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Special Issue: The 'New' ParticipACTION

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Exploring the impact of the ‘new’ ParticipACTION: overview and introduction of the special issue

Guy Faulkner, PhD (1); Lira Yun, MS (2); Mark S. Tremblay, PhD (3); John C. Spence, PhD (2)

This evidence-informed policy brief has been peer reviewed.

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Abstract

ParticipACTION is the Canadian physical activity communications and social marketing organization first launched in the fall of 1971 and then ceased operations in 2001. ParticipACTION was relaunched in 2007.

Framed as a public health natural experiment, evidence was collected from a population-based survey of knowledge, awareness, understanding of physical activity, and physical activity levels among Canadians (individual level), and key informant surveys and interviews examining capacity, readiness and advocacy for physical activity promotion among physical activity organizations (organizational level).

The purpose of this paper is to first provide an overview of some of the major initiatives undertaken by the ‘new’ ParticipACTION that may have contributed to any changes at these individual or organizational levels. Second, the paper sets the stage for the three empirical papers in this special series reporting follow-up results.

Keywords: *natural experiment, physical activity, organizational capacity, awareness*

Introduction

It is well established that greater physical activity and lower sedentary behaviour are associated with a variety of positive health outcomes such as lowered risk for cardiometabolic disease and obesity, and improved skeletal and mental health, regardless of age, gender or ethnicity.¹⁻³ Nevertheless, only 15% of adults and 9% of children and youth are meeting current physical activity guidelines.^{4,5} Further, adults are sedentary for about 9.5 hours per day, and children and youth for about 8.5 hours.^{4,5}

Several government bodies and not-for-profit organizations have attempted to reverse this trend through physical activity promotion initiatives.⁶ ParticipACTION is a well-known Canadian physical activity social marketing organization that was created in 1971. During its initial 30-year operation, ParticipACTION was considered internationally as successful as these organizations with many award-winning

campaigns (e.g. see Rootman & Edwards [2004] for an overview⁷) particularly in that it “delivered clear messages, enhanced community awareness of physical activity and recreation, and fostered community-based partnerships.”⁸ However, due to funding cuts, it ceased operations in 2001.⁹ In February 2007, Sport Canada and the Public Health Agency of Canada announced funding for the relaunch of a “new” ParticipACTION. The new mandate of ParticipACTION was to provide leadership in facilitating collaborations, and in initiating social marketing campaigns to foster a social movement that inspires and supports Canadians to move more.¹⁰ The focus of the new ParticipACTION was on social marketing, communications and partnership synergy rather than physical activity program delivery. More details about the history and the structure of the relaunched ParticipACTION are provided by Latimer-Cheung, Murumets, & Faulkner.¹¹

As described by Tremblay and Craig,¹⁰ in response to the relaunch of ParticipACTION

Highlights

- This paper provides a summary of key initiatives of the ‘new’ ParticipACTION since its relaunch in 2007.
- This sets the context for empirical studies exploring the impact of ParticipACTION in Canada.

in January 2007, a “rapid response research team” was convened to explore opportunities for assessing the impact of the new ParticipACTION in the form of a natural experiment. Through support from the Canadian Institutes of Health Research (CIHR), this team collected baseline data before ParticipACTION began formal operations. This was a unique research opportunity, as despite its perceived success, limitations in evaluation designs of the original ParticipACTION have impeded full understanding of its impact. Specifically, formal evaluation techniques designed to appraise public health programs were limited at the time of ParticipACTION’s launch.⁸ To rectify this evaluation gap, baseline data were collected on individual-level awareness of the brand, campaign recall, knowledge, understanding and physical activity behaviours before and during the early period after the relaunch of ParticipACTION.¹² Baseline data were also collected at an organizational level to assess the future impact of a sustained campaign through ParticipACTION on the overall capacity of the physical activity sector in Canada.^{13,14} These data have been published in seven peer-reviewed manuscripts with the majority presented in a special issue of the International Journal of Behavioral Nutrition and Physical Activity (see Tremblay & Craig¹⁰ for an overview).

Author references:

1. School of Kinesiology, University of British Columbia, Vancouver, British Columbia, Canada
2. Faculty of Kinesiology, Sport, and Recreation, University of Alberta, Edmonton, Alberta, Canada
3. Healthy Active Living and Obesity Research Group, Children's Hospital of Eastern Ontario Research Institute, Ottawa, Ontario, Canada

Correspondence: Guy Faulkner, School of Kinesiology, University of British Columbia, 2146 Health Sciences Mall, Room 4606, Vancouver, BC V6T 1Z3; Tel: 604-822-2990; Fax: 604-822-6842; Email: guy.faulkner@ubc.ca

In 2012, this research team received CIHR funding to collect follow-up data five years after the relaunch of ParticipACTION. The purpose of this special series of papers, published in *Health Promotion and Chronic Disease Prevention in Canada*, is to present evidence on the short-term impact of ParticipACTION at the individual level (in terms of population awareness, attitudes, behaviour), and at the organizational level (in terms of organizational capacity, readiness and advocacy regarding physical activity promotion). To contextualize those empirical studies, this introductory paper will first provide an overview of some of the major initiatives undertaken by the “new” ParticipACTION that may have contributed to any changes at these individual or organizational levels.

The ‘new’ ParticipACTION

The ‘new’ ParticipACTION identified three strategic priorities: communications, capacity building, and knowledge exchange. ParticipACTION’s communications objectives included 1) delivering messages through multimedia for the purpose of raising awareness, educating, inspiring, and supporting physical activity, and 2) coordinating communications to ensure consistent, unified messaging across and within the physical activity sector. ParticipACTION’s capacity building objectives included a) leveraging strengths within the physical activity sector by forging partnerships with and between organizations committed to promoting physical activity and sport participation in Canada, and b) supporting and managing the development and implementation of physical activity and sport participation initiatives (but not delivering programs). ParticipACTION’s objective for knowledge exchange was to position itself as a hub of information, data, and research related to physical activity and sport participation in Canada. To facilitate knowledge exchange, ParticipACTION initially established three advisory groups: a research advisory group (RAG), a policy advisory group, and a marketing and communications advisory group. Knowledge exchange and mobilization was also supported more broadly by the development of the ParticipACTION Partnership Network (PPN). The PPN is a network of organizations dedicated to physical activity and sport participation and is a forum for increasing awareness of and access to resources,

initiatives, and expertise within the physical activity sector.

Underpinning these three strategic priorities was a commitment by ParticipACTION to ongoing evaluation of its activities to both inform its own development and also create new knowledge. ParticipACTION conducts regular and ongoing evaluations of all its activities. This evidence is used to demonstrate accountability to funders and to build a strong case when seeking new funding opportunities. The availability of data from specific initiatives and campaigns has also provided an opportunity to generate new research knowledge about the effectiveness of physical activity and sport participation promotion initiatives at a population level. ParticipACTION employs a professional market research agency to conduct surveys of the general population and these data have been made available to members of the RAG to evaluate many of its initiatives. ParticipACTION data are also available on request by independent researchers subject to approval of ParticipACTION and the Chair of the RAG. This openness has the potential to benefit ParticipACTION through additional and often independent research outputs; the sector (by sharing research findings publicly); and the individual researchers (by allowing access to data often restricted for internal use only).

Table 1 presents an overview of some of the major programs and social marketing campaigns initiated by ParticipACTION between 2007 and 2015. The social marketing campaigns were focussed on message communication using a range of traditional (e.g. television) and new internet-based mediums. Program initiatives also had a communication element that had an explicit focus on capacity building in collaboration with other sector partners in program delivery. The next section describes some of these larger initiatives for which peer-reviewed published research has been generated.

Communications

Social marketing campaigns have been at the forefront of ParticipACTION’s knowledge dissemination strategy. To raise awareness of, and encourage regular physical activity participation, ParticipACTION has launched five national campaigns (see Table 1). Unlike ParticipACTION’s pre-revitalization (1971 to 2001) campaigns, in which sport participation and structured

exercise were prominently advocated by spokespeople, the new ParticipACTION campaigns focused on promoting physical activity in daily life and making physical activity part of Canadian culture.

Get Inspired. Get Moving

The new ParticipACTION’s first mass media campaign was launched in October 2007. The “Inactive Kids” campaign was designed to increase awareness of, and create a sense of urgency, about the low levels of physical activity among Canadian children. ParticipACTION’s second campaign, “Get Inspired. Get Moving,” was first aired in 2009 and ran intermittently over a period of 33 weeks until 2010 with 1200 Gross Rating Points (GRPs), representing a percent of the target reached multiplied by the exposure frequency in the English media and 864 GRPs in the French media. Six advertisements were developed based on solicited stories from members of the general public representing diverse groups (i.e. gender, age, family, ethnicity, and ability). The development of the campaign messages was guided by a theoretical framework, the hierarchy of effects model (HOEM), which premises that campaign effects occur in a chain of stages from the awareness of the campaign, and then progresses through intermediate outcomes (e.g. knowledge, saliency, attitudes, self-efficacy, intention), and to distal outcomes such as behavioural changes.^{15,16}

Craig and colleagues¹⁶ examined data from an online representative panel of Canadians (N = 1110) to evaluate the communication effects of the “Get Inspired. Get Moving” campaign. Specifically, they measured campaign specific cognitive variables based on the HOEM, i.e. saliency and cognitive engagement of the campaign, campaign-specific self-efficacy and trialing behaviour, and investigated whether these variables were related to overall self-efficacy for physical activity, intention to be active, and current activity level. All the campaign specific variables were found to be predictors of subsequent effects (saliency → cognitive engagement → campaign specific self-efficacy → trialing behaviour). Furthermore, campaign-specific self-efficacy was associated with overall self-efficacy, which was in turn associated with overall future intention to be active. Findings highlighted the usefulness of incorporating theoretically informed

TABLE 1
Major programs and social marketing campaigns of ParticipACTION (2007-2015)

Programs	Date
Sunlife Inspire the Nation	Summer 2009
Sports Day in Canada	2010-2015
Sneak it in	2011-present
ParticipACTION Teen Challenge (previously SOGO Active)	2008-present (contract ended in 2017)
RBC Learn to Play	2014-present (current contract ends in 2018)
Social marketing campaigns	Date
Inactive kids	October 2007-March 2008
Get inspired. Get moving. (Icon)	November 2008-March 2009
Get Inspired. Get Moving. (Animated spots)	Fall 2009-Winter 2010
Think Again	January 2011-March 2012
Bring Back Play (including Funmobile and Longest Day of Play)	October 2012-June 2013
Bring Back Play (year two, including Bring Back Winter Play, Unplug and Play, and Longest Day of Play)	November 2013-June 2014
Make Room for Play	January-March 2015

models in the development and the evaluation of social marketing campaigns.

Think Again

ParticipACTION's next population-level campaign, "Think Again," was aired on television in three waves: from January to March 2011, June to August 2011, and January to March 2012. The campaign coincided with the release of the Physical Activity Guidelines for Canadians updated in 2011 by the Canadian Society for Exercise Physiology (CSEP), a partnering organization with ParticipACTION.¹⁷ The focus of this campaign was on parents of children aged 5 to 11 years. The campaign aimed to motivate parents, and in particular mothers, to get their children active by increasing parents' awareness that their children may not be active enough to meet the guidelines. It focused on increasing the awareness of parents regarding other children's physical activity levels, thus motivating them to take action to support their children to be more active. Advertisements with the key message, "THINK AGAIN, Fact is kids need at least 60 minutes of physical activity per day. Every day," were aired on various types of media outlets, including television, print, and online.^{18,19}

The evaluations of the "Think Again" campaign were administered by the RAG, either using secondary survey data collected

by Angus Reid Public Opinion on behalf of ParticipACTION, or using primary data collected by the group. At least six peer-reviewed papers were published using various approaches to identify campaign effects and inform future social marketing campaigns.¹⁸⁻²² Rhodes et al.²¹ examined the role of parents (N = 663 mothers) to support their children's physical activity based on the theory of planned behaviour which postulates that individuals' proximal determinant of behavior is their intention to perform that behaviour and intention is predicted by affective or instrumental evaluation of the behaviour (i.e. attitude), perceived social pressure (i.e. subjective norm), and easiness or difficulty of performing the behaviour (i.e. perceived behavioural control). The results demonstrated that attitudes toward children's physical activity and parental support, and control over support, were associated with mothers' intention to support children's physical activity, which consequently predicted the physical activity level of their children. Furthermore, regardless of intentions to support, or antecedent positive attitudes about child activity and support, the control that mothers have over supporting child activity was found to predict physical activity.

Berry and colleagues²² conducted an experimental study to examine mothers' intention to support children's physical activity after viewing the campaign advertisements

with a focus of identifying the role of certain cognitive variables such as believability, agreement, involvement, and attention to the campaign advertisements. The elaboration likelihood model of persuasion (ELM) was selected as a theoretical model to determine if implicit responses (i.e. unconscious reactions without time for reflection such as implicit agreement) and reflective responses (i.e. conscious reactions such as explicit believability and involvement) to the advertisement messages could differentially predict cognitions (i.e. attitudes, intentions) related to the behaviour promoted by the campaign. Mothers (N = 102) who participated in the study were asked to view one of the "Think Again" advertisements and complete the implicit agreement task followed by the questionnaires. The results demonstrated that mothers who paid attention to the campaign message and were concerned about their own children's physical activity were more likely to make their children participate in more physical activity. Furthermore, the results confirmed that there was a gap between mothers' perceptions (implicit agreement) and realities regarding their children's physical activity levels. Many mothers believed their children get enough activity, but only a few reported that their children were active every day of the week.

To build upon this disconnect between parents' perceptions and realities relating to their own children's physical activity, Faulkner and colleagues¹⁸ interviewed 24 parents (12 mothers and 12 fathers) of children aged 5 to 11 years to further explore their perceptions of the campaign. The Think Again public service announcement (PSA) was generally well-received by the parents. Most notably, though some parents thought the PSAs facilitated reflection on their children's physical activity levels, the majority believed that their children were engaged in sufficient amounts of physical activity each day even though their children were not necessarily meeting physical activity guidelines. Barriers to parents' support of children's physical activity included job and time constraints, and misconceptions about intensity levels and key physiological indicators of certain physical activities.¹⁸ More creative approaches may be needed in addressing this continuing disconnect in perceptions between sufficient and recommended levels of physical activity.

The overall impact of “Think Again” as a mass media campaign was examined by Gainforth and colleagues.²³ Guided again by the HOEM, this study focused on identifying the relationships with proximal (e.g. awareness of a campaign, beliefs about the behaviour, intentions to engage in the behaviour) and distal factors (e.g. behavioural change). Among participants recruited from an existing online panel at two independent time points, parents with at least one child, aged 5 to 11 years, were included in the study. Their survey responses explaining changes in both proximal and distal outcomes in the HOEM as well as the goal of the campaign (i.e. parental support and child physical activity) supported the research hypothesis; compared with parents unaware of the campaign, parents who were aware of the campaign showed greater knowledge of physical activity guidelines, higher outcome expectations about their children engaging in physical activity, stronger intentions to help their child meet the guidelines, and more parental support behaviours. Furthermore, parents who were aware of the campaign had greater perceived behavioural control to influence their child’s physical activity participation compared with unaware counterparts. Parental awareness of the campaign was not associated with children meeting physical activity guidelines which implied that achieving success in a mass media health campaigns is difficult as HOEM outcomes become more distal.

Taking a social marketing approach, Deshpande and colleagues¹⁹ conducted a post-test only experimental study to evaluate the effect of message formats (dynamic vs. static) on the advertisement of the Think Again campaign. A nationally representative sample of 663 Canadian mothers of children, aged between 5 and 11 years, were randomly assigned to receive either a dynamic version of the advertisement delivered via video format or a static version of the advertisement delivered via image format. After viewing the assigned advertisement, they were asked to complete the questionnaires about campaign recall, ad liking, motivation to respond to the ad (i.e. assist one’s child to get at least 60 min of physical activity every day), and their support behaviours. Participants who watched the video format advertisement showed higher advertisement recall, theme recall, and message recall than participants who viewed the image format advertisement.

Positive responses to advertisements and motivation to help children get 1 hour of physical activity daily were also slightly higher among participants who watched the video advertisement. The findings suggest the importance of selecting an appropriate media type and message format to deliver a message in a social marketing campaign.

Finally, Jarvis and colleagues²² examined the role of the ParticipACTION brand in the campaign effects. The study focused on the examination of ParticipACTION brand equity which is defined as a set of associations that consumers form with a brand (including brand awareness, perceived quality, leadership and popularity, organizational associations, and brand personality), and its impacts on campaign effects, such as, intentions to engage in behaviours (i.e. parental support for child physical activity) promoted by the campaign. A cross-sectional design with different samples of participants (with children between 5 and 11 years) surveyed at three different time points of the “Think Again” campaign was applied. Supporting the hypothesis, a positive association between message exposure and campaign brand equity as well as between brand equity and parental support were found. Furthermore, structural equation modeling revealed a significant mediation effect of brand equity on the relationship between message exposure and parental support. Such results implied the importance of building brand equity with advertisement viewers by maintaining brand exposure throughout the campaign.²²

The findings from these studies examining the “Think Again” campaign present some significant implications for developing family-based interventions and campaigns to promote physical activity: 1) emphasizing the importance of providing support and raising the perceived control of parents over supporting their children to be active²¹; 2) shifting towards changing societal beliefs about the amount of physical activity necessary for children²⁰; 3) providing accurate information about the physiological indicators and intensity levels of certain activities, promoting participation in non-traditional forms of activity, and creating tips to effectively support children’s physical activity¹⁸; 4) implementing future mass media campaigns concurrently with policies, environmental changes, and appropriate programs to expand positive outcomes²⁴; and, 5) the

medium through which the message is delivered¹⁹ and perceptions of the sponsoring organization²² have an impact of outcomes of interest such as message awareness. These insights were shared directly with the ParticipACTION leadership team and have been taken into consideration for future social marketing campaigns and initiatives as well as in content development for the website, newsletters, blogs, etc.

Make Room for Play

In 2015, ParticipACTION developed a social marketing campaign, called “Make Room for Play,” to increase the awareness of the importance of play as a source of physical activity and to highlight the value of replacing screen time with outdoor play time. ParticipACTION augmented the national media plan with a British Columbia-specific media purchase (co-branded between ParticipACTION and British Columbia). Four thirty-second ParticipACTION advertisements, offered in both English and French, were aired via television (1300 planned and 2422 estimated GRPs in Vancouver, and 2141 unplanned GRPs in other regions in BC), cinema (23 locations/65 screens), and digital (ParticipACTION website, Youtube, and Facebook) between January 12 and March 31, 2015. Based on a survey of over 125 000 Canadians, carried out by Angus Reid Forum, the campaign showed significant impact on mothers in British Columbia, with 50% advertisement recall. Moreover, 90% of viewers agreed that the ads made them feel that screen times take away opportunities for active play, and that children should decrease their screen time. The campaign was found to evoke mothers’ concern over the amount of time their kids spend on screen time and motivated them to take action to increase their child’s physical activity.²⁵ This is the first Canadian mass media campaign addressing the issue of screen time among children, and future evaluations are planned to assess its impact.

Capacity building

Engagement with, and capacity building in, communities and the larger physical activity sector has been one of the main foci of the new efforts undertaken by ParticipACTION. These have mostly involved strategic partnerships with government, non-profit, or profit-based organizations to advocate for the importance of increasing physical activity to the public, and to

exchange resources among partners to provide environments in which all Canadians can pursue active lifestyles. Community engagement initiatives have been implemented in a range of settings, such as local communities, workplaces, schools, and homes, reaching all groups of Canadians regardless of region, age, gender, ethnicity, and ability. In the following, a description of a sample of initiatives is presented with most evaluations relying on unpublished, internal reports.

Teen Challenge

In 2008, ParticipACTION, in partnership with Coca Cola Canada, launched its first national physical activity program—the Teen Challenge (initially named SOGO Active). The overall goal of the program was to help Canadian teenagers aged 13 to 19 years to become more active by providing micro-grants (up to \$500 CAD), relevant programming, and leadership opportunities to local community organizations including leagues, recreational centers, churches, and schools. A total of 503,979 teens from 5,892 community organizations across Canada have registered in the program, and 4,665 physical activity grants (approximately \$5.5 million CAD) have been deployed. Micro-grants were used in a number of ways such as buying equipment, hiring instructors, or renting space for activities.

An evaluation report on Teen Challenge showed that the program has increased the capacity of organizations to deliver sport and physical activity programs in communities across Canada.²⁶ Research conducted by Tamminen and colleagues (2014) revealed that the micro-grant program has been useful in exposing teenagers to a variety of physical activities, and has had a positive impact on the organizations, teen participants, and surrounding communities.²⁷ The program has especially helped to relieve issues of inequity between urban and rural communities; i.e. the Teen Challenge enabled youth in small rural communities to be engaged in various types of sports and activities. Overall, the evaluation showed the potential of a micro-granting program to help communities build capacity to provide active environments to teens, and suggested future initiatives for leveraging micro-grants to sustain the program.

RBC Sports Day in Canada

ParticipACTION launched its largest program, “RBC Sports Day in Canada” (SDIC),

in 2010. Title sponsored by the Royal Bank of Canada (RBC), in collaboration with True Sport (www.truesportpur.ca) and the Canadian Broadcasting Corporation (CBC; www.cbc.ca), the program was intended to invite local organizations, communities, clubs, schools, and workplaces in Canada to hold “Sports Day” – an annual event celebrating the role of sport within communities and promoting sport participation across the country. ParticipACTION provided the guidelines and manuals for communities to host festivals (e.g. open houses, try-it days), competitions (e.g. sport tournaments), and fun events (e.g. Jersey Day) related to any kind or level of sport. Several promotional strategies were employed to increase public awareness of SDIC, including televised promotions aired by CBC, social media advertisements, and electronic newsletters targeted to organizations. During the six years of SDIC initiatives (2010 to 2015), a total of 9763 events were hosted by 2854 communities (an average of 476 communities per year) in all provinces and territories. These events engaged 5,081,504 participants, spectators, and volunteers over the six years (an annual average of 847,000).

A longitudinal evaluation showed that population awareness of SDIC increased significantly between 2010 and 2013.²⁸ Furthermore, intentions to participate in sport as a result of SDIC significantly increased over time among people who were aware of SDIC. Although the increased willingness to participate in sport and to become more healthy and active was found to be more evident among participants who were already “physically active” compared to their “inactive” counterparts, the program also promoted people who “never” participated in sports to increase their intention to participate in sport. A related study examined the benefits of organizations participating in SDIC between 2010 and 2013.²⁴ There was self-reported evidence that participation in SDIC increased the profile of organizations to promote and deliver sport and physical activity opportunities within their communities, and had also attracted new participants to local sport and recreation centers or clubs. The results of these longitudinal analyses of SDIC suggest that large-scale special events have a role to play in encouraging sport participation, building community capacity, and facilitating healthy active living among Canadians. There is a further need, however, to identify how to reach inactive people more effectively and

how to leverage sport events in their local communities throughout the year. The outcomes of the SDIC evaluation aided ParticipACTION in developing and implementing one initiative (the ParticipACTION 150 Play List which was launched in 2017).

RBC Learn to Play

“RBC Learn to Play” is ParticipACTION’s first initiative that focuses on the principles of physical literacy and incorporating them into youth sport and recreation programs to enable youth in Canada to play, and become healthy and active for life. Launched in 2014, this three-year-long project has been initiated through various types of partnerships with a for-profit sponsor (RBC, as funder and title sponsor), non-profit organizations (the Public Health Agency of Canada, as funder and the Canadian Sport for Life, as implementation partner), and academic institutes (Propel Centre for Population Health Impact [<https://uwaterloo.ca/propel>], as evaluation partner; and the Healthy Active Living and Obesity Research Group [www.haloresearch.ca] as the research surveillance partner).

In conjunction with the launch of this initiative, ParticipACTION worked with sector partners to create a consensus definition of physical literacy (http://physicalliteracy.ca/wp-content/uploads/2016/08/Consensus-Handout-EN-WEB_1.pdf). This consensus process was instrumental in providing a uniform understanding of physical literacy across multiple sectors in Canada (e.g. sport, physical activity, physical education, public health, recreation, research) and internationally (International Physical Literacy Association).

The center-piece of this initiative is a local community physical literacy development grant opportunity. Local organizations and communities such as sport clubs, municipal parks, recreational centers, schools, and aboriginal organizations who are eligible to apply for grants ranging from \$1000 to \$25 000 have been receiving funding that supports program implementation, facility use, instruction, training, and project staffing. During the two years of its implementation (2014 – 2015), a total of \$3.66 million CAD in funding was allocated to over 380 organizations.²⁹ In addition to the grants, grant recipients are provided supports including a physical

literacy assessment tool and knowledge translation activities through webinars.

An evaluation of the RBC Learn to Play was conducted to understand the impact of the four core constructs of physical literacy (i.e. knowledge and understanding; motivation and confidence; physical competence; and daily physical activity behavior), and of the fundamental movement skills, on organizers as well as program participants. During two years of program implementation³⁰, 88% of organizers who joined the program reported that their understanding of physical literacy improved after completing the training, and 97% of them stated they intended to integrate what they learned at the training into their work. Seventy-seven per cent of parents indicated that their awareness of physical literacy also increased. Though additional funding might be needed to achieve greater impact, the evaluation of the RBC Learn to Play demonstrates that the program is successful in improving community-level supports (e.g. policies, coalition building, advocacy work) and reducing barriers to program access by promoting inclusivity, minimizing cost and providing transportation. Current levels of physical literacy based on a large sample of Canadian children (> 10 000) using the Canadian Assessment of Physical Literacy is also nearing completion as part of this initiative.^{31,32} The evaluations have been used to identify strengths and areas for improvement for future initiatives undertaken by ParticipACTION and have informed the ParticipACTION Report Card.³³

Knowledge exchange

Coalition-building, networking, and disseminating evidence-based knowledge were identified organizational priorities of the new ParticipACTION intended to enhance organizational capacity both internally (e.g. in leadership, infrastructure and will)³⁴ and externally (e.g. in political climate, community awareness and interest, and existing inter-organizational partnerships).

ParticipACTION Partner Network

In 2011, ParticipACTION developed a Partnership Network with the goal of connecting with national and provincial sport organizations, and other for-profit and not-for-profit organizations, sharing their expertise with one another and gaining awareness of other initiatives and programs.

Members who enroll in the ParticipACTION Partner Network (PPN) have access to webinars, toolkits, and newsletters at no cost. The PPN currently includes 5005 registered organizations reflecting diverse engagement from the recreation, education, environment, and transportation sectors.

Ensuring that all of the information it provides is evidence-based, credible, and up-to-date, ParticipACTION has built trust with the PPN organizations and helped them to access the country's top research in the area of physical activity and health. According to a network survey conducted in 2015³⁵, 90.5% of respondents agreed that ParticipACTION is a leader on physical activity issues in Canada for all age groups. Also, more than 80% of respondents agreed that ParticipACTION is successful in advancing and communicating knowledge on the issues associated with physical activity (85.6%) and sedentary behaviours (80.2%) among Canadians. Overall, the results demonstrate that ParticipACTION has become a knowledge exchange hub in a way that appears to be meeting the expectations of its PPN members.

ParticipACTION Report Card

The ParticipACTION Report Card on Physical Activity for Children and Youth (continuing the work of Active Healthy Kids Canada [see Tremblay et al., 2014³⁶]) is developed by ParticipACTION, in partnership with the Healthy Active Living and Obesity Group at the Children's Hospital of Eastern Ontario Research Institute, and represents Canada's most comprehensive assessment of child and youth physical activity including evidence-informed grades across 11 indicators related to daily behaviours, settings and sources of influence, and strategies and investments (see Barnes et al., in press for the most recent report card).³³ The ParticipACTION Report Card Research Committee, constituted of experts from across Canada, provide guidance and leadership for the Report Card data collection and analysis, informing the grade assignment process, reviewing content, and assisting with its dissemination. In collaboration with the Report Card Research Committee, ParticipACTION has created a variety of resources (e.g. full and highlight reports, fact sheet, infographic, slide presentation, poster, media kit—see <https://www.participaction.com/en-ca/thought-leadership/report-card/2016>) for

organizations to facilitate projects designed to improve indicators in the Report Card and to help Canadian kids to meet the physical activity guidelines. Each Report Card has received significant media attention. The 2016 Report Card received 223 million media impressions (ParticipACTION, personal communication).

In 2015, ParticipACTION worked with a coalition of organizations that developed a Position Statement on Active Outdoor Play³⁷ to integrate the Position Statement into the Report Card. This knowledge exchange and mobilization partnership yielded significant impact with > 300 million media impressions upon release (the greatest ever by the Report Card) and sustained social media dialogue. It also provoked a \$2.7 million investment by The Lawson Foundation to address the recommendations in the Position Statement (<http://lawson.ca/outdoorplay>). This knowledge exchange initiative proved to be an effective capacity building initiative as well.

Building off the success of the 2015 experience of embedding a “knowledge product” into the Report Card, ParticipACTION, in partnership with the Canadian Society for Exercise Physiology, the Conference Board of Canada, the Public Health Agency of Canada, and the Healthy Active Living and Obesity Research Group at the Children's Hospital of Eastern Ontario Research Institute, included the new *Canadian 24-Hour Movement Guidelines for Children and Youth: An Integration of Physical Activity, Sedentary Behaviour, and Sleep* in the 2016 Report Card.³⁸ This arrangement again provided extensive profiling of the ParticipACTION Report Card while serving as an established distribution mechanism for the guideline developers—a win-win and a value-add for the sector.

Assessing the impact of ParticipACTION: a unique opportunity

Returning to the field to collect follow-up data after relaunch was informed by a number of issues. First, as described above, there was evidence that activities conducted by ParticipACTION might have an influence on the benchmarks we identified at baseline (including their social marketing campaigns and specific initiatives such as Teen Challenge and Sports Day in Canada); and external events that may influence population levels of physical

activity. These included the launch of Active Canada 20/20, A Physical Activity Strategy and Change Agenda for Canada in the fall of 2012³⁹; and the release of the new Canadian Physical Activity Guidelines (January, 2011; see ¹⁷), the Canadian Sedentary Behaviour Guidelines for children and youth (February, 2011; see ⁴⁰), the Canadian Physical Activity Guidelines for the Early Years (aged 0-4 years; ⁴¹), the Canadian Sedentary Behaviour Guidelines for the Early Years (aged 0-4 years; ⁴²), and the most recent Canadian 24-Hour Movement Guidelines for Children and Youth³⁸. ParticipACTION has played an important role as one dissemination messenger of these guidelines (as illustrated in ParticipACTION's Think Again campaign and the most recent Report Card on the Physical Activity of Children and Youth³³).

Perhaps the most visible evidence of potential change in sector cohesion is the development of Active Canada 20/20, A Physical Activity Strategy and Change Agenda for Canada. In our baseline qualitative work, key stakeholders described a number of expectations they had for the new ParticipACTION.⁴³ One was that ParticipACTION's advocacy role should include driving a broad physical activity agenda through the creation of a national physical activity policy. ParticipACTION led the development and consultation process for such a strategy that is designed to engage decision makers and rally the collaborative, coordinated and consistent efforts of all stakeholders at every level to reverse the decline in population physical activity levels.³⁹

Accordingly, in terms of overall hypotheses, we may expect to see changes in awareness of ParticipACTION at both an individual and organizational level, and perhaps a change in organizational capacity to promote physical activity as a result of ParticipACTION's relaunch. This is the focus of the papers in this special issue. To maintain consistency, the baseline studies using the same theoretical frameworks were replicated. The first study assesses awareness and understanding of ParticipACTION at an individual level approximately seven to eight years after the relaunch of ParticipACTION. The survey consisted of a set of questions on the Physical Activity Monitor conducted by the Institute for Social Research at York University on behalf of the Canadian Fitness and Lifestyle Research Institute

(CFLRI) between February 2014 and May 2015. The details of this project and the findings of the baseline data collection are described in the paper by Spence and colleagues.⁴⁴

The purpose of the organizational level research was to assess current awareness of organizations regarding ParticipACTION, and their capacity to mobilize and advocate for physical activity. Using an internet-based survey instrument, provincial and national organizations from a range of sectors (e.g. sport, recreation, public health, education) provided responses for a quantitative assessment of organizational awareness of ParticipACTION and their capacity for physical activity promotion. The findings from the quantitative analysis of these data are presented in the paper by Faulkner et al.⁴⁵ A sample of respondents from the quantitative survey⁴⁵ participated in a follow-up telephone interview to examine in more detail their organizational capacity for physical activity promotion, and the related barriers and facilitators, using qualitative research techniques. Findings of this study are reported by Ramanathan et al.⁴⁶ Both these studies were completed in 2013 approximately six years after the relaunch of ParticipACTION and the collection of baseline data on organizational capacity. Overall, our findings need to be considered in light of findings that the proportion of Canadian children, youth and adults meeting physical activity guidelines has remained stable between the 2007-2009 and 2014-2015 administrations of the Canadian Health Measures Survey.⁴⁷

Conclusion

This paper provides a summary of key initiatives of the 'new' ParticipACTION since its relaunch and sets the stage for the other papers in this special series. As part of a special issue, the papers describe a novel, comprehensive approach to setting up evaluations of national social marketing efforts to promote physical activity. These studies provide evidence regarding the short-term impact ParticipACTION has had on individual awareness and behaviour, and on organizational capacity, readiness and advocacy regarding physical activity. More broadly, these studies provide lessons for evaluating national physical activity initiatives in the form of a natural experiment.

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Conflicts of interest

GF, MST and JCS serve on the ParticipACTION Research Advisory Group.

Authors' contributions and statement

GF conceptualized the design of the paper and wrote the initial draft. LY assisted in collating published reports on ParticipACTION initiatives. MST and JCS assisted with drafting and revising the paper. All authors have seen and approved the final manuscript.

The content and views expressed in this article are those of the authors and do not necessarily reflect those of the Government of Canada.

References

1. Ekelund U, Steene-Johannessen J, Brown WJ, et al. Does physical activity attenuate, or even eliminate, the detrimental association of sitting time with mortality? A harmonised meta-analysis of data from more than 1 million men and women. *The Lancet*. 2016;388(10051):1302-10.
2. Poitras VJ, Gray CE, Borghese MM, et al. Systematic review of the relationships between objectively measured physical activity and health indicators in school-aged children and youth. *Appl Physiol, Nutr, Metab*. 2016;41(6):S197-S239. doi: 10.1139/apnm-2015-0663.
3. Warburton DE, Charlesworth S, Ivey A, Nettlefold L, Bredin SS. A systematic review of the evidence for Canada's Physical Activity Guidelines for Adults. *Inter J Behav Nutr Phys Act*. 2010;7(39):1-220. doi: 10.1186/1479-5868-7-39.

4. Colley RC, Garriguet D, Janssen I, Craig CL, Clarke J, Tremblay MS. Physical activity of Canadian children and youth: accelerometer results from the 2007 to 2009 Canadian Health Measures Survey. *Health Rep.* 2011; 22(1):15.
5. Colley RC, Garriguet D, Janssen I, Craig CL, Clarke J, Tremblay MS. Physical activity of Canadian adults: accelerometer results from the 2007 to 2009 Canadian Health Measures Survey. *Health Rep.* 2011;22(1):7-14.
6. O'Reilly N, Brunette MK. Private-sector-Not-for-profit Partnerships in the Sport and Physical Activity Contexts. *International Journal of Sport & Society.* 2014;4(1). doi: 10.18848/2152-7857/CGP/v04i01/53961.
7. Rootman I, Edwards P. The best laid schemes of mice and men...: ParticipACTION's legacy and the future of physical activity promotion in Canada. *Can J Public Health.* 2004; 95:S37-S44.
8. Bauman A, Madill J, Craig CL, Salmon A. ParticipACTION: this mouse roared, but did it get the cheese? *Can J Public Health.* 2004;95:S14-S9.
9. Knox M. Forewords. *Can J Public Health.* 2004;95(Suppl 2:S5).
10. Tremblay MS, Craig CL. ParticipACTION: Overview and introduction of baseline research on the "new" ParticipACTION. *Int J Behav Nutr Phys Act.* 2009;6(1):1. doi: 10.1186/1479-5868-6-84.
11. Latimer-Cheung A, Murumets K, Faulkner G. ParticipACTION: The national voice of physical activity and sport participation in Canada. In: Pate R, Buchner D, editors. *Implementing physical activity strategies.* Champaign, IL: Human Kinetics; 2014. p. 61-70.
12. Spence JC, Brawley LR, Craig CL, et al. ParticipACTION: Awareness of the participACTION campaign among Canadian adults—Examining the knowledge gap hypothesis and a hierarchy-of-effects model. *Int J Behav Nutr Phys Act.* 2009;6(1):1. doi: 10.1186/1479-5868-6-85.
13. Plotnikoff RC, Todosijczuk I, Faulkner G, et al. ParticipACTION: Baseline assessment of the 'new ParticipACTION': A quantitative survey of Canadian organizational awareness and capacity. *Int J Behav Nutr Phys Act.* 2009; 6(1):1. doi: 10.1186/1479-5868-6-86.
14. Faulkner G, McCloy C, Plotnikoff RC, et al. ParticipACTION: Baseline assessment of the capacity available to the 'New ParticipACTION': A qualitative study of Canadian organizations. *Int J Behav Nutr Phys Act.* 2009; 6(1):1. doi: 10.1186/1479-5868-6-87.
15. McGuire WJ. Public communication as a strategy for inducing health-promoting behavioral change. *Prev Med.* 1984;13(3):299-319.
16. Craig CL, Bauman A, Latimer-Cheung A, et al. An evaluation of the My ParticipACTION Campaign to increase self-efficacy for being more physically active. *J Health Comm.* 2015;20(9): 995-1003. doi: 10.1080/10810730.2015.1012240.
17. Tremblay MS, Warburton DE, Janssen I, et al. New Canadian physical activity guidelines. *Appl Physiol Nutr Metab.* 2011;36(1):36-46. doi: 10.1139/H11-009.
18. Faulkner G, Solomon V, Berry T, et al. Examining the potential disconnect between parents' perceptions and reality regarding the physical activity levels of their children. *Journal of Applied Research on Children: Informing Policy for Children at Risk.* 2014;5(1):9.
19. Deshpande S, Berry TR, Faulkner GE, et al. Comparing the influence of dynamic and static versions of media in evaluating physical-activity-promotion ads. *Social Marketing Quarterly.* 2015:1524500415599376.
20. Berry TR, Craig CL, Faulkner G, et al. Mothers' intentions to support children's physical activity related to attention and implicit agreement with advertisements. *Int J Behav Med.* 2014;21(1):131-8. doi: 10.1007/s12529-012-9279-5.
21. Rhodes RE, Berry T, Craig CL, et al. Understanding parental support of child physical activity behavior. *Am J Health Behav.* 2013;37(4):469-77. doi: 10.5993/AJHB.37.4.5.
22. Jarvis JW, Rhodes RE, Deshpande S, et al. Investigating the role of brand equity in predicting the relationship between message exposure and parental support for their child's physical activity. *Social Marketing Quarterly.* 2014;20(2):103-15.
23. Gainforth HL, Jarvis JW, Berry TR, et al. Evaluating the ParticipACTION "Think Again" Campaign. *Health Education & Behavior.* 2016;43(4): 434-41.
24. Luciani A, White L, Berry TR, Deshpande S, Latimer-Cheung A, O'Reilly N, et al. Sports Day in Canada: Examining the benefits for event organizers (2010-2013). *International Journal of Health Promotion and Education.* 2017; 55(2): 66-80. doi: 10.1080/14635240.2016.1217164.
25. ParticipACTION. Bring Back Play Report. 2015. Available from: <https://www.participation.com/sites/default/files/downloads/Participation-Impact-Report-2015.pdf>
26. ParticipACTION. Teen Challenge tools & resources. 2016. Available from: <https://www.participation.com/en-ca/programs/participation-teen-challenge>
27. Tamminen KA, Faulkner G, Witcher CS, Spence JC. A qualitative examination of the impact of microgrants to promote physical activity among adolescents. *BMC Public Health.* 2014; 14(1):1. doi: 10.1186/1471-2458-14-1206.
28. White L, Luciani A, Berry TR, et al. Sports day in Canada: a longitudinal evaluation. *Inter J Health Promot Educ.* 2016;54(1):12-23. doi: 10.1080/14635240.2015.1050122.
29. ParticipACTION. Learn To Play Overview. 2016. Available from: https://www.participation.com/sites/default/files/downloads/Participation-RBCLearnToPlay-Evaluation2014_0.pdf
30. ParticipACTION. Are Canadian kids too tired to move? The ParticipACTION report card on physical activity for children and youth. 2016. Available from: <https://www.participation.com/sites/default/files/downloads/2016%20ParticipACTION%20Report%20Card%20-%20Full%20Report.pdf>

31. Francis CE, Longmuir PE, Boyer C, et al. The Canadian assessment of physical literacy: development of a model of children's capacity for a healthy, active lifestyle through a Delphi Process. *J Phys Act Health*. 2016; 13(2). doi: 10.1123/jpah.2014-0597.
32. Longmuir PE, Boyer C, Lloyd M, et al. The Canadian Assessment of Physical Literacy: methods for children in grades 4 to 6 (8 to 12 years). *BMC Public Health*. 2015;15(1):1.
33. Barnes J, Cameron C, Carson V, Chaput JP, Faulkner G, Janson K, et al. Results from the Canadian 2016 ParticipACTION report card on physical activity for children and youth. *J Phys Act Health*. 2016; 13 (Suppl 2): S110-S116. doi: 10.1123/jpah.2016-0300.
34. Smith C. A preliminary examination of organizational capacity for heart health promotion in Alberta's regional health authorities. *Global Health Promo*. 2001:40.
35. ParticipACTION. Report of Network Survey. 2016.
36. Tremblay MS, Barnes JD, Cowie BJ. Impact of the Active Healthy Kids Canada report card: a 10-year analysis. *J Phys Act Health*. 2014;11:S3-S20. doi: 10.1123/jpah.2014-0167.
37. Tremblay MS, Gray C, Babcock S, et al. Position statement on active outdoor play. *Inter J Environ Res Public Health*. 2015;12(6):6475-505. doi: 10.3390/ijerph120606475.
38. Tremblay MS, Carson V, Chaput J-P, et al. Canadian 24-Hour Movement Guidelines for Children and Youth: An Integration of Physical Activity, Sedentary Behaviour, and Sleep. *Appl Physiol Nutr Metab*. 2016;41(6):S311-S327. doi: 10.1139/apnm-2016-0151.
39. Spence JC, Faulkner G, Bradstreet CC, Duggan M, Tremblay MS. Active Canada 20/20: A physical activity plan for Canada. *Can J Public Health*. 2016;106(8):E470-E3. doi: 10.17269/cjph.106.5041.
40. Tremblay MS, LeBlanc AG, Janssen I, et al. Canadian sedentary behaviour guidelines for children and youth. *Appl Physiol Nutr Metab*. 2011;36(1): 59-64. doi: 10.1139/H11-012.
41. Tremblay MS, LeBlanc AG, Carson V, et al. Canadian physical activity guidelines for the early years (aged 0–4 years). *Appl Physiol Nutr Metab*. 2012;37(2):345-56. doi: 10.1139/h2012-018.
42. Tremblay MS, LeBlanc AG, Carson V, et al. Canadian sedentary behaviour guidelines for the early years (aged 0–4 years). *Appl Physiol Nutr Metab*. 2012;37(2):370-80. doi: 10.1139/h2012-019.
43. Faulkner G, McCloy C, Plotnikoff RC, Tremblay MS. Relaunching a national social marketing campaign expectations and challenges for the “New” ParticipACTION. *Health Promotion Practice*. 2011;12(4):569-76.
44. Spence JC, Faulkner G, Lee EY, et al. Awareness of ParticipACTION among Canadian adults: a seven-year cross-sectional follow-up. *Health Promot Chronic Dis Prev Can*. 2018;38(4): 179-86.
45. Faulkner G, Ramanathan S, Plotnikoff RC, et al. ParticipACTION after 5 years of relaunch: a quantitative survey of Canadian organizational awareness and capacity. *Health Promot Chronic Dis Prev Can*. 2018;38(4):162-9.
46. Ramanathan S, Faulkner G, Berry T, et al. Perceptions of organizational capacity to promote physical activity in Canada and ParticipACTION's influence five years after its relaunch: a qualitative study. *Health Promot Chronic Dis Prev Can*. 2018;38(4): 170-8.
47. Statistics Canada (2017). Canadian Health Measures Survey: Activity monitor data. Ottawa: Statistics Canada. Accessed 8th September 2017. Available from: <http://www.statcan.gc.ca/daily-quotidien/170419/dq170419e-eng.pdf>

ParticipACTION after 5 years of relaunch: a quantitative survey of Canadian organizational awareness and capacity regarding physical activity initiatives

Guy Faulkner, PhD (1); Subha Ramanathan, PhD (1); Ronald C. Plotnikoff, PhD (2); Tanya Berry, PhD (3); Sameer Deshpande, PhD (4); Amy E. Latimer-Cheung, PhD (5); Ryan E. Rhodes, PhD (6); Mark S. Tremblay, PhD (7); John C. Spence, PhD (3)

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Abstract

Introduction: ParticipACTION is a Canadian physical activity communications and social marketing organization relaunched in 2007. This study assesses the capacity of Canadian organizations to adopt, implement, and promote physical activity initiatives. The four objectives were to compare findings from baseline (2008) and follow-up (2013) with respect to: (1) awareness of ParticipACTION; (2) organizational capacity to adopt, implement and promote physical activity initiatives; (3) potential differences in capacity based on organizational size, sector, and mandate; and (4) assess perceptions of ParticipACTION five years after relaunch.

Methods: In this cross-sectional study, representatives from local, provincial/territorial, and national organizations completed an online survey assessing capacity to adopt, implement, and promote physical activity. Descriptive statistics and one-way analyses of variance were conducted to examine the objectives.

Results: Response rate for opening an email survey invitation and consenting to participate was 40.6% (685/1688) and 540 surveys were completed. Awareness of ParticipACTION increased from 54.6% at baseline to 93.9% at follow-up (Objective 1). Findings at both baseline and follow-up reflected good organizational capacity to adopt, implement and promote physical activity (Objective 2) although some varied by organizational sector and mandate (Objective 3). Most respondents reported that ParticipACTION provided positive leadership (65.3%), but there was less agreement regarding ParticipACTION's facilitation of infrastructure (44.0%) or organizational will/motivation (47.1%) (Objective 4).

Conclusion: Canadian organizations continue to report having good capacity to adopt, implement, and promote physical activity. There was no discernible change in capacity indicators five years after ParticipACTION's relaunch although its broader contribution to the physical activity sector was endorsed.

Keywords: *physical activity, health promotion, organizational capacity*

Introduction

The development of organizational capacity to advocate for and implement physical activity initiatives remains crucial in

addressing physical inactivity at a population level. The World Health Organization (WHO) has defined capacity building as “the development of knowledge, skills, commitment, structures, systems and

Highlights

- Canadian physical activity organizations continue to report having good capacity to adopt, implement, and promote physical activity initiatives.
- There was no discernible change in key dimensions of capacity over five years since ParticipACTION's relaunch.
- The majority of respondents agreed or strongly agreed that ParticipACTION had contributed to not only creating a more active Canada but contributed positively to the physical activity and sport sector.

leadership to enable effective health promotion.”^{1,p.341} Capacity building is, therefore, a vital “upstream” component for promoting health and includes equipping individuals with the knowledge and skills to promote physical activity, thereby ensuring organizations are resourced and have the necessary infrastructure to support initiatives, form and sustain partnerships, and provide leadership and direction to work towards shared goals. It is not immediately clear how the high prevalence of physical inactivity in Canada^{2,3} can be effectively addressed without sufficient organizational capacity.⁴ Yet, evaluation of population-level initiatives tends to focus on individual-level behaviour change (e.g., physical activity behaviour) and not

Author references:

1. School of Kinesiology, University of British Columbia, Vancouver, British Columbia, Canada
2. School of Education, University of Newcastle, Newcastle, New South Wales, Australia
3. Faculty of Kinesiology, Sport, and Recreation, University of Alberta, Edmonton, Alberta, Canada
4. Faculty of Management, University of Lethbridge, Lethbridge, Alberta, Canada
5. School of Kinesiology and Health Studies, Queen's University, Kingston, Ontario, Canada
6. School of Exercise Science, Physical and Health Education, University of Victoria, Victoria, British Columbia, Canada
7. Healthy Active Living and Obesity Research Group, Children's Hospital of Eastern Ontario Research Institute, Ottawa, Ontario, Canada

Correspondence: Guy Faulkner, School of Kinesiology, University of British Columbia, 2146 Health Sciences Mall, Room 4606, Vancouver, BC V6T 1Z3; Tel: 604-822-2990; Fax: 604-822-6842; Email: guy.faulkner@ubc.ca

more distal, systemic factors (e.g., organizational capacity) underpinning that behaviour change.⁵

The mission of ParticipACTION when it was relaunched in 2007 was to move beyond physical activity program delivery, and contribute to social marketing, communications, and partnership synergy in Canada.⁶ A particular emphasis was on encouraging and supporting the coordinated actions of other organizations, and contributing to capacity building within communities. Enhancing Canadian organizational capacity to mobilize and advocate for physical activity was thus identified as a key objective of ParticipACTION. Accordingly, we collected baseline data in 2007 assessing awareness of organizations regarding ParticipACTION, and perceptions of organizational capacity to mobilize and advocate for physical activity.⁷ This has provided the unique opportunity for on-going tracking and evaluation of the impact of ParticipACTION on organizational capacity, and capacity among organizations to implement ParticipACTION initiatives. Evidence suggests that key components of organizational capacity include coalition building, networking, planning, management, delivery and evaluation of programs, and acquisition and availability of resources for physical activity promotion. However, knowledge about organizational capacity and its development is limited.⁸

At baseline, we were interested in how ParticipACTION may become a stimulus and resource for developing capacity in terms of leadership (e.g. the process of developing partnerships, collaborations, and linkages within the community [see⁹]), policy making or “will” (e.g. the process of developing vision, mission, and political will of the target community to implement and sustain a health initiative), and infrastructure (e.g. the process of developing a supportive system and organization in the health sector, the skills, knowledge, and resources for health promotion).¹⁰ It was expected that an organization’s capacity in terms of its leadership, will and infrastructure should influence the extent to which the initiatives of ParticipACTION could be adopted and implemented within those organizations.¹¹

Baseline data collection took place before ParticipACTION began disseminating information. Using an online survey, key

Canadian informants (n = 268; response rate 29.7%) representing provincial and national organizations from a range of sectors (e.g., sport, recreation, public health, education) reported on organizational awareness of ParticipACTION and their capacity for physical activity promotion.¹¹ Findings indicated good organizational capacity in Canada to promote physical activity based on reported means of approximately 4.0 (on 5-point scales ranging from 1 = “not at all” to 5 = “very”) for capacity to adopt, implement, and promote physical activity campaigns.¹¹ Although no specific patterns were observed, some differences were found by sector and mandate. For instance, organizations in the government sector reported greater capacity to adopt new campaigns compared to not-for-profit organizations. Additionally, organizations with an educational mandate reported greater capacity for adoption than public health/health care organizations. Finally, organizations with an educational mandate also reported greater capacity to implement physical activity initiatives compared to those with a sport and recreation mandate. Overall, this baseline study concluded that irrespective of size, sector or mandate, the majority of the surveyed Canadian organizations reported having the capacity to work with initiatives that would emerge from ParticipACTION.

Previous studies in Canadian health promotion initiatives have used a five-year time frame to assess changes in capacity development.^{10,12,13} Although it is possible that capacity changes within organizations may take longer than five years after the relaunch of ParticipACTION, we replicated the same methods in terms of sampling frame, procedures and measures as our baseline study.¹¹ The objectives of this study were to compare baseline (2008) and follow-up (2013) findings with respect to: (1) awareness of ParticipACTION among physical activity organizations; (2) organizational capacity to adopt, implement, and promote physical activity initiatives; (3) potential differences in capacity based on organizational size, sector and primary mandate; and also to: (4) assess perceptions of ParticipACTION five years after relaunch.

Methods

Invitations requesting participation in the study were sent via email with up to three additional reminder emails based on a

modified Dillman technique.¹⁴ An email marketing service called Mail Chimp¹⁵ was used to send emails and track the number of emails opened, and the undeliverable emails (bounces), and also provide an option to unsubscribe from future emails.¹⁶ This email service ensured that reminder emails were only sent to individuals who had not clicked on the survey link. Contacts for the 2008 baseline study (respondents and non-respondents), provincial lead organizations on an active school travel intervention, and members of the ParticipACTION Partner Network (a virtual network of Canadian organizations) were invited. Independent, cross-sectional samples were used at baseline and follow-up as it was not possible to track organizations across the two studies. As a modification of our baseline protocol, we also emailed invitees prior to sending the survey invitation with a brief overview of the survey goals and a timeline for when it will be sent.¹⁷ Additionally, broader announcements of the survey were made (November to December 2012) via ParticipACTION and the ParticipACTION Partner Network to alert the physical activity sector that the survey was occurring from January to February 2013. Specific invitations were sent to individuals identified as a key contact having knowledge of their organization (e.g. directors, program coordinators) that specified “the survey should be completed by a representative from your organization who has a good knowledge of your organization to provide us with the most accurate feedback possible.” Upon accessing the survey, invitees had the option to consent to participate, choose whether or not to continue with the survey, or to exit. A final question invited respondents to participate in a follow-up qualitative study. In total, 1688 unique respondents opened an email with a survey link. More information about outcome rate calculations is available elsewhere.¹⁶ The study received ethics approval from the Research Ethics Board at the University of Toronto.

Measures

The online instrument was modified from the baseline questionnaire in both official languages (French and English) using Survey Monkey. The baseline questionnaire was originally developed by members of the research team and evaluated by external reviewers who assessed the design of the instrument for ease of access, navigation, and completion. The

same measures were used with the addition of items regarding perceptions of ParticipACTION's impact. Organizational characteristics assessed organizational size (< 10, 10 to 39, 40+ employees), years involved in physical activity or health care promotion, scope of activity (i.e., local, provincial, national), organizational sector (i.e. government, not-for-profit, private), and primary mandate (i.e., public health/health care, sport and/or recreation, education). For every question in the survey, an additional "skip" response was made available for respondents choosing not to answer.

Awareness of ParticipACTION

Single-item questions assessed organizational knowledge about ParticipACTION: "Have you heard anything about ParticipACTION in the last 12 months?" (with a "Yes/No" response option); "Are you aware of any ParticipACTION resources?" (with a "Yes/No" response option); and "How did you hear about the "new" ParticipACTION?" (with the following response options: media [newspapers, television, radio, internet], government, from other organizations, word of mouth, and other).

Organizational capacity scales

Three organizational capacity scales with response options ranging from (1) "not at all" to (5) "very" assessed organizational capacity to: (a) adopt a new physical activity initiative (7-items; $\alpha = .92$); (b) implement a new physical activity initiative (11-items; $\alpha = .92$); and, (c) externally promote a new physical activity initiative (9-items; $\alpha = .87$). Cronbach's alpha (α) provides an estimate of how well items in a scale are measuring the same concept (i.e., internal consistency).¹⁸ Values lie between 0 and 1 where values greater than 0.70 are generally interpreted as having good internal consistency.¹⁸ These scales were modified from validated scales developed for the Alberta Heart Health Project (AHHP)^{10,19} that specifically assessed organizational leadership,²⁰ infrastructure⁷, and will,²¹ and demonstrated good reliability at baseline¹¹.

Perceptions of ParticipACTION

Perceptions of the impact of ParticipACTION on organizational capacity were also asked using the five-point Likert Scales ranging from (1) "strongly disagree" to

(5) "strongly agree". These new items addressed leadership, infrastructure, and will, as well as perceptions of the broader impact of ParticipACTION. Responses of disagreement ("strongly disagree" and "disagree") were combined, and responses of agreement ("strongly agree" and "agree") were combined. Items were examined individually.

Statistical analysis

Descriptive statistics were estimated to address Objectives 1, 2 and 4 (i.e. to assess awareness of ParticipACTION, both original and new, and to report baseline levels of the three organizational capacity domains). To address Objective 3 (to explore potential differences of the three capacity domains), univariate, one-way analyses of variance (ANOVA), and independent samples t-tests were conducted to examine capacity score differences on each of the three capacity domains (i.e., to adopt, implement, and promote a new physical activity initiative) by each of the three organizational characteristics (i.e., size, sector, mandate). Pairwise comparisons were then conducted with statistical significance set at $p < 0.05$. As survey responses were missing at random, listwise deletion was used to handle missing data for each analysis.

Results

Response rate

Figure 1 illustrates the study flow and the response rate for the survey. The response rate for those opening an email with a survey link and consenting to participate was 40.6% (685 consenting/1688 unique recipients who opened an email with a survey link).

Respondent and organizational characteristics

Respondents from organizations working at provincial, territorial or local levels were relatively well distributed reflecting the Canadian population (see Table 1). One exception was Quebec, where the proportion of responses was roughly half of what would be expected based on the population distribution. The majority of respondents were between the ages of 35 to 50 years (238/532 = 44.7%), followed by 50 years and older (183/532 = 34.4%), and under 35 years of age (111/532 = 20.9%). Though a large proportion of

respondents had been working as employees in a field related to physical activity and/or health promotion for 11 or more years (295/488 = 60.5%), most had been with their current organization for a decade or less (316/516 = 61.2%) (see Table 2).

With respect to the target population(s) for each organization's work related to physical activity, the majority focussed on school-aged youth (479/541 = 88.5%). Many also reported that they focussed on adults (277/541 = 51.2%), children ages 0 to 4 years (158/541 = 29.2%), older adults 65 years and above (180/541 = 33.3%), and staff within their organization (74/541 = 13.7%).

The follow-up sample reported here was similar to the baseline sample reported by Plotnikoff and colleagues¹¹ with several exceptions. There were fewer national and provincial organizations in the current sample (9.6% versus 29.6% national; 19.3% versus 30.6% provincial), and less organizations with 40 or more full-time employees (25.0% versus 46.6%). In the follow-up sample, there was also a lower proportion of organizations with an educational mandate (32.5% versus 48.0%), and a greater proportion of organizations from urban planning/transportation (1.3% versus 0%) and the private sector (4.6% versus 1.6%).

A single question on a 5-point Likert scale ranging from 1 = "not at all" to 5 = "very" asked respondents how confident they were that their answers accurately reflected their organization as a whole. Overall, respondents appeared confident that they were knowledgeable about their organization's physical activity promotion efforts, i.e. M (SD) = 4.24 (0.86).

Awareness of ParticipACTION (Objective 1)

Out of 669 respondents, the vast majority (93.9%) indicated they had heard of ParticipACTION since it was relaunched in 2007. Awareness was 54.6% in the baseline sample. Most respondents (502/626 = 80.2%) heard about ParticipACTION through media outlets (e.g. newspapers, television, social media). Several respondents were also members of the ParticipACTION Network (216/626 = 34.5%), involved in an Advisory Group or ParticipACTION initiative (131/626 = 20.9%), and/or heard of ParticipACTION through a presentation or webinar (86/626 = 13.7%), listserv

FIGURE 1
Response tree

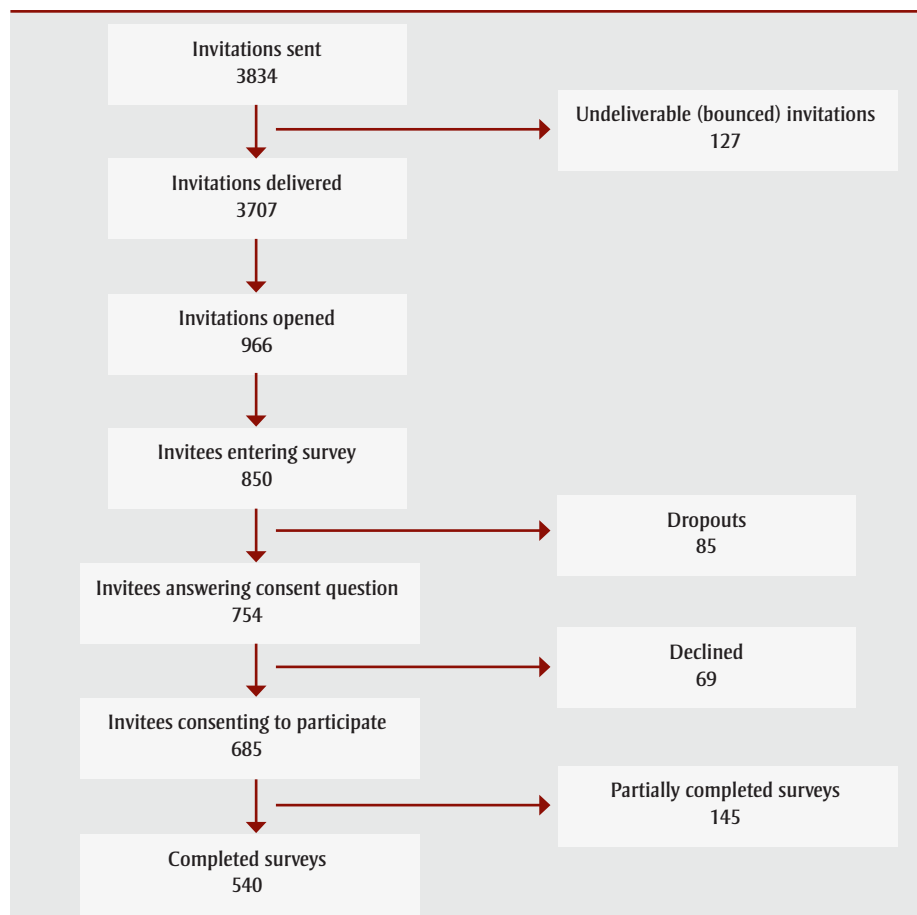


TABLE 1
Survey responses by province/territory among respondents working
at provincial, territorial or local levels

Province/Territory	Response of total sample n (%)	% of Canadian population ^a
British Columbia	73 (14.9)	13.3
Alberta	67 (13.6)	11.1
Saskatchewan	18 (3.7)	3.1
Manitoba	26 (5.3)	3.6
Ontario	163 (33.2)	38.7
Quebec	46 (9.4)	23.1
New Brunswick	24 (4.9)	2.2
Nova Scotia	35 (7.1)	2.7
Prince Edward Island	7 (1.4)	0.4
Newfoundland/Labrador	17 (3.5)	1.5
Yukon	5 (1.0)	0.1
Northwest Territories	5 (1.0)	0.1
Nunavut	5 (1.0)	0.1
Total	491^b (100)	100

^a Based on Census figures for 2012 (Statistics Canada).

^b National respondents were not asked to choose a province/territory.

(71/626 = 11.3%), or through other mechanisms (e.g. partner organizations and colleagues) (63/626 = 10.1%).

Levels of three organizational capacity domains (Objective 2)

Table 3 shows baseline and follow-up capacity levels (to adopt, implement, and promote a new physical activity initiative) by organizational size, sector, and organizational mandate (Objective 2). Similar to baseline, organizations reported means of approximately 4.0 (on 5-point scales where 1 = “not at all” and 5 = “very”) across the three capacity domains by each of the three organizational characteristics. Capacity levels were consistent at both time points with little variability as minimum and maximum differences between baseline and follow-up ranged from $- .09$ to $+ .11$.

Differences in capacity based on organizational size, sector and mandate (Objective 3)

Effect sizes were small but there were two statistically significant differences by organizational size, sector or mandate (Objective 3; see Table 3). Organizations having no full time employees reported less capacity to implement a physical activity initiative in comparison to those organizations with full time employees. Also, public health organizations reported greater capacity to implement a physical activity initiative than sport and/or recreation organizations.

Perceptions of ParticipACTION (Objective 4)

The majority of respondents agreed or strongly agreed that ParticipACTION had contributed to creating a more active Canada (63.2%) and contributed positively to the physical activity and sport sector (72.9%) (see Table 4). In terms of specific capacity contributions, the majority of respondents reported that ParticipACTION had provided leadership (65.3%) but fewer ‘agreed’ or ‘strongly agreed’ that it had contributed to capacity and infrastructure (44%) or organizational will/motivation (47.1%).

Discussion

This study examined the impact of a national social marketing organization on capacity building among other national, provincial, and local organizations over

TABLE 2
Organizational characteristics

Organizational characteristic	Frequency ^a (n)	(%)
How many years has your organization been involved in physical activity or health promotion?		
Less than 5 years	61	11.5
5-10	73	13.8
11-15	51	9.6
16-20	39	7.4
More than 20 years	305	57.7
Total	529	100
Does your organization work mainly at the national, provincial or territorial, or local level?^b		
National	52	9.6
Provincial/territorial	105	19.3
Local	348	64.1
Regional	5	0.9
Multiple levels	24	4.4
International	4	0.7
Other	5	0.9
Total	543	100
How many people are there in your organization who work...		
...full time?	0	75
	1-9	194
	10-39	130
	40 or more	133
Total	532	100
...part time?	0	83
	1-9	274
	10-39	80
	40 or more	82
Total	519	100
...volunteer?	0	56
	1-9	161
	10-39	140
	40 or more	154
Total	511	100
Do you work in the government or education, not-for-profit or private sector?^c		
Government or education	268	49.5
Not-for-profit	233	43.1
Private	25	4.6
Other	15	1.8
Total	541	100
Which mandate does your organization primarily fall into?		
Public health or healthcare	52	9.6
Sport and/or recreation	256	47.3
Education	176	32.5
Urban planning or transportation	7	1.3
Other	50	9.2
Total	541	100

^a Partially completed surveys were included.

^b "Regional", "multiple" and "international" were specified by respondents who chose the "other" category.

^c Organizational sector: "government" and "education" were combined since all educational facilities are affiliated with provincial education and school boards.

time. The participation rates increased from 269/902 = 29.7% at baseline to 685/1688 = 40.6% at follow-up, showing that twice as many organizations took part in the follow-up study.¹⁶ It is possible that a larger number of organizations were contacted at follow-up because of ease of reach through the virtual ParticipACTION Partner Network, and also that new physical activity organizations emerged since the relaunch of ParticipACTION. Awareness of ParticipACTION has increased from 54.6% at baseline to 93.9% at follow-up, clearly suggesting that the 'new' ParticipACTION is well established nationally in terms of recognition. The focus of this analysis was on providing a snapshot of organizational capacity five years after the relaunch of ParticipACTION.

There was little evidence of change over the last five years in capacity to adopt, implement, or promote physical activity initiatives, and minimal attribution of capacity changes to ParticipACTION. At both time points, organizations (to which respondents belonged) reported good capacity on all of these dimensions. Capacity means ranged from 3.83 to 4.10 on 5-point scales. Given the relatively high baseline scores, there may have been a ceiling effect with some organizations having limited room for improvement. Approximately 75% of the responding organizations reported operating for over ten years and it may be that such organizations have less scope for expanding capacity. Alternatively, for some organizations, particularly organizations that have recently emerged, it may take longer than five years to see changes in their capacity dimensions. The lack of comparable studies to the current one limits further interpretation of these possibilities. Notably, a temporal trend analysis of the ParticipACTION Report Card on Physical Activity for Children and Youth demonstrated positive changes in government and non-government strategies and investments in Canada over the last 12 years.²² This might be reflected in the good capacity reported by participants at least in the context of children and youth settings.

There were also minimal differences in organizational capacity as a function of organizational size, sector, or mandate. Specifically, capacity to adopt and to promote physical activity did not vary by any of these characteristics. However, and as might be expected, organizations with no full-time employees reported lower capacity

TABLE 3
Organizational characteristic group mean scores on three capacity domains, 2013 (follow-up year)

	n	Capacity to adopt PA Initiative M (SD)	n	Capacity to implement PA Initiative M (SD)	n	Capacity to externally promote PA Initiative M (SD)
Organizational size (number of full time employees)						
0	62	3.98 (0.99)	66	3.63 (0.92)	66	3.70 (0.91)
1-9	173	4.02 (0.82)	181	3.97 (0.69)	172	3.88 (0.72)
10-39	125	4.07 (0.90)	126	3.95 (0.78)	117	3.92 (0.83)
40 +	129	4.08 (0.88)	122	3.95 (0.84)	117	3.79 (0.91)
Total	489	4.04 (0.88)	495	3.91 (0.79)	472	3.84 (0.83)
		<i>F</i> (3, 485) = 0.24, <i>p</i> = .87, η^2 = .001		<i>F</i> (3, 491) = 3.34, <i>p</i> = .02 ^a , η^2 = .02		<i>F</i> (3, 468) = 1.35, <i>p</i> = .26, η^2 = .009
Baseline (2008)	157	3.93 (0.70)	176	4.00 (0.64)	168	3.83 (0.77)
Organizational sector						
Government or education	250	4.08 (0.86)	248	3.88 (0.80)	229	3.80 (0.88)
Not for profit	206	3.98 (0.91)	218	3.93 (0.78)	210	3.89 (0.76)
Private	23	4.16 (0.78)	21	4.09 (0.73)	23	3.79 (0.87)
Total	479	4.04 (0.88)	487	3.91 (0.79)	462	3.84 (0.83)
		<i>F</i> (2, 476) = 0.86, <i>p</i> = .42, η^2 = .005		<i>F</i> (2, 484) = 0.80, <i>p</i> = .45, η^2 = .006		<i>F</i> (2, 459) = 0.57, <i>p</i> = .57, η^2 = .003
Baseline (2008)	159	3.94 (0.70)	179	4.00 (0.62)	172	3.79 (0.83)
Organizational mandate						
Public health or healthcare	48	4.06 (0.92)	49	4.16 (0.70)	47	3.79 (0.84)
Sport and/or recreation	233	4.10 (0.82)	236	3.83 (0.78)	230	3.89 (0.74)
Education	159	4.01 (0.93)	163	3.92 (0.84)	147	3.75 (0.96)
Total	440	4.06 (0.87)	448	3.90 (0.80)	424	3.83 (0.83)
		<i>F</i> (2, 437) = 0.60, <i>p</i> = .55, η^2 = .009		<i>F</i> (2, 445) = 3.60, <i>p</i> = .03 ^b , η^2 = .02		<i>F</i> (2, 421) = 1.43, <i>p</i> = .24, η^2 = .01
Baseline (2008)	152	3.98 (0.65)	171	3.99 (0.64)	165	3.81 (0.82)

Abbreviations: M, mean; PA, physical activity; SD, standard deviation.

Notes: Partially completed surveys were included; therefore some data are missing.

Missing data were handled using listwise deletion. Consequently, n varies.

All three capacity dimensions (adopt, implement, externally promote) were on a 5-point Likert scale ranging from 1 = "not at all" to 5 = "very".

One-way ANOVA tests with pairwise mean comparisons were used to examine organizational characteristic mean score differences on each of the three capacity domains.

^a Pairwise mean comparisons showed that organizations having 0 full time employees reported significantly lower capacity to implement PA initiatives compared to all other categories (*p* < .01).

^b Pairwise mean comparisons showed that there was one significant difference in that organizations having a public health or healthcare mandate had greater capacity to implement a PA initiative compared to those with a sport and/or recreation mandate (*p* < .03).

to implement physical activity initiatives but differences were not statistically significant. Similarly, public health organizations also reported greater capacity for implementation than sport/recreation organizations. The broader public health mandate of such organizations may be more in line with ParticipACTION, in contrast to the more specific mandates of sporting or recreation organizations. These differences were small in nature and caution is required in their consideration.

Respondents reported that ParticipACTION has had an impact on the physical activity

sector in Canada and in supporting a more active Canada. This is largely reflected in positive perceptions of the organization's contribution to leadership. As described by Faulkner and colleagues,²³ ParticipACTION's strategic priorities were on social marketing, communication, and knowledge exchange. Between 2007 and 2012, ParticipACTION has launched three national social marketing campaigns, and developed the ParticipACTION Partner Network for knowledge exchange among Canadian organizations (see introduction, this issue).²³ In the baseline qualitative work, key stakeholders described a number of expectations they had for the new

ParticipACTION.²⁴ One was that ParticipACTION's advocacy role should include driving a broad physical activity agenda through the creation of a national physical activity policy. ParticipACTION led the development and extensive consultation process for such a national strategy, Active Canada 20/20.²⁵ All of these activities likely contributed to perceptions of national leadership. Others²⁶ have highlighted the importance of facilitating partnerships when building capacity to promote physical activity and sport. In contrast, ParticipACTION provided little or no direct infrastructure or resources to organizations in Canada. Accordingly,

TABLE 4
Perceptions of ParticipACTION

Items	Strongly disagree or disagree	Neutral	Strongly agree or agree
	n (%)	n (%)	n (%)
To what extent do you agree or disagree with the following statements? In the last five years... ^a			
a) ParticipACTION has contributed to creating a more active Canada	55 (9.2)	164 (27.6)	376 (63.2)
b) ParticipACTION has provided leadership in terms of developing partnerships, collaborations and linkages with the physical activity and sport sector	57 (9.8)	144 (24.8)	379 (65.3)
c) ParticipACTION has increased the capacity (skills, knowledge and resources) of my own organization to promote physical activity	171 (29.1)	158 (26.9)	259 (44.0)
d) ParticipACTION has contributed positively to the physical activity and sport sector	45 (7.7)	115 (19.6)	426 (72.9)
e) ParticipACTION has provided leadership in promoting physical activity	53 (9.0)	115 (19.4)	424 (71.6)
f) ParticipACTION has increased motivation of our organization to promote physical activity within our sector	168 (29.0)	139 (24.0)	273 (47.1)

^a "Strongly disagree" and "disagree" were combined, and "strongly agree" and "agree" were combined.

ParticipACTION might have achieved what it was capable of, providing leadership and contributing to the creation of a unified awareness of physical (in)activity, given that investment is primarily at a provincial/territorial level for infrastructure and resources. Qualitative research at baseline found high levels of will and motivation to engage in physical activity promotion.⁴ Consequently, impact on this capacity dimension is likely to be less evident. Further qualitative research may be able to shed light on all of these possibilities in allowing a more in-depth examination of potential changes in organizational capacity that might be more nuanced in nature.

Limitations

Three important study limitations should be acknowledged. First, the cross-sectional design is inferior to a longitudinal design in examining change over time. There were also some differences in the two samples in terms of the nature and size of the organizations. These limitations should be considered in interpreting comparisons between 2008 and 2013 on organizational capacity (Objectives 2 and 3) but are less salient considering awareness (Objective 1) and perceptions of ParticipACTION (Objective 4). Second, the response rate was low at 40.6%. Though this was an improvement over the

baseline response rate (29.7%), response bias is possible on the basis of these two limitations. However, there was diversity in the sample and a modified Dillman protocol was employed including a pre-survey prompt and multiple follow-ups to improve response rates. Additionally, there is no way to account for the multitude of other factors that have influenced the physical activity sector, making it impossible to determine the true influence (or lack thereof) of ParticipACTION.

Conclusion

This study contributes to the limited literature examining change in organizational capacity. Findings demonstrate that Canadian organizations involved in physical activity and health promotion continue to report having good capacity to adopt, implement, and promote physical activity initiatives. This holds irrespective of organizational size, sector, or mandate. There was no discernible change in capacity indicators in the five years since the relaunch of ParticipACTION. However, ParticipACTION was considered by most as making a positive contribution to leadership on physical activity and the physical activity sector more broadly. Awareness of ParticipACTION is very high. Our findings demonstrate that monitoring potential change in organizational capacity is possible at a population level,

and the present data can be used to inform ongoing and long-term evaluation of the impact of ParticipACTION.

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Conflicts of interest

GF, TB, SD, AEL, RER, MST and JS serve on the ParticipACTION Research Advisory Group.

Authors' contributions and statement

GF conceptualized the design of the study and wrote the initial draft. SR led data collection and analysis. RP, TB, SD, AELC, RER, MST, and JCS provided input to study design, analysis, and interpretation, and in drafting and revising the paper. All authors have seen and approved the final manuscript.

The content and views expressed in this article are those of the authors and do not necessarily reflect those of the Government of Canada.

References

1. Smith BJ, Tang KC, Nutbeam D. WHO Health Promotion Glossary: new terms. *Health Promot Int.* 2006;21(4):340-5. doi:10.1093/heapro/dal033.
2. Colley RC, Garriguet D, Janssen I, Craig CL, Clarke J, Tremblay MS. Physical activity of Canadian adults: accelerometer results from the 2007 to 2009 Canadian Health Measures Survey. *Health Rep.* 2011;22(1):7-14.
3. Colley RC, Garriguet D, Janssen I, Craig CL, Clarke J, Tremblay MS. Physical activity of Canadian children and youth: accelerometer results from the 2007 to 2009 Canadian Health Measures Survey. *Health Rep.* 2011; 22(1):15-23.

4. Faulkner G, McCloy C, Plotnikoff RC, et al. ParticipACTION: Baseline assessment of the capacity available to the 'New ParticipACTION': a qualitative study of Canadian organizations. *Int J Behav Nutr Phy.* 2009;6. doi: 10.1186/1479-5868-6-87.
5. Finlay SJ, Faulkner G. Physical activity promotion through the mass media: inception, production, transmission and consumption. *Prev Med.* 2005;40(2):121-30. doi: 10.1016/j.ypmed.2004.04.018.
6. Latimer-Cheung A, Murmets K, Faulkner G. ParticipACTION: the national voice of physical activity and sport. In: Pate RR, Buchner DM, editors. *Implementing Physical Activity Strategies.* Champaign, IL: Human Kinetics; 2014. p. 61-70.
7. Plotnikoff RC, Anderson D, Raine K, Cook K, Barrett L, Prodaniuk T. Scale development of individual and organization infrastructure for heart health promotion in Regional Health Authorities. *Health Educ J.* 2005;64: 265-70. Available from: <http://journals.sagepub.com/doi/pdf/10.1177/001789690506400306ble>
8. Elliott SJ, O'Loughlin J, Robinson K, Eyles J, Cameron R, Harvey D, et al. Conceptualizing dissemination research and activity: the case of the Canadian Heart Health Initiative. *Health Educ Behav.* 2003;30(3):267-86. doi: 10.1177/1090198103030003003.
9. Robinson K, Elliott SJ, Driedger SM, et al. Using linking systems to build capacity and enhance dissemination in heart health promotion: a Canadian multiple-case study. *Health Educ Res.* 2005;20(5):499-513. doi: 10.1093/her/cyh006.
10. Dressendorfer RH, Raine K, Dyck RJ, et al. A conceptual model of community capacity development for health promotion in the Alberta Heart Health Project. *Health Promot Pract.* 2005;6(1): 31-6. doi: 10.1177/1524839903259302.
11. Plotnikoff RC, Todosijczuk I, Faulkner G, et al. ParticipACTION: Baseline assessment of the 'new ParticipACTION': a quantitative survey of Canadian organizational awareness and capacity. *Int J Behav Nutr Phy.* 2009;6. doi: 10.1186/1479-5868-6-86
12. Ebbesen LS, Heath S, Naylor PJ, Anderson D. Issues in measuring health promotion capacity in Canada: a multi-province perspective. *Health Promot Int.* 2004;19(1):85-94.
13. Joffres C, Heath S, Farquharson J, et al. Defining and operationalizing capacity for heart health promotion in Nova Scotia, Canada. *Health Promot Int.* 2004;19(1):39-49.
14. Dillman DA. *Mail and telephone surveys: the Total Design Method.* New York: Wiley; 1978. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2328022/>
15. Mail Chimp. How do I use Survey Monkey integration? 2013, February 7. Available from: <http://kb.mailchimp.com/integrations/other-integrations/integrate-surveymonkey-with-mailchimp>
16. Ramanathan S, Faulkner G. Calculating outcome rates in web surveys. *Can J Prog Eval.* 2015;30(1). doi: 10.3138/cjpe.30.1.90.
17. Drummond FJ, Sharp L, Carsin A-E, Kelleher T, Comber H. Questionnaire order significantly increased response to a postal survey sent to primary care physicians. *J Clin Ep.* 2008; 61(2):177-85. doi: 10.1016/j.jclinepi.2007.04.012.
18. Tavakol M, Dennick R. Making sense of Cronbach's alpha. *International journal of medical education.* 2011;2: 53-5. doi:10.5116/ijme.4dfb.8dfd.
19. Smith C, Raine K, Anderson D, et al. A preliminary examination of organizational capacity for heart health promotion in Alberta's regional health authorities. *Promot Educ.* 2001;Suppl 1:40-3.
20. Barrett L, Plotnikoff RC, Raine K, Anderson D. Development of measures of organizational leadership for health promotion. *Health Educ Behav.* 2005;32(2):195-207. doi: 10.1177/1090198104271970.
21. Anderson D, Plotnikoff RC, Raine K, Cook K, Smith C, Barrett L. Towards the development of scales to measure 'will' to promote heart health within health organizations in Canada. *Health Promot Int.* 2004;19(4):471-81. doi: 10.1093/heapro/dah409.
22. Barnes JD, Tremblay MS. Changes in indicators of child and youth physical activity in Canada, 2005-2016. *Can J Public Health.* 2017;107(6):e586-e9.
23. Faulkner G, Yun L, Tremblay MS, Spence JC. Exploring the impact of the 'new' ParticipACTION: overview and introduction of the special issue. *Health Promot Chronic Dis Prev Can.* 2018;38(4):153-61.
24. Faulkner G, McCloy C, Plotnikoff RC, Tremblay MS. Relaunching a national social marketing campaign: expectations and challenges for the "new" ParticipACTION. *Health Promot Pract.* 2011;12(4):569-76. doi: 10.1177/1524839909349180.
25. Spence JC, Faulkner G, Costas Bradstreet C, Duggan M, Tremblay MS. Active Canada 20/20: a physical activity plan for Canada. *Can J Public Health.* 2015;106(8):e470-3. Available from: <https://journal.cpha.ca/index.php/cjph/article/viewFile/5041/3278>
26. Marlier M, Lucidarme S, Cardon G, De Bourdeaudhuij I, Babiak K, Willem A. Capacity building through cross-sector partnerships: a multiple case study of a sport program in disadvantaged communities in Belgium. *BMC public health.* 2015; 15:1306. doi: 10.1186/s12889-015-2605-5.

Perceptions of organizational capacity to promote physical activity in Canada and ParticipACTION's influence five years after its relaunch: a qualitative study

Subha Ramanathan, PhD (1); Guy Faulkner, PhD (1); Tanya Berry, PhD (2); Sameer Deshpande, PhD (3); Amy E. Latimer-Cheung, PhD (4); Ryan E. Rhodes, PhD (5); John C. Spence, PhD (2); Mark S. Tremblay, PhD (6)

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Abstract

Introduction: ParticipACTION is a Canadian physical activity communications and social marketing organization relaunched in 2007. The purpose of this study was to qualitatively investigate organizational capacity for physical activity promotion among Canadian organizations, and the influence of ParticipACTION on capacity five years after relaunch.

Methods: Using a purposive sampling strategy, semi-structured telephone interviews were conducted with 44 key informants representing national, provincial, and local organizations with a mandate to promote physical activity. Interview data were analyzed using a thematic analytic approach.

Results: Organizational capacity in terms of partnerships and collaborations, and the general climate for physical activity promotion have improved since ParticipACTION's relaunch. Although financial resources reduced the ability of organizations to fulfil their mandates, internal factors such as skilled employees and sponsorships, and external factors such as technological improvements in communication and information sharing helped to offset this strain. There were mixed feelings on ParticipACTION's contribution to capacity. While ParticipACTION has brought more attention to inactivity, this was perceived as a complement to work already taking place. While some organizations perceived ParticipACTION's relaunch as competition to funding and access to popular media, others found it as an opportunity to co-brand social marketing campaigns, utilizing ParticipACTION's products and reputation.

Conclusion: According to participants, organizational capacity to promote physical activity in Canada has increased since 2007 in subtle but important ways because of a strong climate for physical activity promotion, skilled employees, and information sharing technology. Organizational capacity changes were minimally attributed to ParticipACTION.

Keywords: *physical activity, health promotion, organizational capacity*

Introduction

To reverse the 20-year old trend of declining physical activity and physical fitness levels in Canada,¹⁻⁴ coordinated and multi-level action is required. ParticipACTION is

a physical activity communications and social marketing organization launched in the fall of 1971 to promote physical activity in Canada.⁵ Due to funding cuts, ParticipACTION ceased operations in 2001. Although a comprehensive national

Highlights

- There were mixed perceptions of ParticipACTION's contribution to capacity to promote physical activity in Canada.
- Partnerships and collaborations have strengthened physical activity promotional efforts over five years since 2007.
- Although information sharing technology and skilled employees have helped to maximize resources, financial infrastructure remains a key barrier to physical activity promotion.

physical activity plan has yet to be released, the federal government made a financial contribution to physical activity promotion by re-establishing ParticipACTION in 2007. ParticipACTION's relaunch was informed by a federally commissioned feasibility study that showed no alternate organization had provided coordinated or sustained national physical activity campaigns between 2001 to 2007. The focus of the new ParticipACTION was social marketing, communications, and partnership synergy.⁶ Baseline information was collected before the launch of the new ParticipACTION to form the basis of ongoing monitoring and evaluation. Framed as a public health natural experiment,⁷ evidence was collected from a population-based survey⁸, key informant surveys, and interviews^{9,10} in order to examine capacity, readiness, and advocacy for physical

Author references:

1. School of Kinesiology, University of British Columbia, Vancouver, British Columbia, Canada
2. Faculty of Kinesiology, Sport, and Recreation, University of Alberta, Edmonton, Alberta, Canada
3. Faculty of Management, University of Lethbridge, Lethbridge, Alberta, Canada
4. School of Kinesiology and Health Studies, Queen's University, Kingston, Ontario, Canada
5. School of Exercise Science, Physical and Health Education, University of Victoria, Victoria, British Columbia, Canada
6. Healthy Active Living and Obesity Research Group, Children's Hospital of Eastern Ontario Research Institute, Ottawa, Ontario, Canada

Correspondence: Guy Faulkner, School of Kinesiology, University of British Columbia, 2146 Health Sciences Mall, Room 4606, Vancouver, BC V6T 1Z3; Tel: 604-822-2990; Fax: 604-822-6842; Email: guy.faulkner@ubc.ca

activity promotion among physical activity organizations. This study focusses on interview data examining capacity for physical activity promotion among organizations and perceptions of the new ParticipACTION five years after its relaunch.

At baseline, a theoretical model with three indicators was used as a framework for understanding perceptions of organizational capacity to promote physical activity.¹¹ This framework was initially developed and validated in the Canadian context and showed that organizational capacity for health promotion could be enhanced with increases in individual dimensions or interactions between dimensions. Additional information about this model is published elsewhere.⁹ The first indicator was leadership and referred to the development of community partnerships, collaborations, and linkages. The second indicator was will/policy making and referred to the process of developing an organizational vision or mission (will to act), and political will among target groups to implement and sustain initiatives. The final indicator, infrastructure, referred to both human and financial resources for health promotion, and the development of skills and a supportive system within the health sector.^{11,12} Baseline research was designed to establish a foundation for subsequent evaluations of physical activity promotion capacity at the organizational level. Overall, the three-indicator model was helpful in understanding the strengths and challenges faced by Canadian organizations promoting physical activity. Findings also suggested that the role of partnerships on leadership capacity and contributions from large health organizations (without a mandate to promote physical activity) warranted further attention.

The current study was undertaken five years after the launch of the new ParticipACTION. The objectives of this study were two-fold: 1) to compare perceptions of capacity at baseline and follow-up, and 2) explore whether ParticipACTION was perceived as enhancing organizational capacity to promote physical activity in Canada. Through this work, we endeavoured to fill knowledge gaps on whether and how social marketing organizations like ParticipACTION can influence organizational capacity and ultimately population physical activity levels,

and provide recommendations for future practice.

Methods

Sampling

Using a similar sampling approach as the baseline study⁹, semi-structured interviews were conducted with key informants (e.g. physical education teachers, program coordinators at recreation centres, and managers in governmental organizations). Informants were primarily recruited from respondents of a web survey on ParticipACTION's influence on organizational capacity.¹³ Baseline contacts, members of the ParticipACTION Partner Networks (English and French), and provincial lead organizations on an active school travel intervention were sent email invitations with a survey link (n = 3707). At the end of the survey, participants (n = 540) were asked whether they were interested in taking part in a telephone interview. About one-third (n = 177) expressed interest and 62 were selected and sent email invitations. Similar to the sampling strategy at baseline⁹, participants were purposefully selected from a range of organizational sectors, mandates, provinces and territories to yield a heterogeneous sample. In the end, 38 agreed to an interview (cooperation rate = 61.3%), of which nine also took part in the baseline study.⁹

To ensure representation from all provinces and territories, and broader representation with respect to mandates and organizational characteristics (e.g. large health organizations without a specific mandate to promote physical activity), an additional 10 individuals who had not taken part in the survey were invited to participate. These individuals were selected from a list of delegates who had attended a Pan-Canadian meeting (Fredericton, New Brunswick in May 2013) to discuss a national physical activity strategy. Six consented to participate, yielding a total of 44 participants. This sample size was comparable to the baseline study⁹ and to other studies examining capacity for health promotion.¹⁴ In the end, every province and territory was represented (see Table 1). The organizational level breakdown was 12 national (coded N1-N12), 18 provincial or territorial (coded PT1-PT18), and 14 local organizations (coded L1-L14). The sample also included 10 governmental, 24 not-for-profit

TABLE 1
Informants from provincial, territorial or local organizations by province or territory

Province/Territory	Informants (n)
British Columbia	6
Alberta	3
Saskatchewan	1
Manitoba	1
Ontario	8
Quebec	3
New Brunswick	1
Nova Scotia	4
Prince Edward Island	1
Newfoundland/Labrador	1
Yukon	1
Northwest Territories	1
Nunavut	1
Total	32

Note: 12 informants representing national organizations are not represented in this table.

and 7 educational organizations, as well as 3 individuals from the private sector.

Data collection

Semi-structured telephone interviews (16 to 51 minutes) were conducted between April and July 2013. The baseline interview guide informed by the three-indicator framework was extended to ask about the role of partnerships, engagement with ParticipACTION, and influence on capacity. The interview guide is shown in Table 2. This study was approved by the Health Sciences Research Ethics Board at the University of Toronto (#28290).

Interviews were conducted in either English (42) or French (2), digitally recorded, and transcribed. As a form of member-checking, participants were emailed their transcript and given an opportunity to add comments or feedback as desired. This process helped to build trust between the researcher and participants, and open dialogue about the interview topics. As well, sharing the transcripts with participants ensured that specific terms (e.g. acronyms) were accurately captured and that punctuation reflected the true meaning of the data.¹⁵

Data analysis

Thematic analysis was used to provide a detailed account of organizational capacity.^{16,17}

TABLE 2
Semi-structured interview guide

Section	Questions	Probes
Current capacity	What is the mandate of your organization in terms of promoting physical activity?	<ul style="list-style-type: none"> Existing programs, activities, policies
	How would you define organizational capacity to promote physical activity?	<ul style="list-style-type: none"> Policy (will/policymaking) Resources: knowledge, skills, human resources and infrastructure (infrastructure) Partnerships (leadership)
	Given this definition, how would you describe your organization's current capacity to promote physical activity?	
	Has capacity changed over the last 5 years?	
	What are the barriers and facilitators influencing your organization's capacity to mobilize and advocate for physical activity?	
ParticipACTION's influence	Has ParticipACTION influenced your organization's capacity to promote physical activity?	<ul style="list-style-type: none"> Leadership to develop partnerships Motivation
	What expectations did you have for ParticipACTION in relation to your organization?	
	Has ParticipACTION provided any opportunities for your organization?	
	Have you faced any challenges in working with ParticipACTION?	
	What role would you like to see ParticipACTION playing in the future?	
	Do you have any recommendations for ParticipACTION?	

The first two authors have conducted several qualitative studies using a thematic analysis strategy, including the baseline study led by the second author. Interview transcripts were examined by the first author while simultaneously listening to the digital recording to identify and code major themes. Thematic analysis followed a realist method to report the experiences of participants in relation to the three-indicator theoretical framework and objectives examining organizational capacity.¹⁷ Quotes served as the unit of analysis. NVivo qualitative software version 10 (QSR International Pty Ltd. 2012) helped to identify patterns in codes, interpret data, understand perspectives among participants, and finally to identify key themes. Themes referring to organizational capacity and their prevalence was taken into consideration.¹⁷ The flexible use of inductive and deductive analysis allowed for other capacity related themes to emerge if salient. The codebook was

shared with the second author and modified at multiple time points to ensure meaningful codes that captured the associated text. The first two authors also checked for code consistency and ensured that new codes were created whenever different perspectives were shared. Similar codes were collapsed when appropriate.

Results

This section presents key themes, with links to infrastructure, leadership and will/policymaking dimensions of capacity. Results pertaining to general organizational capacity are presented first (i.e. mandate, capacity to promote physical activity, changes over the last five years, facilitators, and barriers), followed by findings specific to ParticipACTION's influence on organizations (i.e. influence on capacity, expectations and challenges of working with ParticipACTION, future role, and recommendations for ParticipACTION).

Physical activity mandate and congruence with ParticipACTION

Thirty-five out of 44 informants represented organizations committed to increasing physical activity levels through programming, and/or physical activity promotion, and thus aligned with ParticipACTION's mandate to promote physical activity, sport and play. The remaining organizations felt that they had little in common with ParticipACTION's mandate either because of ParticipACTION's focus on children and youth, their organization's focus on research, or their specific approach to promoting physical activity. For example, one informant from a local organization explained,

I think of what we do as [municipal] planners as setting the stage and making sure the props are there. Other people direct the play. ParticipACTION, in my mind, would be one of those that help to direct the play, in other words, encouraging people to get out and walk, use the facilities and neighbourhood that we as planners try to make attractive for walking. (L4)

Organizational capacity to promote physical activity

In line with our theoretical model of capacity building for health promotion,¹¹ elements of organizational capacity to promote physical activity were grouped into three main areas: infrastructure (human and financial resources), leadership (partnerships and collaborations), and will/policymaking (vision, mission).

Local and provincial/territorial organizations emphasized the importance of all three capacity elements in physical activity promotion, though local organizations focussed on unstable elements of capacity like the need for infrastructure (e.g. funding, staff, programming, facilities). One local informant explained, "You have to find space and develop leaders, which allows opportunities for kids to play, and they work in a virtually symbiotic relationship. Without sufficient leaders and without space, there's nowhere for kids to play" (L12). Not surprisingly, organizations primarily consisting of volunteers cited financial resources as a limiting factor, regardless of whether the scope of their work was local, provincial/territorial or national. At the same time, organizations

were often able to creatively maximize capacity by tapping into leadership aspects, namely building upon existing partnerships or forging new partnerships. One local informant highlighted that collaborative work was important when resources were limited, saying,

I think that we often duplicate things across organizations, where if we worked together and looked at what we had in common,... we could save a lot of money and do a lot better with the money that we have. (L8)

Many local and provincial/territorial informants spoke about working in partnership with other organizations to achieve their goals, while several national informants explained that their role was to build alliances i.e. forge partnerships and share information to strengthen the sector, "... in taking the conversation beyond physical activity specialists to planners—municipal planners, to recreation specialists, to education, to the health sector" (N2).

Informants used a variety of terms that broadly referred to will as a capacity indicator, including political will, strategic plans, long-term plans, visions, champions, goals, and frameworks for action. "Will" was often cited as an area under development and in need of supportive policies. One national informant explained,

I feel that we don't have as big a voice as some of the other industry-sectors.... It's a real challenge to find the political will [among] people to embrace sports events like they would [embrace] a movie set or a condominium development. Where they are willing to close roads and take the heat for things like that, the will to close a road for a sporting event isn't as strong. (N7)

There was also a general feeling that it was important to have physical activity promotion explicitly stated in an organizational vision/mission and then to have supportive high-ranking individuals or a board of directors in place for moving agendas forward.

Informants at all levels noted that to successfully promote physical activity and stimulate change, communities and society-at-large ought to feel a need.

"Governments can't do it alone.... We really require that society-at-large embrace [physical activity] in the same way that they've embraced anti-smoking, for example, and drinking and driving, as health issues that require a change in public attitude and view" (PT4). Informants acknowledged that attitude change is a slow process, in part because of an evidence gap that necessitates on-going research in best practices and knowledge exchange: "Evidence-based policies and programs—that's probably the biggest challenge: to know what it is that really does work to engage people to be more physically active. I think what we all struggle with is that" (PT14).

Capacity changes five years after relaunch

Informants described capacity changes that had taken place since the revival of ParticipACTION. Of the three components of capacity, the greatest changes were seen in leadership, with stronger partners, new partnerships or members. For some, collaborations became established, and organizations had greater credibility within their respective communities or regions, allowing them to build inter-sectoral partnerships and use innovative approaches to physical activity promotion. For instance, one stand-alone national sports organization developed reciprocal membership arrangements with provincial branches to pool financial resources, thereby benefitting from enhanced communication to members, greater exposure, and more opportunities for sponsorships. In other cases, turnover of leaders at the highest levels (within governmental and non-governmental organizations) led to staff being shifted into different roles, facilitating the sharing of new ideas, visions, and programming.

Informants also spoke of restructuring, and funding becoming available for dedicated physical activity and wellness positions (e.g. physical activity coordinators, specialists, consultants) as a result of the enhanced social and political climate to promote physical activity. Recent federal reorganization shifted physical activity promotion from health promotion to chronic disease prevention, bringing "the forward-looking and upstream work in healthy living together with disease-specific work in chronic disease prevention" (N11). A provincial informant concurred that the biggest change in the last five years has been "recognition of the issue of

physical inactivity and getting the government to come on side with allocating some resources and policies towards that" (PT3). In addition to government changes, organizations also noted that major sporting events, e.g. the 2010 Olympics in Vancouver and the success of Canadian athletes in the Olympics, has helped to give prominence to physical activity in public and government agendas. Some organizations saw increased enrolment and interest in their recreational and competitive programs following the Olympic Games, and others felt that these sporting events helped to build a "sphere of influence," a growing awareness and interest in physical activity.

With respect to capacity changes related to infrastructure, a recurring theme was technological improvements, particularly with web-technologies. Informants explained that increased use of electronic listservs, electronic newsletters and magazines, webinar resources, and online training/educational sessions have facilitated faster and cost-effective communications and improved resource sharing between organizations and the public. In this way, organizations with limited budgets for promotion and communication were able to share best practices and receive feedback from distant partners.

About one-quarter of all informants reported an increase in financial resources over the last five years, primarily through grants from various ministries and partner agencies. This helped them to implement organizational strategies such as building physical activity facilities, expanding programming, hiring new/specialized staff or creating full-time from part-time positions, and expanding promotion/marketing strategies to include social media. On the flipside, a few organizations at each level explained that budgets became tighter in the last five years, and funding cuts affected staffing. Organizations that were dependent on grants were cognizant that even if they were financially secure at the moment, funding was short term and there would be a scramble to find additional resources when the end of the funding period approached.

Facilitators and barriers to build capacity to promote physical activity

When asked to think about key factors supporting or hindering capacity to mobilize and advocate for physical activity,

principal facilitators were partnerships, alliances and collaborations, and human resources, e.g. highly skilled employees, a supportive board of directors and/or a strong volunteer and member base. Informants spoke of working alongside passionate individuals who prioritized physical activity even when their mandate had a broad focus on health or wellness. For organizations with access to sponsorships, sponsors were often perceived as vehicles to fund initiatives and help disseminate physical activity messages. In this way, sponsors simultaneously enhanced multiple aspects of organizational capacity.

The third most frequently cited facilitator for capacity was the presence of physical activity on the public and government agendas. For example, one national informant described the current Canadian climate as one that is

more holistic and a more multi-factor[ial] approach to increasing physical activity and looking at health from that perspective.... I think that the climate and that collaboration is being supported politically more so than it has been in the past and [physical activity is] being recognized as a solution. (N2)

New physical activity research and wide dissemination of research findings were seen as vital to elevating and keeping physical activity in the public and political eye. With new evidence-based and dose-specific Canadian Physical Activity Guidelines released in 2011,¹⁸ and yearly Active Healthy Kids Canada Report Cards¹⁹ disseminated primarily online since 2005, several informants felt that they had better access to credible and relevant information than ever before. A provincial informant explained that the Report Card “brings some of the best research of the year together in one spot, so we don’t have to go looking for it. It is a great advocacy tool for us” (PT1). Having evidence at their fingertips added credibility to their work and helped to gain community buy-in.

With respect to barriers for capacity, three main issues were made apparent: limited or short-term financial resources, limited or turnover of human resources, and inability to reach all communities or populations. For the most part, these three infrastructural issues were interlinked

because a lack of funds constrained staffing and more staff was required to fully address the needs within their communities or expand their work to meet a wider population. As explained by a provincial informant, “While we’ve got passionate, excited folks doing great work at that level, bodies would be really helpful. And it is not expertise – it is actual bodies to do work” (PT1). Some organizations attempted to fill this void with volunteers, but even then, a paid staff member was required to manage and train volunteers. Regardless of their level of engagement, most organizations felt that sustainable funding would strengthen their capacity to motivate and advocate for physical activity.

ParticipACTION’s influence on capacity

When asked directly to comment on ParticipACTION’s influence on organizational capacity, feelings were mixed. Nearly all organizations had engaged with ParticipACTION by partnering or participating in an initiative or using resources (e.g. website, social media), yet there was reluctance to consider this engagement substantial or draw links to organizational capacity. For instance, nearly one-third had shared or used ParticipACTION’s newsletters or Tweets, but few felt that this added value. Even though there was a general consensus that ParticipACTION had strengthened physical activity messaging, this was often cited as complementary to work already being done, not a novel contribution to the ‘will’ dimension of capacity. As expressed by one provincial informant, “I think that we get a certain amount of synergy from having a national voice as well as a provincial voice” (PT2).

In some provinces, formal partnership agreements were signed between governments and ParticipACTION. However, even in these instances, feelings were mixed. Partnerships sometimes meant that ParticipACTION’s initiatives and social marketing campaigns were officially co-branded, giving organizations access to ParticipACTION’s polished products and reputation. One provincial informant felt that having a formal relationship was beneficial because key decision-makers “viewed the brand as a very powerful lever in order to get messages to [the province]” (PT4). Another informant agreed that the partnership agreement was beneficial for organizational infrastructure because

it “provided additional resources, especially for me to go to my networks and communities that I work with in promoting physical activity” (PT16). Conversely, some agreements meant that government funds previously set aside for initiatives and campaigns were reallocated to ParticipACTION, putting a stop to pre-partnership efforts. This in turn led to frustration for departments involved in developing projects, not only because their work was pushed aside, but also because decisions to sign the agreement were made at the highest organizational levels without their consultation. It appeared that there was no consensus on the effectiveness of formal partnership agreements between ParticipACTION and provincial/territorial organizations.

Divergent perspectives on ParticipACTION’s influence on capacity were also expressed depending upon whether an organization was established before or after ParticipACTION’s relaunch. For instance, an informant from a new organization explained that ParticipACTION had strengthened leadership aspects of their capacity: “We met with ParticipACTION in our first year of operation and they... engaged us in their network and they’ve been very supportive in terms of furthering our network and our word-of-mouth [publicity]” (N2). More established organizations perceived minimal effect, given that they had been functioning well without ParticipACTION. In fact, some larger organizations felt that they had actually increased ParticipACTION’s capacity by introducing ParticipACTION to key players in the Canadian physical- activity landscape or by presenting unique opportunities for disseminating messages soon after relaunch. A local informant explained,

To be honest, I think we have provided for them an opportunity to access an environment... they bring good ideas to the table, so marketing, communications and outreach, [but] in terms of their contribution to our capacity to execute, I’d say it is very small. (L1)

Finally, some informants were unsure what ParticipACTION had done in the last five years to provide any feedback.

Expectations and challenges of working with ParticipACTION

There were mixed perceptions about expectations of ParticipACTION and contributions

over the last five years. Half of all informants had anticipated that the new ParticipACTION would serve as a national voice and brand for physical activity in Canada, thereby fostering the 'will' and 'policymaking' dimension of capacity among organizations. While most agreed that ParticipACTION had provided national messaging, some felt that ParticipACTION's campaigns focussed too closely on children and youth, neglecting the full range of Canadians, particularly with respect to age, class/income, and ability. Informants were sympathetic to the limits of funding and reach, but many still felt that ParticipACTION should play a stronger advocacy role.

With respect to leadership, several organizations agreed that ParticipACTION had influenced them by bringing key physical activity players together in virtual space through their ParticipACTION Partner Network. Organizations within this network received periodic e-blasts about upcoming campaigns and initiatives, and had access to electronic fact sheets, research and marketing materials. Given the seven-year lapse in Canada, another key expectation was that ParticipACTION would leverage the expertise of existing physical activity organizations by providing a facilitative or collaborative-style of leadership. This expectation was poorly met: "ParticipACTION needs to drive on building linkages with what already exists versus potentially creating new things because there are many things that do exist" (N10). At the same time, many organizations that participated in ParticipACTION initiatives, namely Sports Day in Canada,²⁰ appreciated the ease of taking part in a national event. Organizations shifted and rebranded pre-existing programs to align with Sports Day in Canada and took advantage of the momentum surrounding this national event. A local informant explained that

having those links to greater national campaigns is really great for us because it gives us a little bit of a framework as well as the marketing materials that we are able to work with and create a greater sense of participation. (L6)

Overall, it appeared that ParticipACTION had influenced leadership aspects of capacity for Canadian physical activity organizations; however, a stronger collaborative

approach was expected with national and provincial/territorial organizations.

Another point of discussion was challenges of working with ParticipACTION. Although the majority of organizations did not experience challenges, issues on competition for funding and media attention, and concerns with ParticipACTION's partnership with Coca-Cola emerged. As previously mentioned, one challenge, particularly at the provincial/territorial level was competition for funding. One provincial informant cautioned that ParticipACTION should be "careful that they don't view themselves as sort of the only leader in this area... in some cases, there may be some resentment because ParticipACTION's got the money that might have otherwise gone to some of these other groups" (PT14). A related challenge was for attention in the media and public eye. Most media outlets limit airtime and page-time devoted to physical activity messaging, and some informants noted that when ParticipACTION was granted space, their own organization was not. A desire was expressed for concurrent messaging, that is, the continuity of local or provincial/territorial messaging while adding ParticipACTION's voice to the mix. In order to achieve this, more cooperation in "media buys" and better communication on strategic focuses and campaigns would be preferable in the future.

The most frequently cited concern, expressed by one-quarter of all informants, was ParticipACTION's partnership with the Coca-Cola Company in the Teen Challenge initiative. This particular corporate sponsorship created the greatest obstacles for organizations whose mandates spanned the areas of physical activity and healthy eating, or those with partners focussed on healthy eating. Some organizations were unable to publically engage with ParticipACTION and others only disseminated information or partnered in initiatives unrelated to Teen Challenge. A provincial partner explained,

We have partners that have some very strong concerns with the corporate sponsorship around Coca-Cola in terms of the healthy eating component.... [It has] indirectly affected us because of our partners that have put a ban and do not want to promote ParticipACTION within their networks because of that. (PT16)

At the same time, most organizations that cited Coca-Cola's sponsorship as a challenge understood that finding sponsors is not an easy task, and ParticipACTION needed financial support to continue their work.

Future role and recommendations for ParticipACTION

When thinking about ParticipACTION's future role, half of the informants recommended continued efforts in building the brand, and more communication and collaboration with stakeholders, especially around initiatives. Suggestions included creating professional development webinars on social marketing; organizing forums for physical activity stakeholders; providing sport and leadership training; linking campaigns to community action; and providing tips to leverage the ParticipACTION brand. If ParticipACTION's marketing expertise was shared, organizations could better reach their target audiences and leverage ParticipACTION's efforts, in turn helping to achieve the end-goal of increasing population physical activity levels.

Key to serving as the national voice of physical activity, several informants felt that ParticipACTION should have a greater presence in policy and advocacy. Areas frequently mentioned were advocacy to increase government funding for physical activity (or subsidies), and advocacy to address and respond to timely events that may hinder physical activity, e.g. municipal removal of bike lanes and rising socio-economic barriers to physical activity. It was not enough to simply encourage physical activity, it was also important to alleviate barriers to physical activity, particularly among the least active populations and those experiencing the greatest challenges. One informant critiqued ParticipACTION's focus on self-promotion, saying, "every time I see ParticipACTION in the media, it is talking about a ParticipACTION initiative, not necessarily the issues that prevent people from being physically active or things that would enhance opportunities for being physically active" (L1). If a portion of ParticipACTION's communications and marketing budget could be earmarked for advocacy efforts, the goal of serving as a national voice of physical activity may be more appropriate and better achieved.

Knowledge exchange was cited as another area to augment ParticipACTION's influence on organizational capacity. ParticipACTION's website could showcase the range of physical activities, organizations, and volunteer opportunities in communities, bringing attention to the diversity of options available for the general population and supports already in place across Canada. Through the ParticipACTION Partner Network, ParticipACTION could also build a repository of best practices in Canada and knowledge/practice gaps by population groups. If this were disseminated widely, potential solutions may arise. One provincial informant expressed this recommendation for ParticipACTION's future role as follows: "[ParticipACTION's] strength is its partnerships that are in place. It is pulling the stakeholders together across the country, and then that gives a great opportunity to analyze what's happening and share those models, or best practices" (PT18). In effect, ParticipACTION could enhance leadership and infrastructural aspects of organizational capacity by becoming a 'clearing house' for information, ideas, and professional development opportunities.

Discussion

The first objective of this study was to compare perceptions of organizational capacity at baseline and follow-up. In line with baseline findings,^{9,10} current capacity to promote physical activity in Canada was considered good, and had improved over the last five years; however, there were nuanced differences in the ways that capacity was discussed.

At both baseline and follow-up, informants spoke of will and policymaking as conducive to physical activity promotion in Canada. Baseline informants attributed the strength of this dimension to internal policies and strategies, and the wider societal climate resulting from the "obesity crisis". At follow-up, the wider climate appeared to reflect external social and political changes instead. Specifically, informants felt that physical inactivity has recently been recognized as an issue at federal and provincial levels, with federal efforts shifting from the area of health promotion to chronic disease prevention. This shift signals an appreciation that physical activity is not simply desirable; it is critical for a healthy population. Informants also explained that the creation of new Physical Activity Guidelines,

yearly dissemination of physical activity research through the Active Healthy Kids Canada Report Cards, as well as Canada's hosting of the 2010 Olympic Games, all elevated the status of physical activity, thereby fostering an environment more receptive to its promotion and messaging than ever before.

Differences in the will dimension of capacity appear to be reflective of changes over the last five years, however, sample differences may play a part. In the follow-up study, there were half as many national (12), a similar number of provincial/territorial (18), and more than twice as many local organizations (14). The baseline sample was comprised primarily of higher-level organizations and focussed on aspects of will and policymaking internal to their organizations, as many had clearly defined mandates and strategic directions to reinforce this aspect of capacity. The present sample (weighted heavier with local organizations) highlighted factors external to organizations as vital contributors to the "sphere of influence," as they were more involved with, and influenced by, physical activity programming rather than broad policies. Moreover, lack of a national physical activity policy and disjointed provincial and educational policies were key sub-themes in the baseline study⁹ but seldom mentioned at follow-up. At follow-up, the main challenge for political will was the need to increase the public "voice" of physical activity in comparison to other industry sectors, which required ongoing advocacy efforts.

Perceptions of leadership capacity were positive at baseline and follow-up, with the strength of inter-sectoral partnerships, collaborations and alliances highlighted at both time points. Collaborations, particularly with ParticipACTION, sometimes posed challenges in the form of competition for media time. Even so, partnerships helped to maximize limited human and financial resources and this aspect of capacity experienced the greatest growth over the last five years.

When it came to infrastructure, financial and human resources were of concern at baseline and follow-up, with technological advancements viewed as a mechanism to offset limitations at follow-up. Baseline informants spoke of the instability of funding from governments, grants and

corporate sponsorships. Funder priorities constrained how funds could be spent and which organizational goals could be fulfilled. Limited and short-term financial resources were also barriers at follow-up, restricting the staff that could be hired and retained. At the same time, follow-up informants felt that new sources of funding and sponsorships had emerged in the last five years, paving the way for specialized staff positions in physical activity promotion. As such, in spite of funding challenges, skilled and motivated employees were explicitly identified as capacity strengths in the present study.

The second objective of this research was to examine whether ParticipACTION used or enhanced organizational capacity to promote physical activity five years after its relaunch. There were mixed perceptions about ParticipACTION's influence on capacity across all levels of organizations, with local organizations least likely to attribute capacity changes to ParticipACTION. Many informants agreed that the resurgence of ParticipACTION has brought more attention to the issue of inactivity, but this contribution was generally described as a complement to work already taking place across the nation. Beyond partnering in a one-off event run by ParticipACTION, few organizations engaged with ParticipACTION or used their resources. Some informants were simply unaware of what ParticipACTION had to offer. Although ParticipACTION has played a leading role in mass media campaigns for physical activity since relaunch,^{21,22} another strategic priority was knowledge exchange with physical activity organizations.²³ It could be that ParticipACTION needs to make their core activities apparent to organizations by devoting more time to sharing knowledge products with the ParticipACTION Partner Network, and showcasing current activities that may enhance capacity to deliver physical activity programming.

Informants at the provincial and territorial level with formal organizational relationships to ParticipACTION also voiced mixed perceptions. Some experienced enhanced capacity from the financial and knowledge resources provided through their partnership, while others felt that the reallocation of resources from their department or region to ParticipACTION compromised pre-existing efforts. Organizations that were created since the relaunch appeared to benefit most from

ParticipACTION, with enhancements to leadership capacity through the ParticipACTION Partner Network and a shorter “ramping up” period. Collaborative approaches that build upon the contextual knowledge and experience of provincial/territorial organizations and also use the reach of ParticipACTION as a national organization may help to minimize these tensions and focus on the common goal of enhancing physical activity among Canadians. It could also be that greater transparency is required with respect to the amount of funding received and how ParticipACTION uses it within a particular province/territory.

Recommendations for ParticipACTION’s future role centred upon increasing communication and collaboration with stakeholders, playing a greater advocacy role, providing facilitative leadership, and creating new knowledge exchange mechanisms. It was widely believed that ParticipACTION is armed with social marketing expertise, and informants wished for more opportunities to glean and apply this knowledge in their work. Several organizations also expected more from a “national voice” in terms of the breadth of their messaging (e.g. population targets) and involvement in advocacy. Given ParticipACTION’s mandate to serve all Canadians, it may be important to describe how they will reach various population groups within their strategic plans, what role they will play in physical activity advocacy, or how they will support existing efforts in physical activity promotion, delivery and advocacy.

Conclusion

This study fills a literature gap on how a social marketing organization can influence organizational capacity to promote physical activity over time and at a national level. According to participants, organizational capacity to promote physical activity in Canada has increased over five years since ParticipACTION’s relaunch in subtle but important ways. Although it might have been that informants with positive perspectives of capacity were more likely to participate in the study, similar perspectives from individuals representing a range of organizational sectors and mandates, as well as representation from all provinces and territories, lends support to our findings. As well, we used a theoretical framework that accommodates diverse perspectives, and an analysis

strategy that sought to demonstrate inter-relationships between the themes in order to present the complexity of issues faced by physical activity organizations. Leadership and the general climate for physical activity promotion have improved, while infrastructure (particularly financial resources) continues to constrain the ability of organizations to fulfil their mandates. ParticipACTION has had an influence on capacity among newer and smaller organizations; however, their influence across all levels and types of organizations appears to be limited. Overall, minimal attribution of capacity changes to ParticipACTION may be due to a lack of awareness of ParticipACTION’s activities, competing interests among organizations, or it could simply be that more time is required before direct influence on capacity is experienced and acknowledged by organizations. A final consideration is that the influence of any one particular organization might be limited given that system-level social and environmental change is necessary to increase physical activity at a population level.²⁴

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Conflicts of interest

GF, TB, SD, AEL, RER, MST and JS serve on the ParticipACTION Research Advisory Group.

Authors’ contributions and statement

GF conceptualized the design of the study. SR led data collection and analysis, and wrote the first draft. GF, TB, SD, AELC, RER, MST, and JCS provided input to study design, analysis, and interpretation, and in drafting and revising the paper. All authors have seen and approved the final manuscript.

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References

1. Tremblay MS, Shields M, Laviolette M, Craig CL, Janssen I, Gorber SC. Fitness of Canadian children and youth: results from the 2007-2009 Canadian Health Measures Survey. *Health Rep.* 2010;21(1):7-20.
2. Shields M, Tremblay MS, Laviolette M, Craig CL, Janssen I, Gorber SC. Fitness of Canadian adults: results from the 2007-2009 Canadian Health Measures Survey. *Health Rep.* 2010; 21(1).
3. Colley RC, Garriguet D, Janssen I, Craig CL, Clarke J, Tremblay MS. Physical activity of Canadian children and youth: accelerometer results from the 2007 to 2009 Canadian Health Measures Survey. *Health Rep.* 2011; 22(1):1-9.
4. Colley RC, Garriguet D, Janssen I, Craig CL, Clarke J, Tremblay MS. Physical activity of Canadian adults: accelerometer results from the 2007 to 2009 Canadian Health Measures Survey. *Health Rep.* 2011;22(1):1-8.
5. Rootman I, Edwards P. The best laid schemes of mice and men ... - ParticipACTION’s legacy and future of physical activity promotion in Canada. *Can J Public Health.* 2004; 95:S37-S42.
6. Tremblay MS, Craig CL. ParticipACTION: Overview and introduction of baseline research on the “new” ParticipACTION. *Int J Behav Nutr Phys Act.* 2009;6. doi: 10.1186/1479-5868-6-84.
7. Ramanathan S, Allison KR, Faulkner G, Dwyer JJM. Challenges in assessing the implementation and effectiveness of physical activity and nutrition policy interventions as natural experiments. *Health Promotion International.* 2008;23(3):290-7. doi: 10.1093/heapro/dan022.
8. Spence JC, Brawley LR, Craig CL, et al. ParticipACTION: Awareness of the participACTION campaign among Canadian adults - Examining the knowledge gap hypothesis and a hierarchy-of-effects model. *Int J Behav Nutr Phys.* 2009;6. doi: 10.1186/1479-5868-6-85.

9. Faulkner G, McCloy C, Plotnikoff RC, et al. ParticipACTION: Baseline assessment of the capacity available to the 'New ParticipACTION': A qualitative study of Canadian organizations. *Int J Behav Nutr Phy.* 2009;6. doi: 10.1186/1479-5868-6-87.
10. Faulkner G, McCloy C, Plotnikoff RC, Tremblay MS. Relaunching a national social marketing campaign: expectations and challenges for the "new" ParticipACTION. *Health Promot Pract.* 2011;12(4):569-76.
11. Smith C, Raine K, Anderson D, Dyck R, Plotnikoff R, Ness K, et al. A preliminary examination of organizational capacity for heart health promotion in Alberta's regional health authorities. *Promot Educ.* 2001;Suppl 1:40-3.
12. Dressendorfer RH, Raine K, Dyck RJ, et al. A conceptual model of community capacity development for health promotion in the Alberta Heart Health Project. *Health Promot Pract.* 2005; 6(1):31-6. doi: 10.1177/1524839903259302.
13. Faulkner G, Ramanathan S, Plotnikoff RC, et al. ParticipACTION after 5 years of relaunch: a quantitative survey of Canadian organizational awareness and capacity regarding physical activity initiatives. *Health Promot Chronic Dis Prev Can.* 2018;38(4): 162-9.
14. Robinson K, Elliott SJ, Driedger SM, et al. Using linking systems to build capacity and enhance dissemination in heart health promotion: a Canadian multiple-case study. *Health Educ Res.* 2005;20(5):499-513. doi: 10.1093/her/cyh006.
15. Poland BD. Transcription quality. In: Gubrim JF, Holstein JA, editors. *Handbook of Interview Research: Context & Method.* California: Thousand Oaks; 2002. p. 629-49.
16. Braun V, Clarke V. What can "thematic analysis" offer health and well-being researchers? *International journal of qualitative studies on health and well-being.* 2014;9:26152. doi: 10.3402/qhw.v9.26152.
17. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology.* 2006;3(2): 77-101.
18. Tremblay MS, Warburton DER, Janssen I, et al. New Canadian Physical Activity Guidelines for Canadians. *Appl Physiol Nutr Metab.* 2011;36(1):36-46. doi: 10.1139/H11-009.
19. Active Healthy Kids Canada. Is active play extinct? Toronto: Active Healthy Kids Canada, 2012. Available from: http://www.vivo.ca/uploads/PDFs/Active_Healthy_Kids_Report_Card.pdf
20. White L, Luciani A, Berry TR, et al. Sports day in Canada: a longitudinal evaluation. *Int J Health Promot and Educ.* 2016;54(1):12-23. doi: 10.1080/14635240.2015.1050122.
21. Craig CL, Bauman A, Latimer-Cheung A, et al. An evaluation of the my ParticipACTION campaign to increase self-efficacy for being more physically active. *J Health Commun.* 2015;20(9): 995-1003. doi: 10.1080/10810730.2015.1012240.
22. Gainforth HL, Jarvis JW, Berry TR, et al. Evaluating the ParticipACTION "Think Again" Campaign. *Health Educ Behav.* 2016;43(4):434-41.
23. Faulkner G, Yun L, Tremblay MS, Spence JC. Exploring the impact of the 'new' ParticipACTION: overview and introduction of the special issue. *Health Promot Chronic Dis Prev Can.* 2018;38(4):153-61.
24. Sallis JF, Owen N. Ecological models. In: Glanz K, Lewis F, Rimer B, editors. *Health Behavior and Health Education.* San Francisco: Jossey-Bass; 1997. p. 403-24.

Awareness of ParticipACTION among Canadian adults: a seven-year cross-sectional follow-up

John C. Spence, PhD (1); Guy Faulkner, PhD (2); Eun-Young Lee, PhD (1); Tanya Berry, PhD (1); Christine Cameron, MSc (3); Sameer Deshpande, PhD (4); Amy E. Latimer-Cheung, PhD (5); Ryan E. Rhodes, PhD (6); Mark S. Tremblay, PhD (7)

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Abstract

Introduction: In this cross-sectional follow-up study, we explored Canadian's awareness of ParticipACTION and their levels of physical activity (PA) after seven years of campaigns.

Methods: A population-based survey was conducted with 7282 adults over a period of 14 months from February 2014 to May 2015. The survey consisted of questions on the 2014-2015 Physical Activity Monitor relating to awareness and knowledge of ParticipACTION. Weighted logistic models were constructed to examine whether awareness was associated with PA-related beliefs, intentions, and leisure time physical activity (LTPA).

Results: Approximately 20% of Canadians reported unprompted awareness of ParticipACTION and 82% reported prompted awareness. Education, income, and having children were significant correlates of awareness among Canadians. The adjusted odds of people being aware of ParticipACTION (prompted & unprompted) were greater if they were more educated (OR = 1.57, 95% CI: 1.04–2.39; OR = 2.00, 95% CI: 1.24–3.24), reported higher income (OR = 3.92, 95% CI: 2.35–6.53; OR = 2.29, 95% CI: 1.44–3.62), and had children (OR = 1.93, 95% CI: 1.40–2.66; OR = 1.70, 95% CI: 1.26–2.30). Furthermore, awareness of ParticipACTION was positively associated with outcome expectations and self-efficacy, and negatively associated with LTPA status.

Conclusion: Levels of unprompted awareness of ParticipACTION are higher than previously reported and, in comparison to active Canadians, inactive Canadians are more likely to be aware of the organization. Given that it had primarily targeted parents of inactive children over the past seven years, it appears the organization has been partially effective in achieving its communication goals.

Keywords: mass media, physical activity, self-efficacy, behaviour change

Introduction

The vast majority of Canadian adults are physically inactive and spend most of their waking hours sitting.¹ In contrast, engaging in regular physical activity is beneficial to health in many ways including prevention of chronic diseases such as type 2 diabetes, cardiovascular disease,

breast cancer, and mental illness.² For instance, in comparison to smoking, poor diet, and excess alcohol consumption, physical inactivity is the leading behavioural risk factor of all-cause mortality for Canadian women (attributable life expectancy loss of 3 years) and second only to smoking for Canadian men.³ Furthermore, variations in prevalence of health behaviours

such as physical activity partially explain the well-documented association between income status and life expectancy in the US.⁴ A recent economic analysis estimated that if 10% of inactive Canadians could be persuaded to be more physically active and sit less, a cost-savings to the health care system of approximately \$2.6 billion could be achieved by 2040.⁵ Thus, the individual and societal benefits of a physically active population are very clear. The challenge, however, is identifying effective

Highlights

- Canadians continue to demonstrate high levels of awareness of ParticipACTION.
- Those who are aware of the organization are more likely to have children, and be inactive but hold positive beliefs about physical activity.
- The efforts of the relaunched ParticipACTION may have resonated with inactive Canadian adults through campaigns about children.
- Large knowledge gaps in awareness continue to be associated with levels of education and household income. Thus, future physical activity campaigns, programs, and policy initiatives should attempt to target different segments of the population, especially people who are disadvantaged.

Author references:

1. Faculty of Kinesiology, Sport, and Recreation, University of Alberta, Edmonton, Alberta, Canada
2. School of Kinesiology, University of British Columbia, Vancouver, British Columbia, Canada
3. Canadian Fitness and Lifestyle Research Institute, Ottawa, Ontario, Canada
4. Faculty of Management, University of Lethbridge, Lethbridge, Alberta, Canada
5. School of Kinesiology and Health Studies, Queen's University, Kingston, Ontario, Canada
6. School of Exercise Science, Physical and Health Education, University of Victoria, Victoria, British Columbia, Canada
7. Healthy Active Living and Obesity Research Group, Children's Hospital of Eastern Ontario Research Institute, Ottawa, Ontario, Canada

Correspondence: John C. Spence, Sedentary Living Lab, Faculty of Kinesiology, Sport, and Recreation, 3-113 Van Vliet Complex, University of Alberta, Edmonton, AB T6G 2H9; Tel: 780-492-1379; Fax: 780-492-2364; Email: jc.spence@ualberta.ca

interventions and programs that can elicit and maintain changes in population-level physical activity.

Media campaigns have long been thought to increase awareness, knowledge, and beliefs about physical activity.^{6,7} Though some debate exists about the effectiveness of stand-alone media campaigns for increasing population physical activity,^{8,9} such campaigns can be an effective tool for promoting physical activity when incorporated with community programs.¹⁰ In its original structure (1971-2001), ParticipACTION was a social marketing and communications organization that promoted physical activity in Canada, primarily through media campaigns.¹¹⁻¹³ After a brief hiatus, it was relaunched in 2007 with the mandate to continue its campaigns and to engage in capacity building and knowledge exchange.¹³ From the late 1970s to the early 2000s, it enjoyed high levels of recognition among Canadians with prompted awareness of its logo or messages ranging from 77% to 80%.¹⁴ Despite a six-year hiatus in operations, in 2007, Canadians still reported 82% prompted awareness and 8% unprompted awareness of ParticipACTION.¹⁵

The “new” ParticipACTION soon shifted its focus from all Canadians to a targeted approach of promoting the physical activity of Canadian children. Specifically, it targeted parents—mothers in particular—of inactive children. A majority of Canadian children were inactive¹⁶ but a majority of parents also believed their children were sufficiently physically active.^{17,18} This disconnect was addressed primarily through education and information. First, the “Inactive Kids” campaign was launched in October of 2007 to increase awareness about the negative health effects associated with the low levels of physical activity observed among Canadian children. This was then followed by the “Think Again” campaign in 2011 to challenge mothers to reconsider whether their children were meeting the existing physical activity guidelines.¹⁹ The “Bring Back Play” campaigns then provided potential solutions or options for parents to facilitate the active play of their children. Parents who were aware of the “Think Again” campaign showed greater knowledge of the physical activity guidelines, had stronger intentions to help their children meet the guidelines, and engaged in more parental support behaviours for their children’s physical activity.^{20,21} Taken

together, these are good examples of a set of focused campaigns that also encouraged further examination of the factors that influence parental support for children’s active play and physical activity.^{17,18,22-24} Based on measures of media impressions (e.g. Gross Rating Points) and recall surveys, many Canadians were exposed to these campaigns.¹³ The question remained whether all Canadians were paying attention to the efforts of ParticipACTION.

Prior to the relaunch of ParticipACTION in 2007, and as a baseline, we surveyed Canadians about their knowledge and awareness of the organization.¹⁵ This research was guided by the hierarchy-of-effects model (HOEM),²⁵ which assumes that media campaigns influence behaviour through a sequence of stages of awareness and intermediary outcomes (e.g. knowledge, beliefs). We found that levels of awareness of ParticipACTION were associated with beliefs about physical activity (outcome expectations, self-efficacy, intention), leisure-time physical activity (LTPA), and that knowledge gaps in awareness existed for those at lower levels of education and income.

In light of the many campaigns and knowledge exchange initiatives that the ‘new’ ParticipACTION has conducted since 2007, we replicated our baseline study to assess whether and how its efforts had impact on the knowledge, beliefs, and physical activity of Canadian adults. Therefore, the purposes of this cross-sectional study were to: (a) determine the awareness of ParticipACTION among Canadians; (b) confirm if awareness of ParticipACTION among Canadians still varied as a function of education and income levels; and, (c) examine whether awareness of ParticipACTION was associated with PA-related beliefs, intentions, and LTPA as suggested by the HOEM. Specifically, we tested a model including awareness of ParticipACTION (unprompted, prompted), outcome expectations, self-efficacy, intention, and LTPA status. We hypothesized that people who were aware of ParticipACTION would be more likely to be physically active and to hold more positive beliefs about being physically active.

Methods

Participants and procedures

To assess awareness of ParticipACTION on the part of Canadians, a population-based

survey was conducted on a monthly basis over a period of 14 months from February 2014 to May 2015. The survey consisted of questions that were added to the 2014-2015 Physical Activity Monitor (PAM) conducted by the Institute for Social Research at York University and Advanis Jolicoeur on behalf of the Canadian Fitness and Lifestyle Research Institute. The sample was selected on a probability basis proportional to the size of the population in the provinces and territories, with an over-sample in small provinces. For the 2014-2015 PAM, Canadians 18 years of age and older were cross-sectionally sampled per month across all provinces and territories. This on-going rolling sampling process yielded a nationally representative sample of 7282 adults with a response rate of 26% to 30%. We reported our findings based on the aggregate sample. In the past, non-response has not been related to the subject matter in the PAM.²⁶

The PAM employs a telephone-based survey with random-digit dialing, using Computer-Assisted Telephone Interviewing (CATI) software. Specifically, a multi-stage probability selection process was used to select a survey respondent who was 18 years of age or older in the household. Once a potential respondent within a household was chosen, no other person within that same household could participate in the survey. Institute for Social Research administered the surveys in either French or English. Study procedures were approved by the research ethics board at the University of Alberta.

Measures

Apart from the addition of a question on whether the respondent had children (child status), this study included the same set of measures as were analyzed in 2007.¹⁵

Demographics

Information was collected on participants’ sex, age, annual gross household income, level of education (high school or less, college, university), and child status.

Physical activity beliefs

Self-efficacy was measured using a single seven-point scale asking “how confident are you that you can regularly do a total of 30 minutes or more of moderate physical activity per day at least three or four times a week?” Response options ranged from

'not at all confident' to 'very confident'. Outcome expectations were measured with three items on a seven-point scale asking about beliefs that regular physical activity will help reduce stress, prevent heart disease, and maintain activities of daily living. Response options ranged from 'do not agree' to 'agree very strongly'. These items were then aggregated to create a mean score (Cronbach's $\alpha = .72$). Intention to be physically active was measured with a single seven-point scale asking "thinking ahead over the next six months, to what extent do you intend to be physically active?" Response options ranged from 'no intention at all' to 'fully intend'.

Awareness of ParticipACTION

Unprompted awareness and prompted awareness of ParticipACTION were assessed. For unprompted awareness, participants were asked "When you think of physical fitness, what group or organization promoting fitness in Canada comes to mind?" For prompted awareness, participants were then asked if they were aware of the following programs and/or campaigns as potential sources of physical activity information including Canada's Physical Activity Guide, Canada's Food Guide, and ParticipACTION. A similar method was adopted in previous studies.^{14,15,27}

Physical activity

LTPA over the past 12 months was assessed using an adaptation of the Minnesota Leisure Time Physical Activity Questionnaire.²⁸ Participants indicated which activities they had undertaken in the previous year (up to 30 activities), the frequency, and the average time spent in each. Average daily LTPA was calculated as follows: $LTPA \text{ (Metabolic equivalent or MET hours)} = \sum (N_i \times D_i \times METs_i / 365)$, where N is the number of times the activity was performed in the past 12 months, D is the average duration in hours, and $METs$ is the estimated energy cost ($\text{kJ} \times \text{kg}^{-1} \times \text{hr}^{-1}$). Respondents were classified as being active if they achieved 3.0 MET-hours or more per day of LTPA,²⁹ which is roughly equivalent to walking for 60 minutes on a daily basis. All others were classified as being inactive.

Statistical analysis

Statistical analyses were completed using SAS 9.4 (SAS Institute Inc., Cary, NC). Frequencies were calculated for the

awareness variables and associations between the sociodemographic variables and LTPA status. Chi square statistics were performed to examine the differences in distribution of gender, age, household income, level of education, and LTPA status by prompted and unprompted awareness of ParticipACTION with significance assessed at $p < 0.05$ (purposes a and b). To examine the associations between awareness of ParticipACTION (prompted and unprompted) and socioeconomic status (household income, level of education), binary logistic regression models were conducted after adjusting for gender and age (purpose b). To test the HOEM (purpose c), a series of one-way between-subject ANCOVAs using the PROC GLM procedure were performed with ParticipACTION awareness (prompted and unprompted) being the independent variable and outcome expectations, self-efficacy, and intention with type of awareness being the dependent variables. Gender and age were entered as covariates. Last, two hierarchical logistic regression models were created to model the associations between LTPA, beliefs and awareness variables, while adjusting for potential covariates. Specifically, the first step included age, gender, education, income, and awareness of ParticipACTION (prompted or unprompted), followed by outcome expectations and self-efficacy in step 2, with intention entered in step 3. Based on tolerance and variance inflation factors, no issues with multicollinearity were apparent.³⁰ All analyses were weighted to reflect the sample design, and the distribution of age and gender among Canadians.

Results

Approximately 47% of respondents were categorized as being active, 82.2% were aware of ParticipACTION when prompted, and 20.3% identified it as the organization that comes to mind when they think of promotion of physical fitness (see Table 1). When prompted about other programs and campaigns, 92% of respondents were aware of Canada's Food Guide while 37% indicated they were aware of Canada's Physical Activity Guide (data not shown).

No significant gender differences existed for either prompted or unprompted awareness of ParticipACTION. Age was associated with awareness; specifically, the youngest group of respondents appeared less likely to report prompted awareness than any other age group. Conversely, the

oldest group of respondents appeared less likely to report unprompted awareness in comparison to those 25 to 44 years and those 45 to 64 years. In addition, similar patterns of awareness were observed for both household income and level of education with those at the lowest levels being less aware of ParticipACTION than those at the higher levels. Regardless of awareness type, people with children were more likely to be aware of ParticipACTION. Finally, those who were classified as being inactive were more likely to cite unprompted awareness of ParticipACTION. Education, income, and having children remained significantly associated with unprompted and prompted awareness of ParticipACTION respectively, even after adjusting for age and gender (see Table 2). For instance, in comparison to those earning $< \$30\,000$, those Canadians earning $> \$60\,000$ per year were much more likely to be aware of ParticipACTION either unprompted (OR = 2.29, 95% CI: 1.44–3.62) or prompted (OR = 3.92, 95% CI: 2.35–6.53).

To examine the utility of the HOEM in relation to LTPA status, we first conducted a series of one-way ANCOVAs to determine if outcome expectations, self-efficacy, and intention for physical activity varied with level of awareness for ParticipACTION. After adjusting for covariates, self-efficacy ($F[1,3577] = 13.93$, $p < .0001$, partial η -squared = .004) varied significantly with unprompted awareness of ParticipACTION. No such effects were observed for outcome expectations or intention. For prompted awareness of ParticipACTION, outcome expectations ($F[1,7193] = 52.44$, $p < .0001$, partial η -squared = .007) varied significantly by awareness. No such effects were observed for self-efficacy or intention. Though the adjusted marginal means show that higher levels of self-efficacy were held by those who had unprompted awareness of ParticipACTION, and higher levels of outcome expectations were held by those who were aware of ParticipACTION prompted (Table 3), the effects were very small.

When LTPA status was regressed on the beliefs and awareness variables associated with the HOEM (see Table 4), both self-efficacy and intention were significant covariates regardless of the awareness type. Unprompted awareness was a significant covariate of LTPA. Specifically, if a person was aware of ParticipACTION, the

TABLE 1
Association between sociodemographic factors and awareness of ParticipACTION among Canadian adults

	Awareness of ParticipACTION							
	Total sample		Prompted awareness			Unprompted awareness		
	N	%	n	%	<i>p</i>	n	%	<i>p</i>
Overall	7279	100	6526	82.2		816	20.3	
Gender								
Male	2920	48.4	2602	83.2		326	21.6	
Female	4359	51.6	3922	81.1		490	19.0	
Age (years)								
18-24	284	25.4	169	61.3		5	0.1	
25-44	1705	29.0	1497	85.2		228	26.1	
45-64	3199	31.5	3030	93.8		462	25.6	
65 +	2091	14.1	1828	86.9	< .0001	121	15.1	< .0001
Annual gross household income (\$)								
< 30 000	923	12.0	762	68.5		47	13.2	
30 000–59 999	1500	24.1	1346	79.7		134	13.2	
60 000+	3327	63.9	3125	88.7	< .0001	519	25.2	< .0001
Level of education								
High school or less	2151	30.7	1793	77.4		115	13.8	
College	2048	30.4	1865	82.4		215	19.6	
University	3026	38.9	2828	85.9		484	24.5	< .01
Child status								
No children	5911	80.0	5269	89.3		605	18.3	
Children	1368	20.0	1255	80.3	< .0001	211	26.3	< .001
LTPA status								
Inactive	4040	53.0	3591	84.2		467	23.4	
Active	2944	47.0	2668	79.8		326	17.2	< .05

Abbreviation: LTPA, leisure time physical activity.

Note: All percentages represent weighted data.

odds of him/her being physically active decreased by a factor of 0.35.

Discussion

ParticipACTION is a social marketing and communications organization that has promoted physical activity in Canada for most of the past 45 years.^{13,14} After a brief hiatus, it was relaunched in 2007. We found that approximately 20% of Canadians were aware of ParticipACTION unprompted and 82% were aware when prompted. The levels of prompted awareness were similar to 2007. But, in comparison to rates of unprompted awareness of 8% in 2007,¹⁵ this reflects a potential increase in “top of mind” awareness of ParticipACTION between 2007 and 2014. The demographic patterns in awareness were similar from 2007 to 2014 except that inactive respondents had greater unprompted awareness of ParticipACTION than active ones in

2014 and a much larger proportion of women reported unprompted awareness in 2014 (6.7% vs. 19%). Furthermore, in 2014, respondents with children were more likely to be aware of ParticipACTION than respondents without. Comparison of parents to non-parents was not assessed in 2007. Given the explicit focus of ParticipACTION’s communications on targeting parents of inactive children, this finding provides evidence for the ability of mass media marketing physical activity initiatives to segment audiences on the basis of their demographic profile and offer targeted communications.³¹ Others have suggested such segmentation may be difficult if the item or issue being sold or promoted has a broad, universal appeal, such as health promotion.³² Our results suggest ParticipACTION were successful in reaching their target audience of parents.

The second purpose of this study was to determine if knowledge gaps in awareness of ParticipACTION existed and if these gaps were differentially related to household education and income. As was the case in 2007,¹⁵ the odds of people being aware of ParticipACTION were greater if they were more educated and reported higher income. These findings are consistent with the knowledge gap deficit model which suggests that the higher the education of an individual the higher his/her motivation to attend to health messages.^{33,34} Given that upwards of 30% of the education gradient in health behaviours is explained by knowledge and cognitive ability,³⁵ attempting to reduce these knowledge gaps and enhancing physical literacy should be a public health priority.³⁶ Consistent with these findings, information and public education targeted by education and income levels are one of

TABLE 2
Weighted associations between awareness of ParticipACTION (unprompted and prompted) and demographic covariates^a

	Awareness of ParticipACTION			
	Prompted		Unprompted	
	OR	95% CI	OR	95% CI
Annual gross household income (\$)				
< 30 000	1 (reference)		1 (reference)	
30 000–59 999	1.94	1.07–3.52*	0.96	0.58–1.61
60 000+	3.92	2.35–6.53*	2.29	1.44–3.62*
Level of education				
High school or less	1 (reference)		1 (reference)	
College	1.37	0.88–2.15	1.51	0.91–2.52
University	1.57	1.04–2.39*	2.00	1.24–3.24*
Child status				
No children	1 (reference)		1 (reference)	
Children	1.93	1.40–2.66*	1.70	1.26–2.30*

Abbreviations: CI, confidence interval; OR, odds ratio.

^a Adjusted for gender and age.

* $p < .05$.

four areas of focus in a proposed physical activity plan for Canada.³⁷

The final purpose of this study was to determine if awareness of ParticipACTION was associated with physical activity related beliefs, intentions, and physical activity. Outcome expectations (prompted) and self-efficacy (unprompted) varied significantly by awareness. Similar to 2007, the sizes of the effects were very small, suggesting that other factors influence the beliefs and intention for physical activity apart from awareness. These findings do support the HOEM such that increased awareness is associated with more positive social cognitions. However, an alternate interpretation that cannot be ruled out due to the cross-sectional nature of the study is that respondents with more positive perceptions of physical activity

(e.g. self-efficacy, outcome expectations) are more attune to physical activity messaging.

Awareness of ParticipACTION was also associated with LTPA status. However, findings were contrary to what we had hypothesized. Specifically, inactive Canadians were more aware of ParticipACTION regardless of awareness type. This finding is counter to the suggestion that people who are active or hold more positive perceptions of physical activity are more attune to physical activity messages.³⁸ Rather, perhaps this demonstrates that the campaigns and other initiatives of the relaunched ParticipACTION resonated with inactive Canadians.³⁹ Thus, consistent with the HOEM, we may have detected the cascade of cognitive and behavioural effects arising from the campaigns (e.g. people

being aware of ParticipACTION and holding positive beliefs about LTPA, but not having changed their behaviour yet). Similarly, it is likely that people cycle in and out of awareness during the course of multi-year campaigns.⁴⁰ Unfortunately, the cross-sectional nature of our study prevents us from determining whether these inactive Canadians will change their behaviour in the future. Another potential explanation for this shift in awareness is that the relaunched ParticipACTION focused much of its communication efforts, during 2007 and 2014, on the parents of inactive children.¹³ Thus, the organization's campaigns and messages may have resonated with Canadian adults who were not necessarily seeking to change their own physical activity, but rather that of their children. To address this explanation, we adjusted for child status in our logistic regressions and still found a negative association between LTPA status and awareness. Alternatively, the affective nature of these child-oriented messages and campaigns may have had broader reach and appeal than for parents alone (e.g. grandparents, teachers).

Strengths and limitations

Strengths of the study include the validated survey and sampling method from the long-running PAM surveillance system, the use of the same measures as were employed in 2007, and the application of a theoretical framework to guide the selection of questions and data analysis. However, this study is not without limitations that should be acknowledged. The use of single-item measures for self-efficacy, intention, and the awareness variables, along with the lower response rate, may limit the reliability of our findings. However, all of these measures have been employed in previous studies without problem^{14,15,39} and the self-efficacy measure is specific about the behaviour, the level of situational demand, and the time

TABLE 3
Weighted least squares means (standard errors)^a for physical activity related outcome expectations, self-efficacy, and intention by type of awareness for ParticipACTION

	Unprompted awareness				Prompted awareness			
	Unaware	Aware	F	Partial η-squared	Unaware	Aware	F	Partial η-squared
Outcome expectations	6.72 (0.01)	6.73 (0.02)	0.42	0.000	6.55 (0.02)	6.68 (0.01)	52.44***	0.007
Self-efficacy	5.88 (0.03)	5.69 (0.05)	13.93***	0.004	5.67 (0.05)	5.73 (0.02)	1.80	0.000
Intention	6.12 (0.03)	6.17 (0.04)	0.66	0.000	5.99 (0.04)	6.07 (0.02)	0.04	0.000

^a Adjusted for gender and age.

*** $p < .0001$.

TABLE 4
Adjusted and weighted odds ratios^a for factors associated with leisure time physical activity status by both prompted and unprompted awareness of ParticipACTION

	Step 1				Step 2				Step 3			
	β	Wald	OR	95%CI	β	Wald	OR	95%CI	β	Wald	OR	95%CI
Unprompted awareness												
Awareness	-0.48	12.28	0.61	0.47–0.81***	-0.20	7.37	0.70	0.50–0.89**	-0.21	8.54	0.65	0.48–0.87**
Outcome expectations					0.22	1.85	1.29	0.91–1.72	0.09	0.27	1.10	0.77–1.56
Self-efficacy					0.58	90.10	1.80	1.59–2.03***	0.47	54.35	1.60	1.42–1.82***
Intention									0.43	28.42	1.55	1.32–1.81***
Prompted awareness												
Awareness	0.0079	0.0013	1.01	0.66–1.55	-0.04	0.14	0.92	0.60–1.42	-0.04	0.16	0.92	0.60–1.39
Outcome expectations					0.18	2.21	1.20	0.94–1.53	0.07	0.31	1.07	0.84–1.38
Self-efficacy					0.57	139.56	1.78	1.62–1.96***	0.45	85.86	1.58	1.43–1.73***
Intention									0.47	55.78	1.60	1.42–1.81***

Abbreviations: CI, confidence interval; OR, odds ratio.

^a Adjusted for gender, age, education, annual gross household income, and child status.

** $p < .001$.

*** $p < .0001$.

frame as recommended by measurement experts.⁴¹ As mentioned previously, the cross-sectional design prevents any discussion of cause and effect and limits the formal testing of the hierarchy of effects in the HOEM. While we were able to control for some demographic factors that may have accounted for the observed associations, other variables (such as perceived health status and immigrant status) may have been confounders for associations between intention and/or LTPA and awareness. Finally, we had no measure of media exposure or the depth of knowledge (i.e. actual message and contents) respondents had about ParticipACTION's campaigns. This type of information would provide more insight on the extent of the knowledge gap.⁴²

Conclusion

Canadians continue to demonstrate high levels of awareness of ParticipACTION. Those who are aware of the organization are more likely to have children, and be inactive but hold positive beliefs about physical activity. The efforts of the relaunched ParticipACTION may have resonated with inactive Canadian adults through campaigns about children. Large knowledge gaps in awareness continue to be associated with levels of education and household income. Thus, future physical activity campaigns, programs, and policy initiatives should attempt to target different segments of the population, especially people who are disadvantaged.

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Conflicts of interest

JS, GF, TB, SD, AER, RER and MST serve on the ParticipACTION Research Advisory Group.

Authors' contributions and statement

JCS conceptualized the design of the study, led the data analysis, and wrote the initial draft. CC led data collection and EYL contributed to analysis and writing. GF, TB, SD, AELC, RER, and MST provided input to study design, analysis, and interpretation, and in drafting and revising the paper. All authors have seen and approved the final manuscript.

The content and views expressed in this article are those of the authors and do not necessarily reflect those of the Government of Canada.

References

1. Colley RC, Garriguet D, Janssen I, Craig CL, Clarke J, Tremblay MS. Physical activity of Canadian adults: accelerometer results from the 2007 to 2009 Canadian Health Measures Survey. *Health Rep.* 2011;22(1):1-8.
2. Warburton DE, Bredin SS. Health benefits of physical activity: a systematic review of current systematic reviews. *Curr Opin Cardiol.* 2017;32:541-556. doi: 10.1186/1479-5868-7-40.
3. Manuel DG, Perez R, Sanmartin C, et al. Measuring burden of unhealthy behaviours using a multivariable predictive approach: life expectancy lost in Canada attributable to smoking, alcohol, physical inactivity, and diet. *PLoS Med.* 2016;13(8):e1002082. doi: 10.1371/journal.pmed.1002082.
4. Chetty R, Stepner M, Abraham S, et al. The association between income and life expectancy in the United States, 2001-2014. *JAMA.* 2016;315(16):1750-66. doi: 10.1001/jama.2016.4226.

5. Bounajm F, Dinh T, Thériault L. Moving ahead: the economic impact of reducing physical inactivity and sedentary behaviour. Ottawa (ON): The Conference Board of Canada; 2014 Oct 24. Available from: http://sportmatters.ca/sites/default/files/content/moving_ahead_economic_impact_en.pdf
6. Cavill N, Bauman A. Changing the way people think about health-enhancing physical activity: do mass media campaigns have a role? *J Sports Sci.* 2004;22:771-90. doi: 10.1080/02640410410001712467.
7. Leavy JE, Bull FC, Rosenberg M, Bauman A. Physical activity mass media campaigns and their evaluation: a systematic review of the literature 2003–2010. *Health Educ Res.* 2011:cyr069. doi: 10.1093/her/cyr069.
8. Abioye AI, Hajifathalian K, Danaei G. Do mass media campaigns improve physical activity? a systematic review and meta-analysis. *Arch Pub Health.* 2013;71(20):1-10. doi: 10.1186/0778-7367-71-20.
9. Brown DR, Soares J, Epping JM, et al. Stand-alone mass media campaigns to increase physical activity: a community guide updated review. *Am J Prev Med.* 2012;43(5):551-61. doi: 10.1016/j.amepre.2012.07.035.
10. Heath GW, Parra DC, Sarmiento OL, et al. Evidence-based intervention in physical activity: lessons from around the world. *Lancet.* 2012;380(9838):272-81. doi: 10.1016/S0140-6736(12)60816-2.
11. Costas-Bradstreet C. Spreading the message through community mobilization, education and leadership: a magnanimous task. *Can J Pub Health.* 2004;95(2 Suppl): S25-9.
12. Edwards P. No country mouse: thirty years of effective marketing and health communications. *Can J Pub Health.* 2004;95(2 Suppl):S6-13.
13. Faulkner G, Yun L, Tremblay MS, Spence JC. Exploring the impact of the 'New' ParticipACTION: overview and introduction of the special issue. *Health Promot Chronic Dis Prev Can.* 2018;38(4):153-61.
14. Bauman A, Madill J, Craig CL, Salmon A. ParticipACTION: This mouse roared, but did it get the cheese? *Can J Pub Health.* 2004 May 1; 95(2 Suppl):S14-9.
15. Spence JC, Brawley LR, Craig CL, et al. ParticipACTION: Awareness of the participACTION campaign among Canadian adults—examining the knowledge gap hypothesis and a hierarchy-of-effects model. *Int J Behav Nutr Phys Act.* 2009;6(85):1-9. doi: 10.1186/1479-5868-6-85.
16. Colley RC, Garriguet D, Janssen I, Craig CL, Clarke J, Tremblay MS. Physical activity of Canadian children and youth: accelerometer results from the 2007 to 2009 Canadian Health Measures Survey. *Health Rep.* 2011;22(1):15-23.
17. Berry TR, Craig CL, Faulkner G, et al. Mothers' intentions to support children's physical activity related to attention and implicit agreement with advertisements. *Int J Behav Med.* 2014;21(1):131-8. doi: 10.1007/s12529-012-9279-5.
18. Faulkner G, Solomon V, Berry T, et al. Examining the potential disconnect between parents' perceptions and reality regarding the physical activity levels of their children. *JARC.* 2014;5(1):1-29. Available from: <http://digitalcommons.library.tmc.edu/cgi/viewcontent.cgi?article=1156&context=childrenatrisk>
19. Tremblay MS, Warburton DE, Janssen I, et al. New Canadian physical activity guidelines. *Appl Physiol Nutr Metab.* 2011;36(1):36-46. doi: 10.1139/H11-009.
20. Gainforth HL, Jarvis JW, Berry TR, et al. Evaluating the ParticipACTION "Think Again" Campaign. *Health Educ Behav.* 2015; 43(4):434-441. doi: 10.1177/1090198115604614.
21. Jarvis JW, Rhodes RE, Deshpande S, et al. Investigating the role of brand equity in predicting the relationship between message exposure and parental support for their child's physical activity. *Soc Mark Q.* 2014; 20(2):103-15. doi: 10.1177/1524500414528183.
22. Rhodes RE, Berry T, Craig CL, et al. Understanding parental support of child physical activity behavior. *Am J Health Behav.* 2013;37(4):469-77. doi: 10.5993/AJHB.37.4.5.
23. Rhodes RE, Spence JC, Berry T, et al. Predicting changes across 12 months in three types of parental support behaviors and mothers' perceptions of child physical activity. *Ann Behav Med.* 2015; 49(6):853-64. doi: 10.1007/s12160-015-9721-4.
24. Rhodes RE, Spence JC, Berry T, et al. Understanding action control of parent support behavior for child physical activity. *Health Psychol.* 2016;35(2):131-40. doi: 10.1037/hea0000233.
25. McGuire WJ. Public communication as a strategy for inducing health-promoting behavioral change. *Prev Med.* 1984;13:299-319.
26. Craig CL, Tudor-Locke C, Bauman A. Twelve-month impact of Canada on the Move: A population-wide campaign to promote pedometer use and walking. *Health Educ Res.* 2007;2: 406-13. doi: 10:1093/her/cyl093.
27. Craig CL, Cragg SE, Tudor-Locke C, Bauman A. Proximal impact of Canada on the Move: The relationship of campaign awareness to pedometer ownership and use. *Can J Pub Health.* 2006;97(1 Suppl):S21-7.
28. Taylor HL, Jacobs DR, Schucker B, Knudsen J, Leon AS, Debacker G. A questionnaire for the assessment of leisure time physical activities. *J Chronic Dis.* 1978;31(12):741-55.
29. Craig CL, Russell SJ, Cameron C, Bauman A. Twenty-year trends in physical activity among Canadian adults. *Can J Pub Health.* 2004;95(1):59-63.
30. Craney TA, Surles JG. Model-dependent variance inflation factor cutoff values. *Qual Eng.* 2002;14(3): 391-403. doi: 10.1081/QEN-120001878.
31. Latimer AE, Brawley LR, Bassett RL. A systematic review of three approaches for constructing physical activity messages: What messages work and what improvements are needed? *Int J Behav Nutr Phys Act.* 2010;7(36): 1-17. doi: 10.1186/1479-5868-7-36.

32. Slater MD, Flora JA. Health lifestyles: Audience segmentation analysis for public health interventions. *Health Educ Behav.* 1991;18:221-33.
33. Gaziano C. The knowledge gap: an analytical review of media effects. *Communication Research.* 1983;10(4): 447-86.
34. Kwak N. Revisiting the knowledge gap hypothesis: education, motivation, and media use. *Comm Res.* 1999;26: 385-413. doi: 10.1177/009365099026004002.
35. Cutler DM, Lleras-Muney A. Understanding differences in health behaviors by education. *J Health Econ.* 2010;29:1-28. doi: 10.1016/j.jhealeco.2009.10.003.
36. Piirtola M, Kaprio J, Kujala UM, et al. Association between education and future leisure-time physical inactivity: a study of Finnish twins over a 35-year follow-up. *BMC Pub Health.* 2016; 16(720):1-11. doi: 10.1186/s12889-016-3410-5.
37. Spence JC, Faulkner G, Bradstreet CC, Duggan M, Tremblay MS. Active Canada 20/20: A physical activity plan for Canada. *Can J Pub Health.* 2016;106(8):E470-3. Available from: <https://journal.cpha.ca/index.php/cjph/article/viewFile/5041/3278>
38. Berry TR. Who's even interested in the exercise message? Attentional bias for exercise and sedentary-lifestyle related words. *J Sport Exer Psych.* 2006;28(1): 4-17. doi: 10.1123/jsep.28.1.4.
39. Craig CL, Bauman A, Latimer-Cheung A, et al. An evaluation of the "My ParticipACTION" campaign to increase self-efficacy for being more physically active. *J Health Commun.* 2015;20(9): 995-1003. doi: 10.1080/10810730.2015.1012240.
40. Leavy JE, Rosenberg M, Bull F, Bauman, A. Who do we reach? Campaign evaluation of Find Thirty every day[®] using awareness profiles in a Western Australian cohort. *J Health Commun.* 2014;19:853-869. doi: 10.1080/10810730.2013.837560.
41. Maibach E, Murphy DA. Self-efficacy in health promotion research and practice: conceptualization and measurement. *Health Educ Res.* 1995;10: 37-50. doi: 10.1093/her/10.1.37.
42. Kang Y. Knowledge gap effect in health campaign evaluations. 59th Annual International Communications Association Conference, May 21-25; Chicago, Illinois. New York: ICA Press; 2009. Available from: http://www.allacademic.com/meta/p11702_index.html

Commentary

Moving forward: ParticipACTION's strategic plan 2015-2020

Katherine Janson, MA (1); Allana G. LeBlanc, PhD (2); Leigh M. Vanderloo, PhD (1); Elio Antunes, BPE (1)

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As pointed out by Faulkner, Yun, Tremblay and Spence,¹ since 1971, ParticipACTION has been working to encourage Canadians to add more physical activity to their daily lives. To date, ParticipACTION has been largely successful. This special issue provides a basis of evidence which demonstrates ParticipACTION's effectiveness in increasing organizational awareness and capacity as well as readiness and advocacy for promoting physical activity.^{2,3,4}

ParticipACTION is recognized by most (83%) Canadian adults. Furthermore, nearly all physical activity sector organizations (87%) agree that ParticipACTION is, and has been, successful in advancing and communicating knowledge about issues associated with physical activity.⁵ However, there is more to do. To address ongoing physical inactivity in Canada, ParticipACTION launched a new 5-year strategic plan in 2015.⁶ This new strategic plan includes a renewed mandate, and clear objectives to help Canadians move more and sit less. Specifically, ParticipACTION's new mandate is: As Canada's premier physical activity brand, ParticipACTION helps Canadians move more and sit less through innovative engagement initiatives (i.e., novel and compelling opportunities for behavioural changes) and thought leadership activities (i.e., expert-informed and dissemination-based actions) – ParticipACTION's vision remains consistent and is aimed at creating a Canada where physical activity is a vital part of daily life.

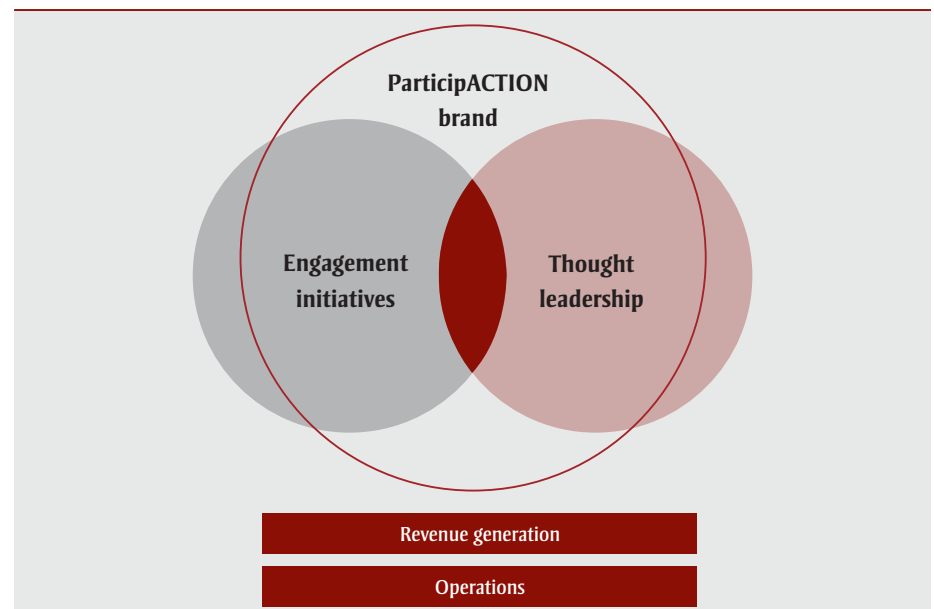
The most important shift in the new strategic plan comprises a renewed mandate which has changed from raising awareness to enabling and measuring behavioural change, from serving organizations

in the physical activity sector to aligning the sector around important issues, and from focussing solely on moving more to including sitting less as well. With this new strategic plan comes a shift in audience. The target public will shift from focussing on parents of school-aged children, to reaching out to generally inactive Canadians of all ages who want help getting started. The focus for children and youth will be to build skills and confidence, and provide opportunities to be active. Among adults, the focus will be to help inactive people increase their physical activity and decrease their sedentary behaviour. Additionally, ParticipACTION will focus on informing and enabling other organizations across the country to mobilize and coordinate action. Targeting Canadians of all ages and in multiple

settings, ParticipACTION works with all levels of government and the private sector, and has a partnership network with national and regional non-governmental organizations (NGO's) and over 7500 physical activity organizations.

ParticipACTION hopes to achieve its strategic priorities by leveraging its brand as an iconic representation of physical activity in Canada. Over the next five years, most engagement initiatives and thought leadership activities will concentrate on promoting the ParticipACTION brand and increasing visibility among Canadians (Figure 1). Revenue generation and operations will support all areas of business. Specific examples of each business sector will be described in the following sections.

FIGURE 1
ParticipACTION's areas of business



Source: ParticipACTION, 2015⁶, p. 8.

Author references:

1. ParticipACTION, Toronto, Ontario, Canada
2. University of Ottawa Heart Institute, Ottawa, Ontario, Canada

Correspondence: Leigh Vanderloo, ParticipACTION, 77 Bloor St. West, Suite 1205, Toronto, ON M5S 1M2; Tel: 416-925-7409; Email: lvanderloo@participaction.com

Engagement initiatives

ParticipACTION will engage Canadians through measurable, relevant and compelling initiatives that support and encourage them to move more and sit less in all aspects of their lives. To support this, ParticipACTION is continually developing and implementing new initiatives based on the best available scientific evidence; securing partnerships to develop and implement new initiatives; and, developing or winding down existing projects that do, or do not align with our new mandate and/or current scientific research. Recent ParticipACTION initiatives include: RBC Learn to Play – a community based initiative to enhance physical literacy skills in school-aged childcare; 150 Play List – a national initiative to encourage Canadians to become more active and carry out as many activities listed on the playlist as possible; and, Teen Challenge – a community initiative to improve physical activity levels among adolescents. ParticipACTION also has a proprietary branded behavioural change initiative, UPnGO, providing office-based, desk-bound employees with opportunities to break up their sedentary time and increase their regular physical activity.

Thought leadership

Thought leadership, which centres on being at the forefront of science and which embraces the adoption and willingness to inform others of new ideas, is an important knowledge translation and dissemination component.⁷ Over the next five years, ParticipACTION's goal is to be an informed thought leader and an authoritative source for information on physical activity and sedentary behaviour knowledge for the sport, recreational and physical activity sectors as well as for the general public. Moving forward, ParticipACTION is committed to developing and distributing evidence-based knowledge products (e.g., evidence-informed position papers and guidelines); be up-to-date on information about physical activity, sport participation and sedentary behaviour; provide issue representation and act as a spokesperson for media and other stakeholders; and help align the sector on key issues of importance, including advocating for policies

and supports that facilitate moving more and sitting less. Currently, ParticipACTION is working with partners like the Public Health Agency of Canada, the Conference Board of Canada, the Canadian Society of Exercise Physiology, and the Healthy Active Living and Obesity Research Group at the Children's Hospital of Eastern Ontario to create and distribute resources for Canadians that reflect the most up-to-date scientific evidence in the fields of physical activity, sedentary behaviour, and sleep research.

Brand

ParticipACTION is the number one physical activity brand in Canada*, and Canadians recognize it for "providing resources and easy ways for Canadians to be active," and "helping overcome barriers to physical activity."⁸ Moving forward, ParticipACTION will ensure a consistent voice and brand identity across all initiatives and activities; and develop core corporate communications that provide relevant and meaningful information to Canadians and stakeholders that are attributable to ParticipACTION.

Revenue generation and operations

To implement ParticipACTION's longer term plans, it is important to secure partnerships and multiple streams of revenue. As such, ParticipACTION draws heavily on partnerships and support (funding, personnel, and branding, distribution channels) from various partners from the educational, sports and recreational, government (national and provincial/territorial), corporate and private sectors. In recent years, ParticipACTION has been successful in building new partnerships and securing novel funding (e.g. the 150 Play List). ParticipACTION remains committed to making evidence-based decisions and operating by applying the highest standards of good governance, efficiency and professionalism. To support this goal, ParticipACTION is led by a volunteer Board of Directors made up of prominent Canadians from a sectorial cross-section. Furthermore, a *Research Advisory Group*, comprising eight national physical activity experts from major research institutions, as well as an

Advisory Network, which consists of a large multi-disciplinary group of representatives (n = 25) from the public health, urban planning, sport and recreational and educational sectors from each of Canada's provinces/territories, has been established. ParticipACTION strives to be results-oriented, is guided by a continuous improvement philosophy, and approaches its work by deploying a client-service focus.

Measuring success

ParticipACTION's main goal is to target 10% of Canadians so they move more and sit less by 2020. This focus is aligned with work from the Conference Board of Canada,⁹ and the World Health Organization.¹⁰ By directly influencing individuals' awareness of, and participation in, physical activity through its programs and thought leadership activities, it will indirectly influence social norms. This conceptual framework is supported by the Socio-Ecological Model,¹¹ the Results Chain Model¹² and the Theory of Planned Behaviour,¹³ and measured annually against organizational metrics, which are quantifiable measures used to track, monitor and assess the success or failure of various business processes. ParticipACTION will help Canadians move towards positive and sustainable changes in their usual levels of physical activity and/or sedentary behaviour, moving from worst health to sub-optimal health, and eventually to optimal health levels (Figure 2).

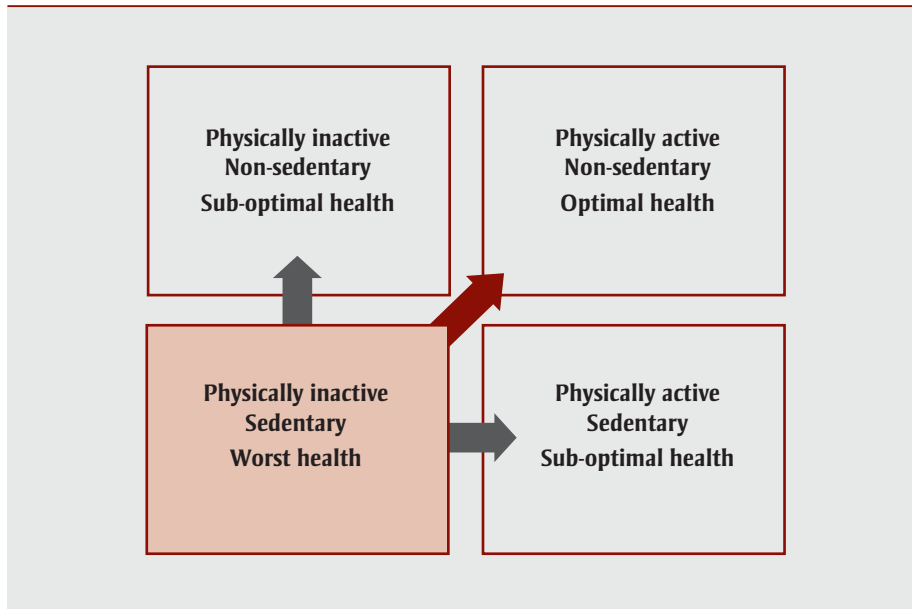
To assess ParticipACTION's contributions and efforts in improving the nation's activity behaviours, the organization will draw on data from the Canadian Health Measures Survey (CHMS), the Canadian Fitness and Lifestyle Research Institute (CFLRI) as well as customized surveys which have been developed/deployed by the organization itself, to assess the desired 10% change in physical activity and sedentary behaviours among Canadian adults and children. Guidance and expertise from the *Advisory Network* and *Research Advisory Group* will also be sought.

Moving forward

To make physical activity a more desirable, accessible and vital part of daily life in Canada, it is important that people are

* From April 19-22, 2016, an online survey was conducted by Maru/Matchbox on the Angus Reid Forum, on behalf of ParticipACTION. A sample of 1036 adult Canadians was weighted by age, gender, and region to ensure it was representative of the population. For comparison purposes, in a probability sample of this type, the margin of error would be +/-3.1%, 19 times out of 20. Specific question: *Can you name any organizations that promote physical activity in Canada? Please name as many organizations as you can (up to 10) and be as specific as possible.* This was a completely unaided question.

FIGURE 2
Activity habits and areas of impact



Source: ParticipACTION, 2015⁶, p. 16.

provided with opportunities to move more, and are supported to make the necessary behavioural changes to make this happen. While limited financial resources continue to restrict health promotion, ParticipACTION's efforts have contributed to the growing acknowledgement of the importance of physical activity in Canada.³ Moreover, based on identified education- and income-related knowledge awareness gaps,⁴ future health promotion efforts – whether they comprise policy changes, programs or campaigns – should be mindful of the need to tailor initiatives to various target populations to increase their uptake and impact.

Moving forward and based on these many studies, ParticipACTION's strategic focus on evidence-based engagement initiatives, combined with thought leadership, will allow it to help Canadians move more and sit less. ParticipACTION, as shown in the findings of this special issue, hopes that being active will eventually become an integral part of what it means to be Canadian.

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partners, agency partners and donors for their hard work. Please visit the ParticipACTION website for a complete and up-to-date listing of all those involved in ParticipACTION's engagement initiatives and thought leadership activities: www.participaction.com.

References

1. Faulkner G, Yun L, Tremblay MS, Spence JC. Exploring the impact of the 'new' ParticipACTION: overview and introduction of the special issue. *Health Promot Chronic Dis Prev Can.* 2018;38(4):153-61.
2. Faulkner G, Ramanathan S, Plotnikoff RC, et al. ParticipACTION after 5 years of relaunch: a quantitative survey of Canadian organizational awareness and capacity regarding physical activity initiatives. *Health Promot Chronic Dis Prev Can.* 2018;38(4):162-9.
3. Ramanathan S, Faulkner G, Berry T, et al. Perceptions of organizational capacity to promote physical activity in Canada and ParticipACTION's influence five years after its relaunch: a qualitative study. *Health Promot Chronic Dis Prev Can.* 2018;38(4):170-8.
4. Spence JC, Faulkner G, Lee EY, et al. Awareness of ParticipACTION among Canadian adults: a seven-year cross-sectional follow-up. *Health Promot Chronic Dis Prev Can.* 2018;38(4):179-86.
5. ParticipACTION. Impact Report: Moving with the Times [Internet]. Toronto, Ontario; 2016. Available from: https://www.participaction.com/sites/default/files/downloads/PA-ImpactReport-2016_final_no_crops.pdf
6. ParticipACTION. Moving Forward, ParticipACTION's Strategic Plan 2015-2020 [Internet]. Toronto, Ontario; 2015. Available from: https://www.participaction.com/sites/default/files/downloads/Participaction-StrategicPlan-MovingForward2015_0.pdf
7. Klavans, R. & Boyack, K. W. Thought leadership: A new indicator for national and institutional comparison. *Scientometrics*, 75, 2; 2008.
8. Vision Critical. ParticipACTION Make Room for Play campaign assessment. Toronto; 2015.
9. Bounajm F, Dinh T, Theriault L. Moving ahead: the economic impact of reducing physical inactivity and sedentary behaviour. Ottawa (ON): Conference Board of Canada; 2015. Available from: http://sportmatters.ca/sites/default/files/content/moving_ahead_economic_impact_en.pdf
10. World Health Organization. Global Action Plan for the Prevention and Control of Noncommunicable Diseases: 2013-2020. Geneva; 2013.
11. Brofenbrenner U. Ecological models of human development. In: *International Encyclopedia of Education*, Vol. 3, 2nd ed. Oxford: Elsevier; 1994. p. 37-43.
12. Montague S, Young G, Montague C. Using circles to tell the performance story. Canadian Government Executive. http://pmn.net/library/usingcircles_totelltheperformancestory.htm; 2003
13. Ajzen I. From intentions to actions: A theory of planned behavior. In: Kuhl J & Beckman J (Eds.). *Action-control: from cognition to behavior* (pp. 11–39). Heidelberg: Springer; 1985.

Other PHAC publications

Researchers from the Public Health Agency of Canada also contribute to work published in other journals. Look for the following articles published in 2017:

Colley RC, Carson V, Garriguet D, Janssen I, **Roberts KC**, Tremblay MS. Physical activity of Canadian children and youth, 2007 to 2015. *Health Rep.* 2017;28(10):8-16.

Di Ruggiero E, Kishchuk N, Viehbeck S, Edwards N, **Robinson K**, et al. Alliance members' roles in collective field-building: an assessment of leadership and championship within the Population Health Intervention Research Initiative for Canada. *Health Res Policy Syst.* 2017;15(1):101. doi: 10.1186/s12961-017-0265-x.

Hardy I, **McFaul SR**, Beaudin M, St-Vil D, Rousseau É. Cheerleading injuries in children: what can be learned? *Paediatr Child Health.* 2017;22(3):130-133.

Hongoh V, Gosselin P, **Michel P**, et al. Criteria for the prioritization of public health interventions for climate-sensitive vector-borne diseases in Quebec. *PLOS ONE.* 2017;12(12):e0190049. doi: 10.1371/journal.pone.0190049.

Prince SA, LeBlanc AG, Colley RC, Saunders TJ. Measurement of sedentary behaviour in population health surveys: a review and recommendations. *PeerJ.* 2017;2017(12):e4130. doi: 10.7717/peerj.4130.

