

# Active Outdoor Play Regional Review: Northern America



## The 2025 Position Statement on Active Outdoor Play

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# Abstract

This brief narrative review provides an overview of the status of outdoor play in the United Nations Geographic Region of Northern America (encompassing Bermuda, Canada, Greenland, Saint Pierre and Miquelon, and the contiguous United States). While this region includes only five jurisdictions, it is large and ethnically, racially, geographically and climatically diverse, with much open space for outdoor play for people of all ages. The 2015 Position Statement on Active Outdoor Play, led by a Canadian group, was particularly instrumental in galvanizing the outdoor play movement in Canada and Northern America. To examine the broad outdoor play sector and related outputs and initiatives from this region, the following were conducted: (1) three linked network analyses to create a comprehensive list of research groups and hubs working in the outdoor play space in Canada; (2) an environmental scan to identify position statements and policy documents published in Northern America related to outdoor play; (3) a bibliographic scan of the most productive researchers in outdoor play in the region; and (4) expert consultations. Herein we provide a summary of key outputs, shifts and evolutions that have occurred in Northern America since 2015 that are specific to outdoor play research, leadership, policy, legislation, and cultural and context considerations. Recommendations and future directions are outlined to tackle countercurrents in the social and built environments, and climate in Northern America that have contributed to an overall decline in active outdoor play across all ages. This brief review is linked to the much larger 2025 Position Statement on Active Outdoor Play project being led by Outdoor Play Canada with partners from around the world.

# Background

This narrative review provides an overview of the status of outdoor play with respect to research, leadership, policy, legislation, and cultural and context considerations in the United Nations Geographic Region of Northern America (encompassing Bermuda, Canada, Greenland, Saint Pierre and Miquelon and the contiguous United States [U.S.]). The review is linked to the 2025 Position Statement on Active Outdoor Play Project (AOP10 – a large international effort updating the 2015 Position Statement on Active Outdoor Play).<sup>1,2</sup> While this region contains only five jurisdictions, it ranges in longitude from 180 degrees to 11 degrees west and in latitude from 24 to 83 degrees north, covers approximately 20 million square kilometres, includes a population of approximately 375 million people, and represents hundreds of ethnic and racial groups from around the world, both Indigenous and non-Indigenous. In the Northern America region, the climate ranges from arctic to tropical with exceptionally wide ranges for annual precipitation (<25 mm/year to >7,300 mm/year) and temperature (<-50 to >+50 degrees Celsius) at extremes. The human development index (HDI) ranges from 0.981 (Bermuda) to 0.786 (Greenland) across the included jurisdictions; gender inequality indexes in Canada and the U.S. are 0.069 and 0.179 respectively, and unavailable in the other countries/jurisdictions. The region is large and ethnically, racially, geographically, and climatically diverse, with, in general, much open space for outdoor play for people of all ages.

The ‘right to play’ is enshrined in Article 24 of the United Nations Universal Declaration of Human Rights, stating that all humans being have the right to rest and leisure.<sup>3</sup> The “right to play” is further emphasized in the Convention on the Rights of the Child,<sup>4</sup> which speaks to the fundamental obligation to provide all children the opportunity for healthy development opportunities through play. A child’s right to play is particularly evident in Articles 24(1), 24(2f), 24(4), 31(1), and 31(2).<sup>4</sup> Despite these protections, there is growing evidence that many social and structural societal trends are resulting in dramatic lifestyle changes that decrease play and related active living behaviours that conspire to harm healthy development and accelerate the onset of non-communicable diseases (NCDs) in children and youth.<sup>5,6</sup> These lifestyle changes, which also impact adults in a negative way,<sup>7</sup> are typically supported – even encouraged – through societal changes including transportation policies facilitating increased auto-dependency; education curricula supportive of teaching and spending time indoors on digital technology; increased spending to treat emerging NCDs and decreased spending on health promotion initiatives; and progressive damage to the environment (air, water, land) such that active outdoor play becomes progressively less appealing while omnipresent indoor, sedentary, screen-based pastimes are endorsed and now normative.

Collectively, these societal transformations, common in Northern America, have changed the social climate to one that is arguably in violation of the spirit of Articles 24 and 31 of the United Nations Convention on the Rights of the Child.<sup>4</sup>

In this review we use the terms outdoor play and active outdoor play as authentically as possible. In many cases outdoor play is true to the policy, initiative or research we are citing, whereas in other contextual or recommendation circumstances, we use active outdoor play because this is the precise focus of this global effort (AOP10).

# Active Outdoor Play Research

Most of the world's research on outdoor play has occurred in Northern America, namely the U.S., with Europe following closely behind. This was demonstrated in the larger AOP10 project, where 12 systematic and scoping reviews were conducted on active outdoor play across the world.<sup>2</sup> Data were extracted on world regions across all reviews to demonstrate where research was being conducted on outdoor play. Figure 1 presents a breakdown of articles identified across the reviews in the larger AOP10 project by world region. Based on the 12 background reviews completed to inform the AOP10 project (a total of 426 articles), Northern America accounted for the highest percentage of articles (44%, n=144), followed by Europe (30%, n=96), Oceania (17%, n=55), Asia (8%, n=26), South America (2%, n=6), and Africa (1%, n=3). Within Northern America, the U.S. was the leading contributor to this regional productivity (66%, n=95), followed by Canada (33%, n=47). No studies included in the reviews were conducted in any other Northern American country. A study on culturally responsive education outside the classroom in a Greenlandic elementary class for children with special needs was also found and could be considered related to active outdoor play in the Inuit culture in that it focussed on developing fishing and hunting skills.<sup>8</sup> When searching 'outdoor play' on Web of Science, the top author publishing on the topic is Brussoni (Canada), followed by Sandseter (Norway) and Tremblay (Canada) despite the U.S. being the largest represented country on outdoor play research. Collectively, these findings demonstrate that Northern America is one of the leading world regions in active outdoor play research. Figure 1 presents a breakdown of articles identified across the reviews in the larger AOP10 project by region as well as a breakdown of countries conducting research in Northern America.

## *Canada*

A comprehensive list of research groups and hubs working in the outdoor play space in Canada was ascertained, and connections visualized, by conducting three linked network analyses (LNAs) in September 2023, September 2024, and March 2025.<sup>1</sup> A centralized database was created and shared with the AOP10 Leadership Team for consultation, confirmation, and additional contributions to the list. In addition to the names of organizations or individuals, locations (province or territory in Canada), and sector representation (type and attribution), strength of relationships and level of reciprocity for each organization were included in the list. The purpose behind undertaking three consecutive LNAs was to determine whether any major changes or shifts occurred across the AOP network(s) due to changing research and funding efforts in Canada at month 0 ('project conception'), month 12, and month 18, possibly as a result of the AOP10 project. The list of contacts in the outdoor play sector in Canada grew substantially across all three time points: from 232 nodes in the initial analysis (month 0), to 417 nodes in the second analysis (12 months), and finally, 486 nodes in the third analysis (18 months). Persistently, roughly half (46-48%) of all entries were categorized as belonging to the education sector, with 53-60% of these organizations reporting moderate, strong, or very strong associations with outdoor play in Canada. Of the organizations housed within education, the large majority were classified as post-secondary institutions (capturing research activities on outdoor play), with the remaining organizations being classified as elementary and secondary schools (capturing outdoor play education/curriculum).

Most research hubs were in Ontario, followed by British Columbia. Collectively, these findings highlight the importance and value placed on research and academia for growing our understanding, appreciation, operationalization, and measurement of outdoor play on various health, social, environmental, and economic outcomes in Canada.

## *United States*

The following institutions (and authors) were the most frequent results in a search of the Children and Nature Network's Research Library for U.S. researchers who have published papers related to outdoor play: University of Colorado Boulder (Chawla), University of Minnesota-Duluth (Ernst), Cornell University (Loebach), Elon University (Vandermaas-Peeler), University of Washington/Seattle Children's Research Institute (Tandon), University of Illinois Urbana-Champaign (Faber-Taylor, Kuo), University of Cincinnati (Carr), Clemson University (Zamani), and North Carolina State University (Moore and Cosco).

## *Other Northern American Countries (Bermuda, Greenland, Saint Pierre and Miquelon)*

In other Northern American countries (Bermuda, Greenland, Saint Pierre and Miquelon), we could not locate any key research groups working on AOP research, other than one researcher from Ilisimatusarfik (Føns, University of Greenland), whose area of focus is on Education Outside the Classroom (EOtC). Substantial efforts and research activities have transpired devoted to advancing outdoor active play in Canada and the U.S. While little evidence is available in other parts of Northern America, this could be a consequence of the differences in weather, limited attention paid to outdoor play as a priority area in other parts of this region, or that it is engrained in the culture and not a dying phenomenon like it is in other parts of Northern America.

# Leadership

## *Canada*

Indicators of leadership capacity in Canada were also gleaned from the LNA on outdoor play.<sup>1</sup> Specifically, and as evidenced by the education sector (including academic and research activities at the post-secondary levels, and outdoor play education and curriculum at the elementary and secondary levels) accounting for nearly half of the entries in the model, a reasonable interpretation is that a high level of reliance, trust, and authority is placed on research by this group. Researchers in Canada have contributed to the narrative on AOP—both domestically<sup>1,2,5,9-15</sup> and globally<sup>1,2,14,15</sup>—and continue to propel the research agenda forward by identifying future lines of inquiry, setting objectives and priorities, conducting sound scientific inquiry, building sustainable research programs, identifying recommendations to address key issues, and training highly qualified personnel.<sup>1,2,5,9-15</sup> Entries with the strongest reported relationships between AOP and private/public/non-governmental institutions in Canada included (but were not limited to): Outdoor Play Canada, Andrew Fleck Children's Services, The Walton's Trust, The Lawson Foundation, ParticipACTION, Families Canada, Canadian Public Health Association, and the Regroupement des Centres de la Petite Enfance de la Montérégie. Interestingly, not all of these entries are specific to outdoor play, but also pertain to physical activity, child and family services, public health, and philanthropy.

Sectors relating to health, philanthropy, and government accounted for 14% of the LNA, identifying potential areas to capitalize on and expand leadership capacity specific to outdoor play, and increase cross-pollination of ideas. Doing so will not only maximize reach, but also optimize uptake of co-created messaging, programming, or initiatives across various sectors and populations.



## *United States*

In the U.S., there are several nonprofit organizations that advocate for play and specifically outdoor play, including the U.S. branch of the [International Play Association](#), the [U.S. Play Coalition](#), the [National Institute for Play](#), the [Children & Nature Network](#), [Kaboom!](#) and [Let Grow](#). Some of these non-profit organizations are specifically focused on integration of outdoor play in formal learning settings. For example, the [Natural Start Alliance](#) supports early childhood educators in integrating outdoor play into their class day. [Green Schoolyards of America](#) focuses on helping schools transform their asphalt schoolyards into more park-like spaces to better support outdoor play. There are also several for-profit organizations whose corporate values directly support outdoor play. Several playground designers and equipment leaders in the U.S., as well as Canada, advocate for active outdoor play, including [Landscape Structures](#), [PlayCore](#), [Kompan](#), [Peak Play](#), [Rusty Keeler Designs](#), and [Bienenstock Natural Playgrounds](#).

Many outdoor retailers, such as L.L.Bean and Recreational Equipment Inc. (REI), encourage and offer outdoor activities for all ages, including young people. For example, REI promotes #OptOutside, a campaign that encourages consumers to go outdoors for active recreation instead of shopping on “Black Friday” (REI is not open on Black Friday). REI’s non-profit arm – the [REI Cooperative Action Fund](#) – as well as the [Outdoor Foundation](#) and the [National Recreation Foundation](#) encourage outdoor active play by providing programmatic funding. Some states have developed model initiatives to encourage getting kids outdoors, including through outdoor play. For example, [Great Outdoors Colorado](#) (GOCO) aims to transform an entire generation of children by connecting them to the outdoor world. This led to the launch of [Generation Wild](#), an evidence-based, multiyear campaign designed to catalyze a movement to reconnect kids to the outdoors. Finally, the youth development sector is an important advocate and has partnered at the state government level to encourage active outdoor activity. For example, the [Girl Scouts](#) partner with state parks across the country to encourage outdoor play and recreation, as well as environmental stewardship activities. There is also growing traction in the U.S. to support historically marginalized groups in gaining greater access to the outdoors through play and recreation, such as [Outdoor Afro](#), [Latino Outdoors](#), [Fresh Tracks](#), and [Gateway to the Great Outdoors](#) (see the ‘Anti-racism in the Outdoors’ guide for a more fulsome list). Although some of these are geared toward adults, adults often have children or grandchildren and are encouraged to support the outdoor activities of those young people through these ethnic-specific organizations.

## *Other Northern American Countries (Bermuda, Greenland, Saint Pierre and Miquelon)*

There is far less publicly available information on existing AOP advocacy efforts in Bermuda, Greenland, or Saint Pierre and Miquelon (our authorship group reached out to tourist organizations in Bermuda and Saint Pierre and Miquelon, and an outdoors-focused YouTuber from Greenland, for input and guidance but did not receive a response). Notably, the Government of Greenland aims to become the most physically active country in the world — and with the outdoor, land-based culture of the predominantly Inuit population, it is likely that active outdoor play will be prominent in this quest. It is possible, and likely, that outdoor play efforts in these countries are not captured, documented, or organized via the same online, Western methods used in the U.S. and Canada. We hope this brief review will create awareness and facilitate connections among AOP advocates, researchers, leaders, and practitioners throughout the Northern America region.

# AOP Position Statements & Authoritative Documents

In 1977, the International Play Association published the Declaration of the Child's Right to Play,<sup>16</sup> recognizing even at that point that rapid changes to society were beginning to negatively impact children's development. In 1989, the United Nations Convention on the Rights of the Child<sup>4</sup> included the right to play as an essential element of a healthy childhood (Table 1). In the early 2000s, around the same time as the widespread use of the internet and increasing time spent on screens, a shift began towards highlighting and emphasizing the outdoors as a critical component of play that was disappearing from children's lives.<sup>6,17-1</sup>



## Canada

A decade later, as concern over indoor-focused, sedentary childhoods persisted and worsened, Tremblay and colleagues developed the 2015 Position Statement on Active Outdoor Play, that states: “Access to active play in nature and outdoors—with its risks—is essential for healthy child development. We recommend increasing children’s opportunities for self-directed play outdoors in all settings—at home, at school, in childcare, the community and nature”.<sup>5</sup> This statement and the systematic reviews that informed it<sup>14,15</sup> highlighted the holistic benefits of outdoor play for child wellbeing and development – mentally, emotionally, cognitively, and socially. The Position Statement served as a galvanizing force to bring together the diversity of groups who each share a passion for outdoor play – across research, practice, and policy. The Position Statement informed policy documents<sup>20,21</sup> and a British Columbia Supreme Court decision against a playground injury lawsuit,<sup>22</sup> and resulted in substantial philanthropic investment<sup>23</sup> as well as a surge in Canadian-led outdoor play-focused research projects.<sup>10,11</sup> It additionally led to the official launch of Outdoor Play Canada (<https://www.outdoorplaycanada.ca/>), a national organization that serves to convene collaborations, amplify efforts and successes, and provide leadership and strategic direction for the outdoor play sector in Canada.

In addition, the 2015 Position Statement<sup>5</sup> inspired several organizations to develop their own statements (Table 1) highlighting the specific importance of AOP for children’s health and wellbeing. For example, the Canadian Chief Medical Officers of Health released a statement in 2018<sup>9</sup> that directly endorsed the 2015 Position Statement. Most recently the Canadian Paediatric Society released a statement in 2024<sup>12</sup> which focuses on risky play, a specific aspect of AOP, as a critical component in combatting common, ongoing pediatric health challenges, including poor mental health and obesity. While the 2015 Position Statement had great impact in Canada, its focus and impact was constrained to children and youth.

In 2021, Outdoor Play Canada released the Outdoor Play in Canada: 2021 State of the Sector Report<sup>13</sup> at the Breath of Fresh Air Outdoor Play Summit (hosted by Outdoor Play Canada; <https://outdoorplaysummit.ca/>). This report served as a chronology of progress within the Canadian outdoor play sector since the 2015 Position Statement, an account of the sector’s status (amid the COVID-19 global pandemic), and the identification of nine major priorities to serve as a common vision for the sector over the next five years. Now as we approach the 10-year anniversary of the 2015 Position Statement, we have developed an update to describe its impact, extend its global reach and relevance, identify learnings across the globe, and consolidate outdoor play-focused Position Statements from the past 10 years.<sup>1,2</sup>

## *United States*

In the U.S., several states have developed Children's Outdoor Bills of Rights (COBOR; <https://www.childrenandnature.org/resources/childrens-outdoor-bill-of-rights-bring-leaders-residents-together>). A COBOR typically lists specific outdoor experiences that every child deserves. A COBOR can be passed as a resolution, offered as a proclamation, or function as a program. As of 2020, 15 states and six cities had COBORs in place or in development. The content of the COBOR statement is often generated through surveys and open forums to assess public opinion about the specific nature-based experiences to prioritize, grounded in the state's values and geography. For example, in Minnesota, their COBOR (<https://mn.gov/children-outdoors>), developed under the auspices of the Minnesota Children's Cabinet, states that Minnesota's children have the right to (among 15 activities) explore Minnesota's four seasons; bike, ride, or ski a public trail; boat or paddle on one of its 11,842 lakes; and participate in traditions and culturally specific ancestral practices rooted in nature. In addition to providing a public-facing symbol, a messaging tool, and an opportunity to raise awareness, Minnesota's COBOR serves as a means to direct the attention of state agencies (from the Department of Natural Resources and the Department of Education to the Department of Military Affairs and the Department of Employment and Economic Development) on the ways they do, or could better, support equitable access to the outdoors for children, their families, and others who care for them.

Children's museums are also strong advocates for play. The Association for Children's Museums developed an Information Brief: The Power of Play in Children's Museums and Elsewhere (<https://childrensmuseums.org/2023/07/17/powerofplay-brief>) that presents the evidence for the benefits of play, indoors as well as outdoors, and makes the case for children's museums as vehicles for developmentally appropriate play, including physically active play through outdoor spaces designed for free play.

## *Other Northern American Countries (Bermuda, Greenland, Saint Pierre and Miquelon)*

We were unable to locate any authoritative documents or position statements from Bermuda, Greenland, or Saint Pierre and Miquelon.

# Policy & legislation

In Northern America, policies and legislation related to outdoor play are primarily influenced by broader public health, education, and urban planning frameworks, particularly in Canada and the U.S. While specific legislation focused solely on outdoor play is limited, there are several relevant policies and guidelines in Canada and the U.S. that promote outdoor play, primarily for children (Table 2).

## *Canada*

In Canada, the 2015 Position Statement on Active Outdoor Play<sup>5</sup> continues to serve as a significant guiding document on outdoor play. This statement has informed both local- and national-level policy work in Canada to prioritize outdoor play in educational, health, and recreational planning.<sup>20,21</sup> For example, provincial curricula, such as Ontario's Health and Physical Education Curriculum, emphasize active play as part of children's physical literacy and development.<sup>24</sup> Additionally, the Canadian Parks and Recreation Association has been a major advocate for creating and maintaining outdoor play spaces in municipalities and encouraging active outdoor lifestyles through the Framework for Recreation in Canada,<sup>25</sup> and its recent update in 2024.<sup>26</sup> Organizations like Outdoor Play Canada and the Child and Nature Alliance of Canada have worked with various levels of government to promote nature-based learning and outdoor play, particularly in early childhood education. The Ontario Active School Travel Program is another example of where schools encourage walking or biking to school as part of increasing outdoor activity.<sup>27</sup> Research on such programs has shown positive effects on physical fitness, mental health, and even academic performance.<sup>27</sup> Additionally, safety regulations, such as British Columbia's Safe Play Space standards, ensure that playgrounds and public spaces are safe and accessible for outdoor play.<sup>28</sup>

## *United States*

In the U.S., there is growing support for outdoor play through various federal initiatives. The Every Student Succeeds Act (ESSA), focused on K-12 education, recognizes physical education, including outdoor activities, as essential to a well-rounded education.<sup>29</sup> This has encouraged schools to integrate outdoor play as part of physical activity curricula. At the pre-kindergarten level, states are increasingly mentioning outdoor learning environments in quality rating improvement systems and licensing. For example, in Texas, the quality rating standards changed the outdoor descriptor from "playground" to "outdoor learning environment".<sup>30</sup> Safe Routes to School (SRTS) programs promote walking and biking to school, fostering AOP while encouraging children to engage with their local environments.<sup>31</sup>

The No Child Left Inside Act emphasizes environmental education and outdoor learning, indirectly promoting outdoor play as part of its agenda to connect children with nature.<sup>32</sup> ‘Kids Need Recess’ tracks pending, state-level recess legislative policy initiatives. Additionally, the recently passed EXPLORE Act in the U.S. further reinforces the importance of outdoor recreation, including play.<sup>33</sup> This legislation aims to expand access to public lands and modernizes outdoor infrastructure, including creating accessible trails and recreation areas. The Act promotes outdoor engagement for underserved communities, children, veterans, and individuals with disabilities, to ensure that public lands and parks are inclusive and foster AOP. While not a legal or policy regulation, the Land and Water Conservation Fund (LWCF) has been instrumental in supporting the development and maintenance of parks and recreational areas, making it easier for communities to provide spaces for outdoor play.

The Youth Outdoors Policy Playbook, an initiative of the Youth Outdoor Policy Partnership, helps legislators and community leaders expand outdoor opportunities for young people by showcasing successful policies, highlighting innovations and connecting experts to promote equity in health, education, and recreation.

There are a growing number of examples of advocacy for play-focused policies at local and state levels, such as mandatory recess, which were passed in Illinois and Washington. The Washington advocacy effort to pass the law was led by a host of organizations and agencies focused on play via the King County Play Equity Coalition. These policies, initiatives and advocacy efforts are not solely focused on outdoor play; nevertheless, they collectively contribute to creating environments where people are encouraged to engage in active play outdoors, both in structured and unstructured settings.

In both Canada and the U.S., evidence suggests that policies promoting outdoor play can lead to improved physical activity levels, mental health outcomes, and social development in children. For example, the 2019 ParticipACTION Report Card on Physical Activity for Children and Youth reported that children who engage in regular outdoor play have higher physical activity levels and better mental health outcomes.<sup>34</sup> This research has influenced early childcare and education centres, school boards, and municipalities to encourage the development of outdoor play spaces and to allow more unstructured playtime. However, challenges remain, particularly in terms of equitable access to outdoor play opportunities. Both countries face issues of accessibility and equity, with children in low-income or urban areas, as well as those living with disabilities, often having fewer opportunities for outdoor play.<sup>35-37</sup> Policies like the Explore Act in the U.S. and initiatives led by ParticipACTION, the Canadian Disability Participation Project, and Outdoor Play Canada are trying to address these gaps, but more targeted research is needed to evaluate their long-term effectiveness, particularly in reaching marginalized populations.

## *Other Northern American Countries (Bermuda, Greenland, Saint Pierre and Miquelon)*

There appears to be limited specific evidence of policies and legislation focused on outdoor play in Bermuda, Greenland, and Saint Pierre and Miquelon. However, outdoor activities and recreation in these regions are generally supported by broader environmental and public health frameworks, though not always formally legislated in the same way as in larger nations like Canada or the U.S.

In Bermuda, outdoor recreation is encouraged through various government initiatives aimed at promoting physical activity and tourism, though there is no specific legislation directly addressing outdoor play. The Government promotes the use of public parks and beaches but formalized outdoor play policies may be lacking in the same way they are present in mainland Northern America. Greenland, being part of the Kingdom of Denmark, follows Danish guidelines and policies in many sectors, including health and education. While Greenland has vast natural landscapes that encourage outdoor activity, there is limited documented evidence available of formal policies focused specifically on promoting outdoor play, other than their national goal of becoming the most physically active country in the world. Outdoor activities like hiking, camping, hunting, and fishing are culturally significant and supported by local communities, although specific child-focused outdoor play initiatives are less formalized.

In Saint Pierre and Miquelon, which is a French overseas territory, outdoor activities are a part of the local lifestyle due to the islands' rugged natural landscapes. There is no direct evidence of specific policies or legislation promoting outdoor play, but the territory's connection to French public health policies likely influences the encouragement of physical activity, including outdoor play, particularly in school settings. While these regions may not have the same structured policies as found in Canada or the U.S., there is a general cultural emphasis on outdoor activities, which indirectly supports outdoor play, perhaps making explicit policies and strategies unnecessary.

For Bermuda, Greenland, and Saint Pierre and Miquelon, a major challenge in assessing the implementation and effectiveness of outdoor play policies is the lack of formal research and limited government focus on tracking these specific outcomes. These jurisdictions have smaller populations, and the emphasis on outdoor play seems more culturally ingrained than policy driven. As a result, there is little formal data available to measure the direct impact of outdoor play on children's health or social outcomes.

# Cultural & Context Considerations

In the Outdoor Play in Canada: 2021 State of the Sector Report, ‘Advocating for equity, diversity and inclusion (EDI) in outdoor play’ was identified as one of the nine major priorities for the outdoor play sector in Canada.<sup>13</sup> Within this priority, nine action items were identified, including a need to address inequitable access to ‘sufficient, safe and high-quality outdoor play spaces’, as has been echoed across the other sections of this narrative review. This priority aligns with the UN’s Sustainable Development Goals, including: #4 (Quality Education), #5 (Gender Equality), and #10 (Reduced Inequalities), as well as with the Canadian Parks and Recreation Association’s RelImagine RREC Report, in which equity, diversity, inclusion and access are highlighted as one of five pillars for action for the parks, recreation and community sport sector.<sup>38</sup>

Supporting those with disabilities in engaging in active outdoor play, particularly in natural spaces, continues to be an ongoing gap in research, practice, and policy. For children with disabilities, both the built environment (e.g., inaccessible infrastructure) and social environment (e.g., attitudes) pose barriers to participation and thus impact their experience.<sup>39-41</sup> For example, playgrounds that lack ramps to elevated play structures may prevent children who use a wheelchair from engaging in play.<sup>42</sup> Attitudinal barriers, such as parents of children without disabilities negatively perceiving the effects of their child interacting with a child who communicates non-verbally (e.g., uses a tablet for expressive communication),<sup>43</sup> further perpetuate broader systems of discrimination, prejudice, and systemic bias (i.e., ableism) towards children with disabilities in outdoor play.

The COVID-19 pandemic led to significant changes in daily life for everyone, with specific recommendations and restrictions varying within and between countries. Many countries imposed restrictions requiring physical distancing (two metres) and limited community and social interactions, including sport, playground, and park use.<sup>44</sup> Most children and youth were no longer attending school, with classroom lessons replaced by home-schooling and online learning activities. Research clearly showed that during public health-imposed restrictions, children and adolescents had less outdoor time, lower physical activity levels, and higher sedentary behaviours including leisure screen time.<sup>45-48</sup> Moreover, reduced student engagement in play during the pandemic was associated with poorer school experiences, including decreased school engagement, learning, collaboration, perseverance, and concentration, compared to those whose play did not change over the same time period.<sup>49</sup>



Opportunities for AOP fluctuated during different waves of the pandemic<sup>50</sup> and several individual and built environment characteristics were significantly related to healthy lifestyle behaviours.<sup>51-54</sup> There was compelling evidence that AOP was a key correlate of healthy lifestyle behaviours including physical activity, active transportation and independent mobility.<sup>53-57</sup> While outdoor time and related physical activity were compromised during periods of public health restrictions, there was evidence of new and creative uses of the outdoors as a means of mitigating transmission of COVID-19.<sup>58</sup> Not restricted to Northern America, the use of the outdoors as a means of promoting healthy lifestyle behaviours while mitigating communicable disease transmission can be added to the long list of benefits of AOP.

AOP in Northern America, Canada and the U.S. more specifically, is increasingly constrained by urbanization and climate change, limiting opportunities for individuals, particularly in urban centers.<sup>59,60</sup> Climate change appears to intensify these challenges in the region. Specifically, frequent wildfires, such as those observed across the continent, resulted in poor air quality that confines families indoors during prime play seasons.<sup>60,62</sup> Unpredictable winters with less snow and erratic freeze-thaw cycles disrupted activities like ice skating and sledding, threatening traditional winter outdoor activities for many Canadians.<sup>60</sup> Rising summer temperatures also make outdoor play unsafe, particularly in urban areas where the urban heat island effect exacerbates extreme heat.<sup>63</sup> These disruptions highlight the growing disconnect from nature-based activities once integral to Northern American life.

## Strengths & Limitations

To our knowledge, this was the first attempt to aggregate information on AOP in the Northern America region. While the search for information was not exhaustive, and is almost certainly incomplete, a thorough search was done to uncover key stakeholders, leaders, advocates and practitioners; identify research, policies, legislation, foundational documents, and notable practices; catalogue key leadership activities; and expose important cultural and context considerations and their variability across the Northern America region. Our efforts made clear that the AOP sector in this region is poorly connected and most likely underachieving. Many information gaps exist, possibly because of an absence of information, but also because such information may be buried locally and unavailable through electronic searches.

To avoid duplication of efforts, optimize impact, learn from those doing well, and amplify our collective efforts and actions, better linkages and networking within the sector, across the Northern America jurisdictions are recommended. An additional limitation was that the LNA was limited to Canada. While similarities may exist across the other countries included within the geographic confines of Northern America, they cannot be generalized or transferred beyond Canada.

# Conclusion & Recommendations

This narrative review highlights that the Northern America region, predominantly Canada and the United States, is at the forefront of research and policy efforts promoting AOP, with the education sector playing a key role. However, despite these advancements, significant inequities persist, with people from lower socio-economic backgrounds and marginalized communities facing limited access to safe and high-quality outdoor play spaces. To continue promoting and preserving AOP across the Northern America region, we recommend the following:

## *For policy*

- Policies that promote outdoor play are needed to address its low and/or declining participation. Baseline information in some parts of Northern America may be needed to understand if policy is necessary.
- Establish policies that promote equitable access to natural/outdoor play areas. These play areas would ideally be close to where people live, and conserve safe, active transportation routes.
- Develop and enact policies to guarantee recess during the school day for all children, including those in childcare settings.
- Share resources and work together with regulatory and land-use planning bodies to promote and advocate for policies and licensing regulations that support quality outdoor play spaces.
- Include children's and youth's voices from diverse backgrounds in designing outdoor play spaces and child-friendly neighbourhoods, in line with the Sustainable Development Goals for Children, which emphasize the importance of including children's voices when developing plans to meet these goals.
- Build climate-resilient spaces, such as shaded playgrounds and green urban areas, to provide safe environments for outdoor activities.

Improve air quality monitoring systems and strengthen public communication. This includes expanding the network of air quality sensors to ensure comprehensive coverage, particularly in urban areas and regions prone to wildfires or industrial emissions. For example, Health Canada and Environment and Climate Change Canada have implemented the Air Health Trend Indicator (AHTI) and the Air Quality Health Index (AQHI) to inform the public about the risks of outdoor air pollution and guide protective health behaviours. However, there is a critical need to update both the AHTI and AQHI to incorporate behavioural considerations and enhance their ability to advise the public in making informed decisions. This update should address the diverse behavioral needs of individuals, such as those of vulnerable populations, and include actionable recommendations to reduce exposure to air pollution. By integrating these considerations, the AHTI and AQHI could better support health protection efforts, encouraging behaviours that minimize health risks, especially in high-risk scenarios.

### *For advocacy*

- Support, promote, and build on existing campaigns that focus on the benefits of outdoor play, both in and out of school, such as the International Day of Play, Let Grow school programs, Take Me Outside Day, ISPAH's Eight Investments That Work for Physical Activity; and the World Health Organization (WHO)'s Global Action Plan on Physical Activity 2018–2030.
- Assess, evaluate, preserve, and improve access to sufficient, safe, and high-quality outdoor play spaces, and advocate for equitable access for all.
- Promote connections/collaborations across sectors, levels of government, communities and countries. Strategic connections across countries can mitigate redundancies in efforts and learn from best-practice approaches in countries more advanced in this area.
- Promote alternative traditions like nature walks or urban gardening to foster engagement with nature while supporting playful lifestyles and resilience to climate change.

### *For leadership and research*

- It may bear repeating LNAs in other Northern American countries to establish a more holistic/wholesome view of AOP in this region, specifically in relation to research capacity and leadership. The additional LNAs would facilitate identifying gaps in sector leadership and areas of research paucity, possibly informing future research agendas.
- Adopt a broader view on play environments (e.g., street play, forest play, yard play, schoolyards, and play spaces for all ages and abilities) to fuel research that will differentiate outdoor play patterns to create unique measurement tools and resources.
- Co-create research with policymakers and planners to ensure it is responsive to their needs and facilitates more rapid utilization.

- Connect researchers working on different aspects of outdoor play including the impacts on individuals (i.e., physical, cognitive, and social-emotional well-being) and communities both locally and globally.
- Enhanced real-time data collection and reporting can provide timely and localized information about air quality conditions, empowering individuals and communities to make informed decisions to protect their health.
- Build and strengthen collaborative links between leading countries in outdoor play research, such as Canada and the U.S., and other regions of Northern America.

### *For program delivery and play practitioners*

- Make outdoor play professional development and training opportunities available to parents, educators, volunteer coaches, municipal leaders, health professionals, built environment professionals, and students.
- Create best practices, toolkits, and resources for programs to utilize to create high quality outdoor play programs that are inclusive and accessible to people with diverse backgrounds and abilities.

### *For parents and care providers*

- Provide information and offer training on the health benefits of outdoor play for children to positively influence parents' and caregivers' attitudes toward outdoor play, like the Play Outside Toolkit (<https://www.outsideplay.org/#tool-kit>).
- Identify approaches to promoting AOP among parents and care providers that not only satisfy children's need for time outdoors but can also support children's mental and physical health and wellbeing.
- Identify opportunities to support parents and intergenerational family members in engaging in active outdoor play together or in tandem with their children. Parents need time to play too!

### *For outdoor play participants*

- For early years children (0–5 years), support AOP at home and in childcare settings to support health and wellbeing, build confidence and resilience, and provide safe but stimulating environments that fosters sensory exploration and motor development.<sup>64</sup>
- For children (6–12 years), provide access to green schoolyards and outdoor learning environments to integrate outdoor play into daily activities.
- For adolescents (13–17 years), introduce fun yet challenge-based play activities such as rock climbing, outdoor gyms, or parkour with low-barrier, non-competitive options to encourage lifelong engagement.

- For adults (18–64 years), promote intergenerational play spaces where adults can play with children and encourage ‘green exercise’ such as hiking, nature walking, or park visits.
- For older adults (65+ years), design accessible outdoor spaces with lots of resting areas such as benches, shaded areas, and flat, soft pathways, and encourage social and multigenerational outdoor play to foster community bonds and active aging.

# References

1. Tremblay MS, Gray C, Babcock S, Barnes J, Bradstreet CC, Carr D, et al. Position statement on active outdoor play. *International Journal of Environmental Research and Public Health*. 2015.
2. Brussoni M, Gibbons R, Gray C, Ishikawa T, Sandseter EBH, Bienenstock A, et al. What is the relationship between risky outdoor play and health in children? A systematic review. *International Journal of Environmental Research and Public Health*. 2015.
3. Gray C, Gibbons R, Larouche R, Sandseter EBH, Bienenstock A, Brussoni M, et al. What is the relationship between outdoor time and physical activity, sedentary behaviour, and physical fitness in children? A systematic review. *International Journal of Environmental Research and Public Health*. 2015.
4. Lawson Foundation. Lawson Foundation Outdoor Play Strategy Final Report (Outdoor Play Sector) [Internet]. 2020. Available from: [lawson.ca/OPS-OP-report.pdf](https://lawson.ca/OPS-OP-report.pdf)
5. Lawson Foundation, Outdoor Play Canada. Funding for Outdoor Play in Canada: Environmental Scan and Summary Report [Internet]. 2021. Available from: [https://www.outdoorplaycanada.ca/portfolio\\_page/funding-for-outdoorplay-%0Ain-canada/](https://www.outdoorplaycanada.ca/portfolio_page/funding-for-outdoorplay-%0Ain-canada/)
6. Supreme Court of British Columbia. Thompson v. Corp. of the District of Saanich, 2015 BCSC 1750 [Internet]. 2015. Available from: <https://www.bccourts.ca/jdb-txt/SC/15/17/2015BCSC1750.htm>
7. de Lannoy L, Barbeau K, Seguin N, Tremblay MS. Scoping review of adult-oriented outdoor play publications in Canada. *Health Promotion and Chronic Disease Prevention in Canada*. 2023;43(3).
8. de Lannoy L, Barbeau K, Seguin N, Tremblay MS. Scoping review of children's and youth's outdoor play publications in Canada. *Health Promotion and Chronic Disease Prevention in Canada*. 2023;43(1).
9. Lee EY, de Lannoy L, Kim YB, Rathod A, Lopes O, Nasrallah B, et al. 2025 Position Statement on Active Outdoor Play. *International Journal of Behavioral Nutrition and Physical Activity*. 2025;(under review).
10. de Lannoy L, Lee E, Lopes O, et al. Position Statement on Active Outdoor Play 10-Year Update (AOP10) – Process and Methodology. 2025; (under review).
11. de Lannoy L, Lee E-Y, Cheruvathur J, Lopes O, Thankarajah A, Ryu S, et al. Process for the development of the 2025 Position Statement on Active Outdoor Play. *International Journal of Behavioral Nutrition and Physical Activity* (in press).
12. Lee E-Y, de Lannoy L, Kim Y-B, Boadi DA, de Barros MIA, Duncan S, et al. Position Statement on Active Outdoor Play 10-Year Update (AOP10) – outcome and recommendations. *International Journal of Behavioral Nutrition and Physical Activity* (in press).



13. United Nations. Universal Declaration of Human Rights. General Assembly of the United Nations, 1948.
14. United Nations. Convention on the Rights of the Child. General Assembly of the United Nations, 1989.
15. Tremblay MS, Gray C, Babcock S, Barnes J, Costas Bradstreet C, Carr D, Chabot G, Choquette L, Chorney D, Collyer C, Herrington S, Janson K, Janssen I, Larouche R\*, Pickett W, Power M, Sandseter EBH, Simon B, Brussoni M. Position Statement on Active Outdoor Play. *International Journal of Environmental Research and Public Health* 12:6475-6505, 2015.
16. Haidt J. *The Anxious Generation*. Penguin Press, New York, 2024.
17. Shilton T, Bauman A, Beger B, Chalkley A, Champagne B, Elings-Pers M, Giles-Corti B, Goenka S, Miller M, Milton K, Oyeyemi A, Ross R, Sallis J, Armstrong-Walenczak K, Salmon J, Whitsel LP. More People, More Active, More Often for Heart Health – Taking Action on Physical Activity. *Global Heart* 19(1):42, 2024. <https://doi.org/10.5334/gh.1308>
18. Føns K. Cultural traditions, hunting and nature-based education in a class for children with special needs in a Greenland elementary school: Culturally responsive education outside the classroom that motivates. *Pathways: The Ontario Journal of Outdoor Education* 35(4):4-21, 2023.
19. Pan-Canadian Public Health Network. Active Outdoor Play Statement from the Council of Chief Medical Officers of Health. <http://www.phn-rsp.ca/aop-position-jae/index-eng.php>, 2018.
20. de Lannoy L, Barbeau K, Seguin N, Tremblay MS. Scoping review of children's and youth's outdoor play publications in Canada. *Health Promot Chronic Dis Prev Can.* 43(1):1-13. doi: 10.24095/hpcdp.43.1.01, 2023.
21. de Lannoy L, Barbeau K, Seguin N, Tremblay MS. Scoping review of adult-oriented outdoor play publications in Canada. *Health Promot Chronic Dis Prev Can.* 43(3):139-150. doi: 10.24095/hpcdp.43.3.04, 2023.
22. Beaulieu E, Beno S, Healthy childhood development through outdoor risky play: Navigating the balance with injury prevention, *Paediatrics & Child Health*, 29(4):255-261. <https://doi.org/10.1093/pch/pxae016>, 2024.
23. Outdoor Play Canada. *Outdoor Play in Canada: 2021 State of the Sector Report*. <https://www.outdoorplaycanada.ca/outdoor-play-in-canada-2021-state-of-the-sector-report/>, 2021.
24. Brussoni M, Gibbons R, Gray C, Ishikawa T, Sandseter EB, Bienenstock A, Chabot G, Fuselli P, Herrington S, Janssen I, Pickett W, Power M, Stanger N, Sampson M, Tremblay MS. What is the Relationship between Risky Outdoor Play and Health in Children? A Systematic Review. *Int J Environ Res Public Health*, 12(6):6423-54. doi: 10.3390/ijerph120606423, 2015.

25. Gray C, Gibbons R, Larouche R, Sandseter EB, Bienenstock A, Brussoni M, Chabot G, Herrington S, Janssen I, Pickett W, Power M, Stanger N, Sampson M, Tremblay MS. What Is the Relationship between Outdoor Time and Physical Activity, Sedentary Behaviour, and Physical Fitness in Children? A Systematic Review. *Int J Environ Res Public Health*. 12(6):6455-74. doi: 10.3390/ijerph120606455, 2015.
26. International Play Association. IPA Declaration of the Child's Right to Play. <https://ipaworld.org/about-us/declaration/ipa-declaration-of-the-childs-right-to-play/>, 1977.
27. National Association of Early Childhood Specialists in State Departments of Education. Recess and the Importance of Play. A Position Statement on Young Children and Recess. <https://eric.ed.gov/?id=ED463047>, 2001.
28. Association for Childhood Education International. Play: essential for all children. A Position Paper of the Association for Childhood Education International. <https://kimberton.org/wp-content/uploads/2019/01/play-essential-for-all-children-Imagination-Playground.pdf>, 2002.
29. International Play Association. Declaration on the Importance of Play. [https://ipaworld.org/wp-content/uploads/2015/05/IPA\\_Declaration-FINAL.pdf](https://ipaworld.org/wp-content/uploads/2015/05/IPA_Declaration-FINAL.pdf), 2014.
30. Standing Senate Committee on Social Affairs Science and Technology. Obesity in Canada: A Whole-of-Society Approach for a Healthier Canada. <https://publications.gc.ca/site/eng/9.812199/publication.html>, 2016.
31. Peterborough Public Health. Outdoor Playspaces for Children: An Evidence Review. Peterborough, ON. <https://www.peterboroughpublichealth.ca/wp-content/uploads/2018/05/2017-08-31-Outdoor-Playspaces-Evidence-Report-FINAL-1.pdf>, 2017.
32. Supreme Court of British Columbia. *Thompson v. Corp. of the District of Saanich*, 2015 BCSC 1750, 2015.
33. Lawson Foundation & Outdoor Play Canada. Funding for Outdoor Play in Canada: Environmental Scan and Summary Report. [https://www.outdoorplaycanada.ca/portfolio\\_page/funding-for-outdoorplay-%0Ain-canada/](https://www.outdoorplaycanada.ca/portfolio_page/funding-for-outdoorplay-%0Ain-canada/), 2021.
34. Government of Ontario. The Ontario Curriculum, Grades 1-8. Health and Physical Education. Queen's Printer for Ontario, 2019. Available at <https://www.edu.gov.on.ca/eng/curriculum/elementary/2019-health-physical-education-grades-1to8.pdf>.
35. Canadian Parks and Recreation Association/Interprovincial Sport and Recreation Council. A Framework for Recreation in Canada - 2015 - Pathways to Wellbeing. Ottawa: Canadian Recreation and Parks Association. February, 2015.
36. Canadian Parks and Recreation Association. Framework for Recreation in Canada: Framework Update. Canadian Parks and Recreation Association, March, 2024. Available at <https://www.cpra.ca/framework>.

37. Ontario Active School Travel. Available at <https://ontarioactiveschooltravel.ca>.
38. Government of British Columbia. Community Care and Assisted Living Act: Director of Licensing Standards of Practice Safe Play Space. December, 2007.
39. Government of the United States of America. Every Student Succeeds Act. December, 2015. Available at <https://www.ed.gov/essa>.
40. Cooper A. Nature and the outdoor learning environment: The forgotten resource in early childhood education. *Int J Early Childhood Environ Educ*. 3(1):85–97, 2015.
41. Safe Routes to School. Information available at <https://www.fdot.gov/Safety/programs/safe-routes.shtm>.
42. Government of the United States of America. No Child Left Inside Act. 2023 Available at <https://www.congress.gov/bill/118th-congress/senate-bill/1239/text>.
43. Government of the United States. Explore Act. 2024. Available at <https://www.congress.gov/bill/118th-congress/house-bill/6492/text>.
44. ParticipACTION. The Brain + Body Equation: Canadian kids need active bodies to build their best brains. The 2018 ParticipACTION Report Card on Physical Activity for Children and Youth. Toronto: ParticipACTION; 2018.
45. Mullenbach L, Larson LR, Floyd MF, Marquet O, Huang JH, Alberico C, Ogletree S, Hipp JA. Cultivating social capital in diverse, low-income neighborhoods: The value of parks for parents with young children. *Landscape and Urban Planning* 219:104313, 2022.
46. Rigolon A. A complex landscape of inequity in access to urban parks: A literature review. *Landscape and Urban Planning* 153:160-169, 2016.
47. Moore A, Lynch H, Boyle B. Can universal design support outdoor play, social participation, and inclusion in public playgrounds? A scoping review. *Disability and Rehabilitation* 44(13):3304-3325, 2022.
48. Canadian Parks and Recreation Association. ReImagine RREC – Renew, Retool, Engage, Contribute. Reimagining Parks, Recreation and Community Sport: Highlight Report. Canadian Parks and Recreation Association, May, 2021.
49. Arbour-Nicitopoulos KP, Mitra R, Sharma R, Moore SA. Outdoor physical activity and play among Canadian children and youth with disabilities during the COVID-19 pandemic: Findings from the National Physical Activity Measurement Study. *Adapt Phys Act Quart*. 40(4):571-86, 2023.
50. Sterman J, Naughton G, Froude E, Villeneuve M, Beetham K, Wyver S, Bundy A. Outdoor play decisions by caregivers of children with disabilities: a systematic review of qualitative studies. *J Develop Phys Disabilities* 28:931-57, 2016.

51. Luna-Lupercio B, Shirazipour CH, Duong A, Buliung R, Ross T, Brown DMY, et al. Understanding the experiences of parents of disabled and non-disabled children at playgrounds designed for disability inclusion. *Disability and Society* 40(4):900-925, 2025.
52. Moore A, Lynch H. Accessibility and usability of playground environments for children under 12: A scoping review. *Scand J Occupational Therapy* 22(5):331-44, 2015.
53. Hilbert D. Perceptions of parents of young children with and without disabilities Attending inclusive preschool programs. *J Educ Learn.* 3(4):49-59, 2014.
54. de Lannoy L, Rhodes RE, Moore SA, Faulkner G, Tremblay MS. Regional differences in access to the outdoors and outdoor play of Canadian children and youth during the COVID-19 outbreak. *Can J Public Health.* 111(6):988-994, 2020.
55. Moore SA, Faulkner G, Rhodes RE, Brussoni M, Chulak-Bozzer T, Ferguson LJ, et al. Impact of the COVID-19 virus outbreak on movement and play behaviours of Canadian children and youth: a national survey. *Int J Behav Nutr Phys Act.* 17:85, 2020.
56. Moore SA, Faulkner G, Rhodes RE, Vanderloo LM, Ferguson LJ, Guerrero MD,\* Brussoni M, Mitra R, O'Reilly N, Spence JC, Chulak-Bozzer T, Tremblay MS. Few Canadian children and youth were meeting the 24-hour movement behaviour guidelines 6-months into the COVID-19 pandemic: Follow-up from a national study. *Applied Physiology, Nutrition, and Metabolism* 46:1225-1240, 2021.
57. Paterson DC, Ramage K, Moore SA, Riazi N, Tremblay MS, Faulkner G. Exploring the impact of COVID-19 on the movement behaviors of children and youth: A scoping review of evidence after the first year. *J Sport Health Sci.* 10:675-689, 2021.
58. Rollo S, Sckrapnick A, Campbell JE, Moore SA, Faulkner G, Tremblay MS. Prevalence and correlates of meeting the Canadian 24-hour movement guidelines among a sample of Canadian parents during the COVID-19 pandemic. *J Act Sedentary Sleep Behav.* 2:17, 2023.
- 2.Maximum City. COVID-19 Child and youth study: The role of play and outdoor space. Maximum City, 2021.
59. Campbell JE, Stone MR, Mitra R, Locke M, MacDonald C, Preston A, et al. Children and youth's movement behaviours differed across phases and by geographic region throughout the COVID-19 pandemic in Nova Scotia, Canada: An explanatory sequential mixed-methods study. *J Act Sedentary Sleep Behav.* 2:25, 2023.
60. Mitra R, Moore SA, Gillespie M, Faulkner G, Vanderloo LM, Chulak-Bozzer T, et al. Healthy movement behaviours in children and youth during the COVID-19 pandemic: Exploring the role of the neighbourhood environment. *Health Place,* 65:102418, 2020.
61. Mitra R, Campbell JE, Vanderloo LM, Faulkner G, Tremblay MS, Rhodes RE, et al. Child and youth physical activity throughout the COVID-19 pandemic: The changing role of the neighbourhood built and social environments. *Health Place* 84(2023):103127, 2023.

62. Guerrero MD, Vanderloo LM, Rhodes RE, Faulkner G, Moore SA, Tremblay MS. Canadian children's and youth's adherence to the 24-hour movement guidelines during the COVID-19 pandemic: A decision tree analysis. *J Sport Health Sci.* 9:313-321, 2020.
63. Guerrero MD, Moore S, Faulkner G, Roberts KC, Mitra R, Vanderloo LM, et al. Identifying risk profiles for non-adherence to the 24-Hour Movement Guidelines for Children and Youth six months into the COVID-19 pandemic. *Pediat Exerc Sci.* 35:155-164, 2023.
64. Larouche R, Bélanger M, Brussoni M, Faulkner G, Gunnell K, Tremblay MS. Correlates of active school transportation during the COVID-19 pandemic among Canadian 7- to 12-year-olds: a national study. *J Phys Act Health,* 21:294-306, 2024.
65. Larouche R, Bélanger M, Brussoni M, Faulkner G, Gunnell K, Tremblay MS. Canadian children's independent mobility during the COVID-19 pandemic: a national survey. *Health Place* 81(2023)103019:1-8, 2023.
66. Larouche R, Moore SA, Bélanger M, Brussoni M, Faulkner G, Gunnell K, Tremblay MS. Parent-perceived changes in active transportation and independent mobility among Canadian children in relation to the COVID-19 pandemic: results from two national surveys. *Children Youth Environ.* 32(3):25-52, 2022.
67. de Lannoy L, MacDonald L, Barbeau-Julien K, Tremblay MS. Environmental scan of outdoor play-based projects, programs, activities and services available in Canada during the COVID-19 pandemic. *Children Youth Environ.* 32(1):84-127, 2022.
68. de Lannoy L, MacDonald L, Barbeau-Julien K, Tremblay MS. Environmental scan of outdoor play-based projects, programs, activities and services available in Canada during the COVID-19 pandemic. *Children Youth Environ.* 32(1):84-127, 2022.
69. Lee E-Y, Park S, James M, Lam S, de Lannoy L, Larouche R, et al. Climate change and (active) outdoor play across the lifespan: A systematic review and meta-synthesis. PROSPERO 2024 CRD42024560103 Available from: [https://www.crd.york.ac.uk/prospero/display\\_record.php?ID=CRD42024560103](https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42024560103)
70. Chen A. With the warming of the Rideau Canal, we are at risk of losing another cherished winter tradition. 2023 <https://www.theglobeandmail.com/opinion/article-with-the-warming-of-the-rideau-canal-we-are-losing-another-cherished/> [accessed November 26, 2024]
71. Gellman J, Walls M, Wibbenmeyer M. Wildfire, smoke, and outdoor recreation in the western United States. *Forest Policy Economics* 134:102619, 2022.
72. Slavik CE, Chapman DA, Cohen AS, Bendefaa N, Peters E. Clearing the air: evaluating institutions' social media health messaging on wildfire and smoke risks in the US Pacific Northwest. *BMC Public Health* 24(1):379, 2024.

73. Thiery W, Lange S, Rogelj J, Schleussner C-F, Gudmundsson L, Seneviratne SI, et al. Intergenerational inequities in exposure to climate extremes: Young generations are severely threatened by climate change. *Science* 374(6564):158-160, 2021.

74. Vanderloo LM, Tucker P. Physical activity and sedentary behavior legislation in Canadian childcare facilities: an update. *BMC Public Health* 18:475, 2018.



# Thank you!

Thank you for reading this global regional review on play in Northern America. This has been a passion project of our dedicated AOP10 leadership group - we thoroughly enjoyed putting this together and discovering and sharing this work! We also recognize that we haven't captured all outdoor play efforts. Consider this your invitation to reach out to us, let us know what we're missing and how we may work together to continue celebrating international efforts to promote active outdoor play across all ages!



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