THE FOURTH PANDEMIC OF CHILDHOOD INACTIVITY IN WALES

ACTIVE HEALTHY KIDS WALES REPORT CARD 2021

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Active Healthy Kids-Wales Authors and Contributors

The Active Healthy Kids-Wales (AHK-Wales) Research Working Group (RWG) consisted of 21 members, including academics, postgraduate researchers, professionals, and practitioners with expertise in physical activity (PA) and access to national data sources. The academic lead (Professor Gareth Stratton) gained funding for and supervised the project, whilst the lead researcher (Amie Bethan Richards) led on sourcing and synthesising the data, organising the quality indicator (QI) groups and liaising with the Active Healthy Kids Global Alliance (AHKGA) regarding progress of the Wales RWG. The academic lead and lead researcher were also responsible for producing the Report Card and subsequent impact activity, including that of the website, social media, and further advocacy practices. Members of the RWG were allocated to QI groups, each with an associated lead, to collectively allocate grades to each QI.

Research Working Group Members

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Philanthropic Contributions for AHK-Wales 2023

The AHK-Wales RWG is seeking funding from partners and stakeholders to develop the Active Healthy Kids-Wales 2023 Report Card.

Access to the AHK-Wales Report Card

Available on the Active Healthy Kids Wales website: www.activehealthykidswales.net

Referencing the AHK-Wales Report Card

Richards AB, Mackintosh KA, Swindell N, Ward M, Marchant E, James M, Edwards LC, Tyler R, Blain D, Wainwright N, Nicholls S, Mannello M, Morgan K, Evans T, Canham N, Hobday J, Caterson A, Williams S, Miller M, Roberts C and Stratton G. (2022). Active Healthy Kids Wales 2021 Report Card.

Future Report Cards

The Active Healthy Kids Wales 2021 Report Card is the fourth Active Healthy Kids Wales (AHK-Wales) Report Card following the inaugural, second Report Card and third Report Card published in 2014, 2016 and 2018, respectively.

The Active Healthy Kids Wales is part of the Active Healthy Kids Global Alliance 4.0 that will release Report Cards from 57 countries across 6 continents on 23rd October 2022 in Abu Dhabi, United Arab Emirates (UAE).

The target date for the publication of the next Active Healthy Kids Wales Report Card is in 2023.

Aims

The overall purpose of the AHK-Wales Report Card is to act as an advocacy tool and provide a lens over physical activity behaviours and influencing factors of children and young people within Wales.

The Active Healthy Kids Wales 2021 Report Card Aimed To:

1. Collate relevant data to provide a comprehensive overview of the status of physical activity and sedentary behaviour of children and young people across Wales.
2. Track trends in physical activity and sedentary behaviours in children and young people across Wales.
3. Present an international context for physical activity and sedentary behaviour in children and young people across Wales.
4. Identify gaps in the research and data related to children and young people's physical activity and sedentary behaviour across Wales.
5. Inform policy, strategy, services and professional practice in physical activity and sedentary behaviour in children and young people.
6. Make recommendations addressing the inequalities in physical activity that have been heightened by COVID-19 and associated lockdown measures.

Background and Context

The AHK-Wales RWG rationale for producing the AHK Report Card is that children and young people in Wales have some of the lowest levels of physical activity and fitness globally [1] and the highest prevalence of overweight and obesity in the UK [2]. Conversely, Wales is a policy pioneer in children's play [3], it has an Active Travel Act [4] and Well-being of Future Generations Act [5]. More recently, a new education curriculum with a statutory focus on health and wellbeing, of which physical activity is encompassed, this is coming into effect in September 2022.

The AHK-Wales RWG of academics, educators, and allied professionals are concerned about the health of children and young people in Wales. The group uses data on physical activity to advocate for children and young people's right to play, engage with sport and physical activity, and be active and healthy. The production of AHK Report Cards is to provide a clear evidence base on quality indicators related to physical activity. Given the Welsh Assembly's 20 recommendations [6] for augmenting children's physical activity, this Report Card aims to monitor their progress. The RWG and AHK network have agreed to focus on continuing impact activities between Report Cards by using the AHK-Wales 2021 results to advocate for investment in children and young people's physical activity.

Stages of Work

This is the fourth AHK-Wales Report Card following the inaugural [7], second [8] and third [9] Report Cards published in 2014, 2016 and 2018, respectively. Swansea University coordinated the work, supported by a national network of academics and professionals from sport, play, transport, public health, sport and exercise science, and education sectors. These constituents formed the RWG.

The RWG consisted of 21 academics and professionals from universities and the public sector in Wales. Professionals were invited to become part of the AHK-Wales RWG via e-mail in January 2020. The RWG consisted of researchers across four Universities in Wales and one university in England, professionals working in the Welsh Government, Play Wales, Sport Wales, and practitioners to co-produce the AHK-Wales 2021 Report Card.

Based on their expertise, eleven team leaders were assigned to specific indicators: Overall Physical Activity (KAM); Organised Sports Participation (RT); Active Play (MMa); Active Transport (NW); Sedentary Behaviours (KM); Physical Fitness (DB); Family and Peers (SN); School (EM); Community and Environment (MJ); Government (MW); Physical Literacy (NW).

The group met once a quarter between July 2020 and January 2022 with meetings lasting for approximately two hours (Figure 1). Over the seven meetings, AHK-Wales team leaders presented findings for the 11 indicators for the whole group. Discussions followed each presentation and consensus was decided on each grade. The RWG was co-ordinated by a project leader and a postgraduate researcher. The project leader (GS) secured funding for the project and outlined the programme of work. The research lead (ABR) was responsible for arranging meetings, finding data, contacting team leaders, and producing Report Card materials.

Meeting 1: 8th July 2020

1.1 Formation of 2021 RWG – Introductions
1.2 Review of 2018 Report Card including methodology
1.3 Discussion on what impact the group wants to have
1.4 AHKGA registration update

Meeting 2: 25th November 2020

2.1 Interim timelines set for group to work towards
2.2 Debate on whether to include COVID-19 data

Meeting 3: 10th February 2021

3.1 AHKGA updates including their proposed timeline
3.2 Discussion of appointment of group leaders
3.3 Detailed discussion of available data sources

Meeting 4: 12th May 2021

4.1 Confirmation not to use COVID-19 data
4.2 AHKGA Fitness and Active Play Webinar Feedback from DB and MMa
4.3 All groups (exception of sedentary behaviour and organised sport) presented data suitable to their group and opened discussion for next steps.

Meeting 5: 21st July 2021

5.1 Distribution and discussion of new benchmarks for Global Matrix 4.0
5.2 All groups provided updates and presented an interim grade

Meeting 6: 10th November 2021

6.1 Active play, physical fitness, physical literacy, and school groups presented updates
6.2 Example narrative production
6.3 Completed a table of grades from 2014, 2016, 2018, 2022 for comparison.

Meeting 7: 19th January 2022

7.1 Confirmation of funding allocation
7.2 Final grades presented and accepted

Figure 1. AHK-Wales 2021 RWG Meetings Outcomes.

Methodology

The AHK-Wales 2021 RWG collated and analysed results to assign grades using the "best possible evidence" from nationally representative data, for example, the National Survey for Wales and the School Health Research Network Surveys. This approach is consistent with past AHK-Wales Report Cards.

Following the AHK Global Alliance grading system, the RWG assigned an individual grade to each of the 11 indicators. The grading system used was developed by the Canadian group and is adopted by all countries participating in the AHK Global Alliance. The grades range from A+ where 94-100% of children are meeting the criteria, to F where 0-19% meet the recommended threshold. Inconclusive (INC) indicated that data was inadequate or not available (see Table 1).

Table 1. Active Healthy Kids Global Alliance grading system.

Grade	Descriptor	Prevalence
A+		94 - 100 %
A	Wales is succeeding with most children and adolescents	87 - 93 %
A-		80 - 86 %
B+		74 - 79 %
B	Wales is succeeding with well over half of children and adolescents	67 - 73 %
B-		60 - 66 %
C+		54 - 59 %
C	Wales is succeeding with about half of children and adolescents	47 - 53 %
C-		40 - 46 %
D+		34 - 39 %
D	Wales is succeeding with under half of children and adolescents	27 - 33 %
D-		20 - 26 %
F	We are succeeding with very few children and youth	< 20 %
Inc.	Incomplete grade – data not sufficient or adequate	N/A

This report is based upon the best available evidence and recognised that most of the available data in Wales were susceptible to bias (i.e., self-reported data as opposed to objective methods). However, this bias is evident around the globe as self-report data are cost-effective and accessible to larger populations. Further, the AHK-Wales 2021 RWG have included recommendations on the evidence required for future AHK-Wales Report Cards.

Process used to assign grades

The process that was used to assign the grades for the indicators consisted of:

1. Exploring and collating the best available evidence for each quality indicator. This resulted in the use of the following data: School Health Research Network (SHRN) Student Health and Wellbeing Survey (19/20) [10], SHRN School Environment Questionnaire (2019/20) [10], Sport Wales School Sport Participation Survey (2018) [11], Sport Wales School Sport Provision Survey (2018) [11], Further Education Sport and Active Lifestyles Survey (2018) [12], Health and Attainment of Pupils in a Primary Education Network (HAPPEN) Survey (2018-20) [13], Play Sufficiency Survey (2018/19) [14], The National Survey for Wales (2018/19) [15], Swan-Linx and Bridge-Linx Data (2013/20) Dragon Challenge Data (2014 – 2020) Movement Assessment Battery for Children (2018).
2. Each quality indicator was assigned a sub-group to work on assigning a grade and a group leader was appointed who organised sub-group meetings and led in the discussions and production of results.
3. During whole group meetings the sub-group leaders presented any developments since the last meeting and a rationale for using the surveys to best represent the indicator was discussed. Nationally representative data was preferable, but where not available, the best available data were used.
4. Data for each quality indicator were considered against a recommendation or benchmark aligned with the AHK Global Alliance guidelines.
5. The AHK Global Alliance provided guidelines on the percentages that represented each grade produced from a F to A+, including an INC grade which represented that there was inconclusive data to assign a grade as in Table 1.
6. Any biases in the data were recorded together with any inequality results that the data could provide, and any major gaps in the data were considered as limitations.
7. Each sub-group suggested recommendations for how to improve the grade or the measurement of the indicator.
8. The quality assurance and verification of grades process included the sub-group agreeing on a proposed grade, followed by presenting this to the wider AHK-Wales group referring to survey methodology and data quality. Following a whole-group discussion, grades were either confirmed or the sub-group would work on any suggestions before presenting again at the next meeting.

Results

The following sections provide an outline of each quality indicator and the criteria used to assign a grade including recommendations or benchmark, data sources used to assign grades including trends, biases, and gaps, and finally some suggestions on how to improve the grade in the future.

Physical Activity

Health Behaviours and Outcomes

Overall Physical Activity (F)

17% of young people (**11- to 16-year-olds**) were active for at least 60 minutes across all seven days of the week. However, this figure decreased to 14% when only considering moderate-to-vigorous-intensity to align with international government guidelines. 22% of **8-11-year-old** children participated in sport/exercise for at least 60 minutes across all seven days.

Background

The World Health Organization (WHO) defines physical activity as any bodily movement produced by skeletal muscles resulting in energy expenditure above resting. Physical activity therefore encompasses all activities (i.e., active transport, physical education, leisure time activities, exercise), irrespective of intensity (light, moderate or vigorous). Physical activity is associated with numerous positive health outcomes, such as preventing and managing non-communicable diseases (e.g., cardiovascular disease, cancer, and diabetes), improving physical (cardiorespiratory and muscular) fitness, reducing symptoms of anxiety and depression, enhancing bone strength and density, maintaining a healthy body mass, enhancing cognitive function, and improving overall well-being. Reducing physical inactivity for children and adolescents is a key priority: the Global Action Plan on Physical Activity 2018-2030[16] seeks to reduce physical inactivity by 15%.

The WHO released guidelines on physical activity in 2020[17] strongly recommending that children aged 5-17 years should do at least 60 minutes, on average, of moderate-to-vigorous-intensity, mostly aerobic, physical activity, across the week. Moreover, vigorous-intensity aerobic activities, together with those that strengthen muscle and bone, should be incorporated at least three days a week. Given the availability of evidence, the latter component of international guidelines could not be considered, so the Research Working Group focused on the overall time spent being physically active as the benchmark to allocate a grade to this indicator.

Benchmarks

Percentage of children and adolescents who meet the Global Recommendations on Physical Activity for Health, which recommend that children and youth accumulate at least 60 minutes of moderate-to-vigorous-intensity physical activity (MVPA) per day, on average.

Data Sources Used

1. The School Health Research Network's Student Health and Wellbeing survey (2019/2020), children aged 11 to 16 years (n=115,944)
2. The HAPPEN survey (2018-2020), children aged 8 to 11 years (n=1,329)

Deciding on a Grade

The School Health Research Network: Student Health and Wellbeing Survey (2019) collated self-report sedentary data on 110,877 children aged 11 to 16 years old. Distributed to 94% of schools (n=198) in Wales, young people were asked how many days, across a week, they were physically active for a total of at least 60 minutes. The survey found that 17.0% of young people (11- to 16-year-olds) were active for at least 60 minutes across all seven days of the week. However, this figure decreased to 14.4% when only considering moderate-to-vigorous-intensity to align with international government guidelines. More boys (18.4%) reported engaging in MVPA, in comparison to girls (10.3%) and those who identified as neither a boy nor a girl (17.7%). A decline in the proportion of young people was found in age, with the highest MVPA among Year 7 pupils (11 years; 20.0%) and the lowest among Year 11 pupils (16 years; 9.5%). A lower percentage (11.7%) of young people from less affluent families met the recommended daily physical activity guidelines, compared to 16.5% from more affluent families. The proportion of White (14.2%) and Black Minority Ethnic (14.9%) children reporting being active was similar.

The HAPPEN survey collected self-report data on 1,329 children aged 8 to 11 years old. The survey was distributed among 27 primary schools across three local authorities in Wales. Children were asked 'in the last seven days, how many days did you do sports or exercise for at least one hour in total?.' The survey showed that 22% of 8- to 11-year-old children did sport/exercise for at least 60 minutes across all seven days. Boys reported more engagement (27%) than girls (17%). There was little variation with age (21-24%) or socioeconomic status (20-24%).

The Research Working Group assigned an F to this category when taking the sample size and representation (i.e., sub-national population data for HAPPEN) into account. This grade has decreased from the 2018 AHK-Wales Report Card. However, it is important to note that the data utilised, and thus the questions used, for the 2018 overall physical activity indicator differed, with the current questions also capturing more specific MVPA, rather than total physical activity, in line with current guidelines and benchmarks. Furthermore, the data included refers to being physically active for 60 minutes 'across all seven days', rather than 'at least four days' or '60 minutes per day on average', which were deemed inappropriate given our national physical activity guidelines, available data, and divergence from our previous national Report Card. The current grade also incorporates a new dataset, with HAPPEN data availability for 2020.

Major Gaps in the Welsh Data

There continues to be no large-scale studies using device-based assessment of physical activity (e.g., accelerometery) of children and adolescents in Wales. This is particularly important given the evidence of over-reporting of physical activity levels via self-report when compared to accelerometer-measured physical activity. It could be proposed that the ongoing longitudinal device-based assessment of physical activity levels in 800 8- to 16-year-olds, stratified by age, sex, and

socioeconomic status, across Wales, as part of the Welsh Institute of Physical Activity, Health and Sport (WIPAHS), should be expanded. Beyond the HAPPEN survey, there is currently limited research available in Wales for children under the age of 11 years and no data available for those under 8 years old. This needs to be addressed through robust, systematic, data collection methods. Greater attention needs to be given to socioeconomic patterning. Consideration should be given to 24-hour movements and behaviours. The effect of interventions to enhance physical activity levels need to be quantified.

How to Improve the Grade in the Future

The best available evidence shows that the majority of children and young people in Wales need to increase their physical activity levels. This can be achieved through a range of behaviours including dance, sport, active transportation, and active play.

A significant effort needs to be made to address the very low physical activity levels among young people in Wales. High-quality evidence using device-based measures, while simultaneously capturing information on the duration (e.g., per day, per week), context (e.g., school time, leisure time) and type (e.g., sport, active transport, play) of physical activity, is needed to inform the design of effective strategies, interventions, and policy.

Organised Sport Participation (C)

On three or more occasions per week: 44% (7 – 9-year-olds, school years 3 and 4); 51% (9 – 11 year olds, school years 5 and 6); 49% (11 – 14 year olds, school years 7 - 9); 46% (14 – 16 year olds, school years 10 and 11); 44% (16-year-olds); 46% (17-year-olds).

Background

There are currently no specific recommendations for the amount of sport and dance that children and young people should participate in. However, organised sport participation is one way to potentially increase overall physical activity levels in children and young people in Wales.

For the Active Healthy Kids Wales 2021 Report Card, Research Work Group has returned to using 'the percentage of children and young people who take part in sport on three or more occasions a week' as the benchmark for grading this indicator. Although Sport Wales' Vision of 'Every Child Hooked on Sport for Life' and the term 'hooked on sport' has now changed and is no longer used, the indicator (children/young people who take part in sport on three or more occasions a week) remains.

Benchmarks

For children ages 7-16 years old - The percentage of children who take part in sport on three or more occasions a week, in an extracurricular (school-based) or a community club setting. Curricular PE activity is not included.

For young people aged 16+ years old – The percentage of young people who take part in sport/physical activity on three or more occasions a week, in any setting.

Data Sources Used

1) Sport Wales, School Sport Survey (2018), children aged 7 to 16 years (n=118,893)
2) The Further Education Sport and Active Lifestyles Survey (2018), students aged 16+ years (n=3,857)

Deciding on a Grade

The School Sport Survey (2018) showed that 48% of children took part in sport on three or more occasions a week in an extracurricular or community club setting. These data showed an upward trend in the percentage of children taking part in sport on three or more occasions a week from 27% to 40%, in 2011 and 2013, respectively, and has levelled off at 48% over the last two survey cycles (2015 to

2018). Moreover, similar proportions of primary and secondary pupils participate in extracurricular or community sport three or more times per week – 47% of primary pupils in Years 3-6 and 48% of secondary pupils in Years 7-11. There remains a sex difference in participation levels, with 50% of boys and 46% of girls participating in extracurricular or community sport at least three times per week. Furthermore, socioeconomic inequalities also exist and have widened slightly from 2015 to 2018, with the gap in participation rates between the least deprived and most deprived increasing by 2% from 2015 (the disparity in participation between FSM1 (least deprived) and FSM4 (most deprived) in 2015 was 11%, the disparity in participation between these same two quartiles in 2018 was 13%). However, the gaps between ethnicities/ethic groups and between those who are impaired/disabled and those who are not, have closed from 2015 to 2018.

The Further Education Sport and Active Lifestyles Survey (2018) showed that 44% and 46% of students aged 16 and 17, respectively, take part in sport or physical activity on three or more occasions per week. The findings in relation to subgroups (sex, age, ethnicity, disability, and socioeconomic status) emphasise that inequalities exist. There remains a sex difference in participation levels, although this gap has closed from 2015 to 2018. Disparities between ethnic groups also exist, with students from a Black/African/Caribbean/Black British ethnic group being more likely to participate in sport/physical activity three or more times a week (45%) than White (43%) and Asian/Asian British (35%) ethnic groups. Furthermore, there remains a difference between those who are impaired/disabled and those who are not, with 33% of students with an impairment/disability participating three or more times a week in 2018, compared with 45% of those who did not identify an impairment/disability. This gap has widened from 2015 to 2018.

The Research Working Group assigned a C to this indicator as, 48% of children taking part in extracurricular (school based) or community club (outside of school) sport on three or more occasions per week, while 44% and 46% of students aged 16 and 17, respectively, take part in sport or physical activity on three or more occasions per week. Full calculation for grade: 'Taking part in sport on three or more occasions per week' = 44% (years 3-4) + 51% (years 5-6) + 49% (years 7-9) + 46% (years 10-11) + 44% (16-year-olds) + 46% (17-year-olds) /6 = 47% = C grade. This grade is unchanged from the 2016 AHK-Wales Report Card, but has decreased from the 2018 AHK-Wales Report Card. It is important to note that different questions and surveys were used for the grading of this indicator in 2018 compared to the 2014, 2016, and 2021 Report Cards. Therefore, the changes in grades across Report Cards should be viewed with caution.

Major Gaps in the Welsh data:

There is a lack of evidence on children of early years (under 5 years old), this needs to be addressed through systematic robust data collection methods. Current surveys regarding participation in sport/dance/physical activity promoting clubs in Wales do not capture the duration of the sessions that children and young people take part in. The 2018 School Sport Survey and the Further Education Sport and Active

Lifestyles Survey both used self-report methods, although, a major strength of the School Sport Survey is its reach and coverage, with the survey being the largest survey of its kind in the UK.

How to Improve the Grade in the Future

An increase in participation in sport, dance and organised physical activities/adventures in children and young people should be a priority in Wales, so that "everyone can have a lifetime enjoyment of sport" and Wales can be transformed into an Active Nation (The Vision for Sport in Wales, Sport Wales). To encourage participation, there should be a focus on maintaining investment in sport programmes, managing competitive structures in an inclusive manner, including a wider range of dance programmes, and introducing alternative sports. Promoting physical literacy and the inclusion of physical education as a core subject in the school curriculum should also be considered. In addition, efforts should be made to address the inequalities that exist. Finally, there is a need for more detailed research across the age range, including objective measures.

Active Play (C+)

42% of children and young people aged 5-17 years reported that they played outside most days and 33% reported playing outside a few days each week.

Background

There is no specific recommendation for the duration of time spent in active play or the amount of time being active outdoors. However, active play, particularly outdoors, contributes to overall physical activity. The UK-wide Chief Medical Officers' guidelines for physical activity recommend that to receive the health benefits from physical activity we should recognise the importance of play for children's development.

Children under 5 years old (Early Years) – Children who are capable of walking unaided should be physically active daily for at least 180 minutes (3 hours), spread throughout the day. For children who cannot yet walk unaided, physical activity should be encouraged from birth, especially through floor-based play and water-based activities in safe environments.

The physical activity guidelines for children and teenagers aged 5 to 18 years recommend that: Children should engage in a variety of types and intensities of physical activity every day to develop movement skills, muscular fitness, and bone strength. Activities can include hopping, skipping, and swinging on playground equipment using body weight or working against resistance.

Benchmarks

The Research Group used the percentage of children and youth who engage in unstructured/unorganised active play for several hours a day and the percentage of children and youth report being outdoors for several hours a day.

Data Sources Used

1) The Play Satisfaction Survey (2018/2019), children aged 4–18-years (n= 5,111)
2) The School Health Research Network's Student Health and Wellbeing survey (2019/2020), children aged 11 to 16 years (n=115,944)

Deciding on a Grade

For the benchmark *percentage of children and youth who report being outdoors for several hours a day,* we used information from the Play Sufficiency Survey 2018-2019 which asked how children how often they go out to play or hang out with friends. 42% of children aged 5-17 report playing out most days. 33% children report playing out a few days each week.

"I learn new things and climb trees" What children say about play in Wales, which reports on the survey data, indicates that 5,884 responses from children were included in the final data set. When set in context of the whole population of children in Wales (567,709), the sample provides a 95% probability that the responses accurately reflect the attitudes of the whole population. 51%% were girls and 49% were boys. The largest group responding (where ages were given) were aged 8 to 11 years (63%).

For the benchmark *percentage of children and youth who engage in unstructured/unorganised active play for several hours a day*, we used the School Health Research Network (SHRN) Student Health and Wellbeing Survey 2019/20. Playing with friends is included in the definition of exercise in the survey. 41.6 % responded 'often or more' to the question 'how often, during the most recent summer holidays, did you exercise in your free time so much that you got out of breath or sweated.'

Undertaken every two years, the survey provides a regular snapshot of 11-to-16-year old's' health behaviours. 198 (94%) schools participated, from which 119,388 11 to 16-year-olds provided responses (a 77% response rate)

The Active Play Indicator Group assigned a C+ to this category. When taking the Play Satisfaction Survey responses to the question 'days spent playing out' into account, the group slightly deviated from the recommended > *2h/day*. The group determined that responses of '*most days'* and '*a few days'* each week were representative of the benchmark 'several days' a week. When considered alongside the SHRN responses, a numerical grade of 58 was allocated. This grade has slightly improved from the last AHK-Wales Report Card completed in 2018. However, it should be noted that data for that Report Card only included the information from the response 'most days' each week.

Major Gaps in the Welsh Data

The SHRN survey only collected data on children aged 11 to 16 years old. The Play Satisfaction Assessment Survey only reported 13 of 22 local authorities in Wales. It was also not possible to identify the ages of around 2,000 children (out of nearly 6,000) in the survey. Also, collecting data from children in unstructured play in ethically and logistically challenging. Both the Play Satisfaction Survey and the School Health Research Network Survey use self -report methods to obtain data. The Play Satisfaction Survey is run by individual local authorities and methods for data collection vary across Wales. There is limited research available for children under 5 years old (early years) and where this is available, it tends to be gathered through parent surveys and views.

How to Improve the Grade in the Future

Playing is a natural and enjoyable way for children to keep well and be happy. It is their way of supporting their own health and wellbeing. There is a well-established body of solid evidence that shows the contribution that play, particularly self-organised play, can make to children's long-term and immediate wellbeing, to their physical health and to their mental health and resilience. The following can improve opportunities for play:

Prioritising the views of children:

- Piloting and developing space assessment tools that put children at the centre of informing how local communities are being used and can be utilised to benefit own health and wellbeing.

Making the most of community assets:

- Schools, as a central resource for the local community, should consider the options to make their school grounds available for free play after school and at weekends.

Protecting play time:

- Schools should include a minimum amount of time for play and break time for all children.
- These breaks should not be withdrawn as part of behaviour management or to finish off work.
- Schools should offer a range of opportunities that allow for child-led play

Active Transportation (C-)

Between 42% and 44% of primary school-aged children used active transport to travel to school. In two surveys of children aged 11 to 16-years, 35% and 33 % used active transport to travel to school, respectively. 73% of children aged 4-18 years used active travel to places where they play.

Background

Although there are no formal guidelines for active transport, active transport is widely promoted by the National Institute for Health and Social Care Excellence, Public Health Wales, Sustrans and the Department of Health as a simple and sustainable way to promote physical activity. Beyond its benefits to children's health through physical activity, which include improved cardiovascular fitness, better cardiometabolic health, improved body composition and academic attainment, active transport also reduces car travel leading to reduced congestion, air pollution and economic savings.

Benchmarks

The benchmark used by the Research Work Group to allocate a grade to this indicator were the proportion of children and young people who use active transport to get to school and to places where they play.

Data Sources Used

1. The National Survey for Wales (2018/2019), secondary school children (n= 950) and parents of primary school children (n = 1,450)
2. The HAPPEN survey (2018-2020), children aged 8 to 11 years (n=1,329)
3. The School Health Research Network's Student Health and Wellbeing survey (2019/2020), children aged 11 to 16 years (n=115,944)
4. The Play Satisfaction Survey (2018/2019), children aged 4–18-years (n= 5,111)

Deciding on a Grade

The National Survey for Wales (2018/2019) asked secondary school children (n= 950) and parents of primary school children (n = 1,450) how they/their child travels to school on a typical day. The survey showed that 44% and 33% of primary and secondary school children respectively, use active modes of transport to travel to school. A small gender difference was seen with a higher proportion of boys (46%) using active transport to primary school compared to girls (43%). At secondary school, this trend was reversed with more girls using active transport (35%) compared to boys (31%). The proportion of children using active transport was also

greater in urban compared to rural primary schools (urban 47%; rural 34%) and secondary schools (urban 40%; rural 19%). In this survey there has been no change in the proportion of children using active transport since the last survey conducted in 2016/2017. However, there was an increase in the proportion (from 8% to 12%) of primary school children walking alone.

The HAPPEN survey (2018-2020) asked children aged 8 to 11 years (n=1,329) how they got to school and how they got home from school on the previous day. The survey showed that 42% of children used active travel to school and 45% used active travel to get home. A small gender difference was seen with a higher proportion of boys using active travel to (43%) and from (48%) school compared to girls (41% to school and 43% from school). The proportion of children using active transport also increased with age with 45% and 51% of children in Year 6 used active travel to and from school respectively compares to 37% and 41% in Year 4. When drawing comparisons across socioeconomic groups, there was a clear gradient, with the most affluent group reporting higher active travel (37%) compared to the most deprived (21%).

The School Health Research Network's Student Health and Wellbeing survey (2019/2020) asked children aged 11 to 16 years (n=115,944) how they travelled to school on a typical day. The survey showed that 35% of children used active transport to get to school. Reports were found to be higher among boys (37%) than girls (33) % and reports were higher among the most deprived children (42%) compared to the most affluent (32%).

The Play Satisfaction Survey (2018/2019) asked children aged 4–18-years (n= 5,111) How they usually travel to 1) school and 2) places where they play. The survey showed that 42% of children used active transport to get to school and 73% used active transport to get to places of play. Report for both questions were found to be higher for boys (to school 43%; to places for play 76%) compared to girls (to school 41%; to places for play 70%). There was a clear gradient between age and transport to school with reports increasing with age (5–7-year-olds 35% vs >14-year-olds 60%). Report for active transport to places of play also varied by age but did not follow a clear gradient. The lowest reports were seen in the 8 to 11-year-olds (69%) compared to >14-year-olds (79%).

The Research Working Group assigned a C- to this category, considering that active transport to school ranged between 33% and 43% and accounting for the first inclusion of a question addressing active transport to a destination other than school. This grade has increased from a D+ in the last AHK-Wales Report Card completed in 2018. It is important to note that the grade increase reflects the inclusion of more data sources and in particular the inclusion of data on active transport to destinations other than school. Thus, this grade provides a more complete picture of this indicator opposed to reflecting evidence of an upward trend in the use of active transport.

Major Gaps in the Welsh Data

There has been an increase in the data for this indicator compared to previous Report Cards. Thus, this grade provides a more complete picture of the indictor. However, this data is all self-report and does not monitor the frequency, intensity, time, or type of active transportation, this would provide a more comprehensive understanding of children and young people's active transportation.

How to Improve the Grade in the Future

This is the first AHK-Wales Report Card to include data on active transport to a destination other than school and it demonstrates that transport behaviours differ according to context. More data is needed on transport in different settings that provide the opportunity for active transport, such as travel to shops, recreational facilities and visiting friends and family.

Sedentary Behaviours (F)

86% of young people (aged 11 to 16 years) spent two or more hours sitting during weekdays, with higher reports among boys and older children. 32% of children (aged 8-11 years) reported watching TV/screens for two hours or more every day of the week, with higher reports among boys and the most deprived grouping.

Background

Sedentary behaviour is characterised as any waking behaviour whereby energy expenditure ≤1.5 metabolic equivalents (METs), while in a sitting, reclining, or lying posture. Sedentary behaviour is related to poor health outcomes among children and adolescents, such as poorer cardiometabolic health and fitness, increased adiposity, poorer behavioural conduct/pro-social behaviour, and reduced sleep duration. An emerging evidence base also suggests sedentary behaviour is associated with well-being and quality of life. Children and young people typically spend a large proportion of their day engaging in sedentary pursuits, such as sitting down whilst at school (e.g. during lessons or break time), non-active travel (e.g. bus or car), and sitting during leisure time (e.g. watching television or playing video games). It is currently unknown whether a dose-response relationship exists between sedentary behaviour and health outcomes among young people. That said, the World Health Organization (WHO) notes that adverse health effects of sedentary behaviour are generally stronger for television viewing or recreational screen time than for total sedentary time. Earlier studies observed a reduction in physical and psychosocial health outcomes amongst young people who spend less than two hours engaging in sedentary behaviours.

Benchmarks

The benchmark used by the Research Working Group to allocate a grade to this indicator was 'the percentage of young people who exceed the recommended sedentary time guidelines (i.e. two or more hours)'. Data on sedentary behaviours, such as time spent sitting during free time on weekdays or screen time, were used.

Data Sources Used

1. The HAPPEN survey (2018-2020), children aged 8 to 11 years (n=1,329)
2. The School Health Research Network's Student Health and Wellbeing survey (2019/2020), children aged 11 to 16 years (n=115,944)

Deciding on a Grade

The School Health Research Network: Student Health and Wellbeing Survey (2019) collated self-report sedentary data on 110,877 children aged 11 to 16 years old.

Distributed to 198 schools in Wales, young people were asked how much time spent sitting they had undertaken outside of school hours during free time on weekdays.

The survey showed that 86.4% of young people spent two or more hours sitting during weekdays. Reports were found to be higher among boys (87.2%) compared to girls (85.7%). When drawing comparisons across age groups, there was a clear gradient, with the lowest 'two or more hour' reports among Year 7 pupils (76.7%) and the highest reports among Year 11 pupils (92.2%). No clear patterning in 'two or more hours' reports were found when comparing across socioeconomic (low 86%, medium 87.5% and high 86.2%) or ethnic (White 86.7% vs Black, Asian and minority ethnic 86.1%) groupings.

The HAPPEN survey collected self-report data on 1,329 children aged 8-11 years old. The survey was distributed among 27 primary schools across three local authorities in Wales. Children were asked 'In the last 7 days, how many days did you watch TV/play online games/use the internet etc. for 2 or more hours a day (in total)?'.

The survey showed that 32% of children reported watching TV/screens for two hours or more every day of the week. The proportions reported between boys and girls were different (34% boys and 31% girls). Across the school year groups, the highest reports of daily screen time were found among children in Year 5 (aged 9-10 years; 36%) compared to Year 4 (33%) and Year 6 (29%) peers. Socioeconomic data showed a difference in proportions, with 37% and 21% of the most deprived and most affluent children, respectively, reporting two or more hours of screen time daily.

The Research Working Group assigned an F to this category when taking the sample characteristics into account (i.e. sample representation and self-reporting). This grade has not changed from the 2018 AHK-Wales Report Card. It is important to note that the questions used for the 2018 sedentary indicator differ, with the 2018 questions also capturing sedentary behaviours on weekends. The current grade also incorporates a new dataset, with HAPPEN data availability for 2020.

Major Gaps in the Welsh Data

Both the School Health Research Network: Student Health and Wellbeing Survey and the HAPPEN survey used self-report methods to obtain data on sedentary behaviour. There are no large-scale studies using device-based assessments of sedentary behaviour, for example, with the use of accelerometers, in the United Kingdom. Beyond the HAPPEN survey, there is currently limited research available in Wales for children under the age of 11 years. This gap needs to be addressed through robust, systematic, data collection methods. Greater attention needs to be given to socioeconomic patterning, exploring sedentary periods on a continuum and by behaviour. The effect of interventions to reduce time spent sitting needs to be quantified.

How to Improve the Grade in the Future

The best available evidence shows that the majority of children and young people in Wales need to reduce their time spent sedentary. A significant effort needs to be made to address the very high amount of time spent in sedentary pursuits among young people in Wales. To inform the design of effective strategies, there is a need to first generate high-quality evidence using device-based measures, while simultaneously capturing information on the duration (e.g. per day, per week), context (e.g. school time, leisure time) and type (e.g. sitting using the phone, watching television) of sedentary behaviours.

Physical Fitness (C-)

When comparing to European Normative Values children were in the 40th percentile for both cardiorespiratory fitness and muscular fitness.

Background

Physical fitness is defined as Characteristics that permit a good performance of a given physical task in a specified physical, social, and psychological environment.

Physical fitness comprises multiple components. However, evidence shows cardiorespiratory and muscular fitness to be important indicators of for health and well-being in young people [18] these components were utilised within this narrative for physical fitness. Such an approach was also used in the 2018 Australian Report Card.

Benchmarks

Average percentile achieved on certain physical fitness indicators based on the normative values published by Tomkinson et al. (2018) [19].

Data Sources Used

1. Swansea University Fun Fitness days (2013 – 2020) through the Swan-Linx & Bridge-Linx projects, children aged 9 - 12 years, (n=4,778)

Deciding on a Grade

The overall grade for physical fitness was decided upon using comparison of the best available data to the Tomkinson et al (2018) data as indicated by the AHK Global Matrix 4.0 benchmarks. Available data for both cardiorespiratory fitness and muscular fitness were used. Based on the best available data from the Swansea University Fun Fitness Days data, the Research Working Group assigned a C- to this category as for both cardiorespiratory fitness and muscular fitness boys and girls from Wales typically fall into the 40th percentile.

Major Gaps in the Welsh Data

There remains a lack of nationally representative data for all components of fitness across childhood and adolescence. Consideration should be given to how such surveillance methods could be implemented to monitor the fitness of young people so that the effectiveness of different policy, programmes and initiatives on physical fitness can be assessed.

How to Improve the Grade in the Future

To improve this grade, greater opportunities for young people in Wales to regularly engage with health-enhancing levels of physical activity are required. These should come from the full range of contexts including:

- Schools - Recent curriculum developments in Wales provide an excellent opportunity to consider how young people can be best supported to lead active and healthy lives, particularly under the health and well-being area of learning experience.
- School based physical education
- Active play
- Extracurricular clubs
- Active transport

Fun and engaging activities that maximise opportunity for physical activity and develop long-lasting motivation for physical activity throughout life should be the focus.

Physical Literacy (C-)

Physical competence 34%; confidence 69%; motivation 65% and PA 19%.

Background

Sport Wales adopts Whitehead's definition of physical literacy, namely: "the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life" [20]. Physical literacy is considered a 'holistic' concept and acknowledges the physical, affective, and cognitive domains as equally important [21]. Sport Wales' definition is comprised of physical skills, confidence, motivation, knowledge and understanding and lots of opportunities and illustrated in Figure 2.

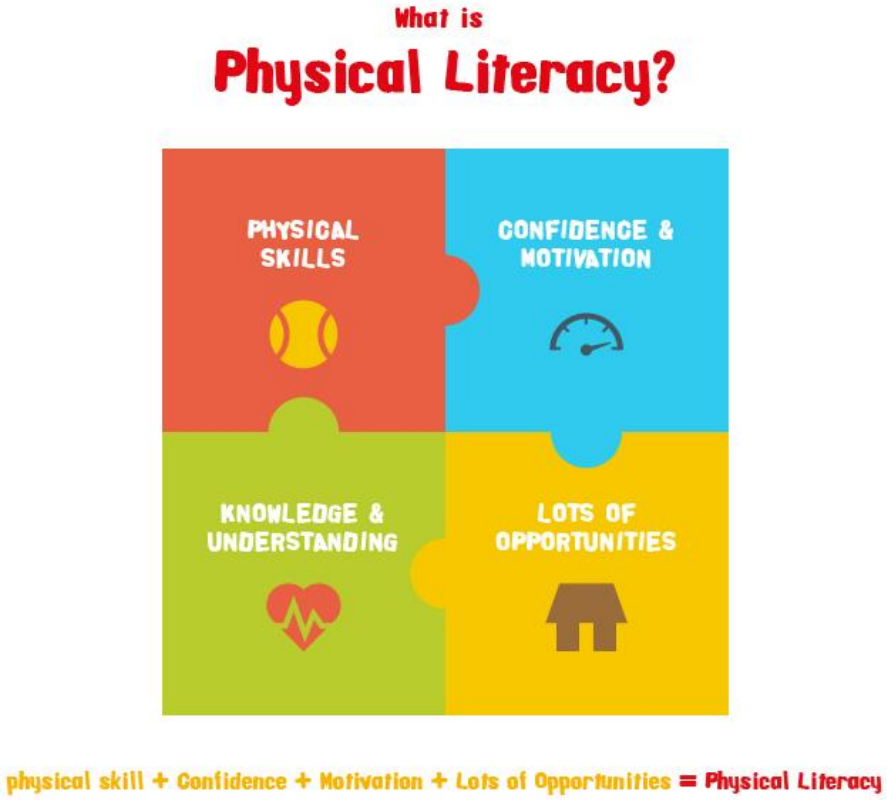

Figure 2. Sport Wales' definition of physical literacy

Sport Wales continues a focus on physical literacy with a group of physical literacy consultants appointed to support the work of national governing bodies of sport. This alters the focus to a more community and lifelong approach supporting the national governing bodies to reflect principles of physical literacy in their work.

Benchmarks

There were no set benchmarks from the Active Healthy Kids Global Alliance for this indicator. However, The Research Work Group explored the best available representative data to assign a physical literacy grade. In doing this, the Group divided the concept into four sub-indicators: Physical Competence, Motivation, Confidence and Physical Activity as a behaviour that was representative of physical literacy.

There was no available data for the cognitive (Knowledge and Understanding) domain. However, there were data from six sources to support a score in Physical Competence, Motivation, Confidence and Physical Activity.

Data Sources Used

1. The HAPPEN survey (2018-2020), children aged 8 to 11 years (n=1,329)
2. The School Sport Survey (2018), children aged 7-16 years (n=118,893)
3. The Further Education Sport and Active Lifestyles Survey (2018), students aged 16+ years (n=3,857)
4. Dragon Challenge (2014-2020), children aged 9 12 years (n=4555)
5. Movement Assessment Battery for Children (Movement ABC) (2018), children aged 5 – 7 years (n=92)

Deciding on a Grade

Physical Competence -33.8%

The Dragon Challenge showed that 65% of children achieved bronze and silver categories whilst 35% of children achieved gold, showing good levels of competence. More girls than boys in the bronze and silver categories for girls, those living in quintile one (most deprived) had a significantly lower adjusted mean DC score than quintiles two, four, and five (least deprived). While for boys, adjusted mean Dragon Challenge score was significantly lower in quintile one compared to quintiles three, and five.

The Movement ABC Data showed that 67.4% of the children scored under the 15th percentile: 48.9% were 'red category',18.5% were 'amber category,' 32.6% were classed as having no movement difficulty ('green category').

Confidence - 69.4%

The HAPPEN Survey highlighted that 86% *'feel confident to take part in lots of different activities,' and* 83% *'feel good at lots of different activities.'* Whilst the Sport Wales, School Sport Survey showed that 79.8% *'confident in trying new activities' and* 58.7% *comfortable in taking part in PE lessons and school sport.'* The

Further Education (FE) Sport and Active Lifestyle Survey reported that 54.5% were *'confident in trying new sports.'*

Motivation - 64.9%

The HAPPEN Survey showed that 92% *'want to take part in physical activity'* whilst in the Sport Wales, School Sport Survey 62.9% reported that they *'enjoy PE lessons a lot.'* In the FE Sport and Active Lifestyle Survey 40% *'enjoy doing sport when not at college a lot.'*

Physical Activity - 19%

The SHRN data showed that 18% of 11-to-16-year olds were active for at least 60 minutes across all seven days (26% Year 7; 12% Year 11). This reduces to 14.4% when looking at MVPA (20.0% in Year 7; 9.5% Year 11). The HAPPEN Survey showed that 20% were 'physically active for one hour or more every day.'

Based on the scores from the subcategories giving an overall score of 46.7%, the Research Work Group decided to grade Physical Literacy as C-. It is important to recognise that levels of confidence and motivation are considerably higher in the younger age groups and there is a noticeable decline across the age group from Primary to FE.

Major Gaps in the Welsh Data

Current research still does not account for the holistic nature of the concept. Research tends to consider the domains separately and there is limited research that considers interactions between the domains. As such, there is a need to be more consideration of qualitative and mixed methods approaches to capture more experiences of physical literacy journey.

How to Improve the Grade in the Future
Investment from Welsh Government in this concept via Sport Wales continues to be implemented, which could aid in improving the grade. Whilst the new curriculum within Wales may mean greater focus on more holistic aspects of concept. There is a potential for work in Sport Wales with Physical Literacy consultants and Welsh Institute for Physical Activity Health and Sport for opportunities to consider different forms of data for assessing Physical Literacy which could be used in future Report Cards.

Settings and Influences on Physical Activity and Health

Family and Peers (D+)

Children reported 46% of adults were great and happy with children playing out. 10% of adults had volunteered in sport in the past 12 months, whilst 53% of adults met the MVPA guidelines of 150 minutes of physical activity per week.

Background

There are currently no specific recommendations regarding the influence of family and peers on the meeting of recommended physical activity guidelines. However, research across varying age groups and geographic settings has shown that encouragement by and/or participation of family and peers in activity can increase children's own levels of physical activity and subsequently their overall health (1-5).

Benchmarks

1) *% of family members who facilitate physical activity and sport opportunities for their children (based on % volunteering in sport during the past 12 months)*

2) *% of parents who meet the Global Recommendations on Physical Activity for Health (at least 150 min of moderate-intensity aerobic physical activity or least 75 min of vigorous-intensity aerobic physical activity weekly)*

3) *% of children and youth with friends and peers who encourage and support them to be physically active (based on response to question, "What are adults like when you play?")*

Data Sources Used

1. The Play Satisfaction Survey (2018/2019), children aged 4–18-years (n= 5,111)
2. The School Health Research Network's Student Health and Wellbeing survey (2019/2020), children aged 11 to 16 years (n=115,944)
3. Sport Wales, School Sport Survey (2018), children aged 7-16 years (n=118,893)

Deciding on a Grade

The Play Satisfaction Survey showed that children reported 46% of adults were "great and happy with children playing out," with another 43% indicating adults are "ok and alright about children playing out." The National Survey for Wales (2018/19)

showed that 10% of adults had volunteered in sport in the past 12 months, whilst 53% of adults met the MVPA guidelines of 150 minutes of physical activity per week.

Based on the findings described above, the Research Working Group assigned a D+ to this indicator. This reflects the averaging of (10% + 53% + 46%)/3 = 36% = Grade D+. This grade has increased slightly from the 2018 AHK-Wales Report Card grade of a D. It is, however, important to note that different questions and surveys were used for the grading of the 2021 Family and Peers indicator compared to the 2014 and 2016 Report Cards, which included response to a question concerning the probability of children being 'hooked on sport' (percentage of children who take part in sport on 3 or more occasions a week, in an extracurricular (school-based) or a community/club setting if their parents or peers/friends are also involved in sport. This question has since been removed from the survey in which it formerly appeared. Therefore, the changes in grades across Report Cards should be viewed with caution.

Major Gaps in the Welsh data

The is no data available to assess two of the five suggested benchmarks (% of family members (e.g., parents, guardians) who are physically active with their kids, and % of children and youth who encourage and support their friends and peers to be physically active). Data used to assess two of the remaining three benchmarks are tangential to these rather than directly aligning with the guidelines proposed. More and better data are needed to assess this area.

How to Improve the Grade in the Future

Research has shown that encouragement by and/or participation of family and peers in activity can increase children's own levels of physical activity and subsequently their overall health. Parents are therefore urged to engage in physical activity or sports with their children on a regular basis, especially in the evenings and on weekends and holidays. Parents should support the use of active transport options where it is safe and feasible. They should also encourage their children to explore physically active challenges within their local/home environment, and to participate in clubs/groups that involve physical activity.

School (B-)

45% of primary schools offered an afternoon break. 69% of primary schools and 92% of secondary schools had at least one male specialist PE teacher, whilst 69% of primary and 80% of secondary schools had at least one female specialist PE teacher. 6% of children aged 11-12 years (school year 7) were offered the recommended 120 minutes per week, which decreased with age, with <1% of children aged 15 – 16 years offered this amount. 84% of primary (7 years old +) and 94% of secondary schools were offered regular access to extracurricular sport, whilst on average 66% across primary and secondary schools reported participation (68% males; 65% females). Indoor and outdoor space conducive to facilitate PA were provided to 72% of schools, whilst 64% of primary and 58% of secondary staff agreed/strongly agreed that their school has access to sufficient facilities to provide sport.

Background

Children spend a large proportion of their waking hours in the school setting, and thus schools are considered a key setting for providing opportunities for physical activity. Physically active behaviours can be facilitated through school design, provision of facilities and equipment and curricular and extra-curricular opportunities.

Benchmarks:

1. *% of schools with active school policies (e.g., daily physical education (PE), daily physical activity, recess, "everyone plays" approach, bike racks at school, traffic calming on school property, outdoor time).*
2. *% of schools where the majority (≥80%) of students are taught by a PE specialist.*
3. *% of schools where the majority (≥80%) of students are offered the mandated amount of PE*
4. *% of schools that offer physical activity opportunities (excluding PE) to the majority (>80%) of their students*
5. *% of children who have access to PA opportunities at school in addition to PE*
6. *% of schools with students who have regular access to facilities and equipment that support physical activity (e.g., gymnasium, outdoor playgrounds, sporting fields, multipurpose space for physical activity, equipment in good condition)*

Data Sources Used

1) The HAPPEN survey (2018-2020), children aged 8 to 11 years (n=1,329)
2) SHRN School Environment Questionnaire (SEQ) 2019/20 (2020 report)
3) Sport Wales, School Sport Survey (2018), children aged 7-16 years (n=118,893)
4) Sport Wales, School Sport Provision questionnaire (completed by PE teacher/coordinator from all state primary (n=869) and secondary schools (n=186) in Wales)

Deciding on a Grade

Benchmark 1 -The HAPPEN survey asked children aged 8-11 '*Does your school have an afternoon break?*' Out of 134 primary schools, 45% (n=60) offered an afternoon break. No data was available for secondary schools. This dataset is not nationally representative, however no other school policy data were available.

Benchmark 2 - The School Sport Survey (provision) asked '*Over the course of the CURRENT academic year (2017-2018), how many teachers or teaching assistants have helped to deliver P.E. and sport activities in the school?*'. Stratified by gender, 69% of primary schools and 92% of secondary schools had at least one male specialist PE teachers, and 69% of primary and 80% of secondary had at least one female specialist PE teacher.

Benchmark 3 - The SHRN SEQ 2019-20 asked how many minutes per week were allocated to PE within the formal curriculum. Results show a concerningly low proportion of schools offering the mandated (120 minutes) amount of PE, and a decrease from 6% in year 7 to 1% in year 11 (school year: 8: 6%, 9: 4%, 10: <1%). Results from the School Sport Survey (provision) 2018 showed a mean of 99 minutes per week allocated to PE per week in primary schools and 95 minutes in secondary schools. Though this data source was not included in the grade as it does not align specifically with the benchmark, this is below the recommended 120 minutes. Further data shows that 55% of primary and 83% secondary PE teachers/coordinators agree that *'more time should be devoted to PE at my school'*. Whilst a promising finding from this provision survey shows that 82% of primary (years 3-6) and 96% of secondary (years 7-11) PE teachers/coordinators agree that '*the quality of PE delivery at the school is generally high*', this is not reflected in results from the participation survey with pupils. Results show that 57% of females and 69% of males report to enjoy PE lessons '*a lot*', with a higher majority of those in primary school reporting this (73% compared to 54% in secondary school).

Benchmark 4 - The School Sport Survey (provision) 2018 survey asked '*Which year groups have access to regular extracurricular sport/PE? (minimum of once per week throughout a season or term).*' On average, 84% of primary (years 3-6) and 94% of secondary schools (years 7-11) offered their year groups regular access to extra, overall average 89%. Using a different cut-point, the SHRN SEQ questionnaire showed 72% of secondary schools offer physically active opportunities to at least three class years 3-5 days per week. 57% primary and 66% of secondary schools in the School

Sport Survey (provision) survey report that *more time should be devoted to extracurricular sport*.

Benchmark 5 - The School Sport Survey (participation) completed by pupils reported *'Any participation in extracurricular sport in the past year (All young people in Wales in school years 3 to 11 (n=118,893))'*. Average results show 66% of children and young people report any participation, with this ranging from 74% in primary (years 3-6) to 60% in secondary school (years 7-11). There were minimal differences by gender (males: 68%, females: 65%). Differences in participation were observed by local authority differences, ranging from 58% to 79%.

Benchmark 6 - Response categories to '*student access to physical activity resources outside of lesson time (during lunch/after school)'* were refined to include a minimum requirement of indoor (gym/sports hall) and outdoor (playground/sports field/grass pitches) spaces that are conducive to/facilitate physically active behaviours. Indoor facilities were available to 75% (during lunch) and 80% (after school) and outside facilities to 77% (during lunch) and 53% (after school) of schools; overall average: 72%. 64% of primary and 58% of secondary staff strongly agreed/agreed slightly that their school has access to sufficient facilities to provide sport, though this question did not include a broader reference to physical activity.

The benchmarks specific to the School indicator capture a broad range of components of the school environment including policy, dedicated PE curriculum time, PE specialist staff, wider physically active opportunities, children's access to PA opportunities, access to PA facilities and equipment. The School Working Group recognise these benchmarks to be of equal importance and assigned even weighting, assigning an overall average of 60% and a grade of B-.

Major Gaps in the Welsh data:

The data sources used for the School indicator relied on self-report surveys completed either by PE coordinators, senior management, or pupils. Given the nature of the benchmarks, assessing these through objective measures would be challenging and self-report surveys provide a low-cost method in assessing population-level data relevant to schools. This therefore means that some of the data available does not necessarily reflect specific benchmark outcomes

How to Improve the Grade in the Future

The new *Curriculum for Wales* is due to be rolled out from 2022, with a renewed statutory focus on *Health and Wellbeing* as one of six *Areas of Learning and Experience* of the new curriculum. Whilst this step forward may enable schools to place direct focus on health and wellbeing behaviours including physical activity through the curriculum and wider school policy, there will not be mandated time requirements for PE provision. The new curriculum provides schools with autonomy to design and implement a curriculum that meets the needs of their pupils, and it is up to individual schools to decide on the importance and value placed on activities to facilitate physically active behaviours both within the curriculum and wider school environment. It is likely this will vary considerably between schools, local authorities, and regions. It is important for future research and surveillance to track school-level differences in whole-school physical activity/PE provision, and evaluation research could examine this variation and its association with children's outcomes across education, health and wellbeing. The School Research Working Group proposes recommendations for consideration:

- The *Curriculum for Wales* should include a minimum amount of time for physically active opportunities including PE, play and break times, and extra-curricular activities.
- Physically active opportunities should be prioritised and not withdrawn or replaced by other school commitments. This includes protecting play and break time for children.
- Schools should offer a range of physically active opportunities throughout the school day and should consult with pupils to explore types of activity requested and tailor activity provision to the needs and voices of pupils.

Community & Environment (C)

21% of people surveyed reported they were satisfied with places to play; 23% were very satisfied with clubs and activities; 21% were very satisfied with places to meet; 48% strongly agree that green space was suitable and 88% of children were happy with their area. 72% of children reported playing out, 24% report**ed** being able to play everywhere they would like, 42% report great places to play, whilst 88% can walk to a park and 38% can walk to a facility. 45% reported feeling safe when playing in the Play Satisfaction Survey, whilst 70% reported feeling safe in the HAPPEN survey.

Background

Built environments, and well-functioning local communities (the spaces where young people live, go to school and play, have been cited as important facilitators of physical activity. The Community and the Environment indicator refers to perceived safety, access, and availability of facilities and spaces that provide opportunities for physical activity in children and young people. Research using objective measures of physical activity via accelerometry has shown the number of park spaces, multi-use pathways (e.g., pavements for walking and cycling) and gyms in local neighbourhoods positively influences physical activity levels. However, there are no specific recommendations.

Benchmarks:

1) *% of children or parents who perceive their community/municipality is doing a good job at promoting physical activity (e.g., variety, location, cost, quality) = C-*

2) *% of children or parents who report having facilities, programs, parks, and playgrounds available to them in their community = C*

3) *% of children or parents who report living in a safe neighbourhood where they can be physically active = C+*

Data Sources Used

1) The National Survey for Wales (2018/2019), secondary school children (n= 950) and parents of primary school children (n = 1,450)
2) The Play Satisfaction Survey (2018/2019), children aged 4-18-years (n= 5,111)
3) The HAPPEN survey (2018-2020), children aged 8 to 11 years (n=1,329)

Deciding on a Grade

The National Survey for Wales asked about dissatisfaction/satisfaction of places to play outdoors (21% were very Satisfied), how satisfied, or dissatisfied participants were with clubs or activities in the local area (23% were very satisfied), how satisfied or dissatisfied participants were with places to meet and get together (21% were very satisfied), whether local green space is suitable for children and young people (48% strongly agreed). The questions were reliant on subjective self-report of perceptions of the local areas in Wales and were adult-led. There was no available data by age, gender, or deprivation.

During the 2019 play sufficiency assessment process, Play Wales asked all 22 local authorities to share their survey data. Play Wales received data from 18 local authorities, but when data were examined, 13 had provided information in a format required to support the development of a consistent data set. Additionally, because the sample is opportunistic (respondents were not chosen but chose to participate) the proportion of children and teenagers responding in each local authority varied widely. It was not feasible to assess the participants ages. In total, 5,884 responses from children were included in a final dataset.

The 'What Children Say About Play In Wales' reported on what type of places children could hang out in (72% reported playing out), if children could play in all the places they wanted to (24% reported they could play in them all), how good the places they play were (42% said they were great), do they feel safe when playing (45% reported always feeling safe) and, how do children get to play (52% reported travelling with an adult by car). There was no available data by age, gender, or deprivation.

The HAPPEN Survey is a health and wellbeing survey completed by 8 – 11-year-olds across Wales in primary schools. The survey includes measures of health behaviours such as physical activity, sedentary behaviour, sleep, diet and dental health and wellbeing. This data included 7521 responses. The survey asked about active travel to school (39% reported active travel), active travel from school (41% reported active travel), how safe children feel in their areas (67%), if they could walk to school (68% reported that they could), if they could walk to a park (82% reported that they could), if they could walk to a facility (34% reported that they could) and, how happy children were with their local areas (88% reported that they were happy). Overall, girls reported slightly lower percentages and those who were more deprived reported higher instances of active travel and walking but reported feeling less safe in their areas. The HAPPEN Survey relies on self-report from children.

The group decided on an overall grade of a C for the community and built environment indicator for 2021. However, the group wants to note that this is based on data from three of the six recommended benchmarks, which has been deemed sufficient by the AHKGA but further highlights significant gaps in research and knowledge.

Major Gaps in the Welsh data:

Additional data sources have been made available since 2018 and it is apparent that the evidence-base is growing in this area, it is still reliant on self-report data from both children and adults. There are still no objective measures available for this indicator. As with the 2018 AHK Report Card, further data collection, research, and interventions are needed to reduce the barriers towards physical activity and play in communities. To date, data has relied on self-report and there is little consistency between local authorities' objective data capture therefore it is difficult to assume a picture of Wales as a whole.

How to Improve the Grade in the Future

Improvements in perceived safety, access, and facilities may produce reductions in sedentary time and improvements in physical activity, outdoor and active play. The role of local communities in this respect has been highlighted by the coronavirus pandemic (SARS-CoV-2), which saw many people's interest in their local community heightened. For young people, who typically spend a large proportion of their time within their communities (including the physical environment where young people live, go to school and play), the ability to be active in their local area is particularly important for developing and living healthily and well. Therefore, it is important we prioritise built environments and local communities are prioritised when promoting active, healthy lifestyles.

Government (C)

The RWG concluded that the grade would be decreased slightly from a C+ in 2018 to a C (50%) for this current Report Card. This is, in part, due to the expiry of previous policies specific to PA promotion that were subsequently replaced by an obesity policy that includes PA as one element. This was seen by the group as a retrograde step as it overlooks the wider health impacts of PA. There was also a perceived lack of progress in embedding PA in education policy and actions despite a recent revision of the national curriculum in Wales.

Background

Physical Activity is high on the Welsh Government's policy agenda and is mentioned across a variety of policy arenas (Sport, Health, Environment, Sustainable Development, Planning, Transport, Education etc.) However, at both national and local level it is one of the few portfolios that does not have either a statutory requirement or a stable 'home' and is moved as an add-on into a range of other portfolios whenever there is any kind of re-shuffle or re-organisation. Since the last Report Card there was a government decision to strategically merge physical activity within the emerging obesity strategy which risks marginalising the wider impacts of physical activity on health. The government also established a tripartite partnership of national organisations (Wales Physical Activity Partnership) to drive the physical activity agenda forward in Wales. This included Public Health Wales, Sport Wales, and Natural Resources Wales. Whilst ostensibly an improvement by recognizing the broader influences on physical activity, it also overlooks the critical role of other sectors including Education, Local Government, and the Voluntary Sector amongst others. Sharing responsibility amongst three national organisations continues to dilute the benefit of having a single responsible lead organisation or person providing leadership and accountability for this critical portfolio. There is still little systemic funding for Physical Activity promotion or delivery although one positive development since the last Report Card is the establishment of the Healthy and Active Fund. The fund now has a modest £5.9m available over four years and there are 16 projects, however the competitive and limited nature of the funding model means that many potential beneficiaries are overlooked.

It is evident that certain sectors continue to have a fragmented and ineffectual support for promoting physical activity, not least education where despite national reports on the low levels of physical activity amongst children in Wales; recommendations from a national group looking at Physical Literacy; key recommendations from a National Assembly cross-party report on children's physical activity and a major revamp of the National Curriculum in Wales there is still very little overt evidence of increased support for the Education sector, other than the establishment of an 'Educational Settings sub-group of the Wales Physical Activity Partnership Board (WPAP) including members from the Welsh Government Education Policy division. Indeed, the Welsh Government rejected the recommendations to "make 120 minutes of physical education in schools a minimum statutory

requirement.", pinning their hopes on the new curriculum. Meanwhile, guidance provided by Estyn on physical activity in schools, whilst offering good advice on the range of physical activity gives no indications on even a minimum amount that should be provided. And a recent Estyn report on School impact on pupils' Health & Wellbeing only referenced 'Physical Activity' once and 'Exercise' once?

Data Sources Used

Guided by the HEPA PAT tool we considered the evidence relating to key policy domains that influence physical activity in children including: Health, Education, Sport, Transport, Environment, Design & Planning, Play, Sustainable Development, and Cross-cutting (i.e. cut across all policy portfolios). Within each of these domains a range of key 'elements' were identified from the HEPA PAT tool refined by the research working group (RWG), that could individually or collectively impact on the effectiveness of the policy instrument. These elements included:

- Number & breadth of policies
- Identified supporting actions
- Identified accountable organisation(s)
- Identifiable reporting structures
- Monitoring & Evaluation plans
- Identified funding/ resourcing

Table 2. 26 documents from 9 sectors were assessed.

Sector	Title of Document	Type
Health	UK Chief Medical Officers' Physical Activity Guidelines	G
	Public Health (Wales) Act 2017	L
	Healthy Weight, Healthy Wales Strategy	S
	Public Health Wales Long Term Strategy 2018-2030. Working to achieve a healthier future for Wales	S
Health & Sport	Getting Wales Moving	O
Sport	Enabling Sport in Wales to Thrive	S
	Physical Activity of Children and Young People Report and Annexe A	O
	Disability Sport Wales Vision Statement	O
Education	Curriculum for Wales Guidance 2020	G
	Physical Literacy – an all-Wales approach to increasing levels of physical activity for children and young people, 2013	O
	Framework on embedding a whole-school approach to emotional and mental well-being.	O
Transport	Active Travel (Wales) Act 2015	L
	An Active Travel Action Plan for Wales, 2016	AP

Environment	Natural Resources Policy 2017	S
	Our Contribution to the Protection and Improvement of Health and Wellbeing	O
	Natural Resources Wales - Managing Today's Natural Resources for Tomorrow's Generations	S
	The Clean Air Plan for Wales 2020	S
	Environment (Wales) Act 2016	L
Urban Design & Planning	Planning (Wales) Act 2015	L
	Planning Policy Wales, 2020	S
	Future Wales: The National Plan 2040	S
Cross-cutting	Prosperity for All, 2017	S
Play	Welsh Assembly Government Play Policy, 2002	S
	Play in Wales: Play Policy Implementation Plan, 2006	AP
	Wales: A Play Friendly Country, 2014	G
Sustainable Development	The Well-being of Future Generations (Wales) Act 2015	L

*Key: S – Strategy/ Policy; AP – Action Plan; G – Guidance; L – Legislation; O – Other

There are a number of national programmes designed to increase physical activity amongst children & young people in Wales, some operate at the UK level but have a Welsh component (This Girl Can; Change4Life; StreetGames) and a few are in the process of being evaluated before decisions on their future are made (Free Swim Programme; Dragon Multi-skill & Sport.) There is limited robust evidence on the effectiveness of these programmes at present.

Deciding on a Grade

Unlike the other indicators there are no purely objective measures that can be used to inform the Report Card. However, after utilising the WHO Europe Health-enhancing physical activity (HEPA) policy audit tool (PAT)v2 to inform the 2018 Report Card, we developed a complementary weighted scoring tool that provided an objective measure aligned to the Report Card. The methodology was published in Health Promotion International in 2020[23]. The same process was used to score this indicator for the latest Report Card. In interpreting this indicator, we included national policies, strategies, action plans, legislation and a few other advisory and technical documents that have a direct bearing on children's physical activity, which were still 'active.'

The final scoring matrix was as follows:

- No. and breadth of relevant policies - 10% (5% No. & 5% Breadth) = **8%**
- Identified supporting actions - 20% = **15%**
- Identified accountable organisation - 25% = **14%**
- Identifiable reporting structures - 15% = **6%**

- Identified funding and resources - 20% (5% no. of identified national programmes & 15% funding) = **5%**
- Monitoring & Evaluation Plan – 10% = **2%**

Applying this led to an overall score of **50%** that translates to a C grade.

Major Gaps in the Welsh data:

It is evident from the difficulties in compiling meaningful robust data for the Report Card that there continue to be significant national data gaps in many of the indicators that inform physical activity for children and young people. This is a feature that appears to have deteriorated in recent years following the revision and streamlining of national surveys that took place in 2018.

How to Improve the Grade in the Future

Whilst the wider environmental approach to physical activity promotion is to be welcomed, this has been compromised by the selective and limited range of engagement across policy sectors. Recent global events have compounded this problem as priorities changed and organisations tend to turn inward during times of crisis. There remain opportunities however, to re-engage with communities and organisations in a coordinated effort to tackle physical inactivity together.

Whilst there is of course a relationship between physical inactivity and obesity with many overlapping issues, there remain key issues that are mutually exclusive to physical activity which have far greater impacts both physiologically and mentally than those confined to obesity. It is simplistic and potentially dangerous to assume that strategies designed to address obesity will therefore also improve physical activity. Whilst some may, others will not, and opportunities will be missed. This policy 'marriage of convenience' also risks sending out the wrong messages. Increasing physical activity may help reduce obesity but will not eradicate it, whilst reducing obesity will not significantly reduce physical inactivity nor the many other health issues associated with it.

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