

Falls at a glance

Highlights

- Since 2007, the hospitalization rates in Durham Region residents have remained stable. In 2016, there were over 1,700 hospitalizations due to falls. Hospitalization rates are consistently higher in females than males. Durham Region rates are similar to Ontario's rates.
- Since 2007, the emergency department (ED) visit rates in Durham Region residents have remained stable. In 2016, there were over 19,500 ED visits due to falls. ED visit rates are slightly higher in females than males. Durham Region rates are similar to Ontario's rates.
- Adults aged 65 years and older account for 70% (1,255/1,771) of the hospitalizations due to falls. Since 2007, the hospitalization rates in Durham Region older adults have remained stable. Hospitalization rates are consistently higher in females than males, and are similar to Ontario's rates.
- Adults aged 65 years and older account for one-quarter (5,374/19,530) of the fall-related ED visits. Similar to the pattern seen with hospitalizations, ED visit rates have remained stable since 2007, are consistently higher in females than males, and are similar to Ontario's rates.
- Falls from playground equipment account for 17% of fall-related ED visits in children aged 5 to 9. Since 2007, rates are increasing in Durham Region and across Ontario. ED visit rates from playground injuries are slightly higher in girls than boys.
- Children aged 0-4 account for 10% (1,869/19,530) of the fall-related ED visits. Since 2007, rates have remained stable, are consistently higher in boys than girls, and are similar to Ontario's rates.

Introduction

The burden of unintentional falls in Durham Region is described in the following figures and tables:

- Age-standardized hospitalization rates by sex
- Age-standardized ED visit rates by sex
- Age-specific hospitalization rates by sex for adults aged 65 years and older
- Age-specific ED visit rates by sex for adults aged 65 years and older
- Age-specific ED visit rates for unintentional falls from playground equipment by sex for children aged 5 to 9 years
- Age-specific ED visit rates by sex for children aged 0 to 4 years

The following website provides additional local information on fall-related indicators of health system performance and characteristics.

[Central East LHIN Strategic Aim Update: Seniors](#)

Go to the [Health Statistics in Durham Region webpage](#) found at [durham.ca](#) under Departments, Health, Statistics & Publications for more detailed, topic-specific reports on the burden of falls.

Contact the Durham Health Connection Line at 905-666-6241 or 1-800-841-2729 for any questions.

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Figure 1: Age-standardized hospitalization rates per 100,000 for unintentional falls for Durham Region and Ontario, by sex, between 2007 and 2016

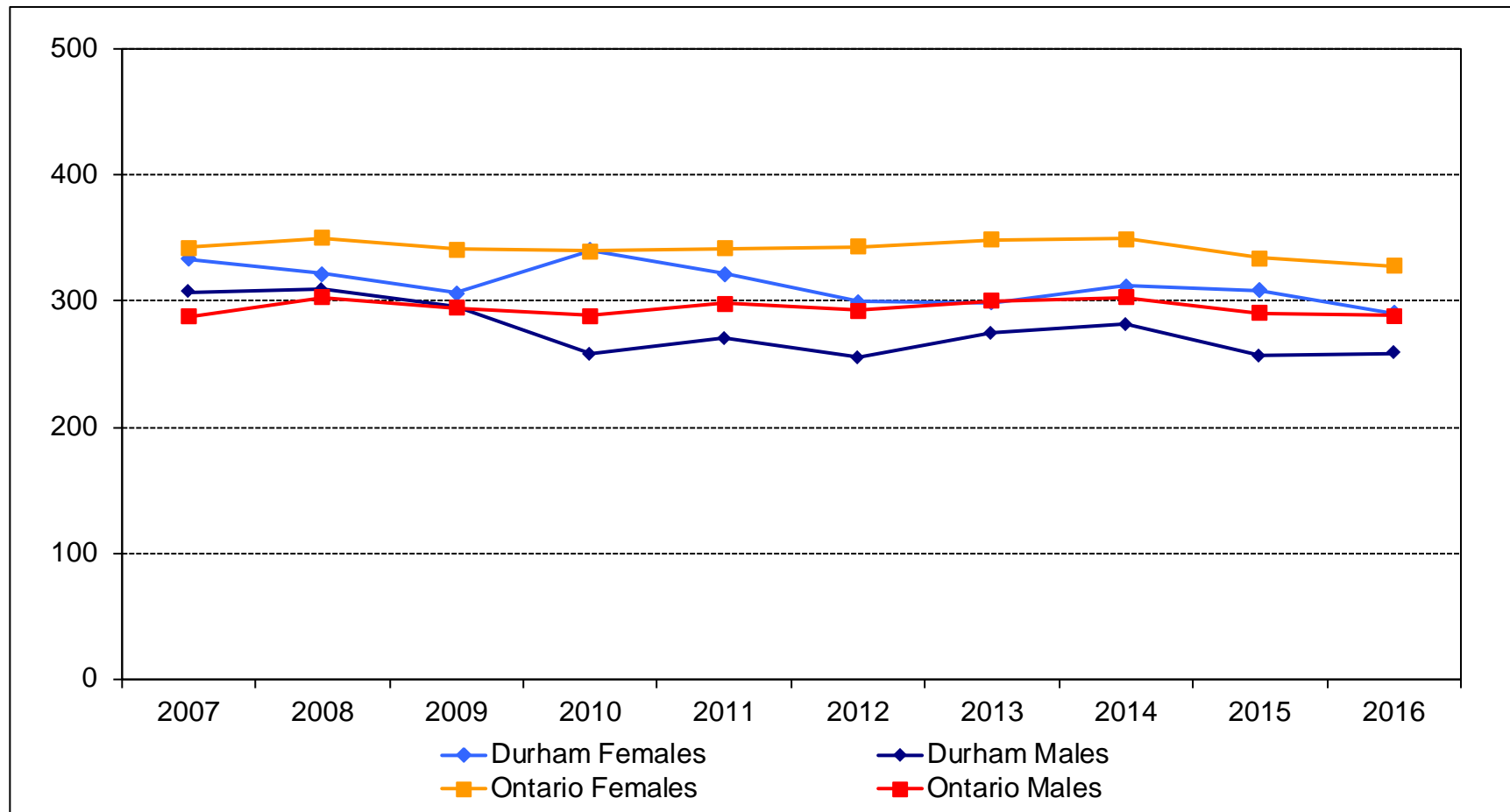


Table 1: Counts and age-standardized hospitalization rates per 100,000 for unintentional falls for Durham Region and Ontario, by sex, between 2007 and 2016

Statistic	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Durham Region females rate	333.4	321.9	306.4	340.4	321.8	299.6	299.1	311.8	308.9	290.5
Durham Region males rate	307.3	309.1	295.1	258.1	270.2	255.2	274.3	281.3	256.5	258.4
Ontario females rate	342.2	349.8	341.0	339.5	341.6	343.0	348.6	349.1	334.4	327.8
Ontario males rate	287.9	302.7	294.5	288.4	298.4	292.9	300.4	302.8	290.2	288.3
Durham Region females count	875	877	869	1,006	990	960	995	1,076	1,113	1,075
Durham Region males count	638	655	640	598	618	614	680	721	676	696

Figure 2: Age-standardized ED visit rates per 100,000 for unintentional falls for Durham Region and Ontario, by sex, between 2007 and 2016

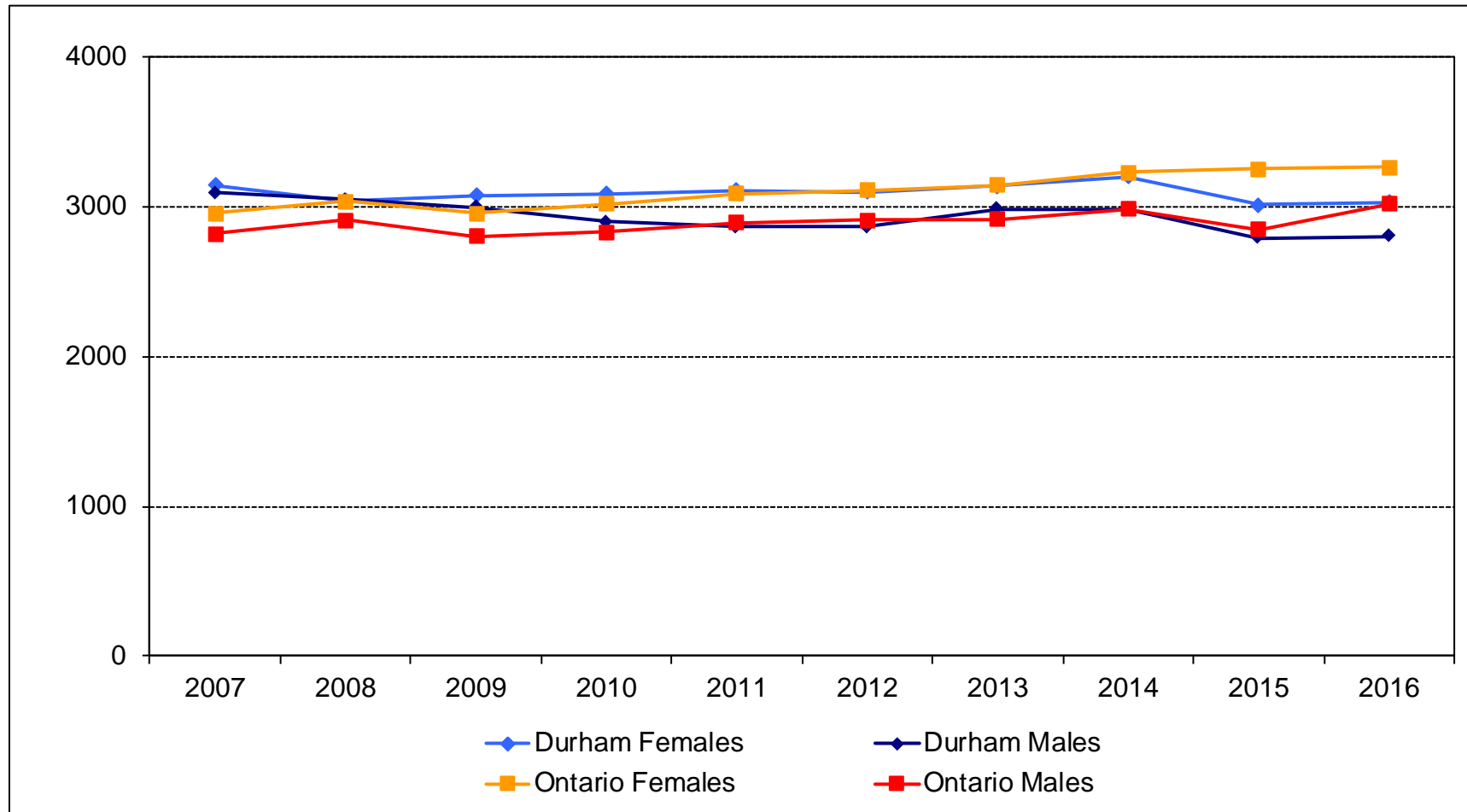


Table 2: Counts and age-standardized ED visit rates per 100,000 for unintentional falls for Durham Region and Ontario, by sex, between 2007 and 2016

Statistic	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Durham Region females rate	3,145.9	3,040.7	3,077.5	3,089.7	3,110.1	3,097.1	3,141.2	3,200.1	3,011.6	3,029.4
Durham Region males rate	3,091.8	3,049.5	2,997.4	2,900.6	2,866.3	2,865.5	2,983.4	2,987.4	2,792.7	2,802.8
Ontario females rate	2,956.0	3,035.4	2,958.1	3,018.9	3,086.0	3,109.5	3,142.5	3,228.9	3,250.1	3,266.4
Ontario males rate	2,818.8	2,908.3	2,802.1	2,828.4	2,892.4	2,908.1	2,917.2	2,985.2	2,850.0	3,017.0
Durham Region females count	9,184	9,104	9,366	9,612	9,859	10,041	10,375	10,771	10,334	10,606
Durham Region males count	8,949	8,828	8,750	8,611	8,582	8,670	9,100	9,285	8,733	8,924

Figure 3: Age-specific hospitalization rates per 100,000 for unintentional falls for Durham Region and Ontario adults aged 65 years and older, by sex, between 2002 and 2016

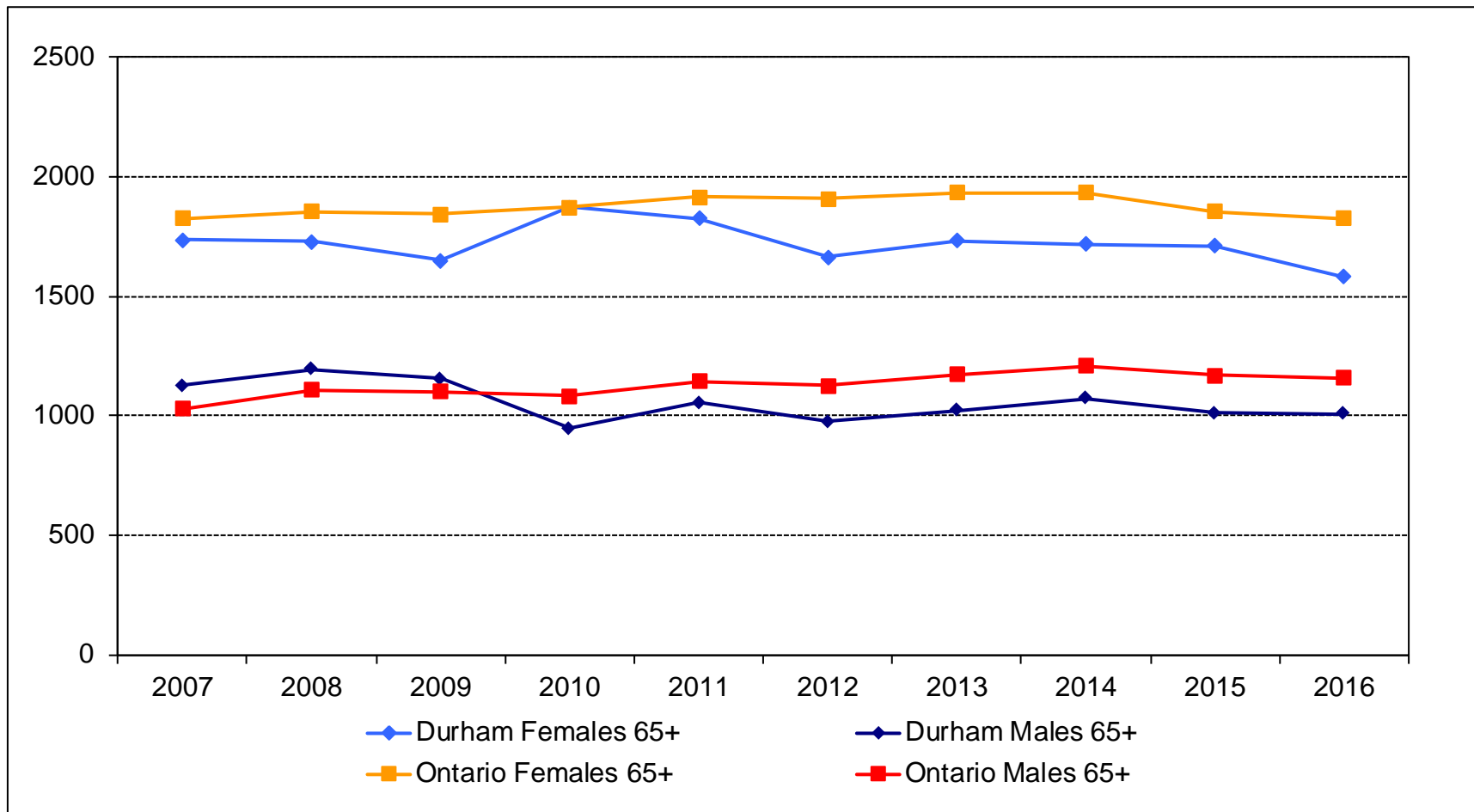


Table 3: Counts and age-specific hospitalization rates per 100,000 for unintentional falls for Durham Region and Ontario adults aged 65 years and older, by sex, between 2007 and 2016

Statistic	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Durham Region females rate	1,734.9	1,730.2	1,650.0	1,872.2	1,826.4	1,665.9	1,730.4	1,718.6	1,708.9	1,582.3
Durham Region males rate	1,127.1	1,195.8	1,154.2	946.4	1,054.3	976.1	1,023.3	1,071.4	1,010.9	1,009.2
Ontario females rate	1,825.7	1,854.0	1,843.6	1,871.2	1,913.8	1,908.4	1,932.7	1,932.9	1,853.2	1,826.4
Ontario males rate	1,027.9	1,108.8	1,102.6	1,082.1	1,143.2	1,126.3	1,174.4	1,207.2	1,170.6	1,158.4
Durham Region females count	615	639	632	746	759	732	799	830	860	829
Durham Region males count	305	340	342	293	343	338	375	412	407	426

Figure 4: Age-specific ED visit rates per 100,000 for unintentional falls for Durham Region and Ontario adults aged 65 years and older, by sex, between 2007 and 2016

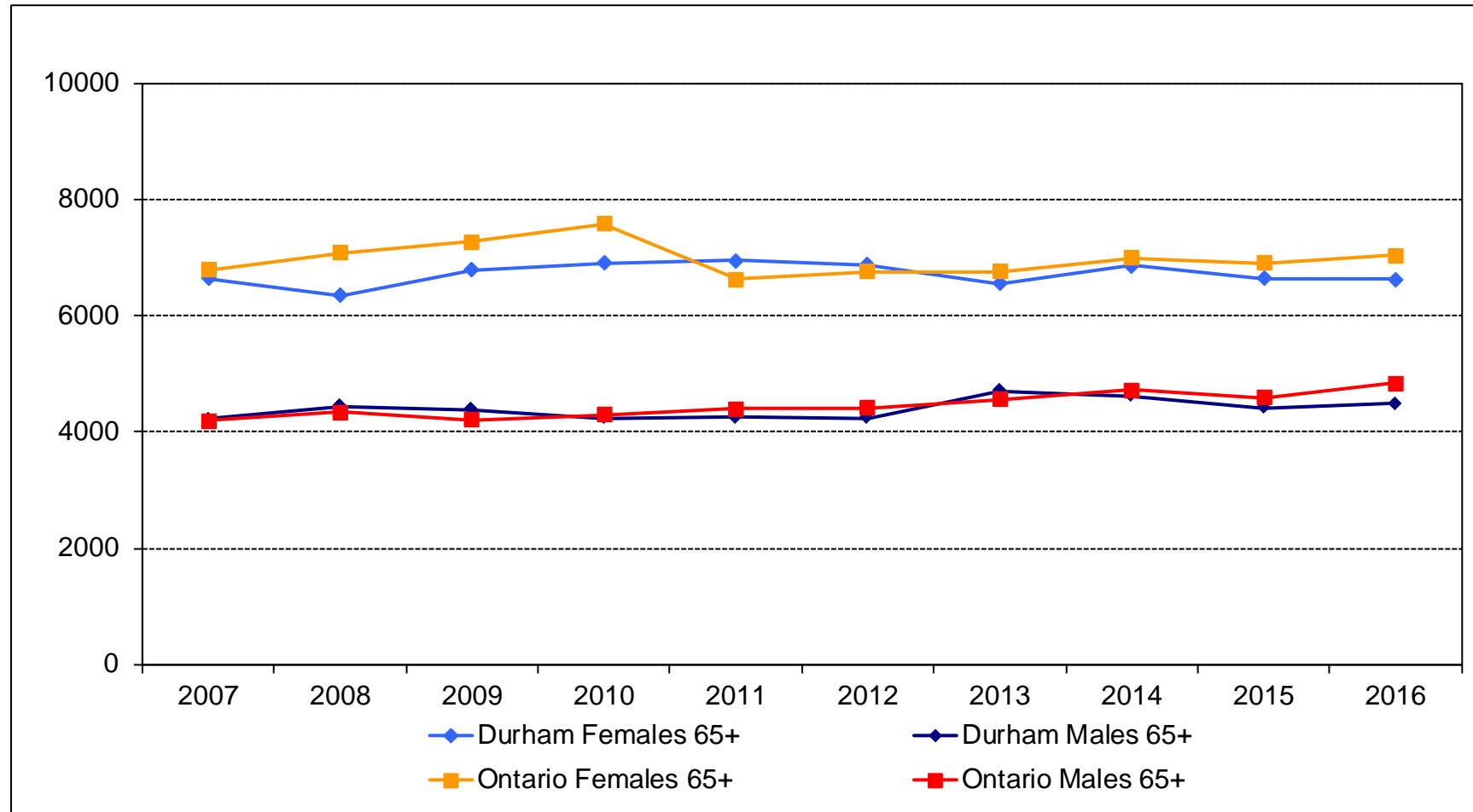


Table 4: Counts and age-specific ED visit rates per 100,000 for unintentional falls for Durham Region and Ontario adults aged 65 years and older, by sex, between 2007 and 2016

Statistic	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Durham Region females rate	6,640.5	6,357.5	6,796.0	6,903.9	6,949.5	6,886.5	6,553.5	6,857.7	6,643.0	6,636.5
Durham Region males rate	4,227.5	4,442.2	4,383.8	4,234.8	4,251.1	4,245.2	4,704.3	4,621.2	4,411.2	4,494.1
Ontario females rate	6,795.6	7,081.1	7,277.1	7,578.3	6,623.0	6,758.5	6,763.6	6,993.6	6,909.9	7,043.2
Ontario males rate	4,195.9	4,339.6	4,206.0	4,292.5	4,406.7	4,416.0	4,569.8	4,726.3	4,593.4	4,835.3
Durham Region females count	2,354	2,348	2,603	2,751	2,888	3,026	3,026	3,312	3,343	3,477
Durham Region males count	1,144	1,263	1,299	1,311	1,383	1,470	1,724	1,777	1,776	1,897

Figure 5: Age-specific ED visit rates per 100,000 for unintentional falls from playground equipment for Durham Region and Ontario children aged 5 to 9 years, by sex, between 2007 and 2016

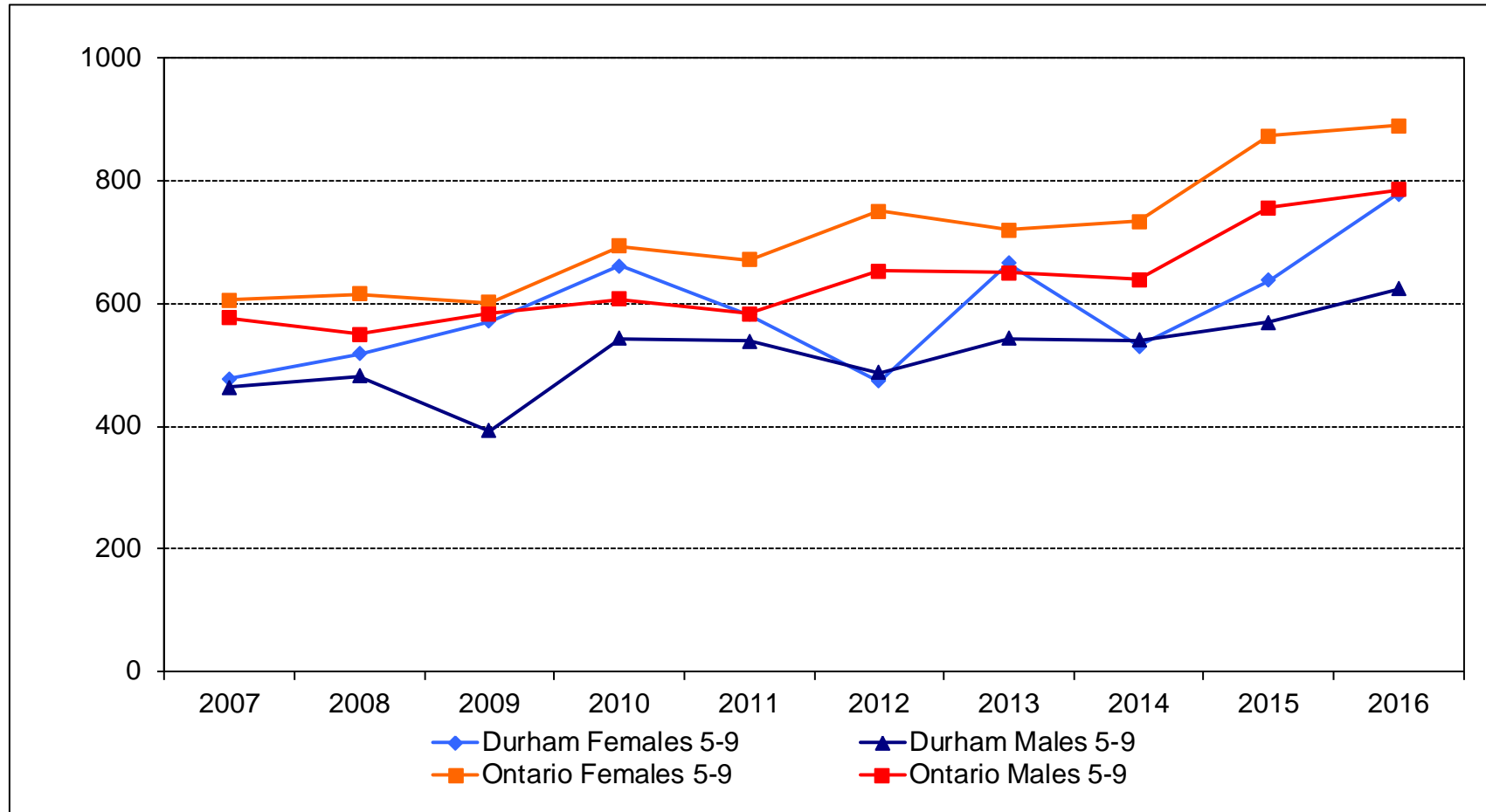


Table 5: Counts and age-specific ED visit rates per 100,000 for unintentional falls from playground for Durham Region and Ontario children aged 5 to 9 years, by sex, between 2007 and 2016

Statistic	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Durham Region females rate	477.9	517.9	570.7	661.8	581.3	473.9	666.0	530.9	638.0	778.8
Durham Region males rate	463.2	481.4	392.7	542.8	486.5	550.1	542.8	576.7	630.8	618.1
Ontario females rate	606.3	616.1	601.2	692.8	671.4	750.1	720.0	733.8	873.5	890.0
Ontario males rate	576.9	549.3	583.2	607.0	582.9	653.6	650.5	638.9	755.7	786.0
Durham Region females count	88	94	103	119	105	87	124	99	121	150
Durham Region males count	89	92	75	103	93	105	105	112	124	123

Figure 6: Age-specific ED visit rates per 100,000 for unintentional falls for Durham Region and Ontario children aged 0 to 4 years, by sex, between 2007 and 2016

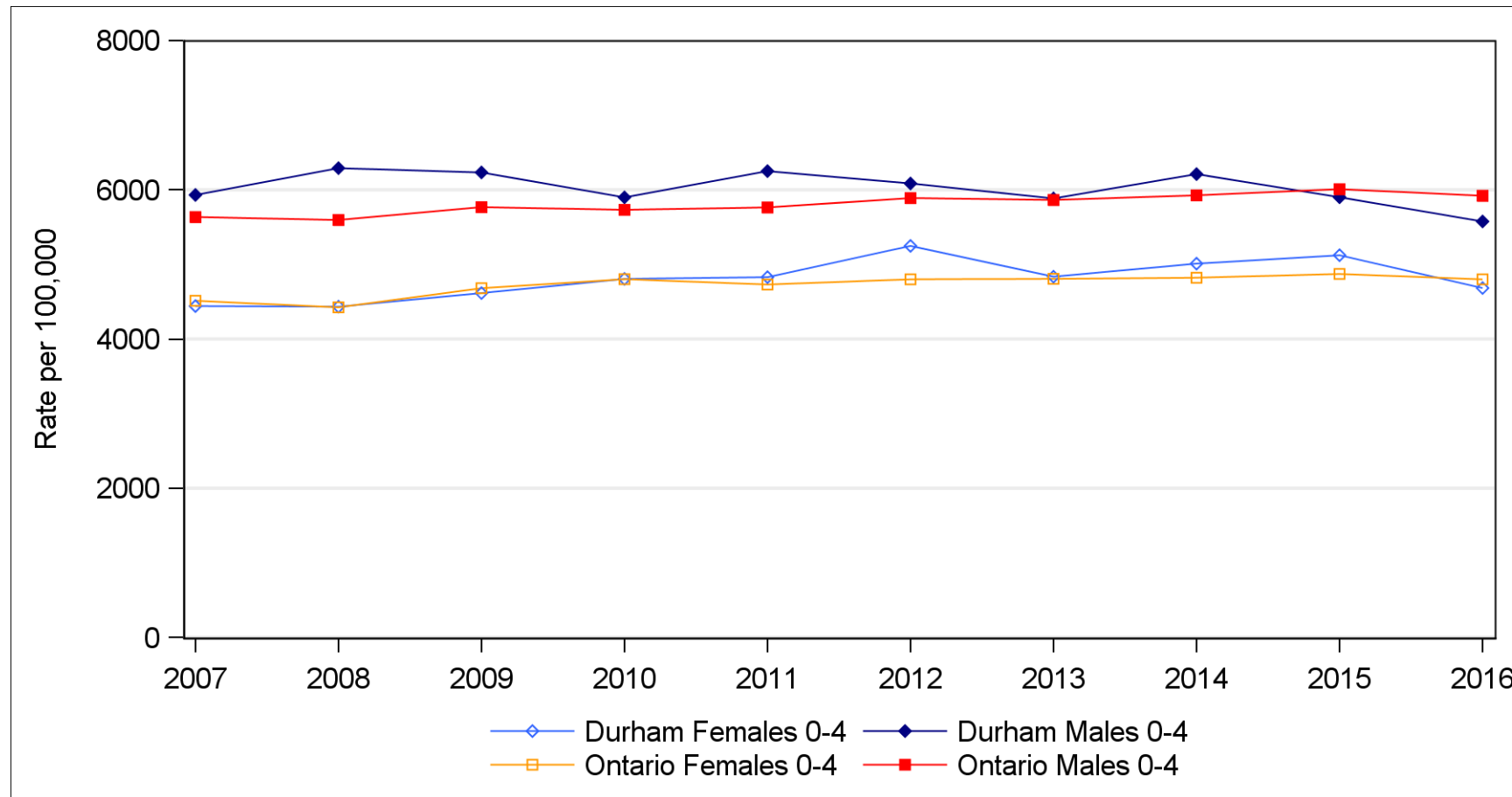


Table 6: Counts and age-specific ED visit rates per 100,000 for unintentional falls Durham Region and Ontario children aged 0 to 4 years, by sex, between 2007 and 2016

Statistic	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Durham Region females rate	4440.8	4432.9	4615.5	4805.1	4828.5	5247.3	4835.3	5010.2	5122.5	4682.7
Durham Region males rate	5930.9	6290.0	6232.2	5898.2	6250.0	6084.5	5884.0	6210.2	5900.1	5575.6
Ontario females rate	4512.1	4424.4	4680.5	4801.7	4730.1	4799.7	4806.3	4820.9	4871.6	4799.5
Ontario males rate	5634.8	5595.1	5767.3	5731.1	5763.4	5888.8	5864.0	5925.6	6008.2	5920.1
Durham Region females count	733	748	776	821	836	907	835	863	878	833
Durham Region males count	1,028	1,100	1,095	1,054	1,124	1,094	1,054	1,112	1,056	1,036

Data Sources

Hospitalization and ED visit data are collected by the Canadian Institute for Health Information (CIHI) on a fiscal year basis. For hospitalizations, the main diagnostic code gives the primary reason for the hospital stay or "most responsible diagnosis" (MRD) while for ED visits, the main diagnostic code is the 'main problem' (MP) that is deemed to be the clinically significant reason for the visit. A second set of codes, external cause codes, are used to classify the environmental events, circumstances and conditions that cause an injury (i.e. accidental fall). External cause codes are not used as a MRD or MP so need to be examined separately. Multiple external cause codes can exist for each separation (discharge, death or transfer) or visit. The counts shown for groupings of external cause codes (i.e. ICD-10 codes W00-W19 for falls) are actually counts of codes; not counts of separations or visits.

A small number of separations or visits may be double or triple counted when an individual has two or more codes within a code range for the same hospitalization or visit (i.e. an individual visits the emergency department or is hospitalized for a fall down stairs [W10] involving a skateboard [W02.03]). Co-morbidity, where a patient may have more than one disease or condition, contributes uncertainty to classifying the MRD or MP.

A person may be hospitalized or visit the ED several times for the same injury, or discharged from more than one hospital (when transferred) or ED for the same injury. Hospitalization and ED visit data provides only a crude measure of the prevalence of an injury. Data are influenced by factors that are unrelated to health status such as availability and accessibility of care, administrative policies and hospital procedures. For example, the 2003 SARS outbreaks likely reduced admissions in affected hospitals including Durham Region. This may influence comparisons between areas and over time.

For all indicators, data are analyzed by the residence of the patient, not where the hospitalization or emergency department visit occurred. For hospitalizations and ED visits, Ontario residents treated outside of the province are excluded, however, less than 0.5% of hospitalizations for Ontario residents are out-of-province. Data are reported by calendar year, based on year of separation or visit. This report includes hospitalization and ED visit indicators with relevance to public health programming, as outlined in the Ontario Public Health Standards (OPHS). The new OPHS were published in 2008 by the Ministry of Health and Long-Term Care, pursuant to Section 7 of the Health Protection and Promotion Act.

Hospitalizations and ED visits unintentional falls were selected using ICD-10-CA codes W00-W19. Intentional falls (self-inflicted and assault) and falls with undetermined intent are excluded. Hospitalizations and ED visits for unintentional falls from playground equipment were selected using ICD-10-CA codes W09 (.01-.09 commencing in 2009).

Age-standardized rates are suppressed when the total number of separations or visits included in the rate is less than 25. Age-specific rates are suppressed when the total number of separations or ED visits is less than five.

Definitions

Age-standardized hospitalization rate

The number of hospitalizations per 100,000 population that would occur if the population had the same age distribution as the 2011 Canadian population. This rate provides a single summary number that allows populations with different age compositions to be compared.

Age-standardized ED visit rate

The number of ED visits per 100,000 population that would occur if the population had the same age distribution as the 2011 Canadian population. This rate provides a single summary number that allows populations with different age compositions to be compared.

Age-specific hospitalization rate

The number of hospitalizations in a specified age group per 100,000 population in that age group. The numerator and denominator refer to the same age group.

Age-specific ED visit rate

The number of ED visits in a specified age group per 100,000 population in that age group. The numerator and denominator refer to the same age group.