

Play and Physical Activity in the Third Wave

Findings from the Ontario Parent Survey



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Acknowledgements

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A special thank you to Dr. Andrea Gonzalez and Dr. Marc Jambon at McMaster University for their collaboration.



Key Findings

- Caregivers are concerned about the impacts of the pandemic on their child(ren)'s physical activity and outdoor play: More than 1 in 3 parents/caregivers named decreased physical activity as one of the most negative events or changes to daily life affecting their child(ren).
- An overwhelming majority of children and youth are not meeting standards for moderate to vigorous physical activity (87%), and a notable majority are not meeting standards for light physical activity (70%), or the recommended target of daily outdoor play (64%).
- At the lowest end of the spectrum:
 - Nearly 1 in 5 children and youth are playing outside for only 15 minutes or less per day.
 - Nearly 1 in 5 children and youth are getting less than an hour of moderate to vigorous physical activity each day.
 - Nearly half (49%) are only getting an hour or less of light physical activity per day.
- Age, schooling type, and dwelling type show significant correlations to physical activity and outdoor play levels, while other variables analyzed thus far do not.
- Youth (ages 12-17) engaged in significantly less physical activity & outdoor play than younger children (5-11).
- Children and youth who attend school in-person consistently had more relative amounts of physical activity and outdoor play compared to remote or hybrid learners.
- Children and youth living in houses had significantly higher amounts of outdoor play when compared to children and youth who live in other dwelling types such as apartments.

Introduction & Methods

Introduction

The COVID-19 pandemic has resulted in severe disruptions across many facets of people's lives around the world. This report examines the impacts of the pandemic on Ontario children and youth, with a focus on their outdoor play and physical activity levels during the third wave. The disruption of in-person schooling, along with other variables such as age and dwelling type, are identified in this report as significant correlating factors to how much children and youth engage in physical activity and outdoor play during the survey period.

This report summarizes findings from specific questions related to child and youth physical activity and outdoor play in the second Ontario Parent Survey (OPS), conducted during the third wave of the pandemic in Ontario. The OPS focused on issues related to the health and well-being of caregivers, their children, family functioning, and the impact of COVID-19 across a number of domains. A report on the broader study can be found [here](#).

Methods

A convenience sample of caregivers with children aged 0-17 years was recruited through multiple crowdsourcing techniques – advertisements online and social platforms, as well as email announcements through public health units, Ontario EarlyON Centres, participating school boards, and municipal, community and professional organizations across Ontario. Caregivers from the first OPS (conducted in the spring of 2020) who provided their contact information were also invited to take part in this survey. The survey was available online in both English and French. It is important to note that the crowdsourcing method of data collection does not use a probability sampling design; therefore, findings cannot be generalized to the Ontario population. From May 4 to July 3, 2021, a total of 10,778 caregivers with an average 2 children participated, highlighting the experiences of over 22,000 children across the province. This report analyzes responses from parents and caregivers representing the 7,910 children and youth between the ages of 5-17.

Physical Activity & Outdoor Play Standards

MVPA (Moderate to Vigorous Physical Activity)

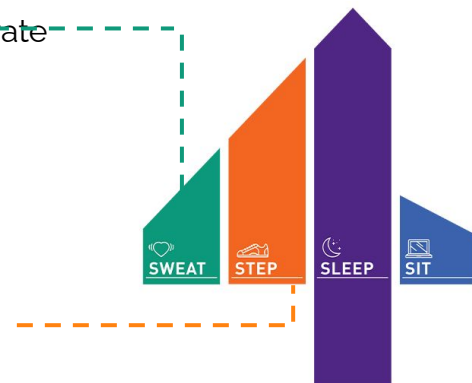
- [CSEP guidelines](#) recommend an accumulation of at least 60 mins per day.
- The analysis in this report applies a standard of at least 60 mins per day of moderate to vigorous physical activity for 6 out of 7 days in the previous week.

LPA (Light Physical Activity)

- Recommended CSEP guidelines of “several hours per day,” which has been interpreted elsewhere as more than 2 or 3 hours daily.
- The analysis in this report applies a standard of at least 2.5 hours of light physical activity on a typical weekday in the previous week.

Outdoor Play

- No established guidelines in Canada.
- ParticipACTION operationalizes sufficient active play as more than 2 hours per day.
- The analysis in this report applies a recommendation of more than one hour of outdoor play on a typical weekday in the previous week.

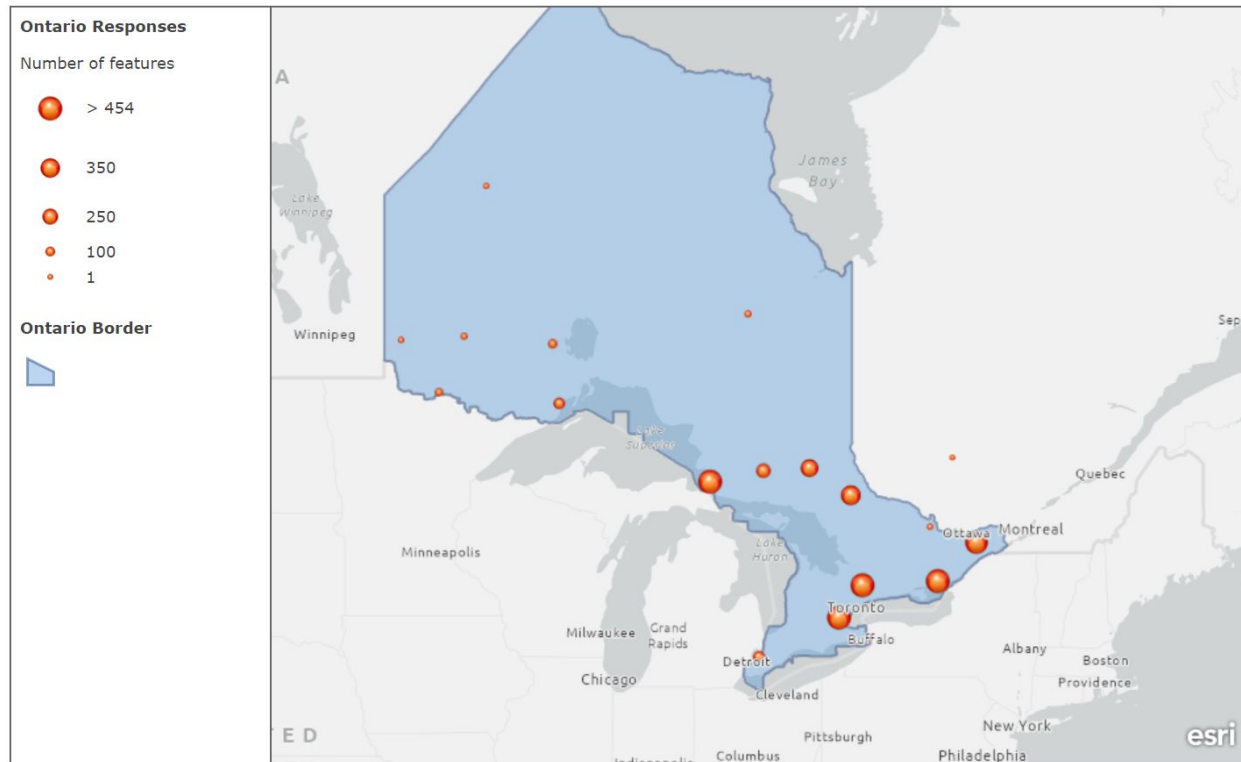


[Canadian 24-Hour Movement Guidelines for children and youth 5-17](#)

Canadian Society for Exercise Physiology (2021)

Map of Ontario Survey Responses

| # of survey respondents* | Location** |
|--------------------------|------------------|
| 2,762 | GTHA |
| 2,377 | Northern Ontario |
| 947 | Eastern Ontario |
| 1409 | Central Ontario |
| 202 | Western Ontario |
| 7,697 | Total |



*Some responses were excluded from the 7,910 total due to missing or inaccurate FSA information.

**Some responses in the overall sample come from outside Ontario and without geolocation. Only Ontario responses appear on the map.

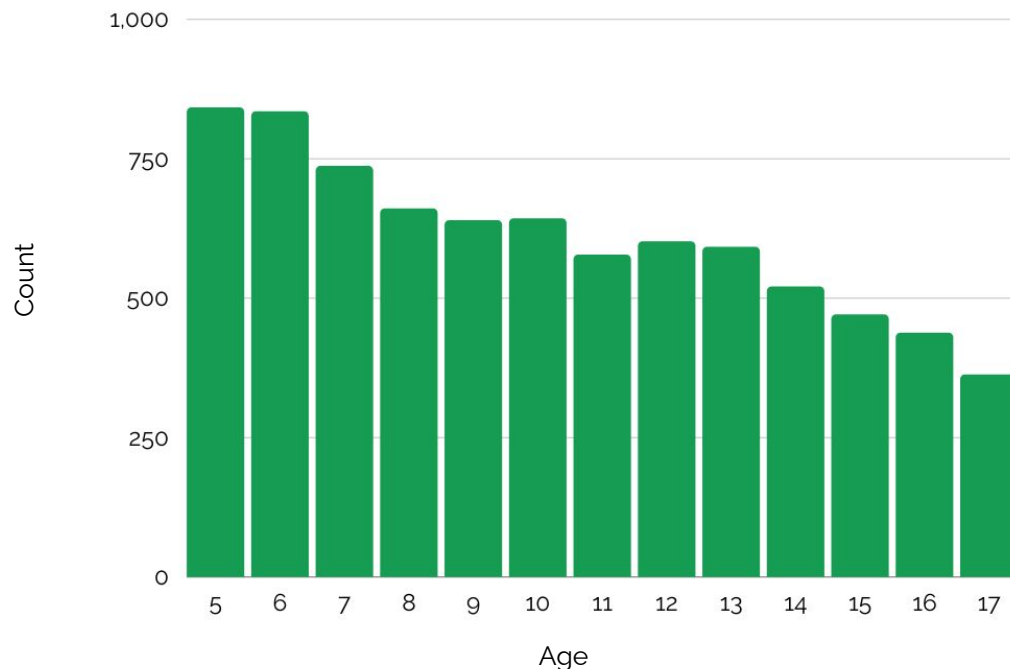
Overall Findings



Overall findings children and youth age 5-17

Breakdown by Age

Children and Youth: Breakdown by Age (n=7,910)

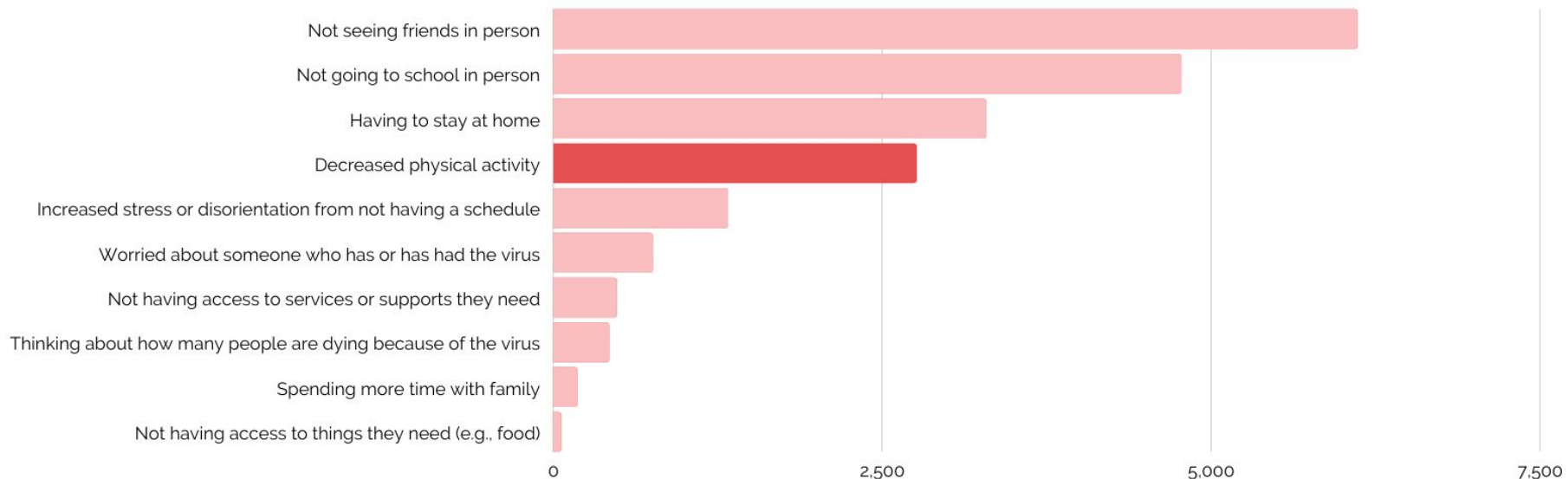


Within the 5-17 age range, there is a larger proportion of younger children compared to older teens, as reported by their parents/caregivers. 31% of children in the sample are ages 5-7, while 10% are ages 16-17.

Overall findings children and youth age 5-17

Most negative event (COVID impact)

What event or change to daily life has been the most negative for your child(ren)? (Respondents could check up to three)

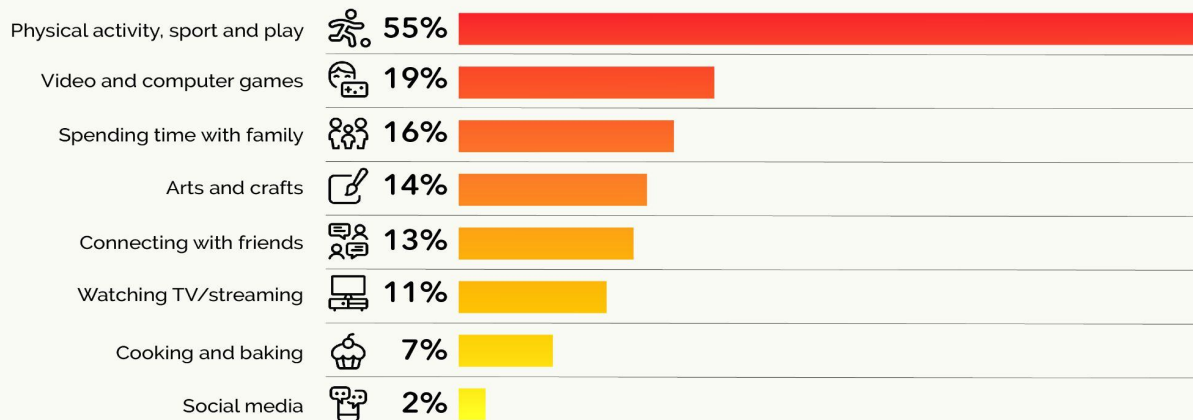


Activities that make children and youth happy

Reported by kids themselves

🇨🇦 What Activities Make You Happy During COVID-19? (Combining Physical Activity and Play)

Respondents could provide multiple answers.

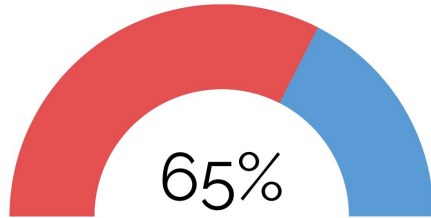


In June 2020, Maximum City published its first study of COVID-19 Child & Youth Well-Being. In their self-reporting of activities that make them happy during the pandemic, children and youth identified physical activity, sport, and play as the top factor for their well-being,

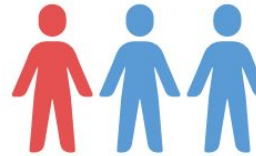
Overall findings children and youth age 5-17

Caregiver Concerns

"I am concerned about the amount of physical activity my child(ren) are getting."



Over 65% of parents/caregivers responded between "somewhat" to "a lot."



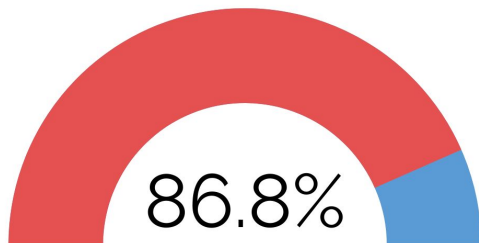
More than 1 in 3 parents/caregivers named decreased physical activity as one of the most negative events or changes to daily life affecting their child(ren).

Interestingly, over half (56.5%) of parents/caregivers said that COVID-19 (and its changes to daily life) only negatively affected their child(ren)'s physical health "a little" or "not at all."

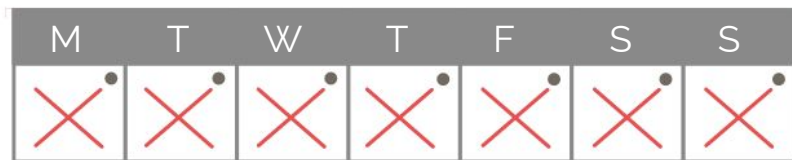
43.5% responded that it negatively affected them "somewhat," "a lot," or "a great deal."

Overall findings children and youth age 5-17

Moderate to Vigorous Physical Activity (MVPA)



- 86.8% of children and youth are not meeting the MVPA standard.
- 13.2% are meeting the MVPA standard.

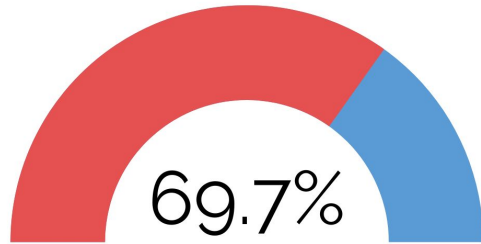


Nearly a fifth (17.8%) of children and youth are engaging in less than an hour of moderate to vigorous physical activity each day (Response: 0 days of the week).



Nearly half (49.4%) are engaging in an hour of moderate to vigorous physical activity 2 or fewer days a week.

Overall findings children and youth age 5-17



Nearly 70% of children and youth are not meeting the LPA standard of more than 2.5 hours per day.

Light Physical Activity (LPA)



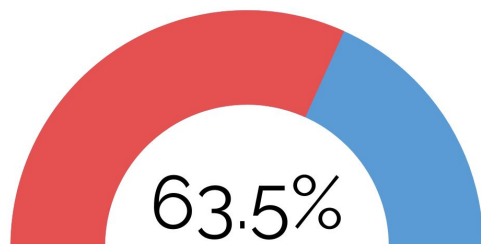
Nearly half (49.2%) are getting an hour or less of light physical activity per day.



11% are getting 5 or more hours of light physical activity per day.

Overall findings children and youth age 5-17

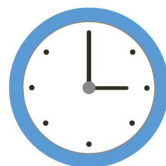
Outdoor Play



Nearly $\frac{2}{3}$ of children and youth are not meeting the outdoor play target of more than an hour per day (63.5%).



Nearly a fifth (19.6%) are getting 15 minutes or less of outdoor play time per day.



Over $\frac{1}{3}$ (36.5%) are getting over an hour of outdoor play time per day.

Subcategories of Analysis



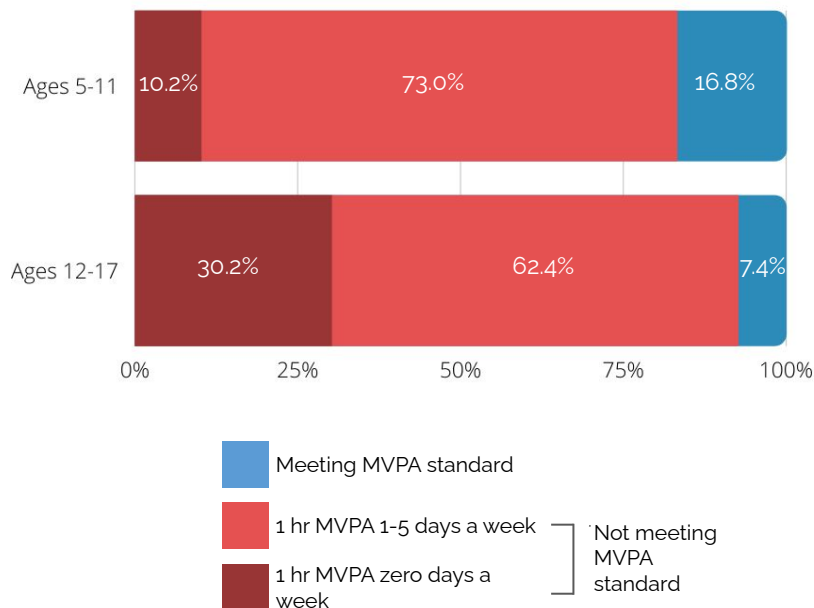
Subcategories of Analysis

Age Groups

Ages 5-11 (children)

Ages 12-17 (youth)

Comparing children & youth: MVPA



- 30.2% of youth are getting under an hour of moderate to vigorous physical activity (MVPA) every day of the week, compared to 10.2% of children.
- 92.6% of youth are not meeting the MVPA standard, compared to 83.2% of children.

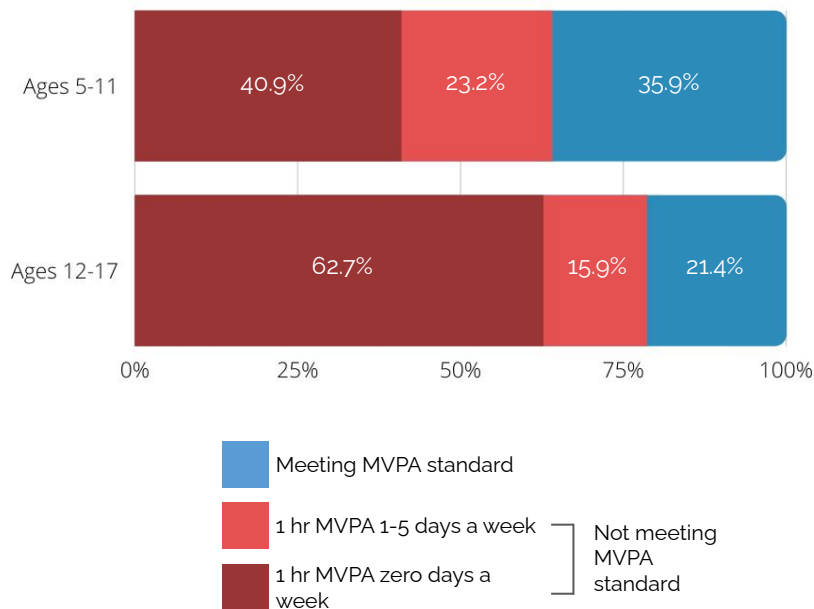
Subcategories of Analysis

Age Groups

Ages 5-11 (children)

Ages 12-17 (youth)

Comparing children & youth: LPA



- 62% of youth are only getting an hour or less of light physical activity (LPA) per day compared to 40.9% of children.
- Over $\frac{1}{3}$ of children are meeting the LPA target (35.9%) while only $\frac{1}{5}$ of youth are meeting that target (21.4%).

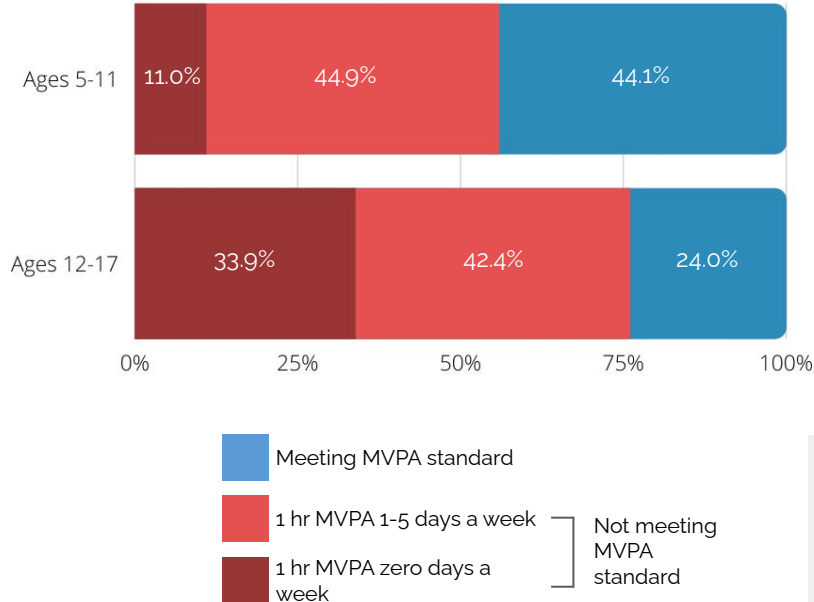
Subcategories of Analysis

Age Groups

Ages 5-11 (children)

Ages 12-17 (youth)

Comparing children & youth: Outdoor Play



- A third of youth (33.9%) are getting 15 minutes or less of outdoor play per day, compared to 11% of children.
- 44% of children are meeting the outdoor play target, compared to only 24% of youth.

Overall, youth (ages 12-17) engaged in significantly less physical activity & outdoor play than younger children (5-11).

Subcategories of Analysis

Schooling Type

In Person

Hybrid

Remote/Virtual



20.7% of those surveyed were in-person learners



60.5% were hybrid learners (virtual + in-person)



18.8% were remote/virtual learners

Children and youth at in-person school consistently had more relative amounts of physical activity and outdoor play compared to remote or hybrid learners.

Subcategories of Analysis

Schooling Type

In Person

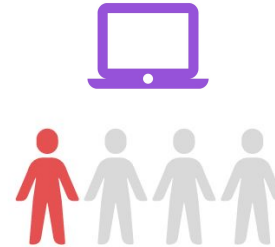
Remote/Virtual

Hybrid

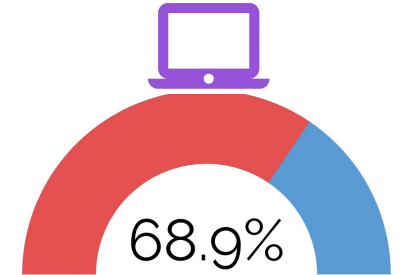
Only 40.3% of in-person learners met outdoor play targets, but this result was nearly 10% more than remote learners (31.1%).



Nearly half or slightly more than half of all in-person (45.2%), hybrid (50.5%), or remote learners (51.5%) were getting one hour or less of light physical activity per day.



1 in 4 remote learners:
15 minutes or less of
daily outdoor play



Remote learners
not meeting outdoor
play recommendations
(1 hr or less per day)

Subcategories of Analysis

Dwelling Type

House*

Other dwelling type
(Apartment or other)

The large majority of survey respondents reside in a house (92.2%) versus an apartment or other dwelling type (7.8%).

Children and youth living in houses had slightly higher MVPA and LPA and significantly higher amounts of outdoor play when compared to children and youth in apartments.



* House includes single-detached, semi-detached, duplex, or townhouse. Other includes low-rise and high-rise apartments, mobile home, hotel, rooming house or group home.



A quarter (26.3%) of children and youth living in apartments played outdoors for 15 minutes or less per day (19.3% for those in houses).



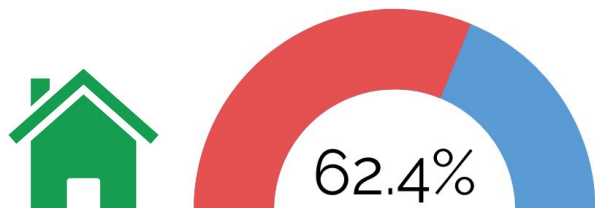
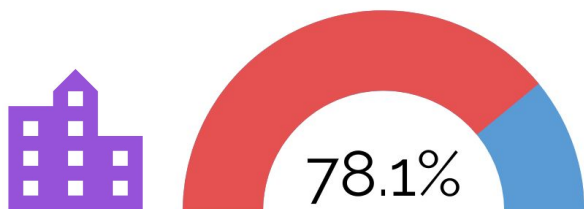
94.9% of children and youth living in apartments were not meeting MVPA standards compared to 86.1% of those living in houses.

Subcategories of Analysis

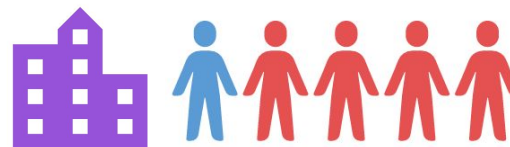
Dwelling Type

House

Other dwelling type
(Apartment or other)



Over $\frac{3}{4}$ (78.1%) of those living in apartments were not meeting the targets for outdoor play (more than 1 hour).



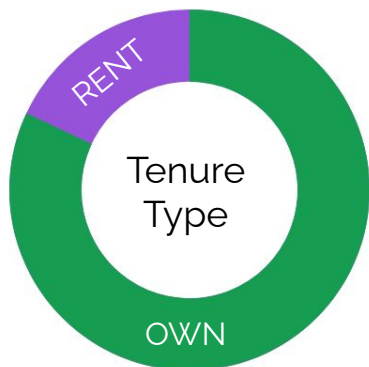
Over $\frac{1}{3}$ of children and youth in houses met the targets for outdoor play, compared to about $\frac{1}{3}$ of those in apartments (37.6% vs. 21.9%).

Subcategories of Analysis

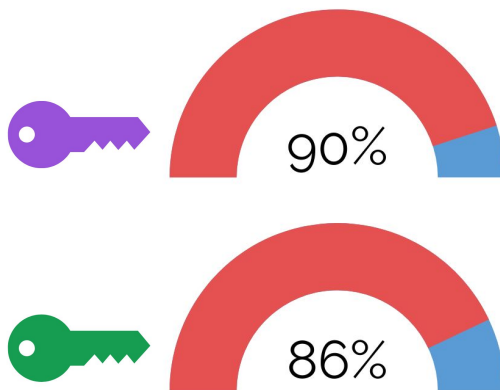
Tenure Type

Renter

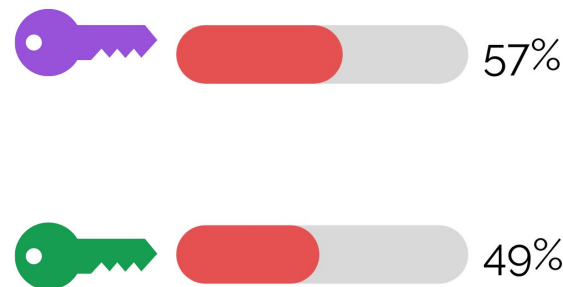
Owner



82% of respondents own their homes while 18% rent.



90% of renters' children/youth are not meeting MVPA standard each week versus 86% of homeowners' children/youth.



57% of renters' children/youth and 49% of homeowners' children/youth are getting an hour or less of LPA per day.

Subcategories of Analysis

Parental Education

Results from the survey on the association between child and youth physical activity and parental education are mixed.

- Lower levels of parental education correlate with slightly *lower* levels of MVPA but slightly *higher* levels of LPA and outdoor play, when compared to families with higher levels of parental education.

Parental education does not seem to have a significant association to the physical activity and outdoor play levels of children and youth, both in terms of meeting activity and play targets, as well as when looking only at those getting the least amount of activity and outdoor playtime.

High school, trade diploma, or less than high school diploma

College/CEGEP or non-university diploma below the Bachelors level

Bachelor's degree

Degree, Diploma, or Certificate above the Bachelors level



The survey includes significantly more data from parents in the higher education categories (85% of respondents with a college degree or higher).

Subcategories of Analysis

Household Income

< \$75,000

> \$75,000

As part of the Ontario Parent Survey, a group of 536 respondents also provided information about their household income. While this sample size is considerably smaller than the overall data set, we analyzed this subgroup to gauge any patterns in the association between household income and physical activity and outdoor play levels for children and youth. We aggregated the respondents with household income data into two groups: households with an income of under \$75,000 (36.1% of respondents) and households with an income of \$75,000 and higher (63.9%).

Results from these groups show a mixed pattern in the associations between household income and levels of activity and outdoor play.

Over 1/3 (22.0%) of children and youth in the lower income household group were engaging in less than an hour per day of moderate to vigorous physical activity all seven days of the week, compared to 15.5% in the higher income household group. However, both groups (at 89%) were similarly likely to not meet the MVPA standard of at least one hour per day, 6 or 7 days a week.

In terms of LPA and outdoor play, the results are inverse. Children in lower income households performed similarly to wealthier households at the lower end of the activity spectrum, but outperformed wealthier households in terms of meeting the LPA targets and outdoor play recommendations.



Recommendations & Strategies



Benefits of Play

While the benefits of physical activity are generally well understood and accepted, the many benefits of play (both indoor and outdoor) are perhaps less well-known, though strongly supported by research and expert advice. These benefits include but are not limited to this list of states and attributes.



BENEFITS of PLAY

| | |
|----------------------|-----------------|
| Joy | Mastery |
| Physical activity | Persistence |
| Child voice | Connection |
| Intrinsic motivation | Relationships |
| Discovery | Autonomy |
| Trial/error | Resilience |
| Self-control | Motor skills |
| Freedom | Curiosity |
| Negotiation | Risk-taking |
| Critical thinking | Imagination |
| Innovation | Problem solving |
| Experimentation | Empathy |

Guiding Principles for Increasing Physical Activity and Play

- Be active together as a family and go outside every day.
- All movement matters (play, chores, short walks).
- There is good evidence that parental engagement and encouragement can impact your child's physical activity levels.
- Don't assume kids are getting enough physical activity or outdoor time at school, especially during the pandemic.
- Older children and adolescents tend to be less active than younger children, and may seek more novelty or social play & activity.
- Balance from screen time is important as all healthy movement behaviours are interrelated (see pp.31 & 33 for more on screen time).
- Encourage children/youth to create their own ideas for play or physical activity. Self-directed play can have tremendous benefits.
- Some children are gaining independence and autonomy during the pandemic. This should be encouraged for its variety of benefits.



Strategies for Parents/Caregivers

“It's hard to hear and difficult to do but we know that if parents can grab even three minutes every couple of hours to focus on themselves, find their happy place, and do deep breathing, it can make a difference.”

- Dr. Jean Clinton, child psychiatrist and author of *Love Builds Brains*

Self-Care

In the broader Ontario Parent Survey, almost 69% of parents/caregivers reported significant depressive symptoms in the previous week. Parental ill-being can strongly influence a child's mental health, as well as their levels of outdoor play and physical activity. Parents need to take care of themselves for their own sake and for the sake of their children.

Strategies by Age

Play and Screen Time

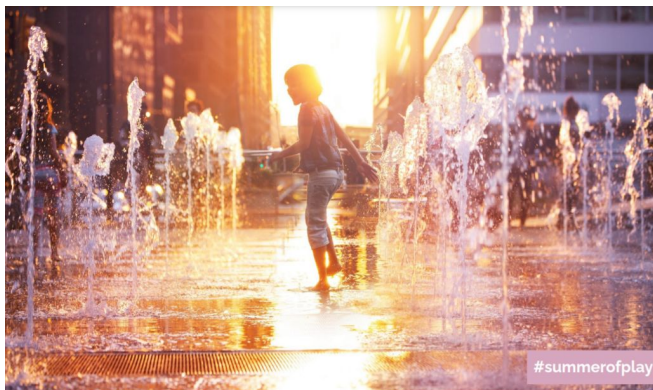
Play for tweens and teens

Play for tweens and teens may look different than play with young children but it can be just as powerful for their health, learning, and well-being. Play with older children may be stiller and more intellectual than physical in nature but often shares characteristics such as open-endedness, intrinsic motivation, self-directedness and experimentation, which are foundational to all quality play. Older children and youth may thrive in more organized play, play through objects, opportunities for debate, exploring fictional stories through different media, nature exploration, and clubs. When adolescents engage deeply in play, they are often seeking novelty, socialization, and some degree of risk and defying rules. Mixing ages in play can be beneficial but it is important for play activities to be developmentally appropriate for the participants.

Screen Time

Screen time has increased significantly during the pandemic and has been complicated by the mix of screen time for school and socializing in addition to what is usually considered “recreational screen time.” The reality today is that it is hard to distinguish “recreational screen time” from “academic screen time.” The CSEP has established [guidelines](#) for different ages but our recommendation is to strive for balance. Zero recreational screen time is not realistic for most, and some screen time (e.g. watching a movie as a family, or researching a passion project online) is preferable to other screen time (e.g. playing a violent video game). Consider healthy movement behaviours such as sleep, physical activity, and outdoor play as all interrelated and different elements of a healthy daily diet, along with some screen time. Some parents have found co-creating agreements or contracts around screen time with their children to be helpful. For more information, see p.33 on further resources.

Further Resources



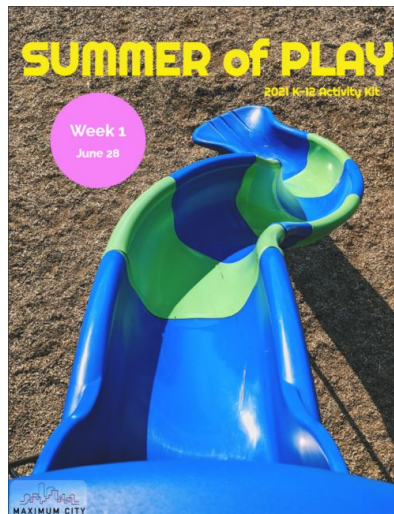
COVID-19 CHILD AND YOUTH STUDY: THE ROLE OF PLAY AND OUTDOOR SPACE



Prepared by Maximum City
March 2021



[Summer of Play Report](#)



[Summer of Play
Activity Kit](#)



COVID-19 CHILD AND YOUTH STUDY: Self-Reported Healthy Behaviours, Well-Being, and School Experiences of Young Canadians during the Pandemic



Prepared by Maximum City
February 2021 Update



[Winter 2021 Well-Being Report](#)

Further Resources

Resources for Play and Physical Activity

[Build your best day](#) (ParticipACTION)

[Outsideplay.ca](#)

[Evergreen Outdoor Learning and Play Resources](#)

[Being Active During COVID-19](#) (Outdoor Play Canada)

[Play Learning Lab](#)

[Play to Thrive](#)

[The Pandemic Toolkit Parents Need](#)

Resources for Screen Time

[Digital media: Promoting healthy screen use in school-aged children and adolescents](#)

[Screen time: tips for setting reasonable limits](#)

[Getting the most out of video games](#)

[Ask the Mediatrician](#)



Appendix A – Pre-Pandemic Findings on Outdoor Play and Physical Activity

The pandemic exacerbated existing negative trends in outdoor play and physical activity levels.

Outdoor Play

Before the pandemic, Canadian children aged 7-14 were getting about 2 hours (2.3) of outdoor play per day on average. Only 37% of Canadian 11- to 15-year-olds were getting more than 2 hours of outdoor play per day (outside of school hours).¹

Light Physical Activity

Among 7-14 year olds, Canadian children and youth were getting 4 hours of LPA a day on average.²

Moderate to Vigorous Physical Activity

Before the pandemic, a third of Canadian children and youth aged 5-17 were meeting the moderate to vigorous physical activity guidelines.¹

Overall Physical Activity

35% of 5 to 17-year-olds met the physical activity recommendation within the Canadian 24-Hour Movement Guidelines for Children and Youth.¹

Sources:

¹ParticipACTION. The Brain + Body Equation: Canadian kids need active bodies to build their best brains. The 2018 ParticipACTION Report Card on Physical Activity for Children and Youth. Toronto: ParticipACTION; 2018.

²Statistics Canada (2016). Outdoor time, physical activity, sedentary time, and health indicators at ages 7 to 14: 2012/2013 Canadian Health Measures Survey.

Appendix B – Physical Activity & Outdoor Play Standards

Survey Questions

Much of this report is based on the following specific survey questions in the Ontario Parent Survey pertaining to physical activity and outdoor play, along with a series of other questions related to the same topics.

Thinking of the last week, how many days did your child(ren) exercise or participate in MODERATE TO VIGOROUS PHYSICAL ACTIVITY for a total of at least sixty minutes? This includes energetic sports, running, dancing, and active play that makes them sweat or breathe hard, adding up to one hour or more in a day.

Thinking of the last week, how much LIGHT PHYSICAL ACTIVITY did your child(ren) participate in on a typical weekday? This includes all other kinds of movement like walking, chores, and light play. Think about how they get to school, what they do during breaks, and after school.

Thinking of the last week, how much OUTDOOR play or leisure time did your child(ren) participate in on a typical weekday?





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