## Short report

## HBSC Ireland 2014: Club Participation and Physical Activity

## Aoife Gavin and Eimear Keane

HBSC Ireland, Health Promotion Research Centre, National University of Ireland Galway

## 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 at www.hbsc.org, the International HBSC website.

The most recent HBSC Ireland study was conducted in 2014 and included 13,611 school children from 3rd class in primary school to 5th year in post-primary school. Overall, $42.2 \%$ boys and $57.8 \%$ girls participated. 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/media/healthpromotionresearchcentre/hbscdocs/nationalreports/HBSC2014-edit(LW).pdf.

The HBSC Ireland 2010 dataset comprises of 16,060 schoolchildren from 3rd class in primary school to 5th year in postprimary 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 describes physical activity and club participation data from the Irish 2010 and 2014 HBSC surveys. The analysis presented below for the 2014 data consists of 6,025 children aged 12 to 17 years old (42.5\% boys; 57.5\% girls). The analysis of the 2010 data file consists of 6,040 children aged 10 to 14 years old (50.9\% boys; 49.1\% girls).

The questions analysed for Irish school-aged children aged 12-17 years in 2010 were:

- Over the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day? Response options were $0,1,2,3,4,5,6,7$ days.
- Outside of school hours: How often do you usually exercise in your free time so much that you get out of breath or sweat? Response options were: every day, 4 to 6 times a week, 2 to 3 times a week, once a week, once a month, less than once a month, never.
- How often are you involved in the following?...Sports club/team. Response options were never, less than once a week, 1-3 days, 4-7 days.

The questions analysed for Irish school-aged children aged 10-14 years in 2014 were:

- Over the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day? Response options were $0,1,2,3,4,5,6,7$ days.
- Outside of school hours: How often do you usually exercise in your free time so much that you get out of breath or sweat? Response options were: every day, 4 to 6 times a week, 2 to 3 times a week, once a week, once a month, less than once a month, never.
- Do you play with a club? Response options were yes, no.

The findings are presented below in tables. Findings are unweighted and are broken down by age group. Findings are presented by survey year (2010 and 2014 separately).

Table 1: Overall percentage of 12 to 17 year olds who report participating in a sports team or club, by gender and age group

| Sports Club | Overall |  |  |  | $\mathbf{1 2}$ to $\mathbf{1 4}$ year olds |  | $\mathbf{1 5}$ to $\mathbf{1 7}$ year olds |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Membership | All | Boys | Girls | Boys | Girls | Boys | Girls |  |
| Yes | $68.5(4128)$ | $75.2(2309)$ | $61.5(1819)$ | $79.7(791)$ | $71.1(761)$ | $73.1(1518)$ | $56.1(1058)$ |  |
| No | $31.5(1897)$ | $24.8(760)$ | $38.5(1137)$ | $20.3(201)$ | $28.9(309)$ | $26.9(559)$ | $43.9(828)$ |  |

Table 2: Overall percentage of 12 to 17 year olds who report participation in at least 60 minutes of moderate to vigorous physical activity (MVPA) 7 days per week, by gender, age and sports club membership

|  | Gender |  | Age Group |  | Sports Club Membership |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys | Girls | 12 to 14 | 15 to 17 | Yes | No |
| MVPA 7 days | $24.9(754)$ | $11.2(323)$ | $21.5(436)$ | $16.5(645)$ | $21.7(881)$ | $10.7(200)$ |
| MVPA >7 days | $75.1(2276)$ | $88.8(2573)$ | $78.5(1591)$ | $83.5(3269)$ | $78.3(3187)$ | $89.3(1673)$ |
| Chi $^{2}:$ | $187.737 ; p<0.001$ | $22.702 ; p<0.001$ | $103.854 ; p<0.001$ |  |  |  |

Table 3: Overall percentage of 12 to 17 year olds who report participating in four or more days of vigour activity (VPA), by gender, age and sports club participation

|  | Gender |  | Age Group |  | Sports Club Membership |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys | Girls | 12 to 14 | 15 to 17 | Yes | No |
| VPA 4+ days | $55.4(1667)$ | $32.7(951)$ | $49.3(995)$ | $41.6(1628)$ | $52.5(2132)$ | $26.3(491)$ |
| VPA >4 days | $44.6(1340)$ | $67.3(1957)$ | $50.7(1023)$ | $58.4(2283)$ | $47.5(1931)$ | $73.7(1375)$ |
| Chi $^{2}:$ | $309.715 ; p<0.000$ | $31.829 ; p<0.000$ | $354.759 ; p<0.000$ |  |  |  |

Table 4: Odds ratio for sports club membership and the likelihood of meeting the MVPA and VPA guidelines, by gender and by age group

|  | Overall | Gender |  | Age Group |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Boys | Girls | 12 to 14 | 15 to 17 |
| MVPA | 2.312 | 1.919 | 2.261 | 2.582 | 2.112 |
|  | $(1.962-2.726)$ | $(1.550-2.377)$ | $(1.726-2.962)$ | $(1.914-3.482)$ | $(1.731-2.577)$ |
| VPA | 3.092 | 3.054 | 2.574 | 2.912 | 3.080 |
|  | $(2.742-3.486)$ | $(2.568-3.632)$ | $(2.166-3.060)$ | $(2.343-3.620)$ | $(2.664-3.560)$ |

Table 5: Odds ratio for sports club participation and likelihood of meeting MVPA and VPA guidelines, by gender and age group

|  | Boys |  | Girls |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 12 to 14 | 15 to 17 | 12 to 14 | 15 to 17 |
| MVPA | 1.995 | 1.844 | 3.085 | 1.669 |
| VPA | $(1.348-2.953)$ | $(1.429-2.381)$ | $(1.909-4.987)$ | $(1.188-2.344)$ |
|  | 2.545 | 3.225 | 2.938 | 2.234 |
|  | $(1.844-3.511)$ | $(2.623-3.966)$ | $(2.163-3.992)$ | $(1.805-2.763)$ |

Table 6: Overall percentage of 10 to 14 year olds who report participating in a club, by gender and age group

| Sports Club | Overall |  |  |  | $\mathbf{1 0}$ to 11 year olds |  | $\mathbf{1 2}$ to $\mathbf{1 4}$ year olds |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Membership | All | Boys | Girls | Boys | Girls | Boys | Girls |  |
| Yes | $65.9(3966)$ | $75.4(1927)$ | $58.9(2039)$ | $51.9(1001)$ | $52.6(1073)$ | $48.1(926)$ | $47.4(966)$ |  |
| No | $34.1(2054)$ | $24.6(630)$ | $41.1(1424)$ | $46.2(291)$ | $48.4(689)$ | $53.8(339)$ | $51.6(735)$ |  |

Table 7: Overall percentage of 10 to 14 year olds who report participation in at least 60 minutes of moderate to vigorous physical activity (MVPA) 7 days per week, by gender, age and club membership

|  | Gender |  | Age Group |  | Sports Club Membership |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys | Girls | 10 to 11 | 12 to 14 | Yes | No |
| MVPA 7 days | $39.7(709)$ | $25.4(625)$ | $36.6(514)$ | $28.9(823)$ | $36.5(1009)$ | $22.0(328)$ |
| MVPA >7 days | $60.3(1075)$ | $74.6(1838)$ | $63.4(890)$ | $71.1(2024)$ | $63.5(1752)$ | $78.0(1162)$ |
| Chi $^{2}:$ | $99.118 ; p<0.000$ | $25.873 ; p<0.000$ | $94.783 ; p<0.000$ |  |  |  |

Table 7.1: Overall percentage of 10 to 14 year olds who report participation in at least 60 minutes of moderate to vigorous physical activity (MVPA) 7 days per week, by club membership and gender.

|  | BOYS |  | GIRLS |  |
| ---: | :---: | :---: | :---: | :---: |
|  | Sports Club Membership |  | Sports Club Membership |  |
|  | Yes | No | Yes | No |
| MVPA 7 days | $44.5(585)$ | $26.5(124)$ | $29.3(422)$ | $19.9(203)$ |
| MVPA >7 days | $55.5(731)$ | $73.5(344)$ | $70.7(1020)$ | $80.1(818)$ |
| Chi $^{2}:$ | $46.458 ; p<0.000$ | $27.788 ; p>0.000$ |  |  |

Table 8: Overall percentage of 10 to 14 year olds who report participating in four or more days of vigour activity (VPA), by gender, age and club participation

|  | Gender |  | Age Group |  | Sports Club Membership |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys | Girls | 10 to 11 | 12 to 14 | Yes | No |
| VPA 4+ days | $68.1(1720)$ | $56.5(1935)$ | $65.6(1980)$ | $57.2(1678)$ | $69.8(2742)$ | $45.2(916)$ |
| VPA >4 days | $31.9(804)$ | $43.5(1489)$ | $34.4(1040)$ | $42.8(1255)$ | $30.2(1184)$ | $54.8(1111)$ |
| Chi $^{2}:$ | $83.001 ; p<0.000$ | $43.812 ; p<0.000$ |  | $342.944 ; p<0.000$ |  |  |

Table 8.1: Overall percentage of 10 to 14 year olds who report participating in four or more days of vigour activity (VPA), by gender, by club membership and gender.

|  | BOYS |  | GIRLS |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Sports Club Membership |  | Sports Club Membership |  |
|  | Yes | No | Yes | No |
| VPA 7 days | $74.7(1424)$ | $47.9(296)$ | $65.2(1316)$ | $44.0(619)$ |
| VPA >7 days | $25.3(482)$ | $52.1(322)$ | $34.8(701)$ | $56.0(788)$ |
| Chi $^{2}:$ | $154.587 ; p>0.000$ | $152.307 ; p>0.000$ |  |  |

Table 9: Odds ratio for club membership and the likelihood of meeting the MVPA and VPA guidelines, by gender and by age group

|  | Overall | Gender |  | Age Group |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Boys | Girls | 10 to 11 | 12 to 14 |
| MVPA | 2.040 | 2.220 | 1.667 | 1.904 | 2.102 |
|  | $(1.765-2.359)$ | $(1.760-2.801)$ | $(1.377-2.018)$ | $(1.494-2.425)$ | $(1.753-2.522)$ |
| VPA | 2.809 | 3.214 | 2.390 | 2.289 | 3.366 |
|  | $(2.514-3.318)$ | $(2.661-3.881)$ | $(2.079-2.748)$ | $(1.953-2.683)$ | $(2.876-3.939)$ |

Table 10: Odds ratio for club participation and likelihood of meeting MVPA and VPA guidelines, by gender and age group

|  | Boys |  | Girls |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 10 to 11 | 12 to 14 | 10 to 11 | 12 to 14 |
| MVPA | 1.935 | 2.389 | 1.738 | 1.574 |
| VPA | $(1.303-2.874)$ | $(1.790-3.187)$ | $(1.273-2.372)$ | $(1.233-2.010)$ |
|  | 2.821 | 3.564 | 1.922 | 2.925 |
|  | $(2.145-3.710)$ | $(2.743-4.630)$ | $(1.576-2.342)$ | $(2.394-3.574)$ |

Acknowledgements: HBSC Ireland 2014 was funded by the Department of Health. This short report was requested by Dr Aoife Lane, Lecturer, Waterford Institute of Technology and was completed in December 2016. We would like to acknowledge the children and parents who consented and participated, the management authorities, principals and teachers who helped us to collect the data, the staff at the Health Promotion Research Centre, National University of Ireland Galway, the HBSC Ireland Advisory Board and the International coordinator of HBSC, Dr Jo Inchley of the University of St Andrews, Scotland. Further information on HBSC Ireland is available at www.nuigalway.ie/hbsc.

