



# Epi Data Tables

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

### Data Tables

- Table 1.** Demographic characteristics of older adults who fall in NYC  
*SPARCS 2007-2009, BVS 2007-2009, NYC DOHMH population estimates 2007-2009*
- Table 2.** Characteristics of fall-related hospitalizations and emergency department visits  
*SPARCS 2007-2009*
- Table 3.** Fall-related hospitalizations by neighborhood and age: Overall  
*SPARCS 2007-2009, NYC DOHMH population estimates 2007-2009*
- Table 4.** Fall-related hospitalizations by neighborhood and age: Men  
*SPARCS 2007-2009, NYC DOHMH population estimates 2007-2009*
- Table 5.** Fall-related hospitalizations by neighborhood and age: Women  
*SPARCS 2007-2009, NYC DOHMH population estimates 2007-2009*
- Table 6.** Fall-related deaths by neighborhood and gender  
*BVS 2007-2009, NYC DOHMH population estimates 2007-2009*
- Map 1.** New York City United Hospital Fund neighborhoods

### Data Sources

**SPARCS 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.

**BVS 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.

**Intercensal Estimates 2007-2009:** 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.

[To access the related Epi Data Brief, go to \[nyc.gov/html/doh/downloads/pdf/epi/databrief14.pdf\]\(http://nyc.gov/html/doh/downloads/pdf/epi/databrief14.pdf\)](http://nyc.gov/html/doh/downloads/pdf/epi/databrief14.pdf)

**Table 1. Demographic characteristics of older adults who fall in NYC****Numbers and rates of falls among adults aged 65 years and older.**

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

Rates are per 100,000 adults aged 65 and older. Data on race/ethnicity are not available for ED visits and hospitalizations.

Characteristic	ED Visits		Hospitalizations		Deaths	
	N	rate	N	rate	N	rate
<i>Overall</i>	73,770	2,404	53,283	1,736	812	26
<i>Sex</i>						
Male	22,028	1,822	16,558	1,370	398	33
Female	51,741	2,783	36,725	1,975	414	22
<i>Age</i>						
65-74 years old	29,223	1,827	12,571	786	141	9
75-84 years old	26,977	2,679	20,858	2,071	309	31
85 years or older	17,570	3,801	19,854	4,295	362	78
<i>Borough</i>						
Bronx	12,362	2,810	8,052	1,831	125	28
Brooklyn	20,819	2,258	14,097	1,529	186	20
Manhattan	15,303	2,460	12,235	1,967	161	26
Queens	16,139	1,781	12,819	1,415	228	25
Staten Island	5,719	3,210	3,404	1,910	56	31
<i>Race/ethnicity</i>						
Hispanic					113	20
White, non-Hispanic					518	34
Black, non-Hispanic	Not available		Not available		94	15
Asian or Pacific Islander					75	27
Other, non-Hispanic					5	20

**Table 2. Characteristics of fall-related emergency department visits and hospitalizations****Number and percent of fall-related emergency department (ED) visits and hospitalizations among adults aged 65 years or older.**

Source: SPARCS 2007-2009

Characteristic	ED visits		Hospitalizations	
	N	%	N	%
<b>N, % of fall-related ED visits and hospitalizations among older adults</b>				
<i>Place of fall</i>				
Home	20,741	28%	28,003	53%
Street and highway	9,261	13%	3,589	7%
Residential institution	3,816	5%	6,235	12%
Public building	3,036	4%	1,164	2%
Other specified places	16,855	23%	8,880	17%
Unspecified place	20,061	27%	5,412	10%
<i>Cause of fall</i>				
Falling on the same level from slipping, tripping or stumbling	35,016	47%	21,277	40%
Fall on or from stairs or steps	4,988	7%	2,891	5%
Fall from bed	3,338	5%	2,810	5%
Other specified fall	15,163	21%	14,043	26%
Unspecified Fall	15,265	21%	12,262	23%
<i>Primary diagnosis</i>				
Traumatic brain injury	756	1%	4,114	8%
Hip fracture	383	1%	11,657	22%
Other fracture	14,990	20%	13,926	26%
Other injury	49,188	67%	4,823	9%
Non-injury	8,453	11%	18,763	35%
<i>Discharge location</i>				
Home	68,641	93%	12,941	24%
Home, under care of organized home health service organization	2,192	3%	9,799	18%
Skilled nursing facility	981	1%	20,990	39%
Inpatient rehabilitation facility	13	0%	6,123	11%
Other	1,943	3%	3,430	6%
<i>Month of fall</i>				
January	5,883	8%	4,593	9%
February	5,625	8%	4,156	8%
March	6,104	8%	4,606	9%
April	5,857	8%	4,370	8%
May	6,350	9%	4,469	8%
June	5,994	8%	4,157	8%
July	5,998	8%	4,379	8%
August	6,162	8%	4,400	8%
September	6,345	9%	4,549	9%
October	6,528	9%	4,595	9%
November	6,011	8%	4,310	8%
December	6,886	9%	4,625	9%

**Table 3. Fall-related hospitalizations by neighborhood and age: Overall****Numbers and rates of falls hospitalizations among adults aged 65 years or older by NYC neighborhood and age.**

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

Rates are per 100,000 adults aged 65 and older. Neighborhoods are classified according to the United Hospital Fund zip-code aggregations.

<b>N, rate of falls hospitalizations of older adults, by neighborhood and age</b>								
<b>Neighborhood</b>	<b>Overall</b>		<b>65-74 years old</b>		<b>75-84 years old</b>		<b>85 years or older</b>	
	<b>N</b>	<b>rate</b>	<b>N</b>	<b>rate</b>	<b>N</b>	<b>rate</b>	<b>N</b>	<b>rate</b>
<i>Bronx</i>	8,052	1,831	2,159	926	3,021	2,157	2,872	4,314
101: Kingsbridge-Riverdale	1,217	2,552	189	983	396	2,346	632	5,452
102: Northeast Bronx	1,530	1,817	397	916	572	2,106	561	4,098
103: Fordham-Bronx Park	1,333	1,942	331	950	520	2,340	482	4,157
104: Pelham-Throgs Neck	1,993	1,803	513	875	753	2,122	727	4,417
105: Crotona-Tremont	689	1,537	248	904	293	2,273	148	3,282
106: High Bridge-Morrisania	712	1,451	274	949	271	1,792	167	3,292
107: Hunts Point-Mott Haven	572	1,547	207	940	211	1,897	154	4,040
<i>Brooklyn</i>	14,097	1,529	3,152	660	5,672	1,854	5,273	3,803
201: Greenpoint	567	1,464	113	564	238	1,745	216	4,280
202: Downtown-Heights-Slope	1,136	1,686	276	796	442	1,999	418	3,939
203: Bedford Stuyvesant-Crown Heights	1,076	1,017	363	620	397	1,180	316	2,314
204: East New York	447	979	187	675	166	1,238	94	2,076
205: Sunset Park	496	1,362	135	672	224	1,949	137	2,825
206: Borough Park	2,614	1,909	468	745	1,072	2,213	1,074	4,179
207: East Flatbush-Flatbush	985	1,022	283	486	402	1,460	300	2,840
208: Canarsie-Flatlands	1,154	1,552	278	712	430	1,707	446	4,406
209: Bensonhurst-Bay Ridge	1,641	1,629	270	559	683	1,954	688	3,944
210: Coney Island-Sheepshead Bay	3,251	2,013	539	724	1,333	2,326	1,379	4,639
211: Williamsburg-Bushwick	674	1,156	234	695	260	1,426	180	2,819
<i>Manhattan</i>	12,235	1,967	2,709	830	4,701	2,318	4,825	5,201
301: Washington Heights-Inwood	1,279	1,411	357	766	457	1,537	465	3,255
302: Central Harlem-Morningside Heights	787	1,481	231	857	267	1,509	289	3,403
303: East Harlem	811	1,872	209	941	338	2,351	264	3,916
304: Upper West Side	2,117	2,235	418	836	806	2,743	893	5,841
305: Upper East Side	2,298	2,309	456	836	905	2,996	937	6,335
306: Chelsea-Clinton	1,153	2,257	268	964	457	2,804	428	6,129
307: Gramercy Park-Murray Hill	1,242	2,199	245	783	499	2,715	498	7,320
308: Greenwich Village-Soho	501	1,560	92	524	206	1,992	203	4,804
309: Union Square-Lower East Side	1,586	1,824	334	785	579	1,852	673	5,132
310: Lower Manhattan	260	2,209	36	644	108	2,497	116	6,243
<i>Queens</i>	12,819	1,415	2,827	606	4,990	1,665	5,002	3,563
401: Long Island City-Astoria	1,340	1,691	316	773	536	2,069	488	3,918
402: West Queens	2,239	1,336	495	545	856	1,619	888	3,717
403: Flushing-Clearview	1,832	1,385	340	523	698	1,569	794	3,487
404: Bayside-Little Neck	406	912	66	308	151	949	189	2,639
405: Ridgewood-Forest Hills	2,025	1,836	391	742	801	2,160	833	4,062
406: Fresh Meadows	690	1,583	125	604	279	1,712	286	4,344
407: Southwest Queens	1,363	1,543	344	716	533	1,885	486	4,058
408: Jamaica	1,216	1,060	313	511	453	1,209	450	2,808
409: Southeast Queens	877	1,129	199	467	327	1,275	351	3,725
410: Rockaway	843	1,747	234	1,021	353	2,246	256	2,660
<i>Staten Island</i>	3,404	1,910	748	780	1,383	2,366	1,273	5,338
501: Port Richmond	281	1,278	76	653	108	1,461	97	3,283
502: Stapleton-St.George	1,011	2,006	238	935	389	2,256	384	4,988
503: Willowbrook	862	2,343	147	771	359	2,943	356	6,461
504: South Beach-Tottenville	1,248	1,809	287	723	526	2,433	435	5,660

**Table 4. Fall-related hospitalizations by neighborhood and age: Men****Numbers and rates of falls hospitalizations among adult men aged 65 years or older by NYC neighborhood and age.**

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

Rates are per 100,000 adults aged 65 and older. Neighborhoods are classified according to the United Hospital Fund zip-code aggregations.

<b>N, rate of falls hospitalizations of older adult men, by neighborhood and age</b>								
<b>Neighborhood</b>	<b>Overall</b>		<b>65-74 years old</b>		<b>75-84 years old</b>		<b>85 years or older</b>	
	<b>N</b>	<b>rate</b>	<b>N</b>	<b>rate</b>	<b>N</b>	<b>rate</b>	<b>N</b>	<b>rate</b>
<i>Bronx</i>	2,554	1,560	928	975	933	1,879	693	3,674
101: Kingsbridge-Riverdale	337	1,950	77	971	101	1,642	159	4,972
102: Northeast Bronx	479	1,558	178	1,033	175	1,816	126	3,255
103: Fordham-Bronx Park	428	1,664	138	952	167	2,098	123	3,756
104: Pelham-Throgs Neck	642	1,530	215	884	255	1,984	172	3,597
105: Crotona-Tremont	224	1,337	105	939	84	1,918	35	2,912
106: High Bridge-Morrisania	239	1,370	134	1,219	70	1,375	35	2,583
107: Hunts Point-Mott Haven	202	1,390	81	859	79	2,027	42	3,485
<i>Brooklyn</i>	4,209	1,176	1,318	661	1,670	1,457	1,221	2,787
201: Greenpoint	192	1,247	53	633	81	1,598	58	2,962
202: Downtown-Heights-Slope	348	1,318	125	824	130	1,598	93	2,995
203: Bedford Stuyvesant-Crown Heights	360	977	181	807	114	1,031	65	1,937
204: East New York	169	941	87	769	61	1,166	21	1,489
205: Sunset Park	159	1,048	61	675	68	1,517	30	1,809
206: Borough Park	778	1,410	185	681	328	1,703	265	3,033
207: East Flatbush-Flatbush	335	937	130	566	131	1,345	74	2,423
208: Canarsie-Flatlands	313	1,075	96	599	111	1,158	106	3,015
209: Bensonhurst-Bay Ridge	446	1,141	110	526	191	1,461	145	2,853
210: Coney Island-Sheepshead Bay	880	1,355	184	569	370	1,632	326	3,277
211: Williamsburg-Bushwick	217	985	108	786	78	1,238	31	1,556
<i>Manhattan</i>	3,738	1,489	1,118	785	1,507	1,871	1,113	3,954
301: Washington Heights-Inwood	362	1,079	133	701	135	1,286	94	2,314
302: Central Harlem-Morningside Heights	242	1,297	101	975	95	1,590	46	1,987
303: East Harlem	253	1,556	102	1,155	103	1,868	48	2,512
304: Upper West Side	640	1,661	173	771	269	2,269	198	4,665
305: Upper East Side	699	1,664	158	644	271	2,089	270	5,997
306: Chelsea-Clinton	370	1,666	129	975	157	2,300	84	3,911
307: Gramercy Park-Murray Hill	420	1,700	113	793	186	2,297	121	5,121
308: Greenwich Village-Soho	174	1,207	39	460	73	1,615	62	4,351
309: Union Square-Lower East Side	448	1,271	135	735	164	1,327	149	3,296
310: Lower Manhattan	73	1,579	15	627	31	1,928	27	4,334
<i>Queens</i>	3,957	1,092	1,201	594	1,523	1,327	1,233	2,726
401: Long Island City-Astoria	391	1,263	126	712	160	1,684	105	2,801
402: West Queens	695	1,025	211	525	258	1,299	226	2,895
403: Flushing-Clearview	551	1,024	152	526	194	1,101	205	2,819
404: Bayside-Little Neck	128	696	33	351	46	698	49	2,037
405: Ridgewood-Forest Hills	593	1,369	147	650	246	1,752	200	3,010
406: Fresh Meadows	200	1,095	43	484	76	1,116	81	3,147
407: Southwest Queens	421	1,155	145	673	162	1,473	114	2,919
408: Jamaica	429	981	139	549	165	1,210	125	2,621
409: Southeast Queens	279	907	87	489	106	1,085	86	2,682
410: Rockaway	268	1,422	113	1,131	107	1,800	48	1,648
<i>Staten Island</i>	1,098	1,481	316	717	474	2,061	308	4,353
501: Port Richmond	92	1,021	31	608	41	1,429	20	1,908
502: Stapleton-St.George	342	1,669	115	992	131	1,940	96	4,480
503: Willowbrook	278	1,816	65	735	129	2,671	84	5,134
504: South Beach-Tottenville	385	1,312	105	566	172	2,011	108	4,804

**Table 5. Fall-related hospitalizations by neighborhood and age: Women****Numbers and rates of falls hospitalizations among adult women aged 65 years or older by NYC neighborhood and age.**

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

Rates are per 100,000 adults aged 65 and older. Neighborhoods are classified according to the United Hospital Fund zip-code aggregations.

<b>N, rate of falls hospitalizations of older adult women, by neighborhood and age</b>								
<b>Neighborhood</b>	<b>Overall</b>		<b>65-74 years old</b>		<b>75-84 years old</b>		<b>85 years or older</b>	
	<b>N</b>	<b>rate</b>	<b>N</b>	<b>rate</b>	<b>N</b>	<b>rate</b>	<b>N</b>	<b>rate</b>
<i>Bronx</i>	5,498	1,991	1,231	892	2,088	2,309	2,179	4,566
101: Kingsbridge-Riverdale	880	2,893	112	992	295	2,750	473	5,635
102: Northeast Bronx	1,051	1,966	219	839	397	2,265	435	4,431
103: Fordham-Bronx Park	905	2,109	193	949	353	2,475	359	4,315
104: Pelham-Throgs Neck	1,351	1,969	298	869	498	2,200	555	4,752
105: Crotona-Tremont	465	1,657	143	880	209	2,455	113	3,417
106: High Bridge-Morrisania	473	1,495	140	783	201	2,003	132	3,550
107: Hunts Point-Mott Haven	370	1,650	126	1,000	132	1,826	112	4,296
<i>Brooklyn</i>	9,888	1,752	1,834	659	4,002	2,092	4,052	4,273
201: Greenpoint	375	1,608	60	515	157	1,831	158	5,115
202: Downtown-Heights-Slope	788	1,922	151	774	312	2,232	325	4,329
203: Bedford Stuyvesant-Crown Heights	716	1,038	182	504	283	1,254	251	2,437
204: East New York	278	1,004	100	610	105	1,284	73	2,341
205: Sunset Park	337	1,586	74	670	156	2,226	107	3,353
206: Borough Park	1,836	2,245	283	794	744	2,550	809	4,769
207: East Flatbush-Flatbush	650	1,073	153	433	271	1,523	226	3,009
208: Canarsie-Flatlands	841	1,860	182	791	319	2,044	340	5,146
209: Bensonhurst-Bay Ridge	1,195	1,939	160	584	492	2,249	543	4,392
210: Coney Island-Sheepshead Bay	2,371	2,456	355	843	963	2,780	1,053	5,323
211: Williamsburg-Bushwick	457	1,260	126	632	182	1,524	149	3,391
<i>Manhattan</i>	8,497	2,290	1,591	864	3,194	2,611	3,712	5,744
301: Washington Heights-Inwood	917	1,606	224	811	322	1,673	371	3,629
302: Central Harlem-Morningside Heights	545	1,580	130	783	172	1,468	243	3,934
303: East Harlem	558	2,062	107	800	235	2,653	216	4,472
304: Upper West Side	1,477	2,629	245	888	537	3,063	695	6,293
305: Upper East Side	1,599	2,779	298	993	634	3,679	667	6,482
306: Chelsea-Clinton	783	2,711	139	954	300	3,167	344	7,115
307: Gramercy Park-Murray Hill	822	2,588	132	774	313	3,044	377	8,491
308: Greenwich Village-Soho	327	1,847	53	584	133	2,284	141	5,034
309: Union Square-Lower East Side	1,138	2,202	199	823	415	2,195	524	6,097
310: Lower Manhattan	187	2,616	21	657	77	2,834	89	7,206
<i>Queens</i>	8,862	1,629	1,626	616	3,467	1,876	3,769	3,962
401: Long Island City-Astoria	949	1,965	190	820	376	2,292	383	4,400
402: West Queens	1,544	1,549	284	561	598	1,812	662	4,116
403: Flushing-Clearview	1,281	1,633	188	521	504	1,876	589	3,801
404: Bayside-Little Neck	278	1,064	33	274	105	1,127	140	2,944
405: Ridgewood-Forest Hills	1,432	2,138	244	812	555	2,409	633	4,567
406: Fresh Meadows	490	1,935	82	693	203	2,140	205	5,112
407: Southwest Queens	942	1,817	199	751	371	2,147	372	4,610
408: Jamaica	787	1,108	174	484	288	1,209	325	2,887
409: Southeast Queens	598	1,275	112	452	221	1,392	265	4,262
410: Rockaway	575	1,956	121	937	246	2,517	208	3,099
<i>Staten Island</i>	2,306	2,217	432	834	909	2,564	965	5,753
501: Port Richmond	189	1,457	45	688	67	1,481	77	4,038
502: Stapleton-St. George	669	2,236	123	887	258	2,460	288	5,185
503: Willowbrook	584	2,719	82	801	230	3,121	272	7,021
504: South Beach-Tottenville	863	2,176	182	860	354	2,709	327	6,014

**Table 6. Fall-related deaths by neighborhood and gender****Numbers and rates of fall-related deaths among adults aged 65 years or older by NYC neighborhood.**

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

Rates are per 100,000 adults aged 65 and older. Neighborhoods are classified according to the United Hospital Fund zip-code aggregations.

Neighborhood	Overall		Male		Female	
	N	rate	N	rate	N	rate
<i>Bronx</i>	125	28	67	41	58	21
101: Kingsbridge-Riverdale	18	38	7	41	11	36
102: Northeast Bronx	22	26	7	23	15	28
103: Fordham-Bronx Park	18	26	12	47	6	14
104: Pelham-Throgs Neck	30	27	19	45	11	16
105: Crotona-Tremont	11	25	*	*	*	*
106: High Bridge-Morrisania	17	35	9	52	8	25
107: Hunts Point-Mott Haven	8	22	*	*	*	*
<i>Brooklyn</i>	186	20	85	24	101	18
201: Greenpoint	10	26	*	*	*	*
202: Downtown-Heights-Slope	16	24	8	30	8	20
203: Bedford Stuyvesant-Crown Heights	15	14	*	*	*	*
204: East New York	6	13	*	*	*	*
205: Sunset Park	10	27	*	*	*	*
206: Borough Park	30	22	20	36	10	12
207: East Flatbush-Flatbush	14	15	8	22	6	10
208: Canarsie-Flatlands	20	27	7	24	13	29
209: Bensonhurst-Bay Ridge	30	30	11	28	19	31
210: Coney Island-Sheepshead Bay	26	16	12	18	14	15
211: Williamsburg-Bushwick	9	15	*	*	*	*
<i>Manhattan</i>	161	26	78	31	83	22
301: Washington Heights-Inwood	12	13	5	15	7	12
302: Central Harlem-Morningside Heights	9	17	0	0	9	26
303: East Harlem	15	35	10	62	5	18
304: Upper West Side	25	26	14	36	11	20
305: Upper East Side	22	22	11	26	11	19
306: Chelsea-Clinton	20	39	12	54	8	28
307: Gramercy Park-Murray Hill	11	19	*	*	*	*
308: Greenwich Village-Soho	12	37	5	35	7	40
309: Union Square-Lower East Side	27	31	10	28	17	33
310: Lower Manhattan	8	68	*	*	*	*
<i>Queens</i>	228	25	105	29	123	23
401: Long Island City-Astoria	18	23	10	32	8	17
402: West Queens	37	22	18	27	19	19
403: Flushing-Clearview	49	37	19	35	30	38
404: Bayside-Little Neck	7	16	*	*	*	*
405: Ridgewood-Forest Hills	34	31	16	37	18	27
406: Fresh Meadows	12	28	6	33	6	24
407: Southwest Queens	26	29	9	25	17	33
408: Jamaica	20	17	7	16	13	18
409: Southeast Queens	16	21	9	29	7	15
410: Rockaway	9	19	*	*	*	*
<i>Staten Island</i>	56	31	29	39	27	26
501: Port Richmond	5	23	*	*	*	*
502: Stapleton-St.George	11	22	*	*	*	*
503: Willowbrook	12	33	7	46	5	23
504: South Beach-Tottenville	28	41	12	41	16	40

\*Ns and rates suppressed due to small cell counts.

**Map 1. New York City United Hospital Fund neighborhoods**

Neighborhoods are classified according to the United Hospital Fund zip-code aggregations.

