



# Rallying for Resilience

**Keeping Children and Youth Active  
in a Changing Climate**

# About the Report Card

The ParticipACTION Report Card on Physical Activity for Children and Youth is the most comprehensive assessment of child and youth physical activity in Canada. It synthesizes data from multiple sources, including the best available peer-reviewed research, to assign evidence-informed grades across 14 indicators. The Report Card has been replicated in over 70 cities, provinces and countries, where it has served as a blueprint for collecting and sharing knowledge about the physical activity of young people around the world.

**Note:** This is the Highlight Report Card; to download the full 89-page Technical Report Card, please visit [www.participaction.com/the-science/children-and-youth-report-card/](http://www.participaction.com/the-science/children-and-youth-report-card/).

*The 2024 ParticipACTION Report Card on Physical Activity for Children and Youth is proudly supported by Saputo:*



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# Rallying for Resilience:

## Keeping Children and Youth Active in a Changing Climate

Barriers to getting active have varied for children and youth in Canada. Some of the well-known contributing factors include increased screen time, decreased opportunities for active transportation, limited access to green spaces in which to play, costs and financial commitments, and over-programming contributing to time constraints. But with the number of annual weather alerts in Canada having more than doubled in the past 10 years,<sup>1</sup> it's time for Canada to recognize the impacts of a changing climate as an added barrier to getting children and youth active where they live, learn and play.

Climate change has been a topic of debate for decades, and recent increases in extreme weather events and natural disasters across the country – such as forest fires, floods and heatwaves – have brought the impacts of a changing climate and the need for mitigation, as well as community and individual resilience, to the forefront of discussions.

These events have also called attention to the fact that the impacts of climate change have become something that people can now see, feel, touch, smell and hear in their daily lives, and that the current and impending effects of climate change could be particularly harmful for children and youth's physical activity.

Children face special risks from air pollution due to their smaller airways and their need to breathe more rapidly, inhaling more (polluted) air compared to adults.<sup>2</sup> This potentially puts them at greater risk of developing lung disease as they age. Unfavourable weather and climate conditions, such as heatwaves, heavy rain and smoke-filled air, lead to recesses and outdoor sport and recreation activities being cancelled and more time spent indoors being sedentary with increased exposure to screens. With overall physical fitness having a direct impact on heat tolerance,<sup>3</sup> it's possible that children being less fit than ever before could also impact their ability to acclimate to, and tolerate, the rising temperatures of a changing climate. Further, given that children cannot regulate their temperature in extremely hot and cold climates as well as adults can because of their greater body surface area relative to weight,<sup>3</sup> this puts them at greater health risk in extreme temperatures before physical fitness levels are even taken into account.



The 2024 ParticipACTION Report Card on Physical Activity for Children and Youth reveals higher grades compared to the [2022 Report Card](#) in some areas, including Overall Physical Activity coming in at a D+, an increase from a D at the height of the COVID-19 pandemic. While the Overall Physical Activity grade has improved, a D+ is still an undesirable grade. As Canada continues to slowly recover from the residual effects of the pandemic on physical activity (e.g., lockdowns, physical distancing and the pausing of organized sports), the impacts of climate change continue to build upon pandemic-related challenges for kids.

Like the pandemic, challenges and barriers to physical activity resulting from climate change increase the potential for even greater disparities among equity-denied groups. The 2022 Report Card revealed that activity levels of racialized and Indigenous children and youth decreased at a greater rate than those of other children and youth during the pandemic. Studies have also shown that kids from low-income neighbourhoods rely more on outdoor spaces and play for physical activity due to a lack of family resources,<sup>4</sup> and it's imaginable that rising temperatures and unpredictable weather events affiliated with a changing climate could potentially reduce access to close-to-home outdoor recreation spaces like parks, sidewalks and even driveways. If equity is overlooked during the global climate crisis, it could further complicate the advancements of communities that already faced systemic barriers before and during the COVID-19 pandemic, and whose ability to be active depends heavily on favourable weather and environmental conditions.

Resilience is the result of successfully adapting to, or withstanding, challenging life experiences. But in a world where existing and new barriers to physical activity are redefining the scope of work required to address each one, and the climate is changing at a rate that could provoke the worst of our possible futures, how can we (the adults, the policy- and decision-makers, the educators, the family and support networks, the organized sport organizations and others) help children and youth face adversity, move more and build resilience?

We can rally.

## A Coordinated Approach

Physical activity can help mitigate the negative health impacts of climate change, and concerted efforts from multiple sectors and people are needed to get and keep children and youth physically active in a changing climate – inside and outside, rain or shine.

1. Government investments to increase access to active and public transportation to school and other daily commitments can improve physical activity levels and reduce carbon emissions and air pollution.



2. School boards' creation of policies to safeguard active play when recess cannot be held outdoors can reduce sedentary and screen time.
3. Communities and their local politicians can ensure indoor recreational facilities have high-quality air filtration and purification systems and develop plans to open facilities for free or at reduced costs to the public during weather and air quality alerts. Outdoor playgrounds can also rely on more natural components (e.g., wood pieces, sensory gardens) that are environmentally friendly to produce and enhance neighbourhood greenness.
4. Families facilitating discussions about climate change and getting children active outdoors can reduce eco-anxiety and lead to a greater understanding and appreciation of nature and environmental conservation – helping create the next generation of environmental stewards and champions.
5. Organized sport programs for children and youth can have heat warning systems, develop clear, easy-to-action guidelines and policies for adverse weather events, use temperature-dependent scheduling, and consider changing existing rules and regulations regarding water breaks and sun protection.
6. Most importantly, comprehensive investments and health promotion initiatives that consider climate implications on physical activity among children and youth – with specific emphasis on disadvantaged and equity-denied communities – can help address inequities, making physical activity more accessible for all and a constant asset in a changing climate.

A coordinated, multi-sectoral approach could proactively prevent further climate-related impacts on children and youth's physical activity, and by rallying for resilience, Canada can begin to future-proof the next generation.

## The Grades

The 2024 Report Card Research Committee assigned letter grades to 14 different indicators, including overall physical activity, sedentary behaviours, schools, and government strategies and investments.

Together, the indicators and recommendations in this report provide a complete and robust assessment of how we are doing as a country regarding the promotion and facilitation of physical activity, and how multiple sectors and people can collectively help improve physical activity levels and build physical and emotional resilience among children and youth living in Canada.

### Grading Scheme

<b>A+</b>	94-100%
<b>A</b>	87-93%
<b>A-</b>	80-86%
<b>B+</b>	74-79%
<b>B</b>	67-73%
<b>B-</b>	60-66%
<b>C+</b>	54-59%
<b>C</b>	47-53%
<b>C-</b>	40-46%
<b>D+</b>	34-39%
<b>D</b>	27-33%
<b>D-</b>	20-26%
<b>F</b>	0-19%

# Daily Behaviours



# Overall Physical Activity Grade

39% of children and youth (five to 17 years of age) in Canada met the recommendation of 60 minutes of moderate- to vigorous-intensity physical activity per day.<sup>5-9</sup>

2022 Grade: D



## Key Findings:

- Only 31% of girls, compared to 57% of boys, met the physical activity recommendation.<sup>6</sup>
- Among youth (12 to 17 years of age), girls did not fare as well amidst the pandemic as well as boys did. In 2020, only 35% of girls and 40% of boys met the physical activity recommendation; however, only boys' physical activity increased in 2021 (52% met the recommendation), whereas girls' physical activity levels remained at 35%.<sup>5</sup>
- Newcomer girls between the ages of five and 17 years were less likely to meet the physical activity recommendation (18%) compared to non-newcomer girls (28%).<sup>10</sup>
- 46% of children five to 11 years of age in the lowest-income households met the physical activity recommendation, compared to 57% of children in the highest-income households.<sup>10</sup>

## Recommendations:

- ✓ Physical activity promotion efforts and investments should focus on reducing inequalities and inequities, such as girls' consistently lower levels of adherence to the physical activity recommendation compared to boys.
- ✓ Funding from various levels of government should continue to be committed for the monitoring of physical activity in children and youth by province/territory.
- ✓ Physical activity should be promoted early in life and often, and the many ways to incorporate purposeful and incidental daily physical activity should also be identified, to better equip children and youth to face climate-related changes such as heatwaves and air pollution.



## Active Play



2022 Grade: D-

### Key Finding:

- 22% of children and youth five to 17 years of age accumulated more than two hours per day of total time engaged in indoor and outdoor unstructured play.<sup>11</sup>
- 28% of parents from the lowest-income households indicated that their children achieved this benchmark, compared to 18% of parents from the highest-income households.<sup>11</sup>

### Recommendations:

- ✓ Outdoor and nature-based play opportunities should be promoted and supported, not only given their association with increased physical activity levels and improved mental health outcomes, but also because they promote children's planetary connection and environmental stewardship.
- ✓ Indoor active play, especially for children with barriers to outdoor play (e.g., limited mobility, limited accessibility) and during extreme climate events (e.g., poor air quality alerts, heat warnings), should be encouraged.

## Active Transportation



2022 Grade: C-

### Key Finding:

- 43% of parents indicated that their children and youth (five to 17 years of age) who attend school in person either solely commuted actively to or from school or commuted partially in an active way in combination with non-active modes of transportation.<sup>11</sup>
- 50% of parents living in larger municipalities (10,000 residents or more) reported that their children actively commute to or from school (either exclusively or in combination with non-active options), compared to 32% of parents with children living in smaller communities.<sup>Custom analysis</sup>

### Recommendations:

- ✓ To reduce vehicle congestion, motor vehicle collisions, carbon emissions and exposure to air pollution, schools should develop school travel plans that encourage children and youth to use active modes of transportation.
- ✓ Parents, guardians and/or support networks should consider letting their children walk, wheel or bicycle to destinations that are within a few kilometres of their homes rather than driving them to those destinations.



## Organized Sport



2022 Grade: C+

### Key Findings:

- 68% of children and youth five to 17 years of age participated in organized sport in the past year.<sup>11</sup>
  - 71% of boys reported participating in sports in the past year, compared to 64% of girls.<sup>11</sup>
  - 86% of parents from the highest-income households reported that their children participated in organized sports within the last year, compared to only 55% of parents from the lowest-income households – a huge disparity.<sup>12</sup>

### Recommendations:

- ✓ Financial support schemes should be in place and promoted to ensure low-income households have access to organized sport programs.
- ✓ Ensure sport offerings are inclusive of the needs of children and youth with disabilities.
- ✓ Ensure organized sport offerings for children and youth have heat warning systems and guidelines, temperature-dependent scheduling, and built-in sun and heat protection strategies.

## Physical Education



2022 Grade: INC

### Key Findings:

- 53% of students met physical education benchmarks.<sup>12-15</sup>
  - 35% of children in grades K to 8 received at least 150 minutes of physical education per week.<sup>13</sup>
  - 69% of high school students (in grades 9 to 12) took physical education.<sup>13</sup>

### Recommendations:

- ✓ Prioritize physical education and daily physical activity with the same respect as core subjects such as math, science and social studies.
- ✓ Emphasize efforts to increase physical education frequency and enhance the physical education curriculum to support children and youth's movement behaviours and learning.



## Sedentary Behaviours



2022 Grade: F

### Key Finding:

- 27% of children and youth (49% of children, 17% of youth) met the recommended recreational screen time limit of no more than two hours per day.<sup>6-9</sup>
- 49% of children and youth from low-income households, compared to 56% of children from high-income households, met the sedentary behaviour benchmark.<sup>7</sup>

### Recommendations:

- ✓ Introduce legislation that promotes healthy screen use behaviours in children and youth, such as ensuring social media age-verification and enhancing children's privacy and safety.
- ✓ Involve all family members in creating a family media plan that includes setting limits around screen viewing, prioritizing screen-free family time, removing screens from children's bedrooms and having screen-free family meals.
- ✓ During climate events that limit outdoor play and organized sport, replace sedentary and screen time with indoor active play.

## Sleep



2022 Grade: B

### Key Finding:

- 65% of children and youth met age-specific sleep duration recommendations (i.e., on average, nine to 11 hours per night for five- to 13-year-olds and eight to 10 hours per night for 14- to 17-year-olds).<sup>5, 8, 9, 12</sup>

### Recommendations:

- ✓ Integrate sleep health literacy into school curricula, alongside healthy eating and physical activity, to make sure people understand, starting at a young age, that sleep behaviours are foundational for health and well-being.
- ✓ Parents and guardians should encourage children to expose themselves to sunlight in the morning, go outside as much as possible during the day, remove televisions and other electronic screen devices from bedrooms, and ensure a consistent bedtime routine each night.
- ✓ Research is needed to understand whether climate change (e.g., severe weather, increased heat, air quality) affects sleep quality or quantity among children and youth.

## 24-Hour Movement Behaviours



2022 Grade: F

### Key Finding:

- 4% of children and youth (five to 17 years of age) met the combined 24-Hour Movement Guidelines.<sup>5,8,9</sup>
- Among youth, adherence to the combined guidelines was twice as low among girls (4%) as among boys (8%).<sup>5</sup>

### Recommendations:

- ✓ Teachers, health-care practitioners and researchers should educate students and parents on the importance of achieving appropriate levels of physical activity, sedentary behaviours and sleep for children and youth's healthy growth and development.
- ✓ Research is needed to determine the impact of climate change (e.g., severe weather events, increasing heat, air quality) on the 24-hour movement behaviours of children and youth.



# Spaces & Places



## Household



2022 Grade: C

### Key Findings:

- 55% of parents reported facilitating physical activity and sport opportunities for their children and youth often or very often.<sup>11-12</sup>
  - A greater percentage of parents living in higher-income households reported that they often or very often drove their children to places so that they could participate in physical activity and sport (55% in the highest-income households vs. 43% in the lowest-income households).<sup>11</sup>

### Recommendations:

- ✓ Culturally diverse and inclusive resources to educate parents about the importance of physical activity are needed.
- ✓ Funding should be prioritized for national data on how the physical activity of children and youth is influenced by their peers.
- ✓ Families should facilitate discussions about climate change and get children active outdoors to help reduce eco-anxiety and lead to greater understanding and appreciation of nature and environmental conservation.

## School



2022 Grade: B-

### Key Finding:

- The average score reported across the areas of policies, human resources, facilities, partnerships and other programming in relation to physical activity and schools was 64%.<sup>13</sup>

### Recommendations:

- ✓ Implement daily physical activity policies in schools and strategies to safeguard active play when recess is relocated indoors due to climate-related risks.
- ✓ Schools should give students a voice and involve them in the development of their physical activity curricula, policies and outdoor play spaces.



## Community & Environment



2022 Grade: B

### Key Finding:

- In relation to physical activity for children, youth and families, the average score reported across the areas of policies, human resources, facilities and infrastructure, partnerships and programming was 70%.<sup>11-14</sup>

### Recommendations:

- ✓ Communities should ensure that indoor recreational facilities have high-quality air filtration and purification systems and develop plans to open these facilities for free or at reduced costs to the public during weather alerts.
- ✓ When revising or creating new municipal policies or by-laws, decision-makers must consider their potential to restrict physical activity or outdoor play for children and youth.



# Strategies & Investments



## Government



2022 Grade: B-

### Key Finding:

- A score of 68% was given across the following areas: number and breadth of relevant policies; identified supporting actions; identifiable accountable organization(s); identifiable reporting structures; identifiable funding; and monitoring and evaluation plans.<sup>Custom analysis</sup>

### Recommendations:

- ✓ Increased investment in active transportation infrastructure, national/provincial parks, and recreation and sport facilities is needed to improve access to physical activity opportunities for children and youth.
- ✓ All provincial and territorial governments should strive to support the creation of dedicated physical activity strategies to increase public sector coordination to advance physical activity promotion at a pan-Canadian level.
- ✓ Emphasis should be placed on achieving policy coherence between dedicated physical activity policies and other relevant public sector policies that either directly or indirectly support increased opportunities for population-level physical activity (e.g., transportation, public health, infrastructure).





# Individual Characteristics



## Physical Literacy



2022 Grade: INC

### Key Finding:

- Data unavailable.

**Benchmark  
under  
construction**  
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### Recommendations:

- ✓ There is a need for nationally representative data on the physical literacy levels of children and youth in Canada that rely on validated instruments. Ways to incorporate physical literacy measurements in existing national surveys should be considered.
- ✓ Ecologically enriched physical literacy interventions that aim to promote physical literacy, environmental literacy, and the current and future overlaps between these literacy domains should be explored.

## Physical Fitness



2022 Grade: INC

### Key Finding:

- Data unavailable.

**Benchmark  
under  
construction**  
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### Recommendations:

- ✓ There is currently a significant lack of data on physical fitness outcomes among children and youth in Canada. Research is necessary to examine the physical fitness of all children and youth living in Canada, as well as how fitness may differ for newcomers, Indigenous youth and children from all other equity-denied groups.
- ✓ Parents and guardians, teachers, and health-care practitioners should foster a positive view of physical fitness among children and youth, including focusing on the health benefits of fitness and the wide range of activities that can improve these outcomes.
- ✓ Physical fitness has a direct impact on heat tolerance; however, little data are available on how children and youth of varying fitness levels fare when being active in high temperatures.



# References

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# Methodology, Technical Report Card & Knowledge Tools

Our interdisciplinary research team identified and assessed Report Card indicators to determine grade assignments based on the best available data, research and key issue areas, all of which are included in the Technical Report Card. Consideration is also given to trends over time and disparities related to equity-denied populations, when possible.

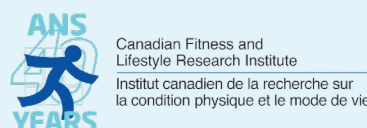
The Technical Report Card includes background on our methodology and process, in-depth analyses, summaries of all key research, charts, figures and complete references.

Visit [www.participation.com/the-science/children-and-youth-report-card/](http://www.participation.com/the-science/children-and-youth-report-card/) to download the Technical Report Card and other tools and resources.

ParticipACTION's strategic partner, the Healthy Active Living and Obesity Research Group at the Children's Hospital of Eastern Ontario Research Institute (HALO-CHEO), played a critical role in the research and development of the 2024 Report Card:



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