



Impact of the ParticipACTION Report Card on physical activity for children and youth in Canada: 2015–2024

Leigh M. Vanderloo^{a,b,c,*} , Brianne A. Bruijns^{a,b} , Nicholas Kuzik^c, Emily Stone^c, Mark S. Tremblay^{c,d} 

^a School of Occupational Therapy, Western University, London, Canada

^b Research & Evaluation, ParticipACTION, Toronto, Canada

^c Children's Hospital of Eastern Ontario Research Institute, Ottawa, Canada

^d Department of Pediatrics, University of Ottawa, Ottawa, Canada

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ABSTRACT

Background: Canada has produced 16 national Report Cards on the Physical Activity of Children and Youth over the past 20 years. This manuscript details the impact of the most recent Report Cards released between 2015 and 2024, updating evidence since the publication of the impact paper focused on the first 10 years (2005–2014).

Methods: Various quantitative and qualitative approaches were employed to catalogue the developmental history and background of the Report Card, its leadership and sources of funding; consolidate and discuss the various evaluations and assessments that have been performed on the Report Card from 2015 to 2024; describe the distribution and reach of the Report Card from 2015 to 2024; and, examine the multi-dimensional impact of the Report Card on propelling the movement to get children and youth moving over the past 10 years in Canada and internationally.

Results: Leadership by ParticipACTION has led to replicating the Children and Youth Report Card in over 70 jurisdictions, with many examples of beneficial cross-fertilization of ideas across jurisdictions and sectors. The multisectoral impact of the Report Card in Canada continues to be substantial, though sustained funding remains a challenge. There is modest evidence that grades for some indicators are drifting upwards. Deliberate efforts have been made to better integrate evidence and gaps related to the physical activity of equity-denied groups. **Conclusions:** Over the past 10 years, the ParticipACTION Children and Youth Report Card has continued to have a measurable, positive impact on the pediatric physical activity field in Canada (and beyond).

1. Introduction

The physical inactivity crisis among children (5–11 years) and youth (12–17 years) is pervasive and growing.¹ A systematic review of 1.6 million youth (11–17 years) from 146 countries and territories found that a staggering 81 % of youth were insufficiently physically active according to global recommendations¹ and a synthesis of evidence on school-aged children (5–17 years) from 57 countries assigned a “D” grade for overall physical activity.² Rampant rates of physical inactivity in youth are alarming considering the numerous physical, cognitive, and social-emotional health benefits associated with physical activity for children and youth.³ Further, given the link between physical inactivity and non-communicable diseases and mortality, it is projected that the global cost of inaction on physical inactivity will reach over \$47 billion

per year in healthcare costs by the year 2030.⁴ To address this crisis, in 2018 the World Health Organization (WHO) launched the Global Action Plan on Physical Activity (GAPPA), with a primary aim of a 15 % relative reduction in the global prevalence of physical inactivity for adults and adolescents by the year 2030.⁵ To achieve this target, the WHO recommends that countries employ a systems-based solution that includes a combination of upstream policy actions aimed at improving the social, cultural, economic, and environmental factors that support physical activity; and downstream, individually focused educational and informational approaches. For instance, a systems-based solution for children and youth could include upstream policy actions aimed at ensuring the school environment fosters physical activity and downstream individually focused efforts aimed at ensuring children receive quality physical education. In Canada, ParticipACTION is a non-profit, charitable

* Corresponding author. School of Occupational Therapy, Western University, Elborn College, Rm 2585, 1202 Western Road, London, ON, Canada, N6G 1H1.

E-mail address: lvande32@uwo.ca (L.M. Vanderloo).

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organization that contributes to the WHO physical activity target by inspiring and supporting people to make physical activity a vital part of their everyday life. Since 1971, ParticipACTION has served as Canada's premier physical activity brand, working with organizations within the sport, physical activity and recreation sector, alongside government and corporate sponsors, to help people living in Canada be less sedentary and more physically active by:

- Inspiring and supporting people to make physical activity a vital part of their everyday lives;
- Reducing personal, societal and systemic barriers to physical activity so that people can make room to move in their daily lives;
- Identifying and providing opportunities for movement where people live, learn, work and play through innovative engagement initiatives and thought leadership; and,
- Championing the need for Canada to make physical activity a national priority through collaborative advocacy efforts that aim to drive policy changes and promote a more active and healthier society.⁶

As a recognized thought leader in the physical activity and sport space, one of the primary ways ParticipACTION helps mobilize knowledge is via the *ParticipACTION Report Card on Physical Activity for Children and Youth* (formerly the *Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth*).⁷ This Report Card, first released in 2005, is the most comprehensive summary and assessment of child and youth physical activity in Canada and provides a robust assessment of indicators using the academic letter grade rubric (grades A to F). For nearly 20 years the Report Card has provided essential guidance and information for Canada and globally. A 10-year impact analysis performed following the 2014 release of the Report Card (10th Canadian Report Card) demonstrated that while the Report Card had huge success in terms of distribution (>120,000 printed copies, >200,000 electronic copies), reach (>1 billion media impressions), and replication (i.e., 14 countries, two provinces, one state, and one city), the overall grades for the indicators remained low and largely unchanged.^{7,8}

Some important new developments have occurred since the initial 10-year impact assessment of the Report Card.⁷ First, the Global Matrix – a summary of how child and youth physical activity compares across countries – was launched by Active Healthy Kids Canada (now led by the Active Healthy Kids Global Alliance) and has gained significant traction, from 15 participating countries in its first release in 2014 to 57 participating countries from six continents in the Global Matrix 4.0 in 2022.⁹ The Global Matrix consolidates letter grades from countries that have adopted Canada's Report Card framework to facilitate international comparisons of child and youth physical activity across 10 indicators.²

Next, there has also been a paradigm shift to consider physical activity within the context of other 24-h movement behaviours, including sedentary behaviours and sleep.¹⁰ Accordingly, the *Canadian 24-Hour Movement Behaviour Guidelines for Children and Youth* were released in 2016, as it was found that meeting more recommendations within the 24-h movement guidelines was associated with better holistic health.¹¹ In fact, compared to meeting all three (i.e., physical activity, sedentary behaviour, and sleep) recommendations, meeting none, one, and two recommendations was associated with a higher BMI z-score and waist circumference, and lower aerobic fitness.¹⁰ A recent meta-analysis of 387,437 children and youth from 23 countries revealed that only 11 % of preschoolers (3–5 years), 10 % of children (6–12 years), and 3 % of adolescents (13–18 years) were meeting all 24-h movement behaviour recommendations.¹² A coordinated, global effort to improve 24-h movement behaviours among children and youth is clearly needed. As such, a 24-Hour Movement Behaviours indicator was added to the Canadian Report Card beginning in 2018. In light of these significant developments, an updated assessment is required to highlight changes, implications and impacts of the Physical Activity Report Card Children

and Youth in Canada.

1.1. Objectives

Considering the multitude of scientific developments, published research, and strategic changes to knowledge mobilization strategies that have occurred in the past 10 years, the objectives of this 10-year follow-up impact assessment of the ParticipACTION Report Card on Physical Activity of Children and Youth for 2015–2024 are to:

- Consolidate, summarize, and discuss the various evaluations, and assessments that have been performed on the Report Card from 2015 to 2024;
- Provide an overview of the distribution and reach of the Report Card from 2015 to 2024; and,
- Examine the multi-dimensional impact that the Report Card has had on propelling the movement to get children and youth moving over the past 10 years in Canada and internationally.

2. History and background of the Report Card

The early history and background of the Report Card (2005–2014) has been explained in previous publications.^{7,13} Between 2005 and 2014 the Report Card was prepared and released annually by Active Healthy Kids Canada, a charitable foundation located in Toronto, Canada. In 2015 Active Healthy Kids Canada ceased operations, and its assets, including the Report Card, were transferred to ParticipACTION. In 2016, the frequency of release of the Report Card was switched to every two years. Whereas the first published impact analysis examined 10 Report Cards, this manuscript is focusing on the six Report Cards published by ParticipACTION in the past 10 years (2015–2024; see Fig. 1 for the cover pages).⁷

The Canadian Report Card model has had tremendous influence internationally, with over 70 countries and jurisdictions replicating the process and methodology.^{14,15} International coordination is now led by the Active Healthy Kids Global Alliance, where groups of countries develop and release Report Cards simultaneously and follow a harmonized and coordinated process producing a “Global Matrix” of grades related to the physical activity of children and youth.¹⁵ This global initiative allows countries succeeding and struggling to learn from one another to “improve the grade” locally and globally. The impacts of the Global Matrix initiative have also been described, none of which would have been possible without the Canadian Report Card process, guidance, and leadership.⁸

The Report Card process has been relatively unchanged over the past 10 years. Briefly, the process begins with a leadership committee (e.g., Chief Scientific Officer, Research Manager and Lead Author, and Project Manager) meeting where Report Card Research Committee (RCRC) members are suggested and subsequently invited to join. RCRC members are recruited to represent a range of children's physical activity expertise domains, national geographic dispersion, and sector representation (i.e., academic, government, and non-government). At the first RCRC meeting, the indicators and their benchmarks are discussed, with indicators attempting to encapsulate a full picture of children's physical activity in Canada with the domains of Daily Behaviours, Individual Characteristics, Spaces & Places, and Strategies & Investments. In line with the indicators, the best available data sources are identified to assess the corresponding benchmarks. At the second RCRC meeting, results from the data sources are discussed and consensus is reached on a grade for each indicator. While it is common to hold additional meetings, for instance, to discuss late-breaking data or Report Card cover stories, most of the Report Card grades are assigned at the second RCRC meeting. A summary of the indicators and assigned grades over the past 10 years is provided in Table 1. Table 2 provides summary details of the Children and Youth Reports Cards from 2015 to 2024. A time trend analysis is illustrated in Fig. 2.



Fig. 1. Cover pages of the Children and Youth Reports Cards (2015–2024).

Table 1
Summary of indicators and grades from the ParticipACTION Children and Youth Report Cards (2015–2024).

Indicator	Year					
	2015	2016	2018	2020	2022	2024
Daily Behaviours						
Overall Physical Activity	D-	D-	D+	D+	D	D+
Active Play	INC	D+	D	F	D-	D-
Active Transportation	D	D	D-	D-	C-	C-
Organized Sport	B-	B	B	B	C+	B
Physical Education	N/A	N/A	C-	D+	INC	C
Sedentary Behaviour	D-	F	D	D+	F	D
Sleep	N/A	B	B+	B	B	B-
24-Hour Movement Behaviours	N/A	N/A	F	F	F	F
Individual Characteristics						
Physical Literacy	INC	D+	D+	D+	INC	INC
Physical Fitness	N/A	N/A	D	D	INC	INC
Spaces & Places						
Household	C+	C+	C+	C	C	C+
School	C+	B	B-	B-	B-	B-
Community & Environment	B+	A-	B+	B+	B	B
Strategies & Investments						
Government	B-	B-	C+	B-	B-	B
Non-Government	A-	A-	N/A	N/A	N/A	N/A

Notes. Grading scheme: A+ = 94–100 %; A = 87–93 %; A- = 80–86 %; B+ = 74–79 %; B = 67–73 %; B- = 60–66 %; C+ = 54–59 %; C = 47–53 %; C- = 40–46 %; D+ = 34–39 %; D = 27–33 %; D- = 20–26 %; F = 0–19 %; INC = insufficient data available to assign a grade; N/A = not applicable; “Under construction” = assigned to indicators where work was needed to re-think the variable and data sources.

Annual financial resources invested (external funders and sponsors) in the development and dissemination of the Report Card have ranged from \$134,000–\$570,000 CAD, totalling just under \$2 million CAD from 2015 to 2024 (see Table 3). During this same 10-year period, ParticipACTION has internally invested a total of ~\$3 million CAD into this seminal product (Table 4). In-kind contributions from strategic partners, including the Healthy Active Living and Obesity Research Group at the Children’s Hospital of Eastern Ontario Research Institute, the Canadian Fitness and Lifestyle Research Institute, the time and effort of RCRC members, among others, are in addition to investments listed here. Despite the success and established leadership of this knowledge mobilization product, securing sustainable funding for the Report Card and its related resources remains an ongoing challenge.

3. 10-Year summative impact review

Routine evaluations and consultations are undertaken to assess the impact of the ParticipACTION Report Card – the results, processes, activities, and outputs. Table 5 lists the various evaluations and consultations conducted; more detailed reports are available upon request from the authors. Records of distribution and media impact, emerging investments in pediatric equity groups, and key performance indicators related to knowledge mobilization of the Report Card have been captured, and qualitative testimonials gathered. Collectively, this summation of data provides a detailed and diverse overview of the Report Card’s impact and its related activities.

3.1. Grade change analysis

A 10-year trend analysis of the indicator grades from 2015 to 2024

Table 2
Summary details of the children and youth reports cards (2015–2024).

Year	Title	Released Formats?			Embedded Knowledge Product?	# Words		
		Highlight/ Short Form	Research Report/Long Form	Hybrid		Highlight/ Short Form	Research Report/Long Form	Hybrid
2024	Rallying for resilience: Keeping children and youth active in a changing climate	x	x		No	3712	31,919	
2022	Lost & Found: Pandemic-related challenges and opportunities for physical activity			x	No			33,351
2020	The role of the family in physical activity, sedentary and sleep behaviours of children and youth	x	x		Yes – Consensus Statement on the Role of the Family in the Physical Activity, Sedentary and Sleep Behaviours of Children and Youth	9007	46,897	
2018	Canadian kids need to move more to boost their brain health	x	x		Yes – Expert Statement on Brain Health and Physical Activity in Children & Youth	8826	48,696	
2016	Are Canadian kids too tired to move?	x	x		Yes – 24-Hour Movement Guidelines for Children and Youth	2392	29,453	
2015	The biggest risk is keeping kids indoors	x	x		Yes – Position Statement on Active Outdoor Play	2858	25,986	

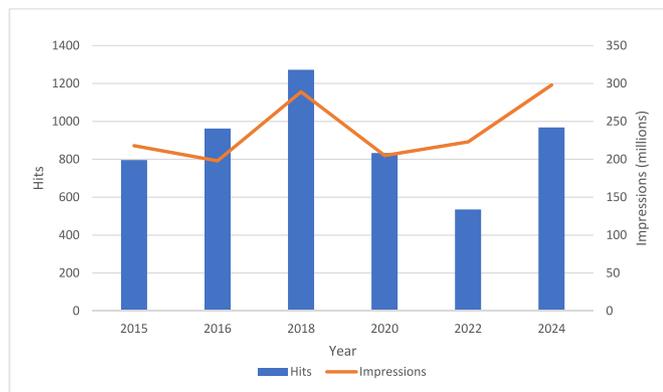


Fig. 2. Media hits and impression from the ParticipACTION Children and Youth Report Card releases (2015–2024).

was carried out. Specifically, to determine where changes in behaviours or supports had occurred, a descriptive temporal trend analysis of the Report Card indicators was performed. All letter grades were converted to numeric ordinal scores (A+ = 12, A = 11, A- = 10, B+ = 9, B = 8, B- = 7, C+ = 6, C = 5, C- = 4, D+ = 3, D = 2, D- = 1, F = 0). Delta (change) scores were calculated by subtracting ordinal scores, year over year. Double hyphens were used in instances when there was missing or INC data for two years in a row. To arrive at an estimate of overall change from 2015 to 2024, net delta scores were calculated by summing the

Table 3
External funding and sponsorship of the ParticipACTION children and youth reports cards (2015–2024).

	2024	2022	2020	2018	2016	2015	TOTAL
Sport Canada	\$11,590	\$105,121	\$175,934	\$160,250	–	–	\$452,895
Public Health Agency of Canada	\$258,867	\$290,225	\$345,851	\$85,198	–	–	\$980,141
British Columbia Ministry of Health	–	–	\$49,285	–	–	–	\$49,285
Saputo	\$20,000	–	–	–	–	–	\$20,000
Days Inn	–	–	–	\$40,000	–	–	\$40,000
Interprovincial Sport and Recreation Council (ISRC)	–	–	–	\$20,000	\$20,000	\$20,000	\$60,000
Kids Brain Health Network	–	–	–	\$10,000	–	–	\$10,000
RBC	–	–	–	–	\$70,000	\$49,270	\$119,270
The Lawson Foundation	–	–	–	–	–	\$50,000	\$50,000
Clarington Investments	–	–	–	–	\$50,000	–	\$50,000
MLSE Foundation	–	–	–	–	–	\$10,000	\$10,000
Heart and Stroke Foundation of Canada	–	–	–	–	–	\$5000	\$5000
TOTAL	\$290,457	\$395,346	\$571,071	\$315,449	\$140,000	\$134,270	\$1,836,592

yearly delta scores for each indicator. The frequency of grade changes was also calculated (see Table 6).

The results of this analysis highlight 30 grade changes between 2015 and 2024, with 73 % (22/30) signalling a positive change or improvement. Of the 15 physical activity indicators reviewed, 53 % (8/15) had a positive net delta score, indicating relative improvement over the past decade. Four (27 %) indicators had a negative net delta score and 3 (20 %) had a null net delta score. The Active Play indicator underwent the greatest negative net delta score ($\delta = -2$), whereas Physical Fitness underwent the greatest positive net delta score ($\delta = 2$). The remaining

Table 4
Internal costs of the Children and Youth Report Card by ParticipACTION (2015–2024).

	Annual Internal Cost
2024 Report Card	\$432,952
2022 Report Card	\$530,595
2020 Report Card	\$694,025
2018 Report Card	\$672,114
2016 Report Card	\$656,832
TOTAL	\$2,986,517

Note. Internal costs reflected in the table is the sum of fees for public and media relations, design costs, translation, data cuts from national surveillance firms, and staff time. The decline in costs for the most recent two editions can be attributed to the elimination of the internal Knowledge Product, a reduction in the scope for production (design of short form only), and minimal printing.

Table 5
Summary of evaluation activities undertaken to assess the ParticipACTION Children and Youth Report Card (2015–2024).

Report Card Release Year	Data Collection Method	Survey Objectives	Sample Description
2024	Online survey	<p>Brand Survey (panel survey) Annual assessment of the organization's image in the Canadian market (including launched initiatives, like the Report Card).</p> <p>Organization Survey To evaluate the Report Card and to gather overall stakeholder feedback on the use of the Report Card across all sectors (not limited to physical activity, sport and recreation).</p>	Representative sample of people in Canada (N = 1,000), with oversamples among individuals with disabilities, newcomers, racialized and indigenous groups (N = 350). N = 18,038
2022	Online survey	<p>Brand Survey</p> <p>Sector Survey To evaluate the Report Card and gather overall stakeholder feedback across the physical activity, sport and recreation sectors.</p>	Representative sample of people in Canada (N = 1,000), with oversamples (N = 350). N = 13,209
2020	Online survey	<p>Brand Survey</p> <p>Sector Survey</p>	Representative sample of people in Canada (N = 1,000), with oversamples (N = 350). N = 10,862
2018	Online survey	Report Card Survey To gather feedback on the Report Card from end-users (general population and stakeholders).	N = 1,500
2016	Online survey	Report Card Survey	N = 1,500
2015	Online survey	Report Card Survey	N = 1,500

Note. KPI = key performance indicator.

13 indicators generally had around $\delta = -1$ to 1. Despite the numerous observed delta net changes observed over the past 10 years, no notable trends by indicator type (i.e., daily behaviours, individual characteristics, spaces & places, or strategies & investments) emerged.

3.2. Considering equity and physical activity among children and youth

With emerging trends and increased recognition and appreciation for the impact of social constructs on children and youth's movement behaviours, the RCRC has remained committed to discussing and focusing on these issues as much as data have allowed.¹⁶ Grades remain informed by the general population of children and youth in Canada, including equity-denied populations (i.e., children and youth who identify barriers to equal access, opportunities and resources due to disadvantage and discrimination). Further, to present a more fulsome picture of children and youth's physical activity in Canada efforts have been made to gather data specific to equity-denied children and youth, while highlighting existing surveillance and measurement gaps. Synthesizing data for equity-denied groups is also important to elucidate gaps where coordinated health promotion efforts are needed, as evidence suggests that

equity-denied groups face additional barriers to getting active compared to the general population.¹⁷ Despite efforts to synthesize relevant data, a dearth of evidence focused on equity-denied groups persists. Expanded efforts are crucial to provide representativeness across the intersections of equity-denied groups and to have sufficient samples to assess equity-denied groups in comparison to general population groups.

One recent example of work undertaken to address the RCRC's call-to-action to highlight equity-denied groups comes in the form of the release of Canada's first-ever *Para Report Card on Physical Activity for Children and Adolescents with Disabilities* by an ad-hoc committee of vested academics in 2022.¹⁸ The release of the Para Report Card provided a much-needed opportunity to present disaggregated data specific to children and youth with disabilities across all indicators. Expert appraisal of the data gaps, opportunities, and recommendations for enhancing physical activity among this equity-denied group were also included.

3.3. Knowledge mobilization: distribution, reach and use of the Children and Youth Report Card

Each year, a comprehensive knowledge mobilization plan is developed to help maximize the reach and optimize uptake of the Report Card findings among its intended end-users (e.g., parents, educators, public health officials, researchers/academics, policymakers, community organizations). This plan includes distribution, public relations, and media strategies to amplify the impact of each Report Card launch. The release is facilitated by a network of partner organizations located across the country to increase awareness and distribution, while also providing media spokespeople in each key media market and in both French and English. ParticipACTION serves as the centralized hub for the Report Card, coordinating the distribution of the document (including supporting materials and products) to its network of community partners and other key government/non-government partners. ParticipACTION relies on a cascading distribution approach, whereby it is anticipated that once all materials are received by the network of partner organizations they will in-turn share the materials with their respective partners and audiences. See Table 7 for distribution details.

In addition to community partners and the general population in Canada, the Report Card information is also widely distributed to the scientific community via several academic channels, including, but not limited to, conference presentations and peer-reviewed publications. Since 2015, 26 presentations in nine countries, and 13 manuscripts (>1,000 citations Scopus) have been published. See Table 8 for a summary of academic outputs related to the Report Card.

Media attention to the release of the Report Card continues to be extraordinary. The number of media hits (number of stories or times the content appears) has ranged from 535 to 1,272, while media impressions (hits multiplied by reach of each outlet covering the story) has ranged from 205 to 298 million (see Fig. 2; note Canada has a population of approximately 39 million). The cover stories of each Report Card release have focused on different aspects of the physical inactivity crisis, providing recommendations and evidence-informed solutions that, if implemented, could serve to improve grades and children's health overall. This strategy has proven effective in extending and enriching media coverage of the Report Card through greater stakeholder engagement. The calculated advertisement value of the 2024 release alone was estimated at \$3.6 million and the public relations value was estimated at \$21.5 million.

Each year, ParticipACTION deploys a survey to Report Card end-users to gather information on how the document (and related knowledge mobilization tools) are used to advance research in the field; policy or strategy development; program design or delivery changes; education and training; creation of new or strengthened partnerships; and advocacy. Overall, pooled respondent data from 2015 to 2024 suggest high levels of satisfaction with the Report Card content and materials and indicate strong agreement that the Report Card increases awareness of

Table 6
Grade changes in the ParticipACTION Children and Youth Report Card indicators (by indicator and year).

Indicator	Delta Scores					Net Delta	Grade Change Frequency
	2015–2016	2016–2018	2018–2020	2020–2022	2022–2024		
Daily Behaviours (average)	0	−0.5	0.4	0.3	−0.6	−0.3	2.5
	0	−2	0	1	−1	−2	3
Overall Physical Activity	−	1	2	−1	0	2	3
Active Play	0	1	0	−3	0	−2	2
Active Transportation	−1	0	0	2	−2	−1	3
Organized Sport	−	−	1	−	−	1	1
Physical Education	1	−2	−1	3	−2	−1	5
Sedentary Behaviour	−	−1	1	0	1	1	3
Sleep	−	−	0	0	0	0	0
24-Hour Movement Behaviours	−	0	1	0	−	1	0.5
Individual Characteristics (average)	−	0	0	−	−	0	0
Physical Literacy	−	−	0	−	−	0	0
Physical Fitness	−1	0.7	0.3	0.3	−0.3	0	2.3
Spaces & Places (average)	0	0	1	0	−1	0	2
Household	−2	1	0	0	0	−1	2
School	−1	1	0	1	0	1	3
Community & Environment	0	1	−1	0	−1	−0.5	1.5
Strategies & Investments (average)	0	1	−1	0	−1	−1	3
Government	0	−	−	−	−	0	0
Non-Government ^a							

Note: a. The Non-Government indicator was discontinued after the 2016 Report Card.

Table 7
Distribution of the ParticipACTION Children and Youth Report Cards (2015–2024).

Release Year	Printed Distribution	Digital Downloads
2024	250 (200 English, 50 French)	4,457 ^a
2022	6 (5 English, 1 French) <i>Note:</i> COVID-19 issue	10,452
2020	30 Long-form Report Card (25 English, 5 French) 1000 Highlight Report Cards (850 English, 150 French) <i>Note:</i> Decision was made to go ‘digital first’ and make minimal paper print runs (for environmental and cost considerations)	8,549
2018	21,000 (17,500 English, 3500 French)	8,432
2016	15,000 (13,000 English, 2,000 French)	10,209
2015	12,500 (10,000 English, 2500 French)	6,032

Note. a. Updated on August 9, 2024.

the physical activity of children and youth in Canada. As observed from 2005 to 2014, scientific credibility, rigor, and media reach continue to be reported as the most important aspects of the document.⁶ According to the end-user survey, the Report Card has made the greatest contributions to the following activities: public awareness/education campaigns (62 %), research (58 %), evaluation (53 %), advocacy strategies (53 %), partnership development (53 %), program design (51 %), policy/strategy development (48 %), and funding (41 %). A more complete breakdown of these data is provided in Fig. 3 and Table 9.

3.4. Environmental scan of impact

An online environmental scan of the Report Card was undertaken to aggregate specific examples of impact between 2015 and 2024. Selected national examples of how the Report Card has influenced priorities, policies, practice, and research across various sectors in Canada (e.g., physical activity, sport, recreation, health, education, infrastructure) are summarized in Supplemental File 1. Included evidence varied from serving as justification for program initiation, evidence for grant proposals, government accountability and policy development, an informal research agenda, and a catalyst for debate and dialogue (both in Canada and beyond). The Report Card has been cited in hundreds of press releases, newspaper and magazine articles, blogs, speeches, and in the Canadian legislature, which provides further evidence that the Report Card and related materials have had a longstanding impact on propelling the children and youth physical activity “movement” forward in Canada.

Internationally, the Report Card has also resulted in notable impacts.^{7,19,20} In 2014, and for the first time, the Canadian Report Card process was replicated in 15 countries from five continents (Australia, Canada, Colombia, England, Finland, Ghana, Ireland, Kenya, Mexico, Mozambique, New Zealand, Nigeria, Scotland, South Africa, and The United States), resulting in the Global Matrix 1.0.²¹ This internationalization of the Report Card has resulted in four Global Matrix releases (with the fifth edition to be launched in 2026) and has included over 60 low-, middle-, and high-income countries and regions across the globe, resulting in notable changes in research capacity, surveillance measures, leadership and attention to the epidemic of physical inactivity among

Table 8
Summary of academic outputs from the ParticipACTION Children and Youth Report cards (2015–2024).

a) Conference Presentations, Symposia, and Webinars			
Year	Presentation Description	Level	Audience
2024	1 symposium 2 conference presentations 1 public presentation	National, International	Academic/Research, General Public
2022	1 symposium 1 conference presentations	National, International	Academic/Research
2020	1 conference presentation	National	Academic/Research
2018	5 conference presentations	National, International	Academic/Research
2016	4 webinar presentations 5 conference presentations	National	Academic/Research
2015	1 symposium 4 conference presentations 1 invited presentation	International, Provincial	Academic/Research, Policymakers

b) Peer-Reviewed Publications			
Year	Paper	# of Citations ^a	
		Scopus	Google Scholar
2022	Kuzik N, Cameron C, Carson V, Chaput JP, Colley R, Doiron J et al. The 2022 ParticipACTION Report Card on Physical Activity for Children and Youth: Focus on the COVID-19 pandemic impact and equity-deserving groups. <i>Front Public Health</i> . 2023; 11:1172168.	4	5
	Arbour-Nicitopoulos KP, Kuzik N, Vanderloo LM, Martin Ginis KA, James ME, Bassett-Gunter RL et al. Expert Appraisal of the 2022 Canadian Para Report Card on Physical Activity for Children and Adolescents with Disabilities. <i>Adapt Phys Activ Q</i> . 2023 Jul 1; 40(3):465–74.	5	0
2020	Rhodes RE, Guerrero MD, Vanderloo LM, Barbeau K, Birken CS, Chaput JP et al. Development of a consensus statement on the role of the family in the physical activity, sedentary, and sleep behaviours of children and youth. <i>International Journal of Behavioral Nutrition and Physical Activity</i> . 2020 Jun 16; 17(1):74.	141	231
2018	Barnes JD, Cameron C, Carson V, Chaput JP, Colley RC, Faulkner GEJ et al. Results from Canada’s 2018 Report Card on Physical Activity for Children and Youth. <i>J Phys Act Health</i> . 2018 Nov 1; 15(S2):S328–30.	29	46
	Lithopoulos A, Dacin PA, Berry TR, Faulkner G, O’Reilly N, Rhodes RE et al. Examining the ParticipACTION brand using the brand equity pyramid. <i>Journal of Social Marketing</i> . 2018 Jan 1; 8(4):378–96.	9	13
	Faulkner G, Yun L, Tremblay MS, Spence JC. Exploring the impact of the ‘new’ ParticipACTION: overview and introduction of the special issue. <i>Health Promot Chronic Dis Prev Can</i> . 2018 Apr; 38(4):153–61.	11	13
	Faulkner G, Ramanathan S, Plotnikoff RC, Berry T, Deshpande S, Latimer-Cheung AE et al. ParticipACTION after 5 years of relaunch: a quantitative survey of Canadian organizational awareness and capacity regarding physical activity initiatives. <i>Health Promot Chronic Dis Prev Can</i> . 2018 Apr; 38(4):162–9.	4	5
	Ramanathan S, Faulkner G, Berry T, Deshpande S, Latimer-Cheung AE, Rhodes RE et al. Perceptions of organizational capacity to promote physical activity in Canada and ParticipACTION’s	4	5

Table 8 (continued)

b) Peer-Reviewed Publications			
Year	Paper	# of Citations ^a	
		Scopus	Google Scholar
	influence five years after its relaunch: a qualitative study. <i>Health Promot Chronic Dis Prev Can</i> . 2018 Apr; 38(4):170–8.		
	Spence JC, Faulkner G, Lee EY, Berry T, Cameron C, Deshpande S et al. Awareness of ParticipACTION among Canadian adults: a seven-year cross-sectional follow-up. <i>Health Promot Chronic Dis Prev Can</i> . 2018 Apr; 38(4):179–186. https://doi.org/10.24095/hpcdp.38.4.04 . PMID: 29671967; PMCID: PMC5983882.	6	12
	Janson K, LeBlanc AG, Vanderloo LM, Antunes E. Commentary - Moving forward: ParticipACTION’s strategic plan 2015–2020. <i>Health Promot Chronic Dis Prev Can</i> . 2018 Apr; 38(4):187–9.	1	1
2016	Barnes JD, Cameron C, Carson V, Chaput JP, Faulkner GEJ, Janson K et al. Results from Canada’s 2016 ParticipACTION Report Card on Physical Activity for Children and Youth. <i>J Phys Act Health</i> . 2016 Nov; 13(11 Suppl 2):S110–6.	51	92
	Barnes JD, Tremblay MS. Changes in indicators of child and youth physical activity in Canada, 2005–2016. <i>Canadian Journal of Public Health</i> . 2016 Nov; 107:e586–9.	15	23
2015	Tremblay MS, Gray C, Babcock S, Barnes J, Costas Bradstreet C, Carr D et al. Position Statement on Active Outdoor Play. <i>International Journal of Environmental Research and Public Health</i> 12:6475–6505, 2015.	276	528
	Dottori M, Faulkner G, Rhodes R, O’Reilly N, Vanderloo L, Abeza G. Lost in knowledge translation: Media framing of physical activity and sport participation. <i>International Journal of Sport Communication</i> . 2019 Dec 1; 12(4):509-30.	1	7

Note. Updated on September 3, 2024.

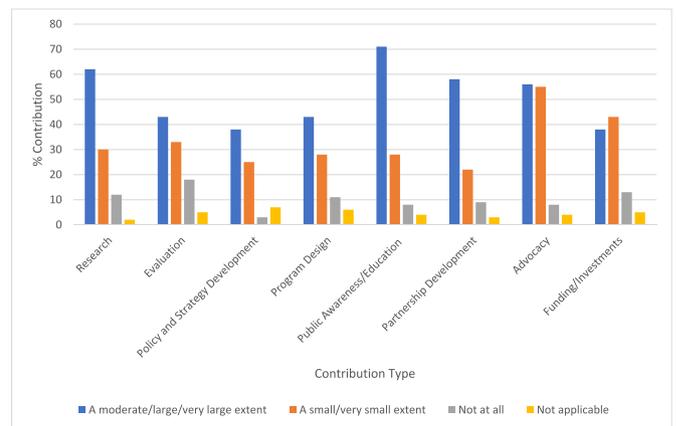


Fig. 3. Reported uses and contributions of the Children and Youth Report Card by percent of respondents (2015–2024).

children and youth. Since its inception, the Global Matrix has compared >1,000 grades across ten indicators and has resulted in >230 international peer-reviewed publications (cited >7,000 times Scopus) and >370 professional and scholarly presentations. It has also involved >180 trainees from around the world.²¹

3.5. Testimonials

Each year, ParticipACTION receives a high volume of feedback about the Report Card, with the large majority being positive and inspiring.

Table 9
Awareness, engagement and impact of the ParticipACTION Children and Youth Report Cards (2015–2024).

Metric	Report Card Release Year					
	2015	2016	2018	2020	2022	2024
% of organizations aware of the Report Card.	56 %	66 %	63 %	84 %	84 %	86 %
% of organizations utilizing Report Card resources and tools.	–	–	84 %	91 %	86 %	88 %
% of organizations utilizing Report Card resources and tools report improved knowledge and/or skills.	–	–	75 %	79 %	87 %	83 %
% organizations reporting that they had shared or would share the Report Card within their sector.	99 %	98 %	94 %	86 %	78 %	87 %
% of people in Canada who are aware and/or familiar with the Report Card [brand]	Awareness not assessed 12 % very familiar or somewhat familiar	27 % aware 11 % familiar or very familiar	48 % aware 25 % familiar or very familiar	67 % aware 27 % familiar or very familiar	75 % aware 38 % familiar or very familiar	68 % aware 33 % familiar or very familiar
% of people in Canada who recall key messages of the Report Card (among aware)	44 %	42 %	58 %	46 %	58 %	65 %
% of people in Canada aware of the Report Card report taking action as a result of this product	49 %	41 %	52 %	64 %	44 %	56 %

Notes. Brand awareness is binary — you either know the brand or you do not. Brand familiarity means an individual has enough knowledge to have an opinion about a brand or product.

Sample feedback is reported in Table 10. These solicited and unsolicited testimonials represent the views of various end-users including community partners; educators; government officials; physical activity, sport and recreation leaders; researchers; public health and health promotion professionals; and parents.

4. Summary of impact and notable actions over the past 10 years

The ParticipACTION Report Card on Physical Activity for Children and Youth continues to have a profound impact on powering the movement to get this population active in Canada. This claim is substantiated by the wealth of diverse evidence presented in this paper including formal evaluation activities, consultations, media reports, distribution summaries, website activities, environmental scans, and testimonials. Despite the positive reception of this large-scale data synthesis, only incremental grade changes have been reported.

In Canada, attention and investment in adverse structural and social forces (e.g., car dominance/auto-dependency, greenspace destruction, park maintenance deferrals, restrictive by-laws constraining active play) often dwarf those directed at promoting and preserving healthy movement behaviours – a recalibration of effort and funding is necessary to provoke change. Relatively tiny, irregular investments and commitments in the face of mammoth counter-acting forces create an environment where the status quo equates with relative success. Unique to Canada is the development of four national strategies in support of sport, physical activity, and/or recreation.^{22–25} While these strategies highlight potential social and environmental correlates of sport, physical

activity and/or recreation, and note societal outcomes such as changes in behaviour and health, clear links to larger global initiatives such as the United Nations’ Sustainable Development Goals (SDGs) are missing.²⁶ Per the identified overlap between most of the SDGs and the successful achievement of physical activity targets in the GAPPA, it is posited that the proactive integration of SDG indicators in Canadian sport, physical activity, and/or recreation strategies could achieve synergies and efficiencies across both sets of plans. This also prompts consideration to revamp the Report Card (and, in turn, Global Matrix) benchmarks to align with SDG indicators, furthering the coordinated effort needed to achieve targets within the GAPPA.

Also important to consider is the ever-changing media market targeting children and youth, making health promotion messaging even more difficult to reach (and resonate) among an audience that is continually bombarded by less healthy messaging. In the US alone, estimates from the early 2000’s indicated over \$12 billion/year is spent on advertising targeting the youth market,²⁷ which is likely growing considering the main social media companies made nearly \$11 billion in ad revenue from US children zero to 17 years in 2022.²⁸ Pitting the giant funding spent and profits made for getting children to consume more screen time, against the funds available to help children get active, makes for an unfair fight with serious ramifications to children’s health and development. However, despite such instances of mismatched funding allocations, the Report Card grades have shown stagnation or slight improvements which is a testament to the efforts of organizations like ParticipACTION dedicated to supporting physical activity efforts among children and youth in Canada.

Table 10
Testimonials from select Children and Youth Report Card knowledge- or end-users.

Sample Quotes
<p>“On behalf of the Honourable [Minister of Health], [...] I would like to congratulate you on the recent release of ParticipACTION’s 2024 Report Card on Physical Activity for Children and Youth (Report Card) on May 7, 2024. The Government of Canada commends you on your continued efforts to improve the lives and health of people living in Canada through the promotion of physical activity. In this 16th iteration of the Report Card, we are pleased to see improvements for the Overall Physical Activity, Organized Sport, Sedentary Behaviours and Government Strategies and Investment indicators, compared with the last Report Card from 2022. [...] Resiliency and Climate Change is an important theme for this year’s Report Card given the expected risks and long term health impacts that children and youth will continue to face from unfavourable climate conditions. It is encouraging to see that some of the climate considerations highlighted in this Report Card align with the Chief Public Health Officer of Canada’s Report on the State of Public Health in Canada 2022: Mobilizing Public Health Action on Climate Change in Canada. [...] It is also well received that the Report Card includes considerations and findings on equity groups and trends, noting disparities in physical activity rates related to the gender, newcomer status and household incomes of children and youth in Canada.” [Vice President, Health Promotion and Chronic Disease Prevention Branch, Public Health Agency of Canada]</p> <p>“[...] on the occasion of the National Child and Youth Mental Health Day, we will be highlighting the results of the report on physical activity on [Senator’s] social media networks shortly. We will be using some of the messaging in the communications toolkit.” [office from Canadian Senator]</p> <p>“Unfortunately, our [school] data is not really transferable to the report card. The last couple of years we have been on and off again about sharing it. The program is going through an overhaul this year, so our data is not useful anyway. That said, hopefully we will align better in the future. Perhaps if you could share your system we can try to actually build it in.” [personal communication, 2024]</p> <p>“Check this out. Super cool. Wtg @[anonymous].” [social post on Facebook]</p>

While collective, sustained, multi-sector efforts are needed to propel forward Canada's efforts to power the movement to get children and youth active, a recognition and appreciation for the changing world, with its inherent counter-acting forces, is also required. Global issues such as growing digital media dominance, pandemics (i.e., COVID-19), and climate change result in new barriers to children's movement behaviours. Nimble, novel, and new-age thinking will almost assuredly be required by researchers, clinicians, community partners, funding bodies, and families to collaboratively and strategically address this ongoing public health issue.

4.1. Suggestions for improvement

Although the Report Card has proven to be an impactful thought leadership project over the past 10 years, it is not without its limitations. One criticism is that a more rigid definition should be considered to determine which data should be used to assign grades to each of the indicators. This criticism was heightened when COVID-19 related disruptions in longstanding data collection surveys or methods forced the 2022 and 2024 RCRCs to grade indicators using data sources that would have previously been considered non-gradable (e.g., self-report moderate to vigorous physical activity). While flexibility in data sources was a necessity due to COVID-19, more rigid inclusion criteria in the future could ensure quality data continues to be gathered and synthesized. Second, jurisdictional/provincial/territorial-specific breakdowns are often requested by Report Card end-users, particularly for the indicators whose solutions/responsibilities reside within provincial/territorial jurisdictions (e.g., Physical Education, Schools). However, data to inform each indicator at a provincial/territorial level are often not available or only available for a subset of jurisdictions. Additional resources (e.g., financial, personnel) would be required to complete a thorough review of provincial/territorial data, yet financial support is precarious at best. Third, criticism has also been received regarding the composition of the RCRCs. Though consistent efforts are made to create a diverse Research Committee, this will likely remain an ongoing opportunity for learning and growth. Last, greater consideration is needed to recognize progress towards grade improvement across indicators. Since most of the grades are slow to change, efforts to demonstrate change or improvement are sometimes minimized, despite the number of initiatives underway. Evaluation of these contributing initiatives is lacking, as is investment to support such evaluations.

4.2. Future Directions

The ultimate goal of the ParticipACTION Report Card remains to support children and youth in Canada (by way of supporting sources of influence) to acquire appropriate levels of physical activity. Dramatic changes in how information is shared and consumed have occurred since 2015 and will continue to evolve. Intentional reflection is required by ParticipACTION and contributing researchers to ensure the most impactful report is being prepared and shared in a manner that aligns with the objectives of this longstanding knowledge product. Future goals of the ParticipACTION Report Card include:

- Confirming clarity of the Report Card target audience(s) early in the development process to ensure the content, distribution mechanisms, and evaluation activities align;
- Exploring novel and engaging ways of mobilization the findings of the Report Card to ensure the product (and its content) are relevant to its end-users;
- Collaborating with national surveillance organizations to establish routine data collection cycles that coincide with the cadence of Report Card releases;
- Continuing a self-evaluation process to ensure the composition of the RCRC reflects the diversity of Canadians nation-wide and the career

stages of research experts, and that the development process is conducive to incorporating the opinions of all RCRC members;

- Exploring analytical techniques that could examine the cause or correlation between the release of Report Cards and behaviours of children and youth in Canada; and,
- Encouraging the collection and surveillance of physical activity data from equity-denied groups of children and youth in Canada.

Authors statements

LMV, BAB, MST, and NK conceptualized the study and provided leadership to the overall project. All authors contributed to the collection and synthesis of data. LMV and BAB drafted the manuscript. AI was not used, even in part, to draft and/or revise this manuscript. All authors critically reviewed and provided feedback on drafts of the manuscript. All authors reviewed and approved the final manuscript. LMV and ES prepared the final submission.

Ethics approval and consent to participate

Ethics approval and consent to participate were not required for the completion of this paper.

Consent for publication

No consent for publication was required.

Availability of data and materials

All materials used in the preparation of this manuscript are available from the corresponding author upon reasonable request and the completion of a data sharing agreement.

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Competing interests

LMV and BAB are employed by ParticipACTION. MST (volunteer) is a member of the ParticipACTION Research Advisory Group which advises ParticipACTION on aspects related to increasing physical activity levels and reducing excessive sedentary behaviour of people living in Canada. MST (Chair) and NK (Research Manager) are members of the Children and Youth Report Card Research Committee. MST is the President of the Active Healthy Kids Global Alliance.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jesf.2025.01.005>.

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