NYC Health.
[11] Mayor's Office of Immigrant Affairs. (n.d.). *A Demographic Snapshot: NYC'S ASIAN AND PACIFIC ISLANDER (API) IMMIGRANT POPULATION.* Retrieved from City of New York: https://www1.nyc.gov/assets/immigrants/downloads/pdf/Fact-Sheet-NYCs-API-Immigrant-Population.pdf
[12] Cortés-Vázquez, L. (2020). *Annual Plan Summary*. New York: New York City Department for the Aging. Retrieved from https://www1.nyc.gov/assets/dfta/downloads/pdf/reports/AnnualPlanSummary111820.pdf
[13] Department of City Planning. (2018, September 10). *2040 Population Projection Tables.* Retrieved from NYC Open Data: https://data.cityofnewyork.us/City-Government/2040-Population-Projection-Tables/kjk4-7tzy

muscle-strengthening exercises[14], even though muscle-strengthening exercises have been shown to help increase bone density and reduce fall risks and fears in this population.[15]

- Over 14% of older adults face difficulties with activities of daily living, including bathing, dressing, walking, and climbing stairs.[16]
- In terms of musculoskeletal health, arthritis affects over half (51%) of all older adults in NYC.[16]

Figure 3. New York City Age 65+ Population Projection 2010-2040



Source: The City of New York, Department of City Planning (DCP) adjusted decennial census data 2010; DCP Population Projections, 2020-2040[13]

Income and Poverty

- Approximately 18% of New York residents lived in poverty, or below the NYCgov poverty threshold ($36,262), while 41% lived near poverty, or under 150% of the NYCgov poverty threshold ($54,393), in 2019.[17]
- Among the five boroughs, the Bronx had the highest poverty rate (26%) in 2019, followed by Brooklyn (19%), Queens (17%), Manhattan (13%), and Staten Island (11%).[17]
- The community district with the highest average poverty rate from 2015 to 2019 included Morris Heights, Fordham South, and Mount Hope in the Bronx (35%), while the community district with the lowest poverty rate included the Upper East Side in Manhattan (6%).[17]
- Poverty rates among NYC residents in 2019 were highest among Hispanic residents (22%), followed by non-Hispanic Asian (21%), non-Hispanic Black (20%), and non-Hispanic White residents (11%), as seen Figure 4 below. [17]

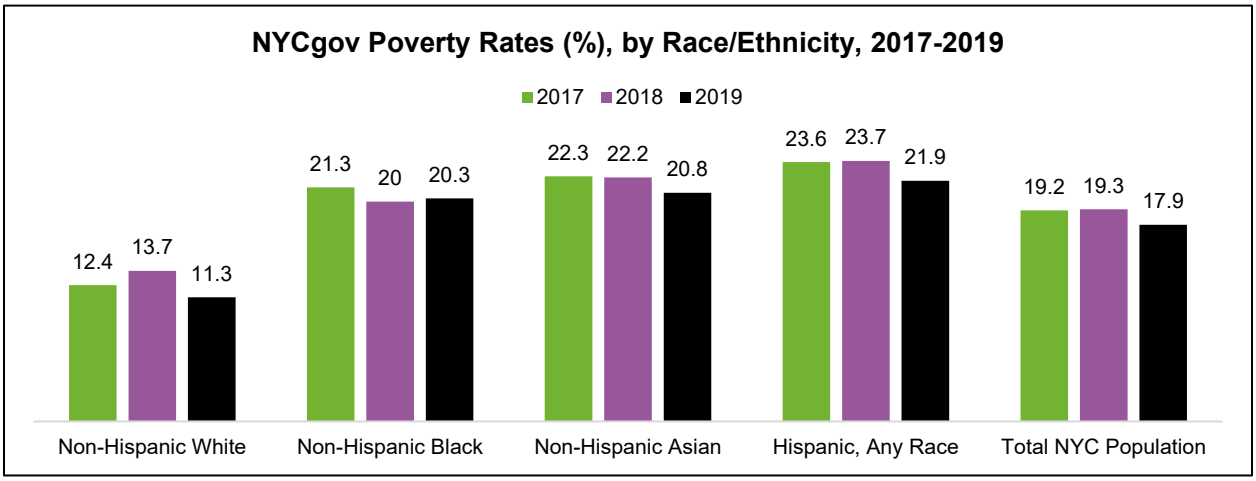
[14] National Center for Health Statistics. (2018). *Summary Health Statistics: National Health Interview Survey, 2018.* Retrieved from Centers for Disease Control and Prevention: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2018_SHS_Table_A-14.pdf

[15] Padilla Colón, C. J., Molina-Vicenty, I. L., Frontera-Rodriguez, M., García-Ferré, A., Ponce Rivera, B., Cintrón-Vélez, G., & Frontera-Rodriguez, S. (2018). Muscle and Bone Mass Loss in the Elderly Population: Advances in diagnosis and treatment. *Journal of Biomedicine, 3*, 40-49. doi:10.7150/jbm.23390

[16] Greer, S., Adams, L., Toprani, A., Hinterland, K., Dongchung, T. Y., Brahmbhatt, D., . . . Kaye, K. (2019). *Health of Older Adults in New York City.* New York: New York City Department of Health and Human Hygiene. Retrieved from https://www1.nyc.gov/assets/doh/downloads/pdf/episrv/2019-older-adult-health.pdf

[17] Shin, J., Krampner, J., Virgin, V., & Hill, A. (2021). *New York City Government Poverty Measure 2019.* New York: The City of New York. Retrieved from https://www1.nyc.gov/assets/opportunity/pdf/21_poverty_measure_report.pdf

Figure 4. NYCgov Poverty Rates by Race/Ethnicity, 2017-2019, in %[17]



Unemployment

- Approximately 9% of civilians 16 years of age and older are unemployed in New York City.[18]
- Unemployment rates decreased across all five boroughs from January 2021 to January 2022 by 7, 6, 5, 6, and 5 percentage points in the Bronx, Brooklyn, Manhattan, Queens, and Staten Island respectively.[19]
- Unemployment was highest (10%) in the Bronx, followed by Brooklyn (8%), Queens and Staten Island (7%), and New York County (6%) in January 2022.[19]
- Approximately 35% of working-age people with disabilities are employed, which is less than half of the employment rate of working-age people without disabilities (74%).[20]

Education Access and Quality

- Approximately 83% of New York City residents 25 years old or over have attained a high school diploma or higher.[3]
- The percentage of adults ages 25 or over in 2019 with less than a high school diploma or equivalent was highest in the Bronx (26%), followed by Queens (17%), Brooklyn (16%), Manhattan (12%), and Staten Island (11%).[21]
- Educational attainment of a college degree or higher was most common among residents in Manhattan (64%), followed by Brooklyn (40%), Queens and Staten Island (39%), and Bronx (26%) in 2012-2016.[18]
- In 2019, poverty rates were highest (28%) among NYC residents with less than a high school diploma, followed by those with a high school diploma or equivalent (21%), some college (15%), and a bachelor's degree or higher (7%).[17]

[18] New York City Department of Health and Mental Hygiene. (2021). *2019-2021 Community Health Assessment and Community Health Improvement Plan: Take Care New York 2024.* New York: NYC Health. Retrieved from https://www1.nyc.gov/assets/doh/downloads/pdf/tcny/community-health-assessment-plan.pdf
[19] Bureau of Labor Statistics. (2022, June 9). *New York City Economic Summary.* Retrieved from BLS: https://www.bls.gov/regions/new-york-new-jersey/summary/blssummary_newyorkcity.pdf
[20] Office of the State Deputy Comptroller. (2019, October). *Employment Trends for People with.* Retrieved from Office of the New York State Comptroller: https://www.osc.state.ny.us/files/reports/osdc/pdf/report-7-2020.pdf
[21] United States Census Bureau. (2019). *American Community Survey: B06009 PLACE OF BIRTH BY EDUCATIONAL ATTAINMENT IN THE UNITED STATES.* Retrieved from United States Census Bureau: https://data.census.gov/cedsci/table?t=Educational%20Attainment&g=0500000US36005,36047,36061,36081,36085&d=ACS%201-Year%20Estimates%20Detailed%20Tables

Disabilities

- There were 930,100 individuals (11% of NYC residents) living with a disability in NYC in 2017.[20]
- 7% of New Yorkers under the age of 65 reported having a disability in 2016-2020.[3]

Insurance

- Approximately 8% of New York City residents under the age of 65 do not have health insurance.[1]
- Queens had the lowest proportion (85%) of insured adults, followed by Brooklyn (88%), the Bronx (8%), Staten Island (91%), and Manhattan (92%) in 2017.[22]
- In 2019, 79% of NYC residents ages 18 and older reported visiting a doctor for a routine checkup in the previous year.[23]
- In 2017, 10% of NYC residents reported that they did not receive needed medical care.[24]

Language Preference

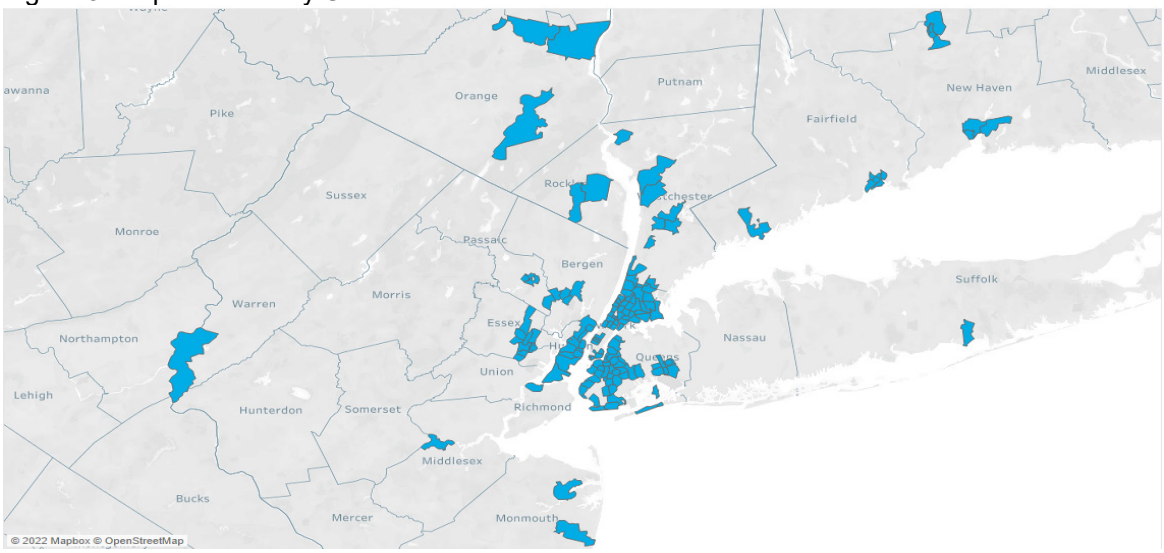
- Spanish is the most widely spoken language at home other than English in the majority (125) of neighborhoods in NYC, while Chinese is the most widely spoken language at home other than English in 28 neighborhoods, followed by Russian (17 neighborhoods), and French Creole (11 neighborhoods)[25]
- Approximately 18% of households in the Bronx were limited English-speaking households* in 2019, along with 18% of households in Queens, 15% in Brooklyn, 9% in Manhattan, and 5% in Staten Island.[26]

B. Medically Underserved Areas (MUAs) and Priority Populations

The Health Resources and Services Administration defines medically underserved areas (MUAs) and medically underserved populations (MUPs) as those "with a lack of access to primary care services"[27] and "having too few primary care providers, high infant mortality, high poverty or a high elderly population."[28] In NYC, MUAs exist in each of the five boroughs, with the greatest number of MUAs in Brooklyn (Kings County) and the lowest number in Staten Island (Richmond County)[28], as seen in Figure *5* below.

[22] NYC Health. (2019). *Health Care Access and Use - Subtopic: Health Insurance*. Retrieved from EpiQuery: https://a816-health.nyc.gov/hdi/epiquery/visualizations?PageType=ts&PopulationSource=CHS&Topic=2&Subtopic=15
[23] NYU Langone Health. (2022). *New York, NY*. Retrieved from City Health Dashboard: https://www.cityhealthdashboard.com/ny/new%20york/metric-detail?metric=1581&metricYearRange=2019%2C+1+Year+Modeled+Estimate&dataRange=city
[24] NYC Health. (2019). *Health Care Access and Use - Subtopic: Health Care Use*. Retrieved from EpiQuery: https://a816-health.nyc.gov/hdi/epiquery/visualizations?PageType=ts&PopulationSource=CHS&Topic=2&Subtopic=17
[25] NYC Health. (2018, January 19). *New York City Neighborhood Health Atlas*. Retrieved from Tableau: https://public.tableau.com/app/profile/nyc.health/viz/NewYorkCityNeighborhoodHealthAtlas/Home
[26] United States Census Bureau. (2019). *American Community Survey: B16002 Detailed Household Language by Limited English Speaking Status*. Retrieved from United States Census Bureau: https://data.census.gov/cedsci/table?q=B16&g=0500000US36005,36047,36061,36081,36085&d=ACS%201-Year%20Estimates%20Detailed%20Tables&tid=ACSDT1Y2019.B16002
[27] Health Resources & Services Administration. (n.d.). *What is Shortage Designation?* Retrieved from HRSA Health Workforce: https://bhw.hrsa.gov/workforce-shortage-areas/shortage-designation#mups
[28] Health Resources & Services Administration. (n.d.). *MUA Find*. Retrieved from HRSA Data Warehouse: https://data.hrsa.gov/tools/shortage-area/mua-find

Figure 5. Map of Medically Underserved Areas within HSS Service Areas[2,28]



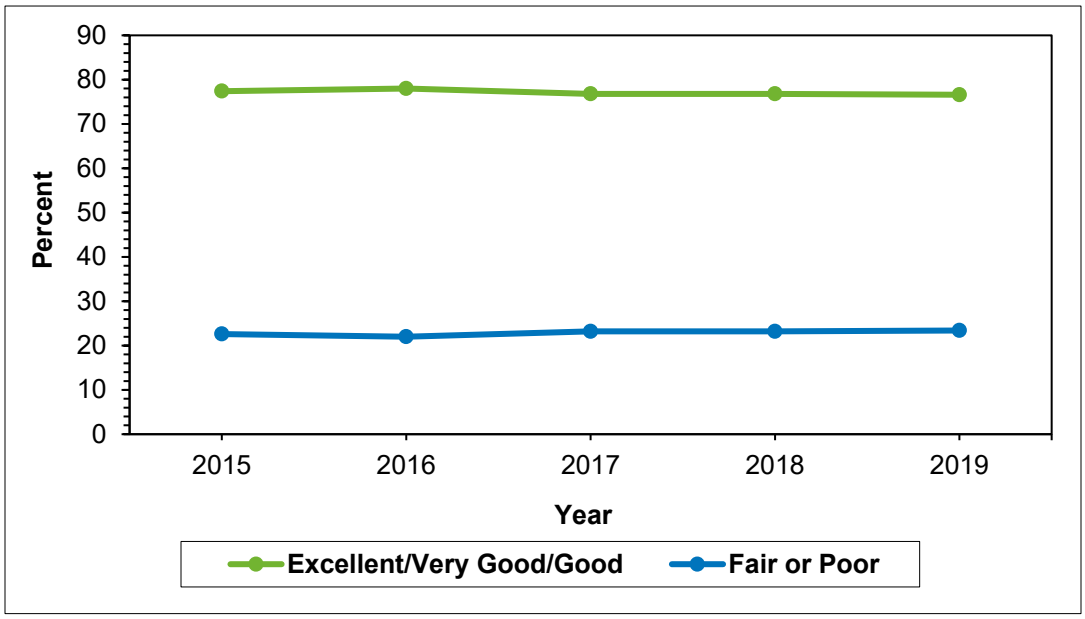
**Note: West Palm Beach, Florida (secondary service area) is not shown since it does not contain any MUAs*

C. Health status and quality of life

According to the New York City DOHMH, 23.4% of NYC residents self-reported their health as fair to poor, indicating a slight increase over the past few years (Figure 6).[29] This is higher than the national average of 18.8 percent.[30] On the other hand, Bergen County residents (13%) and Westchester County residents (15.2%) were less likely to self-report their health as fair or poor.[31,32] In terms of mental health, HSS' 2019 CHNA found the prevalence of 2+ weeks of reported mentally unhealthy days in the past month to be 9.2%, lower than the national average of 13.6 percent.[30] Notably, 39% of Westchester County respondents reported that mental health was their first area of health priority.[32] Furthermore, 26% of Stamford respondents reported feeling "down, depressed or hopeless" over the past two weeks.[33]

[29] New York City Department of Health and Mental Hygiene. Epiquery – New York City Community Health Survey 2019. https://nyc.gov/health/epiquery. Retrieved from https://data.cityofnewyork.us/Health/New-York-City-Community-Health-Survey/csut-3wpr
[30] Kaiser Family Foundation analysis of the Centers for Disease Control and Prevention (CDC)'s 2013-2020 Behavioral Risk Factor Surveillance System (BRFSS). The timeframe selected for the reported statistic is 2019.
[31] 2019 Bergen County Community Health Needs Assessment Steering Committee. (2019). The Valley Hospital: Community Health Needs Assessment 2019 Report. Retrieved from https://www.valleyhealth.com/sites/default/files/Community%20Health/2019%20Valley%20Community%20Health%20Needs%20Assessment.pdf
[32] Westchester County Department of Health. (2019). 2019-2021 Community Health Assessment Report. Retrieved from https://health.westchestergov.com/images/stories/pdfs/cha2019to2021.pdf
[33] Stamford Health. (2019). 2019 Stamford Hospital Community Health Needs Assessment. Retrieved from https://www.stamfordhealth.org/app/files/public/7af7fb8f-d7ee-4937-8dec-caea3f00db93/CHNA2019.pdf

Figure 6. Self-reported health status of NYC residents, 2015-19



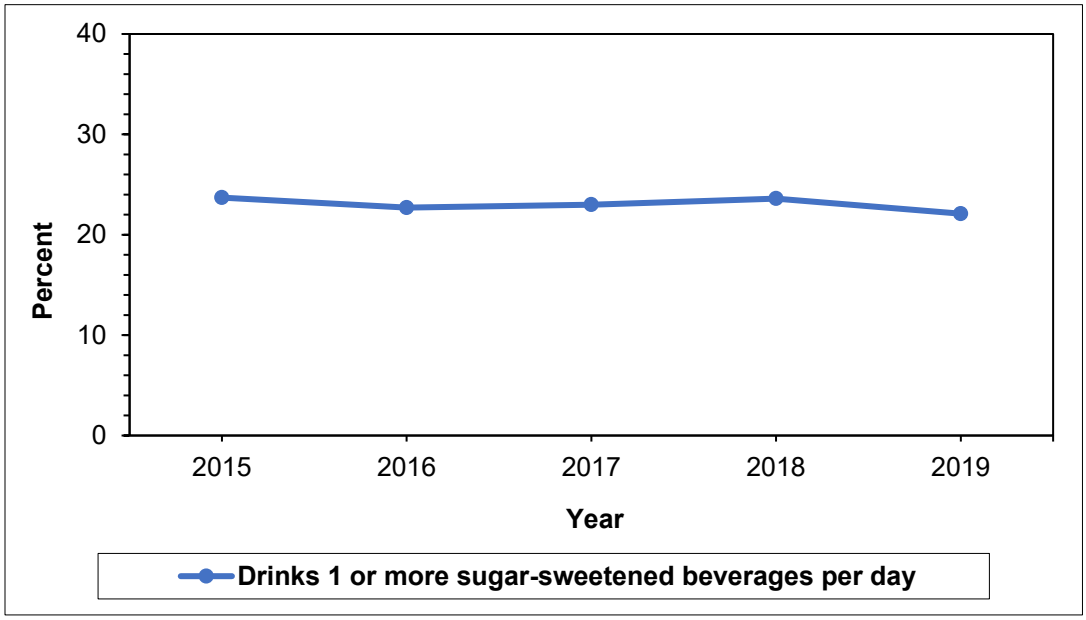
With regards to musculoskeletal and rheumatological conditions, HSS' 2019 CHNA found the prevalence of osteoarthritis to be 64.5%, which is more than double the rate reported in 2016 (30.3%) and much higher than the national prevalence of arthritis (22.7%) and osteoarthritis specifically (10.4%).[34,35] The prevalence of osteoporosis among HSS' service areas (25.8%) was also much higher compared to the national prevalence of 12.6% for adults aged 50 and over.[36]

D. Health behavior and lifestyle

Nationally, the percentage of adults who are obese is 31.5%, which is higher than the prevalence observed in New York City (24.8%). Bergen County (22.8%), Stamford (23%), Nassau County (23%), and Suffolk County (24.4%).[29,31,33,37,38,39] These percentages highlight the prevalence of unhealthy lifestyles that is further reflected in the high reported consumption of sugar-sweetened beverages (SSBs). In New York City, approximately one in five residents (22.1%) consume one or more SSBs daily (Figure 7).[29] Nationally, the rate is much higher, with 63% of adults aged 18 or older reporting consuming SSBs at least once daily.[40]

[34] Barbour, K.E., Helmick, C.G., Boring, M., Brady, T.J. (2017). Vital Signs: Prevalence of Doctor-Diagnosed Arthritis and Arthritis-Attributable Activity Limitation — United States, 2013–2015. MMWR Morb Mortal Wkly Rep 2017; 66:246–253. DOI: http://dx.doi.org/10.15585/mmwr.mm6609e1.
[35] Lo, J., Chan, L., & Flynn, S. (2021). A Systematic Review of the Incidence, Prevalence, Costs, and Activity and Work Limitations of Amputation, Osteoarthritis, Rheumatoid Arthritis, Back Pain, Multiple Sclerosis, Spinal Cord Injury, Stroke, and Traumatic Brain Injury in the United States: A 2019 Update. Archives of physical medicine and rehabilitation, 102(1), 115–131. DOI: https://doi.org/10.1016/j.apmr.2020.04.001.
[36] Sarafrazi, N., Wambogo, E.A., Shepherd, J.A. Osteoporosis or low bone mass in older adults: United States, 2017–2018. NCHS Data Brief, no 405. Hyattsville, MD: National Center for Health Statistics. 2021. DOI: https://dx.doi.org/10.15620/cdc:103477.
[37] Kaiser Family Foundation analysis of the Centers for Disease Control and Prevention (CDC)'s 2020 Behavioral Risk Factor Surveillance System (BRFSS).
[38] Northwell Health. (2019). Northwell Health 2019 Community Health Needs Assessment: Nassau County Assessment. Retrieved from https://www.northwell.edu/sites/northwell.edu/files/2020-02/NASSAU-COUNTY-CHNA.pdf
[39] Northwell Health. (2019). Northwell Health 2019 Community Health Needs Assessment: Suffolk County Assessment. Retrieved from https://www.northwell.edu/sites/northwell.edu/files/2020-02/SUFFOLK-COUNTY-CHNA.pdf
[40] Chevinsky, J.R., Lee, S.H., Blanck, H.M., Park, S. Prevalence of Self-Reported Intake of Sugar-Sweetened Beverages Among US Adults in 50 States and the District of Columbia, 2010 and 2015. Prev Chronic Dis. 2021;18:200434. DOI: http://dx.doi.org/10.5888/pcd18.200434.

Figure 7. Proportion of NYC residents who drink 1 or more sugar-sweetened beverages per day, 2015-19



When examining the current health behavior landscape, it remains critical to consider opioid use and abuse. In 2019, it was estimated that 10.1 million people aged 12 or older misused opioids, and the vast majority of them (9.7 million) misused prescription pain relievers.[41] Alarmingly, there were 2,062 unintentional drug overdose deaths in New York City alone in 2020, an increase of 565 deaths from 2019. Opioids were involved in 85% of the city's overdose deaths in 2020.[42]

E. Use of and access to care

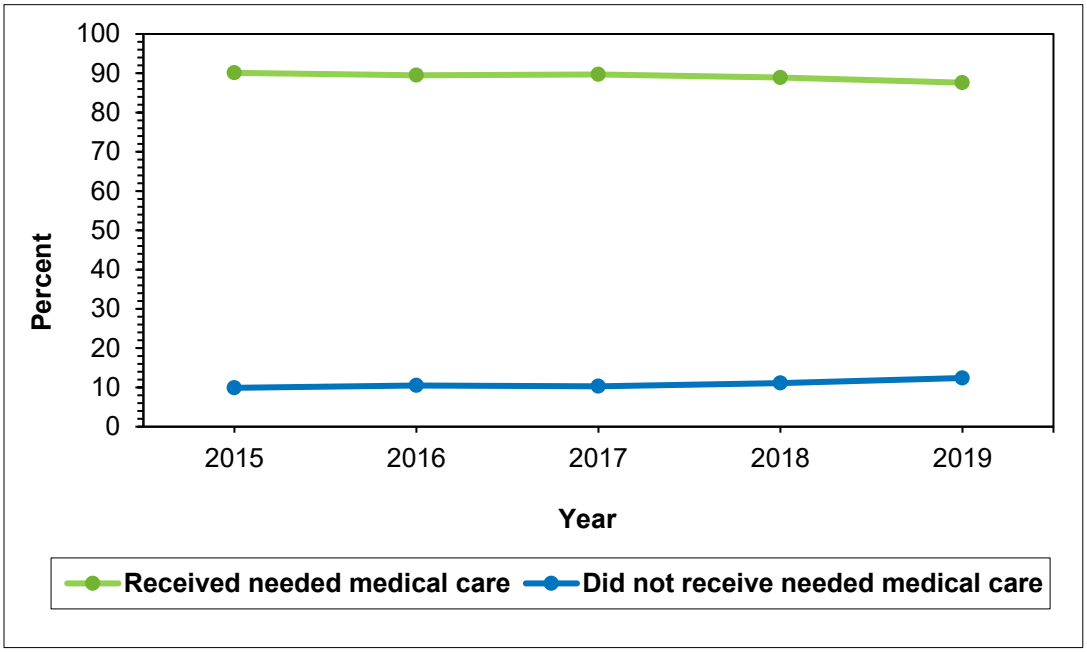
Health coverage in HSS service areas does not differ drastically by region. In New York City, 87.3% of residents have health insurance coverage and in Stamford, 94% of residents are insured.[29,33] Only 7% of Westchester County respondents and 9.2% of Bergen County respondents report being uninsured.[31,32] Though the percentage of reported uninsured individuals is low, disparities exist when examining access to care. In 2019, approximately one out of every eight (12.4%) New York City residents could not access medical care when needed in the past year (Figure 8).[29] Bergen County residents reported struggles accessing the healthcare services they needed to treat mental health and substance use.[31] In particular, 16.6% of respondents reported not receiving needed mental health care and 7.0% of respondents reported not receiving needed substance use treatment in the past year.

Across the country, 13.4% reported that there was a time in the past year when they could not see a doctor when needed due to cost.[30] In Stamford, 21% of respondents reported postponing getting the medical care they needed in the past year, most often because they were too busy with other commitments or due to worries about cost.[33]

[41] Substance Abuse and Mental Health Services Administration. (2020). Key substance use and mental health indicators in the United States: Results from the 2019 National Survey on Drug Use and Health (HHS Publication No. PEP20-07-01-001, NSDUH Series H-55). Rockville, MD: Center for Behavioral Health Statistics and Quality,Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/

[42] Nolan, M.L., Jordan, A., Bauman, M., Askari, M., Harocopos, A. Unintentional Drug Poisoning (Overdose) Deaths in New York City in 2020. New York City Department of Health and Mental Hygiene: Epi Data Brief (129); 2021. Retrieved from https://www1.nyc.gov/assets/doh/downloads/pdf/epi/databrief129.pdf

Figure 8. NYC residents who could not access medical care when needed in the past 12 months, 2015-19



Section 3: Primary Data Collection and Analysis

Community engagement was driven by the collection of primary data using a mixed-method approach to provide a comprehensive picture of the musculoskeletal health status, needs, and resources identified by residents of HSS communities. This approach included the widespread dissemination of a community survey and interviews with community partners. Details of the process and methods used to assess the community are described below.

A. Community Survey

Background

An anonymous, large-scale community survey was conducted between January 15, 2022, and February 15, 2022, to determine our community's health care, education, and support needs regarding muscle, bone, and joint health. The survey assessed five main areas namely:

- Socio-demographic characteristics
- Health status and quality of life
- Health behavior and lifestyle
- Use of and access to care
- Health education

Methodology

The 32-question survey was developed through the collective efforts of a seven-member HSS CHNA steering committee, internal stakeholders, community partners, and the public. Collaboration with these groups was crucial to the success of this survey, with valuable feedback provided on survey construction and length. To reach a culturally diverse community, the survey was translated into Spanish, Chinese and Russian, using a culturally sensitive back translation approach by certified translators. HSS utilized Alchemer, a web-based survey platform for the development and distribution of the electronic format of the survey. The survey included validated measures from several national and state health questionnaires such as:

- 36-Item Short Form Survey (SF-36)
- HRQOL
- Self-Efficacy for Managing Chronic Disease 6-item Scale
- Health Status portion of the Medicare Beneficiary Survey (MCBS)
- Behavioral Risk Factor Surveillance System (BRFSS) - Centers for Disease Control & Prevention
- Single-Item Sleep Quality Scale
- AARP Telehealth Survey
- Discrimination in Medical Settings Scale
- HRET Toolkit
- Health Information National Trends Survey (HINTS)
- National Health Information Survey (NHIS) - Centers for Disease Control & Prevention

See **Appendix A** for sample CHNA surveys in English, Spanish, Chinese, and Russian.

Before survey implementation, HSS piloted the survey with community members to garner feedback and ensure survey items were relevant and easily understood. HSS also facilitated feedback from internal key stakeholders and community partners throughout the process of developing the survey. More details on how we engaged and obtained community input from various constituents are provided in the Community Input section of this report.

Recruitment and Sampling

A convenience sampling strategy was used to recruit individuals ≥ 18 years living within HSS' primary and secondary service areas to complete the community survey. An oversampling approach was used to reach medically underserved and diverse populations, through the following recruitment strategies:

1) Alchemer panel service: This was used to administer the survey online and obtain community input from underserved and diverse populations by oversampling.
2) HSS patient targeting approach: A list of over 140k patients aged 18 years and older who received medical services from all HSS locations between 2019 and 2021 were pulled from our electronic medical record (EMR). This allowed us to segment, target, and send the online survey to patients with no medical insurance, public insurance (Medicaid), living in medically underserved areas and who preferred to receive medical information in Spanish, Chinese or Russian.
3) Text Messaging: To engage and obtain input from HSS patients that are underserved and may not have access to a PC to complete the online survey, we used text message reminders to complete the survey.
4) Social Media Geo-Targeting: To further garner input from the public, especially from medically underserved communities, we used social media such as Facebook and Patch.com to geo-target individuals aged 18 years and older living in specific zip codes identified as Medically

Underserved Areas (MUAs) within HSS' primary and secondary service areas. The MUAs were derived from the U.S. Department of Health and Human Services (http://www.hrsa.gov/shortage/mua/index.html).

In addition to our recruitment efforts described above in completing the online survey, other varied approaches such as paper, and QR codes were used to increase accessibility and survey response from our community.

Response Rates

A total of 18,248 community members responded to the community survey, with most responses in English (98%) and the remaining responses in Spanish (1%), Chinese (0.8%), and Russian (0.2%). Of the 18,248 community members that responded to our community survey, 57% represented a diverse and medically underserved sample. Primary analyses were conducted on the total sample of 18,248 respondents. To further examine the total sample, identify health disparities that exist, and understand the health needs of medically underserved populations, secondary analyses were conducted in the three sub-groups listed below, with results presented throughout this report.

- **HSS Ambulatory Care Centers; ACC (n= 344)**: This group represents HSS patients from more racially/ethnically diverse and lower socioeconomic backgrounds who receive care at ACC locations (i.e., 72nd street and Rheumatology, 6th floor)
- **Medically underserved respondents (n= 5,785)**: This group represents respondents who were uninsured, insured through Medicaid, or who live in a Medically Underserved Areas (MUA)
- **HSS Regional sites (n= 6,739):** This group represents respondents living in HSS regional locations (i.e., Long Island, NY; Westchester, NY and surrounding counties; Connecticut; New Jersey; Florida

Statistical Analysis

For analysis, SPSS v. 28 was used to conduct descriptive summaries and chi-squared tests to determine statistically significant associations between socio-demographics, health status and quality of life, health behavior and lifestyle, use of and access to care, and educational needs across all samples specified above.

Survey Results

Community survey results were shared with internal stakeholders, community partners, and the public. Details on how we plan to address identified health needs are described in the latter part of this report. HSS will disseminate these results to the public through a dashboard, an infographic report posted on social media, the Hospital's website, digital media, annual community benefit report, and the New York State Department of Health's (NYSDOH) Community Service Plan.

Below is a summary of high-level findings from the community's survey regarding their musculoskeletal health challenges and healthcare needs.

- **Socio-Demographic Profile:** The CHNA survey reached a diverse audience, with the administration purposefully targeting diverse and underserved populations. Majority of respondents identified as female (66.0%) and straight (87.5%), with a mean age of 52 years. Over half of respondents identified as White (57.4%) and Non-Hispanic Latino (73.8%), compared to 78.8% and 90.5% respectively in 2019. Overall, respondents had a high educational background, with 51.8% having completed college or postgraduate education. Nonetheless, respondents represented all income levels, with the greatest proportion of respondents reporting

an income of $50,000-$74,999 (10.9%). Finally, by geographic location, most respondents (58.5%) reported living in New Jersey and New York City.

- **Health Status and Quality of Life:** The leading musculoskeletal conditions reported were osteoarthritis (33.7%) and some other form of arthritis (17.2%). This is consistent with national findings where arthritis is the leading cause of musculoskeletal-related disability.[43] Among respondents with musculoskeletal conditions, lack of confidence to manage symptoms emerged as a health need, particularly among the ACC population where close to three-quarters (73.2%) of respondents reported low confidence. In assessing health status, most respondents reported less than two weeks of poor physical (83.0%) and mental health (88.1%). More respondents from the ACC (17.4%) and medically underserved sub-sample (15.4%) reported 14 or more mentally unhealthy days compared to national (13.2%) and New York State (12.7%) data.[44] On the other hand, one-third (30.8%) of respondents reported falling in the past year, up from 26.5% in 2019. Significant disparities were found with age and gender, where respondents aged <20 years and identifying as Other gender were more likely to report two or more weeks of poor mental health and to have fallen in the past year. When asked about sleep, approximately one-quarter (23.6%) of respondents reported terrible or poor sleep in the past seven days which is higher compared to the nationally reported 13.8%.[45]

- **Health Behaviors and Lifestyle:** Physical activity was identified as a health need, with most respondents reporting a lack of vigorous-intensity (74.3%) and moderate-intensity physical activity (80.0%). Additionally, there is a need to focus on complementary alternatives to pain management. Over one-quarter (37.3%) of all respondents reported using a prescription pain reliever or opioid compared to 72.8% of ACC respondents. Furthermore, over three-quarters of respondents reported not using 'yoga, Tai Chi or Qi Gong' (85.5%) or meditation, guided imagery, or other relaxation techniques (74.2%) to manage pain. With regards to healthy eating, three in four respondents reported wanting to eat healthier (75.5%) and having the confidence to choose healthy foods (75.6%). The top three reported barriers to healthy eating were family/friends do not eat healthy (45.5%), cost (34.2%), and taste (30.1%).

- **Use of and Access to Care:** The data in this section of the survey reflected the impact of COVID-19 on the healthcare environment. Respondents cited COVID-19-related issues (42.2%), social isolation/loneliness (27.7%), and limited places to exercise (23.8%) as the top issues impacting their health and wellness. Significant disparities were found such that COVID-19 was more frequently reported by Asians and those living in Queens and New Jersey; social isolation was more frequently reported by respondents aged <20 years, Other gender respondents, and Asians; and limited places to exercise was more frequently reported by respondents living in the Bronx. Survey data also indicates a need to address access to healthcare, with 42.3% of respondents reporting they could not access healthcare in the past 12 months, compared to 8.1% in 2019. The top barrier reported was difficulty getting an appointment (33.0%). However, ACC respondents included fear or mistrust of doctors (13.7%) as a top barrier whereas medically underserved respondents included lack of transportation (21.5%) as a top barrier.

[43] American Academy of Orthopaedic Surgeons. (2016). One in two Americans have a musculoskeletal condition.
[44] America's Health Rankings analysis of CDC, Behavioral Risk Factor Surveillance System, United Health Foundation, AmericasHealthRankings.org, Accessed 2022.
[45] Shi, L., Zhang, D., Martin, E., Chen, Z., Li, H., Han, X., ... & Su, D. (2022). Racial Discrimination, Mental Health and Behavioral Health During the COVID-19 Pandemic: a National Survey in the United States. Journal of General Internal Medicine, 1-9.

In response to the current landscape, the CHNA survey also included questions about telehealth use and discrimination in medical settings. Close to four in ten respondents (39.0%) reported not being interested in using telehealth. Nationally, 37.6% of adults reported not being interested in telehealth compared to 39.0% of total, 44.3% of ACC, 40.2% of regional, and 32.0% of medically underserved respondents.[46] Consistent with national findings, over half (55.0%) reported barriers to using telehealth, with the top barriers being lack of knowledge and concerns around medical errors and confidentiality[9]. Specifically, lack of knowledge was more frequently reported by respondents aged <20 years and 80+ years. The most reported type of discrimination in medical settings was doctor or nurse is not listening to you (50.4%). Significant disparities were seen such that respondents aged <40 years, Other gender and non-Whites were more likely to report a doctor/nurse is not listening to them.

- **Health Education:** Lack of education emerged as a major health need, with seven out of every ten respondents (70.2%) reporting no health education participation in the past 12 months. Specifically, ACC respondents (80.9%) were least likely to have participated in health education. The top reasons for having not participated in health education were 'did not know about the program' (39.5%) and 'fear of COVID-19' (37.7%). Interest in health education activities was mainly around virtual programming, and top health topics of interest included exercise (56.3%), healthy eating (44.7%), and dealing with stress, anxiety, and depression (39.6%).

A detailed key finding report of the community survey results highlighting significant health disparities across all samples is available in **Appendix B**.

B. Key Informant Interviews with Community Partners

Background

In assessing the health needs of HSS community, we conducted key informant interviews with 22 community partners serving diverse communities within our primary and secondary service areas, as seen in Table 1 below. These interviews were conducted over a 4-week time frame (January 18 – February 11, 2022) via Zoom. To facilitate the interviews, a script and interview guide were developed exploring several areas which include: (1) socio-demographic characteristics of the population served, (2) significant muscle, bone, and joint health issues, (3) barriers to improving muscle, bone, and joint health, (4) specific strategies for improving muscle, bone, and joint health, (4) ways to increase awareness around preventing muscle, bone, and joint health conditions, and (5) specific partnerships to address muscle, bone, and joint health needs.

[46] Keenan, Teresa A. Views on Telehealth. Washington, DC: AARP Research, June 2020. https://doi.org/10.26419/res.00388.001

Table 1. Key Informant Interview Community Partners

	Community Partner	Representative(s)
1.	305 West End Assisted Living	Melissa Sheehan
2.	Americares Free Clinics	Analisa Martinez; Muguette Maignan
3.	Arthritis Foundation	Nancy Sorbella
4.	Carter Burden Network	Dozene Guishard
5.	Concerned Home Managers for the Elderly (COHME)	Laura Radensky
6.	Creaky Joints (Global Healthy Living Foundation)	Daniel Hernandez
7.	DOROT Inc	Jackie Pykon
8.	Good Neighbors of Park Slope	Andi Peretz
9.	Gray Panthers	Michelle Arnot
10.	Ivy Rehabilitation Network	Michael Mozia
11.	Lupus Foundation of America	Sue Gloor
12.	Lupus Foundation of America	Karen Ng
13.	Lupus Research Alliance	Diane Gross
14.	Mount Sinai Hospital	Leslie Kerr
15.	NYC Department of Health and Mental Hygiene	Ana Gallego
16.	New York Presbyterian-Columbia University Hospital	Lisa Imundo
17.	NY Presbyterian Hospital/Weill Cornell Medical Center	Ana Garcia
18.	Spondylitis Association of America	Elin Aslayan
19.	Visiting Nurse Service of New York	Teresa Lin
20.	Weill Cornell Clinical and Translational Science Center	Jeff Zhu
21.	Weill Cornell Clinical and Translational Science Center	Lula Mae Phillips
22.	Y – YW/YMHA	Ann Votaw

Methodology

Facilitation of the CHNA key informant interviews was conducted by HSS staff. All staff including co-facilitators were trained by the HSS Education Institute Outcomes team. A script was developed to guide the facilitators. Each interview was approximately 30 minutes and had a facilitator and a co-facilitator, responsible for logistics and note-taking. Interviewees were informed of the voluntary nature of participation and that results would be reported without names or identifying characteristics. To protect the confidentiality of interviewees, all interviews were not audio recorded. See **Appendix C** for the key informant interview script.

Data Analysis

A qualitative software known as NVIVO was used to conduct thematic analysis utilizing an inductive approach. A team of four HSS staff, external to the interviews, reviewed transcripts and conducted independent coding to develop validity and reliability of the data, as well as ensure integrity, consistency, and agreement between reviewers. The group discussed differences in code interpretations and developed a set of unifying themes.

Results - Key Informant Themes

Described in Table 2 below is a summary of the key informant discussions including key themes and select comments.

Table 2: – Summary of the Key Informant Interview Discussions

Categories	Major Themes	Community Partner's Feedback
Significant health issues	Musculoskeletal and rheumatological conditions	▪ "Regarding other barriers such as certain conditions affecting the community - Arthritis talks have been among the most popular" ▪ "We see a lot of knee arthritis in our older population and our younger population mostly sports injuries but it's mostly knee things more than anything else."
Significant health issues	Pain and pain management	▪ "The biggest thing is the lower back, neck, knees…We're like a middle-class community so a lot of our jobs are more blue-collar jobs...they're more labor-intensive." ▪ "Pain management I think is an area of concern among the Chinese community and again it may be due to osteoporosis. That is one thing I hear a lot about from our population"
Significant health issues	Falls and lack of balance	▪ "We would also place a strong emphasis on older adults because that's where falls start becoming more of an issue…There needs to be a lot of strength training and a lot of emphasis on nutrition, and balance to prevent the fall in the first place."
Significant health issues	Lack of healthy lifestyle	▪ "Urban kids are experiencing being home in front of screens all day and their schools no longer offer sports activities" ▪ "We have a lot of mobility concerns with our residents. A lot of our residents are wheelchair-bound."
Significant health issues	Lack of education and awareness	▪ "Misinformation in general about COVID related to arthritis conditions. The vaccines. Mask wearing. Drugs and medicines available." ▪ "Because of the lack of education, there are misunderstandings and misconceptions about having Lupus, so this can also lead to, kind of, lack of family support, lack of understanding of what it means to properly take care of oneself."
Barriers to improving musculoskeletal health	Access to care	▪ "NYC is a wonderful example of the [preeminent hospitals everywhere]. But accessing those facilities can be difficult depending on insurance status and transportation issues." ▪ "Access to technology is a barrier. There is a learning curve for seniors learning technology." When they do use it, they likely will not use it to look up programs on their own."
Barriers to improving musculoskeletal health	Comorbidities	▪ "We see a lot more obesity and other co-morbidities ... in our minority population. Sometimes people will not be candidates for the procedure they need, like knee surgery, because they are overweight. We have to try to get them to talk to a nutritionist so they can learn how they can lose weight. This is seen more with our minority community."
Barriers to improving musculoskeletal health	Lack of education	▪ "People take a lot of different medications, and they don't know how to identify symptoms that are leading to the falls." ▪ "One of the biggest things across the board know no matter who you are is lack of awareness about these conditions."

Categories	Major Themes	Community Partner's Feedback
Barriers to improving musculoskeletal health	Perception of the healthcare system	▪ "General lack of trust of the healthcare system within the Hispanic community" ▪ "People's perception is, 'Oh I'm not going to get help because I know what they're going to tell me. They're going to tell me to get my knee replaced and I can't afford it or don't have people to take care of me after."
Strategies to improve musculoskeletal health	Educational programs	▪ "The first and most important approach would be Hispanic first content. Not direct translation but actual content that was developed for the Hispanic community. Not avoiding the subtitles of English-speaking information but the actual creation of Spanish language content is very important." ▪ "The sense of community is most important and providing a relatable person in the community to provide education to them that is not directly from the internet.
Barriers to improving musculoskeletal health	Equitable access to care	▪ "Becoming an in-network provider for all Medicaid manage plans would be #1 for us followed by the Medicare advantage plans and the low-cost ACA plans and all the union plans. The main community benefit that the hospital can provide is to make itself fully accessible to the marginalized populations." ▪ "Anything in person is particularly challenging to implement. We live in a very connected society but the 'pockets of poverty in the city don't have internet/electronic access. We rely so much on electronic communication so helping folks with those kinds of resources is really important."
Barriers to improving musculoskeletal health	Community Outreach	▪ "I think when you talk about what else can HSS do and how can it improve, perhaps bringing all the great programs that HSS has to the community level, such as the evidence-based workshops- all the things that HSS does so well, bring it to the community level to the CBOs." ▪ "Greater visibility in senior centers. And greater visibility in communities. Wherever you have seniors exercising or getting together. For example, with the Asian population, going to Tai Chi groups, throughout the city, not just in China Town. Wherever people are gathering together, be visible"
Ways to increase awareness around preventing musculoskeletal conditions	Cultural competency of medical experts	▪ "Can tailor to the populations, like a younger senior who might not have experienced musculoskeletal issues yet but may experience it versus an older senior who has experienced it. ▪ "It's about language, having the right speakers, and to have that outreach and show our chops and our competency with that group of people."
Ways to increase awareness around preventing musculoskeletal conditions	Marketing	▪ "As you advertise in marginalized neighborhoods, invest in the advertisement to be culturally humble and welcoming for a population that might right now not consider HSS to be welcoming for low-income folks." ▪ "Whether it's creating online content, creating radio content, and just getting the word out. Any way that HSS can do that would be great, just spread the word as there is a crazy need for education."
Ways to increase awareness around preventing	Access to care	▪ "Doctors advising can be very helpful. We have a hard time getting doctors on board or even access to the doctor to push things through (like getting measurements to a transport

Categories	Major Themes	Community Partner's Feedback
musculoskeletal conditions		chair)." ▪ "I think the hardest thing is just accessing the resources and struggling to communicate and feeling like you can navigate. We try to emphasize to our patients that they have a voice and it is important if they are having a hard time feeling comfortable expressing themselves"
Specific partnerships to address musculoskeletal health needs	Medical experts	▪ "Again it would be nice for you to come on and talk to our social workers. We have a meeting every week - could give a little spiel about HSS" ▪ "I think some of it is partnering with the rheumatologist in the community to provide resources.
Specific partnerships to address musculoskeletal health needs	Community-based organizations	▪ "Establish long-term partnerships. It would be important to talk with some of the clergy and churches to build partnerships. Seventh-Day Adventists are very health conscious." ▪ "Partner with other national and local groups, including smaller groups, and chapters, because everyone's trying to raise awareness."

A detailed key-informant interview report of our community partner's input is available in **Appendix D**

Section 4: Broad Community Input

HSS facilitated systematic feedback from its various constituents (i.e., internal stakeholders, community partners including the local public health department, and the public) based on the CHNA results to guide the selection of the health needs and services to address in its community programming. Our approach to engaging our constituents to obtain their input is described below.

- **CHNA Steering Committee and Internal Stakeholders:** We involved various representatives from HSS departments in developing the community survey and interview guide. A seven-member HSS CHNA steering committee was formed to guide the development and implementation of the CHNA process, and ensure alignment with HSS values and strategic priorities, and the NYS prevention health agenda. The CHNA steering committee identified research questions to be addressed, drafted the individual survey questions, and identified community partners and internal stakeholders to be involved in the CHNA process. The steering committee also facilitated interviews with community partners. Key internal stakeholders from various departments (i.e., Education Institute, Nursing, Social Work, Nutrition, Rehabilitation, Ambulatory Care Centers, Service Excellence, and Language Services, Regional Markets, Patient Experience, Medical Staff and Attendings, Development, Public Relations, and Marketing, Digital Communications, and Quality) were integral in the community health assessment process by providing relevant feedback to the survey construction and the use of validated instruments. See **Appendix E** for members of the CHNA steering committee and internal stakeholders as well as detailed feedback from internal stakeholders.

- **Public Health Departments and Other Experts:** HSS collaborated with the New York City Department of Health and Mental Hygiene and the Greater New York Hospital Association (GNYHA). Through these collaborations, we adopted a community-engaged approach that involved feedback in the development of our community survey, collection of qualitative data to broadly identify the health status of our communities, and guidance on incorporating best practices for our CHNA.

- **General public including medically underserved and low-income population:** To facilitate input from the public including medically underserved and low-income population on the construction of the community survey, we piloted the survey in English, Spanish, Chinese, and Russian from October 22-29, 2021, among 70 community members. This allowed us to obtain meaningful feedback about the length of the survey and ensure cultural relevancy and health literacy. See **Appendix F** for a detailed pilot feedback form and summary from the public.

- **Community partners:** To facilitate active engagement among our community partners, we contacted 74 organizations requesting their involvement in the CHNA process. We received interest to review and provide feedback on the community survey from 36 community partners. Feedback included the length of the survey, use of validated instruments, cultural relevance, and literacy level of the community survey. In addition, 22 community partners provided their input by participating in key informant interviews as described above. See **Appendix E** for detailed feedback from community partners.

Below outlines the list of community partners involved in survey construction:

- Good Neighbors of Park Slope
- Presbyterian Hospital/Weill Cornell Medical Center
- Y – YW/YMHA
- Over 60 Senior Center
- Creaky Joints Espanol (GHLF)
- Chelsea Piers
- Lupus Research Alliance
- Ridgewood YMCA
- Carter Burden Network
- Mount Sinai Hospital
- New York Presbyterian-Columbia University Hospital
- Spondylitis Association of America
- NYC DOHMH, Bureau of Bronx Neighborhood Health
- Norwalk Senior Center
- DOROT Inc
- Self–Help Innovative Senior Center
- Friedman Health Center
- Clinical and Translational Science Center
- Greenwich Alliance for Education
- Americares Free Clinics
- Lupus Foundation of America
- New York City Department of Health
- Touro College Graduate School of Social Work
- Westport Library
- COHME
- Stamford Senior Center
- Clinical and Translational Science Center
- Ivy Rehabilitation Network
- Gray Panthers
- 305 West End Assisted Living
- Arthritis Foundation
- Integrity Senior Services
- The Bronx Health Link
- Lupus Foundation of America
- Visiting Nurse Services
- Primecare

A. Past Community Health Needs Assessment and Implementation Plans

HSS posted the 2019-2021 CHNA implementation plan on its website (https://www.hss.edu/community.asp), allowing the public to review and provide feedback. An email address (community.ed@hss.edu) was provided on the website to receive questions or comments. HSS has not received any comments regarding its 2019 – 2021 community health needs assessment.

Section 5: Prioritization and Selection of Health Needs

To further HSS' commitment to developing programs that improve the health of our culturally diverse communities, obtaining feedback from the public and medically underserved, low-income, and minority populations were instrumental in driving the Hospital's selection of significant health needs to improve the health of communities where dramatic health disparities exist**.** Our approach to prioritizing health needs was to solicit input from the public through virtual community forums. Eight community forums were held to allow community members an opportunity to identify and prioritize health needs that provided HSS with the appropriate direction in selecting its public health priorities. Specific dates, locations, and attendance for the community forums were as follows:
Table 3: Virtual Community Forums

Date	Audience	Number of Attendees
June 02, 2022	Community members	4
June 06, 2022	Community members	1
June 14, 2022	Community members	29
June 16, 2022	Community members	10
June 16, 2022	Charla de Lupus (Teen, Young Adult, and Parent Support Group)	29
June 20, 2022	Community members	18
June 22, 2022	Community members	32
June 24, 2022	Community partners	8

A total of 131 community members participated in the community forums where participants were asked to rank seven health indicators, from a list of 20, identified in the CHNA according to the order of personal importance (where 1 ranks the highest). Ranking results were calculated using a simple point system in which each ranking is assigned a point value from 1-7, with the indicator ranked 1 receiving 7 points and the indicator ranked 7 receiving 1 point. The indicators that received the most collective points were identified as top priorities for participants at the respective event. Rankings were administered online via Slido. See **Appendix G** for summary reports of community forums and prioritization of health needs.

Based on significant health needs identified in the CHNA results, feedback from internal stakeholders, community partners and the public, the top seven significant health needs identified were:

1. Osteoarthritis
2. Stress
3. Stiffness
4. Fatigue
5. Chronic pain
6. Lupus
7. Injury prevention

Section 6: Implementation Strategy in Addressing Health Needs

HSS' implementation strategy is to provide targeted, culturally relevant programming that will address the top seven community health needs identified above. A detailed description of how HSS' hospital-based, outreach, and support initiatives will address health needs, the anticipated impact of the implementation strategy, and planned collaboration with organizations are provided below.

A. Implementation strategy

Priority Area	Program	Anticipated Impact	Planned Collaborations
Osteoarthritis, Stiffness, Fatigue, chronic pain	**Asian Bone Community Health Initiative -** This initiative is comprised of culturally relevant evidence-based interventions (i.e. yoga, low-impact chair exercises and Self-management education workshops) designed to improve Asian older adults' management of their chronic musculoskeletal conditions (such as osteoarthritis and osteoporosis) and its symptoms (e.g. stiffness, fatigue, chronic pain) while also increasing access to care in this medically underserved community.	▪ Increased access to linguistically-and culturally competent musculoskeletal health programs ▪ Increased knowledge of self-management techniques ▪ Increased self-management skills of at-risk Asian older adults ▪ Improved musculoskeletal health outcomes by decreasing musculoskeletal pain, stiffness, fatigue, and falls, and increasing the frequency of physical activity and self-efficacy	▪ Visiting Nurse Services of NY ▪ Carter Burden Network ▪ Self Help Community Center-Flushing ▪ Queens Community House
Osteoarthritis, Stiffness, Fatigue, Chronic pain	**Musculoskeletal Health Wellness Initiative (MHI):** This initiative is comprised of education and exercise programs to raise awareness, educate and reduce the impact of musculoskeletal conditions (such as osteoarthritis, osteoporosis, rheumatoid arthritis, gout, fibromyalgia) and its symptoms (e.g. stiffness, fatigue, chronic pain) in the community. Programs are held throughout the tri-state area specifically in New York City, Long Island, Westchester, NY, Stamford, CT, and Paramus, NJ as well as virtually via zoom and teleconference. The initiative offers evidence-based interventions such as Yoga, Tai Chi, Pilates, and SME workshops.	▪ Increased access to musculoskeletal health programs among ethnically diverse populations ▪ Increased self-management skills and confidence to manage chronic conditions and orthopedic care ▪ Increased knowledge of musculoskeletal conditions and self-management techniques ▪ Improved musculoskeletal health outcomes by decreasing musculoskeletal pain, stiffness, and fatigue ▪ Improved physical health of the at-risk population	▪ YMCAs ▪ Libraries ▪ Senior Centers ▪ Mediflix

Priority Area	Program	Anticipated Impact	Planned Collaborations
Osteoarthritis, Stiffness, Fatigue	**VOICES 60+ Senior Advocacy Program**: The program provides resources and support for patients and community members over 60 years old with arthritis and related rheumatologic diseases. The program was developed to assess and address the specific and unique needs of culturally and linguistically diverse older adults who are frequently marginalized in the healthcare setting by providing advocacy services, referrals to community resources, enhancing patient-provider communication, and supporting patients and their families in understanding and coping with their illnesses.	▪ Increased knowledge of cognitive behavioral therapy (CBT) and mindfulness techniques ▪ Increased self-efficacy in using CBT and mindfulness techniques to reduce pain ▪ Increased self-reported improvement in communication between participant and provider ▪ Increased self-efficacy in managing patient-provider communication.	▪ Carter Burden Network ▪ Dorot, Inc. ▪ Lenox Hill Neighborhood House ▪ Service Program for Older People (SPOP) ▪ Selfhelp Community Services ▪ Stanley Isaacs Neighborhood Center
Stress, Chronic pain	**Pain and Stress Management (PSM) Program:** This program is comprised of educational, and mindfulness-based coping techniques to raise awareness, educate and improve the ability to cope with pain and stress. It offers mind/body workshops, exercises such as Yoga, and expert-guided meditation to help reduce physical and mental stressors. All the educational programs are taught by experienced physicians, nurses, and physical/occupational therapists, while Yoga workshops are led by certified yoga instructors.	▪ Increased access to complementary alternatives to opioids for those experiencing chronic pain and stress ▪ Increased knowledge of self-management techniques ▪ Increased utilization of self-management skills ▪ Increased use of mind-body practices to manage pain and stress in place of medication	▪ HSS Ambulatory Care Center ▪ HSS Department of Rheumatology
Stress	**Aging with Dignity (AWD):** This program was created to target social isolation and provide programming to connect through different modalities such as journaling, art, and music. The AWD program also runs a weekly Aging with Dignity support group via teleconference to level participation equally from participants who do not own or are not comfortable with using computers. The support group offers a place for older adults to discuss the challenges of growing older as they feel they are becoming more invisible in society.	▪ Increased knowledge of journaling, art, music, and how to access credible health information on the internet ▪ Increased knowledge or understanding of new skills/tools ▪ Increased self-management skills ▪ Increased access to creative programs	▪ Breaking Ground ▪ JASA ▪ Lenox Hill Neighborhood House ▪ Prime Care

Priority Area	Program	Anticipated Impact	Planned Collaborations
Lupus	**Charla de Lupus/Lupus Chat®:** This is a social work-led program that engages and trains peer volunteers to become empowering role models by providing culturally relevant strategies to help increase understanding of this complex illness and its treatment, improve medication adherence, and enhance coping and healthy behaviors. Comprehensive bilingual (English/Spanish) services include the Charla Line, toll-free national support and education helpline; weekly Onsite Peer Support Outreach at four hospital-based clinics, monthly Charla Teen and Parent Lupus Chat Groups; numerous communities, professional education, and government collaborations.	▪ Increased knowledge in culturally diverse systemic lupus erythematosus (SLE) teens/young adults on how to identify perceived discrimination/implicit bias ▪ Increased self-efficacy skills in culturally diverse SLE teens/young adults in addressing perceived discrimination/implicit bias ▪ Increased physician understanding and knowledge of bias and perceived discrimination in culturally diverse SLE patients. ▪ Increased physician integration of training concepts into their practice aligned with perceived discrimination/implicit bias	▪ HSS: Dr. Alisha Akinsete ▪ Columbia University Medical Center
Lupus	**LANtern® Lupus Asian Network**: HSS LANtern is a national model for the support and education of Asian Americans with lupus and their families. LANtern is the only hospital-based support and education program designed specifically for Asians/Asian Americans with lupus. Through its bilingual (English/Chinese) Support Line, publications, community and professional programs, and capacity building, the program seeks to enhance awareness, understanding, coping, and knowledge for Asian Americans with lupus and their loved ones.	▪ Increased self-efficacy among Asian community participants with lupus ▪ Increased effective self-management skills for community participants with lupus ▪ Increased knowledge among community participants with lupus	▪ Association of Chinese American Physicians (ACAP) ▪ Charles B. Wang Community Health Center (CBWCHC) ▪ Chinese American Medical Society (CAMS) ▪ Lupus Foundation of America (LFA) ▪ New York Presbyterian Lower Manhattan Hospital ▪ Visiting Nurse Service (VNS) ▪ Chinatown Community Center

Priority Area	Program	Anticipated Impact	Planned Collaborations
Lupus, Stiffness, Fatigue	**Inflammatory Arthritis (IA) Support and Education Programs:** This initiative addresses the psychoeducational needs of community members and their families living with long-standing rheumatoid arthritis, and for people newly diagnosed. These monthly programs feature a lecture on an RA-specific topic its management, presented by healthcare professionals, and are followed by a support group, co-facilitated by a social worker and a rheumatology nurse.	▪ Increased self-efficacy ▪ Increased coping skills ▪ Increased access to culturally and linguistically tailored, disease-specific support and education to the Latinx RA community ▪ Perceived improved coping, self-management, and reduced isolation	▪ Creaky Joints, Español ▪ CreakyJoints/ (Global Healthy Living Foundation (GHLF) ▪ Spondylitis Association of America (SAA)
Injury prevention	**The Youth Sports Safety Program:** This program delivers both primary and secondary sports injury prevention interventions to young athletes and their coaches, teachers, and parents.	▪ Increased knowledge of sports-related lower extremity injury risk factors ▪ Increased confidence in implementation of (role-specific) injury prevention interventions ▪ Increased intention to implement/adopt (role-specific) injury prevention interventions ▪ Increased implementation and adoption of (role-specific) injury prevention interventions	▪ Charter School of Educational Excellence (CSEE)
Injury prevention	**The Leon Root, MD Pediatric Outreach Program (POP);** This program is a community-based, early detection screening and education program designed to address the musculoskeletal health needs of young athletes in medically underserved neighborhoods in NYC that do not have knowledge of or access to experts in musculoskeletal health. The goal of this program is to detect and treat sports-related injuries well before they can lead to orthopedic disorders and provide education to reduce the risk of sports-related injuries in young athletes. The program offers free screening and educational workshops led by a highly trained orthopedic team of surgeons, residents, interns, physical therapists, and nurses	▪ Improvement in warm-up and warm-down before/after practice ▪ Increased student knowledge on injury prevention and proper movement techniques	▪ The East Harlem School ▪ Philip Randolph Campus H.S

B. Community Resources Available to Address Needs

HSS works to strengthen its extensive community education, wellness, support, and outreach initiatives through its collaborations with community organizations, public schools, city and state agencies, universities, clinical settings, and the private sector. In addition to HSS' strategy in addressing identified health needs described above, below is a listing of existing healthcare facilities/community resources available to respond to these community health needs.

Clinical/Academic Partnerships

- Asian American/Asian Research Institute, City University of New York
- Charles B. Wang Community Health Center
- Chinese Community Partnership for Health, NewYork-Presbyterian/Lower Manhattan Hospital
- Clinical Translational Science Center, Community Engagement Core, Weill Cornell Medical College
- Coalition of Chinese American IPA
- HSS China Orthopedic Education Exchange
- Mt. Sinai Medical Center, Adolescent Health Center
- NewYork-Presbyterian/Morgan Stanley Children's Hospital at Columbia University Medical Center, Pediatric Rheumatology Service
- NewYork-Presbyterian/Columbia University Medical Center – The Men's Clinic at Audubon Clinic
- NewYork-Presbyterian/Weill Cornell Medical Center – Health Outreach® Program
- NewYork-Presbyterian Hospital
- New York University Silberman School of Social Work
- Touro College Graduate School of Social Work
- Translational Research Institute for Pain in Later Life (TRIPLL)
- University of Delaware
- Weill Cornell Medical College, Department of Psychiatry

Community-Based Organization Partners

- 92NY
- All Community Adult Day Centers
- Amani Public Charter School
- American Heart Association, Fairfield & Westchester Counties
- American Red Cross
- AmeriCares Free Clinics
- Arthritis Foundation – NY Chapter
- Asian Health and Social Service Council
- Asphalt Green
- Association of Chinese American Physicians (ACAP)
- Bayside High School
- Brown Gardens Assisted Living Facility
- Breakaway Hoops
- Blue Ridge High School
- Blondes Vs. Brunette Football
- Building One Community
- Cardoza High School
- Chinese American Medical Society (CAMS)
- Carter Burden Network, Leonard Covello Senior Program
- Centercourt Sports
- Charter School of Excellence
- Children's Aid Society
- Chinese-American Planning Council
- CUNYAC
- Chatham High School
- Chelsea Piers CT
- Chinese Consolidated Benevolent Association
- Community Health Center, Inc.
- Concerned Home Managers for the Elderly (COHME)
- Cristo Rey High School Bronx
- Dominican College
- Dorot, Inc.
- East Harlem Community Health Committee (EHCHC)
- Fifth Avenue Presbyterian Church
- Friends Academy High School

- Girl Scouts of Jersey Shore
- Golden Eagle Adult Day Center
- Gouverneur Court
- Greenwich Alliance for Education
- Harlem Lacrosse
- Hempstead High School
- Isabella Geriatric Center
- Jewish Association Services for the Aged (JASA)
- KIPP High School
- Lenox Hill Neighborhood House and (St. Peter's Church)
- LaGuardia Senior Citizens Center
- Lupus Research Alliance
- Lupus Foundation of America
- Manhattan Country Day School
- Marywood University
- Maspeth High School
- Medicare Rights Center
- Mott Street Senior Center
- Neighbors Link Stamford
- Norwalk Senior Center, South Norwalk
- New York Chinatown Senior Citizen Center
- New York Foundation for Senior Citizens
- New York Road Runners Club (NYRR)
- Nightingale High School
- Oceanside Stallions Football
- Over 60 Senior Neighborhood
- Planned Parenthood of NYC
- Prime Care Home Health Agency
- Project Sunshine
- PS 76- Harlem
- Public School Athletic League
- Sacred Heart High School
- Selfhelp Innovative Senior Center
- Service Program for Older People
- Spondylitis Association of America
- Stamford Department of Health
- Stamford Hospital
- Stamford Senior Center
- Stamford YMCA
- Stanley M. Isaacs Neighborhood Center
- St. Mary's School- Manhasset
- Tarrytown YMCA
- The Calhoun School
- The Center for Information & Study on Clinical Research Participation (CISCRIP)
- The Collegiate School
- The Myositis Association
- The Scleroderma Foundation
- Urban Health Plan, Inc.
- Visiting Nurse Service of New York
- Wendy Hilliard Gymnastics
- West Side Interagency Council on the Aging (WSIACA)
- Xavier High School
- YM & YWHA – Washington Heights/Inwood
- Young Women's Leadership School (Astoria)

Government/Public Partners

- MTA Paratransit Access-A-Ride Program
- National Institute for Arthritis and Musculoskeletal Disease (NIAMS) – National Multicultural Outreach Initiative
- New York City Department for the Aging
- New York City Department of Health and Mental Hygiene
- New York City Public Schools
- New York Public Libraries
- New York State Department of Health
- Office of Women's Health, U.S. Department of Health and Human Services
- Department of Youth and Community Development

C. Impact Evaluation of 2019 Implementation Strategy

Community programs must be frequently evaluated to meet the changing healthcare needs of our diverse and aging community. To this end, HSS identified and developed specific outcome measures to assess its reach and impact on the community. A detailed description of the impact of our strategies to address health needs identified in the 2019 CHNA is provided below:

Program	2019 Health Needs Addressed	Activities Conducted	Results/Impact
Asian Bone Community Health Initiative	Osteoarthritis; Osteoporosis; Rheumatoid Arthritis; joint, muscle, and bone pains; falls; loss of balance	▪ Conducted 62 in-person exercise classes (i.e., 2 eight sessions of yoga and 6 eight sessions of low-impact chair exercises) reaching 878 participants ▪ Facilitated 2 in-person educational lectures reaching 97 participants ▪ Developed one on-demand yoga video reaching 3175 viewers ▪ Developed one nutrition on-demand webinar reaching 42 viewers ▪ Conducted one educational lecture facilitated over conference call reaching 39 participants	Results from the in-person 8 week exercise sessions revealed that: ▪ 45.2% of participants experienced a decrease in muscle/joint pain, ▪ 23.6% of participants reported decreased stiffness ▪ 32.1% of participants reported decreased fatigue ▪ 58.2% of participants reported reduced falls ▪ 96.3 % of participants reported improved balance ▪ 20.4% of participants increased physical activity and exercise confidence ▪ 96.2 % of participants gained knowledge ▪ 97.8 % of participants gained self-management skills
Charla de Lupus (Lupus Chat)®	Falls, loss of balance, stress, and mental health	▪ Conducted our annual Charla patient and health professional surveys to assess specific topic areas related to SLE management and coping for people with lupus and their loved ones in the Charla program. ▪ Created bilingual comprehensive needs assessment & integrated six validated tools that assess these areas of mental health ▪ Conducted the IRB-approved Charla Needs Assessment and received 53 responses	Results from the program evaluation revealed that: ▪ 93% of participants gained knowledge of SLE including diagnosis and treatment ▪ 93% of participants gained self-management skills ▪ 97% of participants were satisfied with the program ▪ 96% of participants would recommend the program to friends/family

Program	2019 Health Needs Addressed	Activities Conducted	Results/Impact
		▪ Conducted 9 monthly Charla support & education groups reaching 363 participants ▪ Conducted Hospital Anxiety & Depression Scale (HADS) screening to participants every quarter (pre-test, 3 months, 6 months, post-test) ▪ Identified one new community partner, the National Alliance on Mental Illness (NAMI), and collaborated with the Lupus Foundation of America (LFA) & Lupus Research Alliance (LRA) for support & education on mental health ▪ Created a comprehensive Mental Health Resource Guide that included a glossary of mental health terms & vetted community referrals to support group participants	Qualitative themes identified across mental health sessions included the value of sharing experiences, new coping strategies & importance of seeking support. Below are some illustrative quotes from participants: ▪ "One thing I will take away is there are other people who deal with mental illness like me and how to cope with similar situations" ▪ "It's okay to have a mental illness, seeking help is the best thing I can do for myself." ▪ "Mental health is important, and I should speak to someone if I feel my mental health is getting worse"
Inflammatory Arthritis Support and Education and Programs	Rheumatoid Arthritis, stress, and mental health	▪ Conducted 11 focus groups, (5 in person, 6 virtually), reaching 68 participants ▪ Facilitated 17 in-person support and education programs reaching 220 participants ▪ Facilitated 23 virtual support and education programs reaching 303 participants ▪ Provided three in-person community education disease-specific lectures reaching 108 participants ▪ Provided two virtual community education disease-specific lectures reaching 467 participants	Evaluation of our support and education programs revealed that: ▪ 94% of participants gained knowledge ▪ 92% of participants gained self-management skills ▪ 96% of participants were satisfied with the program ▪ 96% of participants would recommend the program to friends/family Below are some illustrative quotes from participants: ▪ "The group is life-saving because people without the disease don't understand. It's probably the single most important therapy after the actual drugs." ▪ "I feel so much better coming to this group and speaking/hearing that other people have similar concerns.

Program	2019 Health Needs Addressed	Activities Conducted	Results/Impact
		For LatinX pilot programming, we conducted the following activities: ▪ Completed literature review on barriers to quality healthcare, and best practices in culturally tailored support and education programs ▪ Conducted focus groups and key informant interviews with the healthcare team and developed a summary report on findings ▪ Researched, developed, and adapted bilingual, (Spanish/English), culturally relevant disease-specific written materials ▪ Conducted structured interviews with Latinx RA patients to obtain a critical patient perspective on their unique support and education needs ▪ Implemented the first culturally relevant disease-specific lecture for Spanish-speaking Latinx RA patients, reaching 56 participants ▪ Created an outcome report detailing the results of the program evaluation	The advice is great and everyone is supportive." ▪ "Hearing other people's experiences. It's a gentle place. I can verbalize how I feel, and it makes me feel better. I'm still trying to accept that I have RA, so for me, this has been wonderful, great." Program evaluation from the LatinX pilot webinar revealed that ▪ 92% % of participants gained knowledge ▪ 96% of participants gained self-management skills ▪ 96% of participants were satisfied with the program ▪ 96% of participants would recommend the program to friends/family
LANtern® (Lupus Asian Network)	Joint, muscle, and bone pains, and fatigue	▪ Conducted a needs assessment survey to identify cultural health beliefs & values in the Asian community ▪ Conducted 15 key informant interviews with Asian individuals with lupus over the phone and incorporated results into the education curriculum ▪ Conducted analysis of key informant interviews that revealed cultural themes, including misinformation and	Program evaluation from our community education and support programs revealed that ▪ 97% of participants gained knowledge ▪ 90% of participants gained self-management skills managing their conditions/or in conducting their professional practice ▪ 98% of participants were satisfied with the program ▪ 99% of participants would recommend our program to others

Program	2019 Health Needs Addressed	Activities Conducted	Results/Impact
		stigmas, family burden and relationships, disease unpredictability and quality of life, mental strength, and spirituality, as major determinants of lupus health - Created "Guide for Presenters" highlighting key findings from the key informant interviews for future education programs - The LANtern's Community Advisory Board reviewed key informant interview results and provided feedback - Sustained relationships with existing partners & engaged two new partners - Chinatown Neighborhood Naturally Occurring Retirement Community (NNORC) & Lupus Foundation of America/Southern California Region (LFA/SoCal)'s Asian Support Group - Conducted four professional education programs (2 in-person; 2 virtual) reaching 81 Asian service providers - Planned & implemented 16 community education and support programs reaching 636 Asian community members (7 in-person; 9 virtual). - Participated in six in-person community health fairs reaching 705 Asian community members - Participated in two virtual AAPI Heritage Month Festivals reaching 19,224 viewers - Developed and posted three on-demand	Overall themes from qualitative results include emotional support through peer connections, and new health information provided. Below are some illustrative quotes from participants: - "Absolutely important to have peer support. It helps balance our thinking, emotions, and our heart. I feel less alone when I am with the group" - "Being able to share and listen to personal stories is the most effective way to connect people" - "Facts and data provided by the doctor are very informative & new" - "Being reassured with the facts and research that medical professionals have worked hard on researching over the year" - "Wide variety of topics, intellectually stimulating" - "More info is great knowledge"

Program	2019 Health Needs Addressed	Activities Conducted	Results/Impact
		webinars reaching 3,087 viewers	
Musculoskeletal Health Initiative	Osteoarthritis; Osteoporosis; Rheumatoid Arthritis; joint, muscle, and bone pains; falls; loss of balance; lifestyle (i.e. poor diet, obesity, lack of exercise); stiffness; fatigue; and complementary alternatives to manage pain	▪ Developed & implemented 50 in-person programs reaching 1,108 community participants ▪ Facilitated 489 in-person exercise classes reaching 3,214 participants ▪ Facilitated 161 regional, in-person, exercise classes reaching 1,222 participants ▪ Developed & implemented 105 livestream, virtual educational programs reaching 2,721 participants ▪ Developed & implemented 23 livestream, virtual programs reaching over 351 participants in our regional markets ▪ Facilitated 516 livestream, virtual exercise classes, reaching 5,243 participants ▪ Facilitated 126 livestream, virtual regional exercise classes reaching 858 participants ▪ Created 77 new videos of on-demand content, including 58 webinars and 19 short videos, reaching over 1.7 million views ▪ Developed and deployed 47 email campaigns sharing education and wellness tips as well as related digital program content ▪ Conducted a virtual needs assessment to understand the educational needs of a younger and more diverse population	The results below highlight the impact of our 6-weeks virtual exercise classes: ▪ Participants reported that mean pain intensity **decreased** by 3.5% from 3.3 to 3.1 ▪ No change in mean pain interference ratings was found in five aspects of daily living: Mood, Walking ability, normal work, relations with others, and enjoyment of life. ▪ Participants reported **no change** in their balance. ▪ Participants' stiffness dropped by 5.5%, $p \leq 0.05$ ▪ Participants' fatigue dropped by 3.5% ▪ Participants reported that their confidence to overcome barriers and find the means to exercise did not change Regarding physical activity, participants reported that they: ▪ were 0.1 times **more likely** to walk 3 or more times a week compared to less than 3 times a week ▪ were 0.2 times **more likely** to engage in moderate-intensity physical activity 3 or more times a week compared to less than 3 times a week; $p \leq 0.05$) ▪ were 0.1 times **more likely** to engage in vigorous-intensity physical activity 3 or more times a week compared to less than 3 times a week

Program	2019 Health Needs Addressed	Activities Conducted	Results/Impact
		▪ Developed one new community partnership in our NYC market ▪ Developed new partnerships with 9 community partners in HSS regional markets	Qualitative feedback from open-ended surveys, virtual focus groups, and phone interviews indicated that our virtual exercise classes helped participants ▪ Establish a routine during a chaotic time ▪ Promote and increase socialization & interpersonal connection ▪ improve their physical wellbeing and mobility ▪ Increase confidence to manage their musculoskeletal condition Program evaluation from our webinars and workshops revealed that: ▪ 88% of participants gained knowledge ▪ 86% of participants gained self-management skills to manage a chronic condition ▪ 92% of participants rated the program positively ▪ 91% of participants would recommend the program to others
Nursing Community Education	Osteoarthritis; osteoporosis; rheumatoid arthritis; joint, muscle, and bone pains; falls; loss of balance, and lifestyle (i.e. poor diet, obesity, lack of exercise)	▪ Conducted 4 educational lectures reaching 123 participants ▪ Developed 1 new community partnership (Visiting Nurses Service of New York Community Outreach) ▪ Provided 2 educational sessions in Spanish to address a more diverse audience ▪ Conducted 7 educational webinars reaching 63 individuals ▪ Conducted 5 bilingual (English/Spanish) webinars reaching 192 individuals	Program evaluation from our programs revealed that: ▪ 96% of participants gained knowledge ▪ 96% of participants gained self-management skills to manage a chronic condition ▪ 97% of participants rated the program positively ▪ 97% of participants would recommend the program to others

Program	2019 Health Needs Addressed	Activities Conducted	Results/Impact
Pain and Stress Management Program	Joint, muscle, and bone pains, stress, mental health, and complementary alternatives to manage pain	▪ Conducted five educational lectures and workshops to address pain and stress management reaching 46 participants ▪ Implemented 14 meditation and mind-body in-person workshops with clinics before the COVID-19 pandemic reaching 112 patients ▪ Conducted 15 lectures and workshops via Zoom reaching 301 participants ▪ Facilitated 28 meditation and mind-body workshops via conference calls reaching 163 participants ▪ Facilitated 73 mindful breathing conference calls and 23 deep breathing conference calls reaching 472 participants ▪ Created four guided meditations videos on YouTube to expand on-demand pain and stress management resources, reaching 329,000 views	Program evaluation from our programs revealed that ▪ 83% of participants gained knowledge ▪ 82% of participants gained self-management skills ▪ 92% of participants were satisfied with the program ▪ 88% of participants would recommend the program to others Qualitative feedback from phone interviews revealed that ▪ Participants use the practices learned to help cope with pain and stress ▪ Participants increased their self-efficacy and use of complementary therapies to manage pain/stress ▪ Conference calls helped participants feel connected to each other
SNEAKER© (Super Nutrition Education for All Kids to Eat Right)	Lifestyle (i.e., poor diet, obesity), lack of exercise	▪ Hosted one 4-week program and seven workshops reaching 188 total students ▪ Conducted three livestream webinars reaching 19 participants ▪ Recorded three webinars and posted to YouTube for enduring educational content reaching 370,237 viewers ▪ Initiated educational video project (expected completion of two videos anticipated December 2021) ▪ Developed a new partnership with Wendy Hilliard Gymnastics	Results from a program evaluation of live webinars revealed: ▪ 100% of participants were satisfied ▪ 50% of participants gained knowledge ▪ 50% of participants gained self-management skills

Program	2019 Health Needs Addressed	Activities Conducted	Results/Impact
The Leon Root Pediatric Outpatient Program (POP)	Osteoarthritis	▪ Conducted eight sports injury prevention screenings reaching 181 student-athletes ▪ Conducted two educational workshops reaching 41 student-athletes	Results from the movement assessment revealed that: ▪ 93.4% of student-athletes exhibited pain-free performance of ▪ activity ▪ 84.1% of student athletes-maintained balance throughout the activity ▪ 81.6% of student-athletes maintained a neutral trunk position ▪ 49.4% of student-athletes maintained neutral lower extremity alignment ▪ 55.6% of student-athletes used appropriate landing force attenuation/multiple step pattern/strategy Program evaluation from education workshops revealed that ▪ Student's mean knowledge of proper ▪ movement techniques increased by 6.5 points ▪ 98.8.% of young athletes were satisfied with the program
VOICES 60+	Osteoarthritis, Osteoporosis, joint, muscle, and bone pain,	▪ Completed evidence-based literature review, identified resources, reviewed CHNA results, and convened Community Task Force meetings to identify community needs to inform chronic pain self-management education curricula ▪ Conducted eight (5 in-person and 3 virtual) Community Task Force meetings representing 13 community partner agencies serving older adults reaching 104 contacts ▪ Utilizing task force meetings and 4 key informant interviews, we finalized 2 bilingual	The results below highlight the impact of the bilingual (English/Spanish) chronic pain self-management community education programs provided for older adults ▪ 100% would recommend the program to other ▪ 100% were satisfied with the program ▪ 95% gained knowledge about chronic pain ▪ 91% gain self-management skills to manage chronic pain

Program	2019 Health Needs Addressed	Activities Conducted	Results/Impact
		(English/Spanish) health literate and culturally relevant, evidence-based chronic pain self-management education curricula, on mindfulness, and CBT and distraction strategies for older adults and their service providers ▪ Participated in 3 senior health fairs, reaching 315 older adults ▪ Identified 4 new community partners. ▪ Planned and implemented 2 annual bilingual (English/Spanish) VOICES 60+ educational programs reaching 57 older adults ▪ Conducted six chronic pain self-management education programs in English & Spanish (2 in person and 7 virtually) reaching 110 older adults, ▪ Conducted three chronic pain self-management education programs reaching 81 service providers ▪ Developed two on-demand webinars reaching 65 views	Illustrative quote from an older adult attendee: ▪ "I believe pain can be managed with these exercises. Medication can help, but people must remain active to distract their minds." The results below highlight the impact of the bilingual (English/Spanish) chronic pain self-management community education programs provided for service providers: ▪ 100% strongly agree/agree they were satisfied with the program ▪ 100% strongly agree/agree they increased their understanding of chronic pain in older adults ▪ 100% strongly agree/agree they will apply what they learned to teach older adults strategies to manage chronic pain Illustrative quote from service provider attendee: ▪ "Very informative, great to meet others and share our challenges and the tools we are using."

This Community Health Needs Assessment (CHNA) Report and Implementation Plan has been adopted by HSS Community Benefit and Services Committee of the Board of Trustees.

Community Health Needs Assessment (CHNA)

HSS wants to hear about your needs regarding muscle, bone, and joint conditions. This will help us to provide programs and services that are important to you. We do not need your name for this survey. Please return this survey no later than **February 15, 2022**, so that we can make sure your opinion counts. Thank you for your help!

A. Health Status and Quality of Life: Please choose your response from the options listed. If you are unsure, please give the best answer you can.

1. Have you ever been told by a doctor or other health professional that you have …?

	Yes	No
a) Osteoarthritis (OA)	☐	☐
b) Rheumatoid arthritis (RA)	☐	☐
c) Lupus	☐	☐
d) Fibromyalgia	☐	☐
e) Gout	☐	☐
f) Some other form of arthritis	☐	☐
g) Osteoporosis	☐	☐
h) Chronic pain	☐	☐
i) Other: _____		

NOTE: If you answered "No" to all parts of Question 1, please SKIP to Question 3

2. How confident are you that you can manage symptoms of your bone, muscle, and joint condition so that you can do the things that you want to do?

☐ Not at all confident ☐ Somewhat confident ☐ Confident ☐ Very confident

3. Thinking about your **physical health**, which includes physical illness and injury, for how many days during the **past 30 days** was your physical health not good?

☐ None
☐ 1-7 days
☐ 8-13 days
☐ 14 days or more

4. Thinking about your **mental health**, which includes stress, depression, and problems with emotions, for how many days during the **past 30 days** was your mental health not good?

☐ None
☐ 1-7 days
☐ 8-13 days
☐ 14 days or more

5. In the past year, have you fallen down?

☐ Yes ☐ No

NOTE: The following question refers to your overall sleep quality for the *majority* of the nights in the *past 7 days ONLY*.

6. Please think about the quality of your sleep **overall**, such as how many hours of sleep you got, how easily you fell asleep, how often you woke up during the night (except to go to the bathroom), how often you woke up earlier than you had to in the morning, and how refreshing your sleep was.

During the **past 7 days**, how would you rate your sleep quality overall? (Please mark only **1** box)

Terrible	Poor			Fair			Good			Excellent
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
0	1	2	3	4	5	6	7	8	9	10

B. Health Behaviors & Lifestyle:

7. How many times a week do you usually do at least 20 minutes or more of **vigorous-intensity physical activity** that makes you sweat or puff and pant? (e.g., heavy lifting, digging, jogging, aerobics, or fast bicycling).

- ☐ 3 or more times a week
- ☐ 1 to 2 times a week
- ☐ None

8. How many times a week do you usually do 30 minutes or more of moderate-intensity physical activity or walking that increases your heart rate or makes you breathe harder than normal? (e.g., carrying light loads, bicycling at a regular pace, or doubles tennis).

- ☐ 5 or more times a week
- ☐ 3 – 4 times a week
- ☐ 1 – 2 times a week
- ☐ None

9. Over the past three months, did you use any of the following to manage your pain?

	Yes	**No**
a) I did not have pain	☐	☐
b) Yoga, Tai Chi, or Qi Gong (chee-GONG)?	☐	☐
c) A pain reliever or opioid prescribed by a doctor, dentist, or other health professional?	☐	☐
d) Meditation, guided imagery, or other relaxation techniques?	☐	☐

10. How strongly do you disagree or agree with the following statements regarding healthy eating?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) I am confident that I know how to choose healthy foods	☐	☐	☐	☐	☐
b) I would like to eat healthier	☐	☐	☐	☐	☐
c) Healthy foods cost too much	☐	☐	☐	☐	☐
d) I like the taste of healthy foods	☐	☐	☐	☐	☐
e) I have places where I live to find healthy food	☐	☐	☐	☐	☐
f) It takes too much time and effort to prepare healthy foods	☐	☐	☐	☐	☐
g) I know what foods to eat	☐	☐	☐	☐	☐
h) Family and friends eat healthy foods	☐	☐	☐	☐	☐

C. Use of and Access to Care: These questions are about your healthcare experiences and healthcare education needs. Please choose your response from the options listed.
If you are unsure, please give the best answer you can.

11. What is the primary source of your insurance?

- ☐ A plan purchased through an employer or union (includes plans purchased through another person's employer)
- ☐ A plan that you or another family member buys on your own
- ☐ Medicaid
- ☐ Medicare
- ☐ TRICARE (formerly CHAMPUS), VA, or Military
- ☐ Alaska Native, Indian Health Service, Tribal Health Services
- ☐ Some other source
- ☐ I do not have health insurance coverage
- ☐ Don't Know

12. Here is a list of some things that may affect people's health and well-being. What are the top 5 problems that affect your health? **Choose only the top 5 options.**

- ☐ Lack of access to my doctor's office
- ☐ Lack of access to insurance
- ☐ Limited access to any foods
- ☐ Limited access to healthy foods
- ☐ Poor schools
- ☐ Lack of job opportunities
- ☐ Discrimination/ bias
- ☐ Social isolation/ loneliness
- ☐ Lack of affordable childcare
- ☐ Poor housing/ homelessness
- ☐ Lack of neighborhood safety
- ☐ Limited places to exercise
- ☐ Transportation problems
- ☐ COVID-19 related issues
- ☐ Other: _____

13. What are the top three reasons you did not get healthcare in the past 12 months? **Choose only your top 3 options.**

- ☐ Does not apply - I was able to get healthcare in the past 12 months
- ☐ Could not afford it
- ☐ No health insurance
- ☐ Service not covered by insurance
- ☐ Lack of transportation
- ☐ Hard to get an appointment
- ☐ Not sure where to go
- ☐ Fear or mistrust of doctors
- ☐ Lack of childcare
- ☐ Cultural/ religious barriers
- ☐ Language barriers (such as could not get healthcare in my language)
- ☐ Office not patient-friendly (such as long wait time, hours not convenient)
- ☐ Only telehealth was offered, and I could not participate
- ☐ Could not get time off work/ school
- ☐ Other reason: _____

14. Sometimes people don't follow their doctor or other healthcare provider's medical advice. Please select the reasons that may apply to you. **Check all that apply.**

		Yes	No
a)	Does not apply - always follow the medical advice of my doctor or healthcare provider	☐	☐
b)	Provider didn't explain treatment well enough (due to lack of time, uncaring attitude, or hard to understand)	☐	☐
c)	Did not feel treatment would help	☐	☐
d)	Concerned about the cost of treatment	☐	☐
e)	Forgot to take medicine / go for follow-up	☐	☐
f)	Provider doesn't understand my culture / language	☐	☐
g)	Condition not severe enough	☐	☐
h)	Worried about side effects of treatment	☐	☐
i)	Prefer to use complementary / alternative treatment	☐	☐
j)	Did not fit my schedule / not convenient for me	☐	☐
k)	Did not agree with the doctor / healthcare provider	☐	☐
l)	Other reason: _____		

NOTE: Telehealth is the use of technology (i.e., smartphone, computer, tablet) to provide care when you and the doctor are not in the same place at the same time. For example: a video meeting or phone call with your healthcare provider.

15. What are some of the barriers you might experience in trying to use telehealth? **Check all that apply.**

- ☐ I don't have any barriers
- ☐ I don't have a device (i.e., smartphone, computer, tablet)
- ☐ I don't have access to high-speed internet service
- ☐ I don't know how to use telehealth
- ☐ I am concerned about my health information remaining confidential
- ☐ I am concerned about the possibility of medical errors
- ☐ I am not sure that my doctor's office offers telehealth services
- ☐ I am not interested in telehealth

16. Please think about all the times in your life when you have gotten health care. When getting health care, how often have any of the following things happened to you because of your race, ethnicity, or color?

	Never	Once in a while	Sometimes	A lot	Most of the time	Almost all of the time
a) You are treated with less courtesy than other people	☐	☐	☐	☐	☐	☐
b) You are treated with less respect than other people	☐	☐	☐	☐	☐	☐
c) You receive poorer service than others	☐	☐	☐	☐	☐	☐
d) A doctor or nurse acts as if he or she thinks you are not smart	☐	☐	☐	☐	☐	☐
e) A doctor or nurse acts as if he or she is afraid of you	☐	☐	☐	☐	☐	☐
f) A doctor or nurse acts as if he or she is better than you	☐	☐	☐	☐	☐	☐
g) You feel like a doctor or nurse is not listening to what you were saying	☐	☐	☐	☐	☐	☐

17. What is your preferred language for **discussing** medical issues or healthcare instructions?

☐ English
☐ Spanish
☐ Chinese
☐ Russian
☐ Arabic
☐ Hebrew
☐ Other: _____

18. What is your preferred language for **reading** about medical issues or healthcare instruction?

☐ English
☐ Spanish
☐ Chinese
☐ Russian
☐ Arabic
☐ Hebrew
☐ Other: _____

19. How often do you need to have someone help you when you read instructions, pamphlets, or other written material from your doctor or pharmacy?

- ☐ Never
- ☐ Rarely
- ☐ Sometimes
- ☐ Often
- ☐ Always

D. Health Education: HSS provides health education programs. The following questions will help us to identify the health education needs of the community.

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20. What are the top three reasons you did not participate in health education programs in the past 12 months? **Choose only your top 3 options.**

- ☐ Does not apply - I participated in health education programs in the past 12 months
- ☐ Could not afford it
- ☐ Lack of transportation
- ☐ Not sure where to go
- ☐ Fear or mistrust of doctors
- ☐ Fear of COVID-19
- ☐ Lack of time
- ☐ Scheduling conflicts
- ☐ Cultural/ religious barriers
- ☐ Language barriers (such as could not get health education in my language)
- ☐ Did not know about the program

21. To attend health education programs, what time(s) do you prefer? **Check all that apply.**

	Morning	Afternoon	Evening
Weekday	☐	☐	☐
Weekend	☐	☐	☐

22. Which of the following health education formats/activities would you be interested in? **Check all that apply.**

- ☐ Onsite exercise classes
- ☐ Virtual exercise classes
- ☐ Onsite interactive small group workshops
- ☐ Virtual interactive small group workshops
- ☐ Onsite lectures
- ☐ Virtual lectures
- ☐ Podcasts
- ☐ On-demand videos (i.e., Videos available for downloading/streaming on your device)
- ☐ Social media posts (i.e., Facebook, Twitter, Instagram etc.)
- ☐ Conference calls
- ☐ Support groups
- ☐ None of the above

23. What five health topics would you be interested in learning more about? **Choose only 5 options.**

- ☐ Exercise
- ☐ Managing my chronic condition
- ☐ Healthy eating
- ☐ Supporting a healthy lifestyle
- ☐ Dealing with stress, anxiety, and depression
- ☐ Ways to improve mobility
- ☐ Injury prevention
- ☐ Medication management
- ☐ Pain management
- ☐ Use of technology to manage health
- ☐ Managing my child's health
- ☐ Complementary treatments (i.e., Yoga, meditation, mindful breathing) to manage my health/ health condition
- ☐ Preparing a list of questions for my doctor or healthcare provider
- ☐ Discussing personal problems that may be related to my illness
- ☐ Asking questions about things I don't understand about my treatment
- ☐ Sexual health
- ☐ COVID-19
- ☐ Other: _____

E. About You: Please tell us about you and your background so that we can learn more about the communities we serve.

24. What is your gender identity?

- ☐ Female
- ☐ Male
- ☐ Transgender Woman/Transgender Female
- ☐ Transgender Man/Transgender Male
- ☐ Other (e.g., non-binary, genderqueer, gender-diverse, or gender fluid). Please specify: _____
- ☐ Prefer not to respond

25. Do you think of yourself as:

- ☐ Straight or heterosexual
- ☐ Lesbian or gay
- ☐ Bisexual
- ☐ Queer, pansexual and/or questioning
- ☐ Something else; Please specify: _____
- ☐ Don't know
- ☐ Prefer not to respond

26. What is your age? ____

27. Do you consider yourself Hispanic/Latino?

☐ Yes ☐ No ☐ Prefer not to respond

28. Which one of these groups would you say best represents your race? **Check all that apply.**

- ☐ American Indian / Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian/ Other Pacific Islander
- ☐ White
- ☐ Other: _____
- ☐ Prefer not to respond

29. Please tell us about your ethnicity; you can list as many as you prefer (for example: Chinese, Nigerian, Italian, Puerto Rican, Russian, etc.)

What is the highest grade or year of school you completed?

- ☐ Never attended school or only attended kindergarten
- ☐ Grades 1 through 8 (Elementary)
- ☐ Grades 9 through 11 (Some high school)
- ☐ Grade 12 or GED (High school graduate)
- ☐ College 1 year to 3 years (Some college or technical school)
- ☐ College 4 years or more (College graduate)
- ☐ Postgraduate (Masters, PhD)
- ☐ Prefer not to respond

30. What is your annual household income from all sources?

- ☐ Less than $10,000
- ☐ $10,000 – $14,999
- ☐ $15,000 – $24,999
- ☐ $25,000 – $34,999
- ☐ $35,000 – $49,999
- ☐ $50,000 – $74,999
- ☐ $75,000 – $99,999
- ☐ $100,000 – $149,999
- ☐ $150,000 – $199,999
- ☐ $200,000 or more
- ☐ Prefer not to respond

31. What is the zip code where you currently live? _____

Please use the space below to share with us any other orthopedic, or rheumatology-related needs that you would like Hospital for Special Surgery to know about:

Thank you for completing this survey!

Please return this survey no later than February 15, 2022, so that we can make sure your opinion counts.

Please send the completed survey back to us in one of the following ways:

1. **Mail** using the enclosed pre-paid envelope
2. **Drop off** at: Hospital for Special Surgery Education Institute (EI) office, located at: 517 East 71st Street, NY, NY 10021 – **Attn: Titilayo Ologhobo**

If you have any questions or concerns about the survey, please contact Titilayo Ologhobo, EI Director of Outcomes & Data Analytics, at communityed@hss.ed

Оценка потребностей населения в сфере здравоохранения (CHNA)

В Госпитале специальной хирургии (англ. HSS) хотели бы узнать о Ваших потребностях, касающихся состояния мышц, костей и суставов. Это поможет нам предоставлять важные для Вас программы и услуги. Для этого опросника нам не потребуется Ваше имя. Пожалуйста, верните этот опросник не позднее **15 февраля 2022 г.**, чтобы мы могли убедиться в том, что Ваше мнение учтено. Благодарим Вас за помощь!

A. Состояние здоровья и качество жизни: Пожалуйста, выберите свой ответ их приведенных вариантов. Если Вы не уверены, пожалуйста, укажите как можно более подходящий ответ.

1. Вам когда-нибудь говорил врач или другой специалист в сфере здравоохранения, что у Вас есть …?

	Да	Нет
a) Остеоартрит (OA)	☐	☐
b) Ревматоидный артрит (РА)	☐	☐
c) Волчанка	☐	☐
d) Фибромиалгия	☐	☐
e) Подагра	☐	☐
f) Какая-либо другая форма артрита	☐	☐
g) Остеопороз	☐	☐
h) Хроническая боль	☐	☐
i) Прочее: _____		

ПРИМЕЧАНИЕ: Если Вы ответили «Нет» на все части Вопроса 1, пожалуйста, ПЕРЕЙДИТЕ к Вопросу 3

2. Насколько Вы уверены в том, что можете контролировать симптомы Вашего заболевания костей, мышц и суставов, чтобы делать те вещи, которые Вы хотите делать?

☐ Совсем не уверен(а) ☐ В некоторой степени уверен(а) ☐ Уверен(а) ☐ Очень уверен(а)

3. Если подумать о Вашем **физическом здоровье**, которое включает в себя физические заболевания и травмы, то на протяжении скольких дней в течение **последних 30 дней** Ваше физическое здоровье не было хорошим?

☐ Ни одного
☐ 1-7 дней
☐ 8-13 дней
☐ 14 дней или более

4. Если подумать о Вашем **психическом здоровье**, которое включает в себя стресс, депрессию и проблемы с эмоциями, то на протяжении скольких дней в течение **последних 30 дней** Ваше психическое здоровье не было хорошим?

☐ Ни одного
☐ 1-7 дней
☐ 8-13 дней
☐ 14 дней или более

5. Падали ли Вы в течение последнего года?

☐ Да ☐ Нет

ПРИМЕЧАНИЕ: Следующий вопрос относится к качеству Вашего сна в целом *ТОЛЬКО* в течение *большей части* ночей за *последние 7 дней*.

6. Пожалуйста, подумайте о качестве Вашего сна **в целом**, например, сколько часов Вы спали, насколько легко Вы засыпали, как часто Вы просыпались ночью (кроме того, чтобы сходить в туалет), как часто Вы просыпались раньше, чем нужно было утром, и насколько освежающим был Ваш сон.

В течение **последних 7 дней**, как бы Вы оценили качество своего сна в целом? (Пожалуйста, отметьте только **1** клетку)

Ужасно	Плохо			Нормально			Хорошо			Отлично
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
0	1	2	3	4	5	6	7	8	9	10

B. Поведение и стиль жизни, связанные со здоровьем:

7. Сколько раз в неделю Вы обычно занимаетесь **физическими упражнениями высокой интенсивности**, по крайней мере, 20 минут или больше, от которых Вы потеете или тяжело дышите? (например, поднятие тяжестей, копание, бег трусцой, аэробика или быстрая езда на велосипеде).

- ☐ 3 или более раз в неделю
- ☐ 1- 2 раза в неделю
- ☐ Никогда

8. Сколько раз в неделю Вы обычно занимаетесь 30 или более минут физическими упражнениями средней интенсивности или ходите пешком, что увеличивает частоту сердечных сокращений или заставляет Вас дышать тяжелее, чем обычно? (например, переноска легких грузов, езда на велосипеде в обычном темпе или парный теннис).

- ☐ 5 или более раз в неделю
- ☐ 3 – 4 раза в неделю
- ☐ 1 – 2 раза в неделю
- ☐ Никогда

9. За последние три месяца использовали ли Вы что-либо из следующего, чтобы контролировать боль?

	Да	**Нет**
a) У меня не было боли	☐	☐
b) Йога, тайчи или цигун (ци-гу́н)?	☐	☐
c) Болеутоляющее средство или опиоиды, прописанный врачом, стоматологом или другим медицинским работником?	☐	☐
d) Медитация, управляемое воображение или другие методы релаксации?	☐	☐

10. Насколько Вы не согласны или согласны со следующими утверждениями относительно здорового питания?

	Очень не согласен(сна)	Не согласен(сна)	Отношусь нейтрально	Согласен(сна)	Очень согласен(сна)
a) Я уверен(а), что я знаю, как выбирать здоровую пищу	☐	☐	☐	☐	☐
b) Я бы хотел(а) есть более здоровую пищу	☐	☐	☐	☐	☐
c) Здоровая пища слишком много стоит	☐	☐	☐	☐	☐
d) Мне нравится вкус здоровой пищи	☐	☐	☐	☐	☐
e) Там, где я живу, есть места, чтобы найти здоровую пищу	☐	☐	☐	☐	☐
f) На приготовление здоровой пищи уходит слишком много времени и усилий	☐	☐	☐	☐	☐
g) Я знаю, какую пищу нужно есть	☐	☐	☐	☐	☐
h) Семья и друзья едят здоровую пищу	☐	☐	☐	☐	☐

C. Использование и доступ к лечению: В этих вопросах речь пойдет о Вашем опыте и потребностях в обучении в сфере здравоохранения. Пожалуйста, выберите свой ответ из приведенных вариантов. Если Вы не уверены, пожалуйста, укажите как можно более подходящий ответ.

11. Что является основным источником Вашего страхования?

- ☐ План, приобретенный через работодателя или союз (в том числе планы, приобретенные через работодателя другого человека)
- ☐ План, который Вы или другой член семьи приобретает самостоятельно
- ☐ Medicaid
- ☐ Medicare
- ☐ TRICARE (ранее известный как CHAMPUS), VA или план страхования военнослужащих
- ☐ Услуги здравоохранения Alaska Native, Indian Health Service, Tribal Health Services
- ☐ Какой-либо другой источник
- ☐ У меня нет медицинского страхового покрытия
- ☐ Не знаю

12. Ниже приведен список некоторых вещей, которые могут повлиять на здоровье и благополучие людей. Какие 5 основных проблем влияют на Ваше здоровье? **Выберите только 5 лучших вариантов.**

- ☐ Отсутствие доступа к офису врача
- ☐ Отсутствие доступа к страховку
- ☐ Ограниченный доступ к любой пище
- ☐ Ограниченный доступ к здоровой пище
- ☐ Плохие школы
- ☐ Отсутствие возможностей трудоустройства
- ☐ Дискриминация / предвзятость
- ☐ Социальная изоляция / одиночество
- ☐ Отсутствие доступного ухода за детьми
- ☐ Плохое жилье / бездомность
- ☐ Отсутствие безопасности в районе
- ☐ Ограниченные места для упражнений
- ☐ Проблемы с транспортировкой
- ☐ Проблемы, связанные с COVID-19
- ☐ Прочее: _____

13. Каковы три основные причины, по которым Вы не получали медицинское обслуживание в течение последних 12 месяцев? **Выберите только 3 лучших варианта.**

- ☐ Не применимо - За последние 12 месяцев мне удалось получить медицинское обслуживание
- ☐ Не мог(ла) себе этого позволить
- ☐ Отсутствие медицинской страховки
- ☐ Услуга не покрывалась страховкой
- ☐ Отсутствие транспортировки
- ☐ Сложно записаться на прием
- ☐ Не уверен(а), куда нужно идти
- ☐ Страх или недоверие к врачам
- ☐ Отсутствие ухода за детьми
- ☐ Культурные / религиозные препятствия
- ☐ Языковые препятствия (например, не мог(ла) получить медицинское обслуживание на моем языке)
- ☐ Офис, не учитывающий удобство пациентов (например, долгое время ожидания, неудобное время работы)
- ☐ Предлагалась только телемедицина, а я не мог(ла) участвовать
- ☐ Не мог(ла) отпроситься с работы / со школе
- ☐ Другая причина: _____

14. Иногда люди не следуют медицинскому совету своего врача или другого поставщика медицинских услуг.
Пожалуйста, выберите причины, которые могут относиться к Вам. **Отметьте все применимые варианты.**

		Да	**Нет**
a)	Не применимо – всегда следую медицинскому совету моего врача или поставщика медицинских услуг	☐	☐
b)	Поставщик недостаточно хорошо объяснил суть лечения (вследствие недостатка времени, небрежного отношения или трудностей с пониманием)	☐	☐
c)	Не думаю, что лечение поможет	☐	☐
d)	Обеспокоен(а) по поводу стоимости лечения	☐	☐
e)	Забыл(а) принять лекарство/прийти на последующее наблюдение	☐	☐
f)	Поставщик не понимает моей культуры/моего языка	☐	☐
g)	Состояние недостаточно серьезное	☐	☐
h)	Обеспокоен(а) по поводу побочных эффектов лечения	☐	☐
i)	Предпочитаю использовать комплементарное/альтернативное лечение	☐	☐
j)	Не помещалось в моем графике/неудобно для меня	☐	☐
k)	Не согласен(сна) с врачом/поставщиком медицинских услуг	☐	☐
l)	Другая причина: _____		

ПРИМЕЧАНИЕ: Телемедицина - это использование технологий (например, смартфона, компьютера, планшета) для оказания помощи, когда Вы и врач находитесь не в одном месте в одно и то же время. Например: видео встреча или телефонный звонок с Вашим поставщиком медицинских услуг.

15. С какими препятствиями Вы можете столкнуться при использовании телемедицины? **Отметьте все применимые варианты.**

- ☐ Нет никаких препятствий
- ☐ У меня нет устройства (т. е. смартфона, компьютера, планшета)
- ☐ У меня нет доступа к услугам высокоскоростного интернета

☐ Я не знаю, как использовать телемедицину
☐ Я обеспокоен(а) о сохранении конфиденциальности информации о моем здоровье
☐ Меня беспокоит возможность врачебных ошибок
☐ Я не уверен(а), что офис моего врача предлагает услуги телемедицины
☐ Меня не интересует телемедицина

16. Вспомните, пожалуйста, все периоды Вашей жизни, когда Вы получали медицинскую помощь. При получении медицинской помощи, как часто с Вами происходило что-либо из следующего в связи с Вашей расой, этнической принадлежностью или цветом кожи?

	Никогда	Время от времени	Иногда	Часто	Большую часть времени	Почти все время
a) С Вами обращаются менее вежливо, чем с другими людьми	☐	☐	☐	☐	☐	☐
b) К Вам относятся с меньшим уважением, чем к другим людям	☐	☐	☐	☐	☐	☐
c) Вы получаете худшее обслуживание, чем другие	☐	☐	☐	☐	☐	☐
d) Врач или медсестра ведет себя так, как будто он или она думает, что Вы не умны	☐	☐	☐	☐	☐	☐
e) Врач или медсестра ведет себя так, как будто он или она боится Вас	☐	☐	☐	☐	☐	☐
f) Врач или медсестра ведет себя так, как будто он или она лучше Вас	☐	☐	☐	☐	☐	☐
g) Вам кажется, что врач или медсестра не слушают то, что Вы говорите	☐	☐	☐	☐	☐	☐

17. Язык, на котором Вы бы предпочли **обсуждать** медицинские проблемы или указания, связанные с вопросами здравоохранения?
☐ Английский
☐ Испанский
☐ Китайский
☐ Русский
☐ Арабский
☐ Иврит
☐ Другой: _____

18. Язык, на котором Вы бы предпочли **читать** о медицинских проблемах или указаниях, связанных с вопросами здравоохранения?
☐ Английский
☐ Испанский
☐ Китайский
☐ Русский
☐ Арабский
☐ Иврит
☐ Другой: _____

19. Как часто Вы нуждаетесь в чьей-либо помощи, когда Вы читаете указания, памфлеты или другие письменные материалы, полученные от Вашего врача или из аптеки?
☐ Никогда
☐ Редко
☐ Иногда
☐ Часто
☐ Всегда

D. Обучение в сфере здравоохранения: HSS предоставляет программы обучения в сфере здравоохранения. Следующие вопросы помогут нам определить потребности сообщества в обучении относительно здравоохранения.

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20. Каковы три основные причины, по которым Вы не участвовали в программах обучения в сфере здравоохранения в течение последних 12 месяцев? **Выберите только 3 лучших варианта.**

- ☐ Не применимо – Я участвовал(а) в программах обучения в сфере здравоохранения в течение последних 12 месяцев
- ☐ Не мог(ла) себе этого позволить
- ☐ Отсутствие транспортировки
- ☐ Не уверен(а), куда нужно идти
- ☐ Страх или недоверие к врачам
- ☐ Страх, связанный с COVID-19
- ☐ Отсутствие времени
- ☐ Конфликт планирования
- ☐ Культурные / религиозные препятствия
- ☐ Языковые препятствия (например, не мог(ла) получить обучение в области здоровья на моем языке)
- ☐ Я не знал(а) о программе

21. Какое время Вы предпочитаете для посещения программ обучения в сфере здравоохранения? **Отметьте все применимые варианты.**

	Утро	День	Вечер
Рабочий день	☐	☐	☐
Выходные	☐	☐	☐

22. В каких из следующих форматах/ видах деятельности, связанных с обучением в сфере здравоохранения, Вы бы хотели поучаствовать? **Отметьте все применимые варианты.**

- ☐ Очные уроки физической культуры
- ☐ Виртуальные уроки физической культуры
- ☐ Очные интерактивные семинары для небольших групп
- ☐ Виртуальные интерактивные семинары для небольших групп
- ☐ Очные лекции
- ☐ Виртуальные лекции
- ☐ Подкасты
- ☐ Видео по запросу (т. е. видео, доступные для загрузки / просмотра на Вашем устройстве)
- ☐ Сообщения в социальных сетях (например, Facebook, Twitter, Instagram и т. д.)
- ☐ Телеконференции
- ☐ Группы поддержки
- ☐ Ничего из вышеуказанного

23. О каких пяти темах в области здоровья Вам было бы интересно узнать больше? **Выберите только 5 вариантов.**

- ☐ Упражнения
- ☐ Контроль хронического заболевания
- ☐ Здоровое питание
- ☐ Поддержка здорового образа жизни
- ☐ Как справиться со стрессом, тревогой и депрессией
- ☐ Способы улучшения мобильности
- ☐ Предотвращение травм
- ☐ Медикаментозное лечение
- ☐ Контроль боли
- ☐ Использование технологий для поддержания здоровья
- ☐ Поддержание здоровья ребенка
- ☐ Комплементарное лечение (например, йога, медитация, осознанное дыхание) для поддержания здоровья / состояния здоровья
- ☐ Подготовка списка вопросов для моего врача или поставщика медицинских услуг
- ☐ Обсуждение личных проблем, которые могут быть связаны с моей болезнью
- ☐ Вопросы о том, чего я не понимаю в своем лечении
- ☐ Сексуальное здоровье
- ☐ COVID-19
- ☐ Прочее: _____

E. Информация о Вас: Пожалуйста, расскажите нам о себе и Вашей истории жизни, чтобы мы могли больше узнать об обслуживаемом нами сообществе.

24. Укажите свою гендерную идентичность?

- ☐ Женщина
- ☐ Мужчина
- ☐ Трансгендерная женщина/трансгендер женского пола
- ☐ Трансгендерный мужчина/трансгендер мужского пола
- ☐ Прочее (например, небинарный, гендерквир, гендерно-разнообразный или гендерно-изменчивый).

  Пожалуйста, уточните: _____
- ☐ Предпочитаю не отвечать

25. Вы считаете, что Вы:

- ☐ Традиционной ориентации или гетеросексуал
- ☐ Лесбиянка или гей
- ☐ Бисексуал
- ☐ Квир, пансексуал и/или неопределенной ориентации
- ☐ Что-то еще; Пожалуйста, уточните: _____
- ☐ Не знаю
- ☐ Предпочитаю не отвечать

26. Сколько Вам лет? ____

27. Считаете ли Вы, что у Вас испаноязычное/латиноамериканское происхождение?

☐ Да ☐ Нет ☐ Предпочитаю не отвечать

28. По Вашему мнению, какая из этих групп наилучшим образом представляет Вашу расу? **Отметьте все применимые варианты.**

☐ Американский индеец/коренной житель Аляски
☐ Азиат
☐ Черный или афроамериканец
☐ Коренной житель Гавайи/других тихоокеанских островов
☐ Белый
☐ Прочее: _____
☐ Предпочитаю не отвечать

29. Пожалуйста, скажите нам о Вашей этнической принадлежности; Вы можете перечислить столько вариантов, сколько предпочтете (например: китаец, нигериец, итальянец, пуэрториканец, русский и т. д.)

30. Что является наивысшим классом или годом обучения в школе, который Вы завершили?

☐ Никогда не ходил(а) в школу или только ходил(а) в нулевой класс
☐ С 1 по 8 класс (Начальная школа)
☐ С 9 по11 класс (Некоторые старшие классы)
☐ 12 классов или общее образование (Выпускник общеобразовательной школы)
☐ От 1 до 3 лет колледжа (Некоторое образование в колледже или техникуме)
☐ 4 или более лет колледжа (Выпускник колледжа)
☐ Последипломное образование (Степень магистра, доктора наук)
☐ Предпочитаю не отвечать

31. Каков Ваш ежегодный семейный доход из всех источников?

☐ Менее $10,000
☐ $10,000 – $14,999
☐ $15,000 – $24,999
☐ $25,000 – $34,999
☐ $35,000 – $49,999
☐ $50,000 – $74,999
☐ $75,000 – $99,999
☐ $100,000 – $149,999
☐ $150,000 – $199,999
☐ $200,000 или более
☐ Предпочитаю не отвечать

32. Укажите почтовый код в месте, где Вы живете в настоящее время? _____

Пожалуйста, используйте предоставленное ниже место, чтобы рассказать нам о любых других потребностях, связанных с ортопедией или ревматологией, о которых Вы бы хотели сообщить Госпиталю специальной хирургии:

Благодарим Вас за заполнение данного опросника!

Просим Вас вернуть этот опросник не позднее 15 февраля 2022 г., чтобы мы могли убедиться в том, что Ваше мнение учтено.

Пожалуйста, отправьте заполненный опросник обратно нам с помощью одного из следующих способов:

3. **По почте,** используя прилагаемый предоплаченный конверт
4. **Принесите** по адресу: Госпиталь специальной хирургии (Hospital for Special Surgery) Офис Института образования (Education Institute, EI), расположенный по адресу: 517 East 71st Street, NY, NY 10021 – **Attn: Titilayo Ologhobo**

Если у Вас возникнут какие-либо вопросы или беспокойства по поводу опросника, пожалуйста, свяжитесь с Титилайо Ологобо (Titilayo Ologhobo), Директором Отдела Результатов и анализа данных Института образования, по адресу электронной почты: communityed@hss.edu.

HSS quiere conocer sus necesidades relacionadas con enfermedades de los músculos, los huesos y las articulaciones. Esto nos ayudará a proporcionar los programas y servicios que sean importantes para usted. No necesitamos su nombre para esta encuesta. Por favor regrese esta encuesta antes del **15 de febrero del 2022** para poder asegurarnos de que su opinión sea tomada en cuenta. ¡Gracias por su ayuda!

A. Estado de salud y calidad de vida: Elija su respuesta de las opciones de la lista. Si no está seguro, responda de la mejor manera posible.

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1. ¿Alguna vez le ha dicho un médico u otro profesional de la salud que usted tiene...?

	Sí	No
a) Osteoartritis (OA)	☐	☐
b) Artritis reumatoide (AR)	☐	☐
c) Lupus	☐	☐
d) Fibromialgia	☐	☐
e) Gota	☐	☐
f) Otra forma de artritis	☐	☐
g) Osteoporosis	☐	☐
h) Dolor crónico	☐	☐
i) Otro: _____		

NOTA: Si respondió "No" a todas las partes de la pregunta 1, PASE a la pregunta 3

2. ¿Cuánta confianza tiene usted de poder manejar los síntomas de su enfermedad relacionada con los huesos, músculos y articulaciones para poder hacer las cosas que quiere hacer?

☐ Nada de confianza ☐ Algo de confianza ☐ Confianza ☐ Mucha confianza

3. Considerando su **salud física**, incluyendo las enfermedades y lesiones físicas, durante los **últimos 30 días**, ¿cuántos días su salud física no fue buena?

☐ Ninguno
☐ 1 a 7 días
☐ 8 a 13 días
☐ 14 días o más

4. Considerando su **salud mental**, incluyendo estrés, depresión y problemas emocionales, durante los **últimos 30 días**, ¿cuántos días su salud mental no fue buena?

☐ Ninguno
☐ 1 a 7 días
☐ 8 a 13 días
☐ 14 días o más

5. En el año pasado, ¿ha sufrido una caída?

☐ Sí ☐ No

NOTA: Las siguientes preguntas se refieren a la calidad de su sueño en general para la *mayoría* de las noches en los *últimos 7 días SOLAMENTE*.

6. Piense en la calidad de su sueño **en general**, como cuántas horas de sueño usted obtuvo, con qué facilidad concilió el sueño, con qué frecuencia se despertó durante la noche (excepto para ir al baño), con qué frecuencia se despertó más temprano de lo que tenía que hacerlo en la mañana, y qué tan reparador fue el sueño.

En los **últimos 7 días**, ¿cómo calificaría la calidad de su sueño en general? (Marque solamente **1** casilla)

Pésima	Mala			Regular			Buena			Excelente
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
0	1	2	3	4	5	6	7	8	9	10

B. Comportamientos de salud y estilo de vida:

7. ¿Cuántas veces por semana habitualmente hace al menos 20 minutos o más de **actividad física intensa** que lo haga sudar o jadear? (p. ej., levantar pesas, hacer trabajos pesados de jardinería, trotar, hacer ejercicios aeróbicos o andar rápido en bicicleta).

- ☐ 3 o más veces por semana
- ☐ 1 a 2 veces por semana
- ☐ Ninguna

8. ¿Cuántas veces por semana habitualmente hace 30 minutos o más de actividad física moderada o caminatas que aumenten la frecuencia cardíaca o le hagan respirar más rápido de lo normal? (p. ej., llevando cargas livianas, andando en bicicleta a un ritmo regular o jugando partidos dobles de tenis).

- ☐ 5 o más veces por semana
- ☐ 3 a 4 veces por semana
- ☐ 1 a 2 veces por semana
- ☐ Ninguna

9. En los últimos tres meses, ¿utilizó alguna de las siguientes opciones para manejar el dolor?

	Sí	**No**
a) No tuve dolor	☐	☐
b) Yoga, taichí o chi kung?	☐	☐
c) Un analgésico o medicamento opioide recetado por un médico, dentista u otro profesional de la salud?	☐	☐
d) Meditación, imágenes guiadas u otras técnicas de relajación?	☐	☐

10. ¿En qué medida está de acuerdo o en desacuerdo con las siguientes afirmaciones relacionadas con la alimentación saludable?

	En total desacuerdo	En desacuerdo	Neutral	De acuerdo	Totalmente de acuerdo
a) Confío en que sé cómo elegir alimentos saludables	☐	☐	☐	☐	☐
b) Me gustaría comer más sano	☐	☐	☐	☐	☐
c) Los alimentos saludables cuestan demasiado dinero	☐	☐	☐	☐	☐
d) Me gusta el sabor de los alimentos saludables	☐	☐	☐	☐	☐
e) Tengo lugares donde vivo para encontrar alimentos saludables	☐	☐	☐	☐	☐
f) Se necesita mucho tiempo y esfuerzo para preparar comida saludable	☐	☐	☐	☐	☐
g) Sé qué alimentos comer	☐	☐	☐	☐	☐
h) Mis familiares y amigos comen alimentos saludables	☐	☐	☐	☐	☐

C. Uso y acceso al cuidado: Estas preguntas se refieren a sus experiencias de atención médica y necesidades de educación en salud. Elija su respuesta de las opciones de la lista. Si no está seguro, responda de la mejor manera posible.

11. ¿Cuál es la fuente <u>principal</u> de su seguro?

- ☐ Un plan adquirido a través de un empleador o sindicato (incluye planes comprados a través del empleador de otra persona)
- ☐ Un plan que usted u otro miembro de la familia compra por su cuenta
- ☐ Medicaid
- ☐ Medicare
- ☐ TRICARE (antes llamado CHAMPUS), VA, o militar
- ☐ Nativo de Alaska, Servicio de Salud Indígena, Servicios de Salud Tribal
- ☐ Algún otro seguro
- ☐ No tengo cobertura de salud
- ☐ No sé

12. A continuación presentamos una lista de algunas cosas que pueden afectar la salud y el bienestar de las personas. ¿Cuáles son los 5 problemas principales que afectan su salud? **Elija solo las 5 opciones principales.**

- ☐ Falta de acceso al consultorio de mi médico
- ☐ Falta de acceso a un seguro
- ☐ Acceso limitado a cualquier alimento
- ☐ Acceso limitado a alimentos saludables
- ☐ Escuelas de mala calidad
- ☐ Falta de oportunidades de empleo
- ☐ Discriminación/prejuicio
- ☐ Aislamiento social/soledad
- ☐ Falta de cuidado infantil asequible
- ☐ Malas condiciones de vivienda/sin hogar
- ☐ Falta de seguridad en el vecindario
- ☐ Lugares limitados para hacer ejercicio
- ☐ Problemas de transporte
- ☐ Problemas relacionados con COVID-19
- ☐ Otro: _____

13. ¿Cuáles son los tres motivos principales por los que usted no obtuvo atención médica en los últimos 12 meses? **Elija solamente las 3 opciones principales.**

- ☐ No aplica – Pude obtener atención médica en los últimos 12 meses
- ☐ No podía pagarlo
- ☐ No tenía seguro de salud
- ☐ El servicio no estaba cubierto por el seguro
- ☐ Falta de transporte
- ☐ Es difícil conseguir una cita
- ☐ No estaba seguro de dónde ir
- ☐ Temor o desconfianza a los médicos
- ☐ Falta de cuidado infantil
- ☐ Barreras culturales/religiosas
- ☐ Barrearas idiomáticas (como no poder conseguir atención médica en mi idioma)
- ☐ Consultorio no amigable con el paciente (como largas horas de espera, horarios no convenientes)
- ☐ Solo se ofrecía telesalud, y no podía participar
- ☐ No podía conseguir tiempo libre en el trabajo/la escuela
- ☐ Otro motivo: _____

14. En ocasiones las personas no siguen las recomendaciones de salud de su médico u otros proveedores de atención médica. Cuéntenos los motivos por los cuales esto puede aplicarse en su caso. Marque todas las opciones que correspondan.

		Sí	**No**
a)	No aplica – siempre sigo las recomendaciones de salud de mi médico o proveedor de atención médica	☐	☐
b)	El proveedor no explicó el tratamiento lo suficientemente bien (debido a falta de tiempo, actitud indiferente o difícil de entender)	☐	☐
c)	No pensé que el tratamiento sería útil	☐	☐
d)	Me preocupó el costo del tratamiento	☐	☐
e)	Olvidé tomar el medicamento / ir a la cita de seguimiento	☐	☐
f)	El proveedor no entiende mi cultura / idioma	☐	☐
g)	La condición no es lo suficientemente grave	☐	☐
h)	Me preocupé por los efectos secundarios del tratamiento	☐	☐
i)	Prefiero usar un tratamiento complementario / alternativo	☐	☐
j)	No encajaba en mis horarios / no era conveniente para mí	☐	☐
k)	No estaba de acuerdo con el médico/proveedor de atención médica	☐	☐
l)	Otro motivo: _____		

NOTA: Telesalud es el uso de la tecnología (es decir, teléfono inteligente, computadora, tablet) para proporcionar atención médica cuando usted y el médico no están en el mismo lugar al mismo tiempo. Por ejemplo: una reunión por videoconferencia o llamada telefónica con su proveedor de atención médica.

15. ¿Cuáles son algunas de las barreras que podría experimentar al tratar de utilizar telesalud? **Marque todas las opciones que correspondan.**

- ☐ No tengo ninguna barrera
- ☐ No tengo un dispositivo (es decir, un teléfono inteligente, computadora, tablet)
- ☐ No tengo acceso a servicio de internet de alta velocidad
- ☐ No sé cómo utilizar la telesalud
- ☐ Me preocupa la confidencialidad de mi información de salud
- ☐ Me preocupa la posibilidad de errores médicos
- ☐ No estoy seguro de que el consultorio de mi médico ofrezca servicios de telesalud
- ☐ No estoy interesado en telesalud

16. Piense en todas las veces en su vida en que obtuvo atención médica. Al obtener atención médica, ¿con qué frecuencia le ha sucedido alguna de las siguientes cosas debido a su raza, etnia o color?

	Nunca	De vez en cuando	Algunas veces	Muchas veces	La mayor parte del tiempo	Casi todo el tiempo
a) Lo tratan con menos cortesía que a las demás personas	☐	☐	☐	☐	☐	☐
b) Lo tratan con menos respeto a que las demás personas	☐	☐	☐	☐	☐	☐
c) Recibe un servicio de menor calidad que las demás personas	☐	☐	☐	☐	☐	☐
d) Un médico o enfermera actúa como si pensara que usted no es inteligente	☐	☐	☐	☐	☐	☐
e) Un médico o enfermera actúa como si le tuviera temor	☐	☐	☐	☐	☐	☐
f) Un médico o enfermera actúa como si fuera mejor que usted	☐	☐	☐	☐	☐	☐
g) Usted siente que un médico o enfermera no escucha lo que usted estaba diciendo	☐	☐	☐	☐	☐	☐

17. ¿Cuál es su idioma de preferencia para **discutir** cuestiones médicas o instrucciones de atención médica?

☐ Inglés
☐ Español
☐ Chino
☐ Ruso
☐ Árabe
☐ Hebreo
☐ Otro: _____

18. ¿Cuál es su idioma de preferencia para **leer** acerca de cuestiones médicas o instrucciones de atención médica?

☐ Inglés
☐ Español
☐ Chino
☐ Ruso
☐ Árabe
☐ Hebreo
☐ Otro: _____

19. ¿Con qué frecuencia necesita usted que otra persona le ayude a leer instrucciones, folletos u otros materiales por escrito que le haya dado su médico o la farmacia?

☐ Nunca
☐ Raras veces
☐ Algunas veces
☐ A menudo
☐ Siempre

D. Educación para la Salud: HSS proporciona programas de educación para la salud. Las siguientes preguntas ayudarán a identificar las necesidades de educación para la salud en la comunidad.

20. ¿Cuáles son los principales tres motivos por los que no participó en programas de educación en salud en los últimos 12 meses? **Elija solo las 3 opciones principales.**

- ☐ No aplica – Participé en programas de educación en salud en los últimos 12 meses
- ☐ No podía pagarlo
- ☐ Falta de transporte
- ☐ No estaba seguro de dónde ir
- ☐ Temor o desconfianza a los médicos
- ☐ Temor al COVID-19
- ☐ Falta de tiempo
- ☐ Conflictos con los horarios
- ☐ Barreras culturales/religiosas
- ☐ Barreras idiomáticas (como no poder obtener educación en salud en mi idioma)
- ☐ No sabía nada del programa

21. Para asistir a programas de educación para la salud, ¿qué horario(s) prefiere? **Marque todas las opciones que correspondan.**

	Mañana	**Tarde**	**Noche**
Día de semana	☐	☐	☐
Fin de semana	☐	☐	☐

22. ¿En cuál de los siguientes formatos/actividades de educación para la salud estaría interesado?
Marque todas las opciones que correspondan.

- ☐ Clases de ejercicios en persona
- ☐ Clases virtuales de ejercicios
- ☐ Talleres interactivos en persona en pequeños grupos
- ☐ Talleres interactivos virtuales en pequeños grupos
- ☐ Conferencias en persona
- ☐ Conferencias virtuales
- ☐ Podcasts
- ☐ Videos por demanda (es decir, videos disponibles para descargar/ver directamente en su dispositivo)
- ☐ Publicaciones en medios sociales (es decir, Facebook, Twitter, Instagram, etc.)
- ☐ Llamadas en conferencia
- ☐ Grupos de apoyo
- ☐ Ninguno de los anteriores

23. ¿Cuáles son los cinco temas de salud en que estaría interesado en conocer más? **Elija solo 5 opciones.**

- ☐ Ejercicios
- ☐ Manejo de mi enfermedad crónica
- ☐ Alimentación saludable
- ☐ Mantener un estilo de vida saludable
- ☐ Lidiar con estrés, ansiedad y depresión
- ☐ Maneras de mejorar la movilidad
- ☐ Prevención de lesiones
- ☐ Manejo de medicamentos
- ☐ Manejo del dolor
- ☐ Uso de tecnología para manejar la salud
- ☐ Manejo de la salud de mi hijo
- ☐ Tratamientos complementarios (es decir, yoga, meditación, respiración consciente) para manejar mi salud/problema de salud
- ☐ Preparar una lista de preguntas para mi médico o proveedor de atención médica
- ☐ Discutir problemas personales que pueden estar relacionados con mi enfermedad
- ☐ Hacer preguntas sobre cosas que no entiendo sobre mi tratamiento
- ☐ Salud sexual
- ☐ COVID-19
- ☐ Otro: _____

E. Acerca de usted: Cuéntenos acerca de usted y sus antecedentes para que podamos conocer más sobre las comunidades que atendemos.

24. ¿Cuál es su identidad de género?
- ☐ Femenino
- ☐ Masculino
- ☐ Mujer transgénero/femenino transgénero
- ☐ Hombre transgénero/masculino transgénero
- ☐ Otro (p. ej., no binario, género fluido).
  Por favor especifique: _____
- ☐ Prefiero no responder

25. Usted se considera a sí mismo:
- ☐ Heterosexual
- ☐ Lesbiana u homosexual
- ☐ Bisexual
- ☐ Queer, pansexual y/o que cuestiona su sexualidad
- ☐ Otra cosa; por favor especifique: _____
- ☐ No sé
- ☐ Prefiero no responder

26. ¿Qué edad tiene? ____

27. ¿Se considera Hispano/Latino?
☐ Sí ☐ No ☐ Prefiero no responder

28. ¿Cuál de estos grupos diría usted que representa mejor a su raza? **Marque todas las opciones que correspondan.**
- ☐ Indio americano/nativo de Alaska
- ☐ Asiático
- ☐ Negro o afroamericano
- ☐ Nativo de Hawái/ Otra isla del Pacífico
- ☐ Blanco
- ☐ Otro: _____
- ☐ Prefiero no responder

29. Cuéntenos sobre su origen étnico; usted puede enumerar todas las que prefiera (por ejemplo: chino, nigeriano, italiano, puertorriqueño, ruso, etc.)

30. ¿Cuál es el grado o año escolar más alto alcanzado?

- ☐ Nunca fui a la escuela o solo al kínder
- ☐ Grados 1 al 8 (Elemental)
- ☐ Grados 9 al 11 (algo de escuela secundaria)
- ☐ Grado 12 o GED (graduado de escuela secundaria)
- ☐ 1 a 3 años de Universidad (algo de estudios universitarios o técnicos)
- ☐ 4 años de Universidad o más (graduado universitario)
- ☐ Posgrado (Maestría, PhD)
- ☐ Prefiero no responder

31. ¿Cuál es el ingreso anual de su hogar, sumando todas las fuentes?

- ☐ Menos de $10,000
- ☐ $10,000 – $14,999
- ☐ $15,000 – $24,999
- ☐ $25,000 – $34,999
- ☐ $35,000 – $49,999
- ☐ $50,000 – $74,999
- ☐ $75,000 – $99,999
- ☐ $100,000 – $149,999
- ☐ $150,000 – $199,999
- ☐ $200,000 o más
- ☐ Prefiero no responder

32. ¿Cuál es el código postal donde vive actualmente? _____

Use el espacio a continuación para compartir con nosotros cualquier otra necesidad ortopédica o de reumatología que le gustaría que el Hospital for Special Surgery conociera:

¡Gracias por completar esta encuesta!

Por favor regrese esta encuesta antes del 15 de febrero del 2022 para poder asegurarnos de que su opinión sea tomada en cuenta.

Envíenos de regreso la encuesta completa de una de las siguientes maneras:

5. **Por correo** en el sobre prepago adjunto
6. **Entrega en persona** en: la oficina del Instituto de Educación (EI) del Hospital for Special Surgery, ubicada en: 517 East 71st Street, NY, NY 10021 – **Attn: Titilayo Ologhobo**

Si tiene alguna pregunta o inquietud acerca de la encuesta, por favor póngase en contacto con Titilayo Ologhobo, Director de Resultados y Análisis de Datos del EI, al communityed@hss.edu

HSS想了解您有關肌肉、骨骼和關節狀況方面的需求。這會幫助我們加強對患者和社區的重要計劃和服務。您不需要在這份問卷調查中具名。請在**2022年2月15日**以前交回這份問卷調查，以便我們確保您的意見會被納入考量。感謝您的協助！

A. 健康狀況和生活品質： 請從所列選項中選擇您的回答。
如果您不確定，請盡可能給出最佳答案。

1. 是否曾有醫生或其他醫療保健提供者告訴您患有.....

	是	否
a) 骨關節炎（OA）	☐	☐
b) 風濕性關節炎（RA）	☐	☐
c) 狼瘡	☐	☐
d) 纖維肌痛	☐	☐
e) 痛風	☐	☐
f) 其他形式的關節炎	☐	☐
g) 骨質疏鬆症	☐	☐
h) 慢性疼痛	☐	☐
i) 其他：_____		

注意：如果您對問1的所有項目都回答「否」，請跳至問題3。

2. 您是否有信心能管理好您在骨骼、肌肉和關節疾病方面的症狀，以便能做自己想做的事？
☐ 完全沒信心 ☐ 有些信心 ☐ 有信心 ☐ 非常有信心

3. 請想想您的**身體健康狀況**，包括身體上的疾病和受傷。在**過去30天**內，有多少天您的身體健康狀況不好？
☐ 無
☐ 1-7天
☐ 8-13天
☐ 14天或更多

4. 請想想您的**心理健康狀況**，包括壓力、抑鬱和情緒問題。在**過去30天**內，有多少天您的心理健康狀況不好？
☐ 無
☐ 1-7天
☐ 8-13天
☐ 14天或更多

5. 在過去一年中，您是否摔倒過？
☐ 是 ☐ 否

注意：以下問題只關於您*過去7天內大多數*晚上的整體睡眠品質。

6. 請想想您的**整體**睡眠品質，例如您睡多少個小時、您是否容易入睡、您多常在半夜醒來（除了上廁所之外）、您早上多常比必須起床的時間提早醒來，以及您是否睡飽。

針對您**過去7天**的整體睡眠品質，您給幾分？（僅勾選一格）

很糟		不好			尚可			好			極佳
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
0	1	2	3	4	5	6	7	8	9		10

B. 健康行為和生活方式：

7. 您通常一週做多少次會讓您流汗或喘的**高強度身體活動**，每次至少20分鐘？（例如：舉重、挖土、慢跑、有氧運動或快騎單車。）

☐ 1週3次或更多
☐ 1週1至2次
☐ 無

8. 您通常一週做多少次會讓您心跳加快或呼吸加重的中等強度身體活動或走路，每次至少30分鐘？（例如：提輕物、用正常速度騎單車，或打網球雙打。）

☐ 一週5次或更多
☐ 一週3 – 4次
☐ 一週1 – 2次
☐ 無

9. 在過去三個月內，您是否曾使用以下任何方式管理疼痛？

	是	**否**
a) 我沒有疼痛	☐	☐
b) 瑜珈、太極拳或氣功	☐	☐
c) 服用醫生、牙醫或其他醫療保健提供者開的止痛藥或鴉片類藥物	☐	☐
d) 靜坐冥想、引導意象或其他放鬆技巧	☐	☐

10. 您是否同意下列關於健康飲食的說法？

	非常不同意	不同意	無意見	同意	非常同意
a) 我有信心自己知道如何選擇健康食物	☐	☐	☐	☐	☐
b) 我想吃得更健康	☐	☐	☐	☐	☐
c) 健康食物太貴	☐	☐	☐	☐	☐
d) 我喜歡健康食物的味道	☐	☐	☐	☐	☐
e) 我住的附近找得到提供健康食物的地方	☐	☐	☐	☐	☐
f) 健康食物在準備上要花太多的時間和精力	☐	☐	☐	☐	☐
g) 我知道要吃什麼食物	☐	☐	☐	☐	☐
h) 親朋好友吃健康食物	☐	☐	☐	☐	☐

C. 醫療資源使用狀況：這些問題是關於您的醫療保健經歷和醫療保健教育需求。請從所列選項中選擇您的回答。
如果您不確定，請盡可能給出最佳答案。

11. 您的健康保險主要來源是什麼？

☐ 通過僱主或工會購買的保險計劃（包括通過他人的僱主購買的保險計劃）
☐ 您或另一位家庭成員自己購買的保險計劃
☐ 醫療補助計劃（Medicaid/白卡）
☐ 聯邦醫療保險（Medicare/紅藍卡）
☐ TRICARE（原CHAMPUS）、退伍軍人（VA）或現役軍人（Military）
☐ 阿拉斯加原住民、印第安人健康服務、部落健康服務
☐ 其他來源
☐ 我沒有健康保險
☐ 不知道

12. 下面列出一些可能影響人們健康和幸福感的因素。哪些是影響您健康的前5大問題？**只選前5項。**

☐ 缺少前往醫生診所的方式
☐ 缺少取得保險的管道
☐ 取得任何食物的管道有限
☐ 能買到的健康食物有限
☐ 學校都很窮
☐ 缺少工作機會
☐ 歧視/偏見
☐ 社交孤立/寂寞
☐ 缺少可負擔的托兒服務
☐ 住房狀況差/無家可歸
☐ 附近不安全
☐ 能運動的地方有限
☐ 交通問題
☐ 新冠肺炎相關問題
☐ 其他：_____

13. 您過去12個月沒有獲得醫療保健服務的前三大原因是什麼？**只選前3項。**

☐ 不適用—我過去12個月曾獲得醫療保健服務
☐ 負擔不起
☐ 沒有健康保險
☐ 保險不承保該服務
☐ 缺少交通工具
☐ 很難預約
☐ 不確定該去哪裡
☐ 害怕或不信任醫生
☐ 缺少托兒服務
☐ 文化/宗教障礙
☐ 語言障礙（比如沒有醫護人員會說我的語言）
☐ 診所對患者而言不方便（比如等候時間長、營業時間不方便）
☐ 只提供遠距醫療，但我無法參加
☐ 公司/學校無法請假
☐ 其他原因：_____

14. 人們有時並不遵照醫生或其他醫療保健提供者的醫囑來做。
請告訴我們可能適用於您的原因。 **請勾選所有適用項目。**

	是	否
a) 不適用——總是遵循醫生或其他醫療保健提供者的醫囑	☐	☐
b) 醫療保健提供者對治療的講解不夠詳細（由於時間不夠、漠不關心的態度或難以理解他所說的）	☐	☐
c) 感覺治療不會有幫助	☐	☐
d) 擔心治療費用	☐	☐
e) 忘了服藥/忘了去複診	☐	☐
f) 醫療保健提供者不了解我的文化/語言	☐	☐
g) 狀況沒有嚴重到需要治療的程度	☐	☐
h) 擔心治療的副作用	☐	☐
i) 比較喜歡使用輔助/替代療法	☐	☐
j) 不適合我的時間表/對我來說不方便	☐	☐
k) 不同意醫生/醫療保健提供者的意見	☐	☐
l) 其他原因：_____		

注意：遠距醫療是當您和醫生不在同一個地方時，利用科技設備（智慧型手機、電腦、平板電腦）進行診療的方式。例如，您和醫療保健提供者進行視訊會議或打電話。

15. 當您嘗試使用遠距醫療時，可能會遇到哪些障礙？
請勾選所有適用項目。

☐ 我沒有任何障礙
☐ 我沒有設備（智慧型手機、電腦、平板電腦）
☐ 我沒有管道可以使用高速無線上網服務
☐ 我不知道怎樣使用遠距醫療
☐ 我擔心我的醫療資料無法維持保密
☐ 我擔心可能會發生醫療錯誤
☐ 我不確定我醫生的診所是否提供遠距醫療服務
☐ 我沒興趣使用遠距醫療

16. 請想想您一生中獲得醫療保健服務的所有時候。當您獲得醫療保健服務時，多常會因為您的種族、族裔或膚色而發生以下情況？

	從未	偶爾	有時	很多時候	大部分時候	幾乎總是
h) 您受到比別人不禮貌的對待	☐	☐	☐	☐	☐	☐
i) 您受到比其別人不尊重的對待	☐	☐	☐	☐	☐	☐
j) 您獲得的服務比別人差	☐	☐	☐	☐	☐	☐
k) 醫生或護士的行為好像認為您不聰明	☐	☐	☐	☐	☐	☐
l) 醫生或護士的行為好像在害怕您	☐	☐	☐	☐	☐	☐
m) 醫生或護士的行為好像認為自己高您一等	☐	☐	☐	☐	☐	☐
n) 您覺得醫生或護士好像並沒在聽您說些什麼	☐	☐	☐	☐	☐	☐

17. 您比較喜歡用哪一種語言**討論**醫療問題或醫療保健指示？

☐ 英語
☐ 西班牙語
☐ 中文
☐ 俄語
☐ 阿拉伯語
☐ 希伯來語
☐ 其他：_____

18. 您比較喜歡用哪一種語言**閱讀**有關醫療問題的資料或醫療保健指示？

☐ 英語
☐ 西班牙語
☐ 中文
☐ 俄語
☐ 阿拉伯語
☐ 希伯來語
☐ 其他：_____

19. 當您閱讀醫生或藥房提供的指示、說明書以及其他書面資料時，您多常需要他人幫助來理解其內容？

☐ 從未
☐ 很少
☐ 有時
☐ 經常
☐ 總是

D. 健康教育：HSS提供健康教育課程。以下問題將幫助我們了解社區的健康教育需求。

20. 您過去12個月沒有參加健康教育課程的前三大原因是什麼？**只選前3項。**

☐ 不適用—我過去12個月參加過健康教育課程
☐ 負擔不起
☐ 缺少交通工具
☐ 不確定該去哪裡
☐ 害怕或不信任醫生
☐ 害怕新冠肺炎疫情
☐ 沒時間
☐ 撞期
☐ 文化/宗教障礙
☐ 語言障礙（比如無法獲得用我的語言提供的健康教育）
☐ 我不知道有健康教育課程

21. 如果要參加健康教育課程，您比較喜歡什麼時間上課？**請勾選所有適用項目。**

	上午	下午	晚上
平日	☐	☐	☐
週末	☐	☐	☐

22. 您有興趣參加以下哪些形式的健康教育活動？
請勾選所有適用項目。

☐ 現場運動課程
☐ 線上運動課程
☐ 現場互動式小組研習
☐ 線上互動式小組研習
☐ 現場講座
☐ 線上講座
☐ 播客
☐ 隨選影片（可以在您的設備上下載/串流播放的影片）
☐ 社交媒體貼文（Facebook、Twitter、Instagram等等）
☐ 電話會議
☐ 互助小組
☐ 以上皆非

23. 您有興趣學習更多關於哪些健康主題的知識？ **只選5項。**

☐ 運動
☐ 管理我的慢性病
☐ 健康飲食
☐ 養成健康的生活方式
☐ 應對壓力、焦慮和抑鬱
☐ 如何改善活動度
☐ 預防受傷
☐ 藥物管理
☐ 疼痛管理
☐ 用科技設備做好健康管理
☐ 子女的健康管理
☐ 用輔助療法（瑜珈、靜坐冥想、正念呼吸）管理我的健康/病況
☐ 準備一份要向醫生或醫療保健提供者提出的問題清單
☐ 討論可能與我的疾病有關的個人問題
☐ 對治療中不理解的部分提出問題
☐ 性健康
☐ 新冠肺炎
☐ 其他：_____

E. 關於您：請向我們介紹一下您自己和您的背景，讓我們更了解本院所服務的社區。

24. 您的性別認同？
- ☐ 女
- ☐ 男
- ☐ 變性女
- ☐ 變性男
- ☐ 其他（例如：非二元性別、性別酷兒、性別多元或性別流動）
  請說明：_____
- ☐ 不想回答

25. 您認為自己是：
- ☐ 異性戀
- ☐ 女同性戀或男同性戀
- ☐ 雙性戀
- ☐ 酷兒、泛性戀和/或疑性戀
- ☐ 其他，請說明：_____
- ☐ 不知道
- ☐ 不想回答

26. 您的年齡？ ____

27. 您認為自己是西語裔/拉丁裔嗎？
☐ 是 ☐ 否 ☐ 不想回答

28. 您認為以下何者最能代表您的種族？**請勾選所有適用項目。**
- ☐ 美洲印第安人/阿拉斯加原住民
- ☐ 亞裔
- ☐ 黑人或非裔美國人
- ☐ 夏威夷原住民/其他太平洋島民
- ☐ 白人
- ☐ 其他：_____
- ☐ 不想回答

29. 請告訴我們您的族裔；您想列多少都可以（例如：華人、奈及利亞人、義大利人、波多黎各人、俄羅斯人等等）

30. 您讀完的最高年級或學歷是什麼？
- ☐ 沒有上過學或只上過幼稚園
- ☐ 1-8年級（小學到初中）
- ☐ 9-11年級（高中肄業）
- ☐ 12年級或GED（高中畢業或同等學歷）
- ☐ 大學1-3年（大學肄業或技術學院）

☐ 大學4年或以上（大學畢業）
☐ 學士後（碩士、博士）
☐ 不想回答

31. 您的家庭總年收入是多少？包括所有來源。

☐ 少於 $10,000
☐ $10,000 – $14,999
☐ $15,000 – $24,999
☐ $25,000 – $34,999
☐ $35,000 – $49,999
☐ $50,000 – $74,999
☐ $75,000 – $99,999
☐ $100,000 – $149,999
☐ $150,000 – $199,999
☐ $200,000 或以上
☐ 不想回答

32. 您目前居住地的郵遞區號是多少？ _____

如果您在骨科或風濕病方面有其他任何需求想要讓Hospital for Special Surgery知道，請使用以下空白處與我們分享：

感謝您完成這份問卷調查！

請在2022年2月15日以前交回這份問卷調查，以便我們確保您的意見會被納入考量。

請將完成的問卷調查以下面任一方式送回給我們：

7. 使用隨附的預付郵資信封郵寄
8. 直接送到：Hospital for Special Surgery Education Institute (EI) 辦公室，地址：517 East 71st Street, NY, NY 10021 – **Attn: Titilayo Ologhobo**

如果您對問卷調查有任何問題或顧慮，請聯絡Outcomes & Data Analytics教育研究所主任 Titilayo Ologhobo，電郵：communityed@hss.edu。

Community Survey Key Findings Report

Table of Contents

List of Abbreviations

The following abbreviations are used throughout the report.

ACC	HSS Ambulatory Care Centers
MUA	Medically Underserved Area
OA	Osteoarthritis
OP	Osteoporosis
PA	Physical activity
RA	Rheumatoid Arthritis

Community Survey Key Findings

HSS conducted a Community Health Needs Assessment (CHNA) from January 15 to February 15, 2022, to assess the needs of the community served and guide the development of the New York State Department of Health (NYSDOH) comprehensive Community Service Plan (CSP). This report highlights key findings from the community survey.

The community survey was a large-scale anonymous survey completed by 18,248 HSS patients and community members. It assessed several areas:

- Socio-demographic characteristics
- Health status and quality of life
- Health behavior and lifestyle
- Use of and access to care
- Health education

The survey was administered in English, Spanish, Chinese and Russian with an overwhelming response in English (96.4%). The rest of the responses were in Spanish (3.1%), Chinese (0.3%) and Russian (0.1%). The CHNA survey was administered online (i.e., web, social media, and email via Alchemer), by mail, and in-person (i.e., paper surveys, QR-codes). Table 1 below shows a detailed breakdown of responses and response rates by administration method.

Table 1. Response Rates by Administration Method

Administration Method	Subset	Number of Responses	Sample Size	Response Rate
Alchemer	Panel Service	7,249	7,249	100.0%
Email	Patients	9,950	144,984	6.9%
Email	Community members	219	2,663	8.1%
Email	Community Partners	1	N/A	N/A
Email	HSS Newsletter	19	N/A	N/A
In-Person	Patients	290	N/A	N/A
Poster QR Code	Patients	1	N/A	N/A
Postcard QR Code	Patients	12	N/A	N/A
Mail	Community members	312	2,680	11.6%
Social Media	Facebook	107	N/A	N/A
Social Media	Instagram	29	N/A	N/A
Social Media	Patch.com	39	N/A	N/A
Social Media	Twitter	3	N/A	N/A
Web	HSS Website	17	N/A	N/A

Survey Analysis

Primary analyses were conducted in the total sample of 18,248 respondents. To further examine the total sample and identify health disparities that exists, secondary analyses were conducted in the three sub-groups listed below, with results presented throughout this report.

- HSS Ambulatory Care Centers; ACC (n= 344)
  - This group represents HSS patients from more racially/ethnically diverse and lower socioeconomic backgrounds who receive care at ACC locations (i.e., 72nd street and Rheumatology, 6th floor)
- HSS Regional sites (n= 6,739)
  - This group represents respondents living in HSS regional locations (i.e., Long Island, NY; Westchester, NY and surrounding counties; Connecticut; New Jersey; Florida)
- Medically underserved respondents (n= 5,785)
  - This group represent respondents who were uninsured, insured through Medicaid, or who live in a Medically Underserved Area (MUA)

Survey Results

This section highlights results from descriptive summaries and chi-squared tests to determine statistically significant associations between socio-demographics, health status and quality of life, health behavior and lifestyle, use of and access to care and educational needs across all samples.

A. Socio-Demographic Profile

The following tables show the socio-demographic profile of the 2022 CHNA respondents.

Gender

Table 2. Gender

Gender	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved Sub-Sample (n=5,785)
Female	66.0%	69.6%	64.0%	67.2%
Male	32.4%	28.2%	34.8%	31.1%
Other (Transgender Woman, Transgender Man, Other)	0.6%	0.4%	0.5%	0.9%
Prefer not to respond	0.9%	1.8%	0.7%	0.8%

Age

Table 3. Age

Age Group (years)	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,7239	Medically Underserved Sub-Sample (n=5,785)
<20	3.5%	0.0%	3.0%	4.5%
20-39	30.1%	10.2%	28.8%	43.5%
40-59	22.7%	41.7%	22.8%	26.4%
60-79	37.5%	46.6%	40.3%	22.8%
80+	6.3%	1.5%	5.2%	2.9%

Sexual Orientation

Table 4. Sexual orientation

Sexual Orientation	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved Sub-Sample (n=5,785)
Straight	87.5%	85.3%	89.1%	83.9%
Lesbian or gay	3.0%	3.9%	2.3%	3.8%
Bisexual	4.9%	1.6%	4.8%	7.2%
Queer, pansexual and/or questioning	8.0%	0.8%	0.7%	1.1%
Something else	0.4%	0.4%	0.4%	0.5%
Don't know	0.5%	0.8%	0.4%	0.5%
Prefer not to respond	3.0%	7.4%	2.4%	3.1%

Ethnicity

Table 5. Ethnicity

Ethnicity	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved Sub-Sample (n=5,785)
Non-Hispanic/Latino	73.8%	65.6%	76.1%	64.6%
Hispanic/Latino	23.4%	26.6%	21.8%	33.0%
Prefer not to respond	2.8%	7.8%	2.1%	2.4%

Race

Table 6. Race

Race	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved Sub-Sample (n=5,785)
White	57.4%	39.6%	63.6%	38.9%
Black or African American	23.2%	30.4%	19.9%	37.8%
Other	7.3%	12.7%	6.3%	10.6%
Asian	7.9%	6.9%	7.0%	8.1%
American Indian/Alaska Native	2.1%	1.2%	1.8%	3.1%
Native Hawaiian/Other Pacific Islander	0.7%	1.2%	0.5%	1.1%
Prefer Not to Respond	5.1%	13.5%	4.3%	5.4%

Education

Table 7. Education level

Education Level	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved Sub-Sample (n=5,785)
Postgraduate (Masters, PhD)	25.6%	9.6%	25.9%	15.4%
College 4 years or more (College graduate)	26.2%	24.4%	27.9%	20.9%
College 1 year to 3 years (Some college or technical school)	21.1%	26.3%	22.1%	22.7%
Grade 12 or GED (High school graduate)	21.0%	24.8%	19.5%	31.3%
Grades 9 through 11 (Some high school)	3.6%	6.7%	2.7%	6.2%
Grades 1 through 8 (Elementary)	0.7%	5.2%	0.5%	1.2%
Never attended school or only attended kindergarten	0.3%	0.0%	0.2%	0.5%
Prefer Not to Respond	1.6%	3.0%	1.3%	1.8%

Annual Household Income

Table 8. Annual household income

Annual Household Income	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,7239	Medically Underserved Sub-Sample (n=5,785)
$200,000+	10.0%	1.2%	12.0%	4.5%
$150,000-$199,999	5.7%	0.4%	6.9%	2.7%
$100,000-$149,999	10.8%	2.4%	12.4%	7.0%
$75,000-$99,999	9.3%	3.1%	10.0%	7.5%
$50,000-$74,999	10.9%	3.9%	10.7%	10.7%
$35,000-$49,999	7.3%	5.5%	6.7%	9.3%
$25,000-$34,999	7.7%	9.8%	7.0%	12.1%
$15,000-$24,999	6.7%	13.8%	5.7%	10.5%
$10,000-$14,999	4.9%	16.1%	3.7%	8.2%
Less than $10,000	8.6%	20.1%	7.2%	15.8%
Prefer Not to Respond	18.1%	23.6%	17.7%	11.8%

Geographic Location

Table 9. Geographic location

Location	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,7239	Medically Underserved Sub-Sample (n=5,785)
New Jersey	22.6%	0.4%	40.6%	20.3%
Manhattan	18.1%	27.5%	0.0%	17.6%
Brooklyn	9.4%	22.7%	0.0%	19.8%
Westchester and surrounding counties	9.0%	5.2%	16.2%	5.8%
Connecticut	8.9%	0.0%	16.1%	8.1%
Long Island	8.0%	3.6%	14.4%	1.9%
Florida	7.1%	0.0%	12.7%	3.1%
Bronx	6.2%	14.7%	0.0%	14.6%
Staten Island	2.1%	6.4%	0.0%	1.1%
Queens	0.1%	19.5%	0.0%	7.8%

B. Health Status and Quality of Life

1. Musculoskeletal Conditions

Table 10 shows respondents who have been diagnosed with various musculoskeletal and rheumatologic conditions. Across all four samples, OA was the leading condition reported, followed by chronic pain and some other form of arthritis. This is consistent with national findings where arthritis is the leading cause of musculoskeletal-related disability.[47]

Table 10. Musculoskeletal conditions

Musculoskeletal Condition	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
Osteoarthritis (OA)	33.7%	52.3%	31.0%	21.3%
Chronic Pain	23.1%	45.5%	22.9%	27.3%
Some other form of arthritis	17.2%	28.2%	16.6%	15.2%
Osteoporosis (OP)	13.5%	18.1%	11.0%	8.8%
Rheumatoid arthritis (RA)	10.1%	21.3%	8.9%	10.2%
Gout	5.4%	3.2%	5.3%	5.0%
Fibromyalgia	4.8%	7.2%	4.9%	5.2%
Lupus	3.1%	6.9%	2.7%	4.1%

[47] American Academy of Orthopaedic Surgeons. (2016). One in two Americans have a musculoskeletal condition.

Total Sample

Statistically significant associations were found between musculoskeletal conditions and:

- Age, such that respondents aged:
  - 80+ years (50.0%) and 60-79 years (49.5%) were more likely to report having OA; p≤0.001
  - 20-39 years (27.0%) and 40-59 years (25.7%) were more likely to report having chronic pain; p≤0.001
  - 80+ years were more likely to report having some other form of arthritis (18.8%), OP (29.3%), and gout (8.6%); p≤0.001
  - 40-59 years (11.5%) and 80+ years (10.2%) were more likely to report having RA; p≤0.001
  - 40-59 years (6.7%) were more likely to report having fibromyalgia; p≤0.001
  - 20-39 years (5.1%) were more likely to report having lupus; p≤0.001
- Gender, such that respondents who identified as:
  - Female were more likely to report having OA (31.9%), OP (15.6%), and RA (9.6%); p≤0.001
  - Other gender were more likely to report having chronic pain (41.5%; p≤0.01) and lupus (5.3%; p≤0.001)
  - Male (17.3%) were more likely to report having some other form of arthritis (17.3%) and gout (9.2%); p≤0.001
  - Female (5.8%) and Other gender (4.3%) were more likely to report having fibromyalgia; p≤0.001
- Race, such that respondents who identified as:
  - White were more likely to report having OA (37.1%), some other form of arthritis (16.8%), and OP (15.7%); p≤0.001
  - Native Hawaiian/Other Pacific Islander (33.0%; p≤0.01) and American Indian/Alaska Native (28.8%; p≤0.01) were more likely to report having chronic pain
  - Native Hawaiian/Other Pacific Islander (12.6%; p≤0.001) were more likely to report having gout
  - American Indian/Alaska Native (8.3%; p≤0.01) and White (5.2%; p≤0.001) were more likely to report having fibromyalgia
  - Native Hawaiian/Other Pacific Islander (6.8%; p≤0.05) and Black/African American (4.0%; p≤0.001) were more likely to report having lupus
- Ethnicity, such that respondents who identified as:
  - Non-Hispanic/Latino (32.9%) were more likely to report having OA (32.9%; p≤0.001), some other form of arthritis (15.8%; p≤0.01), and OP (13.3%; p≤0.001)
  - Hispanic/Latino were more likely to report having chronic pain (26.1%), fibromyalgia (6.0%), and lupus (4.8%); p≤0.001
- Geographic location, such that respondents living in:
  - Long Island (41.2%) were more likely to report having OA; p≤0.001
  - The Bronx (27.8%) and Florida (25.0%) were more likely to report having chronic pain; p≤0.001
  - Staten Island (19.4%) and Westchester and surrounding counties (18.1%) were more likely to report having some other form of arthritis; p≤0.05
  - Manhattan (22.1%) were more likely to report having OP; p≤0.001
  - The Bronx (12.0%) were more likely to report having RA; p≤0.01
  - Florida (7.7%) were more likely to report having gout; p≤0.001
  - Florida (6.5%) and Westchester and surrounding areas (5.5%) were more likely to report having fibromyalgia; p≤0.01
  - Florida (4.0%) and Connecticut (3.9%) were more likely to report having lupus; p≤0.001
- Education level, such that respondents who had:
  - A postgraduate education (45.1%) were more likely to report having OA; p≤0.001
  - Never attended school or only kindergarten (27.9%) and had a high school education (27.3%) were more likely to report having chronic pain; p≤0.001
  - Some college education (16.5%), a college education (15.4%) and postgraduate education (15.3%) were more likely to report having some other form of arthritis; p≤0.05
  - A postgraduate education (18.4%) and an elementary school education (15.7%) were more likely to report having OP; p≤0.001
  - An elementary school education were more likely to report having gout (14.7%), fibromyalgia (10.8%), and lupus (14.7%); p≤0.001

- Income, such that respondents with an annual household income of:
  - $200,000+ (38.7%) and $150,000-$249,999 (37.9%) were more likely to report having OA; p≤0.001
  - $10,000-$14,999 (33.7%) and $25,000-$34,999 (30.3%) were more likely to report having chronic pain; p≤0.001
  - $200,000+ (19.5%) were more likely to report having some other form of arthritis; p≤0.001
  - $200,000 or more (12.4%), $100,000-$149,999 (12.4%), and $50,000-$74,999 (12.0%) were more likely to report having OP; p≤0.001
  - $10,000-$14,999 (11.4%) and $15,000-$24,999 (11.4%) were more likely to report having RA; p≤0.01
  - $50,000-$74,999 (6.1%) and $100,000-$149,999 (6.0%) were more likely to report having gout; p≤0.05
  - $15,000-$24,999 were more likely to report having fibromyalgia (6.5%) and lupus (5.5%); p≤0.001

ACC sub-sample

Statistically significant associations were found between musculoskeletal conditions and:

- Age, such that respondents aged 60-79 years (56.1%) and 40-59 years (44.5%) were more likely to report having OA; p≤0.001
- Location, such that respondents living in Westchester and surrounding counties (30.8%) were more likely to report having fibromyalgia; p≤0.01

Regional sub-sample

Statistically significant associations were found between musculoskeletal conditions and:

- Age, such that respondents aged:
  - 80+ years (50.6%) and 60-79 years (49.3%) were more likely to report having OA; p≤0.001
  - 20-39 years (26.1%) and 40-59 years (25.0%) were more likely to report having chronic pain; p≤0.001
  - 80+ years were more likely to report having some other form of arthritis (20.0%), OP (21.2%), and gout (9.4%); p≤0.001
  - 80+ years (10.3%) and 40-59 years (10.0%) were more likely to report having RA; p≤0.001
  - 40-59 years (6.6%) were more likely to report having fibromyalgia; p≤0.001
  - 20-39 years (4.6%) were more likely to report having lupus; p≤0.001
- Gender, such that respondents who identified as:
  - Female were more likely to report having OA (31.1%), OP (13.9%), and fibromyalgia (5.9%); p≤0.001
  - Other gender were more likely to report having chronic pain (45.9%; p≤0.01), some other form of arthritis (18.9%; p≤0.01), and lupus (5.4%; p≤0.05)
  - Male (9.9%) more likely to report having gout; p≤0.001
- Race, such that respondents who identified as:
  - White were more likely to report having OA (37.2%; p≤0.001), some other form of arthritis (17.2%; p≤0.001), OP (13.2%; p≤0.001), RA (8.8%; p≤0.05), and gout (5.6%; p≤0.01)
  - Black/African American (24.0%; p≤0.05) were more likely to report having chronic pain
  - American Indian/Alaska Native (9.8%; p≤0.01) and White (5.1%; p≤0.001) were more likely to report having fibromyalgia
  - Native Hawaiian/Other Pacific Islander (14.3%; p≤0.001) and Black/African American (3.8%; p≤0.001) were more likely to report having lupus
- Ethnicity, such that respondents who identified as:
  - Non-Hispanic/Latino were more likely to report having OA (33.9%; p≤0.001), some other form of arthritis (16.1%; p≤0.05), and OP (11.7%; p≤0.001)
  - Hispanic/Latino were more likely to report having chronic pain (25.3%; p≤0.001), fibromyalgia (5.6%; p≤0.05), and lupus (4.0%; p≤0.001)

- Geographic location, such that respondents living in:
  - Long Island (41.2%) were more likely to report having OA; p≤0.001
  - Florida were more likely to report having chronic pain (25.0%; p≤0.05), gout (7.7%; p≤0.001), and fibromyalgia (6.5%; p≤0.001)
  - Westchester and surrounding counties (18.1%) were more likely to report having some other form of arthritis; p≤0.05
  - Long Island (13.4%) and Westchester and surrounding counties (12.1%) were more likely to report having OP; p≤0.001
  - Florida (10.6%) and Westchester and surrounding counties (9.8%) were more likely to report having RA; p≤0.01
  - Florida (4.0%) and Connecticut (3.9%) were more likely to report having lupus; p≤0.001
- Education level, such that respondents who had:
  - A postgraduate education (45.1%) were more likely to report having OA; p≤0.001
  - A high school education (27.0%) were more likely to report having chronic pain; p≤0.001
  - Never attended school or only kindergarten (27.3%) were more likely to report having RA; p≤0.05
  - An elementary school education (18.2%) and postgraduate education (15.1%) were more likely to report having OP; p≤0.001
  - An elementary school education were more likely to report having gout (24.2%), fibromyalgia (18.2%), and lupus (18.2%); p≤0.001
- Income, such that respondents with an annual household income of:
  - $150,000-$249,999 (39.4%) and $200,000+ (39.2%) were more likely to report having OA; p≤0.001
  - $15,000-$24,999 (32.1%), $10,000-$14,999 (31.4%), and $25,000-$34,999 (31.3%) were more likely to report having chronic pain; p≤0.001
  - $200,000+ (22.2%) were more likely to report having some other form of arthritis; p≤0.001
  - $100,000-$149,999 (11.2%) were more likely to report having OP; p≤0.001
  - $15,000-$24,999 (11.9%) were more likely to report having RA; p≤0.001
  - $50,000-$74,999 (6.8%) and $100,000-$149,999 (5.6%) were more likely to report having gout; p≤0.05
  - $15,000-$24,999 (7.4%) were more likely to report having fibromyalgia; p≤0.01
  - $15,000-$24,999 (6.1%) were more likely to report having lupus; p≤0.001

Medically underserved sub-sample

Statistically significant associations were found between musculoskeletal conditions and:

- Age, such that respondents aged:
  - 80+ years (51.2%) and 60-79 years (47.8%) were more likely to report having OA; p≤0.001
  - 20-39 years (28.5%) and 40-59 years (28.1%) were more likely to report having chronic pain; p≤0.001
  - 80+ years (20.6%) were more likely to report having some other form of arthritis; p≤0.001
  - 80+ years (30.6%) were more likely to report having OP; p≤0.001
  - 80+ years (13.1%), 40-59 years (12.2%) and 60-70 years (11.6%) were more likely to report having RA; p≤0.001
  - 40-59 years (6.8%) were more likely to report having fibromyalgia; p≤0.01
  - 20-39 years (5.3%) were more likely to report having lupus; p≤0.001
- Gender, such that respondents who identified as:
  - Female were more likely to report having OA (22.1%), OP (9.9%), and RA (10.4%); p≤0.001
  - Male (7.7%) more likely to report having gout; p≤0.001
  - Female (6.2%) and Other gender (5.9%) were more likely to report having fibromyalgia; p≤0.001
- Race, such that respondents who identified as:
  - White were more likely to report having OA (28.3%), some other form of arthritis (12.8%) and OP (15.7%); p≤0.001
  - Native Hawaiian/Other Pacific Islander (15.4%; p≤0.001) were more likely to report having gout
  - American Indian/Alaska Native (9.8%; p≤0.01) and White (6.3%; p≤0.001) were more likely to report having fibromyalgia

- Ethnicity, such that respondents who identified as:
  - Non-Hispanic/Latino were more likely to report having OA (23.2%; p≤0.001), some other form of arthritis (14.9%; p≤0.05), and OP (9.1%; p≤0.001)
  - Hispanic/Latino were more likely to report having chronic pain (28.4%; p≤0.01), fibromyalgia (5.6%; p≤0.05), and lupus (4.9%; p≤0.01)
- Geographic location, such that respondents living in:
  - Manhattan (32.0%) were more likely to report having OA; p≤0.001
  - Florida were more likely to report having chronic pain (34.9%) and lupus (9.2%); p≤0.01)
  - Manhattan (13.4%) were more likely to report having OP; p≤0.001
  - The Bronx (12.4%) and Queens (11.1%) were more likely to report having RA; p≤0.05
  - Connecticut (7.1%) were more likely to report having fibromyalgia; p≤0.05
- Education level, such that respondents who had:
  - A postgraduate education (42.7%) were more likely to report having OA; p≤0.001
  - An elementary school education (31.3%) and a high school education (30.0%) were more likely to report having chronic pain; p≤0.001
  - Postgraduate education (16.0%) and an elementary school education (14.9%) were more likely to report having OP; p≤0.001
  - An elementary school education (13.4%) were more likely to report having gout; p≤0.05
  - An elementary school education (14.9%) were more likely to report having lupus; p≤0.001
- Income, such that respondents with an annual household income of:
  - $200,000+ (38.8%) and $150,000-$249,999 (34.0%) were more likely to report having OA; p≤0.001
  - $10,000-$14,999 (35.0%) and $25,000-$34,999 (30.8%) were more likely to report having chronic pain; p≤0.001
  - $200,000 or more (11.2%), $100,000-$149,999 (10.6%) were more likely to report having OP; p≤0.001
  - $10,000-$14,999 (137%) and $15,000-$24,999 (11.5%) were more likely to report having RA; p≤0.01

2. Confidence to Manage Symptoms

Table 11 shows confidence to manage among respondents with musculoskeletal conditions. In the total sample, over half of the respondents (55.1%) reported being very confident/ confident in managing symptoms. On the other hand, in the three sub-samples, over half of the respondents reported low confidence.

- Compared to the 2019 CHNA, respondents who lacked confidence to manage their condition decreased in the total sample and regional sub-sample by 11.6% and 5.3% respectively, but increased in the ACC sub-sample by 11.1%

Table 11. Confidence to manage symptoms of musculoskeletal condition

Confidence Level	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
Very confident	13.0%	8.8%	18.7%	18.6%
Confident	42.1%	18.0%	27.6%	26.9%
Somewhat confident	27.7%	44.4%	41.3%	41.2%
Not at all confident	17.2%	28.8%	12.4%	13.3%

Total sample
Statistically significant associations were found between confidence and:
- Age, such that respondents aged 40-59 years (57.5%) and those aged 80+ years (63.8%) were more likely to report being not at all/somewhat confident; p≤0.001
- Gender, such that respondents who identified as Female (56.5%) were more likely to report being not at all/somewhat confident; p≤0.001
- Race, such that respondents who identified as White (55.4%) were more likely to report being not at all/somewhat confident; p≤0.05
- Geographic location, such that respondents living in Queens (59.4%) and Staten Island (57.2%) were more likely to report being not at all/somewhat confident; p≤0.001
- Musculoskeletal conditions, such that respondents with fibromyalgia (74.2%) and chronic pain (72.9%) were more likely to report being not at all/somewhat confident; p≤0.001
- Education level, such that respondents who had never attended school or only kindergarten (74.4%) and had an elementary school education (62.8%) were more likely to report being not at all/somewhat confident; p≤0.001
- Income, such that respondents with an annual household income of $10,000-$14,999 (58.5%) and $15,000-$24,999 (57.6%) were more likely to report being not at all/somewhat confident; p≤0.01

ACC sub-sample
Statistically significant associations were found between confidence and:
- Musculoskeletal conditions, such that respondents with OP (84.1), chronic pain (83.9%), and lupus (83.3%) were more likely to report being not at all/somewhat confident; p≤0.05

Regional sub-sample
Statistically significant associations were found between confidence and:
- Age, such that respondents aged 80+ years (67.6%) were more likely to report being not at all/somewhat confident; p≤0.001
- Gender, such that respondents who identified as Other gender (58.3%) were more likely to report being not at all/somewhat confident; p≤0.001
- Race, such that respondents who identified as White (55.2%) were more likely to report being not at all/somewhat confident; p≤0.01
- Geographic location, such that respondents living in Westchester and surrounding counties (56.7%) were more likely to report being not at all/somewhat confident; p≤0.01
- Musculoskeletal conditions, such that respondents with fibromyalgia (79.1%) and chronic pain (72.7%) were more likely to report being not at all/somewhat confident; p≤0.001
- Education level, such that respondents who had never attended school or only kindergarten (90.9%) were more likely to report being not at all/somewhat confident; p≤0.001

Medically underserved sub-sample
Statistically significant associations were found between confidence and:
- Age, such that respondents 80+ years (61.8%), 40-59 years (59.1%), and 60-79 years (57.2%) were more likely to report being not at all/somewhat confident; p≤0.001
- Gender, such that respondents who identified as Female (56.7%) were more likely to report being not at all/somewhat confident; p≤0.001
- Race, such that respondents who identified as White (58.0%) were more likely to report being not at all/somewhat confident; p≤0.001
- Geographic location, such that respondents living in Long Island (62.8%), Queens (59.6%) and Florida (59.1%) were more likely to report being not at all/somewhat confident; p≤0.05
- Musculoskeletal conditions, such that respondents with fibromyalgia (71.3%) and chronic pain (69.8%) were more likely to report being not at all/somewhat confident; p≤0.001
- Education level, such that respondents who had never attended school or only kindergarten (74.4%) followed by those who had attended elementary school (66.7%) were more likely to report being not at all/somewhat confident; p≤0.001
- Income, such that respondents who had an annual household income of $10,000-$14,999 (61.1%) and $15,000-$24,999 (58.2%) were more likely to report being not at all/somewhat confident; p≤0.01

3. Physical Health

Table 12 shows the number of physically unhealthy days, including physical illness and injury, in the past 30 days as measured using the CDC Healthy Days Measures. Across all samples, respondents reporting 14 days or more of poor physical health was higher compared to national (9.9%) and New York State (8.9%) data.[48]

- Close to half of ACC respondents (41.7%) experienced 14 or more days of poor physical health Compared to the 2019 CHNA, there was a 94.8% increase in the respondents reporting 2+ weeks of poor physical health among the ACC sub-sample, but a decrease in all other samples

Table 12. Poor physical health days

Number of Poor Physical Health Days	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
None	38.6%	25.7%	39.8%	34.5%
1-7 days	34.3%	20.8%	35.0%	37.2%
8-13 days	10.1%	11.7%	9.8%	12.2%
14 days or more	16.9%	41.7%	15.4%	16.1%

Total sample

Statistically significant associations were found between physical health and:

- Age, such that respondents aged 60-70 years (19.2%), 80+ years (18.7%), and 40-59 years (18.2%) were more likely to report 2+ weeks of poor physical health; p≤0.001
- Race, such that respondents who identified as White (17.3%) were more likely to report 2+ weeks of poor physical health; p≤0.001
- Ethnicity, such that respondents who identified as Non-Hispanic/Latino (16.3%) were more likely to report 2+ weeks of poor physical health; p≤0.001
- Geographic location, such that respondents living in Staten Island (24.3%), Westchester and surrounding counties (20.2%) and Long Island (18.8%) were more likely to report 2+ weeks of poor physical health; p≤0.001
- Musculoskeletal conditions, such that respondents with fibromyalgia (35.0%) and chronic pain (30.2%) were more likely to report 2+ weeks of poor physical health; p≤0.001
- Education level, such that respondents who had an elementary school education (18.4%) and some college education (18.4%) were more likely to report 2+ weeks of poor physical health; p≤0.001

ACC sub-sample

Statistically significant associations were found between physical health and:

- Race, such that respondents who identified with an Other race (64.5%) were more likely to report 2+ weeks of poor physical health; p≤0.05
- Musculoskeletal conditions, such that respondents with OP (60.9%) were more likely to report 2+ weeks of poor physical health; p≤0.05

Regional sub-sample

Statistically significant associations were found between physical health and:

- Age, such that respondents aged 80+ years (20.4%), 60-79 years (18.0%), and 40-59 years (17.9%) were more likely to report 2+ weeks of poor physical health; p≤0.001
- Gender, such that respondents who identified as Female (16.1%) were more likely to report 2+ weeks of poor physical health; p≤0.001
- Race, such that respondents who identified as White (17.3%) were more likely to report 2+ weeks of poor physical health; p≤0.001

[48] America's Health Rankings analysis of CDC, Behavioral Risk Factor Surveillance System, United Health Foundation, AmericasHealthRankings.org, Accessed 2022.

- Geographic location, such that respondents living in Westchester and surrounding counties (20.2%) were more likely to report 2+ weeks of poor physical health; p≤0.001
- Musculoskeletal conditions, such that respondents with fibromyalgia (35.2%) and chronic pain (28.0%) were more likely to report 2+ weeks of poor physical health; p≤0.001
- Education level, such that respondents who had an elementary school education (21.2%) and had never attended school or only kindergarten (18.2%) were more likely to report 2+ weeks of poor physical health; p≤0.05

Medically underserved sub-sample
Statistically significant associations were found between physical health and:
- Age, such that respondents aged 60-79 years (24.7%) were more likely to report 2+ weeks of poor physical health; p≤0.001
- Race, such that respondents who identified as Native Hawaiian/Other Pacific Islander (29.3%) were more likely to report 2+ weeks of poor physical health; p≤0.001
- Ethnicity, such that respondents who identified as Non-Hispanic/Latino (16.1%) were more likely to report 2+ weeks of poor physical health; p≤0.05
- Geographic location, such that respondents living in Westchester and surrounding counties (20.2%) were more likely to report 2+ weeks of poor physical health; p≤0.001
- Musculoskeletal conditions, such that respondents with fibromyalgia (33.6%) were more likely to report 2+ weeks of poor physical health; p≤0.001
- Education level, such that respondents who had a college education (18.0%), some college education (17.8%), and an elementary school education (17.5%) were more likely to report 2+ weeks of poor physical health; p≤0.001

4. Mental Health

Table 13 shows poor mental health days (i.e., including stress, depression, and problems with emotion) in the past 30 days, as measured using the CDC Healthy Days Measures.

- In the ACC (17.4%) and medically underserved sub-sample (15.4%), more respondents reported 14 or more mentally unhealthy days compared to national (13.2%) and New York State (12.7%) data[49]
- Compared to the 2019 CHNA, the percentage of respondents reporting 14 days or more of poor mental health increased in the total sample (from 9.2% to 11.9%) and regional sub-sample (from 6.6% to 11.4%) but decreased for the ACC sub-sample (from 24.5% to 17.4%)

Table 13. Poor mental health days

Number of Poor Mental Health Days	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
None	46.9%	50.6%	47.7%	38.7%
1-7 days	31.0%	25.2%	30.6%	32.4%
8-13 days	10.2%	6.8%	10.3%	13.5%
14 days or more	11.9%	17.4%	11.4%	15.4%

Total sample
Statistically significant associations were found between mental health and:
- Age, such that respondents aged < 20 years (18.4%) were more likely to report 2+ weeks of poor mental health; p≤0.001

[49] America's Health Rankings analysis of CDC, Behavioral Risk Factor Surveillance System, United Health Foundation, AmericasHealthRankings.org, Accessed 2022.

- Gender, such that respondents who identified as Other gender (31.2%) were more likely to report 2+ weeks of poor mental health; p≤0.001
- Race, such that respondents who identified as Native Hawaiian/Other Pacific Islander (20.2%; p≤0.05) and Other race (17.2%; p≤0.001) were more likely to report 2+ weeks of poor mental health
- Ethnicity, such that respondents who identified as Hispanic/Latino (16.7%) were more likely to report 2+ weeks of poor mental health; p≤0.001
- Geographic location, such that respondents living in the Bronx (16.0%) and Staten Island (15.1%) were more likely to report 2+ weeks of poor mental health; p≤0.01
- Musculoskeletal conditions, such that respondents with fibromyalgia (23.9%), chronic pain (19.7%), and lupus (17.4%) were more likely to report 2+ weeks of poor mental health; p≤0.001
- Education level, such that respondents who had some high school education (16.3%), some college education (15.6%) and a high school education (14.6%) were more likely to report 2+ weeks of poor mental health; p≤0.001
- Income, such that respondents with an annual household income of $15,000-$24,999 (18.6%) followed by $10,000-$14,999 (17.4%) were more likely to report 2+ weeks of poor mental health; p≤0.001

ACC sub-sample

Statistically significant associations were found between mental health and:

- Musculoskeletal conditions, such that respondents with gout (57.1%) were more likely to report 2+ weeks of poor mental health; p≤0.01

Regional sub-sample

Statistically significant associations were found between mental health and:

- Age, such that respondents aged <20 years (20.6%) were more likely to report 2+ weeks of poor mental health; p≤0.001
- Gender, such that respondents who identified as Other gender (37.8%) were more likely to report 2+ weeks of poor mental health; p≤0.001
- Race, such that respondents who identified as Other race (16.1%; p≤0.01) and Black/African American (13.6%; p≤0.01) were more likely to report 2+ weeks of poor mental health
- Ethnicity, such that respondents who identified as Hispanic/Latino (15.3%) were more likely to report 2+ weeks of poor mental health; p≤0.001
- Musculoskeletal conditions, such respondents with fibromyalgia (22.1%), chronic pain (19.6%), and lupus (18.6%) were more likely to report 2+ weeks of poor mental health; p≤0.001
- Education level, such that respondents who had some college education (15.3%), had an elementary school education (15.2%), and had some high school education (15.0%) were more likely to report 2+ weeks of poor mental health; p≤0.001
- Income, such that respondents with an annual household income of $15,000-$24,999 (19.0%) and $25,000-$34,999 (18.3%) were more likely to report 2+ weeks of poor mental health; p≤0.001

Medically underserved sub-sample

Statistically significant associations were found between mental health and:

- Age, such that respondents aged <20 years (18.6%), 40-59 years (17.5%) and 20-39 years (16.3%) were more likely to report 2+ weeks of poor mental health; p≤0.001
- Gender, such that respondents who identified as Other gender (32.0%) were more likely to report 2+ weeks of poor mental health; p≤0.001
- Ethnicity, such that respondents who identified as Hispanic/Latino (18.5%) were more likely to report 2+ weeks of poor mental health; p≤0.001
- Geographic location, such that respondents living in Staten Island (25.5%) and Long Island (21.3%) were more likely to report 2+ weeks of poor mental health; p≤0.01
- Musculoskeletal conditions, such that respondents with fibromyalgia (27.1%) and chronic pain (21.8%) were more likely to report 2+ weeks of poor mental health; p≤0.001
- Education level, such respondents who had never attended school or only kindergarten (19.2%) and who had some college education (17.9%) were more likely to report 2+ weeks of poor mental health; p≤0.001
- Income, such that respondents with an annual household income of $15,000-$24,999 (19.8%) followed by $10,000-$14,999 (19.1%) were more likely to report 2+ weeks of poor mental health; p≤0.001

5. Falls

Table 14 shows the percentage of respondents who have fallen in the past year. Across all samples, over 30% of respondents reported falling in the past year.

- Compared to the 2019 CHNA, falls increased in the total sample (from 26.5% to 30.8%) but decreased in the ACC (from 44.7% to 33.4%) and regional (from 41.4% to 30.6%) sub-samples.

Table 14. Falls in the past year

Fallen in the Past Year	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
No	69.2%	66.6%	69.4%	66.0%
Yes	30.8%	33.4%	30.6%	34.0%

Total sample

Statistically significant associations were found between falls and:

- Age, such that respondents aged <20 years (48.7%) were more likely to have fallen in the past year; p≤0.001
- Gender, such that respondents who identified as Other gender (52.7%) were more likely to have fallen in the past year; p≤0.001
- Race, such that respondents who identified as Other Race (37.3%; p≤0.001), American Indian/Alaska Native (36.8%; p≤0.05), and Black/African American (36.3%; p≤0.001) were more likely to have fallen in the past year
- Ethnicity, such that respondents who identified as Hispanic/Latino (38.0%) were more likely to have fallen in the past year; p≤0.001
- Geographic location, such that respondents living in Connecticut (35.1%), Florida (34.7%), and the Bronx (33.5%) were more likely to have fallen in the past year; p≤0.001
- Musculoskeletal conditions, such that respondents with lupus (48.5%) and fibromyalgia (47.4%) were more likely to have fallen in the past year; p≤0.001
- Education level, such that respondents who had never attended school or only kindergarten (58.1%) were more likely to have fallen in the past year; p≤0.001
- Income, such that respondents with an annual household income of $15,000-$24,999 (40.6%) were more likely to have fallen in the past year; p≤0.001

ACC sub-sample

Statistically significant associations were found between falls and:

- Gender, such that respondents who identified Other gender (53.3%; p≤0.001) were more likely to have fallen in the past year
- Musculoskeletal conditions, such that respondents with gout (75.0%) were more likely to have fallen in the past year; p≤0.001

Regional sub-sample

Statistically significant associations were found between falls and:

- Age, such that respondents aged <20 years (49.5%) were more likely to have fallen in the past year; p≤0.001
- Race, such that respondents who identified as American Indian/Alaska Native (42.0%; p≤0.01), Other Race (40.0%; p≤0.001) and Black/African American (35.4%; p≤0.001) were more likely to have fallen in the past year
- Ethnicity, such that respondents who identified as Hispanic/Latino (37.1%) were more likely to have fallen in the past year; p≤0.001
- Geographic location, such that respondents living in Connecticut (35.1%) and Florida (34.7%) were more likely to have fallen in the past year; p≤0.001
- Musculoskeletal conditions, such that respondents with lupus (58.7%) and fibromyalgia (50.7%) were more likely to have fallen in the past year; p≤0.001

- Education level, such that respondents who had never attended school or only kindergarten (63.6%) were more likely to have fallen in the past year; p≤0.001
- Income, such that respondents with an annual household income of $15,000-$24,999 (40.8%) were more likely to have fallen in the past year; p≤0.001

Medically underserved sub-sample
Statistically significant associations were found between falls and:
- Age, such that respondents aged < 20 years (49.0%) were more likely to have fallen in the past year; p≤0.001
- Gender, such that respondents who identified as Other gender (58.0%) were more likely to have fallen in the past year; p≤0.001
- Race, such that respondents who identified as Black/African American (36.2%; p≤0.01) were more likely to have fallen in the past year
- Ethnicity, such that respondents who identified as Hispanic/Latino (37.8%) were more likely to have fallen in the past year; p≤0.001
- Geographic location, such that respondents living in Staten Island (43.6%) and Florida (40.8%) were more likely to have fallen in the past year; p≤0.001
- Musculoskeletal conditions, such that respondents with lupus (50.2%), fibromyalgia (50.05%) and gout (49.2%) were more likely to have fallen in the past year; p≤0.001
- Education level, such that respondents who had never attended school or only kindergarten (53.8%) were more likely to have fallen in the past year; p≤0.001
- Income, such that respondents with an annual household income of $15,000-$24,999 (41.4%) were more likely to have fallen in the past year; p≤0.001

6. Sleep Quality

The Single-Item Sleep Quality Scale (SQS)[50] was used to measure respondents' sleep quality in the past seven days (Table 15). Across all samples, approximately one-quarter to one-third of respondents reported terrible or poor sleep, higher compared to the nationally reported 13.8%.[51]

Table 15. Sleep quality in the past 7 days

Quality of Sleep in Past 7 Days	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
Terrible	4.5%	6.3%	4.6%	6.8%
Poor	19.1%	25.3%	17.9%	23.7%
Fair	37.5%	36.6%	38.5%	37.7%
Good	33.7%	27.8%	34.2%	26.6%
Excellent	5.3%	4.1%	4.8%	5.3%

Total sample
Statistically significant associations were found between sleep quality and:
- Age, such that respondents <20 years (29.7%), 20-39 years (29.5%) and 40-59 years (30.0%) were more likely to report terrible or poor sleep quality; p≤0.001
- Gender, such that respondents who identified as Other gender (37.6%) were more likely to report terrible or poor sleep quality; p≤0.001

[50] Snyder E, Cai B, DeMuro C, Morrison MF, Ball W. A New Single-Item Sleep Quality Scale: Results of Psychometric Evaluation in Patients With Chronic Primary Insomnia and Depression. J Clin Sleep Med. 2018;14(11):1849-1857. Published 2018 Nov 15. doi:10.5664/jcsm.7478

[51] Shi, L., Zhang, D., Martin, E., Chen, Z., Li, H., Han, X., ... & Su, D. (2022). Racial Discrimination, Mental Health and Behavioral Health During the COVID-19 Pandemic: a National Survey in the United States. *Journal of General Internal Medicine*, 1-9.

- Race, such that respondents who identified as American Indian/Alaska Native (34.3%; p≤0.001), Native Hawaiian/Other Pacific Islander (35.6%; p≤0.01), and Other race (31.1%; p≤0.001) were more likely to report terrible or poor sleep quality
- Ethnicity, such that respondents who identified as Hispanic/Latino (31.1%) were more likely to report terrible or poor sleep quality; p≤0.001
- Geographic location, such that respondents living in the Bronx (32.6%) were more likely to report terrible or poor sleep quality; p≤0.001
- Musculoskeletal conditions, such that respondents with fibromyalgia (40.4%), lupus (37.7%) and chronic pain (36.9%) were more likely to report terrible or poor sleep quality; p≤0.001
- Education level, such that respondents who had never attended school or only kindergarten (48.8%) were more likely to report terrible or poor sleep quality; p≤0.001
- Income, such that respondents who an annual household income of <$10,000 (37.6%), $10,000-$14,999 (34.6%), and $15,000-$24,999 (33.0%) were more likely to report terrible or poor sleep quality; p≤0.001

ACC sub-sample

Statistically significant associations were found between sleep quality and:

- Gender, such that respondents who identified as male (44.2%) were more likely to report terrible or poor sleep quality; p≤0.05

Regional sub-sample

Statistically significant associations were found between sleep quality and:

- Age, such that respondents aged 40-59 years (27.9%), 20-39 years (28.8%) and <20 years (25.3%) were more likely to report terrible or poor sleep quality; p≤0.001
- Gender, such that respondents who identified as Other gender (27.0%) and Female (24.0%) were more likely to report terrible or poor sleep quality; p≤0.001
- Race, such that respondents who identified as Native Hawaiian/Other Pacific Islander (38.2%; p≤0.05 and American Indian/Alaska Native (34.8%; p≤0.05) were more likely to report terrible or poor sleep quality
- Ethnicity, such that respondents who identified as Hispanic/Latino (29.4%) were more likely to report terrible or poor sleep quality; p≤0.001
- Musculoskeletal conditions, such that respondents with fibromyalgia (39.8%), lupus (37.5%), and chronic pain (36.3%) were more likely to report terrible or poor sleep quality; p≤0.001
- Education level, such that respondents who had never attended school or only kindergarten (45.5%) and had an elementary school education (40.6%) were more likely to report terrible or poor sleep quality; p≤0.001
- Income, such that respondents who an annual household income of <$10,000 (36.2%), and $15,000-$24,999 (33.5%) were more likely to report terrible or poor sleep quality; p≤0.001

Medically underserved sub-sample

Statistically significant associations were found between sleep quality and:

- Age, such that respondents aged 40-59 years (34.7%), <20 years (33.2%), and 20-39 years (32.9%) were more likely to report terrible or poor sleep quality; p≤0.001
- Gender, such that respondents who identified as Other gender (46.0%) were more likely to report terrible or poor sleep quality; p≤0.001
- Race, such that respondents who identified as Other race (34.2%; p≤0.05), and Black/African American (33.2%; p≤0.001) were more likely to report terrible or poor sleep quality
- Ethnicity, such that respondents who identified as Hispanic/Latino (35.1%) were more likely to report terrible or poor sleep quality; p≤0.001
- Geography, such that respondents living in Staten Island (41.8%) were more likely to report terrible or poor sleep quality; p≤0.01
- Musculoskeletal conditions, such that respondents with fibromyalgia (45.6%), chronic pain (42.5%), and lupus (41.8%) were more likely to report terrible or poor sleep quality; p≤0.001
- Education level, such that respondents who had never attended school or only kindergarten (57.7%) were more likely to report terrible or poor sleep quality; p≤0.001

- Income, such that respondents who an annual household income of <$10,000 (39.4%), $10,000-$14,999 (38.7%), and $15,000-$24,999 (36.2%) were more likely to report terrible or poor sleep quality; p≤0.001

C. Health Behaviors and Lifestyle

7. Physical Activity

Using the Two-Question (2Q) physical activity assessment, respondents were asked about their physical activity levels (Table 16 and 16). The assessment asks the frequency of engaging in at least 20 minutes of vigorous-intensity physical activity (e.g., heavy lifting, jogging, aerobics, or fast bicycling) per week and the frequency of engaging in at least 30 minutes of moderate-intensity physical activity (e.g., carrying light loads, bicycling at a regular pace, or doubles tennis) per week.

- Over one-quarter (25.7%) of respondents reported engaging in vigorous-intensity physical activity three or more times a week
- One-fifth (20.0%) of respondents reported engaging in moderate-intensity physical activity five or more times a week

Table 16. Vigorous intensity physical activity

Frequency of Vigorous Intensity Physical Activity	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
3 or more times a week	25.7%	17.0%	25.7%	22.7%
1-2 times a week	31.6%	24.1%	31.4%	38.2%
None	42.7%	59.0%	42.9%	39.1%

Table 17. Moderate intensity physical activity

Frequency of Moderate Intensity Physical Activity	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
5 or more times a week	20.0%	16.1%	18.6%	16.5%
3-4 times a week	27.7%	20.9%	27.8%	26.7%
1-2 times a week	29.8%	28.6%	29.5%	33.3%
None	22.4%	34.4%	24.2%	23.4%

Total sample

Statistically significant associations were found between physical activity and:

- Age, such that respondents aged:
  - 80+ years (85.2%) were more likely to report engaging in vigorous PA (85.2%) <3 times a week; p≤0.001
  - 80+ years (56.0%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001
- Gender, such that respondents who identified as:
  - Female (78.3%) and Other gender (78.5%) were more likely to report engaging in vigorous PA <3 times a week; p≤0.001
  - Female (58.4%) and Other gender (53.8%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001

- Race, such that respondents who identified as:
  - Black/African American (75.9%; p≤0.05) were more likely to report engaging in vigorous PA <3 times a week
  - Other race (58.8%), Asian (57.4%) and Black/African American (55.7%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001
- Ethnicity, such that respondents who identified as Hispanic/Latino (56.6%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001
- Geography, such that respondents living in:
  - The Bronx (79.7%) were more likely to report engaging in vigorous PA <3 times a week; p≤0.001
  - Staten Island (63.3%) and the Bronx (59.8%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001
- Musculoskeletal conditions, such that respondents with:
  - Fibromyalgia (80.2%), RA (78.2%), and chronic pain (78.1%) were more likely to report engaging in vigorous PA <3 times a week; p≤0.001
  - Fibromyalgia (58.8%), rheumatoid arthritis (55.9%), and chronic pain (55.7%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001
- Education level, such that respondents who had:
  - A high school education (78.7%) and some college education (78.7%) were more likely to report engaging in vigorous PA <3 times a week; p≤0.001
  - Some college education (59.0%), a high school education (58.9%), and some high school education (58.6%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001
- Income, such that respondents who an annual household income of:
  - <$10,000 (79.8%) and $25,000-$34,999 (79.4%) were more likely to report engaging in vigorous PA <3 times a week; p≤0.001
  - < $10,000 (60.9%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001

ACC sub-sample

Statistically significant associations were found between physical activity and:

- Gender, such that respondents who identified as respondents who identified as Female (87.3%) were more likely to report engaging in vigorous PA <3 times a week; p≤0.001
- Geography, such that respondents living in respondents living in Staten Island (92.9%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001
- Education level, such that respondents who had an elementary school education (100.0%) were more likely to report engaging in moderate PA <3 times a week; p≤0.01

Regional sub-sample

Statistically significant associations were found between physical activity and:

- Age, such that respondents aged:
  - 80+ years (85.2%) were more likely to report engaging in vigorous PA <3 times a week; p≤0.001
  - 80+ years (58.8%) and <20 years (58.8%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001
- Gender, such that respondents who identified as:
  - Female (78.1%) were more likely to report engaging in vigorous PA <3 times a week; p≤0.001
  - Other gender (62.2%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001
- Race, such that respondents who identified as:
  - Black/African American (77.0%; p≤0.05) were more likely to report engaging in vigorous PA <3 times a week
  - Other race (62.0%; p≤0.001), Asian (58.7%; p≤0.05) and Black/African American (57.9%; p≤0.001) were more likely to report engaging in moderate PA <3 times a week
- Ethnicity, such that respondents who identified as Hispanic/Latino (59.2%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001

- Geography, such that respondents living in New Jersey (76.0%) and Long Island (75.4%) were more likely to report engaging in vigorous PA <3 times a week; p≤0.01
- Musculoskeletal conditions, such that respondents with:
  - Chronic pain (79.7%), OP (79.97%), and fibromyalgia (79.6%) were more likely to report engaging in vigorous PA <3 times a week; p≤0.001
  - Fibromyalgia (61.9%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001
- Education level, such that respondents who had:
  - Some college education (79.8%) and a high school education (79.7%) were more likely to report engaging in vigorous PA <3 times a week; p≤0.001
  - Some high school education (83.6%) and a high school education (82.8%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001
- Income, such that respondents who an annual household income of:
  - $15,000-$24,999 (82.8%) were more likely to report engaging in vigorous PA <3 times a week; p≤0.001
  - <$10,000 (64.3%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001

Medically underserved sub-sample

Statistically significant associations were found between physical activity and:

- Age, such that respondents aged:
  - 80+ years (90.1%) were more likely to report engaging in vigorous PA <3 times a week; p≤0.001
  - 40-59 years (60.7%) and 80+ years (59.1%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001
- Gender, such that respondents who identified as Female were more likely to report engaging in vigorous PA <3 times a week (80.9%) and moderate PA <3 times a week (59.4%); p≤0.001
- Ethnicity, such that respondents who identified as Hispanic/Latino (58.9%) were more likely to report engaging in moderate PA <3 times a week; p≤0.01
- Geography, such that respondents living in Staten Island (74.1%) were more likely to report engaging in moderate PA <3 times a week; p≤0.01
- Musculoskeletal conditions, such that respondents with fibromyalgia (59.3%), some other form of arthritis (58.6%) and rheumatoid arthritis (58.5%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001)
- Education level, such that respondents who had:
  - Some college education (80.2%) and a high school education (80.0%) were more likely to report engaging in vigorous PA <3 times a week; p≤0.001
  - Some college education (61.6%), a high school education (59.6%), and some high school education (58.8%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001
- Income, such that respondents who an annual household income of:
  - <$10,000 (82.5%) and $25,000-$34,999 (80.3%) were more likely to report engaging in vigorous PA <3 times a week; p≤0.001
  - < $10,000 (62.5%) were more likely to report engaging in moderate PA <3 times a week; p≤0.001

8. Pain Management

Using questions from the National Health Interview Survey (NHIS)[52], respondents were asked about their use of pain management techniques (Table 18).

- Majority of respondents in all samples reported not using complementary alternatives for pain management
  - Across all samples, more respondents reported using 'yoga, Tai Chi or Qi Gong' and 'meditation, guided imagery, or other relaxation techniques' compared to national figures of 9.9% and 14.8% respectively[52]
- Close to three-quarters of respondents from the ACC sub-sample (72.8%) and close to half of regional (47.0%) and medically underserved (49.3%) respondents reported using a prescription pain reliever or opioid, compared to 19.2% nationwide[52]

Table 18. Use of pain management techniques

Pain management techniques	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
Yoga, Tai Chi or Qi Gong	14.5%	18.9%	19.7%	22.3%
A prescription pain reliever or opioid	37.3%	72.8%	47.0%	49.3%
Meditation, guided imagery, or other relaxation techniques	25.8%	38.2%	33.7%	38.7%

Total sample

Statistically significant associations were found between pain management and:

- Age, such that respondents aged:
  - 60-79 years (83.8%) and 80+ years (83.6%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.001
  - 40-59 years (50.1%), 20-39 years (48.7%), and 60-79 years (47.9%) were more likely to have used a pain reliever or prescription opioid manage pain; p≤0.001
  - 60-79 years (72.6%) and 80+ years (70.2%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.001
- Gender, such that respondents who identified as:
  - Male (81.7%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.001
  - Other gender (56.6%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.001
  - Male (69.6%) and Female (61.0%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.001
- Race, such that respondents who identified as:
  - White (79.2%; p≤0.05) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain
  - White (49.3%; p≤0.01) were more likely to have used a pain reliever or prescription opioid to manage pain
  - White (66.5%; p≤0.001) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain

[52] National Center for Health Statistics. National Health Interview Survey, 2020. Public-use data file and documentation. https://www.cdc.gov/nchs/nhis/data-questionnaires-documentation.htm. 2021.

- Ethnicity, such that respondents who identified as:
  - Non-Hispanic/Latino (79.3%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.001
  - Hispanic/Latino (51.5%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.001
  - Hispanic/Latino (65.7%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.001
- Geography, such that respondents living in:
  - Staten Island (87.4%) and Westchester and surrounding counties (83.4%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.001
  - The Bronx (56.0%), Long Island (51.2%) and Staten Island (50.5%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.001
  - Staten Island (73.8%), Long Island (68.8%) and Westchester and surrounding counties (69.4%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.001
- Musculoskeletal conditions, such that respondents with:
  - Some other form of arthritis (79.9%), osteoarthritis (79.6%), and gout (79.2%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.001
  - Chronic pain (66.6%) and fibromyalgia (66.2%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.001
  - OA (65.8%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.001
- Education level, such that respondents who had:
  - Some high school education (83.3%), a high school education (79.9%) and some college education (79.7%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.001
  - An elementary school education (55.0%) and some college education (50.5%) were more likely to have used a pain reliever or prescription opioid manage pain; p≤0.05
- Income, such that respondents who an annual household income of:
  - $25,000-$34,999 (79.9%) and $15,000-$24,999 (79.5%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.01
  - $10,000-$15,999 (53.2%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.01
  - $200,000+ (70.1%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.001

ACC sub-sample

Statistically significant associations were found between pain management and:

- Age, such that respondents aged 80+ years (100%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.05
- Gender, such that respondents who identified as Female (79.2%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.001
- Race, such that respondents who identified as American Indian/Alaska Native (100.0%; p≤0.05) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain;
- Ethnicity, such that respondents who identified as Hispanic/Latino (84.5%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.05
- Income, such that respondents who an annual household income of $10,000-$15,999 (97.0%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.001

Regional sub-sample

Statistically significant associations were found between pain management and:

- Age, such that respondents aged:
  - 80+ years (88.7%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.001
  - 80+ years (76.3%) and 60-79 years (74.9%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.001

- Gender, such that respondents who identified as:
  - Male (84.1%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.001
  - Other gender (54.5%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.001
  - Male (71.7%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.001
- Race, such that respondents who identified as:
  - White (81.7%; p≤0.001) and American Indian/Alaska Native (72.0%; p≤0.001) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain
  - White (48.4%; p≤0.01) were more likely to have used a pain reliever or prescription opioid to manage pain
  - White (69.3%; p≤0.001) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain
- Ethnicity, such that respondents who identified as:
  - Non-Hispanic/Latino (81.8%) were less likely to have used 'yoga, Tai Chi, or Qi Gong' to manage pain; p≤0.001
  - Non-Hispanic/Latino (68.7%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.001
- Geography, such that respondents living in:
  - Long Island (51.2%) and Florida (49.9%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.05
  - Westchester and surrounding counties (69.4%) and Long Island (68.8%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.05
- Musculoskeletal conditions, such that respondents with:
  - Some other form of arthritis (81.6%) and osteoarthritis (80.5%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.001
  - Fibromyalgia (66.1%) and chronic pain (66.0%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.001
  - Gout (66.9%), osteoarthritis (66.9%), and some other form of arthritis (65.8%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.001
- Education level, such that respondents who had:
  - Some high school education (83.3%), a high school education (79.9%) and some college education (79.7%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.001
  - An elementary school education (79.2%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.001
- Income, such that respondents who an annual household income of:
  - $25,000-$34,999 (83.1%) and $15,000-$24,999 (82.5%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.05
  - $200,000+ (70.0%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.01

Medically underserved sub-sample

Statistically significant associations were found between pain management and:

- Age, such that respondents aged:
  - 60-79 years (83.0%) and 40-59 years (81.7%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.001
  - 40-59 years (52.2%) and 60-79 years (50.0%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.01
  - 60-79 years (69.1%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.001
- Gender, such that respondents who identified as:
  - Female (51.0%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.01
  - Male (65.0%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.001

- Race, such that respondents who identified as White (51.1%; p≤0.05) were more likely to have used a pain reliever or prescription opioid to manage pain
- Ethnicity, such that respondents who identified as:
  - Hispanic/Latino (51.6%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.05
  - Non-Hispanic/Latino (62.4%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.05
- Geography, such that respondents living in:
  - Staten Island (88.4%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.01
  - Long Island (59.7%) were more likely to have used a pain reliever or prescription opioid manage pain; p≤0.001
- Musculoskeletal conditions, such that respondents with:
  - Gout (78.1%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.001
  - Lupus (69.0%), chronic pain (67.7%) and rheumatoid arthritis (67.4%) were more likely to have used a pain reliever or prescription opioid manage pain; p≤0.001
  - Osteoarthritis (59.9%) and some other form of arthritis (59.3%) were less likely to have used 'meditation, guided imagery, or other relaxation techniques' to manage pain; p≤0.001
- Education level, such that respondents who had:
  - Some high school education (85.4%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.001
  - Never attended school or only kindergarten (54.5%) were more likely to have used a pain reliever or prescription opioid to manage pain; p≤0.05
- Income, such that respondents who an annual household income of $25,000-$34,999 (81.9%), $15,000-$24,999 (81.1%), and <$10,000 (80.1%) were less likely to have used 'yoga, Tai Chi or Qi Gong' to manage pain; p≤0.001

9. Barriers to Healthy Eating

Table 19 shows respondents' reported barriers to healthy eating. Across all samples, the top three reported barriers were 'family/friends do not eat healthy', cost, and taste, mirroring the results of the 2019 CHNA.

- In the total, regional, and medically underserved samples, 'family/friends do not eat healthy' was the most frequently reported barrier
- In the ACC sub-sample, cost was the most frequently reported barrier

Table 19. Barriers to healthy eating

Barriers to healthy eating	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
Family/friends do not eat healthy	45.5%	49.2%	52.2%	55.1%
Cost	34.2%	53.4%	38.6%	48.4%
Taste	30.1%	26.7%	35.6%	37.0%
Would like to eat healthier	24.5%	21.2%	27.0%	27.1%
Confidence in choosing healthy foods	24.4%	20.6%	27.9%	36.9%
Too much time/effort to prepare	21.4%	23.6%	24.4%	27.2%
No places to find healthy foods	20.5%	26.2%	23.2%	32.0%
Don't know what to eat	20.4%	20.7%	24.0%	30.1%

Total sample

Statistically significant associations were found between barriers to healthy eating and:

- Age, such that respondents aged:
  - <20 years (56.7%) and 20-39 years (54.9%) were more likely to report 'family/friends do not eat healthy' as a barrier; p≤0.001
  - 20-39 years (51.5%) and 40-59 years (49.7%) were more likely to report cost as a barrier; p≤0.001
  - <20 years (47.6%) were more likely to report taste as a barrier; p≤0.001
- Gender, such that respondents who identified as:
  - Other gender (48.6%) and Female (41.6%) were more likely to report cost as a barrier; p≤0.001
  - Male (41.8%) were more likely to report taste as a barrier; p≤0.001
- Race, such that respondents who identified as:
  - Black/African American (58.0%; p≤0.001) were more likely to report 'family/friends do not eat healthy' as a barrier
  - American Indian/Alaska Native (53.9%; p≤0.001), Asian (50.0%; p≤0.001), and Black/African American (49.1%; p≤0.001) were more likely to report cost as a barrier
  - Native Hawaiian/Other Pacific Islander (44.7%; p≤0.05), Asian (41.1%; p≤0.001), and Black/African American (40.2%; p≤0.001) were more likely to report taste as a barrier
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report 'family/friends do not eat healthy' (59.3%), cost (52.4%) and taste (38.6%) as barriers; p≤0.001
- Geography, such that respondents living in:
  - The Bronx (60.8%) were more likely to report 'family/friends do not eat healthy' as a barrier; p≤0.001
  - The Bronx (50.1%) and Queens (49.6%) were more likely to report cost as a barrier; p≤0.001
  - Staten Island (39.0%), the Bronx (38.3%) and Florida (38.1%) were more likely to report taste as a barrier; p≤0.001
- Musculoskeletal conditions, such that respondents with:
  - Chronic pain (53.8%) were more likely to report 'family/friends do not eat healthy' as a barrier; p≤0.001
  - Fibromyalgia (48.5%) and OP (48.2%) were more likely to report cost as a barrier; p≤0.001
  - Gout (43.1%) were more likely to report taste as a barrier; p≤0.001
- Education level, such that respondents who had:
  - Never attended school or only kindergarten (72.1%) were more likely to report 'family/friends do not eat healthy' as a barrier; p≤0.001
  - A high school education (49.6%) were more likely to report cost as a barrier; p≤0.001
  - Never attended school or only kindergarten (58.1%) were more likely to report taste as a barrier; p≤0.001
- Income, such that respondents who an annual household income of:
  - $25,000-$34,999 (59.8%) were more likely to report 'family/friends do not eat healthy' as a barrier; p≤0.001
  - $15,000-$24,999 (53.9%) and $35,000-$49,999 (53.3%) were more likely to report cost as a barrier; p≤0.001
  - <$10,000 (45.4%) were more likely to report taste as a barrier; p≤0.001

ACC sub-sample

Statistically significant associations were found between barriers to healthy eating and:

- Age, such that respondents aged 40-59 years (59.0%) were more likely to report cost as a barrier; p≤0.05
- Gender, such that respondents who identified as male (were more likely to report 'family/friends do not eat healthy' (63.0%; p≤0.01) and taste (42.3%; p≤0.001) barriers
- Education level, such that respondents who had never attended school or only kindergarten (66.7%) were more likely to report 'family/friends do not eat healthy' as a barrier; p≤0.05
- Income, such that respondents who an annual household income of $15,000-$24,999 (69.7%) were more likely to report cost as a barrier; p≤0.05

Regional sub-sample

Statistically significant associations were found between barriers to healthy eating and:

- Age, such that respondents aged:
  - 20-39 years (58.0%) and 40-59 years (55.0%) were more likely to report 'family/friends do not eat healthy' as a barrier; p≤0.001
  - 20-39 years (53.4%) and 40-59 years (47.7%) were more likely to report cost as a barrier; p≤0.001
  - <20 years (47.6%) were more likely to report taste as a barrier; p≤0.001
- Gender, such that respondents who identified as:
  - Other gender (56.8%) were more likely to report cost as a barrier; p≤0.001
  - Male (44.2%) were more likely to report taste as a barrier; p≤0.001
- Race, such that respondents who identified as:
  - Black/African American (60.0%; p≤0.001) and Other Race (58.9%; p≤0.01) were more likely to report ‘family/friends do not eat healthy’ as a barrier
  - American Indian/Alaska Native (60.0%; p≤0.001), Other Race (52.0%; p≤0.001), and Black/African American (50.3%; p≤0.001) were more likely to report cost as a barrier
  - Native Hawaiian/Other Pacific Islander (53.3%; p≤0.05) were more likely to report taste as a barrier
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report 'family/friends do not eat healthy' (60.1%; p≤0.001), cost (53.1%; p≤0.001), and taste (38.5%; p≤0.01) as barriers
- Geography, such that respondents living in:
  - Connecticut (42.5%) were more likely to report cost as a barrier; p≤0.001
  - Florida (38.1%) and New Jersey (37.8%) were more likely to report taste as a barrier; p≤0.001
- Musculoskeletal conditions, such that respondents with:
  - Chronic pain (54.1%) were more likely to report 'family/friends do not eat healthy' as a barrier; p≤0.001
  - Fibromyalgia (47.5%) were more likely to report cost as a barrier; p≤0.001
  - Gout (46.6%) were more likely to report taste as a barrier; p≤0.001
- Education level, such that respondents who had:
  - Never attended school or only kindergarten (63.6%) were more likely to report ‘family/friends do not eat healthy’ as a barrier; p≤0.001
  - A high school education (49.0%) were more likely to report cost as a barrier; p≤0.001
  - Some high school education (50.3%) were more likely to report taste as a barrier; p≤0.001
- Income, such that respondents who an annual household income of:
  - $25,000-$34,999 (64.6%) were more likely to report ‘family/friends do not eat healthy’ as a barrier; p≤0.001
  - $10,000-$14,999 (54.7%) and $15,000-$24,999 (54.7%) were more likely to report cost as a barrier; p≤0.001
  - <$10,000 (49.2%) were more likely to report taste as a barrier; p≤0.001

Medically underserved sub-sample

Statistically significant associations were found between barriers to healthy eating and:

- Age, such that respondents aged:
  - <20 years (61.5%) and 40-59 years (58.8%) were more likely to report 'family/friends do not eat healthy' as a barrier; p≤0.001
  - 40-59 years (54.5%) were more likely to report cost as a barrier; p≤0.001
  - <20 years (50.4%) were more likely to report taste as a barrier; p≤0.001
- Gender, such that respondents who identified as:
  - Other gender (56.0%) were more likely to report 'family/friends do not eat healthy' as a barrier; p≤0.05
  - Other gender (44.0%) and Male (40.0%) were more likely to report taste as a barrier; p≤0.01

- Race, such that respondents who identified as:
  - Other Race (59.3%; p≤0.05) and Black/African American (58.8%; p≤0.001) were more likely to report 'family/friends do not eat healthy' as a barrier
  - Other Race (52.4%; p≤0.05) were more likely to report cost as a barrier
  - Asian (44.6%; p≤0.001), Black/African American (40.1%; p≤0.001) were more likely to report taste as a barrier
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report cost (53.9%) and taste (40.8%) as barriers; p≤0.001
- Geography, such that respondents living in:
  - Staten Island (67.9%) were more likely to report 'family/friends do not eat healthy' as a barrier; p≤0.001
  - Queens (56.3%) and Staten Island (55.4%) were more likely to report cost as a barrier; p≤0.001
  - Staten Island (51.9%) were more likely to report taste as a barrier; p≤0.001

- Musculoskeletal conditions, such that respondents with:
  - Chronic pain (57.3%) were more likely to report 'family/friends do not eat healthy' as a barrier; p≤0.001
  - Fibromyalgia (54.9%) were more likely to report cost as a barrier; p≤0.001
  - Gout (44.5%) were more likely to report taste as a barrier; p≤0.001
- Education level, such that respondents who had:
  - Never attended school or only kindergarten (69.2%) were more likely to report 'family/friends do not eat healthy' as a barrier; p≤0.001
  - A high school education (51.7%), some college education (50.5%), and a college education (50.5%) were more likely to report cost as a barrier; p≤0.001
  - Never attended school or only kindergarten (61.5%) were more likely to report taste as a barrier; p≤0.001
- Income, such that respondents who an annual household income of:
  - $35,000-$49,999 (57.0%) were more likely to report cost as a barrier; p≤0.001
  - <$10,000 (45.3%) were more likely to report taste as a barrier; p≤0.001

D. Use of and Access to Care

10. Insurance Coverage

Table 20 shows respondent's primary health insurance coverage. Uninsured respondents were a minority in the total (2.6%), ACC (0.7%), regional (2.9%), and medically underserved (7.2%) samples, compared to 9.2% nationwide and 5.2% in New York State.[53]

- Compared to the 2019 CHNA, the percentage of uninsured respondents decreased in all samples
- In the total sample (38.0%) and regional sub-sample (37.7%), Medicare was the most frequently reported primary insurance type
- In the ACC (66.1%) and medically underserved (45.9%) sub-samples, Medicaid was the most frequently reported primary insurance type

[53] America's Health Rankings analysis of U.S. Census Bureau, American Community Survey, United Health Foundation, AmericasHealthRankings.org, Accessed 2022.

Table 20. Insurance coverage

Insurance Type	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
Medicare	38.0%	25.5%	37.7%	19.5%
A plan purchased through an employer or union	31.2%	1.4%	33.9%	18.1%
Medicaid	16.8%	66.1%	13.3%	45.9%
A plan that you or another family member buys on your own	6.4%	2.4%	7.0%	3.3%
No health insurance coverage	2.6%	0.7%	2.9%	7.2%
Some other source	1.9%	2.8%	2.1%	1.3%
Don't Know	1.8%	1.0%	2.0%	1.2%
TRICARE (formerly CHAMPUS), VA, or Military	0.9%	0.0%	0.9%	2.6%
Alaska Native, Indian Health Service, Tribal Health Services	0.3%	0.0%	0.3%	0.9%

Total sample

Statistically significant associations were found between insurance coverage and:

- Age, such that respondents aged <20 years (5.2%) and 20-39 (5.2%) were more likely to be uninsured; p≤0.001
- Race, such that respondents who identified as Other Race (7.0%; p≤0.001) more likely to be uninsured
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to be uninsured (5.9%); p≤0.001
- Geographic location, such that respondents living in Florida (4.8%) and New Jersey (4.1%) were more likely to be uninsured (p≤0.001)
- Education level, such that respondents who had an elementary school education (6.7%) and some high school education (5.9%) were more likely to be uninsured (p≤0.001)
- Income, such that respondents with an annual household income of <$10,000 (5.8%) were more likely to be uninsured (p≤0.001)

ACC sub-sample

Statistically significant associations were found between insurance coverage and:

- Age, such that respondents aged 20-39 (5.2%) were more likely to be uninsured; p≤0.001

Regional sub-sample

Statistically significant associations were found between insurance coverage and:

- Race, such that respondents who identified as Black/African American (4.2%; p≤0.001) and Other Race (10.6%; p≤0.001) more likely to be uninsured
- Ethnicity, such that respondents who identified as Hispanic/Latino (7.7%) were more likely to be uninsured; p≤0.001
- Geographic location, such that respondents living in Florida (4.8%) and New Jersey (4.1%) were more likely to be uninsured; p≤0.001
- Education level, such that respondents who had some high school education (10.1%) and an elementary school education (7.4%) were more likely to be uninsured; p≤0.001
- Income, such that respondents with an annual household income of $10,000-$14,999 (14.2%) were more likely to be uninsured; p≤0.001

Medically underserved sub-sample
Statistically significant associations were found between insurance coverage and:
- Age, such that respondents aged <20 years (10.1%), 20-39 years (9.1%), and 40-59 years (8.7%) were more likely to be uninsured; p≤0.001
- Race, such that respondents who identified as Other Race (12.7%; p≤0.001) more likely to be uninsured
- Ethnicity, such that respondents who identified as Hispanic/Latino (10.7%) were more likely to be uninsured; p≤0.001
- Geographic location, such that respondents living in Florida (25.7%) were more likely to be uninsured; p≤0.001
- Income, such that respondents with an annual household income of <$10,000 (10.1%) were more likely to be uninsured; p≤0.001

11. Social Determinants of Health

Respondents were asked about the top problems that impact their health and well-being (Table 21). All samples reported 'COVID-19 related issues' and 'social isolation/loneliness' as top problems.
- Medically underserved respondents reported 'limited access to healthy foods' as a top problem, while total, ACC, and regional respondents reported 'limited places to exercise' as a top problem

Table 21. Social determinants of health

Social Determinants of Health	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
COVID-19 related issues	42.2%	32.1%	43.9%	39.9%
Social isolation/loneliness	27.7%	29.2%	26.8%	28.5%
Limited places to exercise	23.8%	29.2%	22.3%	22.9%
Limited access to healthy foods	21.9%	23.8%	20.8%	28.8%
Transportation problems	19.2%	28.7%	17.0%	24.2%
Lack of job opportunities	17.1%	20.4%	16.8%	24.3%
Lack of access to doctor's office	16.8%	15.4%	16.6%	18.9%
Lack of access to insurance	14.8%	13.8%	15.0%	20.2%
Discrimination/bias	11.7%	12.5%	11.3%	14.8%
Limited access to any foods	10.9%	7.1%	9.9%	15.5%
Lack of neighborhood safety	10.8%	17.1%	7.2%	15.3%
Poor housing/homelessness	10.6%	14.6%	9.4%	16.5%
Poor schools	7.0%	2.9%	6.1%	9.7%
Lack of affordable childcare	5.8%	2.1%	6.3%	7.9%

Total sample
Statistically significant associations were found between social determinants of health and:
- Age, such that respondents aged:
  - 40-59 years (38.8%) were more likely to report COVID-19 related issues as a top problem; p≤0.05
  - <20 years (38.2%) were more likely to report social isolation as a top problem; p≤0.001
  - <20 years (22.9%) and 40-59 years (22.5%) were more likely to report limited places to exercise as a top problem; p≤0.001

- Gender, such that respondents who identified as:
  - Female (37.3%) were more likely to report COVID-19 related issues as a top problem; p≤0.001
  - Other gender (44.8%) were more likely to report social isolation as a top problem; p≤0.001
- Race, such that respondents who identified as:
  - Asian (47.8%; p≤0.001) were more likely to report COVID-19 related issues as a top problem
  - Asian (30.3%; p≤0.001), Other Race (26.9%; p≤0.05), and Black/African American (25.3%; p≤0.01) were more likely to report social isolation as a top problem
  - Asian (30.8%; p≤0.001) were more likely to report limited places to exercise as a top problem
- Ethnicity, such that respondents who identified as:
  - Non-Hispanic/Latino (28.3%) were more likely to report social isolation as a top problem; p≤0.001
  - Hispanic/Latino (22.5%) were more likely to report limited places to exercise as a top problem; p≤0.01
- Geographic location, such that respondents living in:
  - Queens (41.3%) and New Jersey (40.4%) were more likely to report COVID-19 related issues as a top problem; p≤0.001
  - Queens (28.4%) and the Bronx (27.6%) were more likely to report social isolation as a top problem; p≤0.001
  - The Bronx (28.3%) and Queens (27.4%) were more likely to report limited places to exercise as a top problem; p≤0.001
- Musculoskeletal conditions, such that respondents with:
  - Chronic pain (37.0%) and some other form of arthritis (36.7%) were more likely to report COVID-19 related issues as a top problem; p≤0.001
  - Chronic pain (30.6%) and fibromyalgia (30.4%) were more likely to report social isolation as a top problem; p≤0.001
  - RA (22.1%) and chronic pain (21.0%) were more likely to report limited places to exercise as a top problem; p≤0.05
- Education level, such that respondents who had:
  - A postgraduate education (38.9%) and some college education (38.3%) were more likely to report COVID-19 related issues as a top problem; p≤0.001
  - Some high school education (27.5%) and some college education (26.5%) were more likely to report social isolation as a top problem; p≤0.01
  - A college education (23.2%), some college education (21.5%), and a postgraduate education (21.1%) were more likely to report limited places to exercise as a top problem; p≤0.001
- Income, such that respondents with an annual household income of:
  - $35,000-$49,999 (42.2%) and $75,000-$99,999 (42.1%) were more likely to report COVID-19 related issues as a top problem; p≤0.001
  - $10,000-$14,999 (32.3%) were more likely to report social isolation as a top problem; p≤0.001
  - $35,000-$49,999 (25.5%) and $100,000-$149,999 (25.0%) were more likely to report limited places to exercise as a top problem; p≤0.001

ACC sub-sample

Statistically significant associations were found between social determinants of health and:

- Ethnicity, such that respondents who identified as non-Hispanic/Latino (28.0%) were more likely to report social isolation as a top problem; p≤0.01
- Geographic location, such that respondents living in Manhattan (39.1%) were more likely to report social isolation as a top problem; p≤0.01

Regional sub-sample

Statistically significant associations were found between social determinants of health and:

- Age, such that respondents aged:
  - <20 years (38.8%) were more likely to report social isolation as a top problem; p≤0.001
  - <20 years (25.8%) were more likely to report limited places to exercise as a top problem; p≤0.001

- Gender, such that respondents who identified as:
  - Female (39.5%) were more likely to report COVID-19 related issues as a top problem; p≤0.01
  - Other gender (45.9%) were more likely to report social isolation as a top problem; p≤0.001
- Race, such that respondents who identified as:
  - Asian (49.4%; p≤0.001) were more likely to report COVID-19 related issues as a top problem
  - Asian (32.4%; p≤0.001), Black/African American (25.3%; p≤0.01), and Other Race (28.2%; p≤0.05) were more likely to report social isolation as a top problem
  - Asian (29.9%; p≤0.001) were more likely to report limited places to exercise as a top problem
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report COVID-19 (40.8%; p≤0.05), social isolation (29.2%; p≤0.001), and limited places to exercise (21.7%; p≤0.01), as top problems
- Geographic location, such that respondents living in:
  - New Jersey (40.4%) were more likely to report COVID-19 related issues as a top problem; p≤0.01
  - Connecticut (24.7%) and NJ (24.6%) were more likely to report social isolation as a top problem; p≤0.05
  - NJ (21.0%) were more likely to report limited places to exercise as a top problem; p≤0.01
- Musculoskeletal conditions, such that respondents with:
  - Chronic pain (39.8%), some other form of arthritis (39.5%), and OP (39.2%) were more likely to report COVID-19 related issues as a top problem; p≤0.01
  - Chronic pain (31.7%) and fibromyalgia (30.5%) were more likely to report social isolation as a top problem; p≤0.001
  - RA (22.6%) and chronic pain (21.2%) were more likely to report limited places to exercise as a top problem; p≤0.001
- Income, such that respondents with an annual household income of:
  - $50,000-$74,999 (44.5%), $35,000-$49,999 (42.9%), and $100,000-$149,999 (42.7%) were more likely to report COVID-19 related issues as a top problem; p≤0.001
  - $10,000-$14,999 (33.9%) and $50,000-$74,999 (32.4%) were more likely to report social isolation as a top problem; p≤0.001
  - $35,000-$49,999 (26.3%) were more likely to report limited places to exercise as a top problem; p≤0.001

Medically underserved sub-sample

Statistically significant associations were found between social determinants of health and:

- Age, such that respondents aged:
  - 40-59 years (41.0%) and 60-79 years (39.0%) were more likely to report COVID-19 as a top problem; p≤0.001
  - 20-39 years (34.6%) and <20 years (32.2%) were more likely to report limited access to healthy foods as a top problem; p≤0.001
  - <20 years (34.3%) were more likely to report social isolation as a top problem; p≤0.001
- Gender, such that respondents who identified as:
  - Female (38.3%) were more likely to report COVID-19 as a top problem; p≤0.05
  - Other gender (42.6%) were more likely to report limited access to healthy foods as a top problem; p≤0.05
- Race, such that respondents who identified as:
  - Asian (46.7%; p≤0.001) were more likely to report COVID-19 related issues as a top problem
  - American Indian/Alaska Native (37.4%; p≤0.001), Black/African American (33.6%; p≤0.001) and Asian (33.3%; p≤0.001) were more likely to report limited access to healthy foods as a top problem
  - White (28.3%; p≤0.01) were more likely to report social isolation as a top problem
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report limited access to healthy foods (32.5%; p≤0.001) and social isolation (28.7%; p≤0.05) as a top problem
- Geographic location, such that respondents living in Florida (32.2%) and Staten Island (32.1%) were more likely to report limited access to healthy foods as a top problem; p≤0.001

- Musculoskeletal conditions, such that respondents with:
  - Some other form of arthritis (40.5%) were more likely to report COVID-19 related issues as a top problem; p≤0.001
  - Lupus (34.7%) were more likely to report limited access to healthy foods as a top problem; p≤0.001
  - Chronic pain (33.0%) and fibromyalgia (31.8%) were more likely to report social isolation as a top problem; p≤0.001
- Education level, such that respondents who had:
  - A postgraduate (42.4%) were more likely to report COVID-19 related issues as a top problem; p≤0.001
  - A high school education (31.6%) and some college education (30.4%) were more likely to report limited access to healthy foods as a top problem; p≤0.001
  - Some college education (28.8%), a college education (28.4%), and some high school education (28.0%) were more likely to report social isolation/loneliness as a top problem; p≤0.05
- Income, such that respondents with an annual household income of:
  - $75,000-$99,999 (46.0%) and $100,000-$149,999 (44.1%) were more likely to report COVID-19 related issues as a top problem; p≤0.001
  - $10,000-$14,999 (35.2%) and $15,000-$24,999 (35.0%) were more likely to report limited access to healthy foods as a top problem; p≤0.001
  - $10,000-$14,999 (33.4%) and $75,000-$99,999 (32.8%) were more likely to report social isolation as a top problem; p≤0.001

12. Barriers to Healthcare

Table 22 indicates the percentage of respondents who were able to access healthcare in the past 12 months.

- Close to half of all respondents (42.3%) indicated that they could not access a healthcare provider when they needed to in the past 12 months, compared to 8.1% in the 2019 CHNA

Table 22. Healthcare access in the past 12 months

Able to Get Healthcare in the Past 12 Months	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved Sub-Sample (n=5,785)
Yes	57.7%	57.5%	61.9%	48.8%
No	42.3%	42.5%	38.1%	51.2%

Reasons for not accessing healthcare are listed in Table 23 below. The most reported reason was ‘hard to get an appointment’ in the total, regional and medically underserved samples, whereas ‘service not covered by insurance’ was most reported in the ACC sample.

- This represents a shift from the 2019 CHNA where the most reported reasons in the ACC and regional samples were ‘hard to get an appointment’ and ‘cost’, respectively
- In all samples, over 12% of respondents reported not getting healthcare in the past 12 months due to cost, compared 9.8% nationally[54]
- ACC respondents (13.7%) included ‘fear or mistrust of doctors’ as a top reason
- Medically underserved respondents (21.5%) included ‘lack of transportation’ as a top reason

[54] America's Health Rankings analysis of U.S. Census Bureau, American Community Survey, United Health Foundation, AmericasHealthRankings.org, Accessed 2022.

Table 23. Reasons for not getting healthcare in the past 12 months

Reasons for Not Getting Healthcare in Past 12 Months	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
Hard to get an appointment	33.0%	28.4%	28.9%	29.0%
Could not afford it	24.3%	12.6%	24.6%	28.1%
Service not covered by insurance	21.3%	33.7%	20.0%	20.9%
Not sure where to go	19.6%	11.6%	18.3%	20.9%
Lack of transportation	18.6%	8.4%	18.4%	21.5%
No health insurance	15.8%	7.4%	15.6%	19.9%
Fear or mistrust of doctors	12.3%	13.7%	11.4%	12.4%
Could not get time off work/school	11.7%	6.3%	12.7%	9.9%
Office not patient-friendly	10.0%	11.6%	9.4%	9.6%
Lack of childcare	5.6%	3.2%	5.6%	6.1%
Only telehealth was offered	5.0%	1.1%	4.4%	4.5%
Cultural/religious barriers	2.9%	1.1%	2.9%	2.8%
Language barriers	2.5%	2.1%	2.3%	2.7%

Total sample

Statistically significant associations were found between barriers to healthcare and:

- Age, such that respondents aged:
  - 20-39 years (18.6%) and <20 years (15.8%) were more likely to report 'could not afford it' as a top reason; p≤0.001
  - 20-39 years (13.6%) and <20 years (12.8%) were more likely to report 'service not covered by insurance' as a top reason; p≤0.001
- Gender, such that respondents who identified as Other gender were more likely to report 'could not afford it' (13.8%) and 'service not covered by insurance' (14.9%) as top reasons; p≤0.001
- Race, such that respondents who identified as:
  - American Indian/Alaska Native (12.6%; p≤0.001), Asian (15.5%; p≤0.001) and Black/African American (14.4%; p≤0.001) were more likely to report 'hard to get an appointment' as a top reason
  - Native Hawaiian/Other Pacific Islander (27.2%; p≤0.001) were more likely to report 'could not afford it' as a top reason
  - Native Hawaiian/Other Pacific Islander (14.1%; p≤0.001), American Indian/Alaska Native (12.6%; p≤0.001) and Black/African American (11.0%; p≤0.001) were more likely to report 'service not covered by insurance' as a top reason
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report 'hard to get an appointment' (15.4%), 'could not afford it' (16.1%), and 'service not covered by insurance' (11.8%) as top reasons; p≤0.001
- Geographic location, such that respondents living in:
  - Connecticut (11.9%), the Bronx (11.8%), and Brooklyn (11.3%) were more likely to report 'hard to get an appointment' as a top reason; p≤0.001
  - Florida (11.4%) and NJ (10.3%) were more likely to report 'could not afford it' as a top reason; p≤0.001
  - Brooklyn (8.9%), the Bronx (7.8%), and Florida (7.5%) were more likely to report 'service not covered by insurance' as a top reason; p≤0.001

- Musculoskeletal conditions, such that respondents with:
  - Lupus (14.7%), fibromyalgia (13.9%), and chronic pain (13.7%) were more likely to report 'hard to get an appointment' as a top reason; p≤0.001
  - Lupus (13.1%) were more likely to report 'could not afford it' as a top reason; p≤0.001
  - Lupus (14.2%) were more likely to report 'service not covered by insurance' as a top reason; p≤0.001
- Education level, such that respondents who had:
  - A high school education (13.4%) and had never attended school or only kindergarten (12.2%) were more likely to report 'hard to get an appointment' as a top reason; p≤0.001
  - Never attended school or only kindergarten (17.1%) and had a high school education (16.0%) were more likely to report 'could not afford it' as a top reason; p≤0.001
  - Never attended school or only kindergarten (19.5%) were more likely to report service not covered by insurance as a top reason; p≤0.001
- Income, such that respondents with an annual household income of:
  - $10,000-$14,999 (14.8%), $15,000-$24,999 (14.7%), <$10,000 (14.2%) were more likely to report 'hard to get an appointment' as a top reason; p≤0.001
  - $25,000-$34,999 (18.5%) and <$10,000 (17.5%) were more likely to report 'could not afford it' as a top reason; p≤0.001
  - $25,000-$34,999 (13.2%), $35,000-$49,999 (12.1%) and <$10,000 (11.9%) were more likely to report 'service not covered by insurance' as a top reason; p≤0.001

ACC sub-sample

Statistically significant associations were found between barriers to healthcare and:

- Race, such that respondents who identified as:
  - Asian (27.8%; p≤0.01) were more likely to report 'hard to get an appointment' as a top reason
  - Native Hawaiian/Other Pacific Islander (33.3%; p≤0.01) were more likely to report 'fear or mistrust of doctor' as a top reason

Regional sub-sample

Statistically significant associations were found between barriers to healthcare and:

- Age, such that respondents aged:
  - <20 years (18.5%) were more likely to report 'hard to get an appointment' as a top reason; p≤0.001
  - 20-39 years (18.4%) and <20 years (14.6%) were more likely to report 'could not afford it' as a top reason; p≤0.001
  - 20-39 years (12.9%) and <20 years (10.1%) were more likely to report 'service not covered by insurance' as a top reason; p≤0.001
- Gender, such that respondents who identified as Other gender (24.3%) were more likely to report 'hard to get an appointment' as a top reason; p≤0.001
- Race, such that respondents who identified as:
  - Native Hawaiian/Other Pacific Islander (20.7%; p≤0.05) and American Indian/Alaska Native (19.3%; p≤0.001) more likely to report 'hard to get an appointment' as a top reason
  - Native Hawaiian/Other Pacific Islander (27.2%; p≤0.001) and Black/African American (27.6%; p≤0.001) were more likely to report 'could not afford it' as a top reason
  - American Indian/Alaska Native (13.8%; p≤0.01) and Black/African American (11.3%; p≤0.001) were more likely to report 'service not covered by insurance' as a top reason
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report 'hard to get an appointment' (14.8%), 'could not afford it' (17.0%), and 'service not covered by insurance' (10.9%) as top reasons; p≤0.001
- Geographic location, such that respondents living in:
  - Connecticut (11.9%) were more likely to report hard to get an appointment as a top reason; p≤0.01
  - Florida (11.4%) and NJ (10.3%) were more likely to report could not afford it as a top reason; p≤0.001
  - Florida (7.5%) and NJ (7.4%) were more likely to report service not covered by insurance as a top reason; p≤0.01

- Musculoskeletal conditions, such that respondents with:
  - Lupus (16.9%) and fibromyalgia (14.2%) were more likely to report 'hard to get an appointment' as a top reason; p≤0.001
  - Lupus (13.9%) were more likely to report 'could not afford it' as a top reason; p≤0.001
  - Lupus (13.9%) were more likely to report 'service not covered by insurance' as a top reason; p≤0.001
- Education level, such that respondents who had:
  - An elementary school education (14.8%) were more likely to report 'hard to get an appointment' as a top reason; p≤0.05
  - An elementary school education (18.5%) and some high school education (16.4%) were more likely to report 'could not afford it' as a top reason; p≤0.001
  - Never attended school or only kindergarten (50.0%) were more likely to report 'service not covered by insurance' as a top reason; p≤0.001
- Income, such that respondents with an annual household income of:
  - $15,000-$24,999 (14.5%), $10,000-$14,999 (12.3%) and $25,000-$34,999 (12.3%) were more likely to report 'hard to get an appointment' as a top reason; p≤0.001
  - $25,000-$34,999 (19.6%) and $10,000-$14,999 (19.4%) were more likely to report 'could not afford it' as a top reason; p≤0.001
  - $25,000-$34,999 (11.4%), <$10,000 (11.4%) and $35,000-$49,999 (11.2%) were more likely to report 'service not covered by insurance' as a top reason; p≤0.001

Medically underserved sub-sample

Statistically significant associations were found between barriers to healthcare and:

- Age, such that respondents aged:
  - 20-39 years (19.7%) and <20 years (15.1%) were more likely to report 'lack of transportation' as a top reason; p≤0.001
  - <20 years (21.3%) were more likely to report 'hard to get an appointment' as a top reason; p≤0.001
  - <20 years (14.6%) and 20-39 years (12.7%) were more likely to report 'service not covered by insurance' as a top reason; p≤0.001
- Gender, such that respondents who identified as Other gender were more likely to report 'lack of transportation' (25.5%) and 'service not covered by insurance' (14.9%) as top reasons; p≤0.01
- Race, such that respondents who identified as:
  - American Indian/Alaska Native (16.4%; p≤0.01), Other race (16.0%; p≤0.001) and African American (12.4%; p≤0.001), were more likely to report 'lack of transportation' as a top reason
  - American Indian/Alaska Native (18.7%; p≤0.05), Asian (16.6%; p≤0.05) and Black/African American (15.0%; p≤0.01) were more likely to report 'hard to get an appointment' as a top reason
  - Asians (12.6%; p≤0.05) were more likely to report 'service not covered by insurance' as a top reason
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report 'hard to get an appointment' (13.0%), 'could not afford it' (16.2%), and 'service not covered by insurance' (12.4%) as top reasons; p≤0.001
- Geographic location, such that respondents living in Long Island (13.2%) and Connecticut (13.0%) were more likely to report 'lack of transportation' as a top reason; p≤0.001
- Musculoskeletal conditions, such that respondents with:
  - Lupus (19.6%) were more likely to report lack of transportation as a top reason; p≤0.001
  - Fibromyalgia (17.7%) and lupus (17.4%) were more likely to report 'hard to get an appointment' as a top reason; p≤0.001
  - Lupus (17.8%) were more likely to report 'service not covered by insurance' as a top reason; p≤0.001
- Education level, such that respondents who had:
  - Never attended school or only kindergarten (24.0%) were more likely to report 'lack of transportation' as a top reason; p≤0.001
  - Never attended school or only kindergarten (12.0%) and had a high school education (11.6%) were more likely to report 'service not covered by insurance' as a top reason; p≤0.01

- Income, such that respondents with an annual household income of:
  - <$10,000 (61.8%) were more likely to report that they were unable to get healthcare in the past 12 months; p≤0.001
  - <$10,000 (16.1%) and $10,000-$14,999 (14.5%) were more likely to report 'lack of transportation' as a top reason; p≤0.001
  - $35,000-$49,999 (13.8%), $25,000-$34,999 (12.7%), and <$10,000 (12.3%) were more likely to report 'service not covered by insurance' as a top reason; p≤0.001

13. Barriers to Adhering to Medical Advice

Table 24 indicates that most respondents always followed their healthcare provider's advice in the past 12 months.

- 74.9% of total, 85.3% of ACC, 73.9% of regional, and 69.9% of medically underserved respondents reported that they always follow the advice of their healthcare providers
- Reported adherence is higher compared to the 2019 CHNA where 47.8% of the total, 63.4% of the ACC, and 58.5% of regional respondents reported always following the advice of their healthcare providers

Table 24. Adherence to medical advice

Always Follow Medical Advice	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved Sub-Sample (n=5,785)
Yes	74.9%	85.3%	73.9%	69.6%
No	25.1%	14.7%	26.1%	30.4%

Of those who reported not always following medical advice, the reasons for doing so are listed in Table 25 below.

- The top reason across all samples was 'worried about side effects', consistent with results from the 2019 CHNA
  - ACC respondents reported 'provider did not explain well enough' as a top reason
  - Medically underserved respondents reported 'prefer to use complementary/alternative treatment' as a top reason

Table 25. Reasons for not following healthcare provider's advice

Reasons for Not Following Healthcare Provider's Advice	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
Worried about side effects	53.9%	49.1%	53.1%	56.5%
Concerned about cost	48.6%	27.3%	50.6%	53.4%
Did not feel treatment would help	41.1%	25.5%	40.1%	43.4%
Condition not severe enough	39.5%	20.0%	39.3%	41.5%
Prefer to use complementary/alternative treatment	39.5%	20.0%	38.0%	44.0%
Provider did not explain well	35.8%	28.2%	34.8%	39.8%
Forgot	35.1%	13.6%	36.4%	41.6%
Did not fit my schedule	33.3%	13.6%	33.3%	36.6%
Did not agree with doctor	31.7%	13.6%	31.7%	34.3%
Provider doesn't understand my culture/language	18.7%	10.9%	17.1%	23.3%

Total sample

Statistically significant associations were found between barriers to following medical advice and:

- Age, such that respondents aged:
  - 20-39 years (49.3%) were more likely to report side effects as a top reason; p≤0.001
  - 20-39 years (52.3%) and <20 years (51.2%) were more likely to report cost as a top reason; p≤0.001
  - <20 years (42.1%) were more likely to report 'did not feel treatment would help' as a top reason; p≤0.001
- Gender, such that respondents who identified as Other gender were more likely to report side effects (51.2%; p≤0.001) and cost (55.0%; p≤0.05) as top reasons
- Race, such that respondents who identified as:
  - Native Hawaiian/Other Pacific Islander (57.1%, p≤0.01) and Other Race (52.6%; p≤0.001) were more likely to report side effects as a top reason
  - Native Hawaiian/Other Pacific Islander (52.9%, p≤0.05), Other Race (49.3%; p≤0.001), and Asian (46.9%; p≤0.001) were more likely to report cost as a top reason
  - American Indian/Alaska Native (40.6%; p≤0.05), Other Race (39.0%; p≤0.001), and Black/African American (37.5%; p≤0.001) were more likely to report 'did not feel treatment would help as a top reason
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report side effects (49.1%), cost (50.5%), and 'did not feel treatment would help' (38.8%) as top reasons; p≤0.001
- Geographic location, such that respondents living in:
  - Brooklyn (46.7%), Queens (45.9%) and the Bronx (45.7%) were more likely to report side effects as a top reason; p≤0.001
  - Florida (47.2%), Connecticut (43.2%) and NJ (42.1%) were more likely to report cost as a top reason; p≤0.001
  - The Bronx (36.6%), Florida (35.4%) and Connecticut (34.8%) were more likely to report 'did not feel treatment would help' as a top reason; p≤0.01
- Musculoskeletal conditions, such that respondents with:
  - Lupus (59.6%) and fibromyalgia (57.1%) were more likely to report side effects as a top reason; p≤0.01
  - Fibromyalgia (49.8%), lupus (48.7%), and chronic pain (47.8%) were more likely to report cost as a top reason; p≤0.001
  - Lupus (47.1%) and fibromyalgia (43.4%) were more likely to report 'did not feel treatment would help' as a top reason; p≤0.001
- Education level, such that respondents who had:
  - Never attended school or only kindergarten (65.0%) were more likely to report side effects as a top reason; p≤0.01
  - Never attended school or only kindergarten (65.0%) were more likely to report cost as a top reason; p≤0.001
  - Never attended school or only kindergarten (52.5%) and some elementary school education (50.7%) were more likely to report 'did not feel treatment would help' as a top reason; p≤0.001
- Income, such that respondents with an annual household income of:
  - $10,000 - $14,999 (51.8%) and $25,000-$34,999 (50.2%) were more likely to report side effects as a top reason; p≤0.01
  - $25,000-$34,999 (51.5%) and <$10,000 (49.5%) were more likely to report cost as a top reason; p≤0.001
  - $15,000-$24,999 (42.8%) and <$10,000 (41.9%) were more likely to report 'did not feel treatment would help' as a top reason; p≤0.001

ACC sub-sample

Statistically significant associations were found between barriers to following medical advice and:

- Musculoskeletal conditions, such that respondents with fibromyalgia (100.0%) were more likely to report side effects as a top reason; p≤0.01

Regional sub-sample

Statistically significant associations were found between barriers to following medical advice and:

- Age, such that respondents aged:
  - 20-39 years (48.9%), 40-59 years (42.9%) and <20 years (42.6%) were more likely to report side effects as a top reason; p≤0.001
  - 20-39 years (53.4%) and <20 years (49.4%) were more likely to report cost as a top reason; p≤0.001
  - 20-39 years (39.0%) and <20 years (37.5%) were more likely to report 'did not feel treatment would help' as a top reason; p≤0.001
- Gender, such that respondents who identified as Other gender were more likely to report side effects (60.0%; p≤0.001) and cost (61.1%; p≤0.01) as top reasons
- Race, such that respondents who identified as:
  - Native Hawaiian/Other Pacific Islander (69.2%, p≤0.01) were more likely to report side effects as a top reason
  - American Indian/Alaska Native (52.6%; p≤0.05), Asian (50.7%; p≤0.001) and Other Race (49.4%; p≤0.001) were more likely to report cost as a top reason
  - American Indian/Alaska Native (45.8%; p≤0.01) were more likely to report 'did not feel treatment would help as a top reason
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report side effects (46.6%), cost (50.5%), and 'did not feel treatment would help' (36.4%) as top reasons; p≤0.001
- Geographic location, such that respondents living in:
  - Florida (47.2%), Connecticut (43.2%) and NJ (42.1%) were more likely to report cost as a top reason; p≤0.001
  - Florida (35.4%) and Connecticut (34.8%) were more likely to report 'did not feel treatment would help' as a top reason; p≤0.01
- Musculoskeletal conditions, such that respondents with:
  - Lupus (61.1%) and fibromyalgia (55.7%) were more likely to report side effects as a top reason; p≤0.01
  - Lupus (55.9%) were more likely to report cost as a top reason; p≤0.001
  - Lupus (47.6%) were more likely to report 'did not feel treatment would help' as a top reason; p≤0.001
- Education level, such that respondents who had never attended school or only kindergarten were more likely to report side effects (60.0%; p≤0.01), cost (60.0%; p≤0.001), and 'did not feel treatment would help' (60.0%; p≤0.001) as top reasons
- Income, such that respondents with an annual household income of:
  - $10,000 - $14,999 (53.3%) and <$10,000 (50.3%) were more likely to report side effects as a top reason; p≤0.01
  - $15,000-$24,999 (55.2%) and $25,000-$34,999 (53.4%) were more likely to report cost as a top reason; p≤0.001
  - <$10,000 (42.6%) and $15,000-$24,999 (42.0%) were more likely to report 'did not feel treatment would help' as a top reason; p≤0.001

Medically underserved sub-sample

Statistically significant associations were found between barriers to following medical advice and:

- Age, such that respondents aged:
  - 20-39 years (49.5%), <20 years (48.9%), and 40-59 years (47.6%) were more likely to report side effects as a top reason; p≤0.001
  - <20 years (54.0%) and 20-39 years (51.9%) were more likely to report cost as a top reason; p≤0.001
  - <20 years (42.2%) and 20-39 years (41.3%) were more likely to report complementary treatments as a top reason; p≤0.001
- Gender, such that respondents who identified as Other gender were more likely to report side effects (52.3%; p≤0.01) and cost (56.8%; p≤0.05) as top reasons

- Race, such that respondents who identified as Native Hawaiian/Other Pacific Islander were more likely to report side effects (62.7%, p≤0.05), cost (60.4%, p≤0.001), and complementary treatments (52.9%, p≤0.05) as top reasons
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report side effects (50.4%), cost (51.9%), and 'did not feel treatment would help' (40.7%) as top reason; p≤0.001
- Geographic location, such that respondents living in:
  - Staten Island (56.1%) and Florida (55.5%) were more likely to report side effects as a top reason; p≤0.05
  - Florida (66.4%) were more likely to report cost as a top reason; p≤0.001
- Musculoskeletal conditions, such that respondents with:
  - Lupus (60.0%) and fibromyalgia (59.8%) were more likely to report side effects as a top reason; p≤0.001
  - Fibromyalgia (52.9%) and chronic pain (50.3%) were more likely to report cost as a top reason; p≤0.001
  - Lupus (48.9%), gout (48.6%), and fibromyalgia (47.8%) were more likely to report complementary treatments as a top reason; p≤0.001
- Education level, such that respondents who had never attended school or only kindergarten (68.0%) were more likely to report side effects (68.0%; p≤0.05) and cost (64.0%; p≤0.001) as top reasons
- Income, such that respondents with an annual household income of:
  - $10,000 - $14,999 (52.1%), $25,000-$34,999 (50.7%) and $15,000-$24,999 (50.1%) were more likely to report side effects as a top reason; p≤0.01
  - $25,000-$34,999 (50.8%) and $35,000-$49,999 (49.2%) were more likely to report cost as a top reason; p≤0.001

14. Barriers to Telehealth Use

In light of the COVID-19 pandemic, the 2022 CHNA asked about barriers to telehealth using a question from the AARP 'Views on Telehealth' survey.[55] Over half of respondents (55.0%) reported not having barriers to using health. Nationally, 37.6% of adults reported not being interested in telehealth compared to 39.0% of total, 44.3% of ACC, 40.2% of regional, and 32.0% of medically underserved respondents (Table 26).[55]

- Consistent with national findings, respondents in the total, regional, and medically underserved samples reported lack of knowledge and concerns about confidentiality and medical errors as their top barriers[55]
- ACC respondents cited lack of knowledge, lack of high-speed internet, and concerns about medical errors as their top barriers

Table 26. Barriers to telehealth use

Barriers to Telehealth Use	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
No barriers to using telehealth	55.0%	48.4%	60.9%	50.2%
Not interested	39.0%	44.3%	40.2%	32.0%
Don't know how to use telehealth	28.4%	38.3%	27.5%	27.1%
Concerned about medical errors	25.0%	21.7%	25.2%	25.3%
Concerned about confidentiality	23.5%	19.1%	22.4%	24.8%
Not sure doctor offers telehealth	18.5%	15.7%	18.8%	19.6%
No high-speed internet	13.4%	22.6%	11.2%	17.1%
No device	9.0%	17.4%	7.9%	10.0%

[55] Keenan, Teresa A. *Views on Telehealth.* Washington, DC: AARP Research, June 2020. https://doi.org/10.26419/res.00388.001

Total sample

Statistically significant associations were found between barriers to telehealth use and:

- Age, such that respondents aged:
  - <20 years (21.2%) and 80+ years (17.2%) were more likely to report 'don't know how to use telehealth' as a barrier; p≤0.001
  - 20-39 years (17.2%) and <20 years (16.9%) were more likely to report medical errors as a barrier; p≤0.001
  - <20 years (16.9%) and 20-39 years (16.5%) were more likely to report confidentiality as a barrier; p≤0.001
- Race, such that respondents who identified as:
  - Native Hawaiian/Other Pacific Islander (18.5%; p≤0.05), American Indian/Alaska Native (15.6%; p≤0.01) and Black/African American (13.6%; p≤0.001) were more likely to report 'don't know how to use telehealth' as a barrier
  - Native Hawaiian/Other Pacific Islander (16.3%; p≤0.05), American Indian/Alaska Native (14.6%; p≤0.01), and Asian (14.6%; p≤0.001) were more likely to report medical errors as a barrier
  - Native Hawaiian/Other Pacific Islander (19.6%; p≤0.001), Black/African American (13.9%; p≤0.001), and American Indian/Alaska Native (12.9%; p≤0.05) were more likely to report confidentiality as a barrier
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report 'don't know how to use telehealth' (14.5%), medical errors (14.7%) and confidentiality (13.4%) as barriers; p≤0.001
- Geographic location, such that respondents living in:
  - The Bronx (12.6%) were more likely to report 'don't know how to use telehealth' as a barrier; p≤0.001
  - Florida (11.5%) were more likely to report confidentiality as a barrier; p≤0.001
  - Florida (11.7%) and NJ (11.1%) were more likely to report medical errors as a barrier; p≤0.001
- Musculoskeletal conditions, such that respondents with:
  - Lupus (18.9%) were more likely to report 'don't know how to use telehealth' a barrier; p≤0.001
  - Lupus (15.3%) and gout (15.0%) were more likely to report medical errors as a barrier; p≤0.001
  - Lupus (17.1%) were more likely to report confidentiality as a barrier; p≤0.001
- Education level, such that respondents who had:
  - An elementary school education (35.1%) were more likely to report 'don't know how to use telehealth' a barrier; p≤0.001
  - An elementary school education (16.0%) and some high school education (15.1%) were more likely to report medical errors as a barrier; p≤0.001
  - Never attended school or only kindergarten (19.5%) were more likely to report confidentiality as a barrier; p≤0.001
- Income, such that respondents with an annual household income of:
  - $15,000-$24,999 (18.6%) and $25,000-$34,999 (18.2%) were more likely to report 'don't know how to use telehealth' as a barrier; p≤0.001
  - $15,000-$24,999 (14.7%) and $10,000-$14,999 (14.6%) were more likely to report medical errors as a barrier; p≤0.001
  - $10,000-$14,999 (14.8%) and <$10,000 (14.0%) were more likely to report confidentiality as a barrier; p≤0.001

ACC sub-sample

Statistically significant associations were found between barriers to telehealth use and:

- Age, such that respondents aged 80+ years (50.0%) were more likely to report 'don't know how to use telehealth' as a barrier; p≤0.01
- Education level, such that respondents who had never attended school or only kindergarten (35.7%) were more likely to report 'don't know how to use telehealth' as a barrier; p≤0.01

Regional sub-sample

Statistically significant associations were found between barriers to telehealth use and:

- Age, such that respondents aged:
  - <20 years (20.8%) were more likely to report 'don't know how to use telehealth' as a barrier; p≤0.001
  - 20-39 years (15.0%) and <20 years (12.4%) were more likely to report confidentiality as a barrier; p≤0.001
  - 20-39 years (17.7%) and <20 years (15.2%) were more likely to report medical errors as a barrier; p≤0.001
- Gender, such that those who identified as Other gender (24.3%) were more likely to report medical errors as barriers; p≤0.01
- Race, such that respondents who identified as:
  - Native Hawaiian/Other Pacific Islander (34.5%; p≤0.05), American Indian/Alaska Native (16.5%; p≤0.05), and Black/African American (13.7%; p≤0.001) were more likely to report 'don't know how to use telehealth' as a barrier
  - Black/African American (13.2%; p≤0.001), Asian (12.1%; p≤0.001), and Other Race (11.1%; p≤0.05) were more likely to report confidentiality as a barrier
  - Asian (18.2%; p≤0.001), Black/African American (13.3%; p≤0.001) and Other Race (12.1%; p≤0.05) were more likely to report medical errors as a barrier
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report 'don't know how to use telehealth' (14.2%), medical errors (12.3%) and confidentiality (14.6%) as barriers; p≤0.001
- Geographic location, such that respondents living in:
  - Florida (11.5%) were more likely to report confidentiality as a barrier; p≤0.001
  - Florida (11.7%) and NJ (11.1%) were more likely to report medical errors as a barrier; p≤0.001
- Musculoskeletal conditions, such that respondents with lupus were more likely to report 'don't know how to use telehealth' (17.5%), medical errors (16.9%) and confidentiality (18.7%) as barriers; p≤0.001
- Education level, such that respondents who had:
  - An elementary school education (40.7%) were more likely to report 'don't know how to use telehealth' as a barrier; p≤0.001
  - Never attended school or only kindergarten (20.0%) were more likely to report confidentiality as a barrier; p≤0.001
  - An elementary school education (22.2%) were more likely to report medical errors as a barrier; p≤0.001
- Income, such that respondents with an annual household income of:
  - $15,000-$24,999 (18.4%), $10,000-$14,999 (18.1%) and $25,000-$34,999 (17.5%) were more likely to report 'don't know how to use telehealth' as a barrier; p≤0.001
  - <$10,000 (14.2%) and $10,000-$14,999 (13.7%) were more likely to report confidentiality as a barrier; p≤0.001
  - $15,000-$24,999 (15.9%) and $25,000-$34,999 (15.0%) were more likely to report medical errors as a barrier; p≤0.001

Medically underserved sub-sample

Statistically significant associations were found between barriers to telehealth use and:

- Age, such that respondents aged:
  - <20 years (23.4%) were more likely to report 'don't know how to use telehealth' as barrier; p≤0.001
  - <20 years (16.7%) and 20-39 years (15.6%) were more likely to report confidentiality as a barrier; p≤0.001
  - <20 years (16.7%) and 20-39 years (15.9%) were more likely to report medical errors as a
- Race, such that respondents who identified as:
  - Black/African American (13.7%; p≤0.05) were more likely to report 'don't know how to use telehealth' as a barrier
  - Native Hawaiian/Other Pacific Islander (23.6%; p≤0.001), Black/African American (13.3%; p≤0.01) were more likely to report confidentiality as a barrier

- Asian (14.8%; p≤0.05), Other Race (14.4%; p≤0.05) were more likely to report medical errors as a barrier
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report 'don't know how to use telehealth' (14.6%; p≤0.01), medical errors (13.5%; p≤0.01) and confidentiality (14.2%; p≤0.001) as barriers
- Geographic location, such that respondents living in:
  - Florida (16.4%) and NJ (14.2%) were more likely to report 'don't know how to use telehealth' as a barrier; p≤0.001
  - Florida (20.4%) were more likely to report medical errors as a barrier; p≤0.01
- Musculoskeletal conditions, such that respondents with:
  - Lupus (21.5%) and gout (19.2%) were more likely to report 'don't know how to use telehealth' as a barrier; p≤0.001
  - Lupus (20.1%) and gout (19.2%) were more likely to report confidentiality as a barrier; p≤0.001
  - Gout (20.0%) and lupus (17.4%) were more likely to report medical errors as a barrier; p≤0.001
- Education level, such that respondents who had:
  - An elementary school education (42.2%) were more likely to report 'don't know how to use telehealth' as a barrier; p≤0.001
  - Never attended school or only kindergarten (28.0%) were more likely to report confidentiality as a barrier; p≤0.001
  - Never attended school or only kindergarten (20.0%) were more likely to report medical errors as a barrier; p≤0.01
- Income, such that respondents with an annual household income of:
  - $15,000-$24,999 (18.0%), $25,000-$34,999 (17.2%) were more likely to report 'don't know how to use telehealth' as a barrier; p≤0.001
  - $75,000-$99,999 (15.0%), $10,000-$14,999 (14.3%), $35,000-$49,999 (14.2%) were more likely to report confidentiality as a barrier; p≤0.001

15. Discrimination in Medical Settings

Perceived discrimination in medical settings was measured using the Discrimination in Medical Settings (DMS) scale.[56] The top discriminatory experience reported across all samples was 'doctor or nurse is not listening to you'.

- In the total and regional samples, respondents more frequently reported 'doctor or nurse acts better than you', and 'doctor or nurse acts as if you are not smart'
- In the ACC sample, respondents more frequently reported 'treated with less courtesy' and 'receive poorer service'
- In the medically underserved sample, respondents more frequently reported treated with less courtesy' and 'treated with less respect'

[56] Peek, M. E., Nunez-Smith, M., Drum, M., & Lewis, T. T. (2011). Adapting the everyday discrimination scale to medical settings: reliability and validity testing in a sample of African American patients. *Ethnicity & disease*, *21*(4), 502.

Table 27. Discrimination in Medical Settings

Perceived Discrimination in Medical Settings	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved Sub-Sample (n=5,785)
You feel like a doctor or nurse is not listening to what you were saying	50.4%	39.1%	48.0%	55.2%
A doctor or nurse acts as if he or she is better than you	37.7%	21.7%	36.2%	44.0%
A doctor or nurse acts as if he or she thinks you are not smart	37.5%	25.7%	35.3%	46.1%
You are treated with less courtesy than others	37.4%	32.0%	34.5%	48.1%
You are treated with less respect than others	36.6%	27.6%	33.8%	46.8%
You receive poorer service than others	35.0%	31.9%	32.1%	46.4%
A doctor or nurse acts as if he or she is afraid of you	17.7%	9.8%	15.6%	25.7%

Total sample

Statistically significant associations were found between discrimination in medical settings and:

- Age, such that respondents aged:
  - 20-39 years (61.7%) and <20 years (61.3%) were more likely to report a doctor/nurse is not listening to them; p≤0.001
  - 20-39 years (54.6%) and <20 years (50.0%) were more likely to report a doctor/nurse acting like they are better than them; p≤0.001
  - 20-39 (58.3%) and <20 years (55.0%) were more likely to report that a doctor/nurse thinks they are not smart; p≤0.001
- Gender, such that respondents who identified as Other gender were more likely to report a doctor/nurse is not listening to them (72.6%), a doctor/nurse acting like they are better than them (63.1%), and a doctor/nurse thinks they are not smart (41.7%); p≤0.001
- Race, such that respondents who identified as:
  - Native Hawaiian/Other Pacific Islander (66.7%; p≤0.01), American Indian/Alaska Native (61.3%; p≤0.001), and Black/African American (59.4%; p≤0.001) were more likely to report a doctor/nurse is not listening to them
  - Native Hawaiian/Other Pacific Islander (59.1%; p≤0.001), American Indian/Alaska Native (50.0%; p≤0.001), and Black/African American (49.6%; p≤0.001) were more likely to report a doctor/nurse acting like they are better than them
  - Native Hawaiian/Other Pacific Islander (67.0%; p≤0.001), American Indian/Alaska Native (53.4%; p≤0.001), and Black/African American (53.0%; p≤0.001) were more likely to report that a doctor/nurse thinks they are not smart
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report a doctor/nurse is not listening to them (58.8%), a doctor/nurse acting like they are better than them (49.3%), and a doctor/nurse thinks they are not smart (51.3%); p≤0.001
- Geographic location, such that respondents living in:
  - The Bronx (53.7%) and Brooklyn (53.4%) were more likely to report a doctor/nurse is not listening to them; p≤0.001
  - The Bronx (41.1%) and Brooklyn (40.2%) were more likely to report a doctor/nurse acting like they are better than them; p≤0.001
  - The Bronx (42.9%) and Brooklyn (42.4%) were more likely to report that a doctor/nurse thinks they are not smart; p≤0.001

- Musculoskeletal conditions, such that respondents with:
  - Lupus (67.2%) and fibromyalgia (65.5%) were more likely to report a doctor/nurse is not listening to them; p≤0.001
  - Lupus (60.2%) were more likely to report a doctor/nurse acting like they are better than them; p≤0.001
  - Lupus (57.2%) were more likely to report that a doctor/nurse thinks they are not smart; p≤0.001
- Education level, such that respondents who had never attended school or only kindergarten were more likely to report a doctor/nurse is not listening to them (74.4%), a doctor/nurse acting like they are better than them (72.5%), and a doctor/nurse thinks they are not smart (72.5%); p≤0.001
- Income, such that respondents with an annual household income of:
  - $15,000-$24,999 (59.2%) were more likely to report a doctor/nurse is not listening to them; p≤0.001
  - <$10,000 (50.2%) were more likely to report a doctor/nurse acting like they are better than them; p≤0.001
  - <$10,000 (51.8%) were more likely to report that a doctor/nurse thinks they are not smart; p≤0.001

ACC sub-sample

Statistically significant associations were found between discrimination in medical settings and:

- Gender, such that respondents who identified as Female (42.5%) were more likely to report a doctor/nurse is not listening to them; p≤0.01
- Race, such that respondents who identified as:
  - American Indian/Alaska Native (100.0%; p≤0.05), Other Race (58.1%; p≤0.05) were more likely to report a doctor/nurse is not listening to them
  - Black/African American (43.6%; p≤0.01) were more likely to report being treated with less courtesy
  - American Indian/Alaska Native (100.0%; p≤0.05) were more likely to report receiving poorer service
- Musculoskeletal conditions, such that respondents with fibromyalgia (64.7%) were more likely to report a doctor/nurse is not listening to them; p≤0.01

Regional sub-sample

Statistically significant associations were found between discrimination in medical settings and:

- Age, such that respondents aged:
  - 20-39 years (59.4%) and <20 years (55.4%) were more likely to report a doctor/nurse is not listening to them; p≤0.001
  - 20-39 (52.0%) were more likely to report a doctor/nurse acting like they are better than them; p≤0.001
  - <20 years (54.8%) and 20-39 (54.4%) were more likely to report that a doctor/nurse thinks they are not smart; p≤0.001
- Gender, such that respondents who identified as Other gender were more likely to report a doctor/nurse is not listening to them (75.7%), a doctor/nurse acting like they are better than them (69.4%), and a doctor/nurse thinks they are not smart (64.9%); p≤0.001
- Race, such that respondents who identified as:
  - American Indian/Alaska Native (66.7%; p≤0.001), Black/African American (58.1%; p≤0.001), and Other Race (57.8%; p≤0.001) were more likely to report a doctor/nurse is not listening to them
  - American Indian/Alaska Native (61.5%; p≤0.001), Native Hawaiian/Other Pacific Islander (57.7%; p≤0.05), and Black/African American (47.5%; p≤0.001) were more likely to report a doctor/nurse acting like they are better than them
  - American Indian/Alaska Native (59.6%; p≤0.001), Native Hawaiian/Other Pacific Islander (57.7%; p≤0.05), and Black/African American (51.6%; p≤0.001) were more likely to report that a doctor/nurse thinks they are not smart
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report a doctor/nurse is not listening to them (57.5%), a doctor/nurse acting like they are better than them (48.7%), and a doctor/nurse thinks they are not smart (50.3%); p≤0.001

- Geographic location, such that respondents living in:
  - Florida (51.9%) and NJ (49.5%) were more likely to report a doctor/nurse is not listening to them; p≤0.01
  - Florida (39.9%), NJ (38.5%), and Connecticut (36.8%) were more likely to report a doctor/nurse acting like they are better than them; p≤0.001
  - Florida (39.4%), NJ (38.5%), and Connecticut (37.6%) were more likely to report that a doctor/nurse thinks they are not smart; p≤0.001
- Musculoskeletal conditions, such that respondents with:
  - Lupus (71.9%) and fibromyalgia (65.5%) were more likely to report a doctor/nurse is not listening to them; p≤0.001
  - Lupus (66.5%) were more likely to report a doctor/nurse acting like they are better than them; p≤0.001
  - Lupus (60.0%) were more likely to report that a doctor/nurse thinks they are not smart; p≤0.001
- Education level, such that respondents who had:
  - Never attended school or only kindergarten (60.0%) were more likely to report a doctor/nurse is not listening to them; p≤0.01
  - Never attended school or only kindergarten (60.0%) were more likely to report a doctor/nurse acting like they are better than them; p≤0.001
  - Never attended school or only kindergarten (60.0%) and elementary school education (57.7%) were more likely to report that a doctor/nurse thinks they are not smart; p≤0.001
- Income, such that respondents with an annual household income of:
  - $15,000-$24,999 (58.4%) were more likely to report a doctor/nurse is not listening to them; p≤0.001
  - <$10,000 (50.0%) were more likely to report a doctor/nurse acting like they are better than them; p≤0.001
  - <$10,000 (52.8%) were more likely to report that a doctor/nurse thinks they are not smart; p≤0.001

Medically underserved sub-sample

Statistically significant associations were found between discrimination in medical settings and:

- Age, such that respondents aged:
  - <20 years (66.1%) and 20-39 (61.4%) were more likely to report a doctor/nurse is not listening to them; p≤0.001
  - <20 years (64.4%) and 20-39 (59.4%) were more likely to report being treated with less courtesy; p≤0.001
  - <20 years (64.4%) and 20-39 (58.9%) were more likely to report being treated with less respect; p≤0.001
- Gender, such that respondents who identified as Other gender were more likely to report a doctor/nurse is not listening to them (78.3%; p≤0.01), being treated with less courtesy (69.6%; p≤0.05), and being treated with less respect (76.1%; p≤0.001)
- Race, such that respondents who identified as:
  - Other Race (63.6%; p≤0.001) and Black/African American (58.6%; p≤0.001) were more likely to report a doctor/nurse is not listening to them
  - Native Hawaiian/Other Pacific Islander (64.8%; p≤0.05), American Indian/Alaska Native (62.5%; p≤0.001), and Black/African American (57.8%; p≤0.001) were more likely to report being treated with less courtesy
  - Native Hawaiian/Other Pacific Islander (64.8%; p≤0.01), American Indian/Alaska Native (61.3%; p≤0.001), and Black/African American (56.5%; p≤0.001) were more likely to report being treated with less respect
- Ethnicity, such that respondents who identified as Hispanic/Latino were more likely to report a doctor/nurse is not listening to them (59.1%), being treated with less courtesy (54.0%), and being treated with less respect (51.5%); p≤0.001
- Geographic location, such that respondents living in:
  - Florida (55.0%), Staten Island (51.7%) and Long Island (51.7%) were more likely to report a doctor/nurse acting like they are better than them; p≤0.001

- Florida (58.3%) and Long Island (53.9%) were more likely to report being treated with less courtesy; p≤0.001
- Florida (56.3%) were more likely to report being treated with less respect; p≤0.001

- Musculoskeletal conditions, such that respondents with:
  - Fibromyalgia (67.3%), chronic pain (66.5%) and lupus (66.2%) were more likely to report a doctor/nurse is not listening to them; p≤0.001
  - Lupus (64.5%) and gout (61.3%) were more likely to report being treated with less courtesy; p≤0.001
  - Lupus (67.3%) were more likely to report being treated with less respect; p≤0.001
- Education level, such that respondents who had never attended school or only kindergarten were more likely to report a doctor/nurse is not listening to them (68.0%; p≤0.01), being treated with less courtesy (60.0%; p≤0.001), and being treated with less respect (76.0%; p≤0.001)
- Income, such that respondents with an annual household income of:
  - $15,000-$24,999 (48.9%), <$10,000 (48.8%), and $75,000-$99,999 (47.9%) were more likely to report a doctor/nurse acting like they are better than them; p≤0.01
  - $25,000-$34,999 (53.9%), $15,000-$24,999 (53.6%), and $35,000-$49,999 (53.5%) were more likely to report being treated with less courtesy; p≤0.001
  - $15,000-$24,999 (55.0%), $25,000-$34,999 (52.2%), and <$10,000 (51.5%) were more likely to report being treated with less respect; p≤0.001

16. Health Literacy

Consistent with the 2019 CHNA, majority of respondents across all samples preferred English for discussing (Table 28) and reading (Table 29) medical issues/instructions. Table 30 below shows that majority of respondents never need assistance reading healthcare information.

- Compared to the 2019 CHNA, the percentage of respondents who reported needing assistance with reading healthcare information increased from 7.3% to 14.6%

Table 28. Preferred language for discussing medical issues/instructions

Preferred Language for Discussing Medical Issues/Instructions	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
English	91.0%	85.2%	93.0%	86.2%
Spanish	4.1%	10.6%	3.6%	6.0%
Chinese	1.2%	0.7%	0.5%	2.0%
Russian	1.2%	0.7%	0.9%	1.8%
Arabic	1.1%	0.0%	0.8%	1.8%
Hebrew	0.9%	0.0%	0.6%	1.6%

Table 29. Preferred language for reading medical issues/instructions

Preferred Language for Reading Medical Issues/Instructions	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
English	92.8%	88.4%	94.1%	89.0%
Spanish	4.0%	8.3%	3.7%	6.0%
Chinese	1.2%	0.7%	0.7%	2.0%
Russian	0.8%	0.7%	0.5%	1.2%
Arabic	0.6%	0.0%	0.4%	1.0%
Hebrew	0.2%	0.0%	0.2%	0.4%

Table 30. Needs assistance reading healthcare information

Need Assistance Reading Healthcare Information	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
Never	70.2%	68.0%	73.1%	64.0%
Rarely	15.8%	16.0%	15.4%	16.9%
Sometimes	10.0%	6.4%	8.5%	13.4%
Often	2.6%	5.7%	2.0%	3.6%
Always	1.5%	3.9%	1.1%	2.1%

Total sample

Statistically significant associations were found between health literacy and:

- Age, such that respondents aged <20 years (29.4%) and 20-39 years (26.5%) were more likely to report needing help reading medical information; p≤0.001
- Gender, such that respondents who identified as:
  - Other gender were more likely to prefer discussing medical information in Spanish (6.0%), Chinese (7.1%), Russian (3.1%), and Arabic (3.6%); p≤0.001
  - Female (4.4%) were more likely to prefer reading medical information in Spanish; p≤0.001
  - Other gender (2.4%) were more likely to prefer reading medical information in Chinese (2.4%), Russian (6.0%), and Arabic (4.8%); p≤0.001
  - Other gender (31.0%) were more likely to report needing help reading medical information; p≤0.05
- Race, such that respondents who identified as Other Race (23.2%; p≤0.001), and American Indian/Alaska Native (22.3%; p≤0.001) were more likely to report needing help reading medical information

  Ethnicity, such that respondents who identified as Hispanic/Latino (25.1%) were more likely to report needing help reading medical information; p≤0.001
- Geographic location, such that respondents living in:
  - The Bronx (5.3%), NJ (4.9%), Florida (4.6%) were more likely to prefer discussing medical information in Spanish; p≤0.001
  - Staten Island (3.6%) and Queens (3.0%) were more likely to prefer discussing medical information in Chinese; p≤0.001
  - Brooklyn (1.7%) and Connecticut (1.5%) were more likely to prefer discussing medical information in Russian; p≤0.001
  - The Bronx (1.3%) were more likely to prefer discussing medical information in Arabic (1.3%) and Hebrew (1.6%); p≤0.001
  - The Bronx (5.1%), Florida (5.0%), and NJ (4.9%) were more likely to prefer reading medical information in Spanish; p≤0.001
  - Staten Island (3.2%) and Queens (2.6%) were more likely to prefer reading medical information in Chinese; p≤0.001
  - Brooklyn (1.4%) were more likely to prefer reading medical information in Russian; p≤0.001
  - The Bronx (16.1%) were more likely to report needing help reading medical information; p≤0.001
- Musculoskeletal conditions, such that respondents with lupus (26.9%) were more likely to report needing help reading medical information; p≤0.001
- Education level, such that respondents who had an elementary school education (55.6%) were more likely to report needing help reading medical information; p≤0.001
- Income, such that respondents with an annual household income of <$10,000 (29.5%) were more likely to report needing help reading medical information; p≤0.001

ACC sub-sample

Statistically significant associations were found between health literacy and:

- Age, such that respondents aged 80+ years (66.7%) were more likely to report needing help reading medical information; p≤0.01
- Education level, such that respondents who had an elementary school education (53.8%) were more likely to report needing help reading medical information; p≤0.001

Regional sub-sample

Statistically significant associations were found between health literacy and:

- Age, such that respondents aged <20 years (24.9%) and 20-39 years (22.6%) were more likely to report needing help reading medical information; p≤0.001
- Gender, such that respondents who identified as:
    - Other gender (5.4%) and Female (4.3%) were more likely to prefer discussing medical information in Spanish; p≤0.01
    - Other gender were more likely to prefer discussing medical information in Chinese (2.7%) and Russian (5.4%); p≤0.01
    - Female (4.3%) were more likely to prefer reading medical information in Spanish; p≤0.001
- Race, such that respondents who identified as American Indian/Alaska Native (25.7%; p≤0.001), Other Race (20.2%; p≤0.001), and Black/African American (17.2%; p≤0.001) were more likely to report needing help reading medical information
- Ethnicity, such that respondents who identified as Hispanic/Latino (22.6%) were more likely to report needing help reading medical information; p≤0.001
- Geographic location, such that respondents living in:
    - The Bronx (19.4%) and Queens (12.8%) were more likely to prefer discussing medical information in Spanish; p≤0.01
    - Staten Island (12.5%) were more likely to prefer discussing medical information in Chinese; p≤0.01
    - Brooklyn (3.6%) were more likely to prefer discussing medical information in Russian; p≤0.01
    - Queens (13.0%) and the Bronx (11.8%) were more likely to prefer reading medical information in Spanish; p≤0.01
    - Staten Island (12.5%) were more likely to prefer reading medical information in Chinese; p≤0.01
    - Brooklyn (3.6%) were more likely to prefer reading medical information in Russian; p≤0.01
    - Florida (13.5%) and NJ (13.0%) more likely to report needing help reading medical information; p≤0.001
- Musculoskeletal conditions, such that respondents with lupus (28.7%) were more likely to report needing help reading medical information; p≤0.001
- Education level, such that respondents who had an elementary school education (34.6%) and never attended school or only kindergarten (30.0%) were more likely to report needing help reading medical information; p≤0.001
- Income, such that respondents with an annual household income of <$10,000 (27.6%) and $10,000-$14,999 (24.7%) were more likely to report needing help reading medical information; p≤0.001

Medically underserved sub-sample

Statistically significant associations were found between health literacy and:

- Age, such that respondents aged <20 years (24.9%) and 20-39 years (22.6%) were more likely to report needing help reading medical information; p≤0.001
- Gender, such that respondents who identified as:
    - Female (6.6%) were more likely to prefer discussing medical information in Spanish; p≤0.001
    - Other gender were more likely to prefer discussing medical information in Chinese (10.9%), Russian (4.3%), Arabic (4.3%), and Hebrew (2.2%); p≤0.001
    - Female (6.5%) were more likely to prefer reading medical information in Spanish; p≤0.001
    - Other gender were more likely to prefer reading medical information in Chinese (4.3%), Russian (8.4%), and Arabic (6.5%); p≤0.001

- Race, such that respondents who identified as American Indian/Alaska Native (25.7%; p≤0.001), Other Race (20.2%; p≤0.001), and Black/African American (17.2%; p≤0.001) were more likely to report needing help reading medical information
- Ethnicity, such that respondents who identified as Hispanic/Latino (22.6%) were more likely to report needing help reading medical information; p≤0.001
- Geographic location, such that respondents living in:
    - Florida (8.6%) and NJ (8.4%) were more likely to prefer discussing medical information in Spanish; p≤0.001
    - Staten Island (7.3%) were more likely to prefer discussing medical information in Chinese; p≤0.001
    - Westchester and surrounding counties (3.0%) were more likely to prefer discussing medical information in Arabic; p≤0.001
    - Florida (2.6%) were more likely to prefer discussing medical information in Hebrew; p≤0.001
    - Florida (10.5%), NJ (8.5%) were more likely to prefer reading medical information in Spanish; p≤0.001
    - Staten Island (5.5%) were more likely to prefer reading medical information in Chinese; p≤0.001
    - Florida (2.0%) were more likely to prefer reading medical information in Arabic; p≤0.001
    - Westchester and surrounding counties (1.5%) were more likely to prefer reading medical information in Hebrew; p≤0.001
    - Florida (13.0%) and NJ (13.0%) more likely to report needing help reading medical information; p≤0.001
- Musculoskeletal conditions, such that respondents with lupus (28.7%) were more likely to report needing help reading medical information; p≤0.001
- Education level, such that respondents who had an elementary school education (34.6%) and never attended school or only kindergarten (30.0%) were more likely to report needing help reading medical information; p≤0.001
- Income, such that respondents with an annual household income of <$10,000 (27.6%) and $10,000-$14,999 (24.7%) were more likely to report needing help reading medical information; p≤0.001

E. Health Education

Across all samples, majority of respondents reported having not participated in a health education program in the past 12 months (Table 31).

- ACC respondents (19.1%) were least likely to have participated in health education

Table 31. Participation in health education

Participated in Health Education in past 12 Months	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved Sub-Sample (n=5,785)
Yes	29.8%	19.1%	33.0%	25.9%
No	70.2%	80.9%	67.0%	74.1%

Table 32 shows reasons why respondents did not participate in health education programs in the past 12 months. In all samples, the top three most reported reasons for not participating in health education were ‘did not know about the program’, ‘fear of COVID-19’, and ‘not sure where to go’.

17. Barriers to Health Education

Table 32. Reasons for not participating in health education programs

Reasons for Not Participating in Health Education Programs	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
Did not know about the program	39.5%	63.9%	39.9%	29.7%
Fear of COVID-19	37.7%	31.2%	36.9%	41.7%
Not sure where to go	26.6%	24.3%	27.3%	32.9%
Lack to time	25.2%	15.3%	26.6%	23.6%
Scheduling conflicts	19.5%	14.4%	19.2%	18.8%
Lack of transportation	13.8%	9.9%	12.5%	19.9%
Could not afford it	13.5%	8.9%	12.6%	19.1%
Fear or mistrust of doctors	6.4%	1.0%	6.0%	8.6%
Language barriers	1.5%	3.0%	1.3%	1.8%
Cultural/religious barriers	1.2%	0.0%	1.0%	1.5%

Total sample

Statistically significant associations were found between health education and:

- Age, such that respondents aged:
  - 80+ years (33.6%) and 60-79 years (32.5%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - 20-39 years (33.2%) and <20 years (32.5%) were more likely to report fear of COVID-19 as a top reason; p≤0.001
  - <20 years (31.6%) and 20-39-years (29.9%) were more likely to report 'not sure where to go' as a top reason; p≤0.001
- Gender, such that respondents who identified as:
  - Female (26.3%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - Other gender were more likely to report fear of COVID-19 (38.6%) and ‘not sure where to go’ (37.1%) as a top reason; p≤0.001
- Race, such that respondents who identified as:
  - White (29.4%; p≤0.001) were more likely to report 'did not know about the program' as a top reason
  - Asian (34.7%; p≤0.001), Other race (31.9%; p≤0.001), and Black/African American (31.8%; p≤0.001) were more likely to report fear of COVID-19 as a top reason
  - Asian (29.5%; p≤0.001), Black/African American (25.1%; p≤0.001), and American Indian/Alaska Native (22.8%; p≤0.01) were more likely to report 'not sure where to go' as a top reason
- Ethnicity, such that respondents who identified as:
  - Non-Hispanic/Latino (26.8%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - Hispanic/Latino (32.9%) were more likely to report fear of COVID-19 (32.9%) and ‘not sure where to go’ (25.6%) as top reasons; p≤0.001
- Geographic location, such that respondents living in:
  - Manhattan (32.0%), Westchester and surrounding counties (30.0%), and Staten Island (29.4%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - The Bronx (34.3%) were more likely to report fear of COVID-19 as a top reason; p≤0.001
  - Brooklyn (22.1%), the Bronx (21.2%) and New Jersey (20.0%) were more likely to report 'not sure where to go' as a top reason; p≤0.001

- Musculoskeletal conditions, such that respondents with:
  - OP (31.4%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - Lupus were more likely to report fear of COVID-19 (32.2%) and ‘not sure where to go’ (26.7%) as a top reason; p≤0.001
- Education level, such that respondents who had:
  - A postgraduate education (29.1%) and an elementary school education (27.1%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - Some high school education (33.7%) and a high school education (31.1%) were more likely to report fear of COVID-19 as a top reason; p≤0.001
  - Some high school education (27.5%) and an elementary school education (27.1%) were more likely to report 'not sure where to go' as a top reason; p≤0.001
- Income, such that respondents with an annual household income of:
  - $150,000-$249,999 (28.9%) and $200,000+ (27.0%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - $15,000-$24,999 (36.0%), <$10,000 (33.3%), and $25,000-$34,999 (33.2%) were more likely to report fear of COVID-19 as a top reason; p≤0.001
  - $10,000-$14,999 (28.2%), $25,000-$34,999 (27.5%), and <$10,000 (26.8%) were more likely to report 'not sure where to go' as a top reason; p≤0.001

ACC sub-sample

Statistically significant associations were found between health education and:

- Ethnicity, such that respondents who identified as Hispanic/Latino (33.8%) were more likely to report fear of COVID-19 as a top reason; p≤0.001

Regional sub-sample

Statistically significant associations were found between health education and:

- Age, such that respondents aged:
  - 60-79 years (32.1%) and 80+ years (31.6%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - 20-39 years (32.3%) and <20 years (27.8%) were more likely to report fear of COVID-19 as a top reason; p≤0.001
  - <20 years (37.3%) and 20-39-years (31.1%) were more likely to report 'not sure where to go' as a top reason; p≤0.001
- Gender, such that respondents who identified as Other gender (33.3%) were more likely to report fear of COVID-19 (33.3) and ‘not sure where to go’ (40.0%) as top reasons; p≤0.01
- Race, such that respondents who identified as:
  - White (29.2%; p≤0.001) were more likely to report 'did not know about the program' as a top reason
  - American Indian/Alaska Native (35.6%; p≤0.01), Asian (35.0%; p≤0.001) and Other race (30.8%; p≤0.001) were more likely to report fear of COVID-19 as a top reason
  - Asian (28.9%; p≤0.001), American Indian/Alaska Native (28.7%; p≤0.01), and Other race (26.4%; p≤0.001) were more likely to report 'not sure where to go' as a top reason
- Ethnicity, such that respondents who identified as:
  - Non-Hispanic/Latino (27.2%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - Hispanic/Latino (30.8%) were more likely to report fear of COVID-19 (30.8%) and ‘not sure where to go’ (27.8%) as top reasons; p≤0.001
- Geographic location, such that respondents living in:
  - Westchester and surrounding counties (30.0%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - Florida (27.0%) and NJ (25.7%) were more likely to report fear of COVID-19 as a top reason; p≤0.001
  - New Jersey (20.0%) were more likely to report 'not sure where to go' as a top reason; p≤0.001

- Musculoskeletal conditions, such that respondents with:
  - OP (31.8%), OA (30.9%) and fibromyalgia (29.2%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - Lupus (29.3%) and RA (29.2%) were more likely to report fear of COVID-19 as a top reason; p≤0.001
  - Lupus (28.6%) were more likely to report 'not sure where to go' as a top reason; p≤0.001
- Education level, such that respondents who had:
  - Postgraduate education (29.1%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - An elementary school education (31.3%) and a high school education (29.1%) were more likely to report fear of COVID-19 as a top reason; p≤0.001
  - Never attended school or only kindergarten (33.3%) and some high school education (30.8%) were more likely to report 'not sure where to go' as a top reason; p≤0.001
- Income, such that respondents with an annual household income of:
  - $150,000-$249,999 (29.5%) and $200,000+ (26.1%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - $10,000-$14,999 (36.4%), $15,000-$24,999 (36.1%), <$10,000 (34.2%) were more likely to report fear of COVID-19 as a top reason; p≤0.001
  - <$10,000 (32.2%) were more likely to report 'not sure where to go' as a top reason; p≤0.001

Medically underserved sub-sample

Statistically significant associations were found between health education and:

- Age, such that respondents aged:
  - 80+ years (34.8%) and 60-79 years (33.6%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - <20 years (35.3%) and 20-39 years (34.4%) were more likely to report fear of COVID-19 as a top reason; p≤0.001
  - <20 years (32.3%) and 20-39-years (29.8%) were more likely to report 'not sure where to go' as a top reason; p≤0.001
- Gender, such that respondents who identified as:
  - Female (22.7%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - Other gender (52.9%) were more likely to report 'not sure where to go' as a top reason; p≤0.01
- Race, such that respondents who identified as:
  - White (26.9%; p≤0.001) were more likely to report 'did not know about the program' as a top reason
  - Asian (34.4%; p≤0.05) and Black/African American (33.5%; p≤0.001) were more likely to report fear of COVID-19 as a top reason
  - Asian (34.1%; p≤0.001) and Black/African American (27.2%; p≤0.001) were more likely to report 'not sure where to go' as a top reason
- Ethnicity, such that respondents who identified as:
  - Non-Hispanic/Latino (22.5%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - Hispanic/Latino (36.0%) were more likely to report fear of COVID-19 as a top reason; p≤0.001
  - Hispanic/Latino (26.4%) were more likely to report 'not sure where to go' as a top reason; p≤0.001
- Geographic location, such that respondents living in:
  - Staten Island (30.8%), Manhattan (30.1%), and Westchester and surrounding counties (25.3%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - The Bronx (34.8%), Queens (33.0%), and NJ (32.3%) were more likely to report fear of COVID-19 as a top reason; p≤0.001
  - Staten Island (36.5%) were more likely to report 'not sure where to go' as a top reason; p≤0.001

- Musculoskeletal conditions, such that respondents with:
  - OA (31.8%) and OP (29.6%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - Lupus were more likely to report fear of COVID-19 (40.8%) and ‘not sure where to go’ (31.5%) as top reasons; p≤0.001
- Education level, such that respondents who had:
  - An elementary school education (31.9%) and postgraduate education (29.9%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - Some high school education (34.1%), some college education (33.9%) and a high school education (33.7%) were more likely to report fear of COVID-19 as a top reason; p≤0.001
  - A high school education (29.4%) and an elementary school education (27.7%) were more likely to report 'not sure where to go' as a top reason; p≤0.001
- Income, such that respondents with an annual household income of:
  - $200,000+ (31.2%) and $150,000-$249,999 (25.6%) were more likely to report 'did not know about the program' as a top reason; p≤0.001
  - $15,000-$24,999 (38.0%) were more likely to report fear of COVID-19 as a top reason; p≤0.001
  - $10,000-$14,999 (31.3%), $15,000-$24,999 (28.0%) and <$10,000 (27.2%) were more likely to report 'not sure where to go' as a top reason; p≤0.001

18. Health Education Scheduling

Across all samples, weekday mornings and afternoons were the most popular times for participating in health education programs (Table 33).

Table 33. Preferred times for health education programs

Times	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
Weekday morning	44.9%	41.3%	45.6%	43.9%
Weekday afternoon	41.8%	42.3%	39.0%	45.1%
Weekday evening	25.5%	18.4%	27.4%	24.8%
Weekend morning	38.2%	25.9%	41.2%	39.3%
Weekend afternoon	38.0%	30.3%	36.9%	44.8%
Weekend evening	14.0%	10.4%	14.2%	17.3%

19. Health Education Activities of Interest

Table 34 shows respondents' health education activities of interest. Virtual activities and exercise classes were the top activities of interest across all samples.

Table 34. Health education activities of interest

Health Education Activities	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
Virtual exercise classes	41.4%	34.0%	42.1%	41.0%
Virtual lectures	34.2%	26.5%	34.7%	30.6%
On-demand videos	33.1%	28.5%	34.7%	30.2%
Onsite exercise classes	31.3%	38.7%	28.9%	33.1%
Podcasts	20.5%	13.8%	21.6%	20.0%
Virtual workshops	18.8%	18.6%	18.0%	20.5%
None of the above	17.3%	19.4%	18.7%	15.1%
Support groups	17.0%	25.3%	16.2%	19.5%
Onsite lectures	15.6%	15.8%	13.8%	15.2%
Onsite workshops	15.0%	21.7%	13.8%	16.8%
Social media posts	15.0%	11.1%	15.4%	19.3%
Conference calls	7.8%	10.3%	7.4%	9.8%

Total sample

Statistically significant associations were found between health education and:

- Age, such that respondents aged:
  - 20-39 years (44.6%) and 40-59 years (41.0%) were more likely to be interested in virtual exercise classes; p≤0.001
  - 40-59 years (20.8%) and 20-39 years (19.7%) were more likely to be interested in virtual workshops; p≤0.001
  - 40-59 years (36.2%) and 60-79 years (34.5%) were more likely to be interested in on-demand videos; p≤0.001
- Gender, such that respondents who identified as female were more likely to be interested in virtual exercise classes (44.1%), virtual lectures (34.7%), and on-demand videos (32.9%); p≤0.001
- Race, such that respondents who identified as:
  - American Indian/Alaska Native (47.3%; p≤0.01), Asian (46.6%; p≤0.001), and Black/African American (45.3%; p≤0.001) were more likely to be interested in virtual exercise classes
  - White (35.3%; p≤0.001) were more likely to be interested in virtual lectures
  - Asian (34.4%; p≤0.05), White (33.3%; p≤0.001), and American Indian/Alaska Native (24.9%; p≤0.05) were more likely to be interested in on-demand videos
- Ethnicity, such that respondents who identified as non-Hispanic/Latino were more likely to be interested in virtual lectures (34.1%) and on-demand videos (33.2%); p≤0.001
- Geographic location, such that respondents living in:
  - NJ (43.9%), Brooklyn (42.9%) and the Bronx (41.5%) were more likely to be interested in virtual exercise classes; p≤0.01
  - Westchester and surrounding counties (36.6%) were more likely to be interested in on-demand videos; p≤0.001
- Musculoskeletal conditions, such that respondents with:
  - Lupus (48.4%) were more likely to be interested in virtual exercise classes (48.4%) and virtual lectures (44.5%); p≤0.001
  - Fibromyalgia (37.5%) were more likely to be interested in on-demand videos; p≤0.001

- Education level, such that respondents who had:
  - A postgraduate education (45.0%) and college education (42.9%) were more likely to be interested in virtual exercise classes; p≤0.001
  - A postgraduate education (40.3%) were more likely to be interested in on-demand videos; p≤0.001
- Income, such that respondents with an annual household income of:
  - $100,000-$149,999 (44.7%) and $75,000-$99,999 (44.1%) were more likely to be interested in virtual exercise classes; p≤0.001
  - $200,000+ (39.8%) and $150,000-$249,999 (38.6%) were more likely to be interested in virtual lectures; p≤0.001
  - $200,000+(40.6%) and $150,000-$249,999 (38.6%) were more likely to be interested in on-demand videos; p≤0.001

ACC sub-sample

Statistically significant associations were found between health education and:

- Gender, such that respondents who identified as Female (36.9%) were more likely to be interested in virtual exercise classes; p≤0.01
- Race, such that respondents who identified as Black/African American were more likely to be interested in onsite exercise classes (48.1%; p≤0.001) and virtual exercise classes (39.2%; p≤0.01)

Regional sub-sample

Statistically significant associations were found between health education and:

- Age, such that respondents aged:
  - 20-39 years (45.6%) and 40-59 years (42.6%) were more likely to be interested in virtual exercise classes; p≤0.001
  - 40-59 years (38.9%), 60-79 years (35.3%), and <20 years (34.9%) were more likely to be interested in on-demand videos; p≤0.001
  - 60-79 years (37.0%) and 40-59 years (35.2%) were more likely to be interested in virtual lectures; p≤0.001
- Gender, such that respondents who identified as Female were more likely to be interested in virtual exercise classes (46.6%; p≤0.001) and virtual lectures (35.2%; p≤0.01)
- Race, such that respondents who identified as:
  - Asian (51.3%; p≤0.001), Black/African American (45.6%; p≤0.001) were more likely to be interested in virtual exercise classes
  - White were more likely to be interested in on-demand videos (34.5%; p≤0.05) and virtual lectures (35.3%; p≤0.001)
- Ethnicity, such that respondents who identified as non-Hispanic/Latino were more likely to be interested in on-demand videos (34.6%) and virtual lectures (34.7%); p≤0.001
- Geographic location, such that respondents living in:
  - NJ (43.9%) were more likely to be interested in virtual exercise classes; p≤0.001
  - Westchester and surrounding counties (36.6%) and Connecticut (35.3%) were more likely to be interested in on-demand videos; p≤0.05
- Musculoskeletal conditions, such that respondents with:
  - Lupus (52.9%) were more likely to be interested in virtual exercise classes; p≤0.001
  - Fibromyalgia (39.9%) and OA (38.7%) were more likely to be interested in on-demand videos; p≤0.001
  - Lupus (45.0%) and OP (42.3%) were more likely to be interested in virtual lectures; p≤0.001
- Education level, such that respondents who had:
  - A postgraduate education (46.0%) and college education (44.8%) were more likely to be interested in virtual exercise classes; p≤0.001
  - A postgraduate education (40.8%) and a college education (37.6%) were more likely to be interested in on-demand videos; p≤0.001
  - A postgraduate education (44.8%) were more likely to be interested in virtual lectures; p≤0.001
- Income, such that respondents with an annual household income of:
  - $100,000-$149,999 (47.0%), $150,000-$249,999 (43.8%) and $75,000-$99,999 (43.7%) were more likely to be interested in virtual exercise classes; p≤0.001

- $200,000+ (41.2%), $150,000-$249,999 (38.1%) and $100,000-$149,999 (38.0%) were more likely to be interested in on-demand videos; p≤0.001
- $200,000+ (38.9%), $150,000-$249,999 (38.8%) and $100,000-$149,999 (37.3%) were more likely to be interested in virtual lectures; p≤0.001

Medically underserved sub-sample

Statistically significant associations were found between health education and:

- Age, such that respondents aged:
  - 20-39 years (43.4%) were more likely to be interested in virtual exercise classes; p≤0.001
  - 40-59 years (18.7%) and 60-79 years (16.6%) were more likely to be interested in onsite workshops; p≤0.05
  - 60-79 years (35.2%) were more likely to be interested in virtual lectures; p≤0.001
- Gender, such that respondents who identified as:
  - Female (43.9%) and Other gender (41.2%) were more likely to be interested in virtual exercise classes; p≤0.001
  - Other gender (41.2%) were more likely to be interested in virtual lectures; p≤0.05
- Race, such that respondents who identified as:
  - American Indian/Alaska Native (51.5%; p≤0.01), Asian (45.8%; p≤0.01), and Black/African American (45.0%; p≤0.001) were more likely to be interested in virtual exercise classes
  - Black/African American (35.3%; p≤0.001) were more likely to be interested in onsite exercise classes
  - Asian (36.0%; p≤0.01) and White (32.5%; p≤0.001) were more likely to be interested in virtual lectures
- Ethnicity, such that respondents who identified as non-Hispanic/Latino (30.9%) were more likely to be interested in virtual lectures; p≤0.001
- Geographic location, such that respondents living in:
  - NJ (43.6%), Brooklyn (43.5%) and Staten Island (42.3%) were more likely to be interested in virtual exercise classes; p≤0.05
  - Manhattan (35.8%) and Brooklyn (33.5%) were more likely to be interested in virtual lectures; p≤0.001
- Musculoskeletal conditions, such that respondents with lupus were more likely to be interested in virtual exercise classes (48.9%; p≤0.05) and virtual lectures (44.0%; p≤0.001)
- Education level, such that respondents who had:
  - A college education (45.3%) and postgraduate education (43.9%) were more likely to be interested in virtual exercise classes; p≤0.001
  - An elementary school education (36.2%) and some college education (36.2%) were more likely to be interested in onsite exercise classes; p≤0.01
  - Postgraduate education (44.6%) were more likely to be interested in virtual lectures; p≤0.001
- Income, such that respondents with an annual household income of:
  - $75,000-$99,999 (49.9%) and $35,000-$49,999 (47.2%) were more likely to be interested in virtual exercise classes; p≤0.001
  - $75,000-$99,999 (36.5%), $50,000-$74,999 (36.0%), and $35,000-$49,999 (35.8%) were more likely to be interested in onsite exercise classes; p≤0.01
  - $200,000+ (46.2%) were more likely to be interested in virtual lectures; p≤0.001

20. Health Education Topics of Interest

Respondents were asked about various health topics of interest (Table 35). Exercise and healthy eating were the most popular health education topic across all samples.

- Among total, regional, and medically underserved respondents, 'dealing with stress, anxiety, and depression' was a top topic of interest
- Among ACC respondents, 'managing my chronic condition' was a top topic of interest

Table 35. Health education topics of interest

Health Education Topics	Total sample (n=18,245)	ACC sub-sample (n=344)	Regional sub-sample (n=6,739)	Medically Underserved sub-sample (n=5,785)
Exercise	56.3%	51.5%	56.3%	57.9%
Healthy eating	44.7%	43.1%	46.5%	51.4%
Dealing with stress, anxiety, and depression	39.6%	40.8%	39.6%	45.2%
Managing my chronic condition	32.9%	49.2%	32.3%	31.0%
Supporting a healthy lifestyle	30.8%	30.5%	31.3%	34.0%
Ways to improve mobility	29.4%	40.1%	27.9%	26.2%
Pain management	26.9%	37.8%	26.8%	26.6%
Complementary treatments	26.2%	27.9%	26.6%	22.6%
Injury prevention	18.6%	16.0%	16.9%	16.4%
Use of technology to manage health	11.4%	9.9%	11.8%	9.6%
COVID-19	8.0%	1.9%	8.2%	8.6%
Asking questions about things I don't understand about my treatment	7.9%	11.8%	7.6%	7.8%
Sexual health	6.9%	4.2%	7.9%	8.3%
Preparing questions for my healthcare provider	6.5%	10.3%	6.2%	6.7%
Medication management	6.1%	3.8%	5.5%	7.9%
Discussing personal problems that may be related to my illness	5.8%	9.9%	5.7%	7.2%
Managing my child's health	4.7%	3.8%	5.2%	6.9%

Total sample

Statistically significant associations were found between health education and:

- Age, such that respondents aged:
  - 20-39 years (63.6%) and <20 years (62.6%) were more likely to be interested in exercise; p≤0.001
  - 20-39 years (59.7%) and <20 years (58.5%) were more likely to be interested in healthy eating; p≤0.001
  - <20 years (57.6%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001
- Gender, such that respondents who identified as:
  - Male (53.8%) were more likely to be interested in exercise; p≤0.05
  - Other gender were more likely to be interested in healthy eating (51.4%; p≤0.05) and 'dealing with stress, anxiety and depression' (58.6%; p≤0.001)

- Race, such that respondents who identified as:
  - Black/African American (62.7%; p≤0.001), Asian (61.8%; p≤0.001), and American Indian/Alaska Native (60.6%; p≤0.01) were more likely to be interested in exercise
  - Black/African American (57.2%; p≤0.001), Asian (52.9; p≤0.001), and Other race (51.9%; p≤0.001) were more likely to be interested in healthy eating
  - Black/African American (46.1%; p≤0.001), Other race (44.4%; p≤0.001), and Asian (42.2%; p≤0.001) were more likely to be interested in 'dealing with stress, anxiety and depression'
- Ethnicity, such that respondents who identified as Hispanic/Latino (60.2%) were more likely to be interested in exercise (60.2%), healthy eating (57.0%), and 'dealing with stress, anxiety, and depression (47.3%); p≤0.001
- Geographic location, such that respondents living in:
  - Brooklyn (57.4%), Queens (56.8%), and NJ (55.9%) were more likely to be interested in exercise; p≤0.001
  - The Bronx (52.8%) and NJ (50.0%) were more likely to be interested in healthy eating; p≤0.001
  - The Bronx (45.5%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001
- Musculoskeletal conditions, such that respondents with:
  - Some other form of arthritis (48.1%), lupus (47.4%), and chronic pain (47.1%) were more likely to be interested in exercise; p≤0.001
  - Lupus (43.5%) were more likely to be interested in healthy eating; p≤0.001
  - Fibromyalgia (43.7%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001
- Education level, such that respondents who had:
  - Some high school education (56.9%), a high school education (54.8%), and some college education (54.5%) were more likely to be interested in exercise; p≤0.001
  - Some high school education (60.4%) were more likely to be interested in healthy eating; p≤0.001
  - Some high school (43.7%), a high school education (43.4%), and some college education (42.0%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001
- Income, such that respondents with an annual household income of:
  - $10,000-$14,999 (58.4%), $35,000-$49,999 (58.2%) and $50,000-$74,999 (57.6%) were more likely to be interested in exercise; p≤0.001
  - $10,000-$14,999 (55.8%), $25,000-$34,999 (54.2%), and <$10,000 (54.1%) were more likely to be interested in healthy eating; p≤0.001
  - $15,000-$24,999 (49.3%), $25,000-$34,999 (47.0%) and <$10,000 (47.0%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001

ACC sub-sample

Statistically significant associations were found between health education and:

- Age, such that respondents aged 20-39 years (55.6%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.05
- Musculoskeletal conditions, such that respondents with fibromyalgia (78.9%) and lupus (73.7%) were more likely to be interested in 'managing my chronic condition'; p≤0.001

Regional sub-sample

Statistically significant associations were found between health education and:

- Age, such that respondents aged:
  - <20 years (69.8%) and 20-39 years (63.9%) were more likely to be interested in exercise; p≤0.001
  - <20 years (63.5%) and 20-39 years (63.5%) were more likely to be interested in healthy eating; p≤0.001
  - <20 years (61.9%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001
- Gender, such that respondents who identified as Other gender (80.0%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001

- Race, such that respondents who identified as:
  - Black/African American (64.7%; p≤0.001) and Asian (67.6%; p≤0.001) were more likely to be interested in exercise
  - Black/African American (60.1%; p≤0.001), Asian (58.0; p≤0.001), Other race (55.7%; p≤0.001) were more likely to be interested in healthy eating
  - Black/African American (47.9%; p≤0.001), Other race (47.5%; p≤0.001), and Asian (44.9%; p≤0.001) were more likely to be interested in 'dealing with stress, anxiety and depression'
- Ethnicity, such that respondents who identified as Hispanic/Latino (60.2%) were more likely to be interested in exercise (61.5%), healthy eating (60.6%), and 'dealing with stress, anxiety, and depression (49.1%); p≤0.001
- Geographic location, such that respondents living in:
  - NJ (55.9%) were more likely to be interested in exercise; p≤0.01
  - NJ (50.0%) were more likely to be interested in healthy eating; p≤0.001
  - NJ (40.6%) and Connecticut (38.6%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001
- Musculoskeletal conditions, such that respondents with:
  - Some other form of arthritis (49.8%) were more likely to be interested in exercise; p≤0.001
  - Chronic pain (43.1%) and lupus (42.9%) were more likely to be interested in healthy eating; p≤0.001
  - Chronic pain (43.8%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001
- Education level, such that respondents who had:
  - Some high school education (59.0%) were more likely to be interested in healthy eating; p≤0.001
  - Never attended school or only kindergarten (50.0%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001
  - A postgraduate education (33.3%), an elementary school education (31.3%), and a college education (30.7%) were more likely to be interested in 'managing my chronic condition'; p≤0.001
- Income, such that respondents with an annual household income of:
  - $10,000-$14,999 (63.1%), <$10,000 (59.3%) and $35,000-$49,999 (58.2%) were more likely to be interested in exercise; p≤0.001
  - <$10,000 (64.2%) and $15,000-$24,999 (61.5%) were more likely to be interested in healthy eating; p≤0.001
  - $15,000-$24,999 (54.3%) and $25,000-$34,999 (51.9%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001

Medically underserved sub-sample

Statistically significant associations were found between health education and:

- Age, such that respondents aged:
  - 20-39 years (62.6%) and <20 years (59.9%) were more likely to be interested in exercise; p≤0.001
  - 20-39 years (59.4%) and <20 years (56.3%) were more likely to be interested in healthy eating; p≤0.001
  - <20 years (55.7%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001
- Gender, such that respondents who identified as Other gender (76.5%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001
- Race, such that respondents who identified as:
  - Black/African American (61.5%; p≤0.001) and Asian (60.4%; p≤0.05) were more likely to be interested in exercise
  - American Indian/Alaska Native (58.1%; p≤0.05), Black/African American (57.8%; p≤0.001), and Other race (56.6%; p≤0.001) were more likely to be interested in healthy eating
  - Black/African American (47.7%; p≤0.001) and Other race (48.5%; p≤0.05) were more likely to be interested in 'dealing with stress, anxiety and depression'

- Ethnicity, such that respondents who identified as Hispanic/Latino (59.6%) were more likely to be interested in exercise (58.2%), healthy eating (50.4%), and ‘dealing with stress, anxiety, and depression (49.1%); p≤0.001
- Geographic location, such that respondents living in:
  - New Jersey (60.3%), Florida (60.2%) and Westchester and surrounding counties (57.1%) were more likely to be interested in exercise; p≤0.05
  - Florida (59.3%) and New Jersey (59.1%) were more likely to be interested in healthy eating; p≤0.001
  - Connecticut (46.8%), The Bronx (46.1%), and Florida (46.0%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001
- Musculoskeletal conditions, such that respondents with:
  - Some other form of arthritis (53.2%), chronic pain (52.0%) and lupus (51.1%) were more likely to be interested in exercise; p≤0.001
  - Lupus (51.1%) were more likely to be interested in healthy eating; p≤0.001
  - Fibromyalgia (47.0%), chronic pain (46.9%), and lupus (45.7%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001
- Education level, such that respondents who had:
  - Some college education (59.3%), a high school education (57.3%), and some high school education (56.8%) were more likely to be interested in exercise; p≤0.001
  - Some high school education (62.5%) were more likely to be interested in healthy eating; p≤0.001
  - Some college education (48.7%) and a high school education (47.7%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001
- Income, such that respondents with an annual household income of:
  - $75,000-$99,999 (61.7%), $10,000-$14,999 (60.9%), $50,000-$74,999 (59.3%) were more likely to be interested in exercise; p≤0.001
  - $10,000-$14,999 (58.0%), <$10,000 (56.8%), and $25,000-$34,999 (56.8%) were more likely to be interested in healthy eating; p≤0.001
  - $15,000-$24,999 (53.0%) were more likely to be interested in 'dealing with stress, anxiety and depression'; p≤0.001

2022 CHNA Key Informant Interview Script

INTRO

Hello (name of community partner), thank you for joining me for today's conversation!

Before we begin, I would like to introduce myself again and provide some background on what we are doing today. My name is (your name) and this (notetaker), and we are from Hospital for Special Surgery. HSS is a leader in musculoskeletal health and orthopedics. As part of our commitment to improving the health of the diverse communities we serve, we conduct a Community Health Needs Assessment every three years. This assessment helps guide the development of programs and services that meet the community's specific health needs.

Today's interview is part of our 2022 assessment. We have reached out to you, to learn more about the muscle, bone, and joint health of your community because you are a trusted and valued community partner. This information will complement the CHNA survey that is administered to community members. Today's session will last approximately 30 minutes. I will ask questions about your community's needs, as it relates to muscle, bone, and joint health. (Notetaker) will be taking notes on what you have shared.

QUESTIONS

1. **To start off, please describe the population you serve, including your community's age, race, ethnicity, gender, geography, income level etc.**
    a. **Probe:** What disparities is your organization focused on addressing?

2. **What are the most pressing muscle, bone, and joint health issues facing your community?**
    a. **Probe:** Are there specific groups affected by these issues? If so, which ones?

3. **Can you tell me about some specific barriers to improving the muscle, bone, and joint health of your community?**
    a. **Probe:** What factors impact your community's overall well-being and musculoskeletal health?
    b. **Probe:** In what ways have your community members experienced these barriers?
    c. **Probe:** What barriers are faced by underserved or vulnerable groups?

4. **What specific strategies (for example: access to healthcare, community programs, social support, language-specific resources) can we implement to support your community in improving their muscle, bone, and joint health?**
    a. **Probe:** Does everyone have equal access to these strategies? Can you please explain?
    b. **Probe:** Which strategies are the most challenging to implement? Why?
    c. **Probe:** What strategies can we use to target underserved or vulnerable groups?

5. **How can we provide more awareness in your community around preventing muscle, bone, and joint health conditions?**
    a. **Probe:** What tailored strategies can we use to raise awareness in underserved and vulnerable groups?

6. **What specific partnerships can HSS build to address the muscle, bone, and joint health needs of your community?**
    a. **Probe:** Are there specific groups or organizations that we should work with in your community? If yes, which ones? How?
    b. **Probe:** How can these partnerships most effectively address the community's health needs?

7. **Do you have anything else you would like to share?**

CLOSING

Thank you for taking the time to speaking with me! I appreciate your insights into your community's health. As mentioned earlier, the information you shared today will help us develop and improve our programs and services. We will also use this information to generate a report outlining the community's specific health needs. Once the report has been compiled, we will share it back to the community and to our community partners. We will be in touch over the next month regarding virtual forums, which are held to engage the public in the needs assessment process. During these forums, we will share the results of the assessment with your community, providing the opportunity to rank the health needs most important to them.

If you have any questions after today, please do not hesitate to contact me. Thank you again for your time.

Community Partners Key Informant Interviews Key Findings Report

Methodology

In assessing the needs of HSS' community, key informant interviews were virtually conducted in English with 22 community partners. These interviews were conducted over a 4-week time frame (January 18 – February 11, 2022) exploring several areas which include: (1) socio-demographic characteristics of the population served, (2) significant muscle, bone, and joint health issues, (3) barriers to improving muscle, bone, and joint health, (4) specific strategies for improving muscle, bone, and joint health, (4) ways to increase awareness around preventing muscle, bone, and joint health conditions, and (5) specific partnerships to address muscle, bone, and joint health needs. Community partners that interviewed are listed in the table below.

S/N	Community Partner	Representative(s)
1.	305 West End Assisted Living	Melissa Sheehan
2.	Americares Free Clinics	Analisa Martinez; Muguette Maignan
3.	Arthritis Foundation	Nancy Sorbella
4.	Carter Burden Network	Dozene Guishard
5.	Concerned Home Managers for the Elderly (COHME)	Laura Radensky
6.	Creaky Joints (Global Healthy Living Foundation)	Daniel Hernandez
7.	DOROT Inc	Jackie Pykon
8.	Good Neighbors of Park Slope	Andi Peretz
9.	Gray Panthers	Michelle Arnot
10.	Ivy Rehabilitation Network	Michael Mozia
11.	Lupus Foundation of America	Sue Gloor
12.	Lupus Foundation of America	Karen Ng
13.	Lupus Research Alliance	Diane Gross
14.	Mount Sinai Hospital	Leslie Kerr
15.	New York City Department of Health and Mental Hygiene	Ana Gallego
16.	New York Presbyterian-Columbia University Hospital	Lisa Imundo
17.	New York Presbyterian Hospital/Weill Cornell Medical Center	Ana Garcia
18.	Spondylitis Association of America	Elin Aslayan
19.	Visiting Nurse Service of New York	Teresa Lin
20.	Weill Cornell Clinical and Translational Science Center	Jeff Zhu
21.	Weill Cornell Clinical and Translational Science Center	Lula Mae Phillips
22.	Y – YW/YMHA	Ann Votaw

Data Analysis

An inductive approach was used to conduct thematic analysis. A team of four HSS staff, external to the interviews, reviewed transcripts and conducted independent coding to develop validity and reliability of the data, as well as ensure integrity, consistency, and agreement between reviewers. The group discussed differences in code interpretations and developed a set of unifying themes.

Results

This report provides a summary of the key informant discussions including key themes and select comments. In this report, key informants from community organizations are referred to as interviewees.

Socio-demographic characteristics of the community

Interviewees were asked to describe the socio-demographic characteristics of the communities they serve. Racially and ethnically diverse communities, older adults and females emerged as the top socio-demographic groups. For socioeconomic status, both extremes i.e., low-income/underserved as well as wealthy/affluent populations emerged as themes. In terms of geographic location, interviewees noted that they serve community members living in the five boroughs of New York City specifically in medically underserved areas, Westchester, NY, and Connecticut.

Significant muscle, bone, and joint health issues

- **Musculoskeletal and rheumatological conditions:** Conditions such as Arthritis, Osteoarthritis, Osteoporosis, Lupus, Rheumatoid Arthritis, Vasculitis, and Gout emerged as significant musculoskeletal health issues. Interviewees pointed out that many community members are experiencing spinal stenosis and Spondyloarthritis which mainly impacts the larger joints i.e., the spine, neck, and lower back. Other musculoskeletal health needs highlighted were shoulder, wrist, knee, hip, neck, hip, and hand issues. Interviewees also noted that sports injuries are prevalent among the younger population. Below are some specific quotes from interviewees:
    - “Regarding other barriers such as certain conditions affecting the community - Arthritis talks have been among the most popular”
    - “We see a tremendous amount of patients with Lupus and RA”
    - We see a lot of knee arthritis in our older population and our younger population mostly sports injuries but it's mostly knee things more than anything else.”
    - “About half of the people with a form of the disease called ankylosing spondylitis will have arthritis at some point, psoriasis is also one of the kinds of telltale signs it can occur in some people with broader arthritis”

- **Pain and pain management:** Interviewees agreed that the use of opioids to manage pain is one of the greatest health issues community members are facing. There was also emphasis that low to middle-income earners working blue-collar jobs experience increased neck and back pain. Furthermore, there was consensus among interviewees about community members working from home experiencing spinal pain. See below for specific quotes from interviewees:
    - “The biggest thing is the lower back, neck, knees…We're like a middle-class community so a lot of our jobs are more blue-collar jobs...they're more labor-intensive."
    - “I would say pain management. Many of our members often mention that they have back pain, lower back pain most of the time whether from the occupation that they used to have either sitting too long and a lot of the buildings in the Chinatown area are walkup buildings.”
    - “Pain management I think is an area of concern among the Chinese community and again it may be due to osteoporosis. That is one thing I hear a lot about from our population”
    - “And then I have other people who are also just in pain, saying, ‘this hurts, that hurts’ - again I'm not an expert.”

- **Falls and lack of balance**: Interviewees agreed that fall prevention should be a priority given the increased number of falls encountered among community members. Interviewees further emphasized the need to address this issue in older adults, and the importance of having access to ongoing physical therapy for this target audience. In addition, there was shared concern among interviewees about the lack of physical therapists for their constituents resulting in the inability to manage their condition and prevent falls. See below for specific quotes from interviewees:
    - “We would also place a strong emphasis on older adults because that's where falls start becoming more of an issue…There needs to be a lot of strength training and a lot of emphasis on nutrition, and balance to prevent the fall in the first place."
    - “There needs to be special training for peoples' bodies when they get older, which might be PT. I don't think there should be limits on it. It's something they always need. Whereas a young person might recover and heal, a lot of conditions of older people don't really heal and might be maintained, and when you take away the PT, they go backward.”
    - "I think there are problems with getting enough PT or ongoing PT. The limits on it, I think, are unreasonable."

- **Lack of healthy lifestyle:** There was consensus among interviewees that the pandemic prevented activities of daily living resulting in poor eating habits and physical inactivity. Interviewees further agreed that the pandemic also exacerbated mobility issues leading to the deterioration of muscle, bone, and joint health. Sedentary lifestyle among the younger population leading to increased screen time was also a concern among interviewees. See below for specific quotes from interviewees:
    - "We have an interest in supporting people in active healthy lifestyles generally"
    - “Urban kids are experiencing being home in front of screens all day and their schools no longer offer sports activities”
    - "We have a lot of mobility concerns with our residents. A lot of our residents are wheelchair-bound."
    - “We're also seeing back issues, which might be because of the pandemic and because people are less mobile, as they're not going out as much. There might be some deterioration there”

- **Lack of education and awareness:** There was consensus among interviewees that there is a lack of valuable content with fact-based information. Interviewees also shared their concern about misinformation and misconceptions regarding certain musculoskeletal conditions such as Lupus and Fibromyalgia as well as the role of rheumatologists. Interviewees further noted that there are significant health disparities among diverse communities due to the lack of educational resources in different languages. In addition, interviewees highlighted concerns regarding occupational risk exposure, especially in marginalized populations, and the lack of education and worksite wellness programs. Below are specific quotes from interviewees:
    - “Misinformation in general about COVID related to arthritis conditions. The vaccines. Mask wearing. Drugs and medicines available.”
    - “Less so on disease, but more issues like falls prevention, osteoporosis, osteopenia- the main issue is the communities have a lack of knowledge about these diseases. They may have bone issues, but they don't know what to call it”
    - “Because of the lack of education, there are misunderstandings and misconceptions about having Lupus, so this can also lead to, kind of, lack of family support, lack of understanding of what it means to properly take care of oneself.”
    - “The other thing is occupational risk exposure, so worksite wellness programs, policies are very important…the people who have higher risks are the people who are the most marginalized.”

Barriers to improving muscle, bone, and joint health

- **Access to care:** Interviewees agreed that the greatest barriers to accessing care among community members are lack of transportation and its cost, language barriers, and difficulty making appointments. Several issues around the cost of healthcare were identified as barriers, such as lack of health insurance, changes in jobs since the pandemic, the cost of copayments and medications, and poverty. Interviewees also pointed out that the increased use of technology has been a barrier to healthcare because most older adults don't have access to technology or encounter challenges using technology to participate in online programs or telehealth services. Interviewees also shared that mental health issues are more prevalent in the younger population, and there is a lack of access to mental health services within this target audience. Below are specific quotes from interviewees:
    - "A lot of people walk here and then use public transportation, so between lack of accessibility to having a vehicle, access to medication and access to care."
    - "NYC is a wonderful example of the [preeminent hospitals everywhere]. But accessing those facilities can be difficult depending on insurance status and transportation issues."
    - "For some people, job-related pain or conditions are normalized because they don't have access to a health care network that can tell them it's not normal and that they need to receive treatment."
    - "Access to technology is a barrier. [There is a] learning curve for seniors learning technology." When they do use it, they likely will not use it to look up programs on their own."
    - "A lot of mental health issues in young people – depression. It's very important to have access to mental health care as well. Patients who have arthritis or lupus can feel very hopeless with the pain and lack of quality of life."

- **Comorbidities:** Interviewees shared that the high prevalence of comorbidities such as COVID-19, diabetes, and obesity among community members which cause significant health issues (i.e., pain, fatigue, physical limitation) are barriers to improving musculoskeletal health. Interviewees further noted that these issues are more rampant in the minority population because of the lack of public insurance and insurance denials. Below are specific quotes from interviewees:
    - "We see a lot more obesity and other co-morbidities ... in our minority population. Sometimes people will not be candidates for the procedure they need, like knee surgery, because they are overweight. We have to try to get them to talk to a nutritionist so they can learn how they can lose weight. This is seen more with our minority community."
    - "Folks with lupus, one of the biggest issues that they have is fatigue. Extreme fatigue that they live with every day. The need and the recognition of the need to exercise are very difficult especially when regular AODL (activities of daily living) can be very difficult because of the fatigue with lupus."

- **Lack of education:** Interviewees revealed that there is a huge information gap among diverse and minority groups leading to misinformation. They also shared that most community members living in underserved communities do not understand the risk factors associated with musculoskeletal conditions, and don't know where to access valid information on how to manage these conditions. Interviewees further noted that delayed diagnosis and misdiagnosis for women and minority groups were concerns due to physicians not being knowledgeable about the appropriate treatment. For example, a patient experiencing pain from fibromyalgia is sent to see a chiropractor. Below are specific quotes from interviewees:
    - "I'm only going to guess, that people need more nutrition information. Nutrition contributes to all those things that keep us healthy that we already know about, but more information about how to address sleep, how to address nutrition, how to get exercise when things hurt, what's the right amount of rest and movement when things don't feel right with your body."
    - "People take a lot of different medications, and they don't know how to identify symptoms that are leading to the falls."
    - "Limited awareness about falls prevention strategies that are focused on balance, strength, and gait."

- "One of the biggest things across the board know no matter who you are is lack of awareness about these conditions."
- "Understanding their risk factor - some use a shopping cart for their walker instead of getting a properly fitted walker."

- **Perception of the healthcare system:** There was consensus among interviewees that community members from vulnerable populations face discrimination in their care due to preconceived notions and stereotypes (i.e., inability to pay for care, language barrier). Interviewees also shared that there is a lack of trust in the healthcare system, especially in diverse and underserved communities resulting in poor adherence to medical care. In addition, interviewees noted that community members especially older adults do not get the best healthcare experience due to insufficient time with their health provider. Below are specific quotes from interviewees:
  - "General lack of trust of the healthcare system within the Hispanic community"
  - "People's perception is, 'Oh I'm not going to get help because I know what they're going to tell me. They're going to tell me to get my knee replaced and I can't afford it or don't have people to take care of me after.'"
  - "You need more time with an older person, not because they're not smart, but sometimes the processing is a little slower or they're a little overwhelmed. Also, as people age, they have more complicated issues, and they have more than one thing going on. Doctors need to get the whole picture."
  - "This is an issue for many of the speakers- the healthcare for many of our attendees is subpar and the time with the provider is not enough. Two-three minutes with the provider is not enough time. This is a systemic issue with the health care system- unprofitable patients. There are not enough services for the underserved population."

Strategies to improve muscle, bone, and joint health

- **Educational programs:** Interviewees agreed on the importance of having more educational programs focused on prevention and ways to manage musculoskeletal conditions. There was a significant emphasis on having tailored educational content in diverse languages (i.e., Spanish, and Chinese) and using medical experts that understand the culture and needs of the target audience. Interviewees identified several educational topics that their community members are interested in which include pain management, patient-doctor communication, eating healthy and weight management, and ways to increase self-efficacy to manage their conditions. Interviewees had mixed opinions about the preferred format of educational programs. Some interviewees noted that there is high resistance to virtual programming and increased preference for in-person programs among the older population because of the challenges in using and accessing technology. On the other hand, some interviewees encouraged the use of virtual strategies (such as videos, and webinars via Zoom) because it has been effective in improving access to care, especially in older adults with limited mobility. Below are specific quotes from interviewees:
  - "We do have multimedia and most people can access videos and stuff like that, so that might be an avenue that would benefit them. More on-demand type stuff."
  - "The first and most important approach would be Hispanic first content. Not direct translation but actual content that was developed for the Hispanic community. Not avoiding the subtitles of English-speaking information but the actual creation of Spanish language content is very important."
  - "The sense of community is most important and providing a relatable person in the community to provide education to them that is not directly from the internet."
  - "Face to face is so difficult now, but building trust with patients is much easier face to face. Having conversations with community members directly is more effective."
  - "Provide support from a community organization, social network, provide education to people who are not comfortable with technology, telehealth visits for example and physician education in this area sometimes is needed too."

- **Equitable access to care:** Interviewees shared that it is important to focus on social determinants of health in addressing health disparities and fostering health equity. There was consensus among interviewees about the need for HSS to become an in-network provider for all Medicaid-managed plans and to establish referral networks with FQHCs so there is increased access to care for vulnerable populations. Interviewees also emphasized the importance of increasing access to technology so that marginalized groups can participate in virtual programming and telehealth services. Below are specific quotes from interviewees:
    - “Provide a clear policy of waiving fees or pay what you can for low-income, uninsurable populations.”
    - "Becoming an in-network provider for all Medicaid manage plans would be #1 for us followed by the Medicare advantage plans and the low-cost ACA plans and all the union plans. The main community benefit that the hospital can provide is to make itself fully accessible to the marginalized populations."
    - “HSS needs to be getting the information out periodically through collaborations, like churches. We have a health fair for the community coming up. You know take it out to the people!”
    - "Anything in person is particularly challenging to implement. We live in a very connected society but the ‘pockets of poverty in the city don't have internet/electronic access. We rely so much on electronic communication so helping folks with those kinds of resources is really important.”
    - “HSS is seen as a very expensive place". We should provide reassurance that we will accept their patients and treat them with respect.”

- **Community Outreach:** Interviewees agreed to the importance of HSS having increased visibility in the community by participating in health fairs, conducting outreach programs in schools to target the younger population, and conducting exercise programs in parks and community centers to promote physical activity. Below are specific quotes from interviewees:
    - “I think when you talk about what else can HSS do and how can it improve, perhaps bringing all the great programs that HSS has to the community level, such as the evidence-based workshops- all the things that HSS does so well, bring it to the community level to the CBOs.”
    - “Greater visibility in senior centers. And greater visibility in communities. Wherever you have seniors exercising or getting together. For example, with the Asian population, going to Tai Chi groups, throughout the city, not just in China Town. Wherever people are gathering together, be visible”
    - "I think that one thing that would help is visibility and acceptability. We have a health fair for the community coming up - you know take it out to the people! Otherwise, it becomes a well-kept secret for those who know. And those who don't should know."

Ways to increase awareness around preventing muscle, bone, and joint conditions

- **Cultural competency of medical experts:** Interviewees agreed on the importance of having more educational programs within the community to create awareness by using medical experts that understand the culture and needs of the community to provide tailored educational content. In addition, interviewees recommended reducing educational materials to a lower literacy level to address the literacy gaps that exist in marginalized groups. Below are specific quotes from interviewees:
    - “Can tailor to the populations, like a younger senior who might not have experienced musculoskeletal issues yet but may experience it versus an older senior who has experienced it.
    - "It's about language, having the right speakers, and to have that outreach and show our chops and our competency with that group of people."
    - "Really focusing on the lack of information and also the stigma around pharmacological treatment within the Spanish community”
    - “We do have some patients with literacy and language barrier issues”

- **Marketing:** Interviewees emphasized the importance of utilizing social media such as Instagram, Twitter, and TikTok to create increased awareness about musculoskeletal issues. Interviewees also highlighted the importance of creating flyers, culturally tailored commercials, newsletters, and brochures. Below are specific quotes from interviewees:
    - "As you advertise in marginalized neighborhoods, invest in the advertisement to be culturally humble and welcoming for a population that might right now not consider HSS to be welcoming for low-income folks."
    - “Whether it's creating online content, creating radio content, and just getting the word out. Any way that HSS can do that would be great, just spread the word as there is a crazy need for education.”
    - "I would love to collaborate on our newsletters and social media. That would be something we could look into that we haven't done before."

- **Access to care:** Given the challenges for the minority population in accessing resources, interviewees agreed to the importance of having healthcare resources readily available as well as free access to medical experts without infringing on community members’ income. For example, providing free health screenings and gait assessments in the community. Interviewees also indicated the need to have more relatable role models serving as health advocates. Below are specific quotes from interviewees:
    - “Doctors advising can be very helpful. We have a hard time getting doctors on board or even access to the doctor to push things through (like getting measurements to a transport chair).”
    - “I think the hardest thing is just accessing the resources and struggling to communicate and feeling like you can navigate. We try to emphasize to our patients that they have a voice and it is important if they are having a hard time feeling comfortable expressing themselves”
    - “We need more relatable role models - not famous professional athletes. That's too far away. More regular community members advocating for particular illnesses and getting better by doing the right things.”

Specific partnerships to address muscle, bone, and joint health needs

- **Medical experts:** There was consensus among interviewees about the need for increased community outreach and partnerships with medical experts to provide education. To streamline resources and not duplicate efforts, interviewees highlighted the types of partnerships that will be effective in reaching the diverse and underserved communities. These include partnerships with social workers, peer educators, medical and nursing students, physical therapists, nutritionists, and rheumatologists in developing educational content, serving as speakers in community centers, and providing screenings. Below are specific quotes from interviewees:
    - “Again it would be nice for you to come on and talk to our social workers. We have a meeting every week - could give a little spiel about HSS”
    - "I think some of it is partnering with the rheumatologist in the community to provide resources.
    - “Connections to social work team would be terrific.”
    - We can support people with MSK conditions by providing a space to share their feelings in a smaller community and share their outlook on life/on their condition. Peer educators can work very well with the right person.”

- **Community-based organizations:** This was also a significant theme that emerged as an important partnership HSS can build within the community to address musculoskeletal health issues. Interviewees emphasized the need to establish long-term partnerships with faith-based organizations, elementary and high schools, food pantries, adult day centers, and senior centers. Interviewees further indicated that these specific partnerships would help create clinical-community linkages resulting in increased accessibility to healthcare services. Below are specific quotes from interviewees:
    - “Establish long-term partnerships. It would be important to talk with some of the clergy and churches to build partnerships. Seventh-Day Adventists are very health conscious.”
    - “Partner with other national and local groups, including smaller groups, and chapters, because everyone's trying to raise awareness.”
    - “We can support people with MSK conditions by providing a space to share their feelings in a smaller community and share their outlook on life/on their condition. Peer educators can work very well with the right person."
    - “Something where we're able to access care through or refer into HSS directly so we were able to have a conduit so we would know how to" refer our residents in and refer them to programs would be helpful.”

Additional Feedback

- Additional feedback highlighted by interviewees include:
    - Exploring potential partnerships to fix broken sidewalks and roads to prevent falls and musculoskeletal injuries
    - Partnering with occupational and physical therapists to provide services within community centers
    - Improving internal awareness within HSS on the work the Social Work team is doing around Lupus
    - Educating elected officials about musculoskeletal conditions
    - Exploring partnership opportunities with community-based organizations serving underserved and diverse populations for grant funding

Internal & External Feedback Summary

CHNA Survey Domain	CHNA Survey Question	Validated Tool	Internal Feedback (HSS stakeholders)	External Feedback (Community partners)
Health Status and Quality of Life	1. Now thinking about your **physical health**, which includes physical illness and injury, for how many days during the **past 30 days** was your physical health not good?	SF-36	**Linda Roberts**: Q1 & Q2 reads clearer to me without the "now", just saying instead "thinking about your current health… **Denise Miles:** Replace "Now thinking" with "Think"	
Health Status and Quality of Life	2. Now thinking about your **mental health**, which includes stress, depression, and problems with emotions, for how many days during the **past 30 days** was your mental health not good?	HRQOL	**Vinicius Antao:** Please make these answer options look the same as above, in a vertical list.	**Michael Mozia**: There should be more questions on mental health. There is currently 1 question on mental health. I think there should be a question on what people do to help their stress. Also, if there is any medicinal treatments people take to help their mental health. **Divya Prasad:** just a comment re: presentation, would be good if the order of responses was the same in questions 1 and 2 (if a spacing issue, could revise the layout in question 1 so it matches 2)
Health Status and Quality of Life	3. Have you ever been told by a doctor or other health professional that you have …?	HRQOL	**Vinicius Antao:** Can the shaded areas extend to each entire row?	
Health Status and Quality of Life	4. How confident are you that you can manage symptoms of your bone, muscle and joint condition so that you can do the things that you want to do?	Self-Efficacy for Managing Chronic Disease 6-item Scale		
Health Status and Quality of Life	5. In the past year, have you fallen down?	Health Status portion of the Medicare Beneficiary Survey (MCBS)		

CHNA Survey Domain	CHNA Survey Question	Validated Tool	Internal Feedback (HSS stakeholders)	External Feedback (Community partners)
Health Status and Quality of Life	6. Here is a list of some things that may affect people's health and well-being. What are the top 5 social/environmental problems that affect your health? **Choose only the top 5 options.**		**Karen Juliano:** Social isolation/loneliness (do not capitalize the l, that keeps it consistent with homelessness which is 2 lines down **Vinicius Antao:** I suggest you give a negative connotation to all answer options.	**Nancy Sorbella**: There might be a fear of contracting COVID-19 or a fear of vaccination that hinders access. **Divya Prasad:** may want to add the word "any" before "foods" to provide more of a contrast with the below option of "healthy" foods **Katherine Van Oss:** Or could considering broadening to say "Discrimination based on any other aspect of my identity such as gender, age, etc" **Kenny Kwong**: I feel Q6 links more to Section C - Use and Access to Care, perhaps Q6 under section C. For Q6 if they are meant to be a list the problems, then reframe "access to my doctor's office", "access to insurance" into negative statements like "limited/no access to.." **Lula Mae Phillips:** I would suggest question #6 be re written. The distractor on racial/ethnic discrimination does not belong in this grouping.
Health Behaviors & Lifestyle	7. How often do you do **vigorous leisure-time** physical activities for at least 25 minutes that cause **heavy** sweating or **large** increases in breathing or heart rate (such as running)?	Adult Health Status and Limitations portion of 2015 NHIS	**Denise Miles:** Confirm "vigorous" is 8th grade level, may need to use different word	**John Jasek:** Is this the standard timeframe (as opposed to 15 or 30)? Seems odd. **Daniel Hernandez:** Question 7-8 – 'vigorous leisure-time physical activities' could be changed to 'exercise'
Health Behaviors & Lifestyle	8. How often do you do **light or moderate leisure-time** physical activities for at least 30 minutes that cause **only light** sweating or a **slight**	Adult Health Status and Limitations portion of 2015 NHIS		**Daniel Hernandez:** Question 7-8 – 'vigorous leisure-time physical activities' could be changed to 'exercise'

CHNA Survey Domain	CHNA Survey Question	Validated Tool	Internal Feedback (HSS stakeholders)	External Feedback (Community partners)
	to moderate increase in breathing or heart rate (such as walking)?			
Health Behaviors & Lifestyle	9. Over the past three months, did you use any of the following to manage your pain?	Chronic Pain portion of the 2020 NHIS	**Patricia Quinlan:** Do you want to split pain reliever from opioid? **Denise Miles:** Do we need to include (chee-GONG) as it seems repetitive. Confirm "opioid" is best word to use here, may want to say simply "prescription pain medications" as many people don't know what qualifies as an opioid. **Vinicius Antao:** You're assuming that the person has some pain… Should there be a Y/N pain question before?	
Health Behaviors & Lifestyle	10. How strongly do you disagree or agree with the following statements regarding healthy eating?			**Nancy Sorbella**: Perhaps the respondent is unaware of the value of an appropriate healthy diet for their condition. ie; anti-inflammatory diet for arthritis and related conditions. **Andi Peretz:** doesn't really need a 5 pt scale. agree/disagree/dk should be enough. **Michael Mozia**: We should have questions lifestyle choices people have for foods (carnivore, vegan, vegetarian, etc). Also, asking how much red meat they consume weekly and have they attempted to change their diets. **Kenny Kwong**: Q10 we seem to measure beliefs, perception, barriers, access, etc. not sure if we cover all the domains- answer h somewhat vague - family friends do not eat that way".

CHNA Survey Domain	CHNA Survey Question	Validated Tool	Internal Feedback (HSS stakeholders)	External Feedback (Community partners)
				Divya Prasad: May want to add an item on perception of their current diet, e.g., "I typically eat healthy foods" - item b gets at it, but not entirely. if a spacing issue, could replace item a, since item g is a similar self-efficacy statement. **Karen Ng:** Question #10 on "healthy foods" may depend on the cultural context. Community members may believe that certain foods are healthy because in their culture it is but according to Western standards, it may be too high in sodium and/or fat. Assumes a certain knowledge of nutrition.
Health Behaviors & Lifestyle	11. During the **past 7 days**, how would you rate your sleep quality overall?	Sleep Quality Scale (SQS)	**Vincius Antao:** I wonder if this question belongs to section A	**Lula Mae Phillips:** Question # 11 is complex, and it should be simplified.
Use of and Access to Care	12. What is the primary source of your health care coverage?	Healthcare Access portion of 2014 BRFSS		
Use of and Access to Care	13. Have you received a vaccine for the following **within the past 12 months**?		**Denise Miles:** May want to add shingles and pneumonia as those are popular and very common vaccines for 60+	**Michael Mozia**: More questions on vaccinations should be added, such as why don't you receive vaccinations or what makes you choose to get one? **Katherine Van Oss:** May want to consider breaking this up into options for being fully vaccinated vs partially
Use of and Access to Care	14. What are the top three reasons you did not get healthcare in the past 12 months. **Choose only the top 3 options.**		**Reesa Kauffman:** should one of the listed answer choices be: Could not get time off from work **Vincius Antao:** Needs to be conditional to answering no health insurance. Also, suggest moving this one to #13.	**Kenny Kwong:** Q14, does not apply should not be one of the reasons for them to check. That can serve as a contingency question, first, Were you able to get healthcare in the past 12 months, yes or no, if no, then Q14

CHNA Survey Domain	CHNA Survey Question	Validated Tool	Internal Feedback (HSS stakeholders)	External Feedback (Community partners)
				John Jasek: Helpful to include delayed care in this? eg, "If you delayed or did not get healthcare in the past 12 months, what were the main reasons?"
Use of and Access to Care	15. Sometimes people don't follow their doctor or other healthcare provider's medical advice. Please the reasons that may apply to you. Check all that apply.		**Reesa Kauffman:** the word check is missing **Vincius Antao:** I would keep only one box, not Y/N	**Kenny Kwong:** Same to Q15 [as Q14] do not need to include k because if participants check all the above items as no, that would imply k. You can consider for Q15, you asked "Sometimes people don't follow....Please check the reasons that may apply to you. If you always follow the medical advice of your doctor or other healthcare providers, you can skip this question and move to Q16 **Katherine Van Oss:** (re: option f) Are you trying to get at pt perception of severity? If so, suggest rewording to "I did not feel my condition was severe enough to require treatment" (But in that case, this would kind of fit under "Did not agree with my Dr." option below.) If you're speaking generally, I'm not sure this option belongs here because the question is about following medical advice, so if the condition isn't severe enough to warrant treatment, there's no advice to follow/not follow. **Karen Ng:** Question #15 should clarify whether it is "within X amount of time" (as per other questions) or have they ever **Diane Gross:** Typo in Q 15 - Please the reasons that may apply to you - missing a word after Please, should read Please select (or choose or check)
Use of and Access to Care	16. If you were interested in using telehealth, what are some of the barriers you might	AARP Telehealth Survey	**Denise Miles:** Add "I don't have a smartphone." Cut "is the use of electronic information and telecommunication	**Katherine Van Oss:** Select all that apply? Choose 1? Should provide further instructions.

CHNA Survey Domain	CHNA Survey Question	Validated Tool	Internal Feedback (HSS stakeholders)	External Feedback (Community partners)
	experience in trying to use it?		technologies" as that is not 8th grade level nor common language. Could replace with "is a computer or phone visit with your doctor". **Karen Juliano:** Perhaps adding language as a choice. I know it is in Q14, but I thought it could be a barrier to telehealth **Vinicius Antao:** Would it be useful to provide examples? (To the note)	**Daniel Hernandez:** Question 16 – Add a 'none of the above' and a 'Other reason' option **Diane Gross:** I'm curious about the telehealth section, Q 16, and why the survey doesn't ask if people have actually used telehealth and what their experience was rather than a hypothetical question. Also, interesting that although this is a validated question, it does not ask about a smart phone and focuses on whether or not someone has a computer. There are a lot of people who have a smart phone or a tablet but not a computer so they do have a device they could use for a telehealth visit.
Use of and Access to Care	17. Please think about all the times in your life when you have gotten health care. When getting health care, how often have any of the following things happened to you because of your race, ethnicity, or color?	Discrimination in Medical Settings (DMS) Scale	**Karen Juliano:** are looking to only hear about experiences with doctors and nurses? If not consider changing to healthcare provider	**John Jasek:** would align tense in the q and responses **Lula Mae Phillips:** Question number 17 needs further clarification. It looks easy, but it is not understandable.
Use of and Access to Care	18. What is your preferred language for **discussing** medical issues or healthcare instructions?		**Denise Miles:** Add Arabic and Hebrew both common in Manhattan	
Use of and Access to Care	19. What is your preferred language for **reading** about medical issues or healthcare instruction?			**Divya Prasad:** Out of curiosity, will this survey be translated into the below languages? If not, might have high non-response from non-English readers.
Health Education	20. Which of the following health education formats/activities would you be		**Denise Miles:** Give examples for all "i.e. …"	**Karen Ng:** Question #20 does not include disease-specific and/or peer support groups?

CHNA Survey Domain	CHNA Survey Question	Validated Tool	Internal Feedback (HSS stakeholders)	External Feedback (Community partners)
	interested in? **Check all that apply.**			
Health Education	21. What five health topics would you be interested in? **Choose only 5 options.**		**Laura Robbins**: Would add "to learn more about" **Denise Miles:** Why limit to 5? This info could be gold!	**Divya Prasad:** Found myself asking "about what?" with regard to the above question - might want to consider swapping so topics comes first. **Katherine Van Oss:** Suggest including a bit more detail here, like anticipated cost, location, and timing. Someone might be interested if these are free and in the evening, but not interested if they're during day and/or there's a fee or co-pay. If you haven't determined these details yet, could say "which of these would you be interested in if the cost, location, and timing were convenient for you" And I know you're trying to pare down survey length, but might want to ask a couple follow up Qs regarding preferences for location, time, and cost. Re: workshop option, list examples ad you did with exercise classes. Re: onsite lectures, list examples of topics.
About You	22. What is your gender identity?			**Katherine Van Oss:** For all these questions, need to give option of "prefer not to say"
About You	23. Do you think of yourself as:...	2020 NHIS		
About You	24. What is your age?	2014 BRFSS		
About You	25. Do you consider yourself Hispanic / Latino?	HRET Toolkit		
About You	26. Which one of these groups would you say best represents your race?	2014 BRFSS		
About You	27. Please tell us about your ethnicity; you can list as many as you prefer (for example: Chinese, Nigerian, Italian,			

CHNA Survey Domain	CHNA Survey Question	Validated Tool	Internal Feedback (HSS stakeholders)	External Feedback (Community partners)
	Puerto Rican, Russian, etc.)			
About You	28. What is the highest grade or year of school you completed?	2014 BRFSS		**Kenny Kwong:** if we asked the highest grade or year of school completed, I rarely give them a range in the response categories, I would use, grade school, junior high school, some high school, high school graduate, some college or technical school, college graduate, post-graduate level or higher
About You	29. What is your total household income?		**Vinicius Antao:** Suggest using validated ranges.	**Kenny Kwong: G**ive the income range rather than having the participant to write their total household income.
About You	30. Including yourself, how many people live in your household?	Health Information National Trends Survey (HINTS)		
About You	31. What is the zip code where you currently live?			
About You	32. Please use the space below to share with us any other muscle, bone, and joint health needs that you would like Hospital for Special Surgery to know about:			

Additional Comments	Internal Feedback (HSS stakeholders)	External Feedback (Community partners)
General/layout	**Linda Roberts**: Some of the questions do not have a line/space between the question and the choices. Very good survey! **Patricia Quinlan**: I find we always lean toward public education. I am wondering if we could create other types of programs. Could we throw out a question that is not directed to see what we get? For example, what kinds of services would you like to have with some sort of understanding that suggestions may be cost prohibitive – but maybe not // spell out HSS the first time it appears (instruction box) **Laura Robbins**: Both (survey/script) look great. Very comprehensive and length is much better **Karen Juliano:** It is very comprehensive. At the very end, use the space below…it says orthopedic or rheumatology related. In other places it uses muscle, bone, and joint health. Consider changing for consistency. **Reesa Kauffman:** No – layout seemed logical and well organized. **Marita Baragiano:** The first survey is very good, easy to read and follow.	**Nancy Sorbella**: It is quite robust/ it is quite comprehensive. **Kenny Kwong:** I like the fact that the proposed survey covered many important and emerging topics (like telehealth, barriers due to race, ethnicity, color) even though you streamlined it into 31-item, but certainly certain items contain multiple sub-items, not to touch those from validated assessments (essential to scoring and interpretation). Heading A, not sure about Quality of Life, it's about health status and we do not use standardized measure on QOL. **Michael Mozia**: The preferred language should be put first on the form. I like the form. I think it hits multiple categories that are important for health. **Fernando Tirado:** will this survey be available in other languages such as Spanish and French? **Karen Gottlieb:** My general response is it is too long and our patient population (non-English speaking/low literacy) would not do well with it. It is not always the words used but how the question is asked that confuses them. I would look at the community health improvement plan done by the Stamford Hospital and Health department – it is updated as yours is, every three years and where you can use their demographic data do that and concentrate on what is unique to HSS and what you can offer the community. **Daniel Hernandez:** Might be beneficial to offer the survey in other languages as well **Jackie Pykon:** Is the survey offered in large print for those who are visually impaired? **Ann Votaw:** I think you covered all the major bases for HSS health. **Betty McOsker:** Check wording in question 15. It is a good survey. May be long for some but questions all valid. **Anne McDonnell:** I reviewed this survey and think it is the appropriate length, questions are all relevant, well-worded and not repetitive.
Health literacy suggestions	**Linda Russell:** How often do you have someone like a family member, friend, hospital or clinic worker or caregiver help you read health plan materials, such as written information about your health or care you are offered?	**Michael Mozia:** I suggest developing picture posters that can help to explain different items about health to people. They can be hung in the community. Instagram videos (60 sec videos) would be helpful or even setting up games with prizes in regards to health

Additional Comments	Internal Feedback (HSS stakeholders)	External Feedback (Community partners)
	(Always, Often, Sometimes, Occasionally, Never) **Vinicius Antao:** Suggest adding health literacy questions. - Single Item Literacy Screener (Morris et al. 2006)	**Karen Ng:** #6 unfamiliarity with term "social/environmental" problems. How about just "top 5 things in your environment that affect your health"? **Fernando Tirado:** it seems like some of the terms might not be understood by the general public.
Length	**Marita Baragiano:** The first survey is very good, easy to read and follow. The second is so very long however, I know in the past they have always been that way.	**Jane Qiu**: Good that you have cut off the tedious survey by half! If only you can further refine it to 20? For seniors with language barriers, please provide non-English versions. **Leslie Kerr:** Survey still seems too long. **Andi Peretz:** Survey is too long. What needs to be cut depends on what you are doing with this information. Demos need 'refused' option. maybe do a short version and a 'click here' if you can fill out the long version. **Fernando Tirado:** I feel that there are many parts to it and that you may get a low response rate due to the time it might take to complete it.
Anything that can be cut?	**Vinicius Antao:** Vaccination	**Karen Ng:** Not sure what relevance #13 has **Betty McOsker:** They are all valid questions
Anything left out?	**Karen Juliano:** Although we are always looking to streamline, I felt all the questions were valuable.	**Leslie Kerr**: Questions re: mobility – cane, walker, HHA **Katherine Van Oss:** Maybe something about barriers to/opinions about PA, similar to question 10. However, see below… [concern about how actionable that might be] **Karen Ng:** 4/8 questions in Section C (Use & Access to Care) touch upon language access & barriers. I wonder if there is a way to determine whether the patient requires or uses language services (either family member or staff assistance). **Jackie Pykon:** Would it make sense to ask about any of the following: 1. Recent hospitalizations when asking about falls 2. Self-medication when asking about pain management 3. Do not know how to prepare healthy foods?/ when asking about healthy eating 4. Did not have anyone to help me get to the appointment or help me during the appointment. (visual, hearing, mobility impaired) /when asking about healthcare in the last 12 months **Betty McOsker:** No, I can't think of anything left out

Additional Comments	Internal Feedback (HSS stakeholders)	External Feedback (Community partners)
Anything to cut/condense?		**Leslie Kerr:** Vigorous + light PA **Michael Mozia**: No, all seem necessary **Katherine Van Oss:** It's unclear to me how many of these questions will be actionable by HSS (for example, questions 10 & 11 about healthy eating and sleep). Unless you have a clear plan for what action you intend to take based on the results (as opposed to just asking out of interest/curiosity), could consider cutting the questions. I do see great utility in asking questions 14-21 bc it is obvious that the data can be used to improve pt care. **Karen Ng:** #17 a and b seem too similar. Perhaps there is an additional option about timing (feeling rushed)? **Betty McOsker:** It is good to sometimes ask things in a little different wording to see if answers are the same.

Key Informant Interview Script Feedback Summary

Is there anything obvious that was left out?
None

Are there any questions you feel can be cut from the script?
None

Do you have any overall feedback?

- **Karen Juliano:** 3a – change factors to barriers
- **Reesa Kauffman:** The script seems very comprehensive, thoughtful, and respectful in seeking guidance/expertise/insights from community partners.
- **Vinicius Antao:** I would reduce the closing statement. The word “community” appears 9 times.

Community Pilot Feedback Summary

Overall Statistics

Timeframe: October 22-29, 2021

Language	Sample Size by Source		Total
	HSS Education Institute	Alchemer Panel Service	
English	17	37	54
Spanish	1	14	15
Chinese	0	1	1
Russian	0	0	0
Total	**18**	**52**	**70**

Pilot Audiences:

Language	Audience
English	• HSS Education Institute • Alchemer Panel Service
Spanish	• Alchemer Panel Service
Chinese	
Russian	

General Feedback:

No open-ended feedback was received from the Alchemer Panel Service audience.

Language	Time to Complete Survey (Minutes)		
	Minimum	Maximum	Average
English	1	66*	11.88
Spanish	5	25	12.60
Chinese	15	15	15
Russian	-	-	-
Average	7	35.33	13.16

*Response is an outlier. See table below for survey times when this value is excluded.

Language	Time to Complete Survey (Minutes)		
	Minimum	Maximum	Average
English	1	30	11.03
Spanish	5	25	12.60
Chinese	15	15	15
Russian	-	-	-
Average	7	23.33	12.88

CHNA Survey Domain	CHNA Survey Question	Validated Tool	HSS Education Institute
Health Status and Quality of Life	1. Now thinking about your **physical health**, which includes physical illness and injury, for how many days during the **past 30 days** was your physical health <u>not good?</u>	SF-36	▪ Survey starts on a negative tone ▪ Break up "1-7 days" response option
Health Status and Quality of Life	2. Thinking about your **mental health**, which includes stress, depression, and problems with emotions, for how many days during the **past 30 days** was your mental health <u>not good</u>?	HRQOL	Break up "1-7 days" response option
Health Status and Quality of Life	3. Have you ever been told by a doctor or other health professional that you have …?	HRQOL	
Health Status and Quality of Life	4. How confident are you that you can manage symptoms of your bone, muscle and joint condition so that you can do the things that you want to do?	Self-Efficacy for Managing Chronic Disease 6-item Scale	Include "None" option
Health Status and Quality of Life	5. In the past year, have you fallen down?	Health Status portion of the Medicare Beneficiary Survey (MCBS)	
Health Status and Quality of Life	6. During the **past 7 days**, how would you rate your sleep quality overall?	Sleep Quality Scale (SQS)	Do not need "Please mark only one box" in instructions
Health Behaviors & Lifestyle	7. How many times a week do you usually do at least 20 minutes or more of **vigorous-intensity physical activity** that makes you sweat or puff and pant? (e.g., heavy lifting, digging, jogging, aerobics, or fast bicycling).	2-Question Physical Activity Assessment (2Q)	
Health Behaviors & Lifestyle	8. How many times a week do you usually do 30 minutes or more of moderate-intensity physical activity or walking	2-Question Physical Activity	

CHNA Survey Domain	CHNA Survey Question	Validated Tool	HSS Education Institute
	that increases your heart rate or makes you breathe harder than normal? (e.g., carrying light loads, bicycling at a regular pace, or doubles tennis).	Assessment (2Q)	
Health Behaviors & Lifestyle	9. Over the past three months, did you use any of the following to manage your pain?	Chronic Pain portion of the 2020 NHIS	▪ Question seems random ▪ Why is “N/A” needed ▪ If you did not have pain mark n/a" or put "does not apply" at top then disable the other answers
Health Behaviors & Lifestyle	10. How strongly do you disagree or agree with the following statements regarding healthy eating?		**Option E:** Missing the word “near” **Options D, E, G, H:** Frame options positively. Confusing to untangle the double negatives
Use of and Access to Care	11. What is the primary source of your health care coverage?	Healthcare Access portion of 2014 BRFSS	Change “health insurance coverage” to “insurance”
Use of and Access to Care	12. Here is a list of some things that may affect people’s health and well-being. What are the top 5 problems that affect your health?		
Use of and Access to Care	13. What are the top three reasons you did not get healthcare in the past 12 months?		Move telehealth note before Q15 ▪ Use another word than fear - concerns or mistrust are less charged. Many people don't want to think about themselves as fearful
Use of and Access to Care	14. Sometimes people don’t follow their doctor or other healthcare provider’s medical advice. Please the reasons that may apply to you. **Check all that apply.**		▪ It should say "please select the reasons that may apply to you" ▪ Change “Yes” and “No” to “Applies to me” and “Doesn’t apply to me” ▪ Not a check all that apply question (re: directions) ▪ "Does not apply" doesn't disable the other answers
Use of and Access to Care	15. What are some of the barriers you might experience in trying to use telehealth?	Adapted from AARP Telehealth Survey	What are some of the barriers you might experience in trying to use telehealth? – "I don't have any barriers" doesn't disable other answers
Use of and Access to Care	16. Please think about all the times in your life when you have gotten health care.	Discrimination in Medical	Difficult to differentiate between “Most of the time” and “Almost all of the time”

CHNA Survey Domain	CHNA Survey Question	Validated Tool	HSS Education Institute
	When getting health care, how often have any of the following things happened to you because of your race, ethnicity, or color?	Settings (DMS) Scale	
Use of and Access to Care	17. What is your preferred language for **discussing** medical issues or healthcare instructions?		
Use of and Access to Care	18. What is your preferred language for **reading** about medical issues or healthcare instruction?		
Use of and Access to Care	19. How often do you need to have someone help you when you read instructions, pamphlets, or other written material from your doctor or pharmacy?	Single Item Literacy Screener (SILS)	
Health Education	20. What are the top three reasons you did not participate in health education programs in the past 12 months? **Choose only your top 3 options.**		Add response option “Did not know about the program”
Health Education	21. For health education programs, what time(s) do you prefer? **Check all that apply.**		Rephrase “For health education programs” to “To attend health education programs”
Health Education	22. Which of the following health education formats/activities would you be interested in? **Check all that apply.**		
Health Education	23. What five health topics would you be interested in? **Choose only 5 options.**		
About You	24. What is your gender identity?		
About You	25. Do you think of yourself as:	2020 NHIS	
About You	26. What is your age?	2014 BRFSS	
About You	27. Do you consider yourself Hispanic / Latino?	HRET Toolkit	
About You	28. Which one of these groups would you say best represents your race?	2014 BRFSS	

CHNA Survey Domain	CHNA Survey Question	Validated Tool	HSS Education Institute
About You	29. Please tell us about your ethnicity; you can list as many as you prefer (for example: Chinese, Nigerian, Italian, Puerto Rican, Russian, etc.)		
About You	30. What is the highest grade or year of school you completed?	2014 BRFSS	
About You	31. What is your total household income?		▪ Cannot input comma as thousands separator ▪ Cannot input dollar sign ▪ Confusing to have two questions on income ▪ Include "prefer not to answer" option ▪ Remove question
About You	32. What is your annual household income from all sources?		
About You	33. Including yourself, how many people live in your household?	Health Information National Trends Survey (HINTS)	
	34. What is the zip code where you currently live?		Remove question
About You	35. Please use the space below to share with us any other muscle, bone, and joint health needs that you would like Hospital for Special Surgery to know about:		

Additional Comments	HSS Education Institute
General/layout	▪ Survey is simple and direct ▪ Add progress bar so respondents know how long the survey is ▪ Split "Use of and Access to Care" section into two pages due to length ▪ Add definition of telehealth as a pop-up wherever it is mentioned ▪ For check-all-that-apply questions, disable other options if you select "Does not apply" ▪ Error messages on Spanish survey appear in English ▪ **Section D**: Rephrase "help the Hospital" to "help us to" ▪ Add question numbers
Length	▪ Simple and direct ▪ Felt "long and intense to read/think/answer accurately and to properly comply with the various q instructions"

Community Forum Report

Goal

To share the Community Health Needs Assessment (CHNA) results and provide the opportunity for community members to prioritize their health needs.

Method

Seven community forums were hosted on Zoom with the following groups below:

Table 1: Community forum details

Date	Audience	Number of Attendees
June 02, 2022	Community members	4
June 06, 2022	Community members	1
June 14, 2022	Community members	29
June 16, 2022	Community members	10
June 16, 2022	Charla de Lupus - Teen, Young Adult and Parent Support Group	29
June 20, 2022	Community members	18
June 22, 2022	Community members	32

A total of 123 community members participated in the community forums. At each community forum, participants were asked to rank seven health indicators, from a list of 20, identified in the CHNA according to order of personal importance (where 1 ranks the highest). Ranking results were calculated using a simple point system in which each ranking is assigned a point value from 1-7, with the indicator ranked 1 receiving the 7 points and the indicator ranked 7 receiving 1 point. The indicators that received the most collective points were identified as top priorities for participants at the respective event. Rankings were administered online via Slido and Alchemer.

Results

Community members were asked to rank the health needs most important to them and give their perspective on community health issues in an open discussion after the presentation CHNA findings. Top seven health needs varied across locations as seen in **Table 2** below.

Table 2: Health needs ranking

Rank	Overall (n=83)	June 2, 2022 (n=4)	June 6, 2022 (n=1)	June 14, 2022 (n=15)	June 16, 2022 (n=7)	Charla de Lupus (n=18)	June 20, 2022 (n=13)	June 22, 2022 (n=25)
1	Osteoarthritis	Osteoarthritis	Stress	Osteoarthritis	Osteoarthritis	Lupus	Osteoarthritis	Osteoarthritis
2	Stress	Fatigue	Lack of confidence in managing chronic condition	Stiffness	Osteoporosis	Stress	Stiffness	Stiffness
3	Stiffness	Fibromyalgia	Mental health	Injury prevention	Some other form of arthritis	Fatigue	Chronic pain	Osteoporosis
4	Fatigue	Chronic pain	Chronic pain	Chronic pain	Access to healthcare	Mental health	Lack of exercise	Stress
5	Chronic pain	Injury prevention	Use of complementary alternatives	Falls	Injury prevention	Chronic pain	Fatigue	Fatigue
6	Lupus	Stiffness	Fatigue	Lack of exercise	Stiffness	Stiffness	Injury prevention	Use of complementary alternatives
7	Injury prevention	Lupus	Social isolation	Fatigue	Use of complementary alternatives	Poor diet	Mental health	Falls

Health Concerns

HSS engaged community members to discuss health issues and concerns in their respective communities. One consistent theme across community forums was dissatisfaction with access to healthcare, due to long wait times and insurance limitations, and with provider interactions.

- **June 2, 3-4pm:** Community members reported that they enjoyed the accessibility of information through technology and the convenience of remote programs. They also noted challenges in accessing healthcare due to cost, difficulties in obtaining appointments when needed, extremely long wait times during the pandemic, and concerns that physicians are opting out of Medicare. They also expressed a need for more information on fibromyalgia.
- **June 6, 11:30am-12:30pm:** The community member was not surprised by telehealth concerns, particularly confidentiality and medical errors. They reported that the availability of conflicting information nowadays can affect people's confidence in healthcare advice. They expressed surprise at the preference for webinars but discussed how this format can be more accessible, and they highlighted that the prevalence of discrimination is concerning and should be addressed.
- **June 14, 3-4pm:** Community members highlighted a need for exercise classes that are sensitive to the needs of participants in terms of cost, convenience, physical limitations, and access to space and equipment. They expressed the importance of healthcare providers responding with empathy and the challenges of being limited by insurance.
- **June 16, 6-7pm (Charla de Lupus):** Community members reported feeling that their doctors were not listening to them, were scolding them, were biased, and were not addressing the whole picture. They were surprised that mental health was not a bigger issue.
- **June 16, 3-4pm:** Community members expressed surprise at the prevalence of healthy eating barriers, opioid use, and sleep quality issues given the proportion of high-income respondents. They reported that the environment affects healthy eating and felt that the survey did not capture inevitable processes like aging, which can contribute to health issues regardless of exercise and dietary habits.
- **June 20, 10-11am:** Community members discussed the importance of exercise in their communities for maintaining balance and mobility. They expressed dissatisfaction with aspects of their healthcare, including long wait times, being talked down to, limited time with providers, and the role of insurance and medical corporations in limiting access to and quality of care.
- **June 22, 6-7pm:** Community members reported frustrations surrounding availability of doctors and insurance coverage. Most reported positive experiences with healthcare providers, while some described negative experiences and discrimination in medical settings. They were surprised by high levels of opioid use, and one member asked if CBD or marijuana were included in the survey as complementary alternatives for pain management.

Demographics (n=67)

As seen below, the majority of forum participants were female (77.6%), White (87.5%), and non-Hispanic/Latino (63.6%). The largest age demographic was 60-69 years (27.7%), followed by 50-59 years (21.5%) and 70-79 years (18.5%).

Figure 1. Gender (n=67)

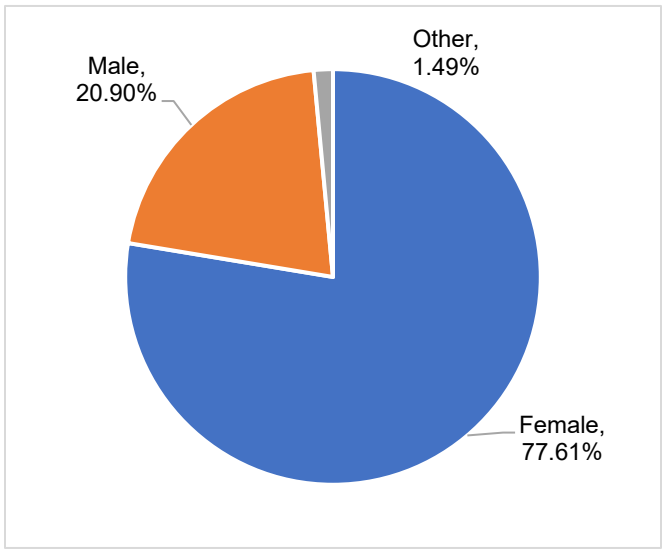


Figure 2. Age (n=65)

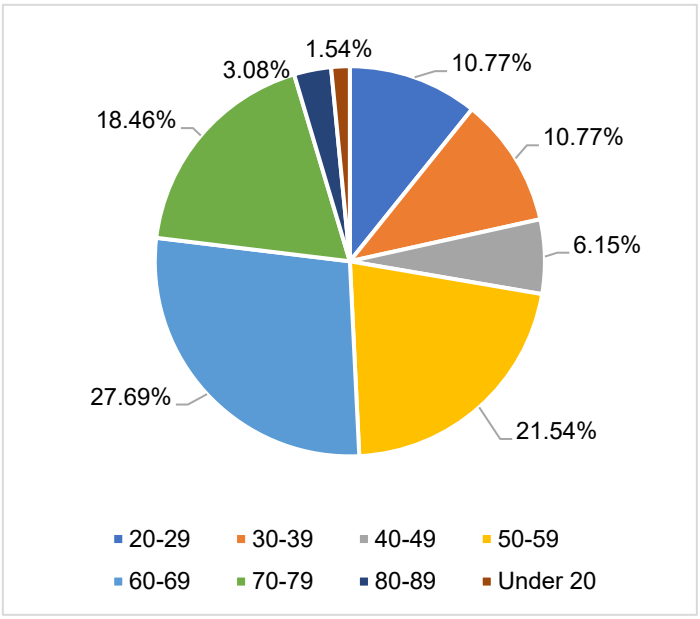


Figure 3. Ethnicity (n=44)

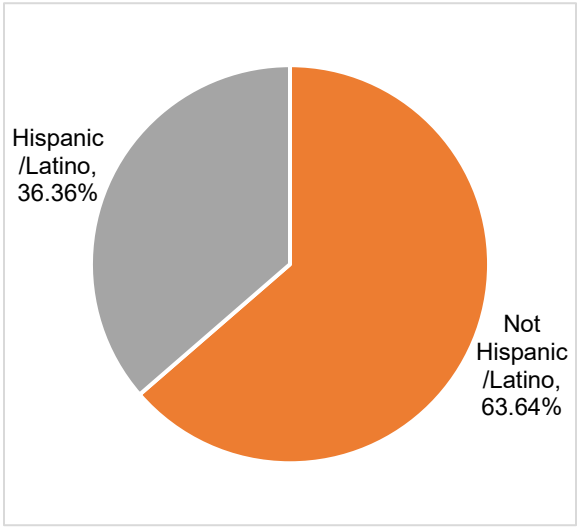
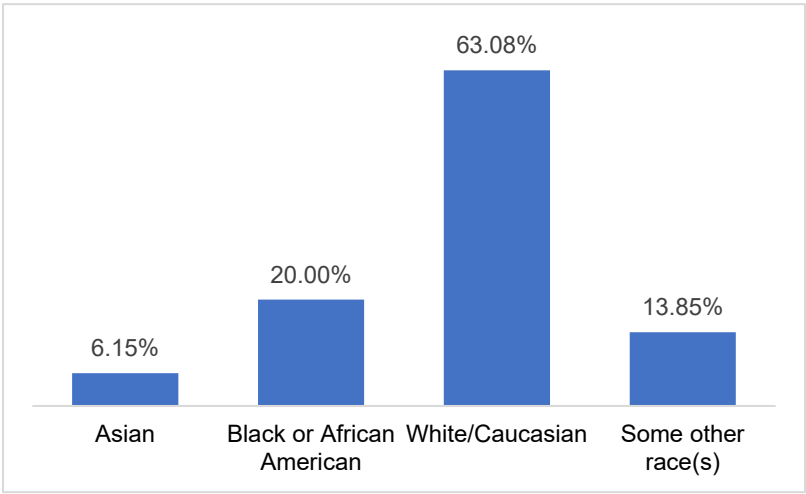


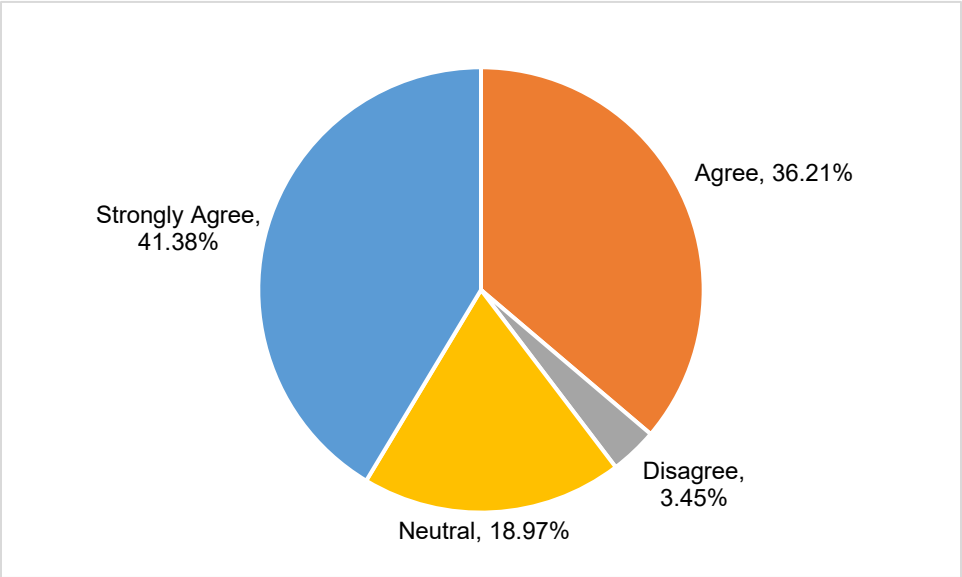
Figure 4. Race (n=65)



Satisfaction (n=58)

The community forums were relatively well received by participants, as 77.6% strongly agree or agree that they were satisfied with this program. However, over one-fifth (22.4%) responded neutral or disagree.

Figure 5. Overall, I was satisfied with this program:



When asked about the most valuable component of the forum, major themes included the interactive discussion, the space to share and listen to others' experiences, and the presentation of CHNA survey results.

When asked about how to improve the forum, common suggestions included providing survey instructions and slides ahead of time, limiting use of unfamiliar technology (such as Slido), and focusing the discussion

Community Benefits & Services Committee Meeting

October 19, 2022
12:30 pm – 2:00 pm

Present: Anne Ehrenkranz; Sandra Goldsmith; Marc Gould; Nimali Jayasinghe; Robyn Wiesel; Deborah Sale; Elizabeth Pforzheimer; Irene Koch; Lise Scott; Linda Russell; MD, Doug Mintz, MD; Linda Roberts; Titilayo Adeniran; Laura Robbins; Stephanie March

Unable to Attend: Paula Root; John B. Ehrenkranz; Kathy Leventhal; Jennie DeScherer, Jennifer Rentas, Catherine Callagy; Jane Salmon, MD; Lara Lerner; Laurie Hodges Lapeyre; Betsy Gotbaum

Anne Ehrenkranz called the meeting to order. Minutes from the June meeting were accepted.

Laura Robbins discussed successful progress made by the committee since its establishment 7 years ago. She focused on the importance of bringing together both board and community members to identify gaps in community outreach and programming and our success in establishing unity across all HSS community benefit programs to see collective efforts and impact. For 2023 the focus is on maintaining program quality and continuing to reach underserved populations.

Titilayo Adeniran presented the results of the Community Health Needs Assessment (CHNA) and implementation plan as well as the New York State Community Service Plan (CSP). More than 18,000 community members responded to the CHNA survey, with a large representation of individuals from medically underserved groups. The survey addressed social demographics, health status and quality of life, health behavior and lifestyle, use of access to care and health education preferences. Included in the CSP are 10 HSS programs which align with the NYS Health Improvement Plan focus areas of “Prevent Chronic Disease” and “Promote Well-Being”. *The 2022–2024 CHNA report and implementation plan as well as the three-year CSP were adopted by the Committee.*

Linda Roberts presented her work with the Greenberg Academy for Successful Aging (GASA). The mission of this endowment is to educate and empower adults 65+ as well as to train orthopedic surgery residents to communicate effectively and sensitively with older adult patients. Part of GASA includes the Aging with Dignity program which focuses on older adult health education and technological abilities, improving self-management, increased social connectedness and decreased isolation, and improving MD/older adult patient communication. As part of this program two publications were developed; the Aging with Dignity Resource Manual for the public and the Communication Skills Guide for Surgeons and Physicians with Older Adults.

Sandra Goldsmith presented the new HSS partnership with Mediflix, an “edutainment” video streaming platform which provides access to up-to-date, relevant, accurate information from top medical institutions. HSS will be providing video content aligning with HSS strategic priorities on spine, osteoarthritis, osteoporosis, pain management and rheumatology

No further discussion.
Robyn Wiesel, MCHES