

Epi Data Brief

New York City Department of Health and Mental Hygiene

July 2013, No. 30

Measuring stair use: Adults 18

York City were asked "How many total floors of stairs do you walk

(excluding subway)?" Responses

zero to two, three to five, and six or more floors on an average

years and older living in New

up on an average weekday at

home and at work combined

were categorized as climbing

weekday. Those who reported

they were physically unable to

walk up stairs were excluded

from this report.

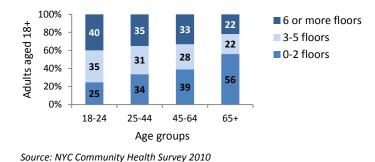
Walking Up Stairs in New York City

Stair climbing is a key opportunity for daily physical activity for many New York City residents. The New York City Department of Health and Mental Hygiene has promoted stair use by distributing signs that read "<u>Burn</u> <u>Calories, Not Electricity</u>."¹ Stair climbing is an opportunity for bouts of vigorous physical activity to be incorporated into daily life. Climbing about three to five floors per day, on average, has been shown to decrease stroke risk,² while climbing six or more floors of stairs per day may provide enough caloric burn to mitigate the average annual one pound weight gain seen among U.S. adults.³ The Community Health Survey in New York City collects stair use data, providing an opportunity to assess individual characteristics of stair users as well as highlight self-reported health status associated with stair use in the NYC population.

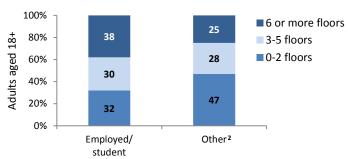
Who uses stairs?

- Overall, 38% of adult New Yorkers reported climbing zero to two, 29% reported climbing three to five, and 33% reported climbing six or more floors of stairs on an average weekday.
- Younger adults (18 to 24 years old) were nearly twice as likely as older adults (65 years and older) to climb six or more floors of stairs (40% vs. 22%).
- Men were more likely than women to climb six or more floors (36% vs. 30%).
- Borough residence was associated with differential stair use. Staten Island residents were more likely to climb six or more floors (43%) than residents of any other borough: Bronx (32%), Brooklyn (34%), Manhattan (31%), and Queens (32%). Queens residents were more likely than Staten Island, Bronx, or Brooklyn residents to climb only zero to two floors on an average weekday (41% vs. 31%, 34%, and 37%).
- Employed adults and students were more likely to climb six or more floors than other New Yorkers (38% vs. 25%).

Floors of stairs climbed on an average weekday among New York City adults by age group



Floors of stairs climbed on an average weekday among New York City adults by employment status¹



⁻ Employed includes those who are self-employed. Other includes unemployed, homemakers, retired, and unable to work.

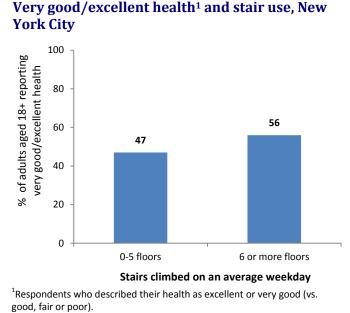
Source: NYC Community Health Survey 2010

Data Source: The NYC Community Health Survey (CHS) is a survey of approximately 9,000 adults aged 18 and older, conducted annually by the Health Department. 2010 data presented in this Brief are age adjusted to the US 2000 Standard population, except for age-specific estimates. The CHS has included adults with landline phones since 2002 and, starting in 2009, also has included adults who can be reached by cell phone. For more survey details, visit <u>nyc.gov/health/survey</u>.



Stair climbing is associated with self-reported very good or excellent general health

- Self-reported general health is a well-recognized indicator of overall health;⁴ New Yorkers who climb six or more floors of stairs per weekday were more likely to report very good or excellent general health than those who climb zero to five floors per weekday (56% vs. 47%).
- The association between stair use and general health was seen regardless of individual characteristics, such as age, sex, race/ethnicity, body mass index, borough of residence, education, employment, poverty level, diet, activity, and diabetes.
- The association between stair use and other health indicators such as obesity and prevalence of diabetes, high blood pressure, and high cholesterol was not significant when controlling for other individual characteristics.



Source: NYC Community Health Survey 2010

New York City Efforts to Encourage Active Design

The City of New York and community partners have been working together to make our buildings, streets, and neighborhoods more supportive of physical activity, including stair climbing, bicycling, and walking. Since 2006, the Health Department and the American Institute of Architects have held annual Fit City Conferences to promote innovative collaboration between design and health professionals. This has led to initiatives such as the *Active Design Guidelines* (www.nyc.gov/adg), which provide architects and urban designers with strategies for creating healthier buildings, streets, and urban spaces. Supported by a Kresge Foundation grant to the Health Department, over 2000 architects and urban planners have been trained in the use of these guidelines, and the new Center for Active Design will continue these trainings. The "Burn Calories, Not Electricity" signs next to elevators are another initiative that came from this work. Further, the City of New York plans to make all new City construction projects healthier by including Active Design strategies.

Authored by: Maya Leventer-Roberts, Karen Lee

Acknowledgements: Christa Myers, Maggie Veatch, Cari Olson, Jennifer Norton, Kinjia Hinterland

References:

- 1. Lee KK, Perry AS, Wolf SA, Agarwal R,Rosenblum R, Fisher S, Grimshaw VE, Wener RE, Silver LD. Promoting routine stair use: Evaluating the impact of a stair prompt across buildings. Am J Prev Med 2012;42(2):136–141.
- 2. Lee IM, Hsieh CC, Paffenbarger RS Jr. Exercise intensity and longevity in men. The Harvard Alumni Health Study. JAMA 1995 Apr 19; 273(15): 1179-84.
- 3. Zimring C, Joseph A, Nicoll GL, Tsepas S. Influences of building design and site design on physical activity: research and intervention opportunities. Am J Prev Med 2005;28(2S2):186–193.
- 4. Elfassy T, Yi S, Immerwahr S, and Eisenhower D. Self-Rated General Health in New York City. New York City Department of Health and Mental Hygiene: Epi Data Brief (24); March 2013. <u>nyc.gov/html/doh/downloads/pdf/epi/databrief24.pdf</u>

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/datatable30.pdf
- Visit EpiQuery the Health Department's online, interactive health data system at nyc.gov/health/EpiQuery

Data & Statistics at nyc.gov/health/data