

HOSPITAL
FOR
**SPECIAL
SURGERY**



HSS COMMUNITY HEALTH NEEDS ASSESSMENT

2013 Report and Implementation Plan

**Hospital for Special Surgery
Community Health Needs Assessment
2013 Report & Implementation Plan**

HSS is the nation's oldest orthopedic hospital, world-renowned for its expertise in musculoskeletal and rheumatologic conditions. The Hospital's commitment to community service is exemplified by its history of implementing initiatives that provide the highest level of care to patients and improve the health of the public. In order to provide community programs that meet the needs of the public, HSS conducts periodic community needs assessments. To this end, in 2013, the Hospital conducted an anonymous, large-scale community health needs assessment (CHNA) survey that explored the HSS community's (1) musculoskeletal and rheumatologic health conditions and management, (2) quality of life, (3) use and access to healthcare, and (4) socio-demographic characteristics including health literacy.

Background

The HSS Community

HSS assists many communities in New York City (NYC), the tri-state area, and around the world. While the Hospital's service area consists of the five boroughs of NYC, its immediate community lies within the boundaries of Community Board #8, extending north from 59th to 96th Street and east from Fifth Avenue to the East River. The suburban areas surrounding NYC, including those in New Jersey, Connecticut and Long Island, comprise the Hospital's secondary service area. However, given its specialized focus on musculoskeletal and rheumatologic care, the Hospital's reach and impact extend beyond its immediate service area to communities around the world.

The Hospital has remained dedicated to improving the health of communities where dramatic health disparities exist, including the Lower East Side of Manhattan (encompassing Chinatown), its immediate and adjacent communities of the Upper East Side and East Harlem, Inwood/Washington Heights, and the Bronx. According to NYC Department of Health and Mental Hygiene (DOHMH) Community Health Profiles, the following health disparities exist in the aforementioned communities:

- Less than half of Lower East Side adults (48%) are meeting Centers for Disease Control and Prevention (CDC) physical activity recommendations of exercising at least three days per week
- Hospitalizations for falls — particularly fall-related hip fractures — among older adults are more common on the Upper East Side than in the City overall
- One in 3 adults in East Harlem is obese, Black and Hispanic residents are more likely to be obese, and nearly half of all residents report not exercising at all
- One in 5 Inwood/Washington Heights adults is obese, and one half of adults do not participate in any physical activity
- The birth rate to teenage mothers is higher in Inwood/Washington Heights than in Manhattan and the City overall

The Hospital has recently expanded its community programming to Asian communities residing in Flushing, Queens based on the Asian American Federation's report¹ showing that:

- Asians are now close to 14% of the population in NYC
- Asians aged 65 and older had the highest growth rate citywide (64%) from 2000 to 2010
- The Lower East Side of Manhattan (including Chinatown) and Flushing, Queens were among several key neighborhoods that have added more than 1,000 Asian seniors over the last decade

Demographics of the Community

HSS recognizes that community outreach and service is immensely important, especially in the context of an increasingly diverse City and a rapidly aging baby boomer generation. According to 2012 census data, the NYC community consists of 8,336,697 people (43% of the State's population), which is comprised of 44% White, 29% Hispanic, 26% Black and

¹ Asian American Federation (2012). *Asian Americans in New York City: A Decade of Dynamic Change 2000-2010*. New York, NY.

13% Asian residents. Moreover, the data suggest that immigrants remain attracted to NYC – between 2007 to 2011, 37% of the City’s population was foreign-born. At the same time, the older adult population continues to grow – the NYC Department of Planning projects that over 44% of the City’s population will be age 65 and older by the year 2030.

Partnerships

Effective and sustainable relationships with key stakeholder groups are essential to the success of HSS community health initiatives. The Hospital 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. Please refer to Appendix A for a listing of active community partnerships.

Methodology

Survey Construction

Collaboration with the public, internal stakeholders, and community partners was crucial to the success of the CHNA survey. To this end, all groups were consulted in its development phase. Thirteen members of the community, including Public and Patient Education Department and Department of Social Work Programs participants and members of the Carter Burden and Mott Street Senior Centers, provided feedback on survey construction and length in late January and early February 2013, mainly through one-on-one interviews. In addition, the Hospital was careful to elicit public input about survey translations to ensure that they were culturally relevant; health literacy considerations were also taken into account. Internal stakeholders and community partners provided valuable feedback about survey construction, the use of validated measures, cultural relevance, health literacy and survey gaps via extensive phone conversations, emails and in-person discussions. All feedback was aggregated and used to adjust survey questions, construction and cultural relevance. Below outlines the community partners involved in survey construction:

- Arthritis Foundation – New York Chapter - Sharon Jaycox-Daitz, MS, Regional Vice President, Northeast Programs; Kate Anastasia, MPA, Regional Director of Programs
- Charles B. Wang Community Health Center – Loretta Au, MD, Section Chief of Pediatrics
- Children’s Aid Society – Lisa Aslan, Director of Reproductive Health; Sarah Binder, Health Educator, Family Planning Program
- Clinical Translational Science Center, Community Engagement Core, Weill Cornell Medical College – Lula Mae Philips, Community Program Manager
- East Side Council on the Aging (ESCOTA) – Reeva Mager, LMSW, Chair
- General Human Outreach in the Community, Inc. – Henrietta Ho-Asjoe, MPS, Executive Director
- Lenox Hill Neighborhood House – Dina Zempsky, MSW, Director of Case Management
- Medicare Rights Center – Frederic Ricardi, LMSW, Director of Programs and Outreach
- National Osteoporosis Foundation – Judy Chandler, MPH, CHES, Health Education Specialist
- NYC DOHMH, Office of Minority Health – Nana Aboagye, Director
- Silberman School of Social Work at Hunter College – Kam man (Kenneth) Kwong, PhD, Assistant Professor
- S.L.E. Lupus Foundation – Diane Gross, MPH, National Director of Program Development
- Translational Research Institute for Pain in Later Life (TRIPLL)

Survey Administration

The survey was administered via mail (51%), in-person (26%), and electronically (22%) for four weeks from late February through mid-March 2013. Mailed surveys were sent to existing lists maintained by the HSS Public & Patient Education Department (4,233) and the Social Work Department (603). In addition, in-person surveys were distributed or displayed with instructions in HSS Ambulatory Care Services (ACS) clinics, while others were administered face-to-face in groups led by the Social Work Programs Department, and in two Chinatown senior centers. Lastly, surveys were sent electronically via e-mail to a purchased mailing list of 20,000, and posted on the HSS website, Facebook, and Twitter. The instrument was available in English, Spanish and Chinese, and replies were anonymous.

Statistical Analysis

Descriptive statistics were used to analyze socio-demographic data, and Chi-square tests were used to assess relationships between variables. SPSS version 20 was used to analyze the data, and significance was set at $P \leq 0.05$. Primary analysis was performed for the total sample. In order to explore the data from the Hospital's more ethnically/racially diverse community members who come from lower socioeconomic backgrounds, two secondary analyses were performed: patients who visited HSS Ambulatory Care Service clinics; and respondents who either had government insurance (Medicaid or Medicare and Medicaid) or no insurance.

Presentation of Results

The Hospital provided results of the survey to the above mentioned community partners via PowerPoint presentation at two meetings held at the Hospital; results were discussed in relation to existing and future community programs and services. The Hospital will disseminate the results to other community partners, affiliated institutions and the public through the Hospital's website, digital media, and through its annual community benefit report.

Results

Below provides detailed findings from the CHNA survey. See Appendix B for a summary of CHNA findings for all three groups analyzed.

Socio-Demographics

Findings from 1,084 respondents revealed the following information regarding the socio-demographics of HSS community:

- Overwhelmingly female (82%)
- Relatively older (mean age: 60-79)
- Mostly White (60%), followed by Black (16%), Hispanic/Latino (14%), and Asian (11%)
- Highly educated (35% reported post-college level education)
- Economically varied/disparate (15% earning <\$10,000, 26% reporting over \$100,000, and the remainder earning \$10,000-99,000 annually),
- Proficient in English for discussing healthcare and reading medical instructions (88% for each)
- Relatively health literate (16% indicated a need for assistance with reading health-related materials)

Musculoskeletal and rheumatologic health conditions and management

Osteoarthritis (OA), osteoporosis (OP), and rheumatoid arthritis (RA) were the leading health issues cited, accounting for 47%, 33%, and 29% of the respondents, respectively. Alternatively, RA and OA were the leading health conditions reported by ACS and public/uninsured groups (RA cited by 51% of ACS, 47% of public/uninsured; OA by 38% of ACS, 39% of public/ uninsured). OA, lupus, fibromyalgia, and osteoporosis were more common in females than males, while gout was more common among males. Older adults were more likely to report having OA, while teens were more likely to have lupus. Respondents aged 80-89 were most likely to have OP, followed by those aged 70-79. Racial/ethnic disparities were also found: OA was more likely to be reported by Whites; RA, fibromyalgia, and gout in Blacks; and lupus in Asians.

Though most members of the community reported taking preventive care measures such as annual flu shot and mammogram/Pap smears over the past year, males, Hispanics/Latinos, and non-English speakers were least likely to be immunized, and non-English speakers were less likely to have a mammogram/Pap smear. Additionally, flu shots were less common among adults aged 30-39 in the total sample, and less common among teens in the ACS and public/uninsured groups.

Reproductive health issues – including pregnancy prevention/family planning, HIV/STD prevention/testing, and decision-making regarding sexual behavior – were discussed by a relatively small proportion of all three groups. In addition, English-speakers and those who were more health-literate were least likely to discuss pregnancy prevention/family planning and HIV/STD prevention/testing with their providers.

Improvements in diet and physical activity were a major concern in the community, as 21% of respondents rated their diet negatively and only 17% were meeting CDC recommended measures of physical activity (compared to 50% of Americans). These issues were also major concerns among ACS and public/uninsured groups: a larger proportion (31% of ACS and 32% of public/uninsured) rated their diet negatively, while a smaller subset of these respondents (10% of ACS and 13% of public/uninsured) were meeting CDC-recommended measures of physical activity. When asked to identify the barriers to eating more healthily, the leading responses involved cost (39%), planning constraints (37%), and social pressures (22%).

Falls were another issue in the community, with 34% having fallen in the past year (28% of ACS and 36% of public/uninsured) and 15% sustaining fractures (12% of ACS and 18% of public/uninsured). Approximately 40% of those who fell had not spoken to their healthcare provider about their fall (46% of ACS and 45% of public/uninsured). Falls were most common among females, adults aged 90-99, Blacks, those with OP, and individuals who were physically inactive. Moreover, Asians were the least likely group to discuss their falls with providers.

Quality of life

Nearly a third of respondents (32%) considered their health to be relatively poor, compared to 22% of New Yorkers and 13% of Americans. Additionally, 24% of members of the community indicated that they needed help of others with personal care needs or household chores, with the oldest respondents (aged 90-99) citing the greatest need. A greater proportion of ACS and public/uninsured respondents (34% and 43%, respectively) indicated that they needed the help of other people with personal care needs or household chores. About 20% of respondents may have anxiety and over 15% may be depressed.

Use and access to healthcare

Though nearly all members of the community had insurance coverage, Asians were the least likely racial/ethnic group to be insured. About 60% of those surveyed indicated that they generally need assistance with understanding and using their health coverage, with those who were less health-literate more likely to need this help. In addition, over 17% of total respondents (19% of ACS and 27% of public/uninsured) were unable to access healthcare when they needed it compared to 5% of Americans and 11% of New Yorkers. Adults aged 30-39, Asians, and less health-literate individuals were more likely to cite access issues. While 91% of those surveyed stated that they generally followed their provider's medical advice, common barriers to adherence were concerns about side effects and refusal to believe that treatment would help. In addition, lower levels of provider-patient communication were found among Asians, and those with lower levels education, income, and health literacy. Results showed that issues with health literacy were more common among the public/uninsured group, with 34% needing assistance when reading instructions, pamphlets, or other written materials from doctors or pharmacies, compared to 16% of total and ACS respondents. Asians were the most likely racial/ethnic group (Blacks the second-most likely) to need this assistance, and were also most likely to rate their English relatively poorly, prefer non-English languages for discussing healthcare and reading medical instructions.

Discussion

Identification of Community Health Needs and Services

HSS facilitated systematic, scheduled input and feedback from its varied constituents – internal stakeholders, the general public, and community partners – to guide the selection of the health needs and services to address in its community programming. Relevant national, state and city health data and needs assessment results were also utilized to drive community programming.

Input from Internal Stakeholders

Internal meetings were held with various parties within the Hospital (HSS Departments of Public and Patient Education, Social Work Programs, Nursing, Nutrition, and Rehabilitation) to discuss identified health priorities and explore areas for implementing initiatives, using results from the CHNA and stakeholders' awareness of community needs to guide the discussion. The group discussed focusing on increasing access to high quality, culturally relevant chronic disease preventive care and management of musculoskeletal and rheumatologic conditions and reducing obesity in adults and children, which aligns with the New York State Department of Health's Community Service Plan priority areas.

Input from the General Public

A public forum was held in May 2013 to allow members of the community an opportunity to discuss how the Hospital could prioritize community health needs. The public expressed the need for programs that improve diet and physical activity and empower the community to prevent and manage their musculoskeletal and rheumatologic conditions. Furthermore, community members agreed that HSS should focus on developing strong programs and services aimed at reducing obesity and increasing access to high quality chronic disease preventive care and management in clinical and community settings.

Community Partner Feedback

Feedback from community partner organizations was critical to driving the selection of public health priorities for the Hospital. Using results of the CHNA as the basis for discussion, HSS and its partners exchanged valuable information regarding community needs, explored areas for future collaboration, and solidified a mutual commitment to advancing public health. Furthermore, community partner knowledge of their respective community helped to identify gaps in community programming – or more specifically, areas where HSS could use its areas of expertise to make a lasting public health impact. Overall, feedback from these meetings solidified the direction for programs that improve the community's diet and increase physical activity to combat obesity among children and adults, examine specific communities in need of chronic disease preventive care and management (including older adults, diverse communities and lower-income groups), and provide culturally-relevant education regarding musculoskeletal and rheumatologic issues.

Additionally, the Hospital met with the Greater New York Hospital Association (GNYHA), a trade association, and regulatory agencies to inform the structure and process for selecting its public health priorities. The Hospital also attended executive briefings regarding plans and updates to the NYC DOHMH Take Care New York health policy on February 20th and July 19th, 2013, meetings which were facilitated by GNYHA, to ensure the Hospital's priority/focus areas are aligned with state and local health department goals.

Public Health Data and Needs Assessments

To ensure that the selection of these public health priorities resonates with the health care needs of New Yorkers, the Hospital utilized relevant national, state and city health data to inform the prioritization of the identified community health needs.

Pediatric and Adult Obesity

Public health data demonstrate that a reduction in obesity among children and adults is greatly needed. Compared with 25% of state residents, 56% of NYC's adults are overweight or obese.^{2,3} Compared with Whites, higher obesity rates have been found among Blacks (51%) and Hispanics/ Latinos(21%).⁴ In addition, nearly 1 in 3 Hispanic/Latino children and 14% of Asian children in NYC elementary schools are classified as obese.⁵ These alarming trends illustrate a strong need for a multifaceted approach to reducing obesity in children by improving the diet and exercise levels of the entire family, which HSS has incorporated into its obesity-focused programming.

Musculoskeletal and Rheumatologic Conditions

Public health data show that there is a gap in access to high quality chronic disease preventive care and management in both clinical and community settings. Musculoskeletal and rheumatologic conditions are important concerns on the national and local level, and older adults and ethnically diverse individuals are disproportionately affected by these issues. Osteoarthritis (OA), which is the leading cause of disability in the US (affecting 27 million Americans⁵ and 22% of New Yorkers) affects nearly half of older Americans,⁶ while all racial/ethnic groups have the condition: 34.3 million Whites, 4.4 million Blacks, and 2.6 million Hispanic/Latinos.⁷ In addition, osteoporosis (OP) is the leading cause of fractures in the aging population, affecting nearly 10 million Americans and about half of all women older than 50, and up to one in

² NYS DOH. (2011). *Obesity statistics in NYC*. Retrieved from <http://www.health.state.ny.us/statistics/prevention/obesity/county/newyorkcity.htm>.

³ CDC. (2012). *US obesity trends: 1985-2007*. Retrieved from <http://www.cdc.gov/obesity/data/trends.html>.

⁴ CDC. (2010). *CDC features: Data and statistics by date*. Retrieved from <http://www.cdc.gov/features/dsobesityadults/>

⁵ Helmick, C.G., Felson, D.T., Lawrence, R.C., Gabriel, C., Hirsch, R., Kwoh, C. K., et al, for the National Arthritis Data Workgroup. (2008).

Estimates of the prevalence of arthritis and other rheumatic conditions in the United States: Part I. *Arthritis and Rheumatism*, 5, 15-25.

⁶ CDC. (2006). Prevalence of doctor-diagnosed arthritis and arthritis-attributable activity limitation – United States, 2003-2005. *MMWR*, 55, 1089-1092.

⁷ CDC. (2001). Prevalence of disabilities and associated health conditions—US 1999. *MMWR*, 50, 120-125.

four men.⁸ Research has shown that Asian women are at increased risk for developing OP given their tendency for having lower bone mass and avoidance of dairy consumption due to lactose intolerance.⁹ Lupus (systemic lupus erythematosus), a chronic and potentially life-threatening autoimmune disease, generally affects women between ages 15-45, while Asian, Black, Hispanic/Latino, and Native American women are afflicted two to four times more than White women by the disease and suffer worse outcomes. Research indicates that many older adults require better chronic disease preventive care and management education and exercise programming. Additionally, the gap in culturally-relevant education regarding chronic disease preventive care and management is evident in the literature. Research has suggested that ethnically diverse communities encounter linguistic/cultural barriers to healthcare and therefore miss opportunities to learn how to prevent and manage their chronic conditions.

Information Gaps

Although the Hospital employed a rigorous process to assess and identify the needs of the community it serves, information gaps still exist, limiting its ability to fully assess the entire community, as described below:

- Information on the prevalence of lupus is lacking due to issues with diagnosing the condition. Prevalence estimates vary widely, and range as high as 1,500,000.¹⁰ Therefore, the scope of this community need cannot be fully assessed.
- Though surveys were administered in three languages (English, Spanish, and Chinese), the instrument was not available in other languages, such as Russian.

Addressing Community Needs

Using the results of the HSS CHNA survey and the aforementioned community health assessment, the Hospital has developed comprehensive plans to address the health issues identified by the CHNA, as outlined in order of priority below:

Identified Need 1: Influenza Immunization

Estimated annual resources allocated to meet this need (including salary and non-salary expenses): \$336,000+. HSS anticipates reaching over 4,000 employees and patients annually through its flu initiative.

Implementation Strategy 1: Patient flu initiative

During influenza season, all patients admitted to the hospital are offered the Influenza vaccine before they are discharged. Inpatients over 65 years of age or chronically ill are offered the Pneumococcal (pneumonia) vaccine throughout the year.

Implementation Strategy 2: Employee flu initiative

HSS offers flu vaccinations for all personnel through its occupational health services (OHS). Staff that decline the flu vaccination must wear a facemask at all times. HSS staff vaccinated outside the Hospital are required to provide appropriate documentation.

Anticipated program impact: There are tremendous health risks for hospitalized patients that do not receive influenza vaccination. The Hospital expects the patient flu initiative to help prevent flu complications and pneumonia in patients that receive the vaccine. In addition, this public health initiative is an important step in helping to protect the community and general population. The HSS employee flu initiative is expected to help decrease employee absenteeism (including flu-related absenteeism) leading to improved workforce productivity.

Evaluation Strategy: Patient influenza vaccinations are tracked via the electronic health record. For the employee influenza initiative, the Hospital tracks the percentage of employees who receive the flu shot, the percentage who decline the shot and the reasons for declination.

⁸ National Osteoporosis Foundation (NOF). What is osteoporosis? <http://nof.org/articles/7>

⁹ National Institute of Arthritis and Musculoskeletal and Skin Diseases. (2012). *Osteoporosis and Asian American women*. Retrieved from http://www.niams.nih.gov/Health_Info/Bone/Osteoporosis/Background/asian_american_women.asp

¹⁰ Lawrence, R.C., et al. for the National Arthritis Data Workgroup. (2008). Estimates of the prevalence of arthritis and other rheumatic conditions in the United States: Part II. *Arthritis Rheum*, 58(1), 26-35.

Identified Need 2: Chronic Disease Self-Management Education

Estimated annual resources allocated to meet this need (including salary and non-salary expenses): \$507,761. Over the next three years HSS projects conducting over 11,000 participant contacts through chronic disease self-management education and support programs.

Implementation Strategy 1: HSS Nursing Community Education Outreach Initiative

This initiative was launched in August 2012 to address the health education needs of elderly NYC residents. The aim of the initiative is to develop self-care knowledge and provide self-management support strategies on issues germane to seniors. Educational topics are selected based upon needs assessment results and participant feedback, including falls prevention, nutrition and medication safety.

Anticipated program impact:

HSS anticipates participants will increase their knowledge about topics that are important to their personal health and safety including:

- How to use medications more safely
- How to improve their health and maintain a healthy lifestyle
- Strategies to organize treatment regimens to make self-care more manageable, how to protect themselves from environmental challenges such as severe weather, communicable disease and emergency preparedness
- How to identify increased risk for falls and how to prevent likelihood of falls

Evaluation strategy:

The HSS Nursing Community Education Outreach program will focus on measuring changes in knowledge and behavior as well as program satisfaction using a pre/post-test methodology. Additional information will also be collected specific to gender and ethnicity. A survey tool for nurses will be added to measure nurse satisfaction, time commitment and estimated hours of preparation to assess the value to individual nurse presenters and to identify resource allocation needs.

Implementation Strategy 2: Osteoarthritis Wellness Initiative (OAWI)

To address the public health issue of OA, HSS developed OAWI, comprised of educational and exercise programs, to raise awareness, educate and reduce the impact of OA on the public. The initiative is comprised of lectures, workshops, and seminars regarding OA-specific topics of interest, including pain management techniques and maintaining a healthy lifestyle, while exercise programs include weekly classes on yoga, Pilates, Tai Chi, dance, and yogalates.

Anticipated program impact:

Participants are expected to increase knowledge of arthritis, arthritis symptoms, options for treatment, and self-management techniques. In addition, we anticipate seeing improved musculoskeletal health among exercise class participants including:

- decreased musculoskeletal pain, stiffness, fatigue, falls and health limitations
- improved health status level of physical activity and self-efficacy for exercise
- improved balance ratings and reducing losses in balance

Evaluation Strategy:

OAWI will measure knowledge and health outcomes of program participants using a pre/post-test or post-only methodology. Evaluations of its educational programs will assess knowledge change (pre/post-test) or material comprehension (post-only) and intent to change behavior, while exercise program evaluations will examine changes in outcomes including health status, health limitations, pain, stiffness, fatigue, balance, falls, physical activity, and self-efficacy for exercise.

Implementation Strategy 3: Rheumatoid Arthritis

Two programs are offered by the Hospital to address the pressing needs of community members and their families living with RA. *Living with RA* was developed for people with long standing severe RA. *The Early RA Support and Education Program* focuses on early intervention for people with newly diagnosed RA. The programs are co-facilitated by a social

work manager and nurse manager. Both programs provide essential RA-related education by expert health care providers, and peer support in a group setting. In addition, individual RA-related psycho-educational counseling is available.

Anticipated program impact: The Hospital intends program participants to enhance self-management skills and show an increase in self-efficacy around managing RA.

Evaluation strategy: Written evaluations are administered after each monthly group session. Evaluations are semi-structured questionnaires which measure intended behavior changes to enhance self-management, increase self-efficacy, and adaptive coping. The evaluations also assess program relevance and satisfaction. In addition, bi-annual focus groups for each group are conducted to elicit participant feedback on lecture topics and program format, which in turn, informs future program planning.

Implementation Strategy 4: Osteoporosis Wellness Initiative (OWI)

The programs that comprise OWI were originally introduced in 1997 as part of the Osteoporosis Education Bill, which provided osteoporosis-related education and designated HSS as a New York State Osteoporosis Prevention and Education Program (NYSOPEP) Regional Center under Former Governor George Pataki from 1997-2011. When funding ended in 2011, HSS launched OWI to continue to provide members of the community with education about the causes, importance of prevention and early detection, and options for treatment of osteoporosis. The initiative is comprised of seminars, monthly forums, and exercise classes regarding self-management techniques to decrease pain, improve balance, and decrease falls. Exercise programs include weekly classes on yoga, Pilates, Tai Chi, dance, and yogalates.

Anticipated Program Impact: Participants are expected to increase knowledge of osteoporosis and osteopenia, their symptoms, options for treatment, and self-management techniques. In addition, the program anticipates seeing improved musculoskeletal health among exercise class participants including:

- decreased musculoskeletal pain, stiffness, fatigue, falls and health limitations
- improved health status level of physical activity and self-efficacy for exercise
- improved balance ratings and reducing losses in balance

Evaluation Strategy: OWI will measure knowledge, intent to change behavior, and self-reported health outcomes of program participants using a pre/post-test or post-only methodology. Evaluations of its educational programs will assess intent to change behavior and knowledge change (for multi-session programs that utilize a pre/post-test evaluation methodology), or percentage comprehension of the material presented (for single-session programs that are evaluated at post only). Exercise program evaluations will examine changes in outcomes including health status, health limitations, pain, balance, falls, physical activity, and self-efficacy for exercise.

Implementation Strategy 5: LANtern[®] Lupus Asian Network

Since its inception in 2003, LANtern has been a national model for support and education of Asian Americans with lupus and their families. Through the program's Support Line, community programs, participation in conferences, and publications, the program seeks to meet a gap to enhance awareness, understanding, coping and knowledge regarding lupus for this community.

Anticipated program impact: LANtern's expected impact includes increased knowledge about high quality preventive care for the Asian community and improved clinical management of lupus through professional education programs geared to increase awareness and appropriate evidence-based treatment and referral of Asian American patients with lupus. In addition, LANtern expects to enhance the skills of its peer volunteers through a revised peer training program.

Evaluation Strategy: Post evaluations for the patient-oriented programs will assess changes in understanding of lupus, and intent to utilize specific self-management strategies. To examine the impact of professional education, post evaluations will assess knowledge gained, and clinical practice lessons learned. Satisfaction with program content/format/clarity will also be examined, and qualitative responses will obtain participant feedback.

Implementation Strategy 6: Charla de Lupus/Lupus Chat®

The “Charla” program was developed in 1994 to address health disparities among Black and Hispanic women with lupus. This social work-led program engages and trains peer volunteers to become empowering role models, provide culturally relevant strategies to help increase understanding of this complex illness and its treatment, improve medical adherence, and enhance coping and healthy behaviors. Comprehensive bilingual (English/Spanish) services include: the Charla Line, a 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 community, professional education and government collaborations.

Anticipated program impact: Anticipated program impact includes increased knowledge of lupus and reproductive health care issues among reproductive health providers, increased access to high quality reproductive health care for culturally diverse teens with lupus and improved knowledge, self-management skills, and self-efficacy related to reproductive health care and sexual health among traditionally underserved, culturally diverse teens/young adults with lupus.

Evaluation Strategy: Post-test evaluations will measure knowledge gained through its educational training for reproductive health professionals with a focus on intent to enhance practice outcomes. Additional measures include knowledge gained and self-efficacy of program participants. Further, Charla plans to quantitatively and qualitatively assess access, quality, and impact of reproductive health care services for teens with lupus who participate in the intervention and/or are referred to partner reproductive health care centers.

Identified Need 3: Increased Access to Health Care for Asian New Yorkers

Estimated annual resources allocated to meet this need (including salary and non-salary expenses): \$77,790. Over the next three years, the Hospital anticipates reaching over 500 participants through its educational and exercise programming.

Implementation Strategy: HSS Asian Community Bone Health Initiative

Launched in 2012 in response to the health needs of the growing number of Asian older adults living in NYC’s Chinatown community, the overall goal of this initiative is to help Asian seniors better manage chronic musculoskeletal disorders while also increasing access to care in this medically underserved community. It is comprised of culturally-relevant musculoskeletal health lectures/workshops, self-management education, yoga and low impact chair exercise programs. Education around provider-patient communication and falls prevention will also be incorporated into health lectures/workshops.

Anticipated program impact: Expected impact includes increased knowledge and awareness of musculoskeletal conditions such as OA and osteoporosis, increased knowledge of chronic disease self-management techniques, the importance of and techniques for improved provider-patient communication and falls prevention. Further anticipated program impact includes improved musculoskeletal health among Asian seniors by:

- decreasing musculoskeletal pain, stiffness, fatigue and falls
- improving balance and health status
- increasing frequency of physical activity and self-efficacy

Evaluation strategy: This Initiative will measure knowledge and health outcomes of program participants using a pre/post-test or post-test-only methodology. Evaluation of its educational programs will assess knowledge attainment or material comprehension (post-test only). CDSMP will measure changes in levels of self-efficacy from pre to post-test, while exercise program evaluations will examine changes in outcomes including pain, stiffness, fatigue, balance, falls and physical activity.

Identified Need 4: Nutrition & Physical Activity Programming

Estimated annual resources allocated to meet this need (including salary and non-salary expenses): \$52,419. Over the next three years, the program projects reaching over 1000 children through its nutrition programming.

Resources and projected impact reflect SNEAKER programming only; exercise resources are included in chronic disease self-management section above within OAWI and OWI.

Implementation Strategy 1: SNEAKER[®] Super Nutrition Education for All Kids to Eat Right

This nutrition and physical activity education program, launched in 2003, provides children and families with essential knowledge about healthy eating and physical activity. The program utilizes interactive lessons to teach students the importance of eating a healthy, well-balanced diet and being physically active, encourage children to make healthier food decisions and educate students about how to make healthier food choices and be more physically active. SNEAKER[®] also contains a parent/caregiver component wherein weekly newsletters are sent home to educate the parent/caregiver about the lessons their child learned in school so they can help foster healthy changes for the child and the entire family. The Program is implemented in public schools and after-school programs largely located in medically underserved areas throughout NYC. Residents in these areas are predominantly Hispanic/Latino, Black and Asian.

Anticipated program impact: SNEAKER[®] anticipates positively impacting the nutrition knowledge of children and families as well as their food choices and level of physical activity. Specifically, the program hopes to initiate increased consumption of whole grains and fruits and vegetables, decreased portions sizes, and less participation in sedentary behaviors for children and their families.

Evaluation strategy: SNEAKER[®] will measure knowledge and behavior change among program participants using a pre/post-test and 3-month follow-up surveys. Evaluations will be keyed to the program's curriculum, probing knowledge and behavior changes within the seven topics covered by this program. In addition, the program will use qualitative measures to assess anecdotal evidence of knowledge and behavior change that students made over the course of the program that may not have been reflected in the pre/post-test surveys.

Implementation Strategy 2: Wellness Exercise Classes

To increase physical activity among adults, HSS provides exercise programs through its Osteoarthritis and Osteoporosis Wellness Initiatives, which are aimed at educating and reducing the impact of osteoarthritis and osteoporosis on the public. Exercise programs include weekly classes on yoga, pilates, Tai Chi, dance, and yagalates, and are led by certified fitness instructors.

Anticipated program impact: Participants are expected to improve their musculoskeletal health among exercise class participants by:

- decreasing musculoskeletal pain, stiffness, fatigue, falls and health limitations
- improving health status level of physical activity and self-efficacy for exercise
- improving balance ratings and reducing losses in balance

Evaluation strategy: As stated above in the OWI and OAWI sections, exercise program evaluations will examine changes in outcomes including health status, health limitations, pain, balance, falls, physical activity, and self-efficacy for exercise, using a pre/post-test methodology.

Identified Need 5: Improved Provider-Patient Communication/Health Literacy

Estimated annual resources allocated to meet this need (including salary and non-salary expenses): \$151,734. Over the next three years, the Hospital anticipates reaching over 400 participants through educational and support programming and over 1000 individuals through community outreach.

Implementation Strategy 1: Resident Geriatric Training Program

This program was launched in 2009 to improve communication skills of third-year orthopedic surgery residents

with older patients. The program includes meetings with the Program Coordinator, a licensed social worker, for the residents to explore their attitudes toward older patients, weekly resident rounds for selected residents to present and illustrate specific geriatric needs, and presentations to participants of the HSS Greenberg Academy for Successful Aging.

Anticipated program impact: Anticipated impact includes sensitizing residents to the health care needs and issues of older adults improving, improving the ability of residents to provide information about musculoskeletal disease at an appropriate literacy level and empowering older adults to be better advocates and partners in their own health care

Evaluation strategy: The Resident Geriatric Training Program will measure participant satisfaction with resident presentations in its post-evaluation. In addition, the evaluation will measure pre/post changes in resident knowledge of older adults, attitudes toward aging and older patients, and preparedness to present material to older adults at the appropriate literacy level. Measuring changes in participant self-efficacy around communication with providers will also be explored.

Implementation Strategy 2: VOICES 60+ Senior Advocacy Program

This program was launched in 2006 in recognition of the multiple challenges older adults face in effectively utilizing high quality chronic disease care to optimize health outcomes, and access needed social supports, particularly for those who are from low-income and Spanish speaking communities. VOICES 60+ will improve patient-provider communication through interventions that target both culturally diverse community-dwelling older adults, and their professional service providers. These strategies, facilitated in English and Spanish, will take into account low literacy and verbal response needs of participants, in a culturally sensitive manner.

Anticipated program impact: Anticipated program impact includes enhanced communication skills of older adults and enhanced health literacy and coaching skills of professionals to improve provider/patient communication

Evaluation Strategy: VOICES 60+ will measure knowledge gained, intended behavior change and likelihood of utilizing methods taught. Qualitative measures will glean feedback and program suggestions.

Community Needs Identified by the CHNA that Were Not Addressed

Given the Hospital's focus on musculoskeletal and rheumatologic conditions, CHNA results suggesting the need for increasing preventive care such as mammograms or Pap smears extends beyond the scope of the Hospital. Nevertheless, HSS is committed to providing community health education to various audiences on topics that relate to general public health issues through efforts such as the HSS Nursing Community Education Outreach Initiative, to address the health education needs of older adult NYC residents. Moreover, the Hospital plans to continue developing wellness education and exercise programs to provide the highest quality patient care, improve mobility, and enhance the quality of life for all.

Conclusions

Using results of the 2013 CHNA and systematic feedback from persons representing the general community, HSS was able to identify and prioritize the health needs to meet the community's needs. This information will continue to form 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.

Appendix A

Existing Healthcare Facilities/Community Resources Available to Respond to Community Health Needs

Clinical/Academic Partnerships

- API Medical Student Association at SUNY Downstate
- Asian American/Asian Research Institute, City University of New York
- Audubon Family Planning Practice and Young Men's Clinic
- Burke Rehabilitation Hospital
- Center for Study of Asian American Health, New York University
- Charles B. Wang Community Health Center
- Chinese Community Partnership for Health, New York Downtown Hospital
- Clinical Translational Science Center, Community Engagement Core, Weill Cornell Medical College
- Gouverneur Healthcare Services, New York City Health and Hospitals Corporation
- Advent Lutheran Church
- All Community Adult Day Centers
- Arthritis Foundation – New York Chapter
- Asian American Federation of New York
- Asian Health and Social Service Council
- Boys and Girls Clubs of America
- Carter Burden Senior Center
- The Cathedral Church of Saint John the Divine / Cathedral Community Cares
- Children's Aid Society
- Chinese American Planning Council
- Community Healthcare Network
- Corsi Senior Center
- Dorot Volunteer Corps for Homebound Seniors
- East Side Council on the Aging (ESCOTA)
- General Human Outreach in the Community, Inc. (GHO)
- Isabella Geriatric Center
- LaGuardia Senior Center
- Lenox Hill Neighborhood House
- Medicare Rights Center
- Office of Women's Health, Department of Health and Human Services
- New York City Catholic Schools
- New York City Day Care/Head Start Centers
- Harlem Hospital
- Mount Sinai Adolescent Health Center
- Mount Sinai Peers Encouraging Empowerment through Knowledge (S.P.E.E.K) Peer Education Program
- New York – Presbyterian, Columbia University Medical Center
- New York – Presbyterian Morgan Stanley Children's Hospital, Pediatric Rheumatology Service
- Silberman School of Social Work at Hunter College
- Translational Research Institute for Pain in Later Life (TRIPLL)
- Weill Cornell Medical College, Department of Psychiatry

Community-Based Organization Partners

- Mott Street Senior Center
- National Bone Health Alliance
- National Osteoporosis Foundation
- New York Chinatown Senior Center
- New York Foundation for Senior Citizens
- New York Golden Eagle Adult Day Care Center
- New York Road Runners Club (NYRR)
- Osteoarthritis Action Alliance
- Planned Parenthood New York City
- Prime Care Home Health Agency
- Private/community gyms (Method Gym, Erika Bloom Pilates Plus LLC)
- Selfhelp Innovative Senior Center
- Senior Companions at Henry Street Settlement
- S.L.E. Lupus Foundation
- Stanley Isaacs Community Center
- Urban Assembly Gateway School for Technology
- Washington Heights & Inwood YM & YWHA
- West Side Interagency Council on the Aging (WSIACA)

Government/Public Partners

- New York City Department of Health and Mental Hygiene
- New York Public Libraries
- New York City Public Schools
- New York State Department of Health

Appendix B

Summary of CHNA Survey Findings

Appendix: CHNA Results - Major Highlights by Sample			
Health Conditions & Management			
Topic	total sample (n = 1084)	ACS sub-sample (n = 232)	Public/uninsured sub-sample (n = 265)
Musculoskeletal/Rheumatologic Conditions	① OA ② osteoporosis ③ RA	① RA ② OA ③ Some other form of arthritis	① RA ② OA ③ Lupus
Immunizations & Health Screenings (past year)	♦ 76% had received a flu shot ♦ 60% had received a mammogram/Pap smear	♦ 69% had received a flu shot ♦ 51% had received a mammogram/Pap smear	♦ 68% had received a flu shot ♦ 55% had received a mammogram/Pap smear
Reproductive Health	♦ 5% had discussed pregnancy prevention/family planning ♦ 8% had discussed HIV/STD prevention/testing ♦ 4% had discussed decision-making regarding sexual behavior	♦ 7% had discussed pregnancy prevention/family planning ♦ 16% had discussed HIV/STD prevention/testing ♦ 6% had discussed decision-making regarding sexual behavior	♦ 8% had discussed pregnancy prevention/family planning ♦ 21% had discussed HIV/STD prevention/testing ♦ 9% had discussed decision-making regarding sexual behavior
Diet & Physical Activity (PA)	♦ 21% rated their diet negatively ♦ 16% were meeting CDC recommendations for moderate PA ♦ 17% were meeting CDC recommendations for vigorous PA	♦ 31% rated their diet negatively ♦ 10% were meeting CDC recommendations for moderate PA ♦ 17% were meeting CDC recommendations for vigorous PA	♦ 32% rated their diet negatively ♦ 13% were meeting CDC recommendations for moderate PA ♦ 14% were meeting CDC recommendations for vigorous PA
Falls & Fractures	♦ 34% fell (past year) ♦ 15% sustained fractures ♦ 40% had not discussed their fall(s) with their provider	♦ 28% fell (past year) ♦ 12% sustained fractures ♦ 46% had not discussed their fall(s) with their provider	♦ 36% fell (past year) ♦ 18% sustained fractures ♦ 45% had not discussed their fall(s) with their provider
Health & Quality of Life			
Health Status	32% rated their health negatively (Fair to Poor)	13% rated their health negatively (Fair to Poor)	13% rated their health negatively (Fair to Poor)
Poor Physical Health (past month)	21% reported 14+ days of poor physical health	14% reported 14+ days of poor physical health	14% reported 14+ days of poor physical health
Frequent Mental Distress (past month)	13% reported 14+ days of poor mental health	10% reported 14+ days of poor mental health	10% reported 14+ days of poor mental health
Activity Limitations (past month)	13% were limited from doing their usual activities due to their health	9% were limited from doing their usual activities due to their health	9% were limited from doing their usual activities due to their health
Pain Interference (past month)	18% said that pain interfered with their daily lives	11% said that pain interfered with their daily lives	11% said that pain interfered with their daily lives
Help with Personal Care/Household Chores	24% needed help	34% needed help	43% needed help
Mental Health	♦ 19% may have an anxiety disorder ♦ 15% may be depressed	♦ 13% may have an anxiety disorder ♦ 10% may be depressed	♦ 13% may have an anxiety disorder ♦ 10% may be depressed
Use & Access to Healthcare			
Healthcare Coverage	♦ 98% had some form of coverage ♦ 60% often needed help with understanding/using coverage	♦ 98% had some form of coverage ♦ 55% often needed help with understanding/using coverage	♦ 98% had some form of coverage ♦ 55% often needed help with understanding/using coverage
Healthcare Access (past year)	17% had difficulties accessing a provider when they needed to	19% had difficulties accessing a provider when they needed to	27% had difficulties accessing a provider when they needed to
Adherence with Medical Advice	♦ 91% "always/very often" ♦ 9% "sometimes"	♦ 90% "always/very often" ♦ 10% "sometimes" ♦ 1% "never"	♦ 92% "always/very often" ♦ 8% "sometimes" ♦ 1% "never"
Chronic Disease Self-Efficacy	♦ 60% "confident" to "very confident" ♦ 32% "somewhat confident" ♦ 8% "not at all confident"	♦ 56% "confident" to "very confident" ♦ 34% "somewhat confident" ♦ 10% "not at all confident"	♦ 55% "confident" to "very confident" ♦ 37% "somewhat confident" ♦ 8% "not at all confident"
Provider-Patient Communication	♦ 47% "very often" to "always" ♦ 45% "sometimes" to "fairly often" ♦ 9% "almost never" or "never"	♦ 44% "very often" to "always" ♦ 46% "sometimes" to "fairly often" ♦ 9% "almost never" or "never"	♦ 44% "very often" to "always" ♦ 46% "sometimes" to "fairly often" ♦ 9% "almost never" or "never"
Health Literacy (help with understanding medical instructions or materials)	16% "sometimes" to "always"	16% "sometimes" to "always"	31% "sometimes" to "always"