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SCHOOL HEALTH
RESEARCH NETWORK

Physical activity and sedentary behaviour in young people in Wales in 2014

School Health & Wellbeing Research Brief, November 2016

Current public health recommendations suggest that young people perform at least 60 minutes of moderate to vigorous physical activity every day (MVPA). The World Health Organization estimates that 80% of the world's adolescents are not achieving this level of physical activity, but what is the situation in Wales and what elements of the school environment are associated with young people's activity levels?

What we already know...

Regular physical activity aids normal growth and development and is associated with improved mental health and wellbeing. Research evidence also suggests a positive relationship between physical activity and academic performance.

Emerging evidence suggests that being sedentary has a detrimental impact on health, independently of physical inactivity.

In Wales in 2014 only 11% of girls and 20% of boys were sufficiently active, i.e. spending at least 60 minutes every day being physically active.



What we did...

- We used data from the 2013/14 Health Behaviour in School-aged Children Survey in Wales and its accompanying school environment questionnaire.
- We considered students to be:
 - **Physically active** if they reported being active for at least 60 minutes a day, 5 or more days a week;
 - **Achieving sufficient MVPA** if they reported exercising hard enough to be out of breath or sweat for 4 or more hours a week, outside of school;
 - **Sedentary** if they reported spending 2 or more hours a day in screen-based time in their spare time;
 - **Active travellers** if they reported walking or cycling to school.
- We asked about four **school characteristics**: lunch break length, PE provision, Food & Fitness policy and provision of sports facilities.
- A total of 7,376 students from 67 schools took part.

In a nutshell

- Students in Wales are insufficiently active and 85% spend over two hours a day of their spare time looking at a screen.
- Boys are more active than girls, but also report more sedentary screen-based time.
- Levels of moderate to vigorous physical activity are higher in older students, those of white ethnicity and those from more affluent families.
- Students at schools with shorter lunch breaks report higher levels of sedentary screen time.



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What we found...

Total physical activity

- **40%** of students were physically active for at least 60 minutes on 5 or more days a week.
- Boys reported more physical activity than girls.
- Physical activity levels were higher in younger students and in those from more affluent families.
- **30%** of students were active travellers and female active travellers reported higher levels of total physical activity.
- School characteristics were not associated with total physical activity.

Moderate to vigorous physical activity outside school hours

- **28%** of students achieved 4 or more hours of MVPA a week and boys achieved more hours than girls.
- Older students and those from more affluent families had higher levels of MVPA. White ethnicity was also associated with higher levels of MVPA.
- School characteristics were not associated with

MVPA outside school hours, except for the proportion of students entitled to free school meals. Students in schools with lower levels of entitlement had higher levels of MVPA.

Sedentary screen-based time outside school hours

- **85%** of students were sedentary, spending more than 2 hours a day in screen time. Average daily screen time on week days was 7.5 hours.
- Boys and older students reported more sedentary time, but there was no relationship with affluence.
- Sedentary behaviour was associated with higher levels of free school meal entitlement, a shorter lunch break and for boys, greater provision of sports facilities and longer time in PE lessons.



Issues to consider

This study included a large number of young people who are representative of children in Wales as a whole.

Participants reported their own activity levels, but we do not know if their answers were accurate.

Not all types of sedentary activity were measured; screen time could be more relevant to boys and explain the gender difference in sedentary time.

Data about activity levels and student and school characteristics were collected together (cross-sectional data) so we can only say that they are related, not that the characteristics determine activity levels.

The Welsh HBSC was funded by Welsh Government.

What does this mean for my school?

- **Boys and girls may need different approaches to combat physical inactivity and sedentary behaviour. Active travel could be an important focus for girls, as those who were active travellers were 25% more likely to be physically active 5 days a week.**
- **Young people may compensate for increased physical activity in school (PE lessons, access to sport facilities) by increasing sedentary time after school hours, suggesting an important role for families in addressing sedentary behaviour.**

Read the research paper in full. Download for free here:

<http://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-016-3213-8>

Morgan K et al (2016) Predictors of physical activity and sedentary behaviours among 11-16 year olds: multilevel analysis of the 2013 Health Behaviour in School-aged Children (HBSC) study in Wales. BMC Public Health 16:569