



Science and Technology in
childhood Obesity Policy



PROMOTING PHYSICAL ACTIVITY THROUGH SCHOOLS: POLICY BRIEF

Introduction

Physical activity is good for hearts, bodies and minds. Regular physical activity can improve physical fitness; improve heart, vascular and metabolic health, and bone health; and reduce adiposity in children and adolescents (1). Being active can also improve cognitive function, including academic performance and mental health, and can reduce symptoms of depression and anxiety (1). In contrast, too much sedentary behaviour can be unhealthy; it increases the risk of obesity and poorer fitness and cardiometabolic health, and can affect sleep duration (2).

Global estimates indicate that over 80% of young people in school are not meeting the global recommendations of 60 minutes of moderate-to-vigorous physical activity per day (see Box 1) (3). In most countries, girls are less active than boys, and levels of inactivity among girls have not improved since 2001 (in fact, the gap between girls and boys is widening) (3). In addition, the most socially disadvantaged groups in most countries, such as girls and those living with chronic health conditions or disability, are often the least active.

*Global estimates indicate that over **80% of young people in school** are not meeting the global recommendations of 60 minutes of moderate-to-vigorous physical activity per day*



BOX 1. HOW MUCH PHYSICAL ACTIVITY IS NEEDED FOR HEALTH, AND WHAT ARE THE BENEFITS?

The 2020 World Health Organization (WHO) guidelines on physical activity and sedentary behaviour (1), summarized in Fig. 1, provide an evidence-based consensus on the type and amount of physical activity that benefits health across the life-course, including for people living with chronic conditions and disability.

Fig. 1. Summary of the WHO guidelines on physical activity and sedentary behaviour



Source: WHO: World Health Organization.

Everyone can benefit from increasing physical activity and reducing sedentary behaviour, including children and adolescents living with disability. These recommendations are relevant to all, regardless of gender, race, ethnicity, income level or ability.

All physical activity counts and can be undertaken in different ways and in different settings. For example, walking and cycling can be used as a means of transport; sport and exercise can be part of the school curriculum; and children of all ages can be physically active through play, at home, at school and in public open spaces.

About this policy brief

This policy brief describes the importance of integrating physical activity into primary and secondary schools so that all children and young people can be physically active on a regular basis, which will contribute to preventing the increasing public health problem of childhood obesity. It outlines six evidence-based domains for promoting physical activity in schools:

1. Quality physical education
2. Active travel to and from school
3. Active before- and after-school programmes
4. Opportunities during recess to encourage physical activity
5. Active classrooms
6. Inclusive approaches to physical activity.

It describes how the school environment can be used to develop, implement and evaluate strategies that promote physical activity and reduce sedentary behaviour among children and young people. Further information is available in WHO's Promoting physical activity through schools: a toolkit (4).



Who is this policy brief for?

This policy brief will support school policy-makers, planners and school principals to develop effective whole-of-school approaches to promoting physical activity. It is intended to support:

- ▶ ministries of health
- ▶ ministries of education
- ▶ ministries of sport and recreation
- ▶ policy-makers from other relevant sectors
- ▶ school governors, school councils and boards
- ▶ school principals or head teachers.

The school's role in promoting physical activity

According to the United Nations Children's Fund (UNICEF), on any given day of the week, about 1 billion children from around the world attend school. Children spend more time in school than anywhere other than home, making schools an excellent setting in which to offer quality physical activity education and possibilities for an active school day to large numbers of children.

However, at least some of a child's daily physical activity should be undertaken outside the school day. Schools can help to achieve this by communicating positive physical activity messages to the wider community, including to pupils' parents and carers (5). Thus, schools can both provide and promote physical activity for all children and adolescents.

Evidence suggests that the health and well-being of children and young people is essential to the attainment of educational outcomes (6, 7). Although the mechanisms are unclear, there is evidence that physical activity is associated with improved cognitive functioning (8), concentration and attention (9, 10), and memory and planning (11), all of which contribute to an improved capacity to learn and to educational success. Participation in organized sport can also provide psychological and social benefits, including social integration and development of social skills (12).

The importance of schools as key focal points for policy action is demonstrated in several high-level documents relating to sport and physical activity (see Table 1).

Table 1. Summary of policy recommendations supporting the promotion of physical activity through whole-of-school approaches

Global action plan on physical activity 2018–2030 (13)	Policy action 3.1 Strengthen provision of good-quality physical education and more positive experiences and opportunities for active recreation, sports and play for girls and boys, applying the principles of the whole-of-school approach in all pre-primary, primary, secondary and tertiary educational institutions, to establish and reinforce lifelong health and physical literacy, and promote the enjoyment of, and participation in, physical activity, according to capacity and ability.
Commission on Ending Childhood Obesity (2016) (14)	Recommendation 2.2 Ensure that adequate facilities are available on school premises and in public spaces for physical activity during recreational time for all children (including those with disabilities), with provision of gender-friendly spaces where appropriate. Recommendation 5.7 Include quality physical education in the school curriculum and provide adequate and appropriate staffing and facilities to support this.

Kazan Action Plan (2017) (15)	Policy recommendation I.3 Foster quality physical education and active schools. Policy recommendation II.3 Provide quality education and promote lifelong learning for all and skills development through sport.
UNESCO <i>Quality physical education (QPE): guidelines for policy-makers (2015) (16)</i> <i>Quality physical education: policy guidelines: methodology (2015) (17)</i> Promoting quality physical education policy (2022) (18)	These guidelines and a framework are designed to help policy-makers reshape physical education policies and promote equal access to physical education, in line with the needs and expectations of every child.
WHO and UNESCO initiative <i>Making every school a health-promoting school: implementation guidance (2021) (19)</i> <i>Making every school a health-promoting school – global standards and indicators (2021) (5)</i>	These global standards and indicators provide direction to government staff and policy-makers in all sectors, school leaders and developmental partners in implementing sustainable, whole-of-school approaches to health in education. The standards and indicators are designed to be used by all stakeholders in all sectors involved in identifying, planning, funding, implementing, monitoring and evaluating the health-promoting school approach at schools locally, subnationally, nationally and globally

UNESCO: United Nations Educational, Scientific and Cultural Organization; WHO: World Health Organization.

Evidence-based interventions to promote physical activity through schools

A recent review, conducted as part of the Science and Technology in Childhood Obesity Policy (STOP) project, of school-based physical activity programmes indicated that in children aged 6–12 years, interventions that increase physical activity levels can improve body composition (20). These interventions can be cost-effective (21), but they need to ensure participation of all children, and in particular need to reach socially deprived children who may face additional barriers to being active outside school.

No single intervention can, on its own, provide optimal levels of physical activity for all children or within a given school (22). The most effective way to maximize physical activity opportunities in schools is through a whole-of-school approach (23–25), as incorporated in the Health Promoting Schools initiative (5).

Six domains have been shown to be effective in supporting the promotion of physical activity through a whole-of-school approach (Fig. 2). The six domains are discussed below.

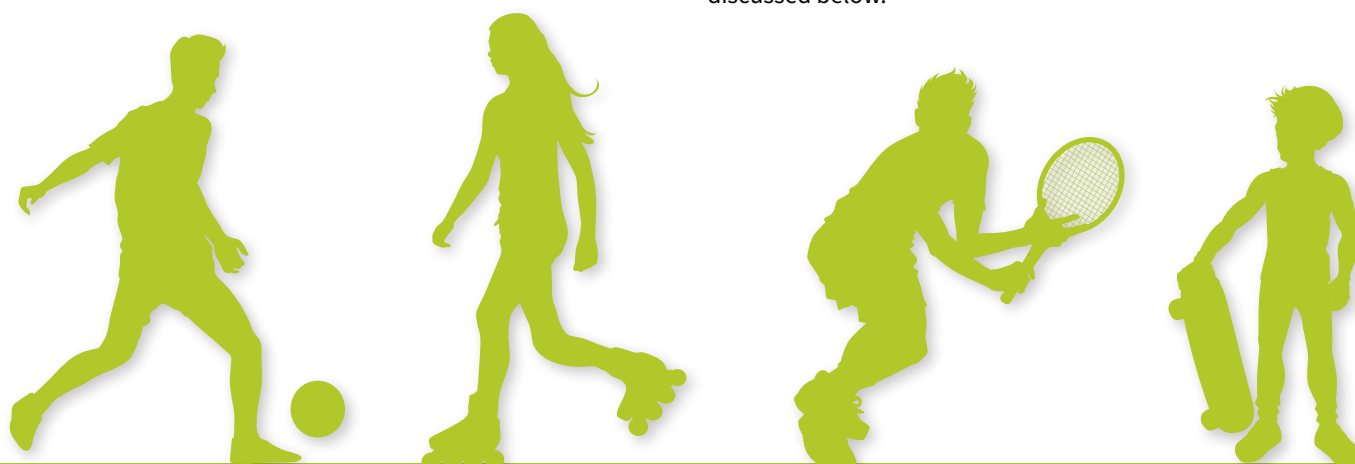


Fig. 2. The six domains that are effective as part of a whole-of-school approach to promoting physical activity



PA: physical activity; QPE: quality physical education.
Source: WHO (2021) (4)

1. Provide physical activity through quality physical education

Quality physical education (QPE) should focus on teaching physical competence and confidence (16), sport and movement skills, and knowledge about the health behaviours needed to establish and sustain lifelong physical activity and health. Physical education (PE) provides an opportunity to increase physical activity during the school day, and has the potential to reach most children, ensuring access to and appreciation of health-enhancing physical activities. It can provide children with opportunities to gain competence in a broad, balanced range of physical activities so that they can enjoy being active. Developing confidence and competence in physical activity will increase the likelihood that children will choose to be active in their own time.

Current situation

Data from the 2013 United Nations Educational, Scientific and Cultural Organization (UNESCO) global survey of school PE (26) showed that 97% of countries have legal requirements for PE at some point during compulsory schooling years.¹ Despite official commitment to PE, noncompliance with regulations is evident, with about 29% of countries not

¹ Updated information on legal or mandatory requirements for PE will be available from the UNESCO QPE survey from 2021/2022.

actually implementing PE in accordance with legal and mandatory obligations.

Noncompliance often occurs in countries where curriculum responsibility lies with education districts or individual schools (i.e. in the context of localized implementation of curricula). Thus, PE provision differs across regions and countries according to age or stage of attendance, with variations in the number of lessons per week and weeks taught per year (26).

Key considerations

- ▶ PE should be valued within the school and should not be replaced by other subjects, courses or activities; also, it should be provided to all children, irrespective of age, gender or ability.
- ▶ All schools should provide QPE as a core part of formal curricula, led by appropriately trained teachers (16).
- ▶ Students' performance should be evaluated in terms of personal improvement and effort and not by comparison to others.

Case study: *Fit for Girls*, Scotland



Fit for Girls was part of the sportscotland Active Girls programme, which aimed to increase secondary school girls' participation in PE, physical activity and school sport. Fit for Girls provided training for PE teachers, Active Schools coordinators and other physical activity professionals, equipping them with the knowledge, tools and skills to successfully consult, plan and implement positive PE experiences and sustainable physical activity programmes for girls in schools. By the end of the programme, 359 secondary schools had been reached, and 32 local authorities had taken part in training and committed to continue delivering the programme (27).

2. Implement strategies to encourage active travel to and from school

Active travel means walking, cycling or other active means of travelling as an alternative to motorized transport (e.g. cars, motorbikes and mopeds) for making everyday journeys. It may also include public transport, because this mode of travel often requires physical activity to get to the bus, train or other type of transport. For most students, where active travel to and from school is safe, it provides the best opportunity to increase habitual daily physical activity.

Current situation

Rates of active travel to and from school vary widely. Data from the Global School-based Student Health Survey indicate that, in some countries, over 60% of students walked or rode their bike to and from school (e.g. Benin and Mongolia), whereas in others, the prevalence of active transport was less than 20% (e.g. Lebanon and Timor-Leste) (28). Rates of active travel in many high-income countries are low and falling, and in some countries (e.g. Brazil, China and Viet Nam) that previously had high rates of school active travel, those rates are declining markedly (29-31).

Key considerations

All schools should introduce measures to make active travel to and from school safer and more sustainable for all students, parents, caregivers and staff. A key step towards this is to implement an active travel plan. This process should follow the same format as that used to develop the school physical activity policy, and should engage students, staff, families and caregivers to:

- ▶ audit the school and local environment;
- ▶ assess current modes of travel and identify issues or barriers affecting active travel (e.g. safety of routes and facilities to store bikes at school) via consultation or a school travel survey;
- ▶ develop or amend the school travel plan and establish a school policy on active travel (this might be a separate policy on walking or cycling to school, a section within the school travel plan or a section within the physical activity policy); and
- ▶ disseminate the school travel plan and share information on safe routes to school.

Case study

VicHealth Walk to School Program, Australia



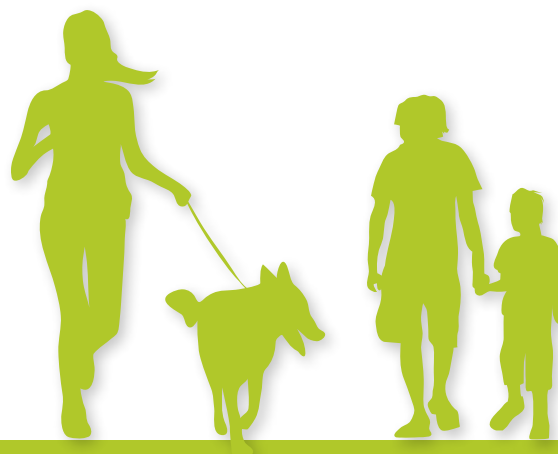
In October each year, the *VicHealth Walk to School Program* encourages primary school children in Victoria, Australia, to walk, ride or scooter to and from school. In 2019, an estimated 186,600 students – the highest in the initiative’s 14-year history - walked, rode or scooted to school

Promotional activities to encourage primary schools to participate include:

- ▶ engagement activities to encourage schools to run the campaign;
- ▶ support for schools to deliver activities (e.g. hosting a breakfast, competitions and one-day promotional events); and
- ▶ local initiatives to support ongoing active travel (e.g. installing bike racks at schools).

Teachers use calendars to record each student’s active school travel journeys and submit summary data from these to VicHealth via the campaign website.

The initiative resulted in a 26% rise in the number of children walking to school (see campaign aims, objectives and results in the evaluation report for the programme from 2016) (32) that continues to rise.



3. Provide active before- and after-school programmes

Before- and after-school activities are organized physical activity opportunities that take place outside the curriculum; they are frequently referred to as out-of-school-hours (OSH) activities. OSH activities can be organized and delivered in school by staff, peer leaders or volunteers, by parents or carers, or in the local community by externally funded, non-profit or commercial organizations, depending on the local situation. They should be made available for all pupils either free, or at a cost that is low enough to ensure that all children benefit.

Current situation

Many countries offer OSH programmes in which the safety and security of students is the primary purpose, whereas others focus on academic development or assessment preparation. Whatever its nature, such programmes can provide an opportunity for students to engage in informal physical activity in a supervised environment.

Key considerations

To increase participation in physical activity as part of an OSH programme, the activities need to be well organized and cater for all pupils. This involves:

- ▶ introducing an after-school sports programme that develops, builds and extends opportunities provided in the school curriculum;
- ▶ regularly reviewing and refreshing the content of the OSH programme;
- ▶ considering potential transport issues (e.g. early or late buses, or walking buses for pupils who arrive early or stay after school for activities or clubs);
- ▶ ensuring that physical activity is scheduled for at least 50% of students' time if the OSH programme is not a sporting programme (e.g. if it focuses on homework or extra tuition); and
- ▶ where appropriate, linking with other schools in the area to provide a combined OSH programme with pupils or students able to attend a club at any of the schools involved.

4. Provide physical activity opportunities during recess and recreation time

Recess and recreation time should be offered to all grade levels, from kindergarten through to the final school year in secondary school, because it provides an opportunity for physical activity. Providing physical activity opportunities during recess and recreation time can help to reduce inactivity, sedentary behaviour, boredom and poor behaviour, which can all affect school life. Schools should provide safe, inclusive and accessible places (indoor and outdoor) for children and young people to be physically active during these breaks.

Current situation

The duration and scheduling of recess varies across countries (33). In some countries (e.g. Australia, Finland, France and the United Kingdom of Great Britain and Northern Ireland), recess periods are a mandated break in the school day. In other countries (e.g. the United States of America [USA]), recess is not consistently implemented, and states and school districts are not required to provide daily recess (34). Globally, total recess times range from 20 to 100 minutes per day, and can include both morning recess and a lunchtime break.

Key considerations

- ▶ Define and communicate standards for a regularly scheduled, unstructured recess break (or breaks) for all students.
- ▶ Ensure that the standards include frequency of recess and time allocation, and align with national or subnational policy.



5. Embed active classrooms in school curricula

Classroom physical activity can take place at any time during the school day; for example, by:

- ▶ breaking up lesson time with short (3–5-minute) physical activity breaks of varying intensities (movement breaks, energizers or fitness breaks);
- ▶ incorporating physical activity into the delivery of academic content (e.g. counting jumps as part of basic mathematics or counting steps walked around the room to estimate distance); and
- ▶ restructuring the classroom to increase physical activity or reduce sedentary behaviour (e.g. introducing standing desks or activity equipment) or using outdoor spaces.

These activities are largely at the direction of the classroom teacher. Children and young people frequently sit for extended periods during the school day, so active classrooms can break up sedentary periods and have a positive impact on physical activity levels and educational outcomes (e.g. improved attention to tasks, motivation and enjoyment of learning) (35, 36).

Current situation

The use of active classrooms as part of a whole-of-school approach to physical activity has been extensively incorporated into the education system in Finland (37). Active classroom approaches have also been endorsed by a number of national organizations such as the US Centers for Disease Control and Prevention and the US National Association for Sport and Physical Education.

Key considerations

- ▶ The school leadership team needs to support the implementation of active classroom strategies by endorsing a supportive policy.
- ▶ The concept and benefits of active classrooms need to be communicated to all staff, students and families.
- ▶ Teachers need the right resources, support and education to promote and implement a physically active classroom.

Case study: *The Daily Mile*, United Kingdom



The Daily Mile started in Scotland in a single primary school in 2012, to promote active lessons and active breaks. Globally, there are now almost 5000 primary schools in more than 40 countries registered as implementing The Daily Mile. Children go outside (at a time of the teacher's choosing) for about 15 minutes of exercise at a pace self-selected by each individual child. This is done during normal classroom time and is in addition to time spent in PE or scheduled breaks. Typically, it involves laps of a playground area. Children often talk as they go and perform a mixture of walking and running. Those who run the whole time will complete about 1 mile in 15 minutes. Children wear their normal school clothes; most wear their normal school shoes, and jackets are only worn in cold or wet weather. This activity is completed on most school days, regardless of weather conditions. Significant improvements were observed in increased levels of physical activity, reduced sedentary time, increased physical fitness and improved body composition (38). There are websites for research (39) and promotion (40) of this initiative.



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6. Ensure inclusive physical activity approaches for children with additional needs

The General Conference of UNESCO's International Charter of Physical Education, Physical Activity and Sport recognizes that “the practice of physical education, physical activity and sport is a fundamental right for all” (41). Schools are responsible for providing a curriculum for **all** pupils that meets the specific needs of individuals and groups of pupils, from the physically challenged to the physically gifted. Inclusion of children with disability or chronic conditions into mainstream school activities promotes universal completion of primary school, is cost-effective and contributes to the elimination of discrimination.

Current situation

Globally, there are between 93 and 150 million children with disability aged under 14 years. Many countries have adopted individual education plans as a tool to support the inclusion of children with disability in educational settings (42). The USA, for example, has a national policy that requires schools to meet the PE needs of students with disability (43).

Key considerations

- Consult with the member of staff trained in or responsible for special needs education, to identify any children and young people who may need additional support and specific strategies.



The practice of physical education, physical activity and sport is a fundamental right for all

Enabling factors for effective implementation of physical activity interventions in schools

A supportive school policy is the foundation for implementing a whole-of-school approach to promoting physical activity in schools (4). Other factors that enable effective implementation include:

- governance, leadership and resources;
- advocacy and promotion;
- partnerships and community links to provide opportunities for physical activity;
- training on delivering quality PE and promoting physical activity; and
- monitoring and evaluation of the effectiveness of interventions.

A whole-of-school approach can make a significant impact both in the prevention of childhood obesity and in improving children's overall health and well-being, if it partners with parents and the community to ensure that safe and accessible physical activity opportunities are extended to all children. Particular attention should be given to reducing the barriers to being physically active for children with disability or chronic conditions. Integrating physical activity as part of healthy lifestyle interventions, including healthy diets, can be guided by the standards to make every school a health-promoting school (5, 19).

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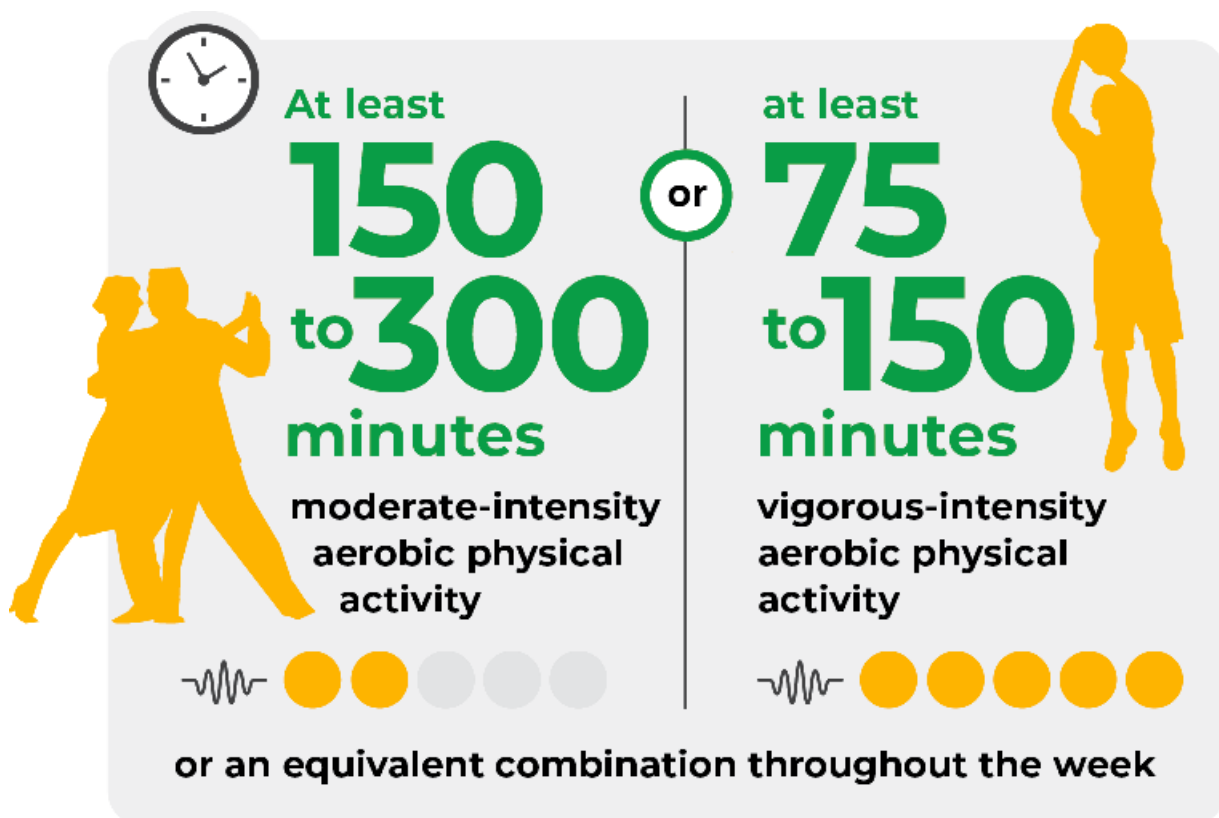
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WHO recommends adults do

At least 150–300 minutes of moderate-intensity aerobic physical activity; or
at least 75–150 minutes of vigorous-intensity aerobic physical activity throughout the week.

Staying active improves all aspects of our lives. From preventing diseases to boosting mental wellbeing, every move counts.



UNITED NATIONS DECADE OF
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