# 2025 POSITION STATEMENT ON ACTIVE OUTDOOR PLAY

Active outdoor play promotes holistic health and well-being for people of all ages, communities, and environments, and for our entire planet. It is critical given the multiple global challenges we face today (e.g., social and health inequities, climate change, and digital addiction). Together, as a collective of the outdoor play sector, we recommend increasing opportunities for active outdoor play in all settings where people live, learn, work, and play. To achieve this, it is important to collaborate across sectors, settings, and societies to preserve, promote, and value equitable access to active play outdoors and in nature.

#### **Play-amble**

The 2015 Position Statement on Active Outdoor Play<sup>1</sup> and its supporting evidence<sup>2,3</sup> showed the benefits of active outdoor play for children's health and well-being. Ten years later, research on this topic has increased by 10 times<sup>4,5</sup> and there has been more funding for outdoor play projects.6 The 2015 Position Statement also influenced policy, research, and practice globally.6 An international leadership group has come together to create the 2025 Position Statement on Active Outdoor Play to celebrate these achievements, update the evidence, and expand the scope, by encompassing all age groups and extending its reach globally.

The 2025 Position Statement envisions a world where active outdoor play contributes to addressing global challenges such as health crises and climate change, while advancing the <u>United Nations</u>
17 Sustainable Development
Goals. Together, as a collective of the outdoor play sector, we want to build healthier, more resilient communities by making active outdoor play part of daily life, ensuring that everyone has equitable access and opportunities to engage in active outdoor play.

This Position Statement calls for systemic change and offers recommendations for individuals, communities, and different sectors. These recommendations aim to make active outdoor play a fundamental right and an essential part of sustainable societies.

This Position Statement was informed by 12 systematic reviews, six global region

reviews, an environmental scan, and consultations with more than 200 global experts representing all inhabited continents.

# The Position Statement is anchored to nine key themes:

- Health and Well-being
- Movement Behaviors
- Education and Learning
- Social Capital
- Community, Connections, and Partnerships
- Nature and the Environment
- One Health
- Human Rights and Policy
- Emerging Areas

Further details of the process and findings leading to the 2025 Position Statement are published in the International Journal of Behavioral Nutrition and Physical Activity (see links on Page 6).

#### **Active outdoor play...**

#### ...helps us move more, play longer, and sleep better

When we play outdoors, we engage in more physical activity and less sedentary behavior and screen time, leading to better sleep. 2,8-25 Outdoor environments can encourage individuals to engage in spontaneous, fun activities. 21,25-33

# ...is a catalyst for sustaining health and well-being

Active outdoor play can enhance health and well-being (i.e., physical, mental, social, spiritual). 2,3,26,34-43 Playing outdoors offers an opportunity to connect, explore, and engage in healthy and enriching ways. 34,36,38,39

## ...promotes confidence, naturally

Outdoor environments provide a dynamic space for playful adventures and risk-taking – an essential ingredient for healthy development<sup>3,35,44</sup> and aging.<sup>45-47</sup> Engaging in active outdoor play that is challenging helps build confidence, resilience, and problem-solving skills, while promoting agency, well-being, and physical literacy.<sup>3,35,48-52</sup>

## ...offers a pathway to a happier, healthier planet

Active outdoor play can bridge multiple sectors including public health, education, recreation, and the environment, while recognizing the interconnectedness of human, animal, and environmental well-being. 53-57 It fosters relationships with nature, contributing to healthier communities, stronger ecosystems, and a more sustainable planet. 47,53,58,59

#### ...builds climate resilience and stewardship for a sustainable future

Engaging in active outdoor play nurtures a deepened connection with nature and caring for our natural world. 60-64 Climate change may threaten opportunities for active outdoor play, but when active outdoor play is part of daily life, it can foster a culture where people of all ages play, learn, grow, and thrive together while adapting to and building resilience for climate change. 54,55,57,65,66





#### ...connects communities

Shared active outdoor play experiences build stronger communities, celebrate cultural traditions, and strengthen diversity while fostering a sense of belonging. <sup>27,67-71</sup> In turn, cohesive communities create safe and supportive environments that encourage citizenship, agency, and active outdoor play for all. <sup>67,68,71-75</sup>

## ...facilitates diverse learning opportunities

Active outdoor play can unlock a world of rich, hands-on learning experiences, sparking curiosity, creativity, collaboration, and problemsolving. <sup>27,41,76-79</sup> It nurtures resilience and adaptability, and supports social, emotional, and cognitive growth throughout life. <sup>46,50,76,80,81</sup>

## ...can reduce excessive indoor time

Excessive indoor time can contribute to prolonged sedentary behavior, increased screen time, and exposure to indoor pollutants, allergens, and infectious diseases. 82-89 Active outdoor play provides a healthy balance in reducing time spent indoors. 1,29,90

#### Emerging areas: Expanding the possibilities of active outdoor play

As we push the boundaries of what is known about active outdoor play, new and urgent questions arise that challenge conventional thinking and open doors to transformative change. The following questions probe uncharted territories where research, policy, and practice must converge to shape the future of active outdoor play.

## Can active outdoor play reshape adult movement patterns?

- How do physical activity, sedentary behavior, and sleep patterns interact with active outdoor play in adults?
- Could active outdoor play hold the key to enhancing physical and mental well-being across the lifespan?

#### >> Could risky outdoor play be a key ingredient for brain plasticity?

Could taking risks outdoors climbing higher, moving faster, exploring the unknown actually enhance brain plasticity, strengthening cognitive function, enabling adaptation to new environments and challenges across the lifespan, and supporting recovery from injury?

#### >> What does active outdoor play look like around the world?

- How do different cultural, environmental, and sociopolitical contexts shape the ways people engage in active outdoor play?
- What can we do to learn and share best practices from different regions and cultures?

## >> How do we bridge the gap between research and real-world play?

- What's missing between what we study and what happens on the ground?
- How can research better inform policies and practices that support active outdoor play?

#### >> Can schools and schoolyards be redesigned and reprogrammed as playgrounds for movement, creativity, and learning?

- How can we integrate active outdoor play into formal education systems – not just as a break from learning, but as an essential part of it?
- What would a school built for outdoor movement and play look like?
- Could schoolyards serve a greater purpose as community outdoor play spaces?



# >> How do we design cities that invite play at every turn?

• From biodiverse urban parks to healthy and playful streets, what urban design features make active outdoor play irresistible, accessible, and inclusive for all?

# >> Could active outdoor play be a conduit for global sustainability?

- What if active outdoor play held the key to tackling some of the world's biggest challenges – climate change, and health and social inequities?
- How does active outdoor play align with the <u>United Nations</u> <u>Sustainable Development</u> <u>Goals</u>,<sup>7</sup> and what policies could amplify its impact?

#### >> With rising concerns about screen time, anxiety, and loneliness, could active outdoor play be a powerful antidote to the adverse effects of social media use?

 How can we reintroduce movement, nature, and face-to-face connection in a digital age?

Each of these questions holds the potential to disrupt conventional wisdom and reimagine the role of outdoor play in shaping healthier, more resilient individuals and communities. The next step? Bold research, innovative policy, and a commitment to action!

#### A call to action: Recommendations to promote active outdoor play

>> Societies: Encourage a culture that values and prioritizes active outdoor play as part of daily life. Create and improve access to spaces where everyone can enjoy active outdoor play. Advocate for collaboration among researchers, educators, urban planners, health professionals, and policymakers to make active outdoor play a health priority.

wreillance: Invest in data collection and monitoring systems to track trends in active outdoor play and to identify gaps and inequities.

Explore the optimal quality and quantity of active outdoor play for healthy people and communities. Establish causal pathways between active outdoor play, and health and well-being outcomes.

>> Policy and legislation:
Recognize access to active
outdoor play as a fundamental
right in health, education,
recreation, and environmental
policies. Encourage
governments to enact and
uphold policies that support
active outdoor play. Promote,
protect, value, and invest in
outdoor play environments that
connect neighborhoods,
schools, recreational areas,
and workplaces.

#### >> Education and schools:

Encourage colleges, adult education centers, and community learning centers to integrate ongoing professional development related to active outdoor play and learning into programs. Require daily active outdoor playtime in early childhood education and K–12 school policies. Integrate outdoor classrooms and nature-based learning into education systems.

>> Public health and healthcare: Educate medical professionals, patients, and communities on the health benefits of active outdoor play. Integrate active outdoor play into healthcare practice and public health initiatives to reduce sedentary behavior and improve health. Collaborate across sectors to develop localized public health strategies that promote active outdoor play.

>> Urban planning: Design accessible, safe, and play-friendly outdoor spaces in and around neighborhoods.

Prioritize the preservation and restoration of natural environments that encourage active outdoor play when designing or redesigning communities. Reform municipal policies and bylaws to actively support and enable active outdoor play.

>> Communities: Support, promote, and build on campaigns that emphasize the



importance of active outdoor play as a health-promoting habit. **Support**, **promote**, and **build on** efforts that promote benefit-risk approaches to active outdoor play. **Encourage** intergenerational active outdoor play to strengthen community connections.

>> Families: Play with others, including companion animals, to nourish a sense of community and connection to the outdoors. Encourage and model active outdoor play as a normative behavior in your neighborhood. Support family members' participation in active outdoor play by encouraging, facilitating, and engaging together.

>> Individuals: Be respectful stewards of the outdoor environments where play happens. Advocate for equitable access and preservation of green spaces and safe play-friendly environments. Explore and enjoy diverse experiences in different outdoor spaces as part of your daily routine.

#### References

- Tremblay MS, et al. Position Statement on Active Outdoor Play. Int J Environ Res Public Health. 2015:12(6):6475-6505.
- Gray C. et al. 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. 2015:12(6):6455-6474
- Brussoni M, et al. What is the relationship between risky outdoor play and health in children? A systematic review. Int J Environ Res Public Health. 2015;12(6):6423-6454.
- de Lannoy L, et al. Scoping review of children's and youth's outdoor play publications in Canada Health Promot Chronic Dis Prev Can. 2023;43(1):1-13.
- de Lannoy L, et al. Scoping review of adult-oriented outdoor play publications in Canada. Health Promot Chronic Dis Prev Can. 2023;43(3):139-150.
- Lawson Foundation and Outdoor Play Canada. Funding for Outdoor Play in Canada: Environme Scan and Summary Report, 2021.
- United Nations General Assembly. The 17 Sustainable Development Goals. Available from:
- James ME, et al. Systematic review of the association between outdoor play and the 24-hour movement behaviours among children, youth and adults. Protocol.
- Cooper AR, et al. Patterns of GPS measured time outdoors after school and objective physical activity in English children: the PEACH project. Int J Behav Nutr Phys Act. 2010;7:1-9.
- Dunton GF, et al. Physical and social contextual influences on children's leisure-time physical activity: an ecological momentary assessment study. J Phys Act Health. 2011;8(s1):S103-S108.
- Klinker CD, et al. Context-specific outdoor time and physical activity among school-children across gender and age: using accelerometers and GPS to advance methods. Front Public Health. 2014:2:20.
- Lu C, Huang G, Corpeleijn E. Environmental correlates of sedentary time and physical activity in preschool children living in a relatively rural setting in the Netherlands; a cross-sectional analysis of the GECKO Drenthe cohort. BMJ Open. 2019;9(5):e027468.
- Nigg C, et al. Relating outdoor play to sedentary behavior and physical activity in youth results from a cohort study. BMC Public Health. 2021;21:1-12.
- Raustorp A, et al. Accelerometer measured level of physical activity indoors and outdoors during preschool time in Sweden and the United States. J Phys Act Health. 2012;9(6):801-808.
- Vanderloo LM, et al. Physical activity among preschoolers during indoor and outdoor childcare play periods. Appl Physiol Nutr Metab. 2013;38(11):1173-1175.
- Wheeler BW, et al. Greenspace and children's physical activity: a GPS/GIS analysis of the PEACH
- project. Prev Med. 2010;51(2):148-152.
- Beyer KM, et al. Time spent outdoors, activity levels, and chronic disease among American adults. J Behav Med. 2018;41:494-503.
- Calogiuri G, et al. The potential of using exercise in nature as an intervention to enhance exercise behavior: Results from a pilot study. Percept Mot Skills. 2015;121(2):350-370.
- Kerr J, et al. Outdoor physical activity and self rated health in older adults living in two regions of the 19.
- US. Int J Behav Nutr Phys Act. 2012;9:1-4. Liao Y, et al. Using ecological momentary assessment to understand where and with whom adults'
- physical and sedentary activity occur. Int J Behav Med. 2015;22:51-61. 21. Luo J, et al. Association between outdoor activity and insufficient sleep in Chinese school-aged
- children. Med Sci Monit. 2020;26:e921617-921611.
- Murata E, et al. What daily factors affect the sleep habits of Japanese toddlers? J Clin Sleep Med. 2023;19(6):1089-1101.
- Murray K, et al. The relations between sleep, time of physical activity, and time outdoors among adult women. PLoS One. 2017:12(9):e0182013.
- Pasanen TP, et al. The relationship between perceived health and physical activity indoors, outdoors in built environments, and outdoors in nature. Appl Psychol: Health Well-Being. 2014;6(3):324-346
- 25. Schamilow S, et al. Time spent outdoors and associations with sleep, optimism, happiness and health before and during the COVID-19 pandemic in Austria. Clocks & Sleep. 2023;5(3):358-372.
- Christiana RW, et al. A scoping review of the health benefits of nature-based physical activity. J
- Healthy Eat Act Living. 2021;1(3):154. Hartt M. Expanding the playful city: planning for older adult play. Cities. 2023;143:104578
- Noseworthy M, et al. The effects of outdoor versus indoor exercise on psychological health, physical health, and physical activity behaviour: a systematic review of longitudinal trials. Int J Environ Res Public Health. 2023;20(3):1669.
- Pasanen TP, et al. Restoration, well-being, and everyday physical activity in indoor, built outdoor and
- natural outdoor settings. *J Environ Psychol.* 2018;59:85-93.

  Thompson Coon J, et al. Does participating in physical activity in outdoor natural environments have a greater effect on physical and mental wellbeing than physical activity indoors? A systematic review. Environ Sci Technol. 2011;45(5):1761-1772.
- Kemple KM, et al. The power of outdoor play and play in natural environments. Child Educ. 2016:92(6):446-454.
- Lee E-Y, et al. Systematic review of the correlates of outdoor play and time among children aged 3-12 years. Int J Behav Nutr Phys Act. 2021;18(1):41.
- Lee JJ, et al. The role of timing and amount of outdoor play in emotional dysregulation in preschool children. Child Care Health Dev. 2025;51(1):e70020.
- de Lannoy L, et al. Active outdoor play and health and wellbeing among children, youth, and adults: an umbrella review. Protocol.
- Ramsden R, et al. What is the relationship between outdoor risky play and health in children? results from a systematic review. Protocol.
- Al-Amin M, et al. A holistic perspective on children's health: A review on the benefits of nature-based recreational activities. *J Outdoor Environ Ed.* 2024:1-32.
- Dankiw KA, et al. The impacts of unstructured nature play on health in early childhood development: A systematic review. PLoS One. 2020;15(2):e0229006.
- Lackey NQ, et al. Mental health benefits of nature-based recreation: a systematic review. Ann Leis
- Res. 2021:24(3):379-393. Pomfret G, et al. Conceptualising the power of outdoor adventure activities for subjective well-being:
- A systematic literature review, J Outdoor Recreat Tour, 2023;42:100641.
- Thomsen JM, et al.A systematic review of the physical and mental health benefits of wildland ecreation. J Park Recreat Adm. 2018;36(1).
- 41. Rosiek MA, et al. A comparison of the effects of outdoor physical activity and indoor classroombased activities on measures of executive function in preschoolers. Int J Early Child. 2022:54(2):203-215
- 42. Sugiyama M, et al. Outdoor play as a mitigating factor in the association between screen time for young children and neurodevelopmental outcomes. *JAMA Pediatr.* 2023;177(3):303-310. Walters G, et al. Outdoor physical activity is more beneficial than indoor physical activity for cognition
- in young people. Physiol Behav. 2025:114888.
- 44. Brussoni M, et al. Risky play and children's safety: balancing priorities for optimal child development. Int J Environ Res Public Health. 2012;9(9):3134-3148.
- 45. Brymer E, et al. One Health: The well-being impacts of human-nature relationships. Front Psychol. 2019;10:1611.

- 46. Hornby O, et al. What factors explain extreme sport participation? A systematic review. Front Sports Act Living. 2024;6.
- 47. Lee E-Y, et al. Play, Learn, and Teach Outdoors-Network (PLaTO-Net): terminology, taxonomy, and ontology. Int J Behav Nutr Phys Act. 2022;19(1):66.
- Veitch J, et al. Individual, social and physical environmental correlates of children's active free-play: cross-sectional study. Int J Behav Nutr Phys Act. 2010;7:11p.
- Caldwell HAT, et al. Impact of an outdoor loose parts play intervention on Nova Scotian preschoolers' physical literacy: a mixed-methods randomized controlled trial. BMC Public Health. 2023:23(1):1126.
- 50. McArdle K, Harrison, T. Does a nurturing approach that uses an outdoor play environment build resilience in children from a challenging background? J Adventure Educ Outdoor Learn 2013;13(3):238-254.
- Sando OJ, et al. Risky play and children's well-being, involvement and physical activity. *Child Indic Res.* 2021;14(4):1435-1451.
- Jerebine A, et al. "All the fun stuff, the teachers say, 'that's dangerous!" Hearing from children on safety and risk in active play in schools: a systematic review. Int J Behav Nutr Phys Act. 2022:19(1):72.
- Lee E-Y, et al. PLAY+ (Play, Land, Animals, You and +) Framework: the rols of active outdoor play in advancing One Health. In preparation.
  Siefken K, Abu-Omar K. Striking a balance: Physical activity and planetary health. *J Phys Act Health*.
- 2023;20(12):1081-1083.
- Gelius P, et al. Physical activity as a victim, a perpetrator, or part of the solution to the climate crisis? J Phys Act Health. 2024;21(12):1220-1222.
- 56. Gelius P, et al. Must we tell people to be less active? The dilemma of physical activity recommendations from a holistic health perspective. Ger J Exerc Sport Res 2024;54(1):21-28.
- 57. Lee E-Y, Tremblay MS. Unmasking the political power of physical activity research: Harnessing the
- "apolitical-ness" as a catalyst for addressing the challenges of our time. *J Phys Act Health*. 2023:1-3.

  58. Mygind L, et al. Mental, physical and social health benefits of immersive nature-experience for children and adolescents: A systematic review and quality assessment of the evidence. Health Place. 2019;58:102136.
- Nejade RM, et al. What is the impact of nature on human health? A scoping review of the literature. J Glob Health. 2022;12:04099
- de Lannoy L, et al. A mixed-methods systematic review of the association between active outdoor play and environmental stewardship outcomes among children, youth, and adults. Protocol
- Deal PJ, Magyar-Russell GM. A qualitative study of sanctification: How nature becomes sacred for nontheistic environmental activists. Spiritual Clin Pract. 2022:9(1):40-54.
- Human N, Steyn BJM. Psychological transformation of the 'self' towards eco-sensitivity through highrisk nature-based sports; a South African context, J Adventure Educ Outdoor Learn, 2024;24(4):566-
- Jensen JL. Sørensen EB. Recreation, cultivation and environmental concerns: Exploring the materiality and leisure experience of contemporary allotment gardening. Leis Stud. 2020;39(3):322-340
- Ludwig S. Women's transformative experiences while distance running in nature: An intuitive inquiry Qual Psychol. 2019;6(3):339-358.
- Lee E-Y, et al. Ambient environmental conditions and active outdoor play in the context of climate
- change: A systematic review and meta-synthesis. *Environ Res.* 2025;122146. Lee E-Y, et al. Exploring the interplay between climate change, 24-hour movement behavior, and
- health: a systematic review. J Phys Act Health. 2024;21(12):1227-1245.

  67. Park S, et al. Systematic review and qualitative meta-synthesis on active outdoor play and social capital: Relationships and impacts. Protocol.
- Rivas-Quarneti N, et al. Politicizing children's play: a community photovoice process to transform a school playground, Am J Occup Ther, 2024;78(7):1-10.
- 69. Sterman JJ, et al. Mothers supporting play as a choice for children with disabilities within a culturally
- and linguistically diverse community. Scand J Occup Ther. 2020;27(5):373-384. 70. Veitch J, et al. Where do children usually play? A qualitative study of parents' perceptions of influences on children's active free-play. Health & Place. 2006;12(4):383-393.
- 71. Perry M, et al. "Enticing" but not necessarily a "space designed for me": experiences of urban park use by older adults with disability. Int J Environ Res Public Health. 2021;18(2).
   72. Moogoor A, et al. Neighbourhood environmental influences on older adults' physical activities and
- social participation in Singapore: A photovoice study. Soc Sci Med. 2022;310(ut9, 8303205):115288. Puhakka R. University students' participation in outdoor recreation and the perceived well-being
- effects of nature. J Outdoor Recreat Tour. 2021;36:1-9. Satija A, et al. Physical activity among adolescents in India: a qualitative study of barriers and
- enablers. Health Educ Behav. 2018;45(6):926-934.

  75. McRae N, et al. 'The state of play in outdoor play' Exploring global Indigenous knowledge of
- outdoor play: a scoping review. In preparation.

  76. Dean SN, et al. Teacher implementation of active outdoor play-based learning: A systematic review of
- pedagogical models and practices. <u>Protocol.</u>
  Burson SL, Castelli DM. How elementary in-school play opportunities relate to academic achievement
- and social-emotional well-being: systematic review. *J Sch Health*. 2022;92(10):945-958.

  Molyneux TM, et al. Choose your own adventure: promoting social and emotional development
- through outdoor learning. Early Child Educ J. 2023;51(8):1525-1539.
- 79. Miller N, et al. The perceived benefits of and barriers to nature-based play and learning in South stralian public primary schools: a cross-sectional study. J Adventure Educ Outdoor Learn. 2022:22(4):342-354.
- 80. Walter P. Greening the net generation. Adult Learn. 2013;24(4):151-158.
- Smith ES, Dalmer NK. Understanding older adults' participation in outdoor adventure activities: a scoping review. J Adventure Educ Outdoor Learn. 2023:1-22.
- Wu J, et al. Sedentary behavior patterns and the risk of non-communicable diseases and all-cause mortality: A systematic review and meta-analysis. Int J Nurs Stud. 2023;146:104563.
- 83. Xu C, et al. Sedentary behavior, physical activity, and all-cause mortality: dose-response a weighted time-use meta-analysis. J Am Med Dir Assoc. 2019;20(10):1206-1212.e1203.
- Young R, et al. Individual and social determinants of obesity in strategic health messages: Interaction with political ideology. Health Commun. 2016;31(7):903-910.
- Dzakpasu FQS, et al. Musculoskeletal pain and sedentary behaviour in occupational and nonoccupational settings: a systematic review with meta-analysis. Int J Behav Nutr Phys Act. 2021;18(1):159.
- 86. Leask CF, et al. Exploring the context of sedentary behaviour in older adults (what, where, why, when
- and with whom). Eur Rev Aging Phys Act. 2015;12(1):4.

  87. Wachira L-J. Lifestyle transition towards sedentary behavior among children and yuth in Sub-Saharan Africa: a narrative review. In: Marques A, Gouveia ÉR, eds. Sedentary Behaviour - A Contemporary View. Rijeka: IntechOpen; 2021.
- Biswas A, et al. Sedentary time and Its association with risk for disease incidence, mortality, and hospitalization in adults. Ann Intern Med. 2015;162(2):123-132.
- 89. Pillarisetti A, et al. Indoor air pollution and health: bridging perspectives from developing and developed countries. Annu Rev Environ Resour. 2022;47:197-229
- 90. Cardinali M, et al. Green walls and health: An umbrella review. Nature-Based Solutions. 2023;3.

### **Acknowledgements**

#### **AOP10 Executive Leadership**

Mark Tremblay

**CHEO Research Institute** Canada

**Eun-Young Lee** 

Queen's University, Canada Yonsei University, Korea

Louise de Lannoy

Outdoor Play Canada Canada

**AOP10 Leadership Team** 

Dina Adjei Boadi

**Barros** 

University of Ghana, Ghana

Maria Isabel Amando de

Alana Institute. Brazil

Auckland University of

**Scott Duncan** 

Canada Robyn Monro Miller

**Maeghan James** 

International Play Association Australia

CHEO Research Institute

Laerke Mygind

Copenhagen University Hospital, Denmark

Leigh Vanderloo

ParticipACTION, Canada

Po-Yu Wang

National Taiwan Normal University, Taiwan

**AOP10 Publications** 

Technology, New Zealand

- 2025 Position Statement on Active Outdoor Play: https://doi.org/10.1186/s12966-025-01813-9.
- 2025 Position Statement Process and Methodology: https://doi.org/10.0.4.162/s12966-025-01806-8

#### **AOP10 Partners**















AOP10 is supported by







Funded by the Government of Canada

Financé par le gouvernement du Canada





