PHYSICAL LITERACY: DO OUR KIDS HAVE ALL THE TOOLS?

ACTIVE HEALTHY KIDS AUSTRALIA

2016 Report Card on Physical Activity for Children and Young People

EXECUTIVE SUMMARY

In today's fast paced, time-poor, digital age, we find ourselves sitting still for longer than ever before. All this sitting and inactivity is problematic for the current and future health of children. Relative to inactive kids, active kids have better concentration, are more confident, have stronger muscles and bones, to name just a few of the health-related differences. So, how can we encourage and support our kids to be more physically active every day? Furthermore, how do we help them to achieve the recommended daily physical activity levels in spite of the ever-growing sedentary demands of our lifestyle?

Active Healthy Kids Australia (AHKA) is a collaboration of physical activity researchers from across Australia who share a common interest in increasing the physical activity levels of all young Australians. The vehicle we use to help increase awareness and drive this need for change is the Report Card on Physical Activity for Children and Young People. The Report Card synthesises the best available Australian evidence in order to assign grades to physical activity indicators, and provides a national snap shot of the current levels of physical activity in Australian children and young people.

To date, AHKA has released two Report Cards: an inaugural Full Report Card in 2014 and a Progress Report Card on Active Transport in 2015. The 2014 Report Card, which contributed to the first 'Global Matrix' of grades where our grades were compared to 14 countries from around the world, posed the question "Is Sport Enough?" Unfortunately, with Overall Physical Activity Levels being graded a D−, the conclusion was that Sport is not enough. On the back of Australia being graded a C for Active Transport, coupled with recent declines in children's use of active transport, the 2015 Progress Report Card suggested that Active Transport was now "The Road Less Travelled". Both Reports can be accessed at **www.activehealthykidsaustralia.com.au**

This year marks the release of the second Full AHKA Report Card on Physical Activity for Children and Young People, which assesses 12 physical activity indicators (physical activity behaviours, traits, and the settings and sources of influence, and strategies and investments, which have the potential to impact these behaviours and traits). As in 2014, Australia was assigned a failing grade (D−) for Overall Physical Activity Levels. This Report highlights the concept of Physical Literacy, specifically the 'tools' children need to be physically active for life. The results of the 2016 Report Card will contribute to the second 'Global Matrix' of grades, this time benchmarking Australia against 37 countries.

AHKA advocates for a coordinated national response to the current physical inactivity pandemic. There is no single solution to this problem. In order to see real improvement in physical activity levels we need a united effort across: government, non-government organisations, communities, sporting organisations and groups, schools, teachers, parents, coaches, friends, families, and children themselves. Physical activity needs to be prioritised every day, and it should not be viewed as something we feel like we should do, rather it should be viewed as something we all want and choose to do for fun, enjoyment, and better health and wellbeing.

PHYSICAL LITERACY: DO OUR KIDS HAVE ALL THE TOOLS?

The AHKA 2014 Physical Activity Report Card showed that, as a nation, Australia was failing in regards to the overall physical activity levels of its children and young people[9,10]. Two years on the story is much the same with, a grade of D- again assigned for both Overall Physical Activity and for Sedentary Behaviours. What this means is that, despite all the evidence showing the health benefits associated with increased activity[1-5] and the detriments associated with excessive screen time,[11,12] Australian children (of all ages) still need to "move more and sit less"[13,14].

But why are we still failing when it comes to our kids moving more? Australia is lucky in having excellent physical activity facilities in both communities and in schools: we are well equipped with grassed playing fields, indoor and outdoor courts, and swimming pools, with an abundance of play areas and walk and cycle-ways. Just as being academically literate requires skills, practice and tools, being physically literate also requires specific skills and capabilities. Perhaps we need to ask: "Do our kids have all the tools they need to be physically literate and engage in physical activity now and in the future?"

The term 'Physical Literacy' has become more widely used in recent years[15], however there are many questions that still need to be answered in order to understand how to unpack it, measure it, improve it and consider how it changes across the lifespan[16]. But what is it? Physical Literacy encompasses the physical, cognitive, emotional and social capabilities an individual needs to be physically active for life*.

*At time of writing the Australian Sports Commission had engaged with an expert panel of academics (working in and around Physical Literacy), which included representatives from AHKA, to develop a unified definition of Physical Literacy in an Australian context. The terminology and concepts used throughout the Report Card, with regard to Physical Literacy, are consistent with discussions had so far amongst the expert panel. For further information please visit the Australian Sports Commission website: **http://www.ausport.gov.au** or contact: Penny Carlson, **penny.carlson@ausport.gov.au**

The 'tools' of Physical Literacy include, within the constraints of individual capabilities, a mastery of movement skills like catching, throwing, jumping and riding a bike; an understanding of the benefits of being physically active; and the confidence and motivation to enjoy and try new movements[17-22], all of which combine to enable people to be physically active for life[23-25]. A child's Physical Literacy 'toolkit' does not comprise pens and computers, but instead skipping ropes, bicycles, open spaces and encouragement and guidance from loved ones, friends, coaches and teachers. These 'tools' are developed through the learning that takes place not only in homes and schools, but also on playing fields, beaches and walking trails with significant others (i.e., teachers, coaches, family and friends).

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Everyone is different and therefore how these 'tools' interact and develop simultaneously will result in each child taking a different 'Physical Literacy journey' from infancy through adolescence, and then into adulthood[20,26]. Just like academic literacy, Physical Literacy is not something that a child acquires or develops at just one age or milestone. Rather, Physical Literacy requires ongoing acquisition and development across all stages of childhood, with significant others all playing an integral role[27]. The end result is that they become a physically literate individual who has the physical, cognitive, emotional and social capabilities needed to support physical activity participation and is someone who makes the choice to be active (for fun, enjoyment, and better health and wellbeing) at an appropriate level throughout their life[19,22,28-31].

We need to make sure that from the very beginning of children's lives we are providing them with daily opportunities to develop their Physical Literacy[32] so that they grow up to become individuals who choose to engage in physical activity that challenges and benefits their bodies and minds because they know they are capable, because they want to and because they know the benefits[31]. So what can we do to ensure that our children and young people are equipped with all of the 'tools' they need?

> **We need to make sure that from the very beginning of children's lives we are providing them with daily opportunities to develop their Physical Literacy**

Building Physical Literacy, like academic literacy, needs the involvement of parents, schools, communities, local, state/territory and federal governments; it needs teachers with appropriate training (experts in the design and delivery of physical activity experiences for young people); the right resources in the home and in the school (e.g., bicycles and balls); and the right physical environments (outdoor play spaces that take on many forms and inspire creativity and imagination). Each and every one of us needs to value physical activity, but there is no single answer and no single person or sector that can solve this problem. As a nation we all need to set positive examples and play our part in order to develop physically literate children and young people who are equipped with all the 'tools' they need to be physically active every day, now and in the future.

INDICATORS

The 2016 AHKA Report Card assigned grades to a total of 12 indicators (nine core indicators endorsed by the Active Healthy Kids Global Alliance and three additional indicators [identified by the * below]). Each indicator clustered under the categories: Strategies and Investments (Government Strategies and Investments), Settings and Sources of Influence (Family and Peers, School, Community and the Built Environment), Overall Physical Activity Levels (Organised Sport and Physical Activity Participation, Physical Activity Participation in Schools*, Active Play, Active Transport, Sedentary Behaviours) and Traits (Physical Fitness*, Movement Skills*) (see Figure 1).

A = succeeding with a majority of children and young people (81–100%)	**B** = succeeding with well over half of children and young people (61–80%)
C = succeeding with about half of children and young people (41–60%)	**D** = succeeding with some but less than half of children and young people (21–40%); and
F = succeeding with very few children and young people (0–20%)	**INC** = the available data does not reflect what the indicator represents or a consensus on how to operationalise the indicator could not be reached

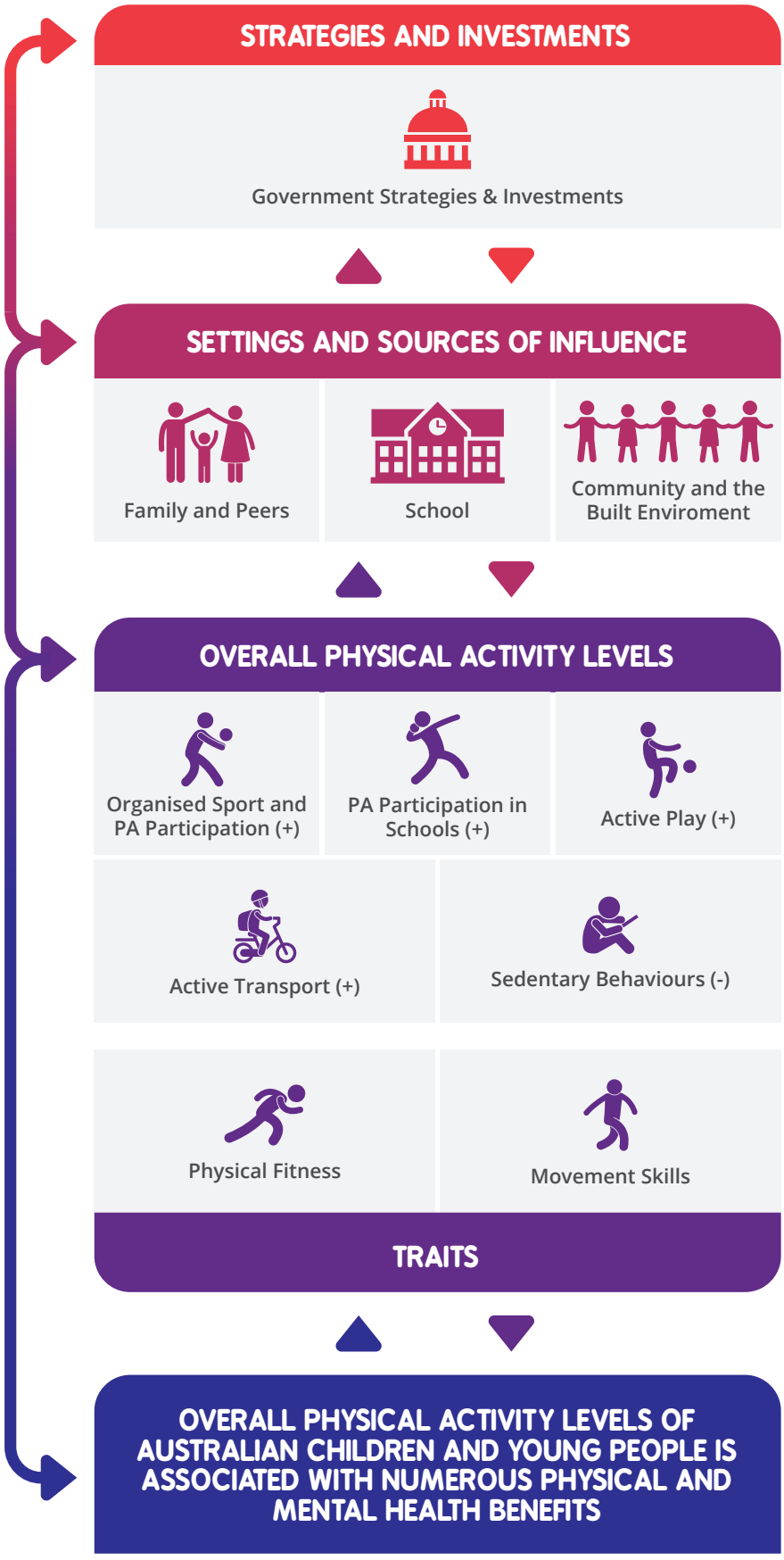

Figure 1.

Visual representation of the AHKA physical activity indicator categories.

Note, this figure has been adapted from the 2015 ParticipACTION Report Card on Physical Activity for Children and Youth[64]; + = increases PA levels; - = decreases PA levels; PA = Physical Activity.

**Indicators included in addition to core indicators endorsed by Active Healthy Kids Global Alliance.*

OVERALL PHYSICAL ACTIVITY LEVELS D-

Confidence Rating ☆☆

+ National data indicate that 19% of Australian children and young people aged 5–17 years[33] and 18% of Australian young people aged 12–17 years[43], meet the national daily physical activity guidelines of accumulating at least 60 minutes of MVPA every day of the week.
+ Objectively-measured (via the use of pedometers) national data indicate that, on average, Australian children and young people aged 5–17 years take 9,140 steps each day, with only 17% accumulating at least 12,000 steps per day[33] (60 minutes of MVPA per day can be approximated to 12,000 steps per day for children and young people[65]).
+ National data indicate that 72% of children aged 2–4 years (as reported by their parents) are meeting the Australian physical activity guidelines by accumulating at least 180 minutes of physical activity each day[33].

ORGANISED SPORT AND PHYSICAL ACTIVITY PARTICIPATION B

Confidence Rating ☆☆

+ National data indicate that 66% of 5–14 year olds[35] and 85–89% of 12–17 year olds[42, 43] participated in organised sport or physical activity at least once during the previous 12-month period.
+ National data indicate that 64% of 5–17 year olds participate in organised sport or physical activity at least once during the past week[33].
+ Nationally, data show that 81% of 10–11 year olds and 14–15 year olds[41] and 71% of 5–14 year olds[38] regularly participated in organised sport or physical activity over the past 12 months (i.e., regular participation is at least once weekly for a sporting season/over 3 months/during previous school term).

PHYSICAL ACTIVITY PARTICIPATION IN SCHOOLS INC*

Confidence Rating N/A

** An Incomplete was again assigned for this indicator, given the lack of national and state/territory-based data for primary or secondary school children that accurately reflect the physical activity (both in physical education classes and outside of this time) done in schools.*

+ National data indicate for those secondary students (aged 12–17 years) who report doing physical education during the school week, 51% engage in at least 120 minutes per week and 31% engage in at least 150 minutes per week[43].
+ State-based data indicate that for primary school students, 33–39% engage in at least 120 minutes of physical education per week and 18–20% engage in at least 150 minutes of physical education per week[55].

ACTIVE TRANSPORT C-

Confidence Rating ☆☆

+ National data indicate that 41–43% of secondary school students aged 12–17 years usually travel to and/or from school using active transport[42, 43].
+ State/territory-based data report that 19–53% of primary school students usually travel to and/or from school using active transport[45, 46, 51, 57, 62]

ACTIVE PLAY# INC*

Confidence Rating N/A

 # For data that was available 'Active Play' is also referred to as 'non-organised' physical activity.

** An Incomplete was again assigned to this indicator, given there is no single metric (with quality evidence available) that defines what active play is well, and no clear benchmark describing how much active play is sufficient to determine how we as a nation are performing.*

+ National data from parents indicates 78% and 85% of Australian children and young people aged 5–17 years and 5–14 years respectively, participated in non-organised physical activity over the past week[33] or at least once per week out of school hours during the previous school term[38].
+ National data indicate that 54% of Australian children and young people aged 12–17 years participate in at least 210 minutes of non-organised activities each week (i.e., on average at least 30 minutes every day)[43] .
+ National data from parents indicate that Australian children aged 2–4 years spend an average of 174 minutes playing outdoors every day[33].

SEDENTARY BEHAVIOURS D-

Confidence Rating ☆☆

+ National data indicate that only 29% of Australian children and young people aged 5–17 years[33] and 14% of Australian young people aged 12–17 years[43] are meeting the sedentary behaviour screen time guidelines (≤2 hours every day).
+ National data from parents indicate that only 26% of Australian children aged 2–4 years are meeting the sedentary behaviour screen time guidelines (≤1 hour every day)[33].

FAMILY AND PEERS
INFRASTRUCTURE, SUPPORT, PARENTAL / PEER BEHAVIOUR

C+

Confidence Rating ☆

+ National data indicate that 16% of 2–4 year-olds, 51% of 5–17 year-olds[33], and 85% of 12–17 year-olds[43] have at least one screen-based/electronic-media device in their bedroom.
+ National data indicate that 78% and 83% of Australian children and young people aged 10–11 years and 14–15 years, respectively, watch television or have access to electronic games in their bedroom[41].
+ National data indicate that 75–76% of Australian young people aged 12–17 years receive at least some form of encouragement (at least once per week) from their parents to be physically active[42,43].
+ National and state-based data indicate that 76%[54] and 54–56%[42,43] of Australian children and young people aged 7–13 years and 12–17 years respectively, receive some form of encouragement from their friends/peers to be physically active.
+ National data from parents indicate that 79% and 60% of children aged 8–9 years and 12–13 years, respectively, play outdoors with someone at home/their parent at least once on a weekly basis[40].
+ National data indicate that 22–25% of parents (with children aged 8–9 and 12–13 years) meet the national physical activity guidelines (i.e., at least 30 minutes of MVPA on at least 5 days per week)[40,41], with state/territory-based data indicating that 66% of parents (with children aged 16 years) report being moderately or very active on most days[47].

SCHOOL
INFRASTRUCTURE, POLICIES AND PROGRAMMING

B-

Confidence Rating ☆☆

+ National data, as reported by teachers, indicate that 72% of primary school students and 98% of secondary school students have access to a specialist physical education teacher. However, there was no indication of their level of qualification, whether they taught the scheduled physical education classes to all students or whether they were employed full-time by the school or an external provider[41].
+ National data indicate that secondary schools employ (full-time) on average at least 5 specialist physical education teachers, but there was no indication of their level of qualification and whether they taught the scheduled physical education classes to all students[43].
+ National data indicate that 33% of primary schools[41] and 8% of secondary schools (that enrol students in physical education from year 8 to 11)[43], provide at least 150 minutes of physical education per week to students.
+ Both national and state-based data indicate that the availability of physical activity facilities and equipment during school hours (as reported by school staff) is considered to be quite good at both primary (33–100% of schools have various facilities/equipment available)[46,61] and secondary schools (45–98% of schools have various facilities/equipment available)[40,43,61].
+ National data indicate that 82% of secondary schools allocate at least 60 minutes for recess and lunchtime (combined) breaks each day[43].

COMMUNITY AND THE BUILT ENVIRONMENT
INFRASTRUCTURE, POLICIES, PROGRAMS, SAFETY

A-

Confidence Rating ☆

+ National data indicate that 85–86% of Australian parents (with children aged 10–11 years or 14–15 years)[41] and 77% of young people aged 12–17 years[43] report having a playground that they/their children can access near to their home.
+ National data indicate that 76% of parents (with children aged 10–11 years or 14–15 years)[41] report that heavy/problem traffic is not an issue in their neighbourhood.
+ National data indicate that 96% of parents (with children aged 10–11 years or 14–15 years)[41] and 76% of young people aged 12–17 years[43] agree that their neighbourhood is safe.
+ National data indicate that 75–77% of parents (with children aged 10–11 years or 14–15 years) agree that their neighbourhood has good roads and footpaths and that they have access to public transport in their neighbourhood[41].

GOVERNMENT STRATEGIES AND INVESTMENTS D

Confidence Rating N/A

+ Currently 37 countries have established a national physical activity plan and another 69 include physical activity in their plans for preventing non-communicable diseases[146]. Australia is yet to make the same commitment, which means without an overarching plan/strategy it is hard to develop, coordinate and sustain the multi-sectoral links required to see real improvement in the overall physical activity levels of Australian children and young people.
+ Despite Australia not having a national physical activity plan or strategy, each state and territory, through various government departments and organisations, continue to promote and facilitate various campaigns, programs, initiatives and policies that encourage activity for all (see the Showcase pages in the long-form Report Card).
+ Through the Department of Health, the Australian Government have launched an initiative, 'Girls Make Your Move'[149], which targets young girls (aged 12–19 years) through mass media campaigns (e.g., social media, television advertisements etc.) in an attempt to spark their interest in physical activity participation across a variety of activities. Young girls, typically report low physical activity participation levels relative to their male peers[118,150] and so programs targeting their increased participation are much needed. Media campaigns are also most effective when implemented as part of a comprehensive social marketing approach, rather than media in isolation. Therefore, while the response to the campaign has been generally positive, the resources and support structures that underpin it may limit the on-ground effectiveness.154 Consideration as to how the campaign can also encourage and support girls develop their Physical Literacy is also important with regard to lifelong physical activity participation.
+ As was highlighted in the 2014 Report Card, there continues to be outstanding commitment from non-government organisations, such as the National Heart Foundation of Australia, the Australian Cancer Council and the Confederation of Australian Sport, to improve the health of all Australians. The National Heart Foundation of Australia has been an instrumental advocate and coordinator for the implementation of a funded national physical activity plan, through initiatives such as the 'Blueprint for an active Australia'[155] and the 'Move more, Sit less Canberra Communiqué'[156].

PHYSICAL FITNESS C-

Confidence Rating ☆☆

+ State/territory-based data indicate that Australian children and young people aged 9–16 years are of below average aerobic fitness (mean [95% confidence interval]: 43 percentile [33 to 53])[47,60,61] relative to sex-specific and age-specific international 20 m shuttle run norms from 1,142,026 children and young people from 50 countries[157].

MOVEMENT SKILLS D

Confidence Rating ☆☆

+ State-based data indicate that girls in Grade 6 are doing quite poorly with their locomotor (proportion of girls showing mastery—sprint: 25%; vertical jump: 22%; side gallop: 51%; and leap 19%) and object-control competency (proportion of girls showing mastery—kick: 7%; over-arm throw: 7%; and catch: 38%)[61].
+ State-based data indicate that boys in Grade 6 are doing quite poorly with their locomotor (proportion of boys showing mastery—sprint: 24%; vertical jump: 23%; side gallop: 41%; and leap 5%) competency, however their object-control competency is marginally better (proportion of boys showing mastery—kick: 36%; over-arm throw: 33%; and catch: 60%)[61].

METHODOLOGY, DETAILED FINDINGS AND OTHER RESOURCES

The 2016 AHKA Report Card on Physical Activity for Children and Young People was developed using synthesised data from a number of national and state/territory-based surveys. The AHKA Research Working Group evaluated all the data in order to assign letter grades to each of the 12 indicators using pre-determined criteria and benchmarks and provided a confidence rating for the data (using a 3-star scale to reflect representativeness and robustness) used to inform each grade.

The long form of the 2016 AHKA Report Card describes in detail: the data sources used to assign grades; the methodology and processes employed; informative tables and figures; and complete references.

The University of South Australia is the Lead Research University for the Report Card initiative and the Administering Organisation of Active Healthy Kids Australia.

University of South Australia

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Heart Foundation®

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ACTIVE HEALTHY KIDS GLOBAL ALLIANCE

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