Is Wales Turning the Tide on Children's Inactivity?

ACTIVE HEALTHY KIDS WALES REPORT CARD 2016

Contents

Abbreviations and Definitions

PA = Physical Activity

HBSC = Health Behaviour in School Aged Children Survey

WHS = Welsh Health Survey

SSS = School Sport Survey

FESS = Further Education Sport Survey

NSW = National Survey for Wales

AAS = Active Adult Survey

HUS = Hands Up Survey

LVSO = Little Voices Shouting Out Survey

DC = Dragon Challenge

CVD = Cardiovascular Disease

MVPA = Moderate and Vigorous Physical Activity

SB = Sedentary Behaviour

HB = Health Behaviours

PL = Physical Literacy

Summary of Grades Assigned to Indicators	
Physical Activity and Health Behaviour Outcomes	
Overall Physical Activity Levels 15% of children and young people aged 11-16 years met the recommendation of at least 60 minutes of MVPA every day of the week [1]. In another survey, 35% of children aged 4-15 years participated in MVPA for at least 1 hour every day [2].	**D-**
Organised Sport Participation 48% of children and young people aged 7-16 years took part in sport on 3 or more occasions a week in an extracurricular or community club setting [3]. 49% of students aged 16+ years took part in sport on 3 or more occasions a week, in any setting [4].	**C**
Active and Outdoor Play 47% of children and young people aged 7-16 years used at least one of these places for exercise/play in the previous year - 'streets near home or school', 'park', 'playground not at school', 'playing fields at school', 'playing fields not at school' and 'beach/sea' [3]. 60% of children aged 7-11 years reported spending ≥3 hours outside playing [5].	**C**
Active Transportation 32% of children and young people 11-16 years old use active transport to get to school [1]. 40% of children and young people aged 7-16 years use active transport to get to school [3]. 49% of primary school children, and 35% of secondary school pupils walked to school regardless of distance from home to school [6]. 54% of children aged 7-16 years use active transport to get to school [7].	**C**
Sedentary Behaviours On a weekday, 53% of children and young people (11-16 years old) spent 2+ hours a day playing games on an electronic device, 64% spent 2+ hours a day using an electronic device (other than gaming), and 68% spent 2+ hours a day watching entertainment on a screen [1]. On the weekend, the proportion who spent 2+ hours a day in the sedentary behaviours noted above, increased to 65%, 71%, and 80%, respectively [1].	**D-**
Physical Literacy (Physical Competence) The Dragon Challenge V1.0 has produced pilot data on 1674 children across Wales, initial results suggest that continued investment in developing skilled movements in children is required.	**INC**
Settings and Influences on Physical Activity and Health	
Family and Peer Influence 31% of adults reported being active for at least 30 minutes on 5 or more days a week [2]. 41% of the adult population take part in sport [8]. 27% of mothers, 36% of fathers, 39% of brothers, 31% of sisters, 35% of other family members and 64% of peers take part in sport [3]. There is an increased probability of children being 'hooked on sport' if their parents or friends are also involved in sport [3].	**D+**
School 60% of primary & 80% of secondary schools provide a wide variety of extracurricular sport and dance opportunities to all pupils [3]. 70% of primary & 62% of secondary schools agree that the school has sufficient access to facilities and 73% of primary & 71% of secondary schools agree that they have access to sufficient equipment, to provide quality PE and sport [3]. 77% of primary & 85% of secondary schools reported teachers are confident in delivering quality PE lessons [3].	**B**
Community and the Built Environment 54% and 38% of parents with a child aged 1-10 and 11-15 years, respectively, were satisfied with the play facilities in their local area [6]. 'More places to play' was the highest priority (49%) for children aged 3-7 years [9]. For children aged 7-11 years (55%) and young people aged 11-18 (53%), 'stopping bullying' was the highest priority [9].	**C**
National Government Policy, Strategies, and Investments a) At Governmental and quasi non-governmental levels there is still evidence of leadership & commitment to provide PA opportunities for all children & young people; b) there are allocated funds & resources for the implementation of strategies to promote PA for all children & young people; c) the Government has demonstrated progress through the key stages of public policy making; d) Wales still has a number of key national and organisational policies that include PA and are making cross-government efforts to integrate them.	**B-**

Authors and Contributors:

The Active Healthy Kids Wales 2016 Report Card was produced by an expert group that consisted of academics and professionals. These included representatives from Swansea University, University of South Wales, Cardiff Metropolitan University, Aberystwyth University, Glyndwr University, Sport Wales, Play Wales, Public Health Wales, Sustrans Wales, and Health Behaviour in School-aged Children (HBSC) Wales.

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2. We are seeking funding from partners and stakeholders to develop the Active Healthy Kids-Wales **2018 Report Card**.
3. Please contact Professor Gareth Stratton (g.stratton@swansea.ac.uk) if you are interested in supporting the current or future AHK-Wales Report Cards through financial support or in-kind contributions.

Access to the AHK Wales Report Cards

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

Referencing the AHK Wales 2016 Report Card:

Stratton G, Cox R, Mannello M, Mattingley R, Robert C, Sage R, Taylor S, Williams S, Tyler R. (2016). Active Healthy Kids Wales 2016 Report Card.

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Future Cards:

The Active Healthy Kids Wales 2016 Report Card is the second Active Healthy Kids Wales Report Card following the inaugural 2014 version. Active Healthy Kids Canada published the first report card in 2004 and celebrated the 10th anniversary in 2014 at an international global summit. Forty-two countries are currently working on their 2016 Report Card that will form an Active Healthy Kids Global Matrix for 2016. Wales will join this matrix for the first time and will present its findings to an international audience in Bangkok, Thailand in November.

Future Active Healthy Kids Wales Report Cards. The target date for the publication of next AHK-Wales Report Card is in 2018.

Aims:

The Active Healthy Kids Wales 2016 Report Card aimed to:

1. Assess the 'State of the Nation' in relation to the levels of physical activity and sedentary behaviour.
2. Track trends in physical activity and sedentary behaviour.
3. Present an international context for physical activity and sedentary behaviour.
4. Inform policy, strategy, services and professional practice in physical activity and sedentary behaviour.
5. Identify critical gaps in knowledge related to children's physical activity and sedentary behaviour.
6. Provide evidence for advocates of physical activity and health related behaviours.

Background to the Active Healthy Kids – Wales Report Card

As the AHK-Wales expert group of academics, educators and allied professionals we are concerned about the health of children in Wales. The AHK-Wales expert group aims to use data on physical activity to advocate for children's right to play, to be hooked on sport and dance, learn and achieve, and be active and healthy. We are motivated to promote healthy active behaviour and physical literacy in children. Our mission is to produce AHK-Wales Report Cards that provide a clear evidence base on 10 quality indicators related to physical activity that should be used to advocate and influence local, regional and national policies and investments in physical activity for children and young people.

In support of the aims of AHK-Wales, our rationale is that Wales has the highest prevalence of child overweight in the UK and levels of sedentary behaviour, and physical activity and fitness are amongst the worst globally. Conversely, Wales is a policy pioneer in children's play, it has an active travel act on its government statute, and prioritises physical literacy as a key part of a child's educational entitlement. The AHK-Wales 2016 report card summarises the country's progress and position on children's health related physical activity.

Stages of work:

This is the second Active Healthy Kids (AHK) Wales Report Card following the inaugural 2014 version http://www.swansea.ac.uk/activehealthykidswales/.

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 expert group.

The expert group consisted of 11 members. The lead academic directed the development of the Report Card contents and expert group membership. The expert group comprised of the lead academic (GS), post-graduate researchers, academics, and professionals with expertise in physical activity and access to national data sources. The academic lead secured funding and outlined the programme of work. The lead post-graduate researcher (RT) was responsible for data sourcing, synthesis and subsequent presentation to the expert group for interpretation, discussion and grading. The lead researcher was also responsible with the academic lead to produce the Report Card and web site materials. During meetings between September 2015 and June 2016, all members of the expert group collectively allocated grades to indicators.

Ten indicators were assessed, an additional 2 (school and physical literacy) to the 8 included in the AHK Wales 2014 Report Card. School was added to be consistent with other countries and physical literacy because of the emphasis placed on it by Sport Wales and the Education department of Welsh Government.

All meetings are summarised in Figure 1.

Figure 1: Expert Group Meetings Agendas and Discussions

Expert Group Meeting 1

1.1 Academics and professionals with an expertise in public health, physical activity and/or children formed an expert group.
1.2 The academic lead asked the group to declare any conflicts of interest.
1.3 The academic lead presented methodology and the Canadian Model for producing an AHK-Report Card.
1.4 The group decided that the AHK-Wales 2016 Report Card should follow the reports in the Active Healthy Kids Global Alliance. School as an individual indicator was added to the 8 indicators from the 2014 report card. The addition of a Physical Literacy indicator was agreed to reflect the work being completed in Wales.
1.5 Ten quality indicators categorised into two sections. **(i) Physical activity and health behaviours and their outcomes, (ii) Settings and influences on PA and health**.
1.6 A survey and data search strategy was agreed and sources of evidence for each indicator were identified.
1.7 The roles for expert group members in the process were outlined and an action plan for the development of report grades agreed.
1.8 Funds were discussed for a website domain and dissemination of the Report Card.

Expert Group Meeting 2

2.1 The sources and availability of evidence were discussed.
2.2 Gaps in the sources of evidence were noted and steps to fill the gaps were discussed.
2.3 The lead Post-Graduate Researcher presented data on 'Organised Sport Participation', and the expert group critically discussed the data.
2.4 After this discussion, a directional value (-) or (+) using the criteria applied in the AHK Global Alliance was discussed and the indicator was assigned an interim grade.

Expert Group Meeting 3

3.1 Prior to meeting 3 the lead post graduate researcher gathered any data sources for the 'Organised Sport Participation indicator to present to the expert group. The interim grade was discussed again and the grade confirmed. – A grade was only confirmed when all of the expert group reached a consensus.
3.2 During meeting 3 the lead post-graduate researcher presented the data on 'Physical Activity', 'Sedentary Behaviour' and 'Active Transportation'. The expert group critically discussed the data.
3.3 After this discussion, the draft grades for the 3 indicators were given a directional value (-) or (+).
3.4 The meeting concluded by assigning interim grades for 'Physical Activity', 'Sedentary Behaviour' and 'Active Transportation'.
3.5 The expert group agreed that an 'INC' grade would be assigned to Physical Literacy (physical competency).

Expert Group Meeting 4

4.1 Prior to meeting 4 any data missing for the indicators discussed in meeting 3 were gathered.
4.2 The interim grade for 'Physical Activity', 'Sedentary Behaviour' and 'Active Transportation' were discussed again and the grades were confirmed.
4.2 The process used in expert group meeting 3 was also applied in expert group meeting 4. Interim grades were assigned to quality indicators 'Active and Outdoor Play' and 'Family & Peer Influence'.
4.2 The process for assigning a grade to the 'School Indicator' and 'National Government Policy, Strategies & Investments' were discussed.

Expert Group Meetings 5 & 6

5.1 Recapped on confirmed grades for indicators so far.
5.2 Grades were confirmed for 'Active & Outdoor Play' and 'Family & Peer Influence' indicators.
5.2 Interim grades for 'School', 'Community & the Built Environment' & 'National Government Policies, Strategies & Investments' quality indicators.
5.3 All grades in the AHK-Wales were then confirmed and agreed.
5.2 Limitations to the process of assigning grades were noted as considerations.
5.3 The dissemination approach for AHK-Wales Report Card was discussed. The plan for media release, website and launch were discussed.

6.1 Next steps for AHK-Wales including approaches to dissemination were agreed.
6.2 The process of production of the Report Card was completed.
6.3 The final report card writing started and the review process through to publication agreed.

Active Healthy Kids Wales 2016 Report Card
Launch and Publication

Grading System and Method

The grading system used was developed by the Canadian group and is common to all National Report Cards in the AHK Global Alliance [10]. The grades range from A where 80 to 100 % of children are meeting the criteria, to F where 0-19 % met the recommended threshold. Inconclusive (INC) indicated that data was inadequate or not available. The intention of the expert group was to assign grades wherever possible using the "best available evidence". This approach is congruent with the National Institute of Health and Care Excellence (NICE) methodology. Further, a review of existing data sources for physical activity outcomes was undertaken by a multi-sector group [11]. This report guided the use of the best available evidence and also recognised that the majority of available data were highly susceptible to bias. Whilst there were many gaps in the evidence base, the consensus of the expert group was that the 'best available evidence' approach would be used. Further the expert group have also included recommendations on the evidence required for future AHK-Wales Report Cards.

Table 2: Active Healthy Kids Global Alliance Grade System

Grade	Descriptor	Prevalence %
A	Wales is succeeding with a large majority of children and adolescents	**80-100**
B	Wales is succeeding with well over half of children and adolescents	**60-79**
C	Wales is succeeding with about half of children and adolescents	**40-59**
D	Wales is succeeding with less than half of children and adolescents	**20-39**
F	Wales is succeeding with very few children and adolescents	**0-19**
INC	Inconclusive Grade – Data not available or data were inadequate.	**NA**

Adjusting grades: Grades were assigned a '+' or '–' to indicate a trend or inequality in the data. For example, the grades assigned for physical activity or sport participation were given a '–' rating because a gender inequality existed. Outdoor and active play data showed an upward trend so a '+' was allocated. For consistency the AHK-Wales Report Card adhered to the standard methodology and formatted the information in the same way as the Active Healthy Kids Global Alliance [10]. In Wales, the grading system was used to assess 10 quality indicators grouped into two categories outlined in table 3.

Table 3: AHK-Wales Report Card Categories and Quality Indicators

Physical Activity and Health Behaviours and their outcomes	Settings and influences on PA and health
1. Overall Physical Activity Levels	
2. Organised Sport Participation	7. Family and Peer Influences
3. Active and Outdoor Play	8. School
4. Active Transportation	9. Community and the Built Environment
5. Sedentary Behaviours	10. National Policy, Strategy, and Investment
6. Physical Literacy (Physical Competence)	

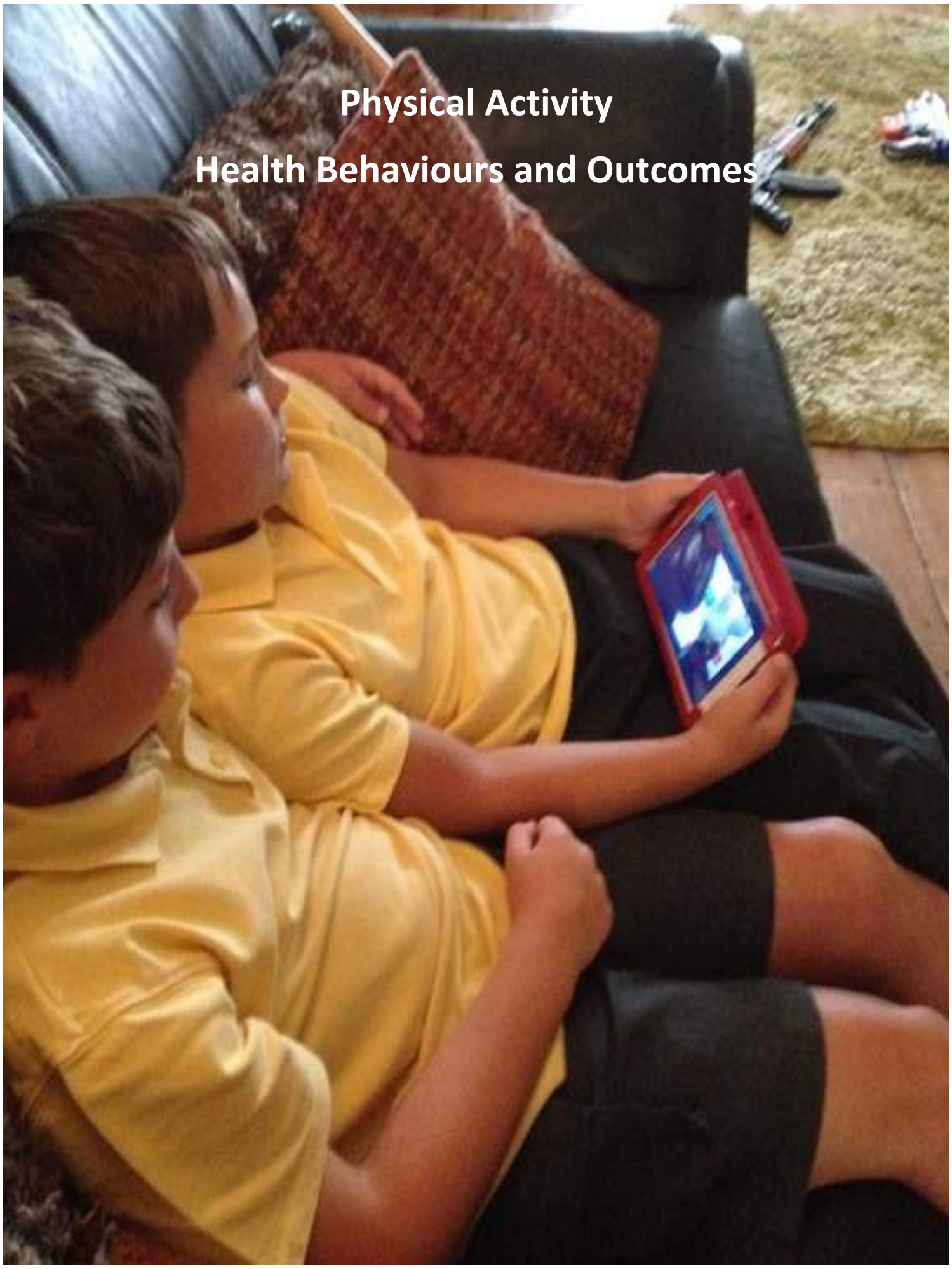
The process used to assign grades to quality indicators

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

1. The “best available” evidence for each quality indicator. This resulted in the use of quantitative survey data for indicators 1 through 6 and a combination of quantitative and qualitative data and information for indicators 7 through 10.
2. During meetings a rationale for using particular survey data was discussed. In the first instance surveys that were representative of children in Wales were selected. Where nationally representative data were not available the best available survey data was used. In all cases surveys included a significant sample that enabled the expert group to assign a grade to a quality indicator.
3. For settings and influences, policy documents, strategy documents and other guidance that was publicly available was used to inform the expert group. This process involved a subjective analysis of selected documents from the years 2007 to present.
4. For each quality indicator, data were considered against a recommendation or benchmark. For example, the recommended benchmark for the ‘Overall Physical Activity Levels’ indicator is that children should engage in 60 minutes of moderate to vigorous physical activity (MVPA) per day.
5. The rationale for using the data source was given and likely biases in the data recorded.
6. Trends in data produced by consecutive surveys (for example HBSC 1997/98, 2001/02, 2005/06, 2009/10 & 2013/14) were noted and inequalities recorded. These data were critical in assigning the ‘+’ or ‘–’ directional grade for each quality indicator.
7. Subsequently major gaps in the data were noted and considerations given to limitations in the “best available evidence”.
8. Finally, recommendations on how to improve the grade or improve measurement were provided.
9. Quality assurance and agreement on grades was achieved through a verification process. This process involved two members of the group agreeing on assigning a grade to a quality indicator. During meetings the grade was presented to the expert group by the two members and discussed according to survey methodology and data quality. Grades were then either confirmed or further evidence methodology or information on data quality was sought for presentation at the subsequent meeting.

A description of the Process for Awarding a Grade to Each Quality Indicator

The following section provides and 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. There are 6 quality indicators related to “physical activity, health behaviours and outcomes” and 4 related to “settings and influences on physical activity and health.”


Physical Activity
Health Behaviours and Outcomes

Overall Physical Activity Levels (D-)

15% of children and young people aged 11-16 years met the recommendation of at least 60 minutes of MVPA every day of the week [1].
In another survey, 35% of children aged 4-15 years participated in MVPA for at least 1 hour every day [2].

Recommendations or benchmarks

It has been recommended that children and young people should engage in moderate to vigorous intensity PA (MVPA) for at least 60 minutes and up to several hours every day [12].

Main data sources considered:

HBSC Survey [1]. Welsh Health Survey [2].

Reasons for choice of data source used to assign the grade:

HBSC used a well-established methodology. The WHS included data on primary age children.

Likely biases in the Welsh data:

Both HBSC and the WHS used self-report methods. The Health Survey for England (2008) used accelerometers in a sub sample and found that a significant number of children over report their levels of physical activity.

Are trend data available?

HBSC survey [1] presents data from 1997/98, 2001/02, 2005/06, 2009/10 & 2013/14 and the WHS from 2007 to present [2].

Are inequality data available?

The minus score was given as there were inequalities between boys and girls, as well as a downward trend seen in the levels of physical activity in the HBSC. There was little difference in overall MVPA found across different socioeconomic status and across different regions of Wales.

Major Gaps in the Welsh data:

There was limited data on pre-school age/early years children. Data across the age range was inconsistent. The data available was entirely self-report. The Chief Medical Officers' Report (2011) included physical activity recommendations for moderate, vigorous and strengthening exercise. Current methods do not collect data from these categories.

How to improve the grade in the future:

The majority of Welsh children and adolescents need to increase their levels of habitual PA through a variety of behaviours, including dance, sport, active transportation and active play.

A significant effort needs to be made to address very low levels of physical activity, especially in girls. There is limited research available for children across the age range. This needs to be addressed through systematic robust data collection methods. The effect of interventions to increase physical activity and improve physical literacy needs to be quantified.

Organised Sport Participation (C)

48% of children and young people aged 7-16 years took part in sport on 3 or more occasions a week in an extracurricular or community club setting [3].
49% of students aged 16+ years took part in sport on 3 or more occasions a week, in any setting [4].

Recommendations or benchmarks:
There is no specific recommendation for the amount of children and young people's sport or dance participation. However, in line with Sport Wales' Vision of 'Every Child Hooked on Sport for Life', the percentage of children 'hooked on sport' was used by the expert group as the benchmark for grading this indicator.

Main data sources considered:
Sport Wales School Sport Survey [3]. Sport Wales Further Education Sport Survey [4].

Reasons for choice of data source used to assign the grade:
The Sport Wales SSS (2015) was completed by 115,398 students. The self-report survey included items almost exclusively related to sport participation. The Sport Wales FESS (2015) provided data on young people aged 16+ years old.

Likely biases in the Welsh data:
The surveys were administered through schools and colleges. Although, a major strength of the School Sport Survey is its reach and coverage, with the 2015 survey being the largest to date and the largest survey of its kind in the UK.

Are trend data available?
The SSS has been administered in its current format since 2011. Children and young people's participation surveys have been run since 1995. The FESS was its first year of data collection.

Are inequality data available?
The most recent Sport Wales SSS and FESS allowed inequality data to be reported. The finding that at least 40% of children in each subgroup (gender, ethnicity, socioeconomic status and disability) were 'hooked on sport', was sufficient to warrant a grade C.

Major Gaps in the Welsh data:
The survey utilised self-report methodology but was extensive in its reach. Lack of evidence on children of early years (under 5 years old).

How to improve the grade in the future:
Maintain investment in sport programmes for children from a young age. Manage competitive structures carefully. Include a wider range of dance programmes. Introduce alternative sports to encourage participation. Promote physical literacy and the inclusion of physical education as a core subject in the school curriculum. More detailed research across the age range including objective measures.

Active and Outdoor Play (C)

47% of children and young people aged 7-16 years used at least one of these places for exercise/play in the previous year - 'streets near home or school', 'park', 'playground not at school', 'playing fields at school', 'playing fields not at school' and 'beach/sea' [3].
60% of children aged 7-11 years reported spending ≥3 hours outside playing [5].

Recommendations or benchmarks:

There is no specific recommendation for the duration of time spent in active play or the amount of time being active outdoors. However, outdoor and active play contributes to overall physical activity. Evidence also suggests that children are more active when they are outside [13]. The expert group used the proportion of children using a variety of places for play as the benchmark for grading this indicator, as well as, the percentage of children reported spending ≥3 hours outside playing.

Main data sources considered:

Sport Wales School Sport Survey [3]. Little Voices Shouting Out Survey [5].

Reasons for choice of data source used to assign the grade:

Both of these surveys included items on play.

Likely biases in the Welsh data:

The data are collected using questionnaires and items record play behaviour not specifically "active play". Active outdoor play patterns are affected by seasonal bias.

Are trend data available?

Limited data are available from the School Sport Survey.

Are inequality data available?

There are limited data on the full spectrum of inequalities such as deprivation, ethnicity, disability age and gender.

Major Gaps in the Welsh data:

There is a lack of evidence on children of early years (under 5 years old), however, there is strong evidence on all ages of children and young people from 7 years old to 16 years old. This was not available in the previous Report Card.

How to improve the grade in the future:

Promote active and outdoor play from infancy through childhood. Encourage schools to maintain 3 recess periods per day including lunch break. Consider emphasising physical literacy challenges and reduce the perception that outdoor environments are unsafe. Children need to spend more time outside and need to play. Parents and carers need to include active play from infancy through childhood to adulthood. Schools develop active play during playtime. Projects that record the contribution of play to a healthy development are required. The effect of family play during early years and the development of stimulating pre-school environments across the socio demographic gradient are required.

Active Transportation (C)

32% of children and young people 11-16 years old use active transport to get to school [1].
40% of children and young people aged 7-16 years use active transport to get to school [3].
49% of primary school children, and 35% of secondary school pupils walked to school regardless of distance from home to school [6].
54% of children aged 7-16 years use active transport to get to school [7].

Recommendations or benchmarks:

There are no recommendations for active transport (for example walking, cycling, skateboarding). For the purposes of this report card children should be encouraged to take active forms of transport wherever practically possible. These should include travel to and from school, walking to shops, travel to sport or dance activities, to meet friends, or during family activities. The expert group used the proportion of children and young people who use active transportation to get to school, as the benchmark for grading the Active Transportation indicator.

Main data sources considered:

HBSC Survey [1]. Sport Wales School Sport Survey [3]. National Survey for Wales [6]. Sustrans HUS [7].

Reasons for choice of data source used to assign the grade:

All Surveys included self report of children's and young people's travel to school.

Likely biases in the Welsh data:

Data are not available across the full age range. Active travel patterns are affected by seasonal bias.

Are trend data available?

The Sport Wales School Sport Survey [3] data has been available in its present format since 2007. The HBSC survey [1] presents data from 1997/98, 2001/02, 2005/06, 2009/10 & 2013/14

Are inequality data available?

There are inequality data for active transport to school from the SSS and HBSC Survey.

Major Gaps in the Welsh data:

Surveys only provide national data on children's active transport to and from school. Transport behaviours across the age range and in various contexts and settings are more limited. Lack of data on transport to places such as, shops, parks, friends' or relatives' houses and sport facilities, which may provide additional chances for active transportation.

How to improve the grade in the future:

Active transportation is considered as a cost effective way to promote physical activity across the life course. This should be promoted through active walking and cycling schemes and school travel plans (NICE PH17, 2009).

Parents and carers should encourage children and adolescents to take active travel options.

Research: Monitoring of active travel behaviours across all children and adolescence is required as are systematic evaluation of interventions such as walk and cycle to school programmes.

Sedentary Behaviour (D-)

On a weekday, 53% of children and young people (11-16 years old) spent 2+ hours a day playing games on an electronic device, 64% spent 2+ hours a day using an electronic device (other than gaming), and 68% spent 2+ hours a day watching entertainment on a screen [1]. On the weekend, the proportion who spent 2+ hours a day in the sedentary behaviours noted above, increased to 65%, 71%, and 80%, respectively [1].

Recommendation or benchmark:

Sedentary behaviour is negatively related to "all-cause mortality.' In simple terms this means the longer a person sits the shorter they live [14]. The British Heart Foundation have summarised international recommendations from the USA, Australia and the United Kingdom and recommended that the amount of time spent sitting during leisure time should be less than 2 hours per day [14]. Further, Australian guidelines suggest that infants, toddlers and pre-schoolers should not be sedentary, restrained, or kept inactive for more than one hour per day apart from when sleeping [15].

Main data sources considered:

The HBSC survey [1] reported data on the % of children and young people spending: 2+ hours a day playing games on an electronic device, 2+ hours a day using an electronic device (other than gaming), and 2+ hours a day watching entertainment on a screen.

Reasons for choice of data source used to assign grade:

The HBSC involves a number of schools in Wales, and is part of a larger international survey.

Likely biases in the Welsh data:

There can be information bias in self-reported surveys as there may be an element of subjectivity in responses given, which often leads to an over-reporting of healthy behaviours and an underreporting of less healthy ones. Information bias can also occur when questionnaires are administered in the classroom.

Are trend data available?

HBSC presented data from 1997/98, 2001/02, 2005/06, 2009/10 & 2013/14.

Are inequality data available?

Yes, from the HBSC survey self-reported sedentary behaviours increased on the weekend compared to weekdays and also there were inequalities in gender and age.

Major gaps in the Welsh data:

There is limited evidence on specific sedentary times and its contexts on children and young people of all ages in Wales.

How to improve the grade in future:

There needs to be a substantial reduction in time children and young people spend sedentary. The reduction of sedentary time throughout the day is a major area of guidance development in all age groups, not least children and young people. Sedentary behaviour should be minimised where practical, and sitting patterns broken up during school, at home, and in transport time. There is limited research available for children across the age range, which needs to be addressed through systematic robust data collection methods.

Physical Literacy [Physical Competence] (INC)

The Dragon Challenge V1.0 has produced pilot data on 1674 children across Wales, initial results suggest that continued investment in developing skilled movements in children is required.

Recommendation or benchmark:

The expert group decided that it was important to include this indicator to reflect the work being completed in Wales on Physical Literacy (PL).

PL is the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life [16].

In collaboration with Swansea University, Glyndwr University and Edge Hill University, Sport Wales have recently designed a national measure of Physical Competence for children aged 8-14 years old (Dragon Challenge V1.0). Physical Competence is an important component of PL and is a child's/young person's ability to use their bodies and physical skills.

Main data sources considered:

Dragon Challenge V1.0 pilot data on 1674 children (11-13 years olds) from across Wales.

Reasons for choice of data source used to assign grade:

"Every child hooked on sport for life" is a key mission for Sport Wales. Sport Wales have focused much attention on PL as an outcome of successful programme delivery, and have invested into related programmes such as the Physical Literacy Programme for Schools (PLPS) and projects such as Dragon Multi-Skills and Sport and 5x60 programmes. Further, Sport Wales in collaboration with Public Health Wales and the education sector have influenced Government to give PL the same emphasis in the school curriculum as literacy and numeracy.

Likely biases in the Welsh data:

Only a single observation of a child's/young person's physical competence.

Are trend data available?

No, due to only pilot data being available and the measure being recently developed.

Are inequality data available?

Pilot data shows inequalities between genders.

Major gaps in the Welsh data:

There is limited evidence on children and young people across all ages in Wales.

How to improve the grade in future:

Further data collection is needed across Wales to allow the expert group to assign a grade to this indicator in future Report Cards.

Initial results suggest that continued investment in developing skilled movements in children is required across Wales.

There is a need to identify initiatives and strategies that develop all elements of Physical Literacy, not just fundamental movement skills (physical competence).

A measurement tool for all elements of Physical Literacy is needed.

Settings and Influences on Physical Activity and Health

Family and Peer Influence (D+)

31% of adults reported being active for at least 30 minutes on 5 or more days a week [2].
41% of the adult population take part in sport [8].
27% of mothers, 36% of fathers, 39% of brothers, 31% of sisters, 35% of other family members and 64% of peers take part in sport [3].
There is an increased probability of children being 'hooked on sport' if their parents or friends are also involved in sport [3].

Recommendations or benchmarks:
There are no specific recommendations for parental involvement although a number of studies have shown a relationship between parent and childhood activity [17]. Parents should however be active for 150 minutes per week (CMO report 2011) [12]. The benchmarks used by the expert group to allocate a grade to this indicator were: (1) Percentage of parents who meet the UK Physical Activity Guidelines for Adults. (2) Percentage of family members and peers that take part in sport. (3) 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.

Main data sources considered:
Welsh Health Survey [2], Active Adult Survey [8] Sport Wales School Sport Survey [3].

Reasons for choice of data source used to assign the grade:
The Wales Health Survey and Active Adult Survey reported physical activity for adults in Wales. The SSS provided data on family and peer involvement in sport, and additional evidence demonstrating a parental/peer influence on children's participation in sport.

Likely biases in the Welsh data:
All data are self- report and may over-report health behaviours.

Are trend data available?
School Sport Survey, Welsh Health Survey and the Active Adult Survey provide trend data.

Are inequality data available?
HBSC data reported that parents are more likely to ask girls about their whereabouts compared to boys.

Major Gaps in the Welsh data:
There are gaps in this area and only surrogate measures are available.

How to improve the grade in the future:
Encourage parental participation in sport, dance and physical activity. Parents should engage in active play with their children, encourage active transport and allow them to explore physically active challenges within their environment. Parents should also try to reduce their own and their child/children's sitting time (sedentary time), especially time spent in front of screens. Research needs to focus on the influence of parents on various amounts and types of physical activity and how these change with age.

School (B)

60% of primary & 80% of secondary schools provide a wide variety of extracurricular sport and dance opportunities to all pupils [3].

70% of primary & 62% of secondary schools agree that the school has sufficient access to facilities and 73% of primary & 71% of secondary schools agree that they have access to sufficient equipment, to provide quality PE and sport [3].

77% of primary & 85% of secondary schools reported teachers are confident in delivering quality PE lessons [3].

Recommendations or benchmarks:

There are no specific recommendations for this indicator. However, since children and young people spend a large amount of their day at school, the school environment represents many opportunities for the promotion and facilitation of physical activity (e.g. PE, extracurricular sports). The benchmarks for this indicator relate to physical activity opportunities at school and physical education.

The expert group used data on, (1) the % of schools that offer physical activity opportunities (excluding PE) to the majority of their pupils; (2) the % of schools with sufficient facilities/equipment to support pupils' physical activity and sport; (3) the % of schools where teachers were confident in delivering quality PE lessons; (4) the % of children that believe PE lessons and school sport help them to have a healthy lifestyle; to allocate a grade to this indicator.

Main data sources considered:

Sport Wales School Sport Survey [3].

Reasons for choice of data source used to assign the grade:

The School Sport Survey (2015) provided data from School PE Coordinators and children's responses to be synthesised.

Likely biases in the Welsh data:

The School Sport Survey uses self-report methods to obtain data, and therefore may result in some biases.

Are trend data available?

No, the responses from school PE coordinators were only included in the most recent SSS.

Are inequality data available?

There are inequalities by gender, age and sociodemographic status.

Major Gaps in the Welsh data:

While there is information on the amount of extracurricular activities being offered at school, we do not know about the quality of those opportunities.

How to improve the grade in the future:

Schools should maximise opportunities for pupils to move more and sit less throughout the school day. Schools should continue to provide opportunities for pupils' involvement in sports and physical activities.

Community and the Built Environment (C)

54% and 38% of parents with a child aged 1-10 and 11-15 years, respectively, were satisfied with the play facilities in their local area [6].

'More places to play' was the highest priority (49%) for children aged 3-7 years [9]. For children aged 7-11 years (55%) and young people aged 11-18 (53%), 'stopping bullying' was the highest priority [9].

Recommendations or benchmarks:

This indicator refers to perceived safety, access, and availability of facilities and spaces that provide opportunities for physical activity and reduced sedentary time. There is no specific recommendation but Sallis and Glanz reported a relationship between the built environment and PA [18].

Main evidence sources considered:

National Survey for Wales [6], 25-minute face-to-face interview with one adult (aged 16+) in each household across Wales. Beth Nesa | What Next? [9], consultations with children and young people (aged 3-18+) in Wales, as well as, their parents, gave feedback on four key areas of focus linked to the UNCRC: Provision, Protection, Participation and Promotion.

Reasons for choice of evidence source used to assign the grade:

The data sources involved questions on the physical and built environment.

Likely biases in the Welsh data:

Both data sources used self-report methods.

Are trend data available?

NA

Are inequality data available?

Priorities did not vary substantially by age, gender or region for all age groups.

Major Gaps in the Welsh data:

Data are available in other portfolios such as transport and planning that are difficult to access. Future surveys should attempt to integrate these data.

How to improve the grade in the future:

Improvements in perceived safety, access, and facilities may produce improvements in physical activity and reductions in sedentary (sitting) time. The decrease in the grade for community and the built environment may contribute to the worsening of the grade for sedentary behaviour, and the grades for overall physical activity levels, and active and outdoor play remaining unchanged from the 2014 Report Card.

More research is needed in order to understand why families perceive the environment have a lack of facilities for physical activity, especially since levels of physical activity are low and levels of sedentary time high.

National Government Policy Strategies and Investments (B-)

a) At Governmental and quasi non-governmental levels there is still evidence of leadership & commitment to provide PA opportunities for all children & young people; b) there are allocated funds & resources for the implementation of strategies to promote PA for all children & young people; c) the Government has demonstrated progress through the key stages of public policy making; d) Wales still has a number of key national and organisational policies that include PA and are making cross-government efforts to integrate them.

In Wales physical activity is included in a number of national and organisational policies. These include; Climbing Higher, Creating an Active Wales, the Active Travel Act, Sport Wales, *Every Child Hooked on Sport*, Play Wales, *The Right to Play*, Healthy Schools, *Future Generation*s, and the National Health Service *Together for Health* a five-year strategy for the NHS in Wales. The Welsh Government's *Our Healthy Future* is a framework that sets the future strategic direction for public health in Wales, to tackle the causes of ill health and promote the factors that contribute to better health and wellbeing. The framework focuses on key priority areas such as health and wellbeing through the life course, improving mental wellbeing and reducing health inequalities.

The problem to date is that policy has not resulted in an increase in physical activity in Wales for the past 10 years. Moreover, there are a significant proportion of the population who report doing no activity of moderate intensity at all.

Recommendations or benchmarks:

Policies and strategies were included as a quality indicator in the inaugural AHK-Wales 2014 Report Card. The aim for all nation states is to include a policy document that clearly sets out the approach and strategy for physical activity in the national context. Further policy documents should also guide implementation and resource strategies for increasing physical activity and reducing sedentary time [19]. Creating an Active Wales includes in one policy document the strategy for increasing physical activity. In particular, "to support children and young people to live active lives, and become active adults."

Main evidence sources considered:

The following policies were considered. Climbing Higher, Creating an Active Wales, the Active Travel Act, Sport Wales, *Every Child Hooked on Sport*, Play Wales, *The Right to Play*, Healthy Schools, *Future Generation*s, the National Health Service *Together for Health*, and the Welsh Government's *Our Healthy Future* [20-27]. Local policies were not considered due to time and resource constraints.

Reasons for choice of evidence used to assign the grade:

The documents reviewed included specific reference to the promotion of physical activity or reducing sedentary time and articulate the Welsh Governments vision, policies and strategies for creating an active population.

Likely biases in the Welsh data:

The expert group undertook a qualitative review of policy documents to ascertain the importance that Welsh Government place on physical activity as a health promoting behaviour. A detailed analysis of the process of policy formulation, implementation and effectiveness was not undertaken for this report card and neither was a systematic

evaluation of policy effectiveness on physical activity and sedentary time has not been directly carried out for most policies.

Are trend data available?
There is continuous policy review and development by Welsh Government that influences resource allocation and strategy to support physical activity promotion.

Are inequality data available?
Welsh Government appears to be committed to reducing inequalities. The "Communities First" programme aims to reduce health inequalities, including those related to physical activity by targeting investment into areas of higher deprivation. These include "flying start" and "families first".

Major Gaps in the Wales data:
There is no mention of reducing sedentary time in documentation. The current policy "Climbing Higher" and "Creating an Active Wales" were published in 2005 before the most recent Chief Medical Officer's Report (2011).

How to improve the grade in the future:
- Physical activity promotion in Wales has received criticism for lacking leadership and joined up approaches across Government portfolios (Wales Audit Office, 2007). This has resulted in fractures in strategy and delivery from national to local levels. Moreover, data provides the evidence to support the lack of impact on physical activity in Wales over the past decade.
- To "Turn the Tide on children's inactivity" in Wales requires a clearly articulated ambition. This ambition requires an unbroken chain of policy-strategy-delivery-review. It is unfortunate for example that one of the most recent White Papers published by Welsh Government 'Listening to You: Your Health Matters' (2014) made no reference to physical activity.
- Regularly updating "Creating an Active Wales" on physical activity and sedentary behaviour for health promotion, informed by an evidence base, would clearly support approaches to physical activity and sedentary behaviour management in children and young people in Wales in the future. Data collection approaches that provide robust data to assess all quality indicators included in this Report Card are required.

- The Welsh Government has appointed a National Programme Director for Physical Activity to work across cabinet portfolios and we hope that this will have an effect on physical activity at all levels including children. The "Getting Wales Moving" strategy may prompt Welsh Government to develop a coordinated action plan based on the recommendations to resource an implementation and evaluation plan. The 'Transforming Public Health Strategy,' 'Communities First' and 'Wellbeing of Future Generations' (Wales) Acts have the potential to correct some of the fragmented approaches to promoting uptake of physical activity in the past.

- The current Report Card should be used to influence and inform policies and strategies, support structures, investments and opportunities that help promote sound health, growth and development in the nation's children and young people.

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