Health of Older Adults in New York City Public Housing

Findings from the New York City Housing Authority Senior Survey

A Report from the New York City Housing Authority, Department of Health and Mental Hygiene,
Department for the Aging, and the City University of New York School of Public Health at Hunter College

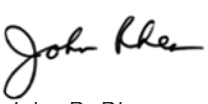
Letter from City Leaders

Dear Fellow New Yorker:

The City of New York is committed to providing all residents with an age-friendly environment. Many New York City (NYC) residents are aging in place in public housing developments that are managed by the New York City Housing Authority (NYCHA). Over the next 20 years, the growth of older NYCHA residents will outpace the growth of NYC's older adult population.

Health of Older Adults in New York City Public Housing is the result of a collaboration among multiple City institutions to understand and improve the health and quality of life among older NYCHA residents. This report summarizes findings from a large, representative survey of older NYCHA residents and outlines recommendations and immediate next steps to improve quality of life among older adults in public housing.

Although poverty remains a key challenge, this report highlights our unique opportunity to provide coordinated health, social, and financial services to older adults living in public housing, and to foster a more informed dialogue about their needs and contributions. In the coming years, we plan to continue working together to build a sustainable strategy to improve the quality of life of all older New Yorkers.



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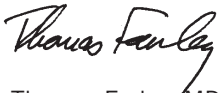

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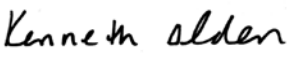

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Executive Summary

Health of Older Adults in New York City Public Housing

NYCHA, with its City partners, initiated this project to address the human and operational challenges posed by the large and expanding population of older adults in public housing. This research combines data from the NYCHA Tenant Data System of annually updated, comprehensive demographic information on all public housing residents with data from a large, representative survey of NYCHA residents aged 65 and older. The report describes the physical and mental health of NYCHA's older residents and provides recommendations and next steps to further improve their quality of life.

The population of older adults living in New York City public housing is large and growing rapidly, representing an opportunity for large-scale interventions to improve the health of many older New Yorkers.

- More than 61,500 New Yorkers aged 65 and older and 48,200 aged 55 to 64 live in New York City Housing Authority (NYCHA) developments.
- The majority of older NYCHA residents are women and black or Hispanic, about half live alone, and – in line with NYCHA's mission to provide affordable housing – nearly half live with income below the federal poverty line.

Many older NYCHA residents live healthy, independent lives, but a significant subgroup has limited functionality and physical and mental health conditions that can negatively impact their quality of life.

- Rates of certain indicators of poor health were elevated among older NYCHA residents compared with older adults in the City overall or nationwide, but were consistent with rates found among similar low-income, older populations.
  - 29% of older NYCHA residents reported limitations in their ability to perform basic activities of daily living.
  - 37% were diagnosed with diabetes, and 15% were current smokers.
- Many older NYCHA residents reported living with health conditions, consistent with rates found in other older populations.
  - 79% of older NYCHA residents reported being diagnosed with two or more chronic conditions (diabetes, hypertension, high cholesterol, arthritis, or osteoporosis).
  - 31% reported doing no physical activity in the past month.

Although nearly all older NYCHA residents have health insurance, some report poor access to health care and many do not use available community supports.

- Although most (89%) older NYCHA residents reported having a personal doctor, 11% reported routinely using the emergency room as a source of care.
- Almost one third (31%) reported using a senior center in the past three months. Senior center users were more likely to be linked to other community services, such as facilitated transportation and meal delivery.

Building on existing programs and services provided by NYCHA, other government agencies, and community-based organizations, the City is committed to increasing NYCHA's ability to meet the needs of its older residents.

- NYCHA will focus its efforts to identify and support at-risk older residents.
- NYCHA will identify strategies and resources to enhance the existing services available to older NYCHA residents, including senior centers and development-based resources.
- NYCHA administration will engage resident leadership as well as City partners to identify new programs to improve the well-being of older NYCHA residents.

Introduction

Older adults are an important and growing part of the social fabric of New York City (NYC). As people age, they face health concerns that can affect their ability to live comfortable, independent lives. Recent national surveys have found that more than 60% of older Americans have multiple chronic conditions and 20% have a physical disability.[1,2] The quality of life older adults experience can be greatly improved by living in supportive physical and social environments and having routine access to high-quality health care services.

More than 61,500 New Yorkers aged 65 and older live in New York City Housing Authority (NYCHA) public housing developments.[3] Age group projections suggest that the growth of this group will outpace that of NYC's older adult population,[4] as NYCHA residents are more likely to stay in their residences instead of moving into assisted living facilities or out of the City.

The large and growing number of older NYCHA residents also presents tremendous opportunities to target health, social, and financial services towards older adults in NYC. Despite the critical financial relief provided by subsidized housing, poverty remains a critical challenge for many. Almost half of older NYCHA residents live with incomes below the federal poverty level. In general, low-income adults have higher rates of chronic illnesses, have worse access to health care services, and receive poorer quality of care than higher-income adults.[5-7]

In 2007, NYCHA convened a multidisciplinary task force to develop a strategy and recommend actions to address the needs of its large and expanding older population. The same year, the Age-friendly New York City initiative was launched by the NYC Mayor's Office and City Council with the New York Academy of Medicine.[8] Following these efforts, NYCHA collaborated with the New York City Departments of Health and Mental Hygiene (DOHMH) and for the Aging (DFTA), as well as with the City University of New York (CUNY) School of Public Health, to conduct a survey among NYCHA residents aged 65 and older to examine health status and barriers to care in the context of near-universal Medicare coverage.

This report summarizes our survey findings, makes recommendations to improve physical and mental health outcomes among older public housing residents in NYC, and aims to promote a more informed dialogue among residents, community-based organizations, and City agencies on how best to improve quality of life for older New Yorkers living in NYCHA housing.

About the Data

More than 1,000 randomly selected adults aged 65 and older living in NYCHA housing were interviewed by telephone in June 2009 for the *NYCHA Senior Survey*. Participants' demographic information was obtained from the NYCHA Tenant Data System. Analyses presented in this report were statistically weighted to be representative of all older NYCHA adults, and all comparisons discussed in the text are statistically significant.

Additional data sources were used to draw comparisons between the demographics and health of older NYCHA adults and those of older adults in NYC and the US. Qualitative feedback was gathered from meetings with resident leaders across the five boroughs and a variety of NYCHA officials and development-based staff. Please see the *Technical Notes* for additional information.

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1. National Institutes of Health (NIH). Fact Sheet – Disability in Older Adults. Available at: http://report.nih.gov/NIHfactsheets/ViewFactSheet.aspx?csid=37&key=D#D. Accessed March 21, 2011.
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SECTION 1

Overview of the New York City Housing Authority (NYCHA)

NYCHA is the largest public housing authority in North America, comprising more than 178,000 apartments in 334 developments with 2,602 residential buildings throughout the five boroughs of NYC. Nearly 404,000 individuals officially reside in NYCHA's public housing developments. The first senior development exclusively for residents aged 62 and older, Gaylord White Houses in Manhattan, was completed in 1964. Since then, the number of senior developments has grown to 42, and 14 mixed family developments include designated buildings for older adults. In total, 10,000 apartments in NYCHA's public housing portfolio are reserved for older adults.

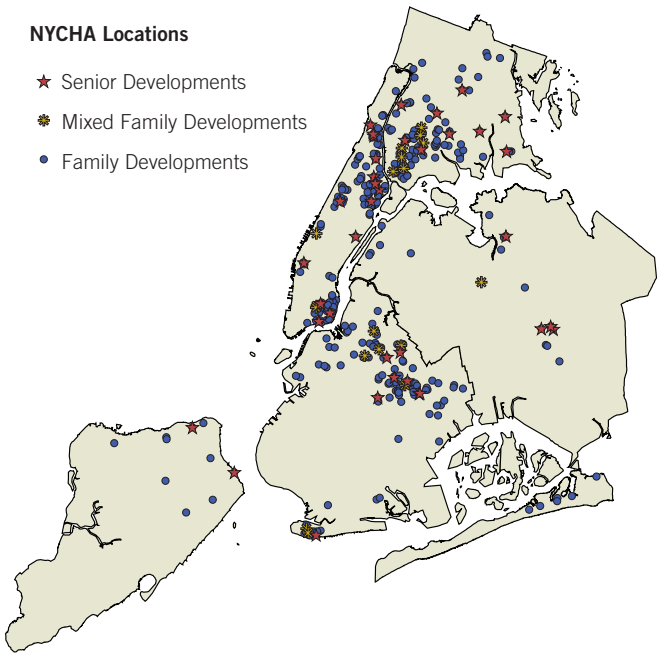
NYCHA Housing Development Types

Senior Developments: Developments designed and built exclusively for residents aged 62 and older, with mostly studio and one-bedroom apartments.

Mixed Family Developments: Developments designed and built for residents of all ages and family sizes that also include at least one building set aside for residents aged 62 and older.

Family Developments: Developments designed and built for residents of all ages and family sizes, with apartments ranging in size from studios to five bedrooms.

Locations of NYCHA Developments by Type



1a. NYCHA Demographics

Older residents are the fastest growing age group among NYCHA's population. Between 2000 and mid-2010, the population of residents aged 65 and older increased from 53,722 to 61,546. Older residents make up 6% of all older New York City residents and 15% of all NYCHA residents.[1,2] By 2030, it is estimated that one in five (20%) NYCHA residents will be aged 65 or older.[1]

Older adults in NYCHA and NYC have similar age distributions, but a greater proportion of older NYCHA residents are women and are black or Hispanic. Manhattan and Brooklyn are home to the greatest proportion of NYCHA residents aged 65 and older. According to NYCHA's records, the majority of older NYCHA residents are living in single-person households and are presumed to be living alone. Nearly half of older NYCHA residents have very low income (less than

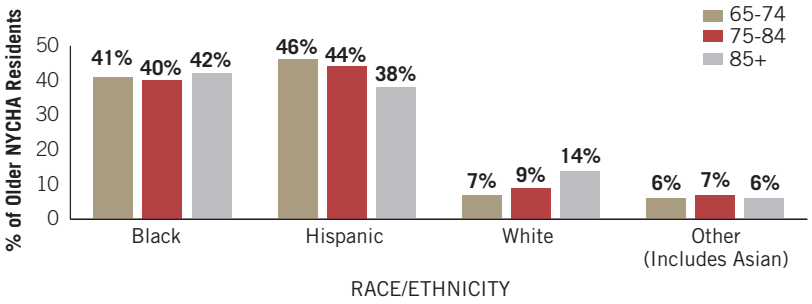
100% of the federal poverty level) compared with 19% of older adults citywide. Income varies by race/ethnicity: 67% of older Asian residents had very low income compared with 56% of whites, 56% of Hispanics, and 39% of blacks. Social Security and Supplemental Security Insurance are the primary sources of income for older NYCHA residents, with 93% receiving at least one of these benefits.

Comparison of Demographics among NYCHA and NYC Residents Aged 65+

		% of Older NYCHA Adults[1]	% of All Older NYC Adults[2]
Age	65-75	55%	53%
	75-85	33%	33%
	85+	12%	14%
Gender	Men	29%	39%
	Women	71%	61%
Race/ethnicity	White	9%	50%
	Black	40%	21%
	Hispanic	44%	19%
	Other (includes Asian)	7%	10%
Borough of residence	Bronx	23%	15%
	Brooklyn	30%	29%
	Manhattan	36%	20%
	Queens	9%	30%
	Staten Island	2%	6%
Household size	Single-person	53%	31%
	Multiple-person	47%	69%
Income level	Very low	49%	19%
	Low	32%	23%
	Moderate	19%	58%

There are more women than men in all age groups, but the gender gap widens slightly among residents in older age groups: 75% of older NYCHA residents aged 85 and older are women. In addition, the percentage of white residents increases with age, while the percentage of Hispanic residents decreases.

NYCHA Residents Aged 65+, by Race/Ethnicity and Age[1]



Most (83%) older residents live in family developments, 13% (or 8,100 older residents) live in senior developments, and 3% (2,000) live in mixed family developments. More than a quarter (27%) of older residents have lived in NYCHA housing for 40 years or longer.

Income Levels

Very Low Income:
Households with income below 100% of the federal poverty level (FPL).

– Less than $10,830 for a single-person household.

Low Income:
Households with income at or above 100% and below 200% of the FPL.

– Between $10,830 and $21,659 for a single-person household.

Moderate Income:
Households with income at or above 200% of the FPL.

– At or above $21,660 for a single-person household.

1b. Initiatives to Assist Older Residents

NYCHA has implemented a variety of initiatives to address the needs of its older residents, including:

- **Senior Centers** – NYCHA directly operates 38 senior centers that provide workshops on entitlements and nutrition, computer classes, day trips, arts and crafts, exercise classes, or meal programs. DFTA currently sponsors an additional 74 senior centers at NYCHA developments that are managed by community-based organizations.
- **Senior Resident Advisor Program** – The Senior Resident Advisor Program consists of trained paraprofessionals, some living on-site, who provide crisis intervention services and social service coordination at 22 senior developments. Each program includes a substantial number of residents who volunteer to serve as floor captains and ensure daily contact with each elderly resident. The Senior Resident Advisors are supervised by licensed social workers.
- **Service Coordinator Program** – The Service Coordinator Program operates in developments in northern Manhattan, Brooklyn, Queens, and Staten Island. Service Coordinators help older and disabled residents access government benefits, assist with daily living activities, monitor health care needs, and provide other services.
- **Naturally Occurring Retirement Community (NORC) Program** – The NORC Program addresses the needs of older adults who have aged in place in housing not reserved specifically for older adults. Programs provide comprehensive support and health care services for all residents aged 60 and older who are living independently. Of the 43 NORCs located in NYC, 8 are supported by DFTA at NYCHA developments.
- **Senior Companion Programs** – This program is a cooperative project with DFTA, the Henry Street Settlement, and the Corporation for National Service. Working with a corps of resident volunteers, the program provides home visits, crisis intervention, telephone reassurance, and errand and escort services for sick, socially isolated, and frail older residents at selected NYCHA developments.
- **Senior Benefit & Entitlement Fair** – NYCHA's Department of Resident Support Services sponsors an annual Senior Benefit and Entitlement Fair (SBEF) to provide older NYCHA residents with resources and services. The SBEF provides more than 1,700 older resident attendees with information, application assistance, and registration opportunities for various services, including Access-A-Ride, Reduced-Fare MetroCard, Medicare Savings Plans, free health screenings, and one-on-one financial counseling.

References: Overview of NYCHA

1. NYCHA Tenant Data System. *See Introduction for full citation.*
2. American Community Survey (ACS). 2005-2009 ACS Survey 5-Year Estimates. Available at: http://factfinder.census.gov/servlet/DatasetMainPageServlet?_program=ACS&_submenuId=datasets_2&_lang=en. Accessed January 25, 2011.

SECTION 2

Physical Health

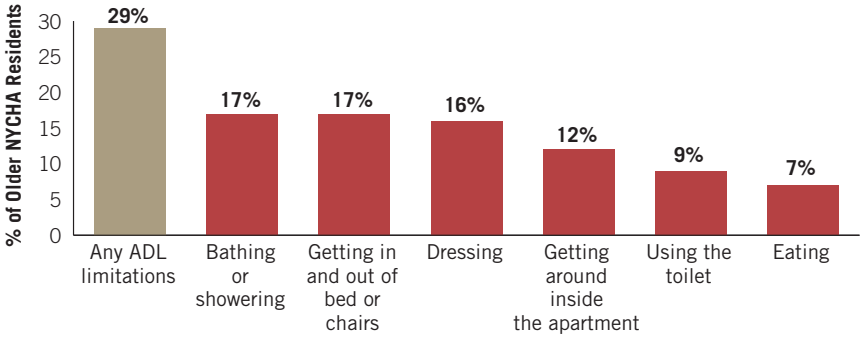
2a. Activities of Daily Living

Activities of daily living (ADLs) are basic tasks considered essential for independent living, and identified ADL limitations can be used to characterize an individual's functionality. These limitations increase with age and can require changes in living arrangements or increased use of health care services. Instrumental activities of daily living (IADLs) include tasks that are not necessary to complete most day-to-day activities but allow an individual to function independently.[1-3]

ACTIVITIES OF DAILY LIVING

More than one quarter (29%) of older NYCHA residents had at least one ADL limitation, with difficulties bathing or showering and getting in or out of bed or chairs reported most. In comparison, only 6% of older adults nationally identified at least one ADL limitation.[4]

Limitations in Activities of Daily Living among NYCHA Residents Aged 65+



Among older NYCHA residents, having at least one ADL limitation was more common among women than men (31% vs. 22%), and residents aged 75 and older than those aged 65 to 74 (35% vs. 24%). Older Asian residents were more likely to have at least one ADL limitation than white, black, and Hispanic residents (47% vs. 28%, 28%, and 27%, respectively). The prevalence of ADL limitations also varied by income: 36% of older NYCHA residents with very low income had at least one ADL limitation, compared with 24% of those with low income and 17% of those with moderate income. Older residents living alone were more likely to have at least one ADL limitation than those living with others (34% vs. 23%).

INSTRUMENTAL ACTIVITIES OF DAILY LIVING

Almost one third (31%) of older adults living in NYCHA housing had at least one IADL limitation, similar to the result found for ADLs. Difficulty shopping for personal items was indicated by 24% of older residents, preparing meals by 19%, and managing money by 16%.

Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs)

Q. Because of a health or physical problem, do you have any difficulty:

Activities of Daily Living:
Bathing or showering; Dressing; Eating; Getting in and out of bed or chairs; Using the toilet, including getting to the toilet; Getting around inside the apartment.

Instrumental Activities of Daily Living:
Preparing meals; Shopping for personal items, such as toilet items or medicines; Managing money, such as keeping track of expenses or paying bills.

ADL Limitations and Other Health Indicators:
In Section 8 we explore the relationship between ADL limitations and other health outcomes to better characterize functionality and quality of life among older NYCHA residents.

References: Activities of Daily Living

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2. Freedman VA, Martin LG, Schoeni RF. Recent trends in disability and functioning among older adults in the United States: a systematic review. *JAMA*. 2002;288(24):3137-46.
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Self-Reported Health Status

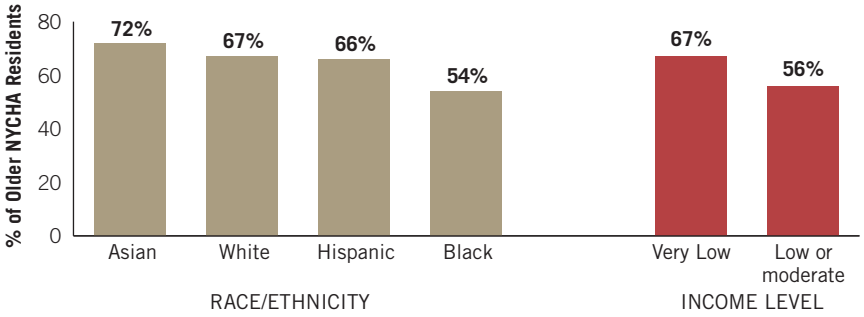
Q. Would you say that in general, your health is excellent, very good, good, fair, or poor?

2b. Self-Reported Health Status

Self-reported health status is a reliable indicator of physical and mental health. Although the predictive power of this measure may vary slightly depending on demographic characteristics, those who describe their health as fair or poor commonly have worse health outcomes than those who describe their health as excellent, very good, or good.[1]

Almost two thirds (61%) of older NYCHA residents described their health status as fair or poor, much higher than the rate among older adults in NYC (40%) and nationally (26%).[2,3] Older women were more likely than older men to describe their health as fair or poor (65% vs. 53%). The prevalence of self-reported fair or poor health also varied by race/ethnicity and income, with higher rates reported among older Asian, white, and Hispanic residents and among those with very low income.

Fair/Poor Health Status among NYCHA Residents Aged 65+, by Race/Ethnicity and Income



References: Self-Reported Health Status

1. CDC. Racial/Ethnic disparities in self-rated health status among adults with and without disabilities—United States, 2004-2006. *MMWR* 2008;57:39:1069-73.
2. New York City Department of Health and Mental Hygiene (DOHMH). Epiquery: NYC Interactive Health Data System—Community Health Survey 2009. Available at: https://a816-healthpsi.nyc.gov/epiquery/EpiQuery/. Accessed March 22, 2011.
3. Schoenborn CA, Heyman KM. Health characteristics of adults aged 55 years and over: United States, 2004–2007. National health statistics reports; no. 16. Hyattsville, MD: National Center for Health Statistics. 2009.

Diabetes

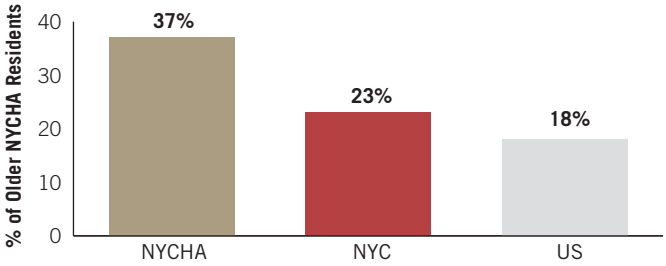
Q. Have you ever been told by a doctor, nurse, or other health professional that you have diabetes?

2c. Physician-Diagnosed Health Conditions

DIABETES

Diabetes – the fourth leading cause of death in NYC in 2009 – is a serious illness that can cause other health complications.[1,2] The prevalence of self-reported diagnosed diabetes among older NYCHA residents was considerably higher than among older adults in NYC and the United States (US).[3,4]

Self-Reported Diagnosed Diabetes among NYCHA Residents, NYC Adults, and US Adults Aged 65+



Consistent with local and national findings, the prevalence of diagnosed diabetes was more common among older Hispanic and black residents than older white residents (42% and 36% vs. 25%, respectively).[3,4] Over one quarter (26%) of older Asian residents reported being diagnosed with diabetes.

DIABETES MANAGEMENT AND COMPLICATIONS

Diabetes management	Diabetes complications
Q. The last time you had your hemoglobin A1C checked, did a doctor, nurse, or other health professional tell you that your diabetes was controlled? **Q.** How is your diabetes being treated? With diet, diabetic pills, insulin injections, or some other way?	**Q.** Have you ever been told by a doctor, nurse, or other health professional that diabetes has affected: - your eyes or that you had retinopathy? - the nerves in your hands, arms, feet, or legs? - your kidneys or that you needed to have dialysis? **Q.** Have you ever had an amputation because of your diabetes?

A key aspect of diabetes management is routine testing of A1C level, recommended every three to six months, to monitor control of blood sugar.[5] Three fourths (75%) of older residents who reported having their A1C level checked at least once in the past year were told that their diabetes was controlled. Among older residents with diagnosed diabetes, 17% reported being treated with insulin, 58% reported being treated with diabetic pills, 10% reported being treated with both insulin and diabetic pills, and 13% reported managing their condition through diet or another method without medication. More than half of older NYCHA residents with diabetes reported ever having at least one diabetes-related complication.

Complications from Diabetes among NYCHA Residents Aged 65+ with Diagnosed Diabetes

	% of Older NYCHA Residents with Diabetes
At least one diabetes-related complication	**55%**
Retinopathy	**39%**
Nerve damage	**37%**
Kidney damage or dialysis	**14%**
Amputation	**7%**

Recent recommendations for diabetes treatment suggest that insulin therapy should be started early for patients experiencing complications or not meeting target blood sugar goals.[5] However, other therapies may be used with patients who have contraindications due to other comorbid conditions.[6] Among older residents who reported at least one diabetes-related complication, 24% reported taking insulin, 51% reported taking diabetic pills, 13% reported taking both insulin and diabetic pills, and 11% reported managing their condition through diet or another method without medication.

References: Diabetes

1. DOHMH. Summary of Vital Statistics 2009. Available at: http://www.nyc.gov/html/doh/downloads/pdf/vs/2009sum.pdf. Accessed January 19, 2011.
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3. DOHMH. Epiquery: NYC Interactive Health Data System –Community Health Survey 2009. *See Self-Reported Health Status for full citation.*
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6. American Association of Clinical Endocrinologists. Medical Guidelines for Clinical Practice for the Management of Diabetes Mellitus. Available at: http://alt.aace.com/pub/pdf/guidelines/DMGuidelines2007.pdf. Accessed January 8, 2011.

Select Cardiovascular Disease Indicators

Q. Have you ever been told by a doctor, nurse, or other health professional that:

– you have hypertension, also called high blood pressure?

– your blood cholesterol is high?

Q. Have you had a heart attack in the last five years?

Q. Have you had a stroke in the last five years?

References: Cardiovascular Disease

1. CDC. Chronic Disease Prevention and Promotion – Heart Disease and Stroke Prevention. Available at: http://www.cdc.gov/chronicdisease/resources/publications/AAG/dhdsp.htm. Accessed December 3, 2010.
2. World Health Organization (WHO). Cardiovascular Diseases (CVDs). Available at: http://www.who.int/mediacentre/factsheets/fs317/en/index.html. Accessed December 3, 2010.
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2. Coffey RM, Andrews RM, Moy E. 2005. *See Introduction for full citation.*
3. DOHMH. Epiquery: NYC Interactive Health Data System – Community Health Survey 2009. *See Self-Reported Health Status for full citation.*
4. ACS. 2005-2009 ACS Survey 5-Year Estimates. *See Introduction for full citation.*

CARDIOVASCULAR DISEASE RISK

Cardiovascular disease (CVD) includes disorders that affect the heart and blood vessels, such as hypertension (high blood pressure), high cholesterol, heart disease, and stroke.[1,2] Older NYCHA residents were more likely to report being diagnosed with hypertension compared with older adults in NYC and the US.[3-5] Older black residents had higher rates of hypertension than Hispanics, whites, and Asians (82% vs. 74%, 66%, and 56%, respectively), similar to national data.[5] More than half of older NYCHA residents had been diagnosed with high cholesterol, similar to older adults citywide.[3-5] No comparable citywide or national statistics are available for heart attack and stroke, but more than one in 10 older NYCHA residents reported suffering at least one of these events in the past five years.

Self-Reported Cardiovascular Disease Indicators among NYCHA Residents, NYC Adults, and US Adults Aged 65+

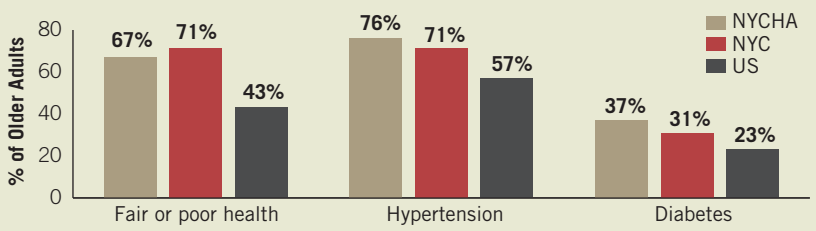
	% of Older NYCHA Residents	% of Older NYC Adults[3,4]	% of Older US Adults[5,6]
Ever diagnosed with hypertension	**76%**	**63%**	**53%**
Ever diagnosed with high cholesterol	**59%**	**52%**	**54%**
Had a heart attack or stroke in the past five years	**12%**	——	——

Most (86%) older NYCHA residents had at least one of these CVD indicators. Older women were more likely to identify at least one CVD indicator than men (88% vs. 79%), and older Asian residents were less likely to identify any CVD indicators than blacks, Hispanics, and whites (71% vs. 88%, 85%, and 84%, respectively).

Effect of Income on Self-Reported Health Status and Physician-Diagnosed Conditions

Higher rates of fair or poor health, hypertension, and diabetes were observed among older NYCHA residents compared with older adults in NYC and the US. However, these health outcomes are generally more common among adults with very low income.[1,2] Given the large proportion of NYCHA residents with very low income, we examined these conditions among older adults with very low income. The prevalence rates were similar for older NYCHA and older NYC adults with very low income, but were higher than national rates.

Health Status, Hypertension, and Diabetes among NYCHA, NYC, and US Adults Aged 65+ with Very Low Income[3,4]

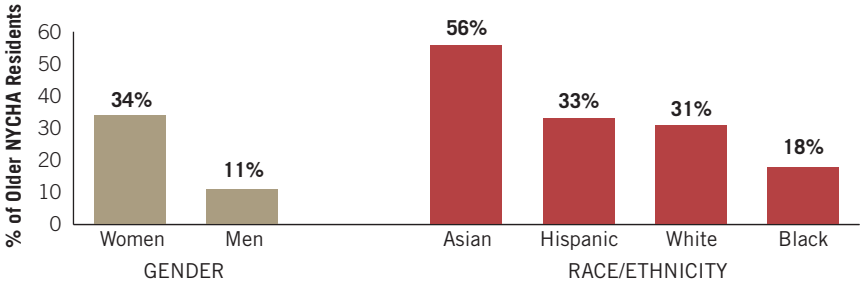


ARTHRITIS AND OSTEOPOROSIS

Arthritis and osteoporosis, conditions that affect the joints and bones, respectively, are major causes of disability in the US and can lead to increased risk of fractures and other health problems.[1,2] Almost two thirds (61%) of older NYCHA residents reported being told by a health professional that they have arthritis or an associated joint condition, and this was higher among women than men (68% vs. 45%). Among those diagnosed with arthritis, 65% reported activity limitations due to arthritis. In comparison, 50% of older adults nationally have been diagnosed with some form of arthritis and 23% have an arthritis-attributable activity limitation.[3]

More than one in four (28%) older NYCHA residents reported being diagnosed with osteoporosis. Osteoporosis is known to be underdiagnosed and undertreated,[4,5] but overall women account for 75% of osteoporosis diagnoses, and rates of osteoporosis among whites and Asians are particularly high.[5] Among older NYCHA residents, the prevalence of osteoporosis was three times higher among women than men, and Asians were more likely to report osteoporosis than other racial/ethnic groups.

Prevalence of Diagnosed Osteoporosis among NYCHA Residents Aged 65+, by Gender and Race/Ethnicity



2d. Multiple Chronic Conditions

Older adults with multiple chronic conditions frequently require more medical care and disease management than those with one or no chronic conditions. These adults may also have complex and costly pharmaceutical regimens that place them at high risk for drug interactions, dizziness, and falls.[1] Failure to follow prescribed treatment regimens, however, can lead to mismanagement of one or more conditions.[2]

Nearly all (93%) older NYCHA residents reported having been diagnosed with at least one of five chronic conditions and more than three quarters reported multiple chronic conditions. Among older NYCHA residents, women were more likely to have multiple chronic conditions than men (85% vs. 65%). However, the prevalence of multiple chronic conditions did not vary by age, race/ethnicity, income, or household size.

Arthritis and Osteoporosis

Q. Have you ever been told by a doctor, nurse, or other health professional that:

– you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?

– you have osteoporosis, sometimes called fragile or soft bones?

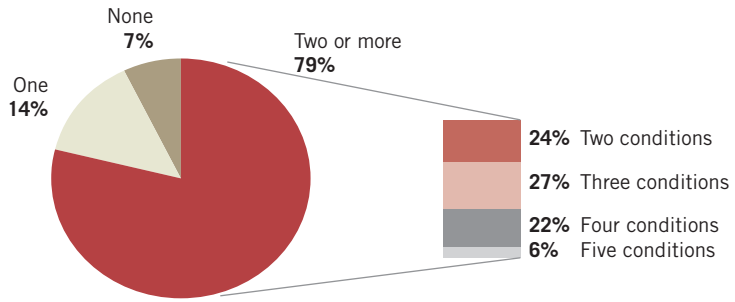
References: Arthritis and Osteoporosis

1. CDC. Arthritis. Available at: http://www.cdc.gov/arthritis/. Accessed December 3, 2010.
2. CDC. Nutrition for Everyone: Calcium and Bone Health. Available at: http://www.cdc.gov/nutrition/everyone/basics/vitamins/calcium.html. Accessed December 3, 2010.
3. CDC. Prevalence of doctor-diagnosed arthritis and arthritis-attributable activity limitation – United States, 2007-2009. *MMWR.* 2010;59(39):1261-5.
4. Siris ES, Miller PD, Barrett-Connor E, Faulkner KG. Identification and fracture outcomes of undiagnosed low bone mineral density in postmenopausal women. *JAMA.* 2001;286(22):2815-22.
5. HHS. Bone Health and Osteoporosis: A Report of the Surgeon General. Rockville, MD: US Department of Health and Human Services, Office of the Surgeon General; 2004.

Multiple Chronic Conditions

Residents who reported being diagnosed with at least two of the following conditions were considered to have multiple chronic conditions: *diabetes, hypertension, high cholesterol, arthritis or associated joint condition, and osteoporosis.*

Number of Chronic Conditions among NYCHA Residents Aged 65+



Compared with older residents with one or no chronic conditions, those with multiple chronic conditions were more likely to have had a heart attack or stroke in the past five years (13% vs. 5%*).

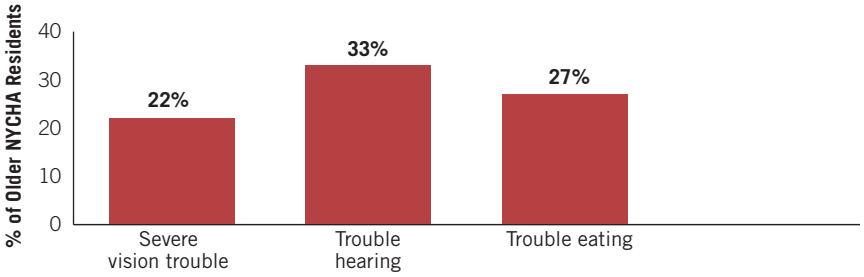
*Due to small numbers, estimate should be interpreted with caution.

2e. Vision, Hearing, and Dental Health

As people age, increasing problems with vision, hearing, and dental health can lead to a diminished quality of life. Regular screening and prompt treatment for these health issues are important to prevent further declines, as well as to prevent and treat complications resulting from other health conditions.[1-3]

Almost one quarter (22%) of older NYCHA residents reported having severe vision trouble. One third (33%) of older NYCHA residents reported any trouble hearing, similar to national estimates,[1] with 6% reporting a lot of trouble or being deaf without a hearing aid.[1] More than one in four (27%) older NYCHA residents reported trouble eating solid food because of dental problems.

Trouble with Vision, Hearing, and Eating among NYCHA Residents Aged 65+



Regular eye exams are important because early detection, timely treatment, and appropriate follow-up can help prevent vision loss and blindness.[4] Overall, 67% of older NYCHA residents reported having an eye exam within the past year. In particular, people with diabetes need to have a comprehensive eye examination, including dilation, at least once a year to identify and treat diabetic retinopathy.[4] Among older NYCHA residents with diabetes, 79% reported having their eyes examined in the past year.

Fewer than half (44%) of all older NYCHA residents had seen a dentist in the past year, compared with 61% in NYC and 57% nationally,[1,5] and one in five (21%) reported that their last dental visit was more than five years ago.

Vision, Hearing, and Dental Health

Severe vision trouble: Respondents who reported having a lot of trouble seeing or no usable vision without corrective lenses were identified as having severe vision trouble.

Trouble hearing: Respondents who reported having a little trouble or a lot of trouble hearing or were deaf without a hearing aid were identified as having any trouble hearing.

Trouble eating: Respondents who reported having a little trouble or a lot of trouble eating solid foods because of problems with their mouth or teeth were identified as having trouble eating.

References: Vision, Hearing, and Dental Health

1. Schoenborn CA, Heyman KM. 2009. *See Self-Reported Health Status for full citation.*
2. Vargas CM, Kramarow EA, Yellowitz JA. The Oral Health of Older Americans. Aging Trends No. 3. Hyattsville, MD: National Center for Health Statistics; 2001.
3. HHS. Oral Health in America: A Report of the Surgeon General –Executive Summary. Rockville, MD: US Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health, 2000.
4. CDC. Vision Health Initiative (VHI). Available at: http://www.cdc.gov/visionhealth/. Accessed December 20, 2010.
5. DOHMH. Epiquery: NYC Interactive Health Data System –Community Health Survey 2007. *See Self-Reported Health Status for full citation.*

Key Findings: Physical Health

- Compared with older adults nationwide, older NYCHA residents were more likely to identify ADL limitations and to describe their health as fair or poor. ADL limitations were more common among those living alone than those living with others who might be able to provide assistance.
- Older NYCHA residents were more likely to report being diagnosed with specific chronic health conditions compared with older adults in NYC and the US. The majority of older NYCHA residents reported having two or more diagnosed chronic conditions.
- Vision, hearing, and dental problems were common among older NYCHA residents. Most residents reported a recent eye exam, particularly those with diabetes. However, less than half reported a recent dental visit.

Burden of Physical Health Conditions

	Older NYC Residents Living in NYCHA Housing	
	Percentage	Number
Total population	100%	61,546
Any activity of daily living limitations	29%	17,848
Any instrumental activity of daily living limitations	31%	19,079
Fair or poor self-reported health status	61%	37,543
Physician-diagnosed chronic conditions		
Diabetes	37%	22,772
Hypertension	76%	46,775
High cholesterol	59%	36,312
Arthritis	61%	37,543
Osteoporosis	28%	17,233
Multiple (two or more) chronic conditions	79%	48,621
Acute health events		
At least one diabetes-related complication	55%	33,850
Heart attack or stroke in the past five years	12%	7,386
Severe vision trouble	22%	13,540
Trouble hearing	33%	20,310
Trouble eating	27%	16,617

SECTION 3

Depression and Social Support

3a. Depression

History of Diagnosed Depression

Q. Have you ever been told by a doctor, nurse, or other health professional that you have depression?

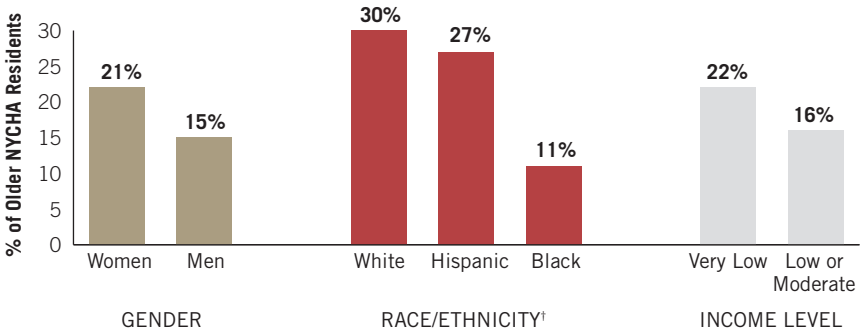
A response of "yes" indicates a history of diagnosed depression but is not necessarily an indicator of current depression.

HISTORY OF DIAGNOSED DEPRESSION

Nationally, one in 10 (11%) older adults has a lifetime history of depression, but estimates of major depression among older adults can vary, depending on both health and environmental factors.[1,2] Depression resulting from changes that occur later in life may be misinterpreted as a natural coping reaction among older adults, leading to underdiagnosis and subsequent lack of treatment.[1,2]

Older NYCHA residents were more likely to report a history of diagnosed depression than older NYC adults (19% vs. 13%).[3] Similar to older adults in NYC, older NYCHA women were more likely to have a history of diagnosed depression, and older black residents and older residents with low or moderate income were less likely to have such a diagnosis.

History of Diagnosed Depression among NYCHA Residents Aged 65+, by Gender, Race/Ethnicity, and Income



† Data for older Asian residents are suppressed due to imprecise and unreliable estimates.

Current Risk for Depression

Current risk for depression was determined using the Patient Health Questionnaire-2 scale:

Q. During the past two weeks, how often have you been bothered by little interest or pleasure in doing things?

Q. During the past two weeks, how often have you been bothered by feeling down, depressed, or hopeless?

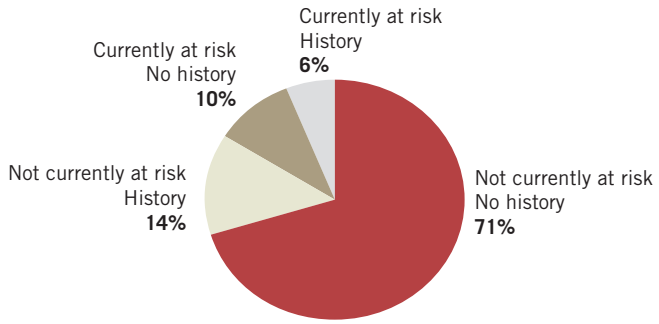
For each question, respondents could choose: not at all, several days, or nearly every day. These responses were used to create a score, with a high score indicating higher risk for being currently depressed.

CURRENT RISK FOR DEPRESSION

Approximately one in six (16%) older NYCHA residents was identified as being currently at risk for depression, similar to the 2007 rate among older NYC adults overall (14%).[4] Despite higher rates of depression diagnoses among older women, white, and Hispanic residents, these demographic differences were not found for risk for depression. Older NYCHA residents with very low income were more likely to be at risk than residents with low or moderate income (20% vs. 12%), as were those living alone compared with those living with others (19% vs. 12%).

Risk for depression may suggest a possible need for depression assessment by a health care professional or additional treatment if an individual is not already receiving mental health care.[5] One in 10 older residents was at risk for depression but had no history of diagnosed depression. Slightly more than one in 20 older NYCHA residents had both a history of diagnosed depression and was at risk for depression.

Current Risk for Depression and History of Depression Diagnosis among NYCHA Residents Aged 65+



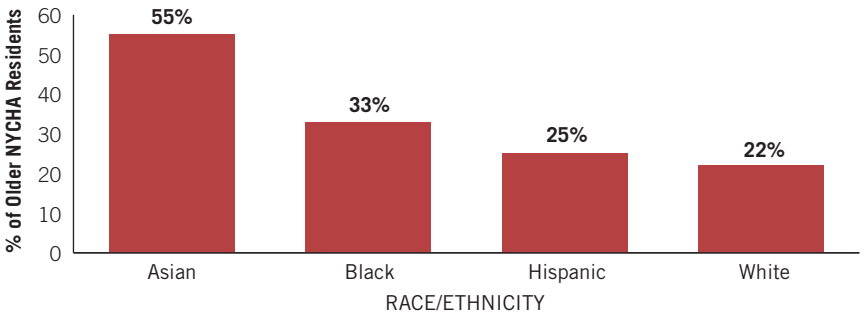
The relationship between depression and chronic conditions is complex: depressive disorders can precipitate chronic disease, and chronic disease can exacerbate depressive symptoms.[6] Risk for depression was higher among older NYCHA residents with multiple chronic conditions than among those with one or no chronic conditions (18% vs. 6%), and was also higher among those who reported having a heart attack or stroke in the past five years compared with those who did not (26% vs. 14%).

3b. Social Support

Lack of social support among older adults has been associated with increased risk for illness, depression, and death.[1,2] Three in 10 (30%) older NYCHA residents reported they did not have a friend, relative, or neighbor who could assist them for a few days if necessary; 12% reported they did not talk to a friend, relative, or neighbor on the phone in the past week; and 9% reported they did not leave their home during an average week.

These measures of social support varied across demographic groups. Older Asian residents were more likely to report not having help available compared with older black and Hispanic residents, but no variation in having help available was observed by gender, age, or income.

NYCHA Residents Aged 65+ with No Help Available, by Race/Ethnicity



Not talking on the phone was more common among men than women (17% vs. 9%) and among Asian and Hispanic residents than black residents (21% and 17% vs. 7%, respectively). Leaving the home differed by age, with residents aged 75 and older twice as likely to report not leaving their home during the week as those aged

References: Depression

1. CDC. The State of Mental Health and Aging in America. Available at: http://apps.nccd.cdc.gov/MAHA/MahaHome.aspx. Accessed December 10, 2010.
2. CDC. Depression Is Not a Normal Part of Growing Older. Available at: http://www.cdc.gov/aging/mentalhealth/depression.htm. Accessed December 10, 2010.
3. DOHMH. Epiquery: NYC Interactive Health Data System – Community Health Survey 2009. *See Self-Reported Health Status for full citation.*
4. DOHMH. Unpublished Community Health Survey Data, 2007.
5. Center for Quality Assessment and Improvement in Mental Health. The Patient Health Questionnaire-2 (PHQ-2) – Overview. Available at: http://www.cqaimh.org/pdf/tool_phq2.pdf. Accessed January 25, 2011.
6. Chapman DP, Perry GS, Strine TW. The vital link between chronic disease and depressive disorders. *Prev Chronic Dis.* 2003;2(1):1-10.

Social Support

The questions on different aspects of social support are not directly related but each offers important information about the social activities of older NYCHA residents:

Have help available:

Q. Is there a friend, relative, or neighbor who could assist you for a few days if necessary?

Talked on telephone:

Q. During the past week, did you talk with relatives, friends, or neighbors on the telephone?

Left the home:

Q. On average, about how many times per week do you leave home for any reason?

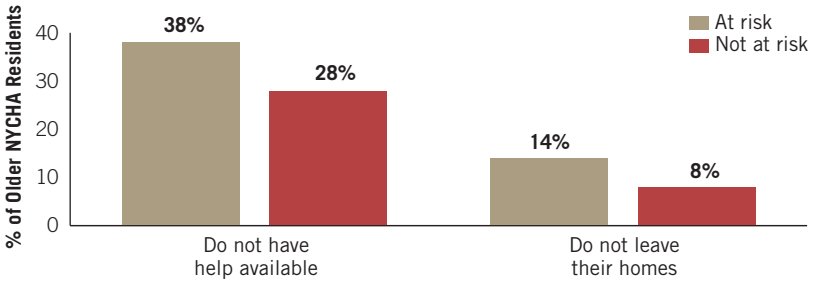
References: Social Support

1. Norton JM, Nicaj L, DiGrande L, Stayton C, Olson C, Kerker B. Health of Older New Yorkers. *NYC Vital Signs.* 2010;8(4):1-4.
2. CDC. Social support and health-related quality of life among older adults – Missouri, 2000. *MMWR.* 2005;54(17):433-7.

65 to 74 (12% vs. 6%). Older residents with very low income were also more likely to report not leaving their homes compared with those with low or moderate income (11% vs. 6%).

Older NYCHA residents who were currently at risk for depression were more likely to report not having help available and not leaving their homes than those not at risk. Household size also can play an important role in the availability of social support. Although older residents living with others are more likely to have built-in social support, they may still be at risk for social isolation. Among older NYCHA residents, these social support indicators were similar among those living alone and those living with others.

Social Support among NYCHA Residents Aged 65+, by Current Risk for Depression



Key Findings: Depression and Social Support

- In comparison with older adults in NYC, older NYCHA residents had elevated levels of diagnosed depression and were more likely to be currently at risk for depression. Approximately one in six was currently at risk for depression, and more than one in 20 older NYCHA residents had a history of depression and was also currently at risk for depression.
- Levels of social support varied among older NYCHA residents. However, almost one third of older residents, including those living with others, reported that they did not have someone who could assist them for a few days if necessary. This measure did not vary among most demographic subgroups.

Burden of Depression and Lack of Social Support

	Older NYC Residents Living in NYCHA Housing	
	Percentage	Number
Total population	100%	61,546
Ever diagnosed with depression	19%	11,694
Currently at risk for depression	16%	9,847
Did not have help available	30%	18,464
Did not talk on the phone in the past week	12%	7,386
Does not leave the home at least once a week	9%	5,539

SECTION 4

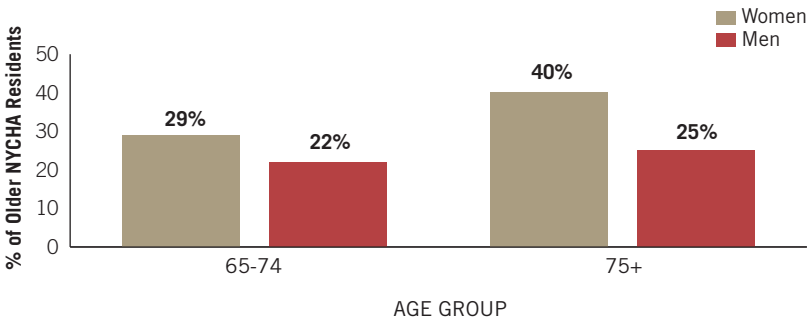
Modifiable Risk Factors

Modifiable risk factors are those that individuals can change to improve their health. One behavior that older adults can benefit from is regular physical activity, which does not have to be strenuous to deliver physical and mental health benefits.[1] Smoking cessation has benefits at any age, reducing the risk of heart disease, cancer, and stroke, and improving quality of life.[2]

4a. Physical Inactivity

Overall, 31% of older NYCHA residents reported doing no physical activity in the past month, similar to the level of inactivity among older NYC residents (33%).[1] Older NYCHA women were more likely to be physically inactive than men (34% vs. 23%), and gender differences were evident among other demographic subgroups of older residents. Among older NYCHA residents, inactivity increased with age: 27% of residents aged 65 to 74 and 35% of those aged 75 and older reported no physical activity in the past month, and the difference in inactivity was greater among men and women aged 75 and older.

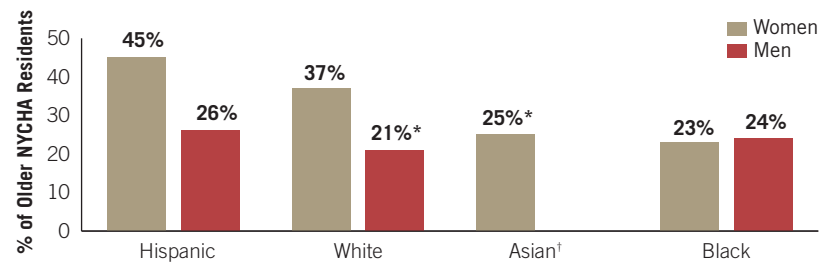
Inactivity among NYCHA Residents Aged 65+, by Age and Gender



Physical inactivity was more common among Hispanics than whites, blacks, and Asians (39% vs. 33%, 23%, 17%*, respectively), though this difference was largely driven by elevated inactivity among older Hispanic women. Inactivity levels also varied by income, as older NYCHA residents with very low income were more likely to be physically inactive than those with low or moderate income (36% vs. 26%).

* Due to small numbers, estimate should be interpreted with caution.

Inactivity among NYCHA Residents Aged 65+, by Race/Ethnicity and Gender



* Due to small numbers, estimate should be interpreted with caution.

† Data for older Asian men are suppressed to imprecise and unreliable estimates.

References: Modifiable Risk Factors

1. HHS. Physical activity and health: A Report from the Surgeon General. http://www.cdc.gov/nccdphp/sgr/olderad.htm. Accessed on December 9, 2010.
2. Nicita-Mauro V, Lo Balbo C, Mento A, Nicita-Mauro C, Maltese G, Basile G. Smoking, aging and the centenarians – mini-review. *Exp Gerontol.* 2008; 43:95-101.

Physical Inactivity

Q. During the past 30 days, did you participate in any physical activities or exercises such as walking, dancing, or other activities?

References: Physical Inactivity

1. DOHMH. Epiquery: NYC Interactive Health Data System – Community Health Survey 2009. *See Self-Reported Health Status for full citation.*

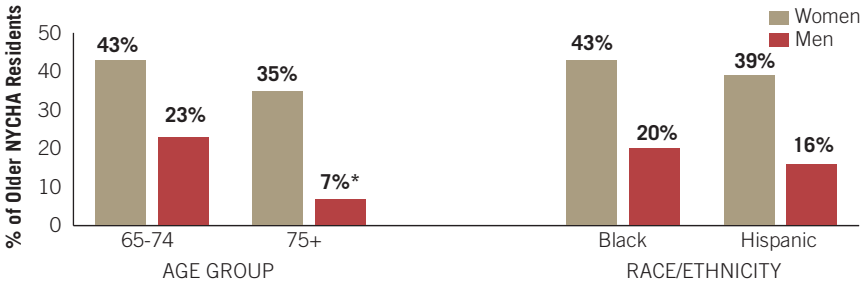
Obesity

Survey participants were asked to report their height and weight without shoes. This information was used to calculate Body Mass Index (BMI), a measure that is commonly used to evaluate obesity. Following national standards, participants with a BMI of 30 or greater were considered obese *(see Technical Notes for more information).*

4b. Obesity

One third (33%) of older NYCHA residents were obese, compared with slightly more than one quarter (26%) of older NYC adults.[1] The prevalence of obesity among older NYCHA residents decreased with age: those aged 65 to 74 had higher levels of obesity than residents aged 75 and older (37% vs. 26%). Additionally, older NYCHA women were more likely to be obese than men (40% vs. 16%), and this gender difference increased with age. Gender differences in obesity were seen only among black and Hispanic residents.

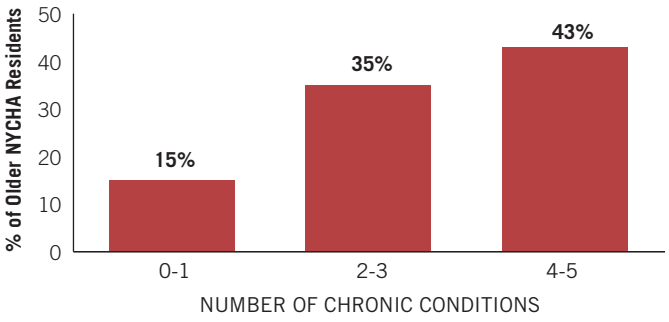
Obesity among NYCHA Residents Aged 65+, by Gender, Age, and Race/Ethnicity



* Due to small numbers, estimate should be interpreted with caution.

Older NYCHA residents with limited mobility due to arthritis were more likely to be obese than those without (44% vs. 30%), reflecting the known association between arthritis and obesity.[2,3] The prevalence of obesity also increased steadily as the number of diagnosed chronic conditions reported increased.

Obesity among NYCHA Residents Aged 65+, by Number of Chronic Conditions



References: Obesity

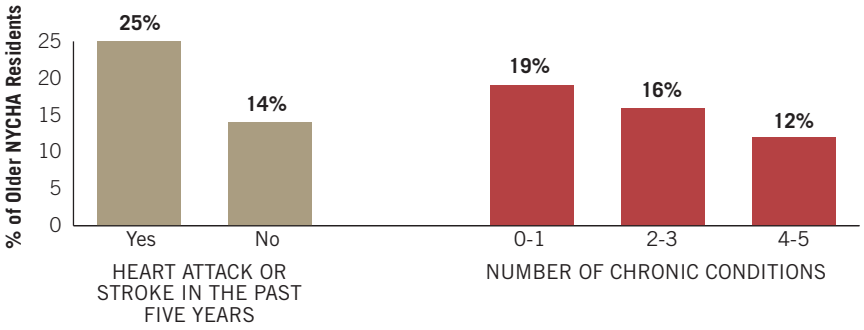
1. DOHMH. Epiquery: NYC Interactive Health Data System – Community Health Survey 2009. *See Self-Reported Health Status for full citation.*
2. Anderson JJ, Felson DT. Factors associated with osteoarthritis of the knee in the first national Health and Nutrition Examination Survey (HANES I). Evidence for an association with overweight, race, and physical demands of work. *Am J Epidemiol.* 1988;128:179–89.
3. Guh DP, Zhang W, Bansback N, Amarsi Z, Birmingham CL, Anis AH. The incidence of co-morbidities related to obesity and overweight: as systematic review and meta-analysis. *BMC Public Health.* 2009;9:88.

4c. Smoking

Current smoking was more common among older NYCHA residents than among older adults citywide (15% vs. 8%).[1] Older NYCHA residents aged 65 to 74 were more likely to be current smokers than those aged 75 and older (19% vs. 10%), and older black men were more likely to smoke than older black women (23% vs. 15%). No other differences were observed by race/ethnicity or gender.

Smoking was less common among older NYCHA residents diagnosed with hypertension than those without (13% vs. 21%), and those diagnosed with arthritis than those without (13% vs. 18%). However, smoking did not vary by self-reported diagnoses of osteoporosis, high cholesterol, or diabetes. More residents who had a heart attack or stroke in the past five years reported being a current smoker compared with those who did not have a heart attack or stroke. However, those diagnosed with four or five chronic conditions were less likely to report smoking than those with one or none.

Current Smoking among NYCHA Residents Aged 65+, by History of Heart Attack or Stroke and Number of Chronic Conditions



Smoking

Q. Do you currently smoke every day, some days, or not at all?

Smokers are defined as those who report currently smoking every day or some days.

References: Smoking

1. DOHMH. Epiquery: NYC Interactive Health Data System – Community Health Survey 2009. *See Self-Reported Health Status for full citation.*

Key Findings: Modifiable Risk Factors

- Older NYCHA residents reported similar levels of physical inactivity but higher levels of obesity than older NYC residents. Residents with very low or low income were more likely to be inactive, but obesity did not vary substantially by income.
- Gender was an important risk factor for obesity, and physical activity and gender differences were more pronounced among older NYCHA residents aged 75 and older. Additionally, racial/ethnic differences in physical activity and obesity were observed among women but not men.
- Overall, smoking rates were higher among older NYCHA residents than older NYC adults, and rates were further elevated among those aged 65 to 74, black men, and those with a recent history of heart attack or stroke.

Burden of Modifiable Risk Factors

	Older NYC Residents Living in NYCHA Housing	
	Percentage	Number
Total population	100%	61,546
Physically inactive	31%	19,079
Obese	33%	20,310
Current Smoker	15%	9,232

SECTION 5

Unintentional Injuries

Unintentional injuries, or accidents, are common among older adults and can lead to long-term disability and even death. However, injuries are preventable and should not be considered a normal part of aging.

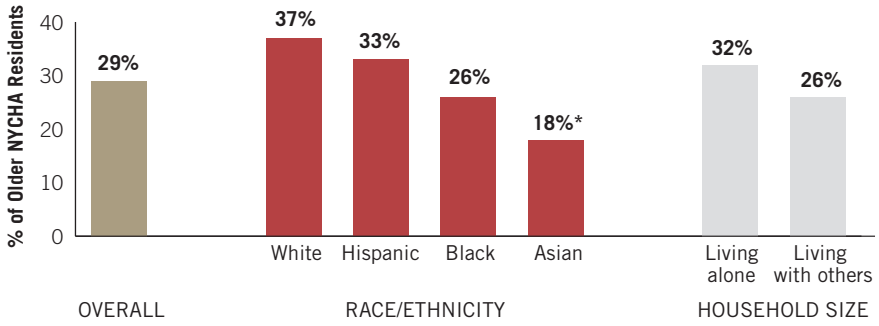
5a. Recent Falls

Recent Falls

Q. During the past 12 months, have you lost your balance and fallen?

Falls, the most common cause of injury among older adults nationally and in NYC, result from a complex set of factors including loss of gait and balance, environmental hazards, the use of multiple medications, and vision problems.[1,2] Comparable to national estimates among adults aged 65 and older[3] three in 10 (29%) older NYCHA residents reported a recent fall. Unlike the prevalence of falls in the US, which are more commonly reported among women than men and increase in prevalence with age, the prevalence of recent falls among older NYCHA residents did not vary by gender or age.[3] Black residents reported fewer recent falls than white and Hispanic residents, and older residents living alone were more likely to report a recent fall than those living with others.

Recent Falls among NYCHA Residents Aged 65+, Overall and by Race/Ethnicity and Household Size



* Due to small numbers, estimate should be interpreted with caution.

Falls can be caused by current disability but can also contribute to disabling conditions and poor quality of life.[2,4] Adults who have experienced a fall may also develop a fear of falling that causes them to limit their physical activity and become isolated. This, in turn, decreases physical and mental health and increases risk for future falls.[2,4] Similar to older adults nationally,[2] older NYCHA residents who reported a recent fall were more likely to report being physically inactive than those who did not (39% vs. 27%). Severe vision trouble, a risk factor for falling,[2,4] was also associated with recent falls among older NYCHA residents: those with severe vision trouble were more likely than those without to report a recent fall (36% vs. 26%).

Chronic health conditions, whether the condition itself or the side effects of prescribed medication to treat the condition, have been associated with an increased risk of falling.[3] Older residents diagnosed with multiple chronic conditions were more likely to report a recent fall than those with one or no conditions (32% vs. 13%). Additionally, older NYCHA residents who had a heart attack or stroke within the past five years were twice as likely as those who did not to report a recent fall (53% vs. 26%).

References: Recent Falls

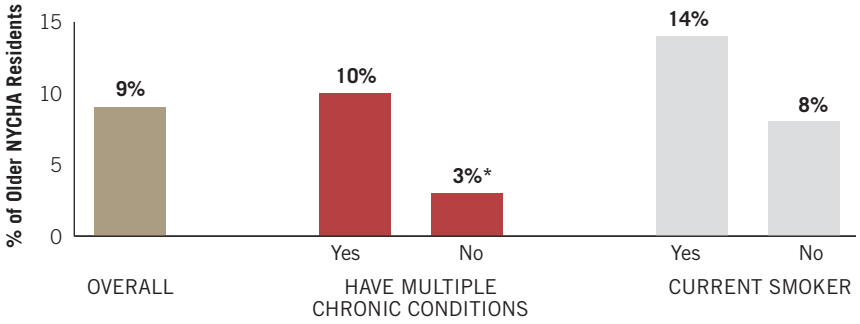
1. DOHMH. Injury Surveillance and Prevention – Injury Statistics. Available at: http://www.nyc.gov/html/doh/html/ip/ip-index.shtml. Accessed January 24, 2011.
2. Tinetti ME. Clinical Practice. Preventing falls in elderly persons. *NEJM*. 2003;348:42-9.
3. CDC. Falls among Older Adults: An Overview. Available at: http://www.cdc.gov/HomeandRecreationalSafety/Falls/adultfalls.html. Accessed December 7, 2010.
4. Dolinak D. Review of the significance of various low force fractures in the elderly. *Am J Forensic Med Pathol.* 2009;29(2):99-105.

5b. Accidental Burns

In 2009, there were more than 23,000 unintentional burn-related injuries among adults aged 65 and older in the US.[1] Age-related factors, such as mobility and vision impairments, comorbid medical conditions, and medications, can put older adults at increased risk for burn-related injuries.[2,3] Among older NYCHA residents, 9% reported an accidental burn in the past three months. Being diagnosed with multiple chronic conditions was associated with a higher prevalence of accidental burns among older residents, but the prevalence of burns did not vary by demographic subgroups.

Social and behavioral factors play an important role in burn-related injuries among older adults. Smoking poses a significant risk, as lit cigarettes can cause burns on the skin and ignite textiles such as clothing or bedding.[3] Among older NYCHA residents, accidental burns were almost twice as common among current smokers as nonsmokers (14% vs. 8%).

Accidental Burns in the Past Three Months among NYCHA Residents Aged 65+



* Due to small numbers, estimate should be interpreted with caution.

Accidental Burns

Q. In the past three months, have you accidentally burned yourself while cooking, using hot water, smoking, or using household appliances?

References: Accidental Burns

1. CDC. Web-based Injury Statistics Query and Reporting System; 2009. Available at: http://www.cdc.gov/injury/wisqars/nonfatal.html. Accessed December 7, 2010.
2. Davidge K, Fish J. Older adults and burns. *Geriatrics and Aging*. 2008;11(5):270-5.
3. US Fire Administration. Fire Risk to Older Adults. Topical Fire Report Series. 2008;7(7):1-7. Available at: http://www.usfa.dhs.gov/downloads/pdf/tfrs/v7i7.pdf. Accessed December 7, 2010.

Key Findings: Unintentional Injuries

- The prevalence of recent falls among older NYCHA residents was comparable to national prevalence estimates among older adults. However, unlike national estimates of falls, falls among older NYCHA residents did not vary by age or gender. Among older NYCHA residents, groups at high risk for falls included those with a history of heart attack or stroke, and those living alone.
- Almost one in 10 older NYCHA residents suffered an accidental burn in the past three months, and accidental burns were almost twice as common among current smokers as nonsmokers.

Burden of Unintentional Injuries

	Older NYC Residents Living in NYCHA Housing	
	Percentage	Number
Total population	100%	61,546
Fell in the past year	29%	17,848
Accidental burn in the past three months	9%	5,539

SECTION 6

Health Insurance and Access to Health Care

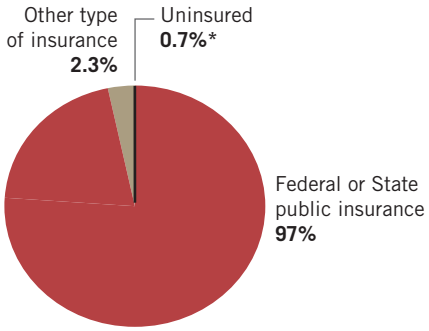
Many factors can affect an individual's ability to obtain appropriate and needed care. Although nearly all adults aged 65 and older are insured through the Medicare program, the extent to which older adults can access high-quality health care varies, as does their likelihood of obtaining recommended clinical services. Obtaining needed care remains a problem for some vulnerable older adults.

6a. Health Insurance Status

CURRENT INSURANCE STATUS

NYCHA residents were identified as insured if they were currently enrolled in Medicare, Medicaid, a health maintenance organization (HMO), or did not report being without health insurance in the past year. Individuals were identified as uninsured if they were not currently enrolled in any of these plans. Uninsured older residents may be ineligible for Medicare or Medicaid because of an insufficient work history, income requirements, or their immigration status. Nearly all older NYCHA residents reported receiving federal or state public insurance. Among those without public insurance, most reported continuous insurance coverage during the past year.

Current Insurance Status among NYCHA Residents Aged 65+



* Due to small numbers, estimate should be interpreted with caution.

Although a lack of insurance coverage may occur for a variety of reasons, some residents may experience coverage gaps if Medicare or Medicaid documents are not submitted several months prior to turning 65 or at annual recertification, if applicable. A gap in coverage may also occur during a transition to or from an HMO plan. Four in 10 (40%) older residents reported having an HMO. Nearly one in 10 (9%) older NYCHA residents reported unstable insurance coverage (had no insurance coverage at any point in the past year). These residents did not differ from those with stable insurance coverage by age, gender, or race/ethnicity, but older residents with very low or low income were more likely to have unstable insurance than those with moderate income (10% vs. 8%).

Health Insurance Status

Q. Medicare is a federal program that covers health care for individuals aged 65 or older. Do you have Medicare?

Q. Medicaid is a federal program that helps pay for health care for the needy, blind, and disabled, and for low-income families with children. Do you have Medicaid?

Q. Beginning in 2006, Medicare Part D provides coverage for prescription drugs. Have you signed up for the new Medicare prescription drug coverage?

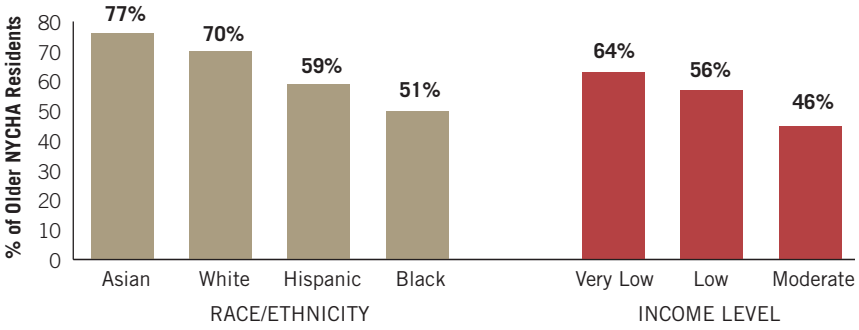
Q. Do you currently belong to a managed care plan such as a Medicare HMO?

Q. Were you without health insurance at any point during the last 12 months?

MEDICARE AND MEDICARE PART D

Older NYCHA residents were almost universally covered by Medicare (94%), and more than half (58%) indicated they were enrolled in a Medicare Part D plan, similar to nationwide estimates (57%). Compared with those aged 65 to 74, NYCHA residents aged 75 and older were more likely to report having Medicare Part D coverage (63% vs. 54%). Older black residents were less likely than older Asian and white residents to report Medicare Part D coverage, and enrollment in this program decreased as income increased.

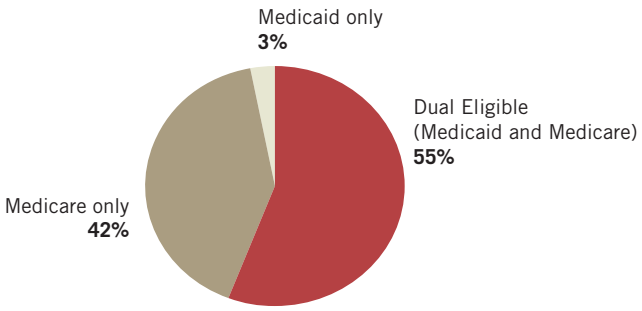
Prescription Drug Coverage among NYCHA Residents Aged 65+, by Race/Ethnicity and Income



MEDICAID COVERAGE AND DUAL ELIGIBILITY

Overall, 57% of older NYCHA residents reported receiving Medicaid benefits. Only 3% of insured NYCHA residents had Medicaid without Medicare, and 55% were dual eligible.

Medicare and Medicaid Coverage among NYCHA Residents Aged 65+



Among older NYCHA residents, dual eligibility varied by race/ethnicity and income. Black residents were less likely than all other racial/ethnic groups to be dual eligible (46% vs. 60%, 71%, and 55%, respectively). As expected, older residents with very low income were more likely to report dual eligibility than older residents with low or moderate income (78% vs. 32%). However, nearly one in five (19%) older NYCHA residents with very low income were not receiving this benefit and thus may not be accessing health care benefits and services they are potentially eligible to receive.

Medicare

Medicare is a voluntary federally administered health insurance system providing coverage for adults aged 65 and older, regardless of income.[1] As of 2006, older adults can also enroll in the voluntary Medicare Part D program, which helps pay for medications.[1] Older adults with very low income are eligible for fully subsidized Medicare Part D coverage, and those between 100% and 135% of the federal poverty level are eligible for a partial subsidy.[1]

Medicaid

Medicaid is an income- and asset-based benefit program funded by state and federal governments. Most older New York State residents with very low income are eligible for full Medicaid coverage, although eligibility can vary by individual circumstance. Older NYC adults covered by Medicare combined with Medicaid, identified as dual eligible, have additional health care coverage for services, such as home attendants, prescription drug coverage, and long-term care.[2]

References: Health Insurance Status

1. Trude S, Ginsburg PB. An update on Medicare Beneficiary Access to Physician Services. Available at: www.hschange.com/CONTENT/731/?words=au54. Accessed March 22, 2011.
2. New York State (NYS) Department of Health. Medicaid in New York State. Available at: http://www.health.state.ny.us/health_care/medicaid/. Accessed March 8, 2011.

Access to Health Care

Q. Was there a time in the past 12 months when you needed medical care but did not get it?

Q. When you need regular medical care, do you go to a private doctor's office, a health clinic, an emergency room, or somewhere else?

Q. Do you have one person or more than one person you think of as your personal doctor or health care provider?

Q. Are there any medicines prescribed by your doctor that you do not take or take less often than prescribed because of the cost?

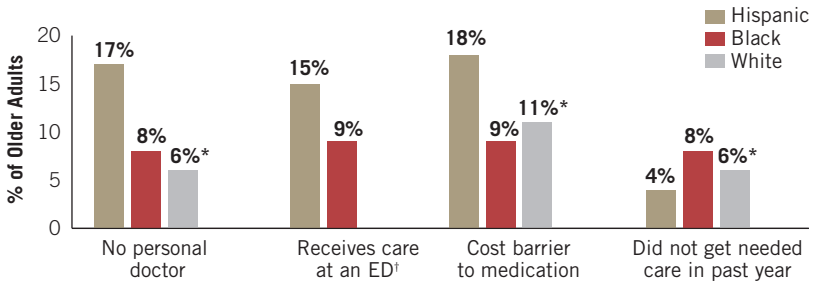
6b. Access to Health Care

Although nearly all older adults have health insurance under Medicare entitlements, not all have a routine source of care, and coverage for preventive services is often incomplete. Having a personal health care provider and a regular place of care other than an emergency department (ED) are also important indicators of care access.[1]

Despite near-universal insurance coverage, 11% of older NYCHA residents reported having no personal doctor, 6% reported not receiving needed care at some point in the past year, and 11% reported using an ED as a regular source of care. More than one in eight (13%) older NYCHA residents reported not taking medication because of cost in the past year.

Access to regular care varied by race/ethnicity, income, and household size. Very few older Asian residents reported poor access to regular care. Hispanic residents were more likely than other residents to report not having a personal doctor, using an ED for routine care, and not taking medications due to cost. Among older Hispanic residents, those who reported speaking Spanish at home were more than twice as likely as those who spoke English to report not having a personal doctor (20% vs. 9%*).

Access to Health Care among NYCHA Residents Aged 65+, by Race/Ethnicity



* Due to small numbers, estimate should be interpreted with caution.

† Data for older white residents are suppressed due to imprecise and unreliable estimates.

Older residents with very low income were nearly twice as likely as residents with low or moderate income to report receiving regular care at an ED (14% vs. 8%), and those with unstable insurance coverage were more likely than those with stable coverage to report not receiving needed care in the past year (23% vs. 4%).

The self-reported health status of older NYCHA residents did not differ between those with and without a personal doctor. However, fair or poor health was more commonly reported by older residents who reported using an ED for routine care compared with those who did not (76% vs. 60%). Additionally, older residents who reported a cost barrier to medication were more likely to describe their health as fair or poor compared with those who did not (81% vs. 59%).

* Due to small numbers, estimate should be interpreted with caution.

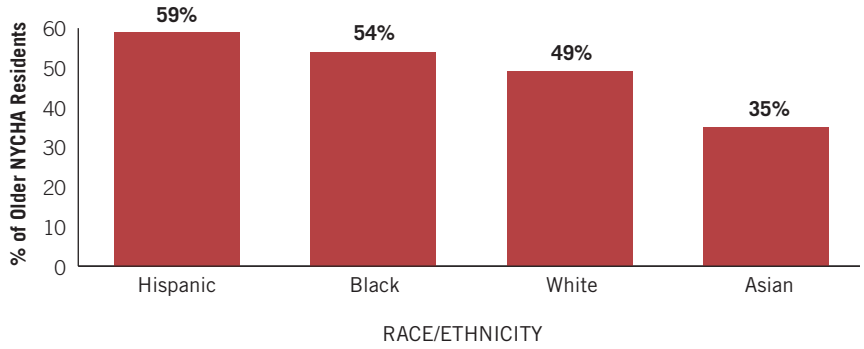
Flu Vaccination

Q. During the past 12 months, have you had a flu shot in your arm or a flu vaccine that was sprayed in your nose?

FLU VACCINATION

More than half (55%) of older NYCHA residents reported receiving a flu vaccine in the past year, and older Asian residents were less likely than blacks or Hispanics to report receiving this vaccine. Vaccination against the flu is particularly important for those with chronic conditions, and the likelihood of vaccination was higher among older NYCHA residents with multiple chronic conditions than those with one or none (56% vs. 48%).[2]

Receipt of Flu Shot in the Past Year among NYCHA Residents Aged 65+, by Race/Ethnicity



HEALTH CARE PLANNING

One planning tool used to maintain continuity of care and prevent unwanted aggressive interventions for older adults unable to make medical decisions is a health care proxy. This tool allows older adults to designate another person to make decisions on their behalf if they are unable to do so themselves.[3] Overall, less than one third (30%) of older NYCHA residents reported having identified a health care proxy, which is lower than estimates from national samples of older adults (40%-70%).[4,5] Having a health care proxy did not vary by age, gender, household size, or income. However, no Asian survey participants reported having a health care proxy, while similar proportions of older white, Hispanic, and black residents reported having a health care proxy (37%, 31%, and 30%, respectively).

Health Care Planning

Q. Have you signed a form that designates a health care proxy?

Key Findings: Health Insurance and Access to Health Care

- Despite high levels of insurance coverage, nearly one in 10 older NYCHA residents reported unstable coverage, and one in 16 reported not receiving needed care in the past year.
- Due to the high proportion of older residents with very low income, more than half of older NYCHA residents with Medicare coverage reported receiving additional Medicaid benefits. However, almost one in five older residents with very low income did not have Medicaid.
- Indicators of poor health care access include not having a primary care provider, using an ED for routine care, and not taking medications due to cost. Among older NYCHA residents, Hispanics were more likely to report each of these indicators than other racial/ethnic groups.
- Recent national reports recommend universal flu vaccination for all adults, particularly those aged 50 or older and those with certain chronic conditions. Yet, slightly more than half of older NYCHA residents reported receiving a flu vaccine in the past year.
- Designating a health care proxy is an important way for older adults to maintain preferred care if they become unable to make their own medical decisions. Less than one third of older NYCHA residents had a health care proxy, and no Asians in the sample reported having a proxy.

References: Access to Health Care

1. Lambrew JM, DeFriese GH, Carey TS, Ricketts TC, Biddle AK. The effects of having a regular doctor on access to primary care. *Med Care.* 1996;34(2):138-51.
2. Nichol KL, Baken L, Nelson A. Relation between influenza vaccination and outpatient visits, hospitalization, and mortality in elderly persons with chronic lung disease. *Ann Intern Med.* 1999;130(5):397-403.
3. DOHMH. Emanuel LL, Desai E, Cohen L. Improving palliative care at the end of life. *City Health Information.* 2009;28(1):1-8.
4. Teno JM, Gruneir A, Schwartz Z, Nanda A, Wetle T. Association between advance directives and quality of end-of-life care: a national study. *J Am Geriatr Soc.* 2007;55:189-94.
5. Degenholtz HB, Rhee YJ, Arnold RM. Brief communication: the relationship between having a living will and dying in place. *Ann Intern Med.* 2004;141 (2):113–7.

Estimates of Health Insurance and Access to Preventive Care Services

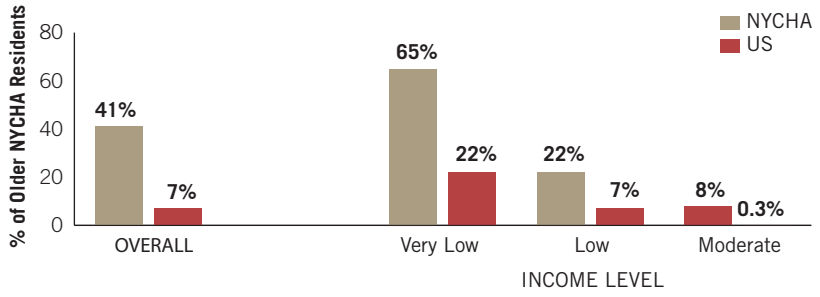
	Older NYC Residents Living in NYCHA Housing	
	Percentage	Number
Total population	**100%**	**61,546**
Uninsured	**0.7%**	**431**
Other type of insurance	**2.3%**	**1,416**
Federal or state public insurance	**97%**	**59,700**
Dually eligible (covered by Medicare and Medicaid)	**55%**	**33,850**
Medicare only	**42%**	**25,849**
Medicaid only	**3%**	**1,846**
Unstable insurance coverage in the past year	**9%**	**5,539**
Medicare Part D	**58%**	**35,697**
No personal doctor or health care provider	**11%**	**6,770**
Didn't get needed care in the past year	**6%**	**3,693**
Use an emergency department for regular care	**11%**	**6,770**
Cost barrier to medication	**13%**	**8,001**
Received a flu vaccination in the past year	**55%**	**33,850**
Have identified a health care proxy	**30%**	**18,464**

Food Stamp and Community Service Use

7a. Food Stamps and Food Insecurity

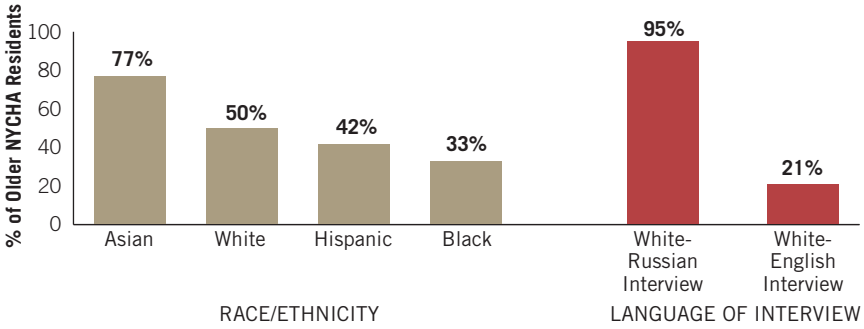
Overall, 41% of older NYCHA residents reported receiving food stamps. Participation in the food stamp program was three times higher among older NYCHA residents with very low income than among older adults with very low income nationwide.[2]

Food Stamp Use among NYCHA Residents and US Adults Aged 65+, Overall and by Income



In line with national findings,[3] NYCHA residents aged 85 and older with very low income were less likely than those aged 65 to 84 to report using food stamps (45% vs. 68%). Food stamp use varied by race/ethnicity and by language of interview among whites. After taking income into account, food stamp use did not vary by household size.

Food Stamp Use among NYCHA Residents Aged 65+, by Race/Ethnicity and Language of Interview



The food stamp program is intended to reduce food insecurity, which occurs when individuals are uncertain about how they will obtain healthy, safe, and personally acceptable food, or are unable to obtain it at all.[4] Among older adults, food insecurity can have a broad range of causes, including poverty, costs associated with medical care, special diets necessitated by poor health, and difficulties

Food Stamps

Q. Do you receive food stamps?

The food stamp program (also called Supplemental Nutrition Assistance Program) provides food support to low-income New Yorkers, working families, the elderly, and the disabled to increase their ability to purchase food. To receive food stamp benefits, a household must qualify under eligibility rules set by the federal government. Almost all older residents with very low or low income and many older residents with moderate income are eligible for food stamps.[1]

Food Insecurity

Food Concern:
Q. In the past 30 days, have you been concerned about having enough food to eat?

Money-Related Food Insufficiency:
Q. In the past 30 days, did you ever eat less than you felt you should because there wasn't enough money to buy food?

Mobility-Related Food Insufficiency:
Q. In the past 30 days, were you ever hungry but didn't eat because you weren't able to get out to buy food?

Older residents were considered food insecure if they answered "yes" to any of these questions.

shopping for and preparing food.[5] Food insecurity, in turn, can contribute to stress and poor nutrition, and has been linked to poor health outcomes.[6]

Among older NYCHA residents, 12% reported food concern, 10% reported money-related food insufficiency, and 7% reported mobility-related food insufficiency. One in five (20%) older NYCHA residents reported at least one of these three indicators of food insecurity and was considered food insecure.

More than half (56%) of older NYCHA residents who experienced food insecurity did not report receiving food stamps, and 55% of older residents who reported money-related food insufficiency reported not receiving food stamps. One third (34%) of residents with very low income who reported food insecurity did not receive food stamps, even though they are potentially eligible to receive them.

7b. Community Services

Community services are widely understood to play an important role in helping seniors aging in place maintain health and a high quality of life.[1] More than half (55%) of older NYCHA residents reported using at least one of the following services: senior centers, congregate meal programs, meal delivery, transportation, and homemaker services. Some of these services, such as senior centers and congregate meal programs, are available to the entire older adult population in NYC. In contrast, publicly funded transportation, homemaker, and meal delivery services are only offered to individuals who meet eligibility criteria based primarily on levels of disability and income.*

* Survey respondents were not asked to describe the funding source for services used or to specify assistance received beyond general type. For more information on the community services discussed in this section, please see the *Technical Notes*.

SENIOR CENTERS

Senior centers offer a variety of programs and resources for older adults, including educational and social activities, meals, and help accessing social services. The number of attendees and the diversity of programs offered vary widely between centers. At the time of the survey, nearly half (45%) of older NYCHA residents had DFTA-funded senior centers, which serve free hot meals, located at their development, and an additional 17% had a NYCHA-funded center at their development.

Almost one third (31%) of older NYCHA residents reported using a senior center in the past three months, and 20% of residents visited senior centers more than once a week. Residents aged 75 and older were slightly more likely to use a senior center than those aged 65 to 74 (35% vs. 29%). Asians were more likely than all other racial/ethnic groups to report using senior centers at least once in the past three months, but frequent use (more than once a week) did not vary by race/ethnicity. Among Hispanics, residents interviewed in English were more likely to use senior centers than residents interviewed in Spanish.

References: Food Stamps and Food Insecurity

1. NYC Department of Social Service Human Resources Administration (HRA). Food Stamps & Food Programs. Available at: http://www.nyc.gov/html/hra/html/directory/food.shtml. Accessed December 10, 2010.
2. CDC. National Health and Nutrition Examination Survey 2007-2008. Available at: http://www.cdc.gov/nchs/nhanes/nhanes2007-2008/nhanes07_08.htm. Accessed March 23, 2011.
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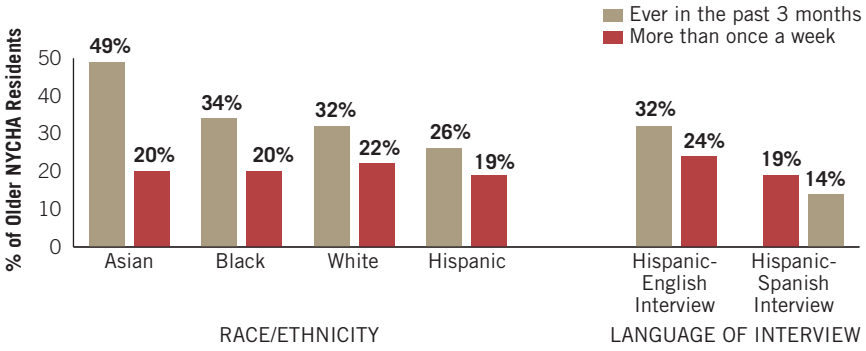
4. Campbell, CC Food Insecurity: A Nutritional Outcome or a Predictor Variable? *J Nutr.* 1991;121(3): 408-415.
5. Wolfe WS, Olson CM, Kendall A, Frongilio EA. Understanding Food Insecurity in the Elderly: A Conceptual Framework. *J Nutri Educ.* 1996;28:(2)92-100.
6. Klesges LM, Pahor M, Shorr RI, Wan JY, Williamson JD, Guralnick JM., Financial Difficulty in Acquiring Food among Elderly Disabled Women: Results from the Women's Health and Aging Study. *Am J Public Health.* 2001;91(1):68-75.

Senior Center Use among NYCHA Residents Aged 65+, by Race/Ethnicity and Language of Interview



Senior Centers

Q. In the past three months, how often did you use a senior center?

Residents with very low or low income were more likely to use a senior center than residents with moderate income (34% vs. 23%). Senior center users were twice as likely as nonusers to report that they did not receive needed medical care (8% vs. 4%) or that they did not use prescription medications as needed because of the cost (19% vs. 10%).

Senior housing developments have special outreach programs for their residents that may help inform them of available services. Older NYCHA residents who lived in senior developments were much more likely to use senior centers than residents in other types of developments (47% vs. 29%). In contrast, there was no difference in senior center use between older residents living in developments with on-site senior centers and those living in developments without centers. Residents living alone were more likely to use senior centers than those living with others (36% vs. 26%).

MEAL PROGRAMS

Meal Programs

Q. In the past three months, how often did you eat meals in a senior center or in some place with a special meal program for the elderly?

Q. In the past three months, did you have meals delivered to your home by an agency or organization like Meals on Wheels?

One quarter (25%) of older NYCHA residents reported eating meals at a congregate meal program, with 16% attending meals more than once a week. Three quarters (72%) of residents who reported using senior centers also reported eating meals at a congregate meal program. Some older residents may attend congregate meal programs at other locations, such as churches or synagogues. Among those who reported eating meals at a meal program, 11% did not report using senior centers.

Older adults who are unable to attend a congregate meals site or prepare their own meals may receive meals from a delivery program such as DFTA's Home Delivered Meals program or Meals on Wheels. Only 5% of older NYCHA residents reported having meals delivered to their homes. Residents aged 75 and older were more likely to have meals delivered (8% vs. 3% among those aged 65 to 74).

Transportation Services

Q. In the past three months, did you use special transportation for the elderly, such as Access-A-Ride?

Homemaker Services

Q. In the past three months, did you use a homemaker service for the elderly that provides services like cleaning and cooking in the home?

TRANSPORTATION SERVICES

Older adults covered by Medicaid may be eligible to receive door-to-door transportation to medical services by livery, ambulette, or ambulance. MTA New York City Transit Access-A-Ride also provides curb-to-curb transportation as an alternative to the bus or subway for people with certified disabilities. In addition, many senior centers offer transportation services for their clients to and from the centers or other destinations. Overall, 22% of older NYCHA residents reported using special transportation services. The majority (85%) of older residents who reported use of transportation services had an activity of daily living limitation or mobility-limiting arthritis, or they used special equipment due to a health problem. However, 68% of older residents with these potential disabilities reported not using transportation services.

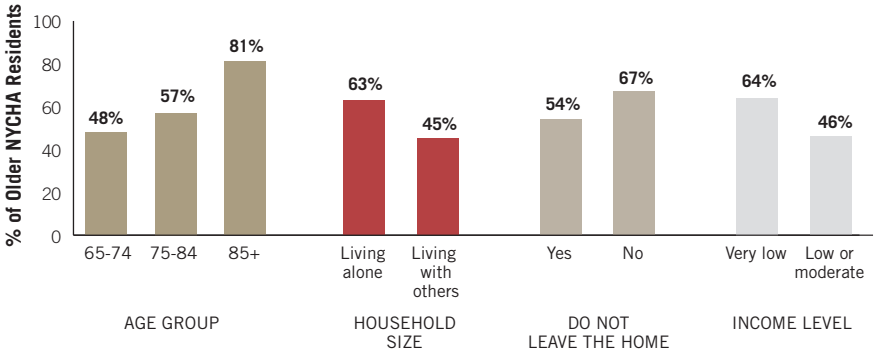
HOMEMAKER SERVICES

Homemaker services assist older adults with tasks such as essential shopping, food preparation, laundry, and light housekeeping.[2,3] Many older adults using these services also receive assistance with personal care, such as bathing and toileting.[2,3] One in five (20%) older NYCHA residents reported using a homemaker service, and 88% of those who used homemaker services received Medicaid – the primary source of public assistance for paying for these services.

OVERALL SERVICE USE

More than half (55%) of older NYCHA residents reported using at least one of the following services: senior centers, congregate meal programs, meal delivery, transportation, and homemaker services. Service use was not uniform throughout the population, and senior center users were more likely than nonusers to use transportation services (30% vs. 18%) and meal delivery services (7% vs. 4%). Residents who might be considered to have higher needs, such as those aged 85 and older, those living alone, those leaving home infrequently, and those with very low income, were more likely to report use of any service. However, almost one third (32%) of older residents living alone and with very low income did not report use of any service.

Service Use among NYCHA Residents Aged 65+, by Demographic and Social Factors



References: Community Services

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2. NYS Office for the Aging. The Expanded In-Home Services for the Elderly Program (EISEP). Available at: http://www.aging.ny.gov/NYSOFA/Programs/CommunityBased/EISEP.cfm. Accessed January 24, 2011.
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Key Findings: Food Stamp and Community Service Use

- Participation in the food stamp program was higher among older NYCHA residents with very low income compared with similar older adults in the US.
- Only half of older NYCHA residents reported using any community services. Many older residents with a potentially greater need for these services – specifically those aged 85 and older, those living alone, those not leaving the home during an average week, or those with very low income – did not report using them.
- Older NYCHA residents attending senior centers were more likely to use meal delivery, transportation, and homemaker services. Additionally, residents living alone and those living in senior developments were more likely to use some services.
- Use of senior centers was high among older Asian residents but low among older Hispanic residents. Senior center usage was particularly low among Hispanics who were interviewed in Spanish.

Estimates of Food Stamp and Community Service Use

	Older NYC Residents Living in NYCHA Housing	
	Percentage	Number
Total population	100%	61,546
Received food stamps	41%	25,234
Food insecure	20%	12,309
Used a senior center in the past three months	31%	19,079
Ate meals at a congregate meal program	25%	15,387
Had meals delivered	5%	3,077
Used special transportation services	22%	13,540
Used homemaker services	20%	12,309
Used any community services	55%	33,850

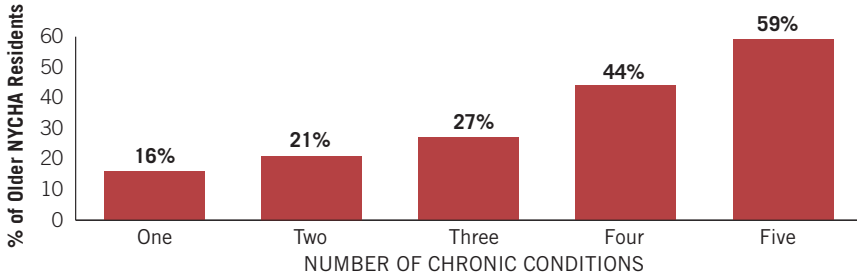
SECTION 8

Functionality and Quality of Life

This report described limitations in activities of daily living (ADLs) among older NYCHA residents to measure their ability to function independently, followed by separate sections describing physical and mental health outcomes, behaviors, and service use. Many studies have examined the relationship between functionality and health status, showing that chronic diseases, depression, and inactivity can increase risk for developing ADL limitations.[1-3] However, these studies also show that inability to perform daily functions can increase the risk of poor physical or mental health.[2,3]

Overall, the prevalence of ADL limitations among older NYCHA residents increased with the number of diagnosed chronic conditions, and more than half (59%) of those with five chronic conditions reported having functional limitations.

NYCHA Residents Aged 65+ with Any ADL Limitations, by Number of Physician-Diagnosed Chronic Conditions* Identified



* Conditions include diabetes, hypertension, high cholesterol, arthritis, and osteoporosis

Older NYCHA residents with any ADL limitations were more likely to report poor physical health, current risk of depression, and recent falls.

Health Outcomes among NYCHA Residents Aged 65 and Older With and Without Any ADL Limitations

	Any ADL Limitations	No ADL Limitations
Fair or poor self-reported health	**79%**	**55%**
Physically inactive	**46%**	**24%**
Obese	**42%**	**29%**
Heart attack or stroke in the past five years	**22%**	**8%**
Currently at risk for depression	**33%**	**9%**
Fell in the past year	**46%**	**22%**

In order for older adults with ADL limitations to address health concerns and maintain a high quality of life, they need access to health care and supportive community services. Eligibility for homemaker services through Medicaid and the Expanded In-home Services for the Elderly program[2,3] is based in part on an individual's ADL limitations. Although older NYCHA residents with any ADL limitations may qualify for homemaker services, less than half (43%) reported using them. In addition, older NYCHA residents with any ADL limitations were more likely than those without to report having unstable insurance coverage (17% vs 6%).

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SECTION 9

Feedback from NYCHA Leaders and Residents

In fall 2010, preliminary results from the NYCHA Senior Survey were presented to stakeholders, including NYCHA's Executive Staff, the Citywide Council of Presidents resident leadership group, borough Property Management staff, and staff and managers from NYCHA's Department of Community Operations. More than 400 individuals participated in these meetings, offering feedback and revealing a strong respect and concern for older NYCHA residents. The following themes were identified from participants' comments about the everyday lives of older adults living in NYCHA developments. Related recommendations based on these ideas, combined with the findings in this report, have contributed to the discussion and next steps presented at the end of this report.

- **Safety and Security:** Residents and staff expressed concerns about older residents living alone, especially those prone to falls, those with mental health or substance abuse issues, and those who rarely leave their apartments. Elevator outages also affect older residents' ability to leave their apartments, particularly those on higher floors. Residents also expressed general concerns about crime risk in their buildings and developments.
- **Isolation:** Many older residents living alone are socially isolated, without family or friends nearby to assist them, and may rarely leave their apartments, especially at night or if there are children playing in the hallways. Resident leaders noted that older residents need someone they can trust to assist them with shopping, making appointments, completing their annual NYCHA review paperwork, and accessing medical services.
- **Living Conditions:** Resident leaders discussed the documentation required to retrofit an apartment with handrails and other adaptive equipment and suggested ways to make these requests easier for older adults. Older residents noted several reasons for not leaving their apartments, including health problems such as arthritis, which is aggravated during colder weather, and trouble seeing in the hallways and outside paths due to dim lighting. Many also noted the lack of outside seating available near the entrances to their buildings.
- **Behavioral Health Issues:** Residents and staff noted many concerns about hoarding. Though the NYC Human Resources Administration Adult Protective Services (APS) has resources to help residents clean out their apartments, NYCHA staff noted that this is a complex process that requires coordinated effort from staff and residents. Concerns were also expressed about assisting residents who exhibit signs of dementia, depression, and substance abuse.
- **Information about Community Resources:** A limited number of Resident Associations have started to use their Tenant Participation Activity funds, allocated by the US Department of Housing and Urban Development, to support activities for older residents, such as exercise and wellness programs. However, NYCHA staff and resident leaders expressed concern about the lack of readily available information on community resources for older residents and discussed the utility of a dedicated NYCHA office that could assist older residents in need of these resources.

SECTION 10

Discussion

This report, *Health of Older Adults in New York City Public Housing*, describes the results of a large, representative survey. Older adults living in public housing constitute approximately 6% of the older adults in New York City and 17% of the City's older adults with very low income.[1] Coordinating efforts to address their health needs presents an important opportunity to improve conditions for many older New Yorkers, a key goal of the Age-friendly New York City initiative launched by the City in 2007.

Findings in this report show that although many older NYCHA residents live healthy and independent lives, the older population as a whole experiences high levels of poor health outcomes that can negatively impact physical and mental health, the ability to function independently, and ultimately quality of life.[2,3] More than 80% of older NYCHA residents contend with a complex array of multiple chronic conditions. For these adults, consistent and coordinated preventive care, such as flu shots and eye exams, and proper disease management through monitoring and prompt treatment, can prevent worsening complications and premature death.[4] We identified high use of clinical services among older residents with chronic conditions, which is encouraging. However, many of those at greatest risk are still not receiving important services routinely. For example, although most residents diagnosed with diabetes – a disease requiring careful disease management – described being actively treated, levels of diabetes-related complications were high. This may reflect poor disease management, long histories of poor health, or both among older NYCHA adults with diabetes.

Mental health also plays a significant role in healthy aging and functionality.[5,6] Almost one in three older NYCHA residents had a history of diagnosed depression or were currently at risk for depression. Depression risk was high among older residents living alone, with low levels of social support, multiple chronic conditions, or with limitations in activities of daily living. This reinforces the need for integrated depression screening in primary care settings and for educating residents, tenant association leaders, and case managers on mental illnesses and their treatment options.

Health behaviors play a critical role in influencing chronic disease risk, functionality, and mental health status. More than almost any other health behavior, physical activity has far-reaching and immediate positive health consequences among older adults.[7,8] We found that more than one in four older NYCHA residents was physically inactive and one in three was obese, suggesting that promotion of physical activity and healthy eating should remain a priority. Programs that promote increased activity and address balance and gait can also reduce the number of falls among older NYCHA residents – a critical goal, given that falls affect a significant proportion of older NYCHA residents.

Smoking increases older adults' risk of heart disease and stroke, and contributes to poor quality of life.[9] Smoking rates among older NYCHA residents were higher than among older adults in NYC overall, and many older residents reported smoking despite experiencing acute health events or reporting chronic conditions that are worsened by smoking. Given well-documented immediate improvements in health and functionality achieved by smoking cessation, even at older ages, expanding smoking cessation services should be a priority.[9]

Reflecting NYCHA 's mission to provide affordable housing for low- and moderate-income residents, nearly half of older residents in NYCHA housing live below the federal poverty level. Confirming a pattern well-described in the literature,[9] we observed a strong link between the health of older NYCHA residents and income: residents with very low income reported worse health outcomes than residents with low or moderate incomes. Our findings also confirmed that older NYCHA residents with very low income were comparable on several health indicators to similar older adults in NYC. Possible reasons for the association between income and health range from exposure to risk factors throughout life to current ability to identify, access, and afford resources. Regardless, those with lower income are recognized to be at higher risk for poor health outcomes. Addressing the health challenges of older NYCHA residents can improve the quality of life of a significant proportion of older low-income New Yorkers.

Understanding other demographic characteristics of older NYCHA residents may help NYCHA, other city agencies, and community-based organizations shape ongoing service delivery efforts more effectively. A majority of NYCHA residents are women, and most are black and Hispanic. Additionally, older Asian residents were more likely to have very low income compared with older white, Hispanic, and black residents. Among older NYCHA residents, women had higher levels of chronic conditions, functional limitations, obesity, and inactivity than men, and gender disparities increased with age. Some of these differences may be driven by higher rates of premature mortality among men, particularly those with very low income.[7,10] Rates of poor health also varied substantially by race/ethnicity. Consistent with current research in older adult populations,[12] older black residents reported higher levels of hypertension than other racial/ethnic groups, and older white residents reported more recent falls. Some unique racial/ethnic patterns were identified among older NYCHA residents. Older Asian residents reported higher levels of functional limitations, and none reported having a health care proxy. Older Hispanic adults reported the lowest levels of physical activity among NYCHA residents and, despite comparable insurance coverage, also reported worse access to care and less health care utilization. To the extent possible, programs should be tailored to address these differences.

These survey results indicate that greater community interaction can help increase social connectedness and preventive care among older NYCHA residents. We found that those attending senior centers were more likely to be linked to additional insurance benefits and community services, such as facilitated transportation and meal delivery. Although maintaining continuous insurance coverage is problematic for a small, particularly high-risk segment of older adults, accessing care and additional benefits remains a challenge for many insured residents, particularly those in lower-income and non-English speaking groups. Citywide and neighborhood initiatives to improve Medicaid coverage, reduce gaps in care, and target transportation and meal services should involve senior centers and include efforts to expand senior center use among at-risk older adults.

For many older adults, residence in public housing provides an opportunity to age in place, remaining a part of the communities where they have lived for most of their lives. Naturally occurring retirement communities, senior housing, on-site senior centers at some developments, and the current array of social services targeting older residents already provide a social safety net for many. However, it is important that these findings also inform health promotion initiatives among at-risk adults well before age 65 to reduce morbidity and mortality and help decrease health disparities as they age. In the next section, we conclude with a list of next steps aimed at making NYCHA an even more age-friendly environment for all residents.

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SECTION 11

Next Steps

Multiple City agencies collaborated to implement the NYCHA Senior Survey in order to better understand the health challenges and quality of life of a large population of older New Yorkers. NYCHA, DOHMH, DFTA, and the CUNY School of Public Health worked together to identify next steps for the NYC government based on these findings, as well as concrete recommendations for the wider community. Having characterized the health of older adults living in NYCHA housing, the goal is to maintain this collaboration to build a sustainable strategy that utilizes the strength of NYCHA residents themselves and capitalizes on public (City, state, and federal) and private resources to support the older adult population. Many recommendations have been developed within the framework of NYCHA's Plan to Preserve Public Housing.

I. Increase NYCHA's ability to provide adequate support to its older adult population.

A. Work with the Health Department to identify and document at-risk older adult residents based upon their voluntarily self-reported health and level of functioning.

B. Work with DFTA to develop training and informational resources that will prepare NYCHA housing development staff to identify at-risk residents, provide them with needed support, and link them to existing services.

C. Work with the Citywide Falls Prevention Coalition to incorporate its falls checklist into the annual NYCHA apartment inspection process.

D. Use spatial analyses, such as asset mapping, to identify clinical, nutritional, recreational, and social service resources within NYCHA developments and their surrounding communities, and launch an ongoing promotional campaign to inform Resident Association leaders and residents about these resources.

E. Evaluate and revise NYCHA policies to facilitate the movement of older adults to senior developments or to appropriately sized apartments on lower floors as vacancies arise.

F. Identify and evaluate family developments to determine the feasibility of constructing on-site senior housing in partnership with outside organizations.

G. Assist residents in evaluating their existing insurance and benefits coverage and provide a pathway for these residents to enroll in additional plans and programs for which they qualify.

II. Establish new collaborations and strengthen existing ones between NYCHA and other organizations to bring more resources to NYCHA's older adult population.

A. Work with the Mayor's Office, the City Council, and the New York Academy of Medicine to establish a framework for aligning the goals and resource requirements of NYCHA's programs with those of the Age-friendly New York City initiative.

B. With other City agencies, develop a policy agenda to ensure that evidence-based programs, as well as environmental and infrastructural initiatives, to support older NYCHA residents are effective and sustainable.

C. Expand program collaboration between NYCHA and the three Health Department District Public Health Offices (East & Central Harlem, South Bronx, and North & Central Brooklyn) to address health issues affecting the adult populations in these communities with high numbers of NYCHA developments.

D. Evaluate existing contacts and broaden the relationship between NYCHA and the NYC Health & Hospitals Corporation (HHC) facilities located near developments, such as HHC's Diabetes Registry and other services.

E. With support from the NYC Health Department and resident leadership, improve awareness and use of smoking cessation materials and practices.

F. Enhance existing relationships and build new ones with nonprofit and faith-based organizations, as well as City agencies such as the Human Resources Administration and DFTA, to identify resources and services that could be directed to NYCHA residents in greater concentrations.

III. Expand formal partnerships between NYCHA administration and resident leadership to establish common health-related goals and shared responsibilities for improving the well-being of all NYCHA residents.

A. Organize and train resident volunteers to assist older residents with support services, such as home visits, escorting during errands, scheduling doctors' appointments, and similar tasks.

B. Assist resident associations with accessing health promotion, preventive health, and disease management programs for all residents. Train resident leaders to identify and access information about resources available to older adults in their communities.

IV. Identify resources that have designated senior-related programming as a priority and develop fundraising strategies.

A. Develop a funding proposal for a Community Health Worker (CHW) initiative for submission to federal agencies, and other funding institutions. This initiative will recruit, select, and train NYCHA residents to function as part-time, paid CHWs in their housing developments and serve as a link between the public and the health care delivery system for all residents, including older adults, while also promoting practices that improve the health of the community.

B. Build relationships with foundations with an interest in the well-being of older adults to support programming for NYCHA residents.

C. Establish partnerships with Medicare Advantage Plans that are most active within NYCHA developments and secure commitments from them to fund preventive health programs within select developments.

D. Collaborate with City partners to identify resources to strengthen existing services at all senior centers located within NYCHA developments.

E. Collaborate with academic institutions to identify effective prevention and disease management strategies to improve the quality of life of older NYCHA residents.

Technical Notes

NYCHA Senior Survey

The NYC Health Department and the Baruch Survey Research Unit at the City University of New York collaborated to conduct the NYCHA Senior Survey. Respondents were randomly selected from the 2009 NYCHA Tenant Data System (TDS). Survey data were collected from June 15 to June 29 by trained interviewers at the Baruch computer-assisted telephone interviewing center. In total 1,036 interviews were conducted, in English (803), Spanish (158), Russian (40) and Chinese (Cantonese and Mandarin, 35), with a cooperation rate of 93.4% among respondents reached by phone and an overall response rate of 34.7%.

NYCHA Tenant Data System

The TDS is maintained by NYCHA's Business Solution and Technology Department and has data on public housing residents, including family composition, race/ethnicity, age, disability status, and income by income source. TDS data in this report are taken from system files last updated on July 1, 2010. Unauthorized residents are not represented in TDS.

Data Analysis and Presentation

Survey data were linked to demographic information from TDS records and de-identified before analysis. Data were weighted to be representative of the NYCHA population of older adults on gender, income, borough, age, and race/ethnicity. An analysis conducted to compare respondents and nonrespondents on disability status, as reported in the 2009 TDS, supports the generalization of survey findings on the health of residents to the full older NYCHA population.

Percentages have been rounded to the nearest whole number and are not age-adjusted. Rates with a Relative Standard Error (RSE), a measure of estimate precision based on data variability and sample size, of $\geq$30% to <50% are flagged in the report to be interpreted with caution. No estimates with RSEs of $\geq$50% are presented. Chi-square tests were computed to determine significant differences between prevalence estimates. Only significant differences ($p<0.05$) are discussed in the text without preface.

Data Limitations

The strengths of this report's findings lie in the large, diverse study sample, coupled with administrative data on older residents in public housing, but there are limitations to the data. All findings are cross-sectional, barring any conclusions about cause and effect. In addition, the survey data are all self-reported, which means that any conditions unknown to respondents are not included in estimates.

Comparison Data

The following sources were used to provide demographic and outcome specific comparisons among older adults in NYC and the US.

- American Community Survey 2005-2009 five-year estimates (factfinder.census.gov)
- Behavioral Risk Factor Surveillance System (www.cdc.gov/brfss/)
- National Health and Nutrition Examination Survey (www.cdc.gov/nchs/nhanes.htm)
- New York City Community Health Survey (nyc.gov/health/survey)
- New York City Health and Nutrition Examination Survey (nyc.gov/health/nychanes)

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FOR MORE INFORMATION

Please call 311, visit nyc.gov/health or nyc.gov/nycha or nyc.gov/html/dfta or cuny.edu/sph, or email query@health.nyc.gov. Additional Information about variables and definitions used in this report are available in the comprehensive Technical Notes available online.

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COVER PHOTOS

Cover photographs of NYCHA residents were taken by NYCHA Senior Photographer Peter Mikoleski.

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