

Short Report

HBSC Ireland 2014: Injuries among schoolchildren in Ireland in 2010 and 2014

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Introduction

The Health Behaviour in School-aged Children (HBSC) study is a cross-national research study conducted in collaboration with the World Health Organisation (WHO) Regional Office for Europe and runs on a four-year cycle. In 2014, Ireland participated for the fifth time in the HBSC study (www.nuigalway.ie/hbsc). The overall aims of the HBSC study are to gain new insight into, and increase our understanding of young people's health and well-being, health behaviours and their social context. HBSC collects data on key indicators of health, health attitudes, and health behaviours, as well as the context of health for young people. The study is a school-based survey with information collected from students through self-completion questionnaires in classrooms. HBSC Ireland 2014 was funded by the Department of Health. Further information on the HBSC Ireland can be found at www.nuigalway.ie/hbsc or www.hbsc.org, the International HBSC website.

The most recent HBSC Ireland study was conducted in 2014 and includes 13,611 schoolchildren from 5th class in primary school to 5th year in post-primary school. There was a gender imbalance, 42.9% boys and 57.1% girls participated. Therefore survey weights were used to correct this imbalance for overall figures only (where weights were applied it is highlighted throughout the report). Survey weights were compiled for gender and age within each of the old health board regions (South, Mid-West, North-West, Midlands, Eastern, North-East and South-East), in accordance with population statistics from the Central Statistics Office for those years. Collectively, 230 primary and post-primary schools across Ireland participated in this study. The methods employed comply with the International HBSC protocol and are detailed in the national report from the 2014 survey see <http://www.nuigalway.ie/hbsc/publications/nationalreports/>

The HBSC Ireland 2010 dataset comprises of 16,060 schoolchildren from 3rd class in primary school to 5th year in post-primary school. In total 256 schools across Ireland participated in the HBSC 2010 study. The methods employed comply with the International HBSC protocol and are detailed in the national report from the 2010 survey, see http://www.nuigalway.ie/hbsc/documents/nat_rep_hbsc_2010.pdf

Focus of this report

This short report presents a brief analysis on the prevalence of injuries among schoolchildren in Ireland. The analysis is broken down by age group, gender and socio-economic factors. The socio-economic factors were measured using reported highest parental social class. Parental occupation was categorised as social class 1-2, 3-4 and 5-6, using CSO classifications. The Family Affluence Scale (FAS) was also analysed as a measure of socio-economic status, FAS is a composite score calculated for each student based on his or her response to four items (2010) or six items (2014). A three-point ordinal scale, where FAS low (score=0,1,2) indicates low affluence, FAS medium (score=3,4,5) indicates middle affluence, and FAS high (score=6,7,8,9) indicates high affluence. Family structure (two-parent-included step-parents, single parent and other family structure) and school-disadvantaged status were also analysed. Location, causes, and severity of the injuries reported are also included. The case base for the analysis in 2014 and 2010 was children aged 10-18, who answered whether they were injured in the past 12 months or not, n=10223 in 2014 and n=11939 in 2010.

The HBSC Ireland 2010 and 2014 studies include the following questions about injuries:

1. During the past 12 months, how many times were you injured and had to be treated by a doctor or nurse? Response options were *'I was not injured in the past 12 months'*, *'1 time'*, *'2 times'*, *'3 times'*, *'4 or more times'*. These options were recoded as (1) I was not injured in past 12 months versus (2) I was injured once or more
2. If you had more than one injury, think only about the most serious injury (the injury that took the most time to get better) that you had during the past 12 months. Where were you when this one most serious injury happened? Tick one box that best describes where you were. Response options were *'I was not injured in the past 12 months'*, *'at home/in yard (yours or someone else's)'*, *'school, including school grounds, during school hours'*, *'school, including school grounds, after school hours'*, *'at a sports facility or field (not at school)'*, *'in the street/road/car park'*, *'other location'*
3. What were you doing when this one most serious injury happened? Tick one box that best describes what you were doing. Response options were *'I was not injured in the past 12 months'*, *'biking/cycling'*, *'playing or training for sports/recreational activity'*, *'skating (including roller blades, skateboards, ice skating)'*, *'walking/running (not for a sports team or exercise)'*, *'riding/driving in a car or other motor vehicle'*, *'fighting'*, *'paid or unpaid work'*, *'other activity'*

4. Did this one most serious injury need treatment such as the placement of a cast, stitches, surgery, or staying in a hospital overnight? Response options were 'I was not injured in past 12 months', 'yes', 'no'
5. The 2010 questionnaire included an additional question: Did this one most serious injury cause you to miss at least one full day from school or other activities, such as sports or lessons. Response options were 'I was not injured in the past 12 months', 'Yes, lost at least one day of activity', 'how many days did you miss? (Please write the number of full days you missed from school or other usual activities as a result of this one most serious injury.)', 'No, did not lose a day of activity'.

Table 1a: sample descriptives, un-weighted N and weighted %

	2014	2010
Age		
10-11	1485 (14.5)	1810 (15.2)
12-14	4393 (43.0)	5135 (43.0)
15-18+	4344 (42.5)	4994 (41.8)
Gender		
Boys	5174 (50.6)	6126 (51.3)
Girls	5049 (49.4)	5813 (48.7)
Social class*		
SC 1-2	4273 (49.7)	5453 (53.8)
SC 3-4	3349 (38.8)	3654 (36.1)
SC 5-6	1001 (11.6)	1022 (10.1)

*Social class had a high proportion missing n=1600, percentages calculated out of case base of n=8623 for 2014 and missing=1810, percentages calculated out of case base of n=10129 for 2010

Table 1b: Prevalence of injuries in last 12 months, in overall sample, displayed as percentages and 95% Confidence Intervals, % (95% CI)

	2014	2010
Prevalence (95%CI) (weighted)	4232 41.4 (39.6 43.2)	4436 37.2 (35.7 38.6)
Prevalence (95%CI) (un-weighted)	4038 39.5 (38.6 40.4)	4459 37.3 (36.5 38.2)

Table 2: Socio-demographics of those who reported ever being injured in the past 12 months by survey year, displayed as un-weighted percentages (%)

		2014		2010	
		Injured in past 12 months 39.5%	Not injured 60.5%	Injured in past 12 months 37.3%	Not injured 62.6%
Gender	Boys	1964 (46.7)	2244 (53.3)	2733 (44.4)	3421 (55.6)
	Girls	2065 (34.5)	3927 (65.5)	1713 (29.8)	4041 (70.2)
Age group	10-11	523 (34.9)	976 (65.1)	524 (33.7)	1029 (66.3)
	12-14	1839 (39.7)	2794 (60.3)	2234 (38.0)	3643 (62.0)
	15-18	1676 (41.0)	2415 (59.0)	1701 (37.7)	2808 (62.3)
Family structure	Two-parent	3123 (38.8)	4922 (61.2)	3515 (36.6)	6083 (63.4)
	Single parent	648 (42.1)	890 (57.9)	637 (39.5)	976 (60.5)
	Other	70 (46.4)	81 (53.6)	81 (49.7)	82 (50.3)
Highest parental social class	Social-Class 1-2	1699 (39.7)	2583 (60.3)	1973 (36.5)	3439 (63.5)
	Social-Class 3-4	1326 (39.8)	2007 (60.2)	1419 (38.5)	2264 (61.5)
	Social-Class 5-6	362 (35.9)	646 (64.1)	367 (35.5)	667 (64.5)
Family Affluence Scale (FAS)	High	1466 (40.3)	2170 (59.7)	2078 (39.2)	3226 (60.8)
	Medium	1646 (39.2)	2557 (60.8)	1617 (35.4)	2948 (64.6)
	Low	583 (37.5)	973 (62.5)	361 (33.2)	725 (66.8)
FAS components-					
Number computers family owns	None	78 (38.6)	124 (61.4)	91 (33.8)	178 (66.2)
	One	605 (37.4)	1012 (62.6)	1468 (36.2)	2589 (63.8)
	Two	1056 (40.4)	1556 (59.6)	1527 (37.8)	2516 (62.2)
	More than 2	2025 (39.6)	3093 (60.4)	1062 (37.7)	1755 (62.3)
Family own car, van or truck	No	196 (39.0)	306 (61.0)	163 (35.8)	292 (64.2)
	Yes, 1	1176 (39.2)	1822 (60.8)	1040 (34.5)	1974 (65.5)
	Yes, 2 or more	2394 (39.6)	3656 (60.4)	2920 (38.1)	4742 (61.9)
Bedroom to yourself	Yes	2987 (39.2)	4640 (60.8)	3342 (37.3)	5622 (62.7)
	No	775 (40.6)	1135 (59.4)	783 (36.3)	1377 (63.8)
Number family holidays outside Ireland last year	Not at all	1260 (38.0)	2058 (62.0)	771 (34.6)	1454 (65.4)
	Once	1365 (37.6)	2268 (62.4)	1419 (35.7)	2556 (64.3)
	Twice	614 (43.1)	812 (56.9)	1037 (38.8)	1633 (61.2)
	More than x2	515 (45.0)	629 (55.0)	901 (39.7)	1369 (60.3)
Dishwasher at home	Yes	3018 (39.8)	4573 (60.2)	-	-
	No	735 (38.1)	1193 (61.9)	-	-
Number bathrooms at home	None	41 (56.2)	32 (43.8)	-	-
	One	879 (39.4)	1354 (60.6)	-	-
	Two	1294 (37.8)	2129 (62.2)	-	-
	More than 2	1540 (40.5)	2260 (59.5)	-	-
School disadvantage status	Yes	1030 (40.3)	1523 (59.7)	743 (36.7)	1280 (63.3)
	No	3008 (39.2)	4662 (60.8)	3716 (37.5)	6200 (62.5)

Table 3: Frequency, severity, location, and activity of most serious injury, displayed as weighted percentages

		2014	2010
		% (95% CI)	
Frequency	Injured once	2034 51.2 (49.0 53.5)	2554 58.0 (56.2 59.9)
	Injured twice	1041 26.2 (24.8 27.6)	1110 25.2 (23.7 26.7)
	Injured x3	421 10.6 (9.5 11.7)	370 8.4 (7.6 9.2)
	Injured x4 or more	473 11.9 (10.3 13.5)	366 8.3 (7.4 9.2)
Severity	Medical treatment* needed	1783 42.4 (40.5 44.2)	2038 40.0 (38.1 41.9)
	No medical treatment needed	2422 57.6 (55.8 59.5)	3056 60.0 (58.1 61.9)
Location	At home/in yard (yours or someone else's)	816 20.0 (18.0 22.0)	954 19.6 (18.2 21.0)
	School, incl. school grounds, during school hours	486 11.9 (10.7 13.2)	550 11.3 (10.1 12.6)
	School, incl. school grounds, after school hours	110 2.7 (2.1 3.2)	134 2.8 (2.0 3.5)
	At a sports facility or field (not at school)	1898 46.5 (43.4 49.6)	2186 44.9 (42.9 47.0)
	In the street/road/car park	286 7.0 (5.8 8.1)	455 9.4 (8.2 10.5)
	Other location	486 11.9 (10.6 13.1)	584 12.0 (11.0 13.1)
Activity	Biking/cycling	267 6.2 (5.4 7.0)	386 7.5 (6.7 8.3)
	Playing or training for sports/recreational activity	2377 55.4 (52.9 57.9)	2730 53.0 (50.9 55.0)
	Skating (incl. roller blades, skateboards, ice-skating)	103 2.4 (1.8 3.0)	162 3.1 (2.7 3.6)
	Walking/running (not for a sports team or exercise)	399 9.3 (8.0 10.6)	519 10.1 (9.0 11.1)
	Riding/driving in a car or other motor vehicle	56 1.3 (0.1 1.7)	132 2.6 (2.1 3.0)
	Fighting	150 3.5 (2.7 4.2)	277 5.4 (4.5 6.2)
	Paid or unpaid work	41 0.1 (0.1 1.3)	34 0.1 (0.0 0.1)
	Other activity	897 20.9 (19.1 22.7)	914 17.7 (16.6 18.9)

*medical treatment defined as needing a cast, stitches, surgery, or staying in hospital overnight. Percentages calculated out of those who answered they were injured, those who answered no were excluded

Table 4: Frequency and severity of injury, by gender, displayed as un-weighted percentages

	2014		2010	
	Boys 48.8	Girls 51.2	Boys 61.5	Girls 38.5
Frequency				
Injured once	966 (45.7)	1146 (54.3)	1518 (58.8)	1066 (41.2)
Injured twice	523 (50.7)	508 (49.3)	724 (65.8)	376 (34.2)
Injured three times	225 (55.0)	184 (45.0)	236 (61.5)	148 (38.5)
Injured four or more times	250 (52.4)	227 (47.6)	255 (67.5)	123 (32.5)
Severity				
Medical treatment* needed	894 (50.6)	874 (49.4)	1347 (65.4)	711 (34.6)
No medical treatment needed	1178 (47.2)	1317 (52.8)	1805 (58.6)	1275 (41.4)

Row percentages. Percentages calculated out of those who answered they were injured, those who answered no were excluded

Table 5: Frequency and severity of injury, by age group, displayed as un-weighted percentages

	2014			2010		
	10-11 13.0	12-14 45.5	15-18 41.5	10-11 11.8	12-14 50.1	15-18 38.2
Frequency						
Injured once	323 (15.3)	1005 (47.5)	787 (37.2)	314 (12.1)	1350 (52.1)	929 (35.8)
Injured twice	124 (12.0)	454 (44.0)	455 (44.0)	124 (11.2)	531 (48.2)	447 (40.6)
Injured three times	46 (11.2)	176 (43.0)	187 (45.7)	40 (10.4)	188 (48.7)	158 (40.9)
Injured four or more times	30 (6.2)	204 (42.4)	247 (51.4)	46 (12.2)	165 (43.6)	167 (44.2)
Severity						
Medical treatment* needed	229 (12.9)	796 (45.0)	746 (42.1)	247 (12.0)	1014 (49.1)	805 (39.0)
No medical treatment needed	355 (14.2)	1162 (46.4)	985 (39.4)	410 (13.3)	1572 (50.9)	1107 (35.8)

Row percentages. Percentages calculated out of those who answered they were injured, those who answered no were excluded

Table 6: Frequency and severity of injury, by highest parental social class, displayed as un-weighted percentages

	2014			2010		
	SC 1-2	SC 3-4	SC 5-6	SC 1-2	SC 3-4	SC 5-6
%	50.2	39.2	10.7	52.5	37.8	9.8
Frequency						
Injured once	911 (50.9)	690 (38.6)	188 (10.5)	1154 (52.2)	847 (38.3)	208 (9.4)
Injured twice	429 (49.1)	350 (40.0)	95 (10.9)	512 (54.8)	332 (35.6)	90 (9.6)
Injured three times	159 (46.5)	147 (43.0)	36 (10.5)	173 (54.1)	117 (36.6)	30 (9.4)
Injured four or more times	200 (52.4)	139 (36.4)	43 (11.3)	134 (45.3)	123 (41.6)	39 (13.2)
Severity						
Medical treatment* needed	763 (51.4)	553 (37.3)	168 (11.3)	904 (52.2)	665 (38.4)	164 (9.5)
No medical treatment needed	1055 (49.4)	845 (39.6)	236 (11.0)	1400 (53.6)	946 (36.2)	268 (10.2)

Row percentages. Percentages calculated out of those who answered they were injured, those who answered no were excluded

Table 7: Location of serious injury, by gender, displayed as un-weighted percentages

	2014		2010	
	Boys	Girls	Boys	Girls
At home/in yard (yours or someone else's)	372 (18.4)	507 (24.0)	481 (15.9)	469 (25.0)
School, incl. school grounds, during school hours	241 (11.9)	273 (12.9)	333 (11.0)	219 (11.7)
School, incl. school grounds, after school hours	57 (2.8)	44 (2.1)	88 (2.9)	40 (2.1)
At a sports facility or field (not at school)	1017 (50.4)	862 (40.7)	1520 (50.1)	698 (37.2)
In the street/road/car park	136 (6.7)	129 (6.1)	294 (9.7)	171 (9.1)
Other location	196 (9.7)	301 (14.2)	316 (10.4)	281 (15.0)

Column percentages. Percentages calculated out of those who answered they were injured, those who answered no were excluded

Table 8: Location of serious injury, by age group, displayed as un-weighted percentages

	2014			2010		
	10-11	12-14	15-18	10-11	12-14	15-18
At home/in yard (yours or someone else's)	180 (32.3)	411 (22.0)	292 (17.0)	188 (31.1)	472 (19.2)	293 (15.7)
School, incl. school grounds, during school hours	88 (15.8)	261 (14.0)	166 (9.7)	96 (15.9)	290 (11.8)	171 (9.2)
School, incl. school grounds, after school hours	13 (2.3)	44 (2.4)	44 (2.6)	12 (2.0)	61 (2.5)	56 (3.0)
At a sports facility or field (not at school)	158 (28.3)	803 (43.0)	921 (53.6)	177 (29.3)	1101 (44.9)	946 (50.6)
In the street/road/car park	34 (6.1)	114 (6.1)	119 (6.9)	51 (8.4)	227 (9.3)	187 (10.0)
Other location	85 (15.2)	236 (12.6)	176 (10.2)	80 (13.2)	301 (12.3)	216 (11.6)

Column percentages. Percentages calculated out of those who answered they were injured, those who answered no were excluded

Table 9: Location of serious injury, by highest parental social class, displayed as un-weighted percentages

	2014			2010		
	SC 1-2	SC 3-4	SC 5-6	SC 1-2	SC 3-4	SC 5-6
At home/in yard (yours or someone else's)	331 (18.6)	281 (20.7)	99 (25.3)	400 (17.9)	313 (20.2)	84 (20.3)
School, incl. school grounds, during school hours	220 (12.4)	162 (12.0)	49 (12.5)	263 (11.8)	155 (10.0)	50 (12.1)
School, incl. school grounds, after school hours	46 (2.6)	24 (1.8)	10 (2.6)	57 (2.6)	43 (2.8)	9 (2.2)
At a sports facility or field (not at school)	912 (51.2)	636 (46.9)	150 (38.3)	1091 (48.8)	700 (45.2)	176 (42.6)
In the street/road/car park	86 (4.8)	87 (6.4)	35 (8.9)	169 (7.6)	142 (9.2)	45 (10.9)
Other location	185 (10.4)	165 (12.2)	49 (12.5)	255 (11.4)	196 (12.6)	49 (11.9)

Column percentages. Percentages calculated out of those who answered they were injured, those who answered no were excluded

Table 10: Activity when got this most serious injury, by gender, displayed as un-weighted percentages

	2014		2010	
	Boys	Girls	Boys	Girls
Biking/cycling	146 (6.9)	114 (5.1)	260 (8.1)	121 (6.1)
Playing or training for sports/recreational activity	1298 (61.0)	1075 (48.3)	1875 (58.4)	889 (44.8)
Skating (incl. roller blades, skateboards, ice-skating)	47 (2.2)	61 (2.7)	91 (2.8)	76 (3.8)
Walking/running (not for a sports team or exercise)	147 (6.9)	272 (12.2)	238 (7.4)	277 (14.0)
Riding/driving in a car or other motor vehicle	24 (1.1)	38 (1.7)	85 (2.6)	47 (2.4)
Fighting	100 (4.7)	38 (1.7)	204 (6.4)	77 (3.9)
Paid or unpaid work	27 (1.3)	14 (0.6)	27 (0.8)	12 (0.6)
Other activity	339 (15.9)	613 (27.6)	433 (13.5)	486 (24.5)

Column percentages. Percentages calculated out of those who answered they were injured, those who answered no were excluded

Table 11: Activity when got this most serious injury, by age group, displayed as un-weighted percentages

	2014			2010		
	10-11	12-14	15-18	10-11	12-14	15-18
Biking/cycling	66 (10.8)	120 (6.0)	75 (4.2)	82 (12.4)	207 (7.9)	93 (4.8)
Playing or training for sports/recreational activity	291 (47.5)	1061 (53.5)	1025 (58.0)	312 (47.2)	1404 (53.7)	1058 (54.6)
Skating (incl. roller blades, skateboards, ice-skating)	24 (3.9)	56 (2.8)	28 (1.6)	31 (4.7)	86 (3.3)	51 (2.6)
Walking/running (not for a sports team or exercise)	78 (12.7)	203 (10.2)	139 (7.9)	71 (10.7)	257 (9.8)	188 (9.7)
Riding/driving in a car or other motor vehicle	8 (1.3)	29 (1.5)	25 (1.4)	12 (1.8)	56 (2.1)	64 (3.3)
Fighting	11 (1.8)	55 (2.8)	75 (4.2)	22 (3.3)	127 (4.9)	133 (6.9)
Paid or unpaid work	2 (0.3)	11 (0.6)	28 (1.6)	3 (0.4)	9 (0.3)	27 (1.4)
Other activity	133 (21.7)	448 (22.6)	373 (21.1)	128 (19.4)	468 (17.9)	325 (16.8)

Column percentages. Percentages calculated out of those who answered they were injured, those who answered no were excluded

Table 12: Activity when got this most serious injury, by highest parental social class, displayed as un-weighted percentages

	2014			2010		
	SC 1-2	SC 3-4	SC 5-6	SC 1-2	SC 3-4	SC 5-6
Biking/cycling	88 (4.8)	86 (6.0)	20 (5.0)	146 (6.2)	133 (8.2)	29 (6.5)
Playing or training for sports/ recreational activity	1122 (60.5)	786 (54.7)	197 (48.8)	1348 (57.6)	867 (53.4)	233 (52.5)
Skating (incl. roller blades, skateboards, ice-skating)	32 (1.7)	38 (2.6)	15 (3.7)	68 (2.9)	47 (2.9)	11 (2.5)
Walking/running (not for a sports team or exercise)	151 (8.1)	144 (10.0)	56 (13.9)	218 (9.3)	153 (9.4)	38 (8.6)
Riding/driving in a car or other motor vehicle	31 (1.7)	12 (0.8)	8 (2.0)	47 (2.0)	38 (2.3)	13 (2.9)
Fighting	39 (2.1)	47 (3.3)	13 (3.2)	94 (4.0)	81 (5.0)	34 (7.7)
Paid or unpaid work	15 (0.8)	13 (0.9)	5 (1.2)	26 (1.1)	9 (0.6)	3 (0.7)
Other activity	376 (20.3)	312 (21.7)	90 (22.3)	395 (16.9)	297 (18.3)	83 (18.7)

Column percentages. Percentages calculated out of those who answered they were injured, those who answered no were excluded

Table 13: Days missed at school or other usual activities due to most serious injury (asked in 2010 only), displayed as un-weighted percentages

		Lost at least 1 day	Lost 3+ days
Overall	Weighted % (95% CI)	2902 66.0 (64.4 67.6)	1284 54.5 (52.0 57.1)
	Un-weighted % (95% CI)	2938 66.1 (64.7 67.4)	1313 55.0 (53.0 57.0)
Gender	Boys	1873 (64.0)	873 (66.8)
	Girls	1054 (36.0)	434 (33.2)
Age group	10-11	363 (12.4)	145 (11.0)
	12-14	1444 (49.2)	625 (47.6)
	15-18+	1131 (38.5)	543 (41.4)
Highest parental social class	SC 1-2	1335 (52.8)	598 (53.2)
	SC 3-4	949 (37.5)	412 (36.6)
	SC 5-6	247 (9.8)	115 (10.2)

Row percentages. Percentages calculated out of those who answered they were injured, those who answered no were excluded

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