



**Development and implementation of the Daily Physical Activity policy in Ontario,  
Canada: A retrospective analysis**

*Élaboration et application de la politique sur l'activité physique quotidienne en  
Ontario, Canada: Analyse rétrospective*

**Kenneth R. Allison  
Public Health Ontario**

**Nour Schoueri-Mychasiw  
Public Health Ontario**

**Jennifer Robertson  
Public Health Ontario**

**Erin Hobin  
Public Health Ontario**

**John J. Dwyer  
University of Guelph**

**Heather Manson  
Public Health Ontario**

**Abstract**

The Daily Physical Activity policy (DPA) is considered to be an important initiative but current perspectives suggest that it may be unevenly implemented in Ontario. The current study focused on a retrospective analysis of the initial development and implementation of DPA. Semi-structured interviews were conducted with 10 central players involved in the development and implementation of DPA and transcripts were analysed thematically.

Findings consisted of 11 final themes focusing on the influences on policy development and implementation, the roles and relationships involved, the barriers to implementation, and the current status of DPA. Key findings emerged in this study, such as the tension between flexibility and structure and the politics of incremental policy.

This analysis contributes new insights into these issues and provides evidence both unique to the Ontario context and relevant to studies of physical activity policy and program implementation in other jurisdictions.

### Résumé

*La politique sur l'activité physique quotidienne (APQ) est considérée comme une initiative majeure, mais les perspectives actuelles portent à croire que son application est inégale à travers l'Ontario. La présente étude se voulait une analyse rétrospective de l'élaboration et de l'application initiales de l'APQ. Des entrevues semi-structurées ont été menées auprès de 10 intervenants clés engagés dans l'élaboration et la mise en œuvre de l'APQ et les transcriptions de ces entrevues ont été analysées par thème.*

*Les résultats ont fait ressortir 11 grands thèmes portant sur les incidences de l'élaboration et de l'application de la politique, sur les rôles et les relations en cause, sur les obstacles à la mise en œuvre et sur la situation actuelle de l'APQ. L'étude a fait émerger des résultats importants, entre autres l'existence de rapports tendus entre la souplesse et la structure de même que le volet politique des politiques d'implantation graduelle. Cette analyse aide à faire la lumière sur ces enjeux et génère des évidences à la fois spécifiques au contexte ontarien et pertinentes à l'étude des politiques sur l'activité physique et à la mise en œuvre de programmes dans d'autres administrations.*

### Introduction

Participating in regular moderate to vigorous physical activity (MVPA) among children and youth has been shown to be beneficial for physical and mental health and positively related to academic performance (Centers for Disease Control and Prevention, 2010; Janssen & Leblanc, 2010; Singh, Uijtdewilligen, Twisk, van Mechelen, & Chinapaw, 2012). The provision of school-based opportunities for physical activity (PA) is important because it is an effective means of increasing PA, fitness levels, and other outcomes among students (Dobbins, De Corby, Robeson, Husson, & Tirilis, 2009; Dobbins, Husson, DeCorby, & LaRocca, 2013; IOM, 2013; Kahn et al., 2002). While traditionally school-based physical education (PE) classes have provided much of the structured PA in schools, in many cases, PE class is not scheduled every school day and sometimes may be devoted to health subjects in a classroom setting. To assist children and youth in meeting Canada's physical activity guideline of 60 minutes of MVPA per day (Tremblay et al., 2011), some form of PA needs to be provided during the school day. The challenge for the education system is to provide opportunities for school-based PA and other components of a healthy school environment within the context of timetables and competing demands.

In 2005, the Ontario Ministry of Education (EDU) released Policy/Program Memorandum 138, requiring publicly funded school boards to “ensure that all elementary students (grades 1-8), including students with special needs, have a minimum of twenty minutes of sustained MVPA each school day during instructional time” (Ontario Ministry of Education, 2007, p.1). The Daily Physical Activity (DPA) policy was intended to be offered on days in which the students did not receive a comparable amount of MVPA during PE class (Ontario Ministry of Education, 2007). A unique feature of the

requirement in Ontario compared with DPA policies and guidelines in other provinces is that DPA must be conducted during instructional time. For example, in both Alberta and Manitoba, DPA can be conducted in other parts of the school day (recess, lunch period) or other settings.

Full implementation of the policy was projected for the end of the 2005-2006 school year (Ontario Ministry of Education, 2007). To support implementation of DPA by Ontario schools the EDU, in partnership with the Ontario Physical and Health Education Association (OPHEA), developed a number of resource guides for school boards, principals and teachers. According to PPM 138, school boards are accountable for monitoring DPA to ensure its implementation.

A few studies have examined various components of DPA in Ontario, including an earlier examination of its conceptual fit with the Hogwood and Gunn framework for assessing policy implementation (Robertson-Wilson & Levesque, 2009). This framework includes ten preconditions for successful implementation, dealing with such factors as external circumstances, adequate time and resources, valid theory, relationship between cause and effect, agreement on objectives, perfect communication and coordination, and authority to obtain perfect compliance. Findings from this earlier assessment identified a number of preconditions seen as needing additional attention, including “sustainability of resources, extent to which the policy is valued, and evaluation plan” (Robertson-Wilson & Levesque, 2009, p.125). Additional Ontario-based DPA studies include a study of teacher’s experiences in implementing DPA in Thames Valley District School Board (Patton, 2012), and an assessment of the amount of MVPA attained in DPA sessions in a number of schools in the Greater Toronto Area (Stone, Faulkner, Zeglen-Hunt, & Bonne, 2012). Further studies have evaluated various aspects of DPA, including implementation, in other provinces (Gladwin, Church, & Plotnikoff, 2008; Kennedy, Cantell, & Dewey, 2010; Masse, Naiman, & Naylor, 2013). However, there have been no published provincially focused evaluations of the policy in Ontario. In light of this limitation, an evidence-informed recommendation to the Ontario government called for the evaluation of the status and quality of DPA in Ontario elementary schools (Cancer Care Ontario & Ontario Agency for Health Protection and Promotion, 2012). Such an evaluation was seen as a means of addressing the need for accountability in monitoring this policy and establishing a process for contributing to continued quality of the DPA program.

An increasing focus in the scientific literature addresses the influence of a broad number of factors on the implementation of policy and program interventions (Baranowski & Stables, 2000; Brownson, Colditz, & Proctor, 2012; Chaudoir, Dugan, & Barr, 2013; Durlak & DuPre, 2008; Saunders, Evans, & Joshi, 2005; Steckler & Linnan, 2002). In 2012, researchers at Public Health Ontario initiated a series of studies to assess DPA on a provincial level. The first of these studies, the focus of the current manuscript, was an assessment of the initial development and implementation of the DPA policy in Ontario. This study addressed four central questions concerning: (a) the initial factors influencing development and implementation of DPA; (b) the roles and responsibilities of key players in developing, implementing, and evaluating the policy; (c) the barriers to consistent implementation of DPA; and (d) the current status of DPA.

## Methods

### **Design, Sample and Data Collection**

Semi-structured key informant interviews were conducted with purposively selected central players involved in the initial development and implementation of the DPA policy in Ontario. Members of the EDU department responsible for development of the policy helped to identify these individuals from lists of key stakeholders representing both government and non-governmental organizations involved in the original DPA development and implementation. For example, some study participants had earlier served as Implementation Committee and/or Resource Development Working Group members providing advice to EDU. Study participants also included representatives of EDU and past and present executives from Ophea, a non-profit organization that supports healthy schools and communities in Ontario through partnerships with government and other organizations. Since we subsequently conducted separate studies of the roles and experiences of public health personnel regarding DPA and the status of DPA as reported by school administrators and teachers, we did not include these groups in the key informant interviews.

In all, two group and four individual interviews were conducted, involving a total of ten participants. For purposes of the current manuscript, these groups and individuals are identified as follows: EDU 1 (4 participants); EDU 2 (1 participant); Ophea (2 participants); EA (a former Ophea senior executive); AS (a former policy advisor at the [then] Ministry of Tourism and Recreation); and JM (a former advisor to Ophea and other physical activity/fitness organizations).

Group interview participants and one individual study participant provided informed consent to identify them by organization, while the remaining individual interview participants provided informed consent indicating approval to cite them by name, role or organization. Written informed consent was obtained from all participants. Three members of the research team (KRA, EH, JR) conducted the interviews between April and July 2012. Interview questions focused on the (a) development, (b) implementation, (c) monitoring, and (d) outcomes and future directions of the DPA policy. See Table 1 for all interview questions. Participants were sent an outline of the questions prior to the interview.

Interviews lasted 60 to 90 minutes and were audiotaped. The Interviews were subsequently transcribed verbatim and personal identifiers were deleted for those individuals not consented to be identified by name. Participants were sent their transcripts to confirm the accuracy of their data. Both the University of Toronto and the University of Guelph Research Ethics Boards approved the study.

**Table 1**

*Interview questions*

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**Introduction**

1. Can you please tell me about your position at \_\_\_\_\_ and how long you have been in this position?

**Development**

2. Can you please describe your understanding of the intent of the DPA policy and how this is being achieved?

3. What is your understanding of the impetus for the DPA policy? (underlying factors including political and/or bureaucratic influences/forces)

4. Who and what facilitated the development of the DPA policy? (role of Gerard Kennedy; were there specific internal and/or external champions?)

5. Do you believe that the DPA policy is based on sound theory, scientific evidence, and best practices?

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If yes/no, why?

6. Do you have any other comments or details you would like to mention about the development of the policy?

**Implementation**

7. What was done to gain school support (buy-in) for the DPA policy, such as from school administrators and teachers?
8. What funding (including funding mechanism and amounts made available) was dedicated to support implementation of the DPA policy and how has it been used? What is the current status of funding support for DPA implementation? Was the funding available within a certain timeline for dispersion and spending?
9. Was the policy supported from outside of education? How and by whom? (e.g. MHLTC; MHP; PHUs, other organizations)
10. What was the mechanism for providing implementation support in terms of program support materials and training? (role of Ophea in this; perspectives on how this went)
11. What are the plans for DPA going forward? (e.g. rationale for imbedding DPA within the curriculum)
12. Were there any barriers to implementing DPA policy at a provincial level? Are there any current barriers at this level?
13. Were there any barriers to implementing DPA policy at a school level? Are there any current barriers at this level?

**Monitoring/Compliance/Incentives**

14. What methods were used to assess accountability, such as monitoring school compliance/success of the DPA policy? (e.g. reporting in School Improvement Plans)
15. How do you think the methods used to assess accountability have worked in practice? (why?)

**Outcomes/Expectations**

16. Do you think the DPA policy has been successfully implemented in Ontario?
17. Why do you think schools have been successful/unsuccessful in implementing DPA policy?
18. What were/are the criteria for success in the short term (implementation) and long term (impacts and outcomes) for DPA?
19. Over the past 6 years, has the DPA policy achieved what was intended?
20. Is the \_\_\_\_\_ interested in other aspects of evaluating DPA (in relation to our other phases)?
21. Do you have any questions for us?
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**Analysis**

An inductive approach was used to develop codes for the subsequent thematic analysis. Authors KRA, JR and NSM independently coded each transcript using the constant comparison method (Boeije, 2002; Glaser & Strauss, 1967). After the first transcript, they met to discuss the assigned codes. Disagreement was resolved through discussion to reach consensus. The codes were then applied to the next transcript. They met to discuss the assignment of codes, the development of new codes and the refinement of the existing codes until all transcripts were coded. When new codes were developed, they were applied to the previously coded transcripts. The last three interviews did not add new codes, suggesting saturation of data. The research team then combined descriptive codes to develop conceptually meaningful themes and sub-themes for analysis and interpretation. Four overall themes were identified, consistent with the major grouping of questions in the interviews: (a) influences on policy development and implementation (sub-themes included health considerations, political forces, evidence and policy components, and introduction of the policy); (b) roles and relationships (sub-themes included key players and relationships); (c) barriers to implementation (sub-themes included implementation context, school-based and school-level factors, and accountability and responsibility), and; (d) current status of DPA (sub-themes included current status and moving forward). NVivo 10 was used to code the transcripts and to manage the evolving codebook (QSR International, 2013).

### **Trustworthiness of Data**

In order to enhance the trustworthiness of data, we used a number of approaches for establishing “credibility,” “transferability,” “dependability,” and “confirmability” (Cohen & Crabtree, 2006; Lincoln & Guba, 1985). To help establish “credibility” we relied on our long-term experience in school-based health research, understanding the context of the education system (one of the investigators is a certified teacher), and development of rapport and trust with study participants since we knew them on a collegial basis (“prolonged engagement”). We also were able to focus on an in-depth assessment of issues related to development, implementation, monitoring, and current status of DPA since we knew these were clear and distinctive components in the process by which the policy unfolded (“persistent observation”). To some extent we also utilized “triangulation” by augmenting the key informant interviews with obtaining and assessing existing documents available to us, such as curriculum guides and DPA guidelines for school principals and teachers. We also benefitted from “analyst triangulation” by drawing on the expertise and perspectives of a number of study investigators (authors on this manuscript). Finally, we enhance “credibility” by providing study participants with an opportunity to review the transcript from their interview (“member checks”).

In order to promote “transferability” of the findings to other settings, we provide a context of school-based implementation research and a conceptual framework for understanding the public policy and the evaluation process. To enhance “dependability” we utilized detailed interview notes, transcripts, and logs of discussions around codes, themes and interpretation (“audit trail”). Finally, to establish “confirmability,” we drew on the expertise of a number of research investigators with a number of theoretical and methodological strengths and perspectives, and kept a detailed journal of methodological decisions made during the several stages of the study (Cohen & Crabtree, 2006; Lincoln & Guba, 1985).

## **Results**

Analytic themes were arranged conceptually under the primary categories of research objectives and questions – influences on policy development and implementation, roles and relationships, barriers to implementation, and implementation status of DPA.

### **Influences on Policy Development and Implementation**

The theme, influences on policy development and implementation, focuses on a number of factors considered by the participants as important underlying features of the policy environment at that time. Conceptually meaningful sub-themes were also identified, including – health considerations, political forces, evidence and policy components, and introduction of the policy.

As part of our group interview with EDU-1, participants provided an overview of the timelines and funding available in the development and implementation of DPA. These are summarized below in Table 2 for background to the description of themes from the key informant interviews themselves.

**Table 2**

*Timeline of the DPA policy development and implementation*

<b>Date</b>	<b>Event</b>
1998	Health & Physical Education (HPE) curriculum requires daily physical activity (duration varies depending on grade)
March 2003	Liberal Party announces commitment of mandatory daily physical activity in schools
January 2004	Premier McGuinty reiterates that physical activity in schools is a small step to make a big impact
Summer 2004	Governments establishes Assistant Deputy Ministers into Ministerial Committee for Active 2010
October 2004	Minister Kennedy's report reiterates commitment to address daily physical activity in schools
November 2004	Dr. Basrur's report highlights the need to increase collaboration to increase physical activity levels
December 2004	Ministry of Education (EDU) contracts with Ontario Physical and Health Education Association (Ophea) to conduct a provincial review of physical activity models, practices, and programs
End of 2004/5 school year	EDU releases communication to school boards and principals that DPA policy was coming
October 2005	EDU releases Policy/Program Memorandum 138 requiring school boards to ensure all students in grades 1-8 participate in daily sustained moderate to vigorous physical activity for a minimum of 20 minutes during instructional time, 1998 HPE curriculum revised to reflect policy
December 2005	EDU releases \$9 million to school boards to be spent by March 31, 2006; \$1.7 million invested in development, translation, and printing of resource guides
2006	Ophea approaches school boards and secures \$1 million to develop centralized supports
End of 2005/6 school year	Schools required to have fully implemented DPA policy
February 2007	EDU releases \$2 million to school boards to be spent by June 30, 2007
February 2008	EDU releases \$2 million to school boards to be spent by June 30, 2008
November 2008	EDU releases \$2 million to school boards to be spent by June 30, 2009
2010	Interim HPE curriculum revised
2010/11	EDU funds Ophea to build capacity of francophone educators related to DPA and the HPE curriculum
2011/12	EDU funds Ophea to support specific initiatives, including DPA

**Health considerations**

Participants discussed health factors influencing the initial development and implementation of the DPA policy, such as a way to engage children in daily PA in light of obesity trends, and contribute to the total PA outlined in Canada's guidelines. Additionally, participants discussed DPA as a component of the Ontario EDU's approach to comprehensive school health. The importance of creating an inclusive PA philosophy was also discussed – in that the policy was said to facilitate the notion that everyone can participate in PA, in various environments, and at any time of the day.

**Political forces**

Most participants discussed the political influences on the development of DPA as coming from two other provincial ministries (Ministry of Health and Long-Term Care; Ministry of Health Promotion) and as part of the Liberal Party platform commitment to address physical inactivity and obesity. Some participants reported that the government was concerned about the economic costs of physical inactivity, while others identified the influence of the economic climate on implementation, as funding was available for the policy. Additionally, participants reported that other provinces in Canada had already

implemented a PA policy, and the development of DPA was Ontario's way to do the same.

### **Evidence and policy components**

Participants identified that evidence existed to address physical inactivity and its consequences and the benefits of PA generally and DPA specifically, but some were less certain about evidence supporting components of the DPA policy itself, such as the specification of the twenty minute duration. Two participants identified that evidence came from "champion" (progressive and innovative) school boards, such as in Thames Valley (London, Ontario) that were already engaged in offering twenty minutes of DPA. One participant also identified a provincial implementation committee that influenced development of the policy and certain characteristics, such as its flexibility and its phase-in component.

All participants discussed the rationale for the component of flexibility in the policy in terms of how to use the implementation funding provided to school boards by the provincial government, and flexibility within the policy's implementation, such as the importance of allowing schools to implement DPA in the way that would best serve their school, staff, and students (e.g. where, when, who, and how to do it). However, two participants discussed potential problems concerning the policy being too flexible, where issues of misunderstanding about what was required in the core policy, and lack of ownership and accountability may arise. The issue of who was responsible for implementing DPA was discussed. For example, some participants highlighted the importance of having physical and health education specialists implementing DPA while acknowledging that this may not always be realistic, and thus the need to provide strong training for all teachers.

Most participants discussed scheduling DPA during instructional time as a way to ensure that all children in Ontario get exposed to DPA and that it is done properly. Similarly, participants indicated that positioning DPA in the curriculum ensured that the policy would be implemented, gave it priority, increased accountability, and ensured that it was part of the curriculum review process. However, one participant discussed the possibility that the policy gets lost within the curriculum and may need to reside in different places within curriculum documents.

### **Introduction of the policy and funding support**

Several participants discussed the importance of communication during the implementation phase, as well as the need for better communication between the various parties to effectively continue to implement the policy. Funding was discussed and reported to have been transferred to school boards by EDU over the initial years of the policy to support and sustain implementation of DPA (Table 2). Additionally, funding was allocated to Ophea for resource development, though this was not part of the original core DPA funding provided to school boards. Some discussions revolved around the perceived inadequacy and lack of a strategic plan for funding, and the short timelines given to school boards to spend funds. Resources developed by EDU and Ophea, including curriculum support and implementation guides for teachers and administrators in schools and school boards and French language resources, were also discussed as being important in the rollout of the policy. Participants also discussed the naturally occurring influence of DPA "champion" school boards and staff within schools (e.g. principals and teachers) on the implementation of the policy. DPA "champions" were



described as seeing value in and supporting the policy and PA in general being committed as leaders, and demonstrating creativity in how to implement the policy in schools and classrooms. Although the “champion” schools promoted innovation, they were not formally structured by EDU to provide this role. Examples of quotes to illustrate these themes are presented in Table 3.

**Table 3**

*Influences on policy development and implementation*

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**Health considerations**

“I think when it was initiated it was strictly around ... around obesity prevention strategy. I think the government was quite concerned around physical inactivity and the link to the growing of obesity among Ontario youth. So I think it was ... at the time it was strictly a policy that was meant to make sure that kids were being more physically active during school hours, and trying to reduce the rate of obesity across the province.” – JM

**Political forces**

“So I think it’s going back to that platform commitment, that there was something specific there that said 20 minutes of daily physical activity. In that document they also referenced activity, and I believe it was Thames Valley District School Board that was doing 20 minutes of daily physical activity. So that was the real commitments. Those ... that was the direction that we received from the Minister at the time.” – Ministry of Education A

**Evidence and policy components**

“And so what we heard from ... from all of those organizations was that the policy needed to be flexible, and to consider a phase-in approach that allowed time for teachers, principals and boards to plan, discuss and implement DPA based on their local circumstances.” – Ministry of Education A

**Introduction of the policy**

“So there was good ... I mean there was funding originally for DPA. And that funding was spent in different ways in school boards. And I think some good training happened at that time. Which was helpful.” – Ministry of Education B

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**Roles and Relationships**

The second theme included the roles and responsibilities of individuals and organizations highly involved in the development and implementation of DPA. Two prominent sub-themes, key players and relationships, were identified in further analysis of this theme.

**Key players**

In addressing our question regarding who and what facilitated the development of DPA, a number of key players were identified by the participants: the existing and subsequent Ministers of Education as the communicator of the policy; the Premier of Ontario communicating support for PA in schools; and the Chief Medical Officer of Health and Assistant Deputy Minister of Health for Ontario identifying the need for more collaboration to increase PA. Several participants also identified the administrative arm of EDU as a key player as they were the developer, deliverer, and funder of the policy and DPA resources. Some participants identified other ministries as key players, including the Ministry of Health and Long-Term Care (MOHLTC), Ministry of Health Promotion, and the Ministry of Tourism and Recreation which politically influenced changes related to PA and PE in Ontario and were involved in the development of the policy and implementation supports. Several participants discussed collaboration with public health units in supporting the implementation of DPA. As public health units have a mandate, through the Ontario Public Health Standards (Ontario Ministry of Health and Long-Term Care, 2013), to support schools on various topics, it was seen as a natural fit

to offer support for DPA implementation. All participants discussed Ophea as a key player through, for example, their role in advocating and increasing awareness around PA in schools, building relationships and coordinating joint training between public health and education, and developing teacher supports and resources for DPA implementation in both English and French.

### **Relationships**

Relationships and dynamics between several ministries were discussed in terms of the development and implementation of DPA, in moving initiatives forward, and in funding Ophea to provide support for DPA. Most participants discussed the strong working relationship between EDU and Ophea over the years as integral to the development and implementation of DPA. Examples of quotes to illustrate the themes listed below are presented in Table 4.

**Table 4**

*Roles and relationships*

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**Key Players**

“We provided a provincial conference. Our communications were very focused. And then, you know, and then that tied into kind of the curriculum development too, and so when the curriculum policy came out we developed specific teacher tools, resources, lesson plans, and obviously the physical activity, daily physical activity component was all embedded within that.” – EA

**Relationships**

“I think it was a positive relationship, and it still is a positive relationship between the Ministry and Ophea around DPA.” – JM

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### **Barriers to Implementation**

A third important theme emerging from the analysis was identified as barriers to implementation of the DPA policy. Included in this theme were the sub- themes of – implementation context, school board and school-level factors, and accountability and responsibility.

#### **Implementation context**

Some participants identified that one of the important barriers faced during DPA implementation was the tight timeline given to school boards and schools to understand and interpret the policy. Participants reported that these timelines may potentially have led to inconsistent interpretations, plans of action, and implementation of the policy across schools. Additionally, initial implementation funding was required to be spent within a short period of time (Table 2). Lack of other support was also discussed as a barrier to implementing DPA, such as having fewer physical and health education consultants in the school boards and insufficient teacher training, materials, or equipment. Participants discussed that EDU, school boards, and teachers had numerous other priorities, and DPA was sometimes placed near the bottom of these.

The physical environment was also cited as a barrier to implementation in terms of facilities and location to engage in PA, as well as weather, space, and equipment to keep activities interesting and safe. However, it was indicated that resources were developed to address how to overcome such barriers and some participants did not believe that such factors should impede implementation.

#### **School board- and school-level factors**

Most participants commented on the 2010 interim health and physical education curriculum (Ontario Ministry of Education, 2010), which includes a more holistic

integration of DPA throughout the curriculum expectations and provides implementation supports. The main issue raised was that the revised curriculum is still considered interim, and school boards and teachers would rather invest in implementing a final and fully released curriculum. Several participants also discussed DPA as being perceived by teachers as a burden, adding to their other responsibilities, and that they had the sole responsibility for ensuring that children are physically active. Similarly, participants discussed the issue of teacher readiness and that, while there are “champion” teachers who are motivated and creative in implementing DPA, many teachers feel unmotivated, uncomfortable, and lacking appropriate training. The importance of building teacher capacity to take ownership of the policy was seen as crucial for full implementation and sustainability, as opposed to merely developing a policy and providing start-up funding and resources.

### **Accountability and responsibility**

Accountability and responsibility emerged as a strong theme when discussing barriers. Participants discussed the lack of an accountability mechanism to ensure that DPA was being correctly and consistently implemented. Mandating a yearly credit or obtaining objective measurements through provincial testing as a means to enhance accountability was discussed. On the other hand, the issue of over-reporting as a burden on schools and school boards was also raised. Others felt that situating the policy within the curriculum ensured a level of accountability, as teachers are professionally required to deliver it. Participants discussed who they thought was, or should be, accountable and responsible for DPA including school boards, principals, teachers, and parents as playing a role in holding school staff accountable. Most participants discussed the responsibility of EDU versus that of school boards in terms of DPA implementation. Essentially, the distinction made was that EDU sets policy and school boards are responsible in ensuring that it is being implemented. However, some discussed ‘blurred lines’ in terms of this role distinction. Examples of quotes to illustrate the themes listed below are presented in Table 5.

**Table 5**

### *Barriers to implementation*

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#### **Implementation context**

“Well I don’t think they’ve been provided adequate support to be able to be successful. So whether that’s teacher training, or materials, or equipment. But they just don’t have the necessary supports, I don’t think, to be successful.” – EA

#### **School board- and school-level factors**

“Well my sense is that probably the biggest single reason why it may not be done is that teachers feel either constrained, ill equipped, or unmotivated to do it.” – AS

#### **Accountability and responsibility**

“I would say that the initial \$10 million that the Ministry did provide to school boards, we would ... we would want accountability for that specifically. But in terms of a measure like this, just as any other legislated or policy requirement of boards, the accountability would rest with the board.” – Ministry of Education A

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### **Implementation Status of DPA**

The final theme, identified as implementation status, reflected the perspectives of study participants regarding their overall assessment of DPA in the province. Analysis of this theme uncovered two sub-themes - current status and moving forward.

#### **Current status**

Participants had mixed opinions regarding the current status of DPA implementation. While some indicated that DPA implementation was inconsistent across the province and that DPA had fallen off the radar over the years, others indicated that they had not heard of any major issues.

### **Moving forward**

When discussing DPA and its desired outcomes, all participants highlighted the benefits of getting elementary school children to be active for a certain amount of time, to increase their heart rates on a regular basis, to instil a long-term habit of being physically active, and to prevent chronic conditions such as obesity and diabetes. Additionally, some participants discussed desired psychosocial outcomes, such as having potential positive effects on mental health and student academic performance and establishing an interest in physical activity.

Most participants raised the issue that, due to a lack of an evaluation plan or monitoring mechanism and using indirect methods of obtaining implementation information, there is a critical need for an evaluation to fully understand if DPA was successfully implemented and achieving the intended outcomes. Similarly, participants discussed the idea of obtaining objective implementation and outcome data through provincial testing, heart rate monitoring, or physical literacy assessments to ensure DPA occurs, keeping in mind the disadvantages of potentially creating negative experiences for children through testing and creating another potential indication that teachers may not be implementing DPA successfully.

Some participants also discussed the advantages of extending DPA from kindergarten to grade 12, indicating the school environment as an effective setting to reach all children. They also discussed integrating DPA across other subjects and curricula. Participants discussed the issue of sustainability: public health units no longer being able to focus specifically on PA but more broadly on healthy lifestyles; EDU originally placing focus on internal capacity within schools in order to work towards DPA sustainability; and the need for the policy to sit in different places within the curriculum in order to enhance sustainability. Examples of quotes to illustrate the themes listed below are presented in Table 6.

**Table 6**

*Implementation status of DPA*

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**Current Status**

“Again the challenge with that is you had pockets of really great stuff happening. And then you had pockets where capacity wasn’t as high; where nothing was happening. So we had a very inconsistent approach to implementation. But where we had leadership at the school board level, and leadership at a health unit level, there was good teacher supports and implementation happening. But that was [few and far between].” – EA

**Moving Forward**

“Are we successful in achieving what it set out to do? Unless we really measure that we don’t really know” – Ministry of Education B

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## **Discussion**

The purpose of this study was to identify the salient factors underlying development and implementation of the DPA policy in Ontario through a series of key informant interviews with individuals with insight on these activities. Several key issues emerged

in this study based on the results: the tension between flexibility and structure; the unique role of Ophea and its relationship with EDU; the burden on teachers and the issue of teacher readiness; shifting priorities and the politics of incremental policy; and responsibility and accountability for DPA. Each of these will be discussed briefly in relation to existing research on DPA in Ontario and other jurisdictions.

Flexibility was an important feature of DPA's initial development and implementation according to participants. A central perspective of EDU participants, and some others, was that the flexibility offered to school boards and schools greatly increased the feasibility of this policy and the likelihood that it would be adopted and implemented. The importance of implementation flexibility was also seen as a key feature of the DPA policy in Alberta (Gladwin et al., 2008). Yet, with respect to findings from the current study, there is also a sense that the attraction of flexibility may have come at a cost. One example is that the policy states that the activity needs to consist of 20 minutes of sustained MVPA, and EDU reiterated in their interview that the expectation was that all schools were to achieve this requirement by the end of the 2005/2006 school year. However, several participants perceived that there was, and continues to be, wide variation on this requirement in practice, such that some schools/classrooms may be delivering DPA in multiple shorter segments of five or ten minute bouts of activity throughout the day. Stone and colleagues' study of DPA adherence (Stone et al., 2012), based on an analysis of students in a sample of Toronto schools, found that no students appeared to be meeting the policy requirement for 20 minutes of continuous MVPA per day. Thus, flexibility in policy implementation, while increasing the likelihood of initial policy adoption, may have inadvertently resulted in decreased fidelity to the core features of the policy.

Ophea fulfilled an important and unique role in supporting EDU's mandate to develop and provide funding to Ontario school boards for implementation of DPA in elementary schools. Building on a previously established relationship with EDU in providing contract-funded curriculum support in physical and health education, Ophea was well positioned to provide a similar role in relation to implementation support for the DPA policy. Yet the findings from our study indicate that this role was less direct – Ophea was not asked by EDU to provide uniform implementation support on a provincial basis, but rather to negotiate with individual school boards to offer support in such areas as teacher training, workshops, and support materials. The sense conveyed by current and past Ophea administrators is that the EDU's approach to DPA implementation planning and support at that time was largely de-centralized and disjointed, and that Ophea took a financial risk in developing and promoting materials that were not guaranteed to be utilized. While this approach also reinforced the notion of providing school boards and schools with flexibility, it was not conducive to a consistent approach to adoption and implementation in schools. Coupled with the requirement that school boards needed to spend available government funding in a very short period of time, this strategy can be considered limited.

At the time of initial policy development and implementation, and with the benefit of the initial funding, DPA was a relatively prominent priority within Ontario school boards, certainly more of a priority than it is currently according to study participants. Yet, even at the outset, there was a sense that this new initiative was competing with other school priorities, such as provincial standardized testing and literacy and numeracy. Coupled

with issues of a lack of time, lack of teacher interest, and insufficient training in some cases, the issue of teacher readiness was prominent in this study, similar to several findings reported in Patton's study of teachers' perspectives on DPA in Thames Valley District School Board (Ontario) (Patton, 2012).

The issue of shifting priorities can also be examined at a provincial government level. EDU participants reported that a primary impetus for the DPA policy development was its position as part of the Liberal government's political platform at that time. As time has passed, other priorities have emerged to take prominence in provincial education policy, such as mental health and bullying prevention, as well as broader frameworks espousing healthy schools that include DPA as one component. Yet the dilemma remains that the DPA policy, as developed, was not intended to be diminished over time – it was meant to be sustained. One explanation we offer is that government approaches to policy in general (not specific to Ontario) frequently are incremental (Sabatier, 2007). That is, policy initiatives tend to be rather short-term approaches to deal with current priorities, only to be replaced by new priorities that arise over time.

Another key issue in the case of DPA policy development and implementation revolves around the notion of accountability and responsibility. EDU participants made it clear that the Ministry was responsible for developing the policy and providing initial funding and program support for implementation. But their perspective was that accountability for policy implementation rests with school boards and schools, including administrators and ultimately teachers. All participants in our study recognized the high importance of monitoring and assessing the status of DPA policy on a regular basis to enhance continuity, continued quality improvement, and accountability. Similarly, it is well recognized that policy and program monitoring and tracking are important components of the program planning and evaluation cycle (Brownson, Baker, Leet, Gillespie, & True, 2011; Cancer Care Ontario & Ontario Agency for Health Protection and Promotion, 2012; Centers for Disease Control and Prevention, 2013; International Union for Health Promotion and Education, 2011). Yet the study participants confirmed that there is no current mechanism to provide this important function for assessing the implementation status or impacts of the policy on an ongoing basis in Ontario. Robertson-Wilson and Levesque (2009) also identified this limitation in their assessment of the pre-conditions of DPA policy implementation in Ontario.

In order to address this gap, researchers at Public Health Ontario, in collaboration with others, have developed a series of studies to assess the status of DPA in Ontario. The current study, along with a recently conducted study of the role of public health unit personnel in supporting DPA in schools, set the stage for the most recent study. Representative sample surveys of elementary school administrators and teachers were conducted in early 2014 in order to assess implementation fidelity and the factors influencing it. In addition to its relevance to provincial education system policy and planning, this research also has implications for provincial, regional, and local public health policy and programs. In summary, the findings from these studies provide additional evidence to serve as the basis for recommendations to government on the status of DPA implementation as well as what might be done to promote and monitor its full implementation and quality in Ontario elementary schools.

A limitation of the current study is that it was based partly on participants' recall of events. However, we were able to address this limitation somewhat by providing them

with an outline of the study questions prior to the interviews. This provided the opportunity for some participants to prepare notes ahead of time to enhance the accuracy of their responses. Also, participants referred us to printed reports and documents, which further contributed to the accuracy of information provided. Another limitation is that there may have been some key groups of individuals (school administrators and teachers; public health personnel) not included as study participants. However, we are confident that several of the major institutional and individual players in DPA development and implementation were represented in the study. Also, as mentioned above, the groups not included as key informants in the current study were the focus of two subsequent studies conducted by the research team. A final limitation is that we did not examine the feasibility of some of the suggestions of study participants. For example, to enhance teacher readiness to implement DPA policy more consistently, it might be argued that teacher education programs should build this into the curriculum for all elementary teachers in the province. However, study participants did not introduce this and we did not examine the extent to which this was already being done in elementary teacher education programs in Ontario.

### **Conclusions**

Studies of policy and program implementation are increasingly seen as important, and prerequisite to our understanding of the efficacy and effectiveness of population and public health intervention approaches (Brownson et al., 2011; Centers for Disease Control and Prevention, 2013). We believe this study has provided an important and unique contribution to our understanding of the several layers of factors influencing development and implementation of the DPA policy in Ontario elementary schools. This retrospective thematic analysis contributes new insights into these issues and provides additional evidence and perspectives both unique to the Ontario context and relevant to studies of PA policy and program implementation status in other jurisdictions.

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