

Epi Data Brief

New York City Department of Health and Mental Hygiene

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Falls among Adults Aged 65 Years and Older in New York City

Falls in New York City^{1, 2}

- Fall-related injuries among older adults (aged 65 years and older) in New York City (NYC) have remained relatively stable in the past decade. However, the older adult population is expected to increase 45% from 2010-2030,* which could increase the burden of falls dramatically.[^]
- Among older adults in New York City, falls are the leading cause of injury-related hospitalizations and lead to more hospitalizations than pneumonia, influenza, asthma and bronchitis combined.
- Total hospitalizations for falls among older adults in NYC cost approximately \$722 million annually, or \$40,600 per fall-related hospitalization.
- Total NYC emergency department (ED) visits for falls among older adults cost approximately \$53 million annually, or \$2,100 per fall-related ED visit.

The average annual number and rate of falls among older adults increases while injury severity decreases



Rates are per 100,000 adults aged 65 and older.

Sources : BVS 2007-2009; SPARCS 2007-2009; NYC DOHMH population estimates 2007-2009

Fall-related emergency department visits^{1, 3}

- Women are at greater risk for fall-related ED visits than men (17,247 vs. 7,342 visits annually or 2,783 vs. 1,822 per 100,000 adults aged 65 and older).
- Fall-related ED visit rates increase as age increases: 1,827 per 100,000 65- to 74-year-olds; 2,679 per 100,000 75- to 84-year-olds; and 3,801 per 100,000 adults aged 85 years or older.
- Staten Island residents have the highest rate of fall-related ED visits, while Queens residents have the lowest rate (3,210 vs. 1,781 per 100,000).

Data Sources

¹SPARCS 2007-2009:

The **Statewide Planning and Research Cooperative System (SPARCS)** is an administrative database of inpatient and outpatient discharges reported by New York State (NYS) hospitals to the NYS Department of Health. Diagnoses are coded according to the International Statistical Classification of Diseases and Related Health Problems-9th Revision framework. All data presented here are limited to live discharges of adults aged 65 years and older treated at NYC hospitals for a fall (ICD-9 codes E880-E888) between 2007 and 2009.

²BVS 2007-2009:

The NYC Department of Health and Mental Hygiene's (DOHMH) **Bureau of Vital Statistics (BVS)** maintains administrative data on all deaths in NYC. Cause of death is coded according to the International Statistical Classification of Diseases and Related Health Problems- 10th Revision framework. All data presented are limited to fall-related deaths (ICD-10 codes W00-W19) between 2007 and 2009 in NYC of adults aged 65 years and older.

³Intercensal Estimates:

Population estimates used for denominators in rate calculations were created by NYC DOHMH's Bureau of Epidemiology Services using unchallenged population estimates from the US Census Bureau.

Note

Neighborhoods were defined according to United Hospital Fund's zip-code aggregations.

References

*NYC Department of City Planning. New York City Population Projections by Age/Sex & Borough 2000-2030 Report; http://www.nyc.gov/html/dcp/pdf/census/projections_report.pdf

[^]World Health Organization. WHO Global Report on Falls Prevention in Older Age; http://www.who.int/ageing/publications/Falls_prevention7March.pdf

Authored by

Rebecca Yau, Laura DiGrande

Acknowledgements

Melanie Firestone, Lawrence Fung



Fall-related hospitalizations^{1,3}

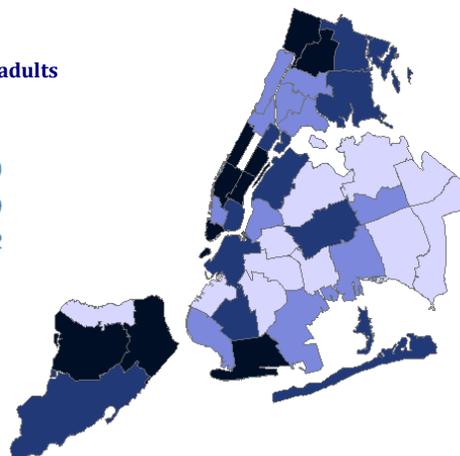
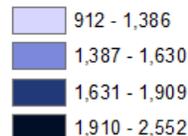
- About half (53%) of falls resulting in hospitalization occur in the home, 12% occur in a residential institution, and 7% occur on a street or highway; the remainder occur in other locations.
- Slipping, tripping or stumbling on the same level (as opposed to down a curb or stairs) account for 40% of hospitalized falls.
- Each year, almost half of fall hospitalizations are for fractures (48% or 8,528 hospitalizations). Of these fractures, 46% are to the hip.
- Annually, 8% of fall hospitalizations (1,371) are for a traumatic brain injury.
- The average length of hospital stay for a fall is seven days. Annually, 39% (6,997) of these hospitalizations result in discharges to a skilled nursing facility; this proportion increases as age increases. One quarter (24% or 4,314) are discharged home.
- Fall-related hospitalization rates vary by neighborhood. The highest rates are for the neighborhoods of Kingsbridge-Riverdale in the Bronx and Willowbrook in Staten Island (2,552 and 2,343 per 100,000 adults aged 65 and older, respectively).

Fall-related deaths^{2,3}

- Men are at greater risk for a fall-related death than women (33 vs. 22 per 100,000 adults aged 65 and older), while women are at greater risk for a fall-related hospitalization than men (1,975 vs. 1,370 per 100,000).
- Staten Island residents are at greatest risk for a fall-related death, while Brooklyn residents are at lowest risk (31 vs. 20 per 100,000).
- Fall death rates increase as age increases, overall and for all racial/ethnic groups.
- Overall, white, non-Hispanic adults are at greatest risk for fall-related deaths, while Black, non-Hispanic adults are at lowest risk (34 and 15 per 100,000, respectively). This pattern varies as age increases, with Asian/Pacific Islanders having the highest rates among the oldest adults.

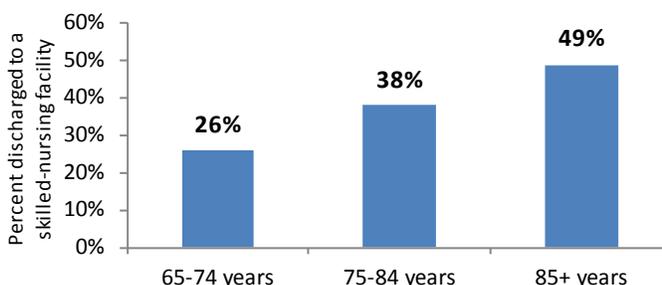
Fall-related hospitalization rates vary by neighborhood

Rate per 100,000 adults aged 65 and older



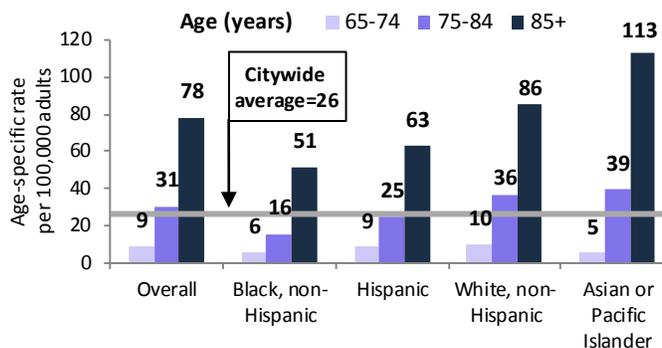
Sources: SPARCS 2007-2009; NYC DOHMH population estimates 2007-2009

Proportion of older adults discharged to a skilled-nursing facility after a fall-related hospitalization increases as age increases



Source: SPARCS 2007-2009

Fall-related death rates vary by age and race/ethnicity



Sources: BVS 2007-2009; NYC DOHMH population estimates 2007-2009

MORE New York City Health Data and Publications

- For complete tables of data presented in this Brief, visit nyc.gov/html/doh/downloads/pdf/epi/datatable14.pdf
 - For data on falls and other injuries in NYC, visit nyc.gov/html/doh/html/ip/ip-index.shtml.
 - Visit EpiQuery – the Health Department’s online, interactive health data system at nyc.gov/health/EpiQuery
- My Community’s Health: Data and Statistics at nyc.gov/health/mycommunityhealth**