

Injuries At A Glance – Sports Injuries

Last Updated: May 2017

Highlights

- Since 2003, the hospital separation rates in Durham Region females were stable while the rates in males **declined**. In 2015, there were 99 hospitalizations due to sports injuries in Durham Region residents.
- In 2015, the hospital separation rates in Durham Region females and males were slightly **higher** than Ontario's rates.
- Since 2003, the hospital separation rates in Durham Region females were consistently **lower** than males. In 2015, the rate in Durham Region males was 2.6 times higher than the rate in females.

- Since 2003, the ED visit rates in Durham Region females **increased** slightly while the rates in males **declined**. In 2015, there were 5,171 ED visits due to sports injuries in Durham Region residents.
- In 2015, the ED visit rate in Durham Region females was similar to Ontario's rate while the rate in males was **higher**.
- Since 2003, the ED visit rates in Durham Region females were consistently **lower** than males. In 2015, the rate in Durham Region males was 2.5 times higher than the rate in females.

- Since 2003, the hospital separation rates in Durham Region young females (10-19) were stable while the rates in males **declined**. In 2015, Durham Region youth (10-19) accounted for half (48%, 48/99) of the total hospitalizations due to sports injuries.
- In 2015, the hospital separation rates in Durham Region young females and males (10-19) were slightly **higher** than Ontario's rates.
- Since 2003, the hospital separation rates in Durham Region young females (10-19) were consistently **lower** than males. In 2015, the rate in Durham Region young males was 2.6 times higher than the rate in females.

- Since 2003, the ED visit rates in Durham Region young females (10-19) **increased** slightly while the rates in males **declined** slightly. In 2015, Durham Region youth (10-19) accounted for half (55%, 2,833/5,171) of the total ED visits due to sports injuries.
- In 2015, the ED visit rates in Durham Region young females (10-19) and young males (10-19) were **higher** than Ontario's rates.
- Since 2003, the ED visit rates in Durham Region young females (10-19) were consistently **lower** than males. In 2015, the rate in Durham Region young males was 2.3 times higher than the rate in females.

Introduction

Charts and tables are provided for the following indicators for sports injuries for Durham Region:

- Age-Standardized Hospital Separation Rates
- Age-Standardized ED Visit Rates
- Age-Specific Hospital Separation Rates in Youth (10-19)
- Age-Specific ED Visit Rates in Youth (10-19)

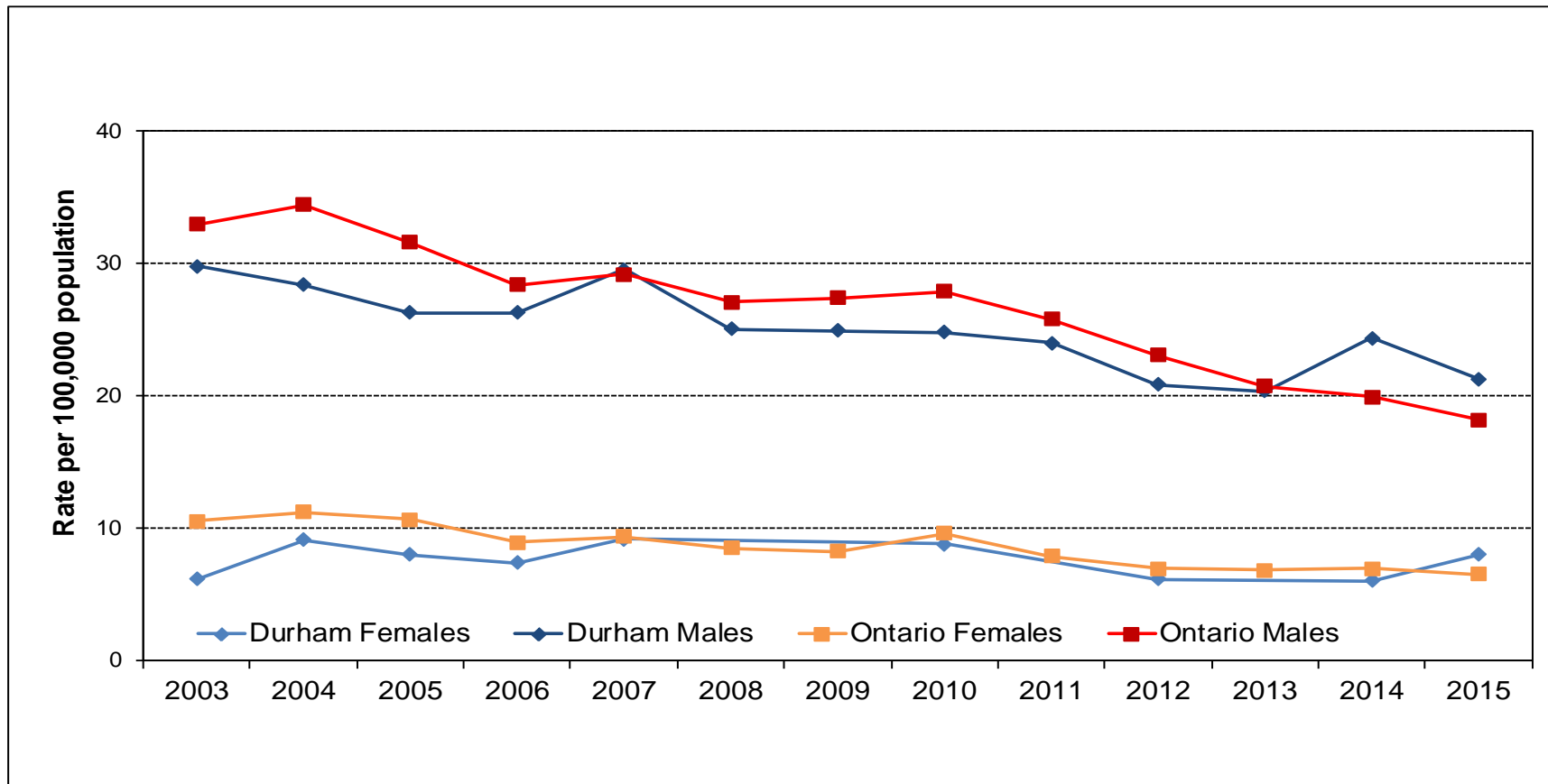
The following websites provide additional local information on the burden of injuries in Durham Region.

[Health Statistics in Durham Region](#) (cycling injuries)

[Public Health Ontario - Snapshots](#) (traumatic brain injuries)

For more information on helmet use, or if you require this information in an accessible format, please contact Durham Health Connection Line at 905-666-6241 or 1-800-841-2729.

Figure 1: Age-Standardized Hospital Separation Rates for Sports Injuries, Durham Region and Ontario, 2003-2015

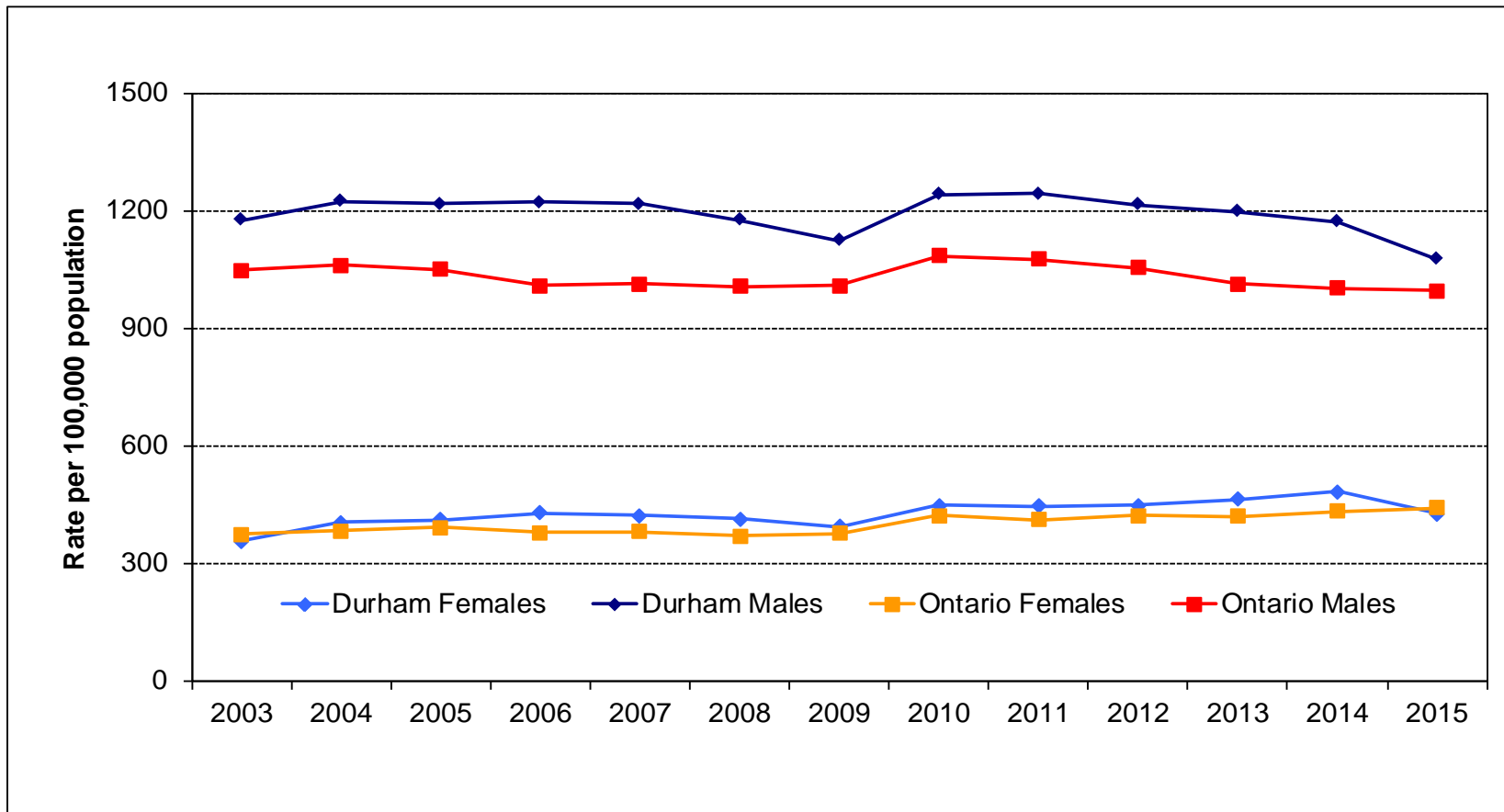


Rates/Counts	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Durham Female Rate	6.1	9.1	8.0	7.4	9.2	-	-	8.8	-	6.2	-	6.0	8.0
Durham Male Rate	29.8	28.4	26.3	26.3	29.6	25.1	24.9	24.8	24.0	20.8	20.3	24.4	21.3
Ontario Female Rate	10.5	11.2	10.7	8.9	9.3	8.5	8.2	9.6	7.9	7.0	6.8	6.9	6.5
Ontario Male Rate	33.0	34.4	31.6	28.3	29.2	27.1	27.4	27.9	25.8	23.1	20.7	19.9	18.2
Durham Female Total #	21	29	24	25	30	17	19	28	19	21	17	20	27
Durham Male Total #	98	95	86	87	100	87	83	85	79	69	69	82	72

Data Source: Inpatient Discharges and Ontario Population Estimates 2003-2015, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO

Hospital separations for sport injuries* are selected using ICD-10-CA codes W02 (.00-.08), W21 (.00-.09), W22 (.00-.07) and W51 (.00-.07). Age-standardized rates are not calculated if the total # is less than 20. *Includes falls involving skates, skis, skateboards and rollerblades, and injuries as a result of being struck by sports equipment (i.e., balls, bat, hockey stick or puck) or while playing (i.e., skiing, tobogganing, hockey, soccer, baseball). Excludes sport injuries related to cycling, swimming, boating and recreational vehicle use such as all-terrain vehicles and snowmobiles.

Figure 2: Age-Standardized ED Visit Rates for Sports Injuries, Durham Region and Ontario, 2003-2015

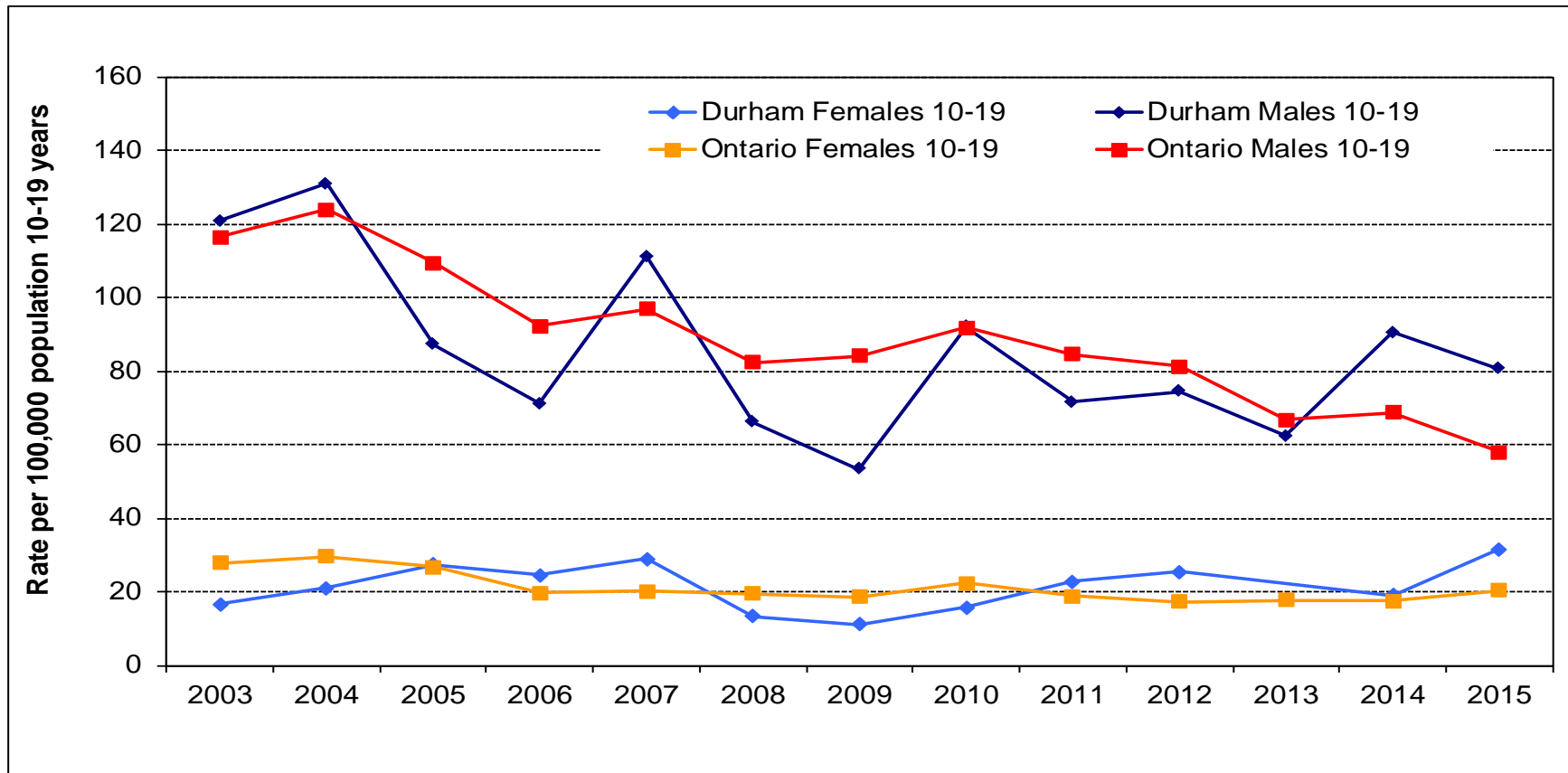


Rates/Counts	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Durham Female Rate	358.7	404.8	412.3	429.4	423.1	415.4	394.6	450.0	447.4	449.1	463.6	484.2	426.6
Durham Male Rate	1175.7	1225.4	1219.0	1223.3	1218.7	1177.7	1125.6	1242.8	1244.4	1215.9	1197.6	1172.9	1076.1
Ontario Female Rate	374.6	385.0	393.3	379.3	381.0	370.7	378.2	422.8	412.1	422.7	420.0	433.2	442.9
Ontario Male Rate	1049.4	1062.4	1050.7	1009.0	1014.0	1007.8	1009.9	1085.5	1076.2	1055.7	1014.1	1002.4	995.6
Durham Female Total #	1,186	1,368	1,402	1,478	1,465	1,436	1,368	1,539	1,540	1,537	1,583	1,647	1,448
Durham Male Total #	3,885	4,111	4,156	4,219	4,210	4,084	3,873	4,319	4,293	4,213	4,149	4,061	3,723

Data Source: Emergency Department Visits and Ontario Population Estimates 2003-2015, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO

ED visits for sport injuries* are selected using ICD-10-CA codes W02 (.00-.08), W21 (.00-.09), W22 (.00-.07) and W51 (.00-.07). *Includes falls involving skates, skis, skateboards and rollerblades, and injuries as a result of being struck by sports equipment (i.e., balls, bat, hockey stick or puck) or while playing (i.e., skiing, tobogganing, hockey, soccer, baseball). Excludes sport injuries related to cycling, swimming, boating and recreational vehicle use such as all-terrain vehicles and snowmobiles.

Figure 3: Age-Specific Hospital Separation Rates for Sports Injuries, Youth 10-19, Durham Region and Ontario, 2003-2015

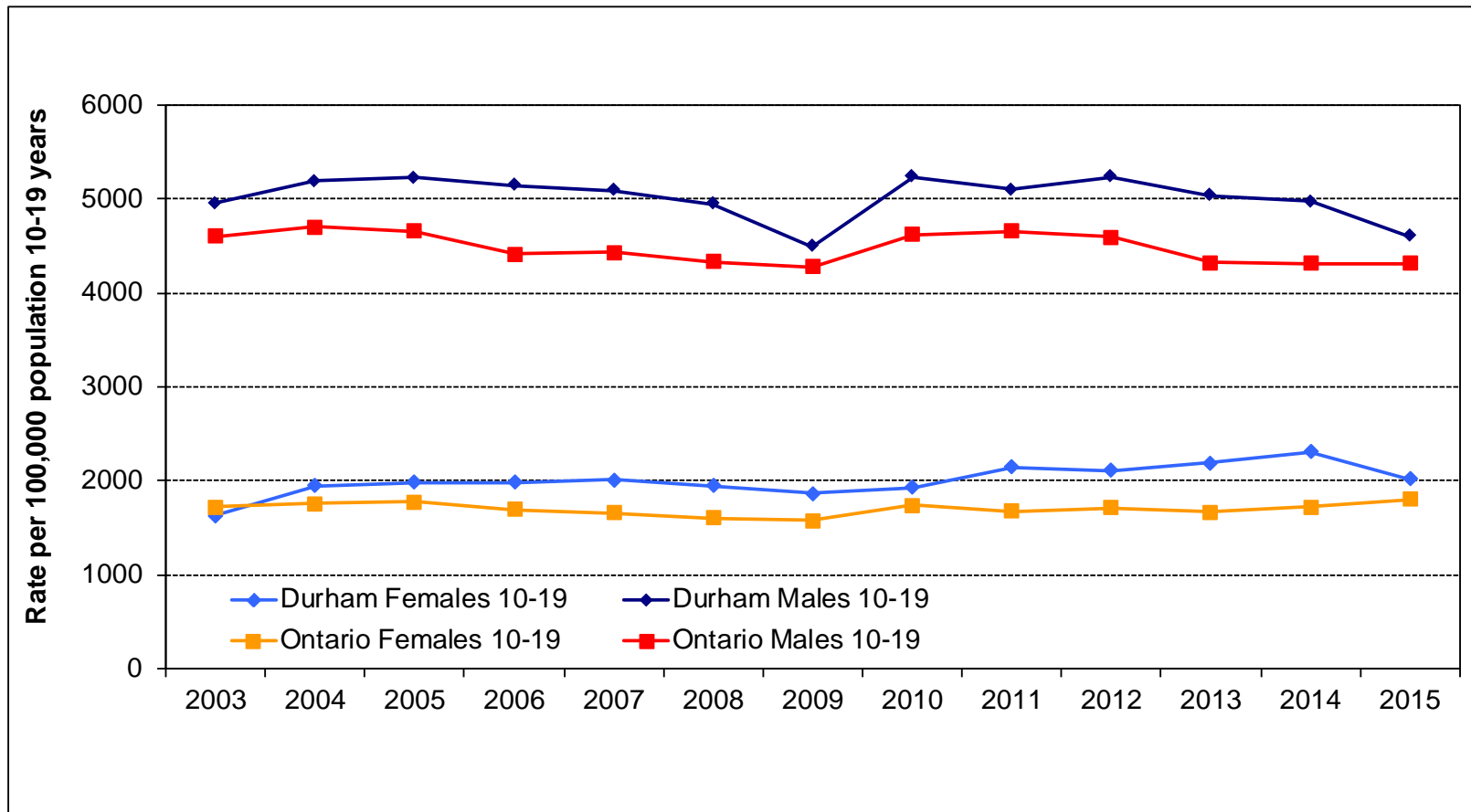


Rates/Counts	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Durham Female Rate 10-19	16.7	20.9	27.4	24.6	28.9	13.3	11.1	15.7	22.7	25.3	-	19.1	31.5
Durham Male Rate 10-19	120.9	131.0	87.3	71.1	111.2	66.0	53.2	92.0	71.5	74.5	62.4	90.5	80.5
Ontario Female Rate 10-19	27.7	29.5	26.7	19.7	20.2	19.5	18.5	22.3	18.9	17.2	17.8	17.6	20.3
Ontario Male Rate 10-19	116.5	123.9	109.4	92.2	96.9	82.4	84.1	91.9	84.5	81.2	66.8	68.6	58.0
Durham Female 10-19 Total #	7	9	12	11	13	6	5	7	10	11	-	8	13
Durham Male 10-19 Total #	53	59	40	33	52	31	25	43	33	34	28	40	35

Data Source: Inpatient Discharges and Ontario Population Estimates 2003-2015, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO

Hospital separations for sport injuries* are selected using ICD-10-CA codes W02 (.00-.08), W21 (.00-.09), W22 (.00-.07) and W51 (.00-.07). Age-specific rates are not calculated if the total # is less than 5. Counts less than 5 are not releasable. *Includes falls involving skates, skis, skateboards and rollerblades, and injuries as a result of being struck by sports equipment (i.e., balls, bat, hockey stick or puck) or while playing (i.e., skiing, tobogganing, hockey, soccer, baseball). Excludes sport injuries related to cycling, swimming, boating and recreational vehicle use such as all-terrain vehicles and snowmobiles.

Figure 4: Age-Specific ED Visit Rates for Sports Injuries, Youth 10-19, Durham Region and Ontario, 2003-2015



Rates/Counts	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Durham Female Rate 10-19	1,635.6	1,946.0	1,980.6	1,984.5	2,013.3	1,944.2	1,863.6	1,928.4	2,146.0	2,112.8	2,190.8	2,316.1	2,020.3
Durham Male Rate 10-19	4,954.1	5,190.4	5,227.3	5,151.4	5,092.1	4,948.4	4,493.3	5,234.5	5,107.0	5,238.8	5,036.5	4,983.8	4,602.4
Ontario Female Rate 10-19	1,719.1	1,761.4	1,775.7	1,693.1	1,656.7	1,605.8	1,577.8	1,738.0	1,672.6	1,713.9	1,668.5	1,721.9	1,806.2
Ontario Male Rate 10-19	4,601.2	4,705.3	4,661.4	4,413.7	4,430.1	4,335.5	4,284.5	4,620.0	4,662.0	4,592.8	4,326.0	4,313.4	4,314.6
Durham Female 10-19 Total #	685	836	868	887	905	878	839	861	947	918	933	971	833
Durham Male 10-19 Total #	2,171	2,337	2,395	2,392	2,382	2,325	2,110	2,446	2,357	2,389	2,260	2,202	2,000

Data Source: Emergency Department Visits and Ontario Population Estimates 2003-2015, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO

ED visits for sport injuries* are selected using ICD-10-CA codes W02 (.00-.08), W21 (.00-.09), W22 (.00-.07) and W51 (.00-.07). *Includes falls involving skates, skis, skateboards and rollerblades, and injuries as a result of being struck by sports equipment (i.e., balls, bat, hockey stick or puck) or while playing (i.e., skiing, tobogganing, hockey, soccer, baseball). Excludes sport injuries related to cycling, swimming, boating and recreational vehicle use such as all-terrain vehicles and snowmobiles.

Data Sources

Hospitalization and Emergency Department (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.

Age-standardized hospital separation and ED visit rates are suppressed (denoted by a dash) when the total number of separations or visits included in the rate is less than 20. Counts of hospital separations or ED visits are suppressed (denoted by a dash) when there are less than 5.

Definitions

Definition: Age-Standardized Hospital Separation Rate

An Age-Standardized Hospital Separation Rate is the number of hospital separations per the population that would occur if the population had the same age distribution as the 2011 Canadian population (per 100,000). This rate provides a single summary number that allows populations with different age compositions to be compared.

Definition: Age-Standardized ED Visit Rate

An Age-Standardized ED Visit Rate is the number of ED visits per the population that would occur if the population had the same age distribution as the 2011 Canadian population (per 100,000). This rate provides a single summary number that allows populations with different age compositions to be compared.

Definition: Age-Specific Hospital Separation Rate

An Age-Specific Hospital Separation Rate is the total number of hospital separations in a specified age group per 100,000 population in that age group. The numerator and denominator refer to the same age group.

Definition: Age-Specific ED Visit Rate

An Age-Specific ED Visit Rate is the total 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.