

Results from Wales' 2018 Report Card on Physical Activity for Children and Youth

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22 **Introduction**

23 This is the third Active Healthy Kids Wales (AHK-Wales) Report Card following the inaugural and second
24 report card published in 2014 and 2016 respectively^{1,2}. The 2018 report card (Figure 1) consolidates and
25 translates research related to physical activity among children and young people in Wales. The report
26 card aimed to raise the awareness of children and young people’s engagement in physical activity
27 behaviours and influences, and advocate for children’s right to be active and healthy.

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29 **Figure 1:** Wales’ 2018 Report Card Cover.

30 **[[insert cover here when complete]]**

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32 **Methods**

33 The AHK-Wales Research Work Group (RWG) consisted of 24 members, and comprised of academics,
34 postgraduate researchers, professionals and practitioners with expertise in physical activity and access
35 to national data sources. Ten physical activity indicators were graded using the harmonized Report Card
36 development process involving a synthesis and expert consensus of the best available evidence. The ten
37 indicators included: Overall Physical Activity, Organised Sport Participation, Active Play, Active
38 Transportation, Sedentary Behaviours, Physical Fitness, Family and Peers, School, Community and
39 Environment and Government. In Wales, an additional indicator was included: Physical Literacy. The
40 indicators were evaluated using a standardized grading scheme ranging from A+ (94-100% of children
41 met the criteria), to F (0-19 % meet the criteria) or Inconclusive (Inc; indicated that data was inadequate
42 or not available) were used to grade each quality indicator. Data from the following nationally

43 representative surveys, distributed between 2016-2018, were analysed by the RWG to grade each
44 indicator: the Health Behaviour in School-Aged Children survey (2017/18)³, National Survey for Wales
45 (2016/17)⁴, Play Sufficiency Assessment Surveys⁵ and the Health-Enhancing Physical Activity (HEPA)
46 Policy Audit Tool⁶.

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48 **Results and discussion**

49 As illustrated in Table 1, out of the ten grades, two indicators were graded C+ (Organised Sport
50 Participation and Government), one indicator was C- (Active Play), two indicators were D+ (Overall
51 Physical Activity and Active Transportation), one was D (Family and Peers), one was F (Sedentary
52 Behaviours) and three were inconclusive (Physical Fitness, School and Community and Environment).
53 Wales' eleventh indicator: physical literacy, was also inconclusive.

54 Overall, there is limited nationally representative data on children and young people's physical activity
55 and health. There is a lack of evidence on the early years (under 5 years old) in all indicators which is
56 problematic given physical activity behaviours develop in early childhood⁸. Further, grades for each
57 indicator were based on the results of self-reported survey data as opposed to objective measures, for
58 example accelerometers to measure physical activity. More effort is required to address this gap
59 through systematic robust data collection methods within schools and in the community. The AHK-
60 Wales RWG recommends that more effort needs to be made to generate nationally representative data
61 on the AHK indicators and to develop effective approaches that seek to increase children's physical
62 activity and decrease sedentary behaviours.

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64 **Conclusion**

65 Despite 21 national policies that incorporate strategies, action plans, legislation and guidance that aim
66 to promote physical activity in children and young people in Wales, children meeting the guidelines for
67 physical activity remains low and sedentary behaviours remain high. The AHK-Wales RWG urges for (i) a
68 concerted effort to generate more nationally representative data and (ii) a redoubling of efforts to
69 create opportunities that will help increase children’s physical activity and decreasing sedentary
70 behaviours so that future generations receive the lifelong health and developmental benefits of physical
71 activity.

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73 **References**

- 74 1. Stratton G, Williams C, Brophy S, et al. Active Healthy Kids Report Card 2014 – Wales.
75 <http://www.swansea.ac.uk/media/AHK-Wales%202014%20final.pdf>. Accessed May 5, 2018.
- 76 2. Tyler R, Mannello M, Mattingley R, et al. Results From Wales’ 2016 Report Card on Physical
77 Activity for Children and Youth: Is Wales Turning the Tide on Children’s Inactivity? *J Phys Act*
78 *Heal.* 2016; 13(11 Suppl 2): S330–6.
- 79 3. Health Behaviour in School-aged Children Wales Survey 2017/18. [https://gov.wales/statistics-](https://gov.wales/statistics-and-research/health-behaviour-school-aged-children/?lang=en)
80 [and-research/health-behaviour-school-aged-children/?lang=en](https://gov.wales/statistics-and-research/health-behaviour-school-aged-children/?lang=en). Accessed May 20, 2018.
- 81 4. National Survey for Wales 2016/17. [https://gov.wales/statistics-and-research/national-](https://gov.wales/statistics-and-research/national-survey/?lang=en)
82 [survey/?lang=en](https://gov.wales/statistics-and-research/national-survey/?lang=en). Accessed February 20, 2018.

- 83 5. Play Sufficiency Assessment Surveys 2016. <http://www.playwales.org.uk/eng/sufficiency>.
84 Accessed March 19, 2018.
- 85 6. Health-enhancing physical activity (HEPA) Policy Audit Tool (PAT).
86 http://www.euro.who.int/data/assets/pdf_file/0006/151395/e95785.pdf. Accessed February
87 10, 2018.
- 88 7. Tyler, R. Mackintosh K, Brophy S, et al. Swan-Linx: Fitness Fun Day Report – Swansea Schools
89 2015. [https://www.swansea.ac.uk/media/Swan-](https://www.swansea.ac.uk/media/Swan-Linx%20Swansea%20Schools'%20Fitness%20Fun%20Day%20feedback%20report%20(2015).pdf)
90 [Linx%20Swansea%20Schools'%20Fitness%20Fun%20Day%20feedback%20report%20\(2015\).pdf](https://www.swansea.ac.uk/media/Swan-Linx%20Swansea%20Schools'%20Fitness%20Fun%20Day%20feedback%20report%20(2015).pdf)
- 91 8. Edwards LC, Bryant AS, Keegan RJ, et al. Definitions, Foundations and Associations of Physical
92 Literacy: A Systematic Review. *Sports Med.* 2017; 47(3): 113 – 126.
- 93 9. Edwards LC, Bryant AS, Keegan RJ, et al. ‘Measuring’ Physical Literacy: A Systematic Review of
94 Empirical Findings. *Sports Med.* 2018; doi: 10.1007/s40279-017-0817-9.
- 95 10. Active Healthy Kids Wales Web site. <http://activehealthykidswales.com>. Accessed April 15, 2018.

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102 **Table 1: Grades and rationales for Wales' 2018 Report Card**

Indicator	Grade	Rational
Overall Physical Activity	D +	18.4% of children and young people aged 11-16 years met the recommendation of at least 60 minutes of MVPA every day of the week; 16.8% children and young people aged 11-16 usually exercised in their free time every day of the week (Health Behaviour in School-Aged Children survey [HBSC]) ³ . In another survey, 51% of 3-17 year olds were active for at least an hour seven days a week (National Survey for Wales [NSW]) ⁴ . The weighting for this indicator was as follows: an average of the HBSC data (18.42% and 16.78% = 17.6%) and the NSW data (51%) was weighted 50/50 resulting in a 34% of 3-17 year olds meeting activity guidelines in Wales.
Organised Sport Participation	C +	55% of children and young people aged 11-16 years took part in organised activities outside of school/outside of lessons. These children took part in: i. Organised team sport activities (e.g. football, basketball and volleyball); ii. Organised individual sport activities (e.g. tennis, gymnastics and karate); iii. Children and youth organisations (e.g. scouting, guides, cadets, Duke of Edinburgh) ³ .
Active Play	C -	41% of children aged 5-17 years reported playing out most days ³ . In another survey, 44% of 11-16 year olds exercised in their free time during their summer holidays ³ .
Active Transportation	D +	44% primary school children and 33% secondary school pupils traveled actively to school (walked with an adult, walked on their own or with other children, cycled) ⁴ . In another survey, 33.8% of children and young people aged 11-16 years walked/cycled to school; 36.1% children and young people walked/cycled from school ³ .
Sedentary Behaviours	F	80% of children/young people aged 11-16 years spent 2 or more hours sitting in their free time (e.g. watching TV, using a computer or mobile phone, travelling in a car or by bus, sitting and talking, eating and studying) on weekdays and 87% on the weekend ³ . In another survey, 81% percent of children had at least two hours screen time on an average weekday and 92% had at least two hours screen time on a weekend day ⁴ .
Physical Fitness	Inc.	There is a growing dataset of physical fitness measures of children in Wales but there is no national data covering all components of physical fitness and full age range were available therefore inconclusive ⁷ .
Family and Peers	D	59% of parents were active for 150 minutes+ a week, 8% of parents take part in vigorous activity for >75 minutes/ week, 31% of parents take their child to the playground and 20% of parents take part in informal games such as playing Frisbee ⁴ .
School	Inc.	No updated data available for 'School' since AHK-Wales 2016 (2016 score: B), therefore School is inconclusive.
Community and Environment	Inc.	No updated data available for 'Community and Environment' since AHK-Wales 2016 Report Card (2016 score: C), therefore Community and Environment is inconclusive.
Government	C +	21 Policy documents assessed across different sectors including Health, Sport, Education, Environment, Transport, Urban Design/ Planning, Other (Play, Sustainable Development; Cross-cutting). Using the HEPA Policy Assessment Tool to evaluate the 21 policies, the grade for Government was 54% ⁶ .