

HL23.1.1

Submission from Josh Fullan, Maximum City

Fall 2020 



COVID-19 CHILD AND YOUTH STUDY: Changes in Healthy Movement Behaviours



Draft Preliminary Findings Prepared by Maximum City
November 2020



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Introduction

In the spring and fall of 2020, Maximum City conducted parallel pan-Canadian and Toronto-based studies of the downstream impacts of COVID-19 on the self-reported behaviours, school experiences, and feelings of children (aged 9-12) and youth (13-16). A cross-sectional sample of over 2100 pairs of children/youth and a parent/caregiver have participated in the study thus far, with a third wave of data collection to take place in spring 2021. Previous reports can be found [here](#).

New analysis of the spring data shows **strong correlation between not maintaining physical activity levels and declines in subjective well-being** tied to negative emotions during the lockdown.

This report provides some preliminary findings from the **fall survey**, specifically related to changes in healthy movement behaviors such as physical activity levels, screen time, time outdoors, sleep quality and duration. What follows should be considered as **draft findings** with figures subject to change and to be finalized in subsequent reports.

What is considered healthy movement for children and youth?

The Canadian 24-Hour Movement Guidelines for Children and Youth recommend the following, each day:

- at least 1 hour of moderate-to-vigorous physical activity;
- several hours of a variety of structured and unstructured light physical activities;
- no more than 2 hours per day of recreational screen time and limited sitting for extended periods;
- 8-11 hours of uninterrupted sleep depending on age.

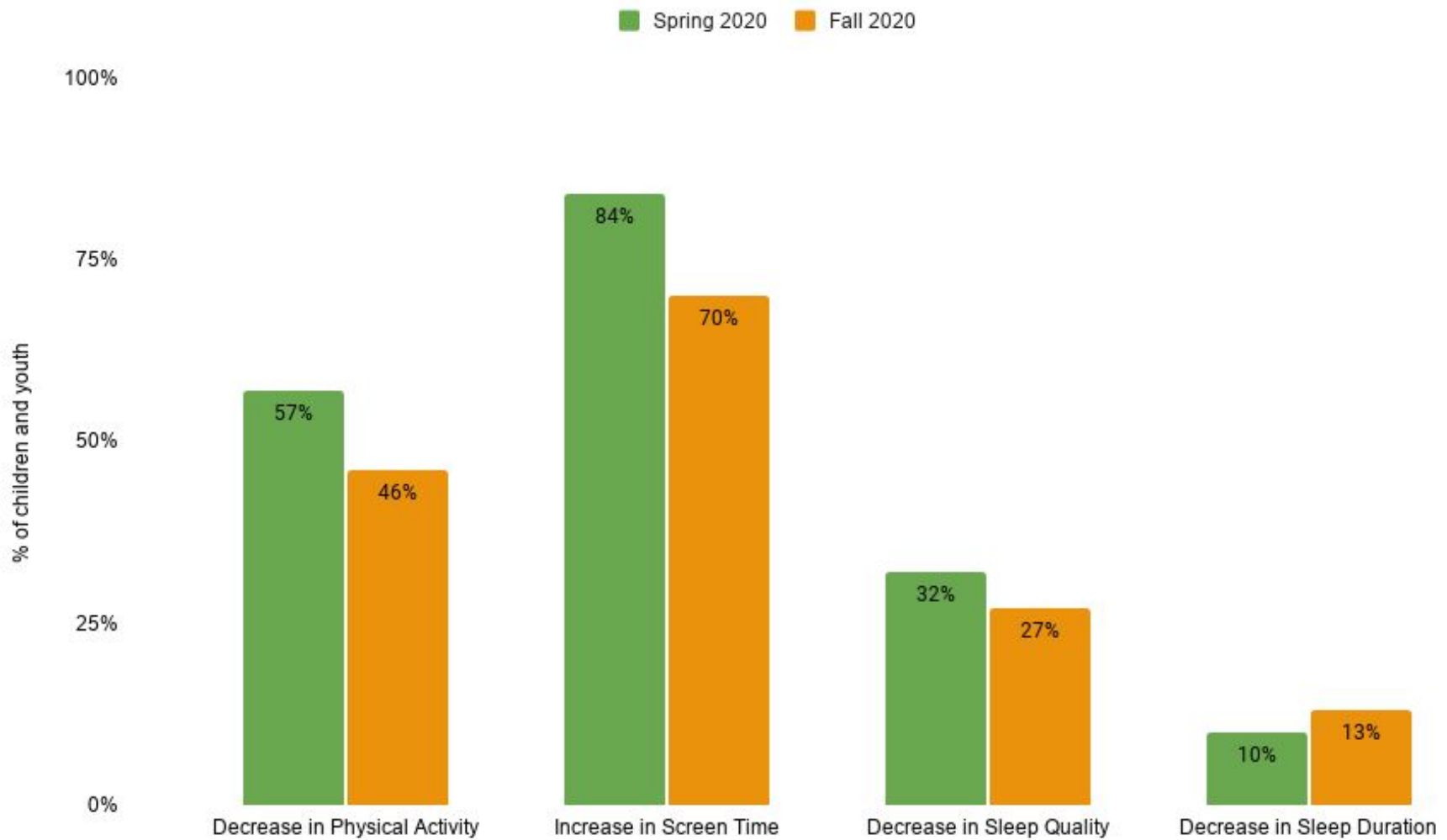
Summary of Preliminary Findings: Fall 2020

Draft Findings from Fall 2020 Preliminary Analysis

- Compared to the spring, children/youth are reporting moderate improvements in their healthy movement behaviours but there is still a significant proportion reporting a decline in physical activity, increase in screen time, decline in time outdoors, and decline in sleep quality compared to pre-COVID-19.
 - 46% of children/youth report a decline in physical activity.
 - 70% of children/youth report an increase in recreational screen time.
 - 27% of children/youth report a decline in sleep quality.
 - 50% of children/youth report a decline in time outdoors.
- Children/youth who attend school in person report better outcomes across these healthy movement behaviours compared to those who participate in school online or hybrid in-person/online.
- Children/youth in the Toronto CMA report slightly worse outcomes across these healthy movement behaviours compared to those in the rest of Canada.
- Children/youth who reside in apartments report significantly to moderately worse outcomes across some of these healthy movement behaviours compared to those who live in houses.
- Parents/caregivers in the Toronto CMA report higher levels of racism or discrimination experienced during COVID-19, and a higher proportion of racism or discrimination related to COVID-19.

Figure 1: Spring vs. fall percentage of children and youth with decrease/increase in levels of healthy movement behaviours

Decrease/Increase in Levels of Healthy Movement in Canadian Children/Youth: Spring vs Fall



Preliminary Findings: Figures 2-9.1

The following series of charts compare findings from children/youth in Toronto to those in the rest of Canada where n=1071.

Figure 2: Changes in physical activity Toronto vs. rest of Canada

Changes in Physical Activity Fall 2020

■ Decrease in PA ■ No Change in PA ■ Increase in PA

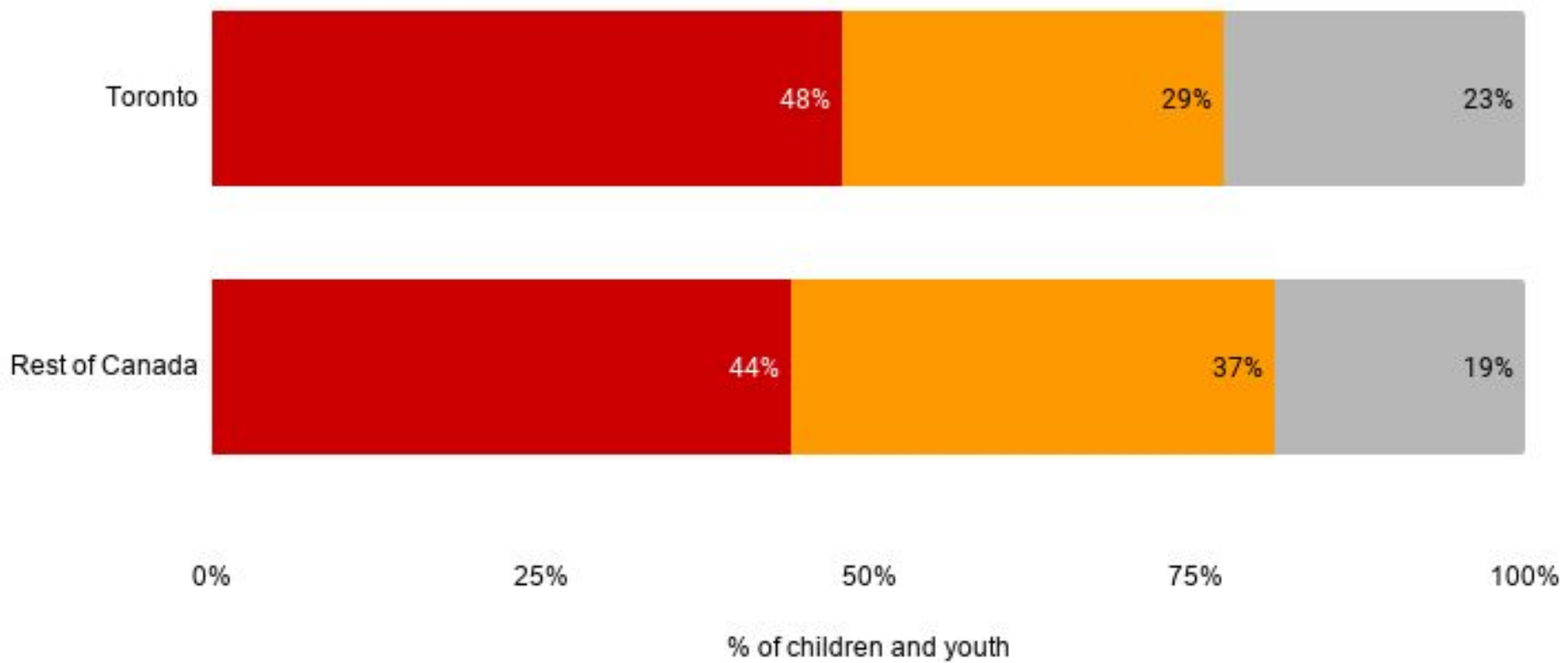


Figure 3: Changes in academic screen time Toronto vs. rest of Canada

Changes in Academic Screen Time Fall 2020

■ Increase in AST ■ No Change in AST ■ Decrease in AST

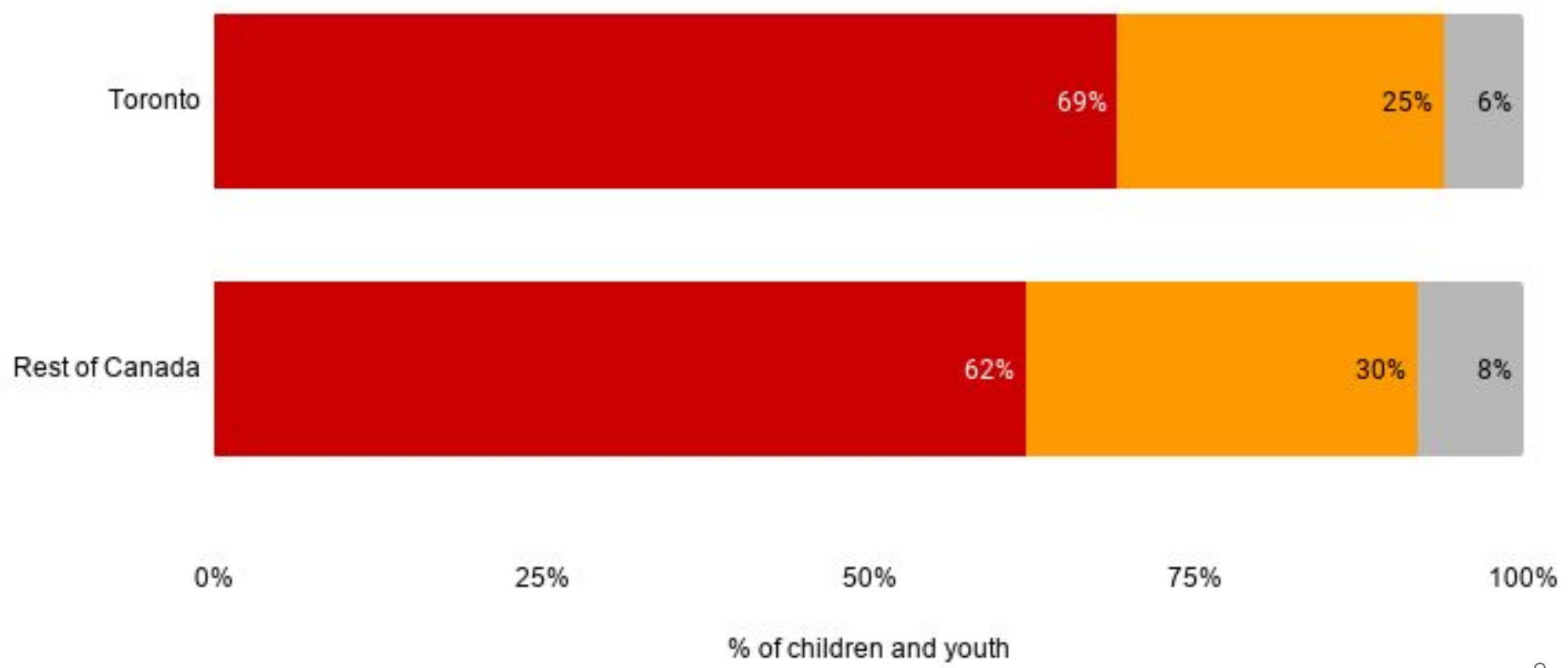


Figure 4: Changes in recreational screen time Toronto vs. rest of Canada

Changes in Recreational Screen Time Fall 2020

■ Increase in RST ■ No Change in RST ■ Decrease in RST

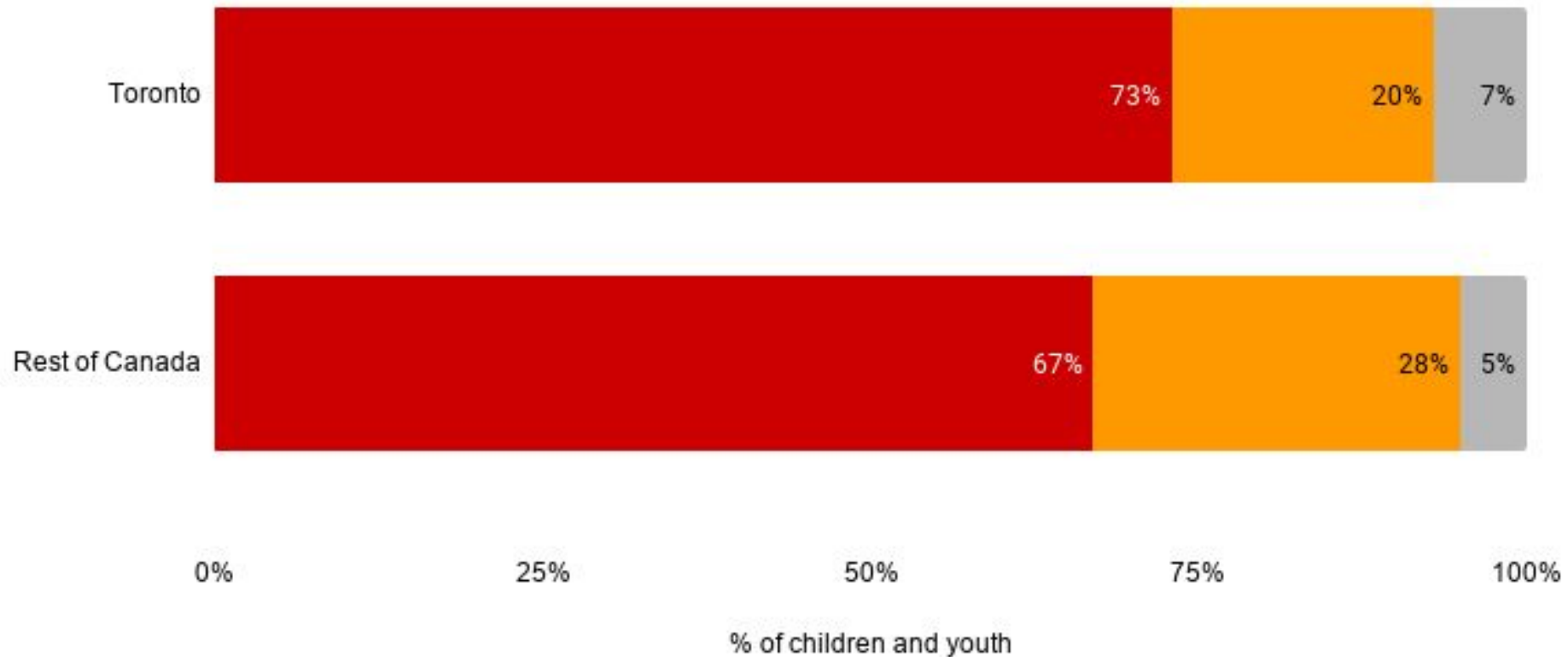


Figure 5: Changes in sleep quality Toronto vs. rest of Canada

Changes in Sleep Quality Fall 2020

■ Decrease in SQ ■ No Change in SQ ■ Increase in SQ

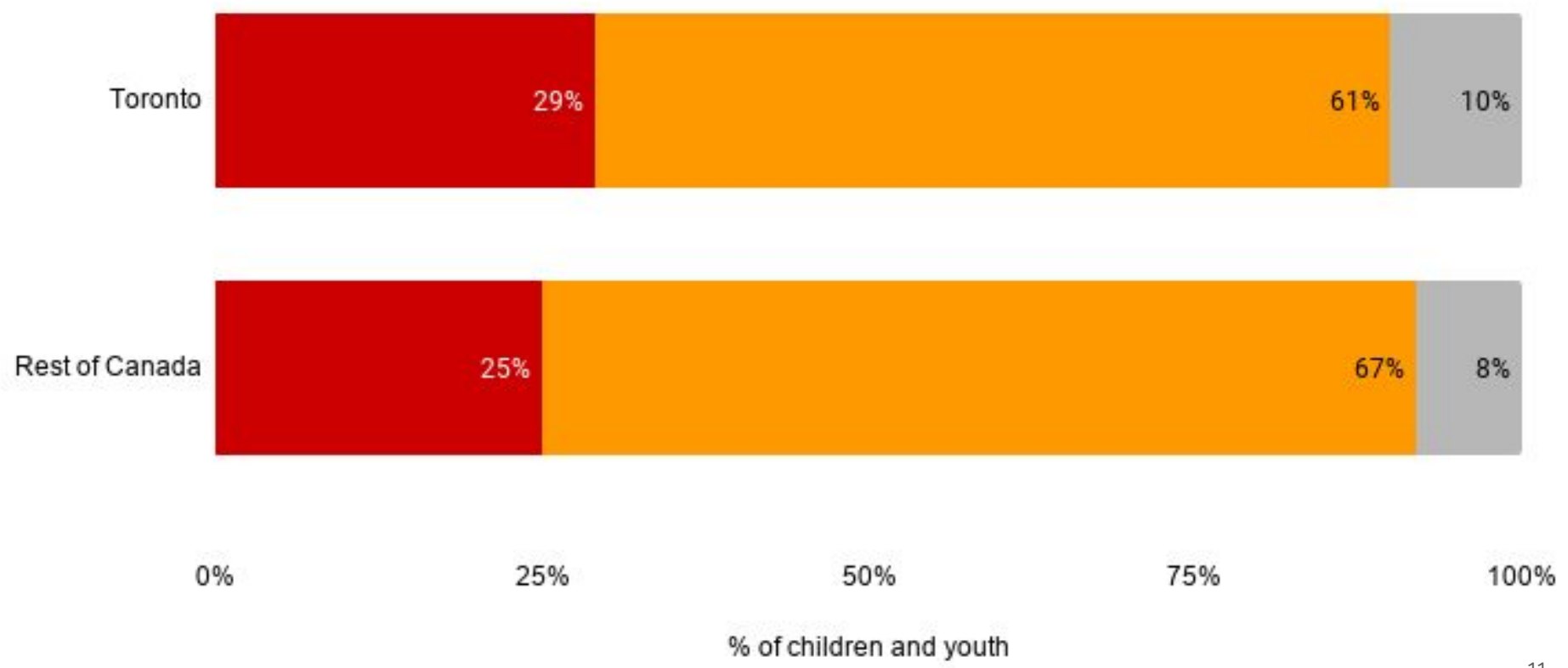


Figure 6: Changes in sleep duration Toronto vs. rest of Canada

Changes in Sleep Duration Fall 2020

■ Decrease in SD ■ No Change in SD ■ Increase in SD

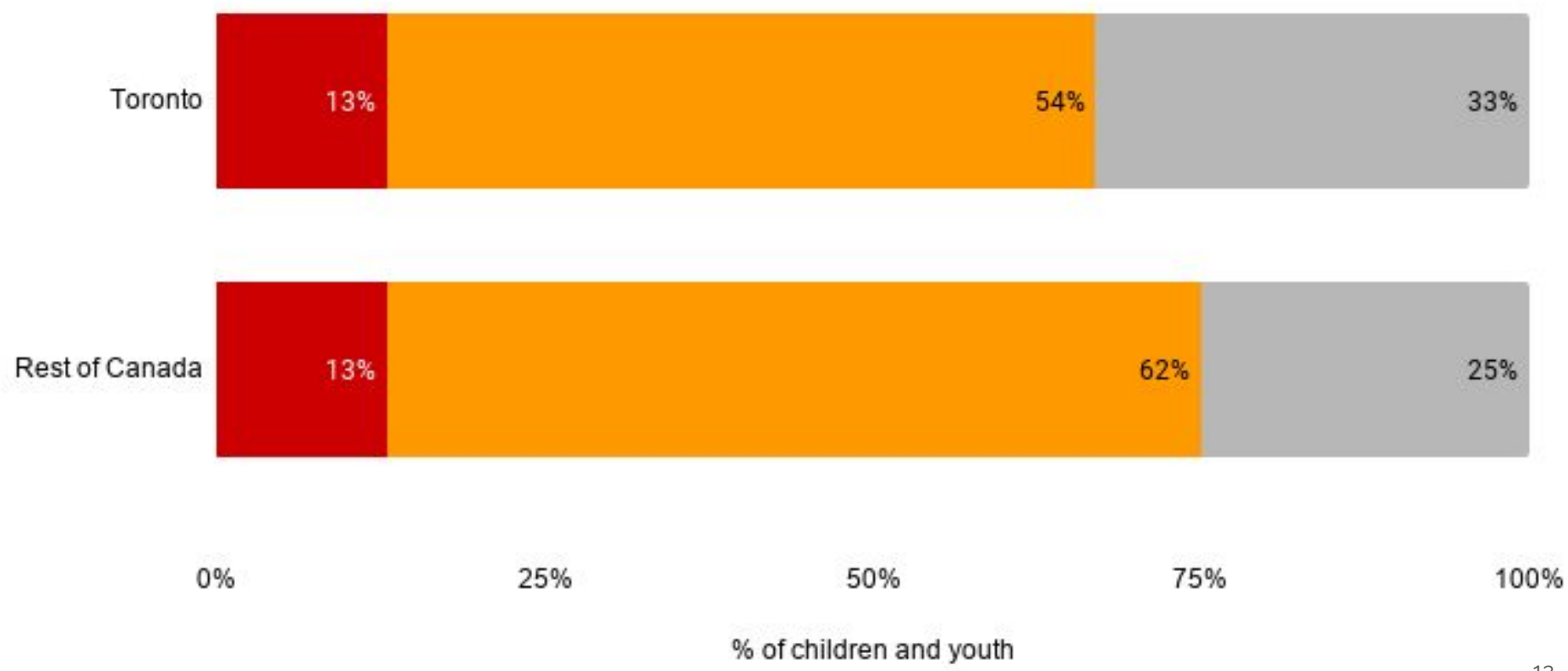


Figure 7: Changes in time outdoors Toronto vs. rest of Canada

Changes in Time Outdoors Fall 2020

■ Decrease in TO ■ No Change in TO ■ Increase in TO

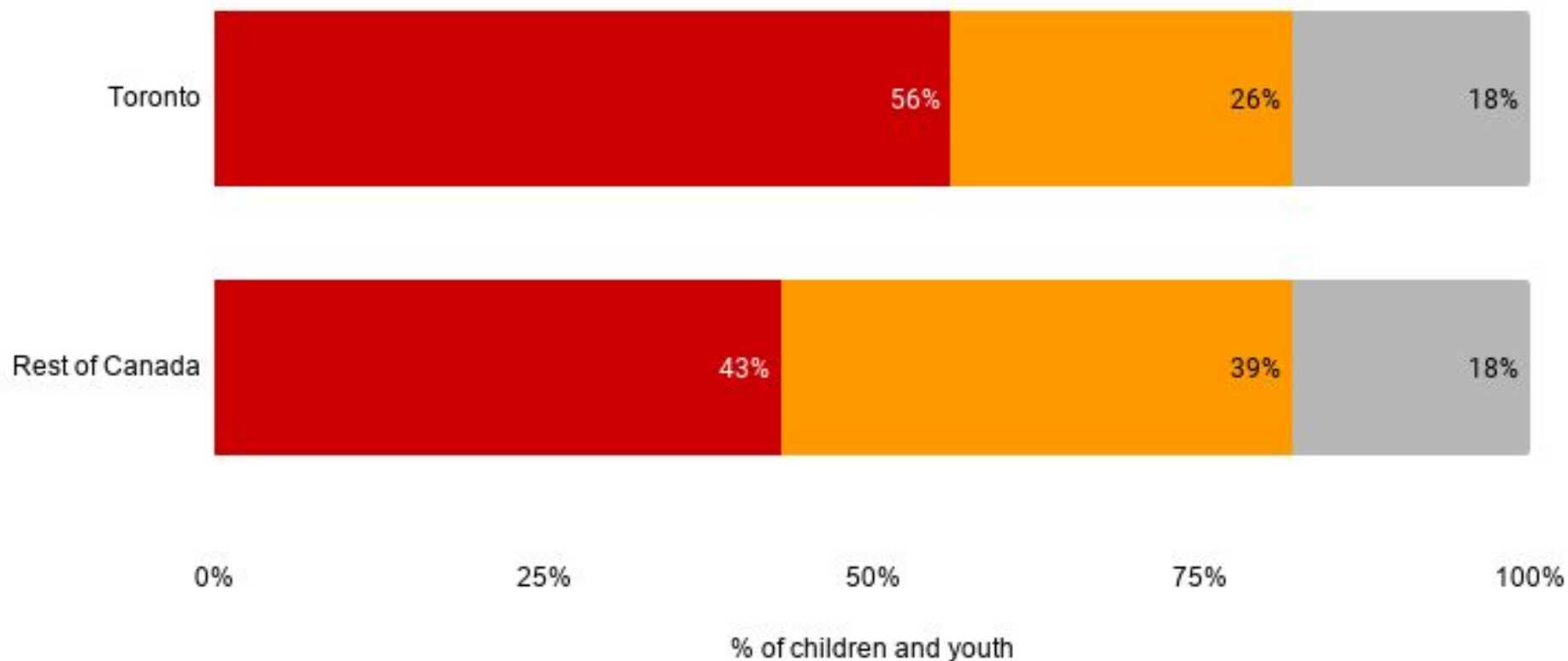


Figure 8: Changes in walking and biking Toronto vs. rest of Canada

Changes in Walking and Biking Fall 2020

■ Decrease in AT ■ No Change in AT ■ Increase in AT

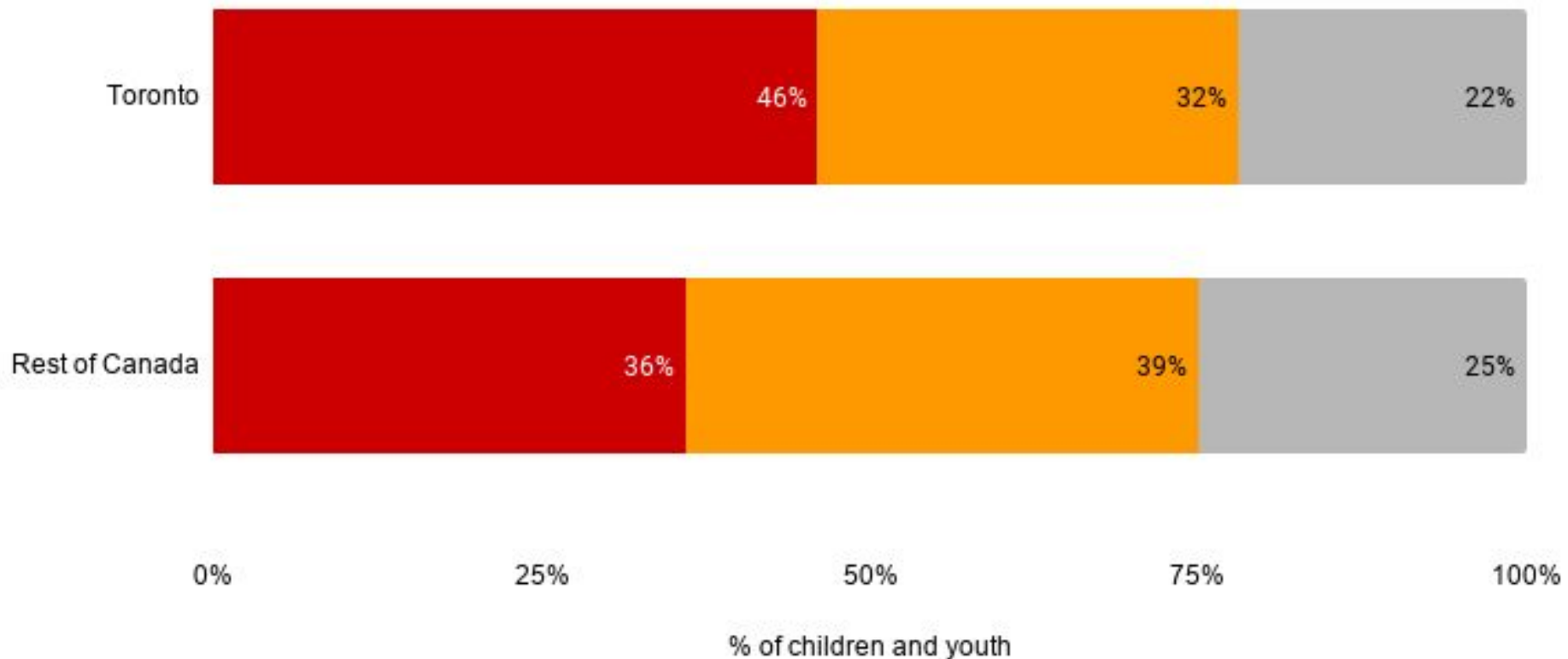


Figure 9: Percentage of parents/caregivers who experienced racism or discrimination during COVID-19 Toronto vs. rest of Canada

Experienced Racism or Discrimination during COVID-19

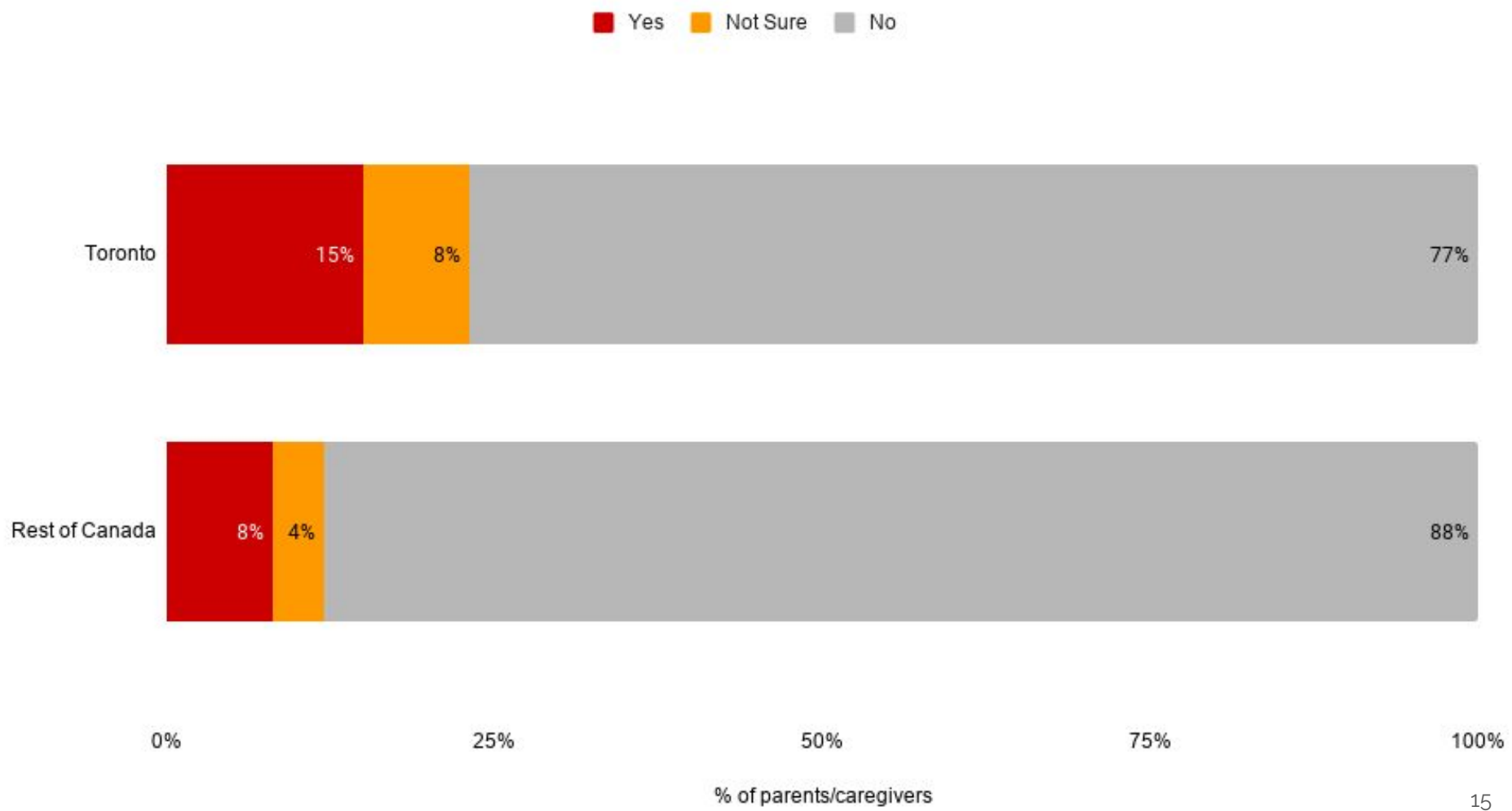
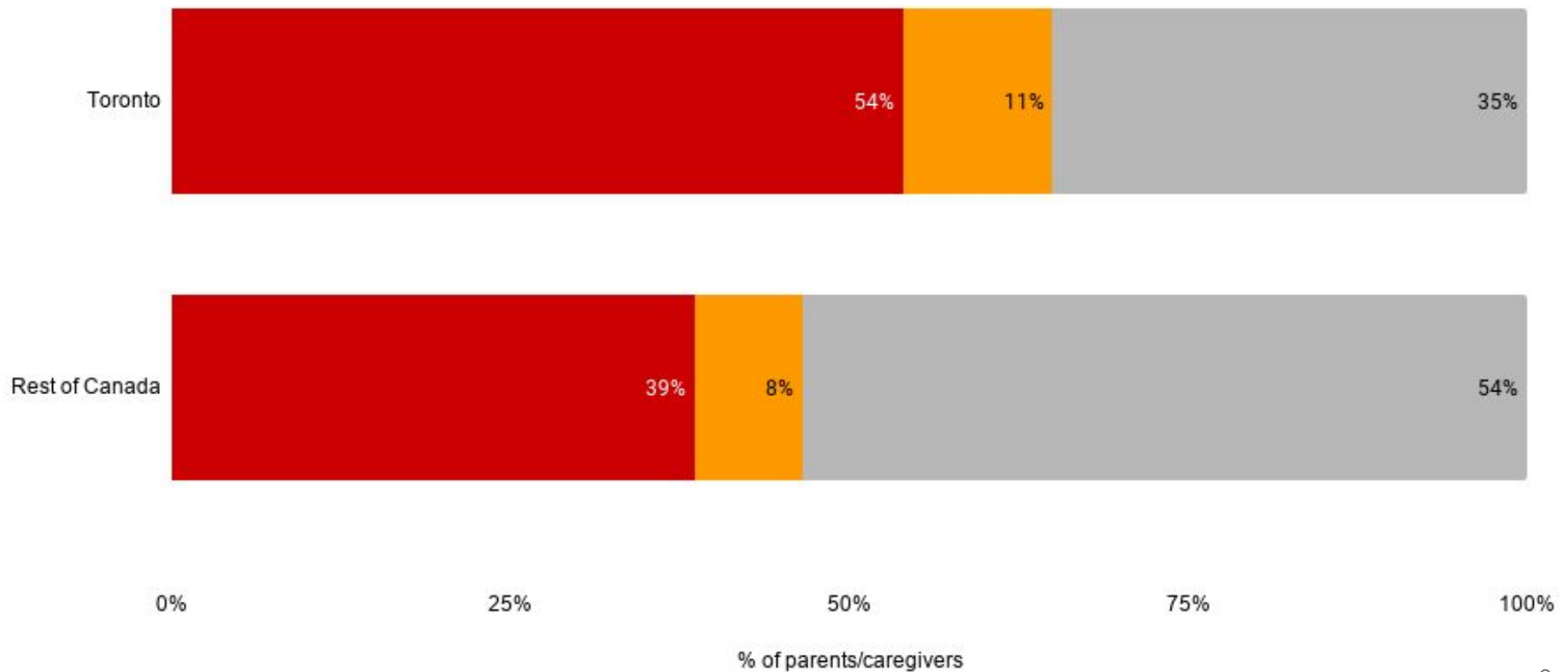


Figure 9.1: Percentage of parents/caregivers who reported the racism or discrimination they experienced was related to COVID-19

Racism or Discrimination was related to COVID-19

Yes Not Sure No



Preliminary Findings: Figures 10-14

The following series of charts compare results among children/youth in three types of schooling in Toronto: in-person (n=228), online (n=155), and hybrid (n=119).

Figure 10: Changes in physical activity by school type in Toronto

Changes in Physical Activity by School Type Fall 2020 Toronto

■ Decrease in PA ■ No Change in PA ■ Increase in PA

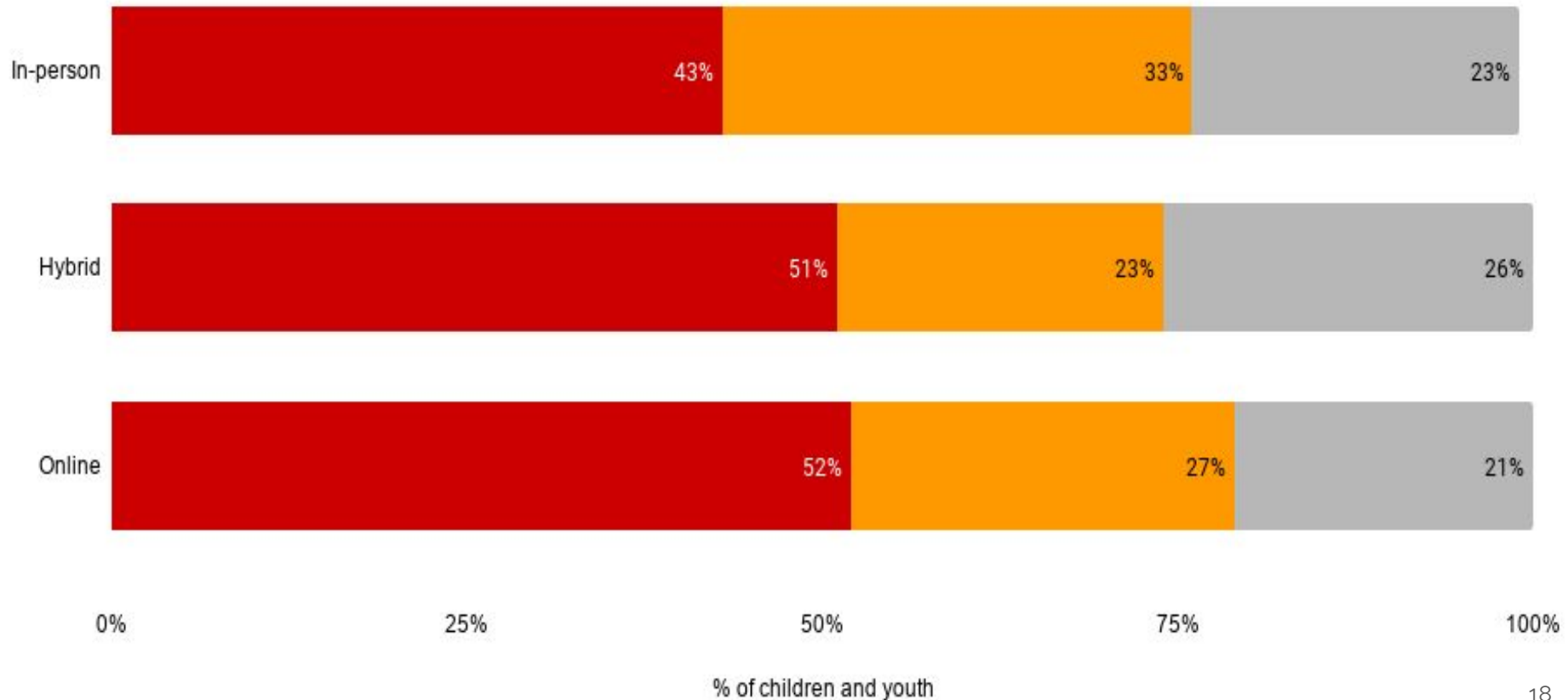


Figure 11: Changes in academic screen time by school type Toronto

Changes in Academic Screen Time by School Type Fall 2020 Toronto

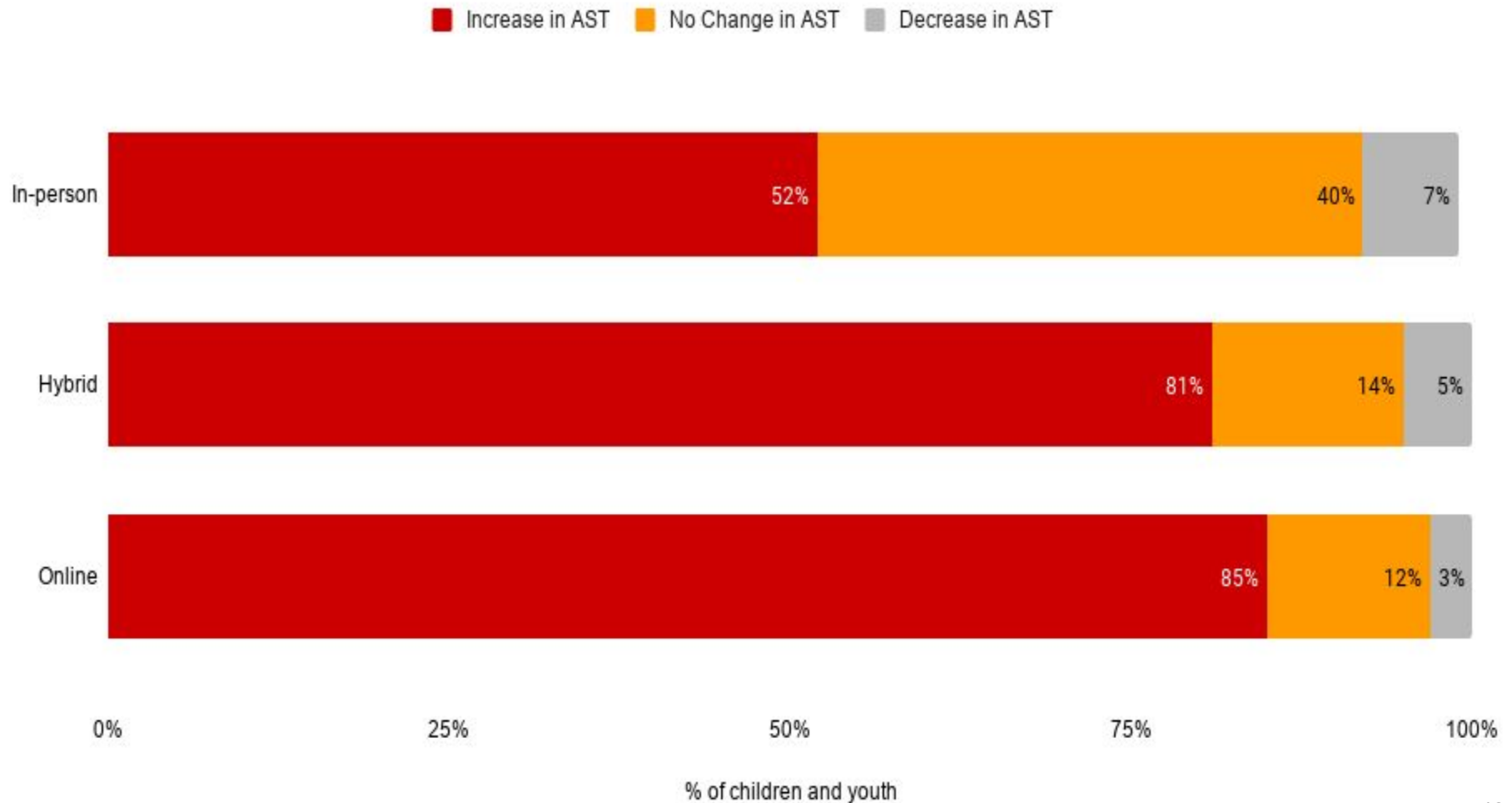


Figure 12: Changes in recreational screen time by school type in Toronto

Changes in Recreational Screen Time by School Type Fall 2020 Toronto

■ Increase in RST ■ No Change in RST ■ Decrease in RST

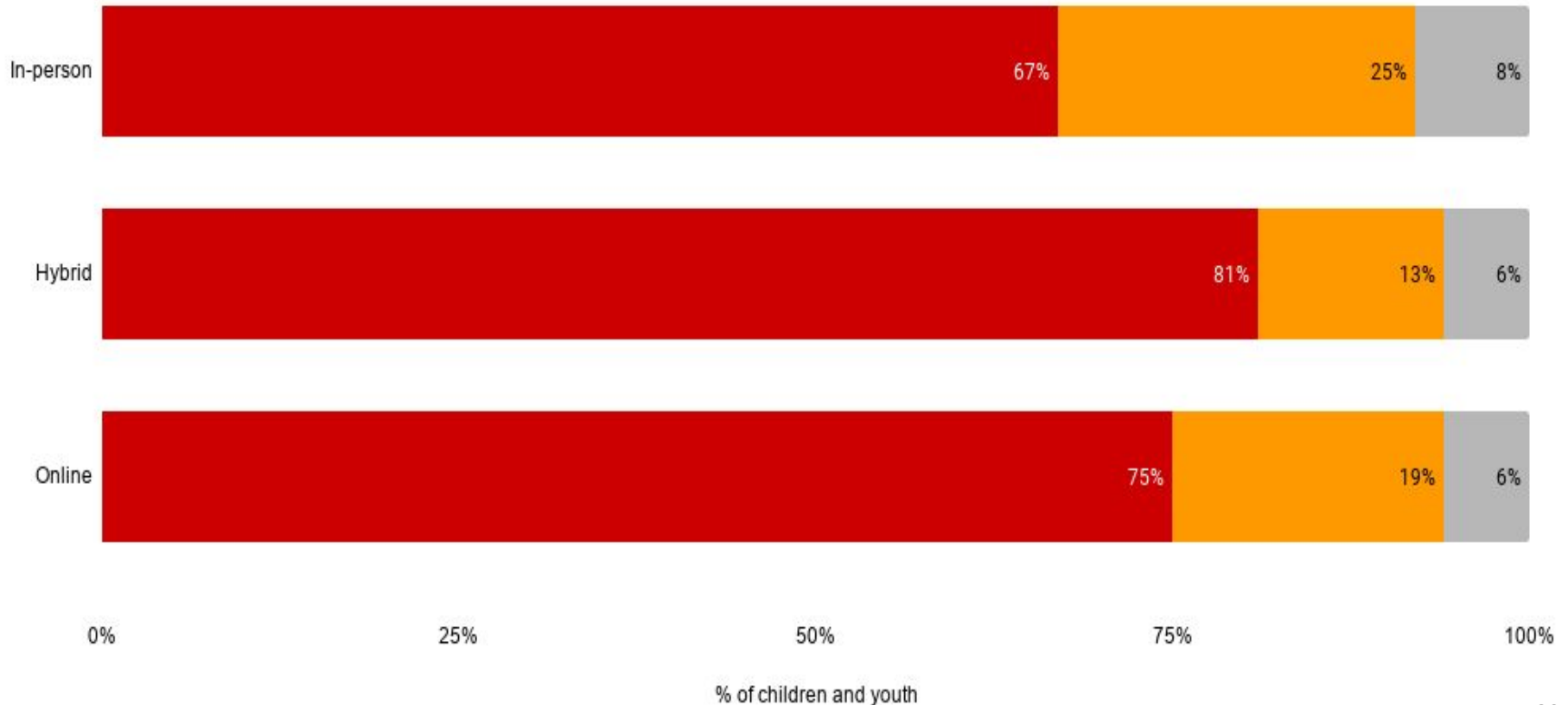


Figure 13: Changes in sleep quality by school type in Toronto

Changes in Sleep Quality by School Type Fall 2020 GTA

■ Decrease in SQ ■ No Change in SQ ■ Increase in SQ

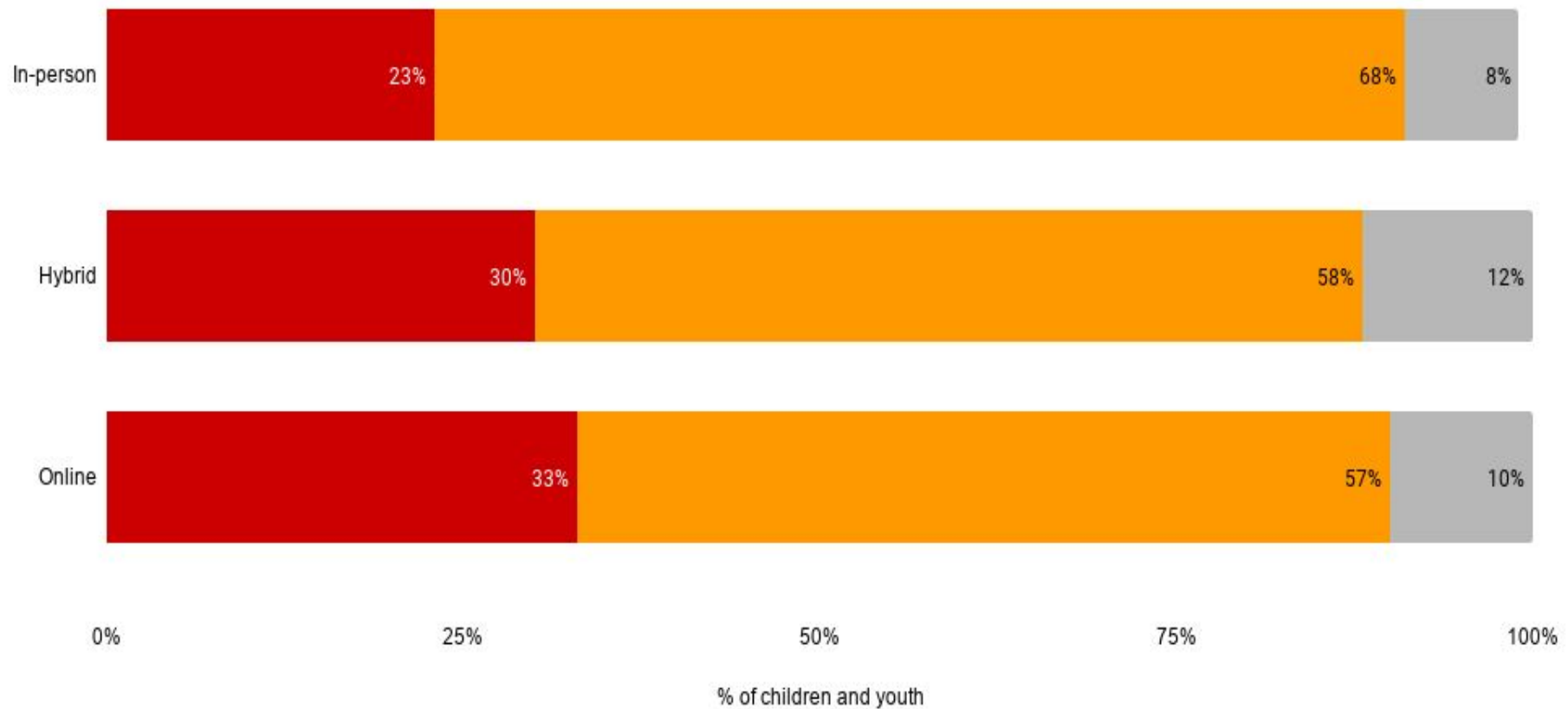
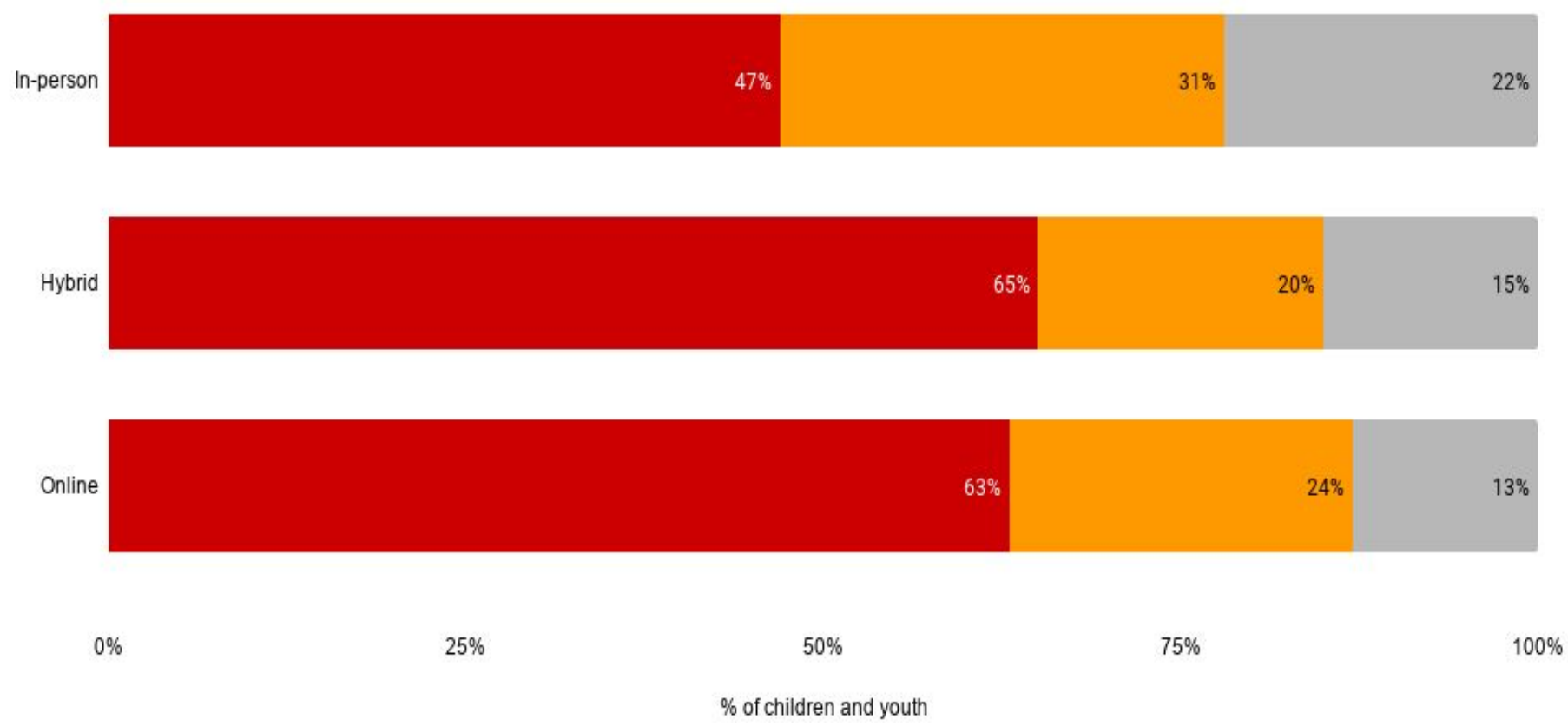


Figure 14: Changes in time outdoors by school type in Toronto

Changes in Time Outdoors by School Type Fall 2020 Toronto

■ Decrease in TO ■ No Change in TO ■ Increase in TO



Preliminary Findings: Figures 15-17

The following series of charts compare results among children/youth in different dwelling types in Toronto, specifically apartments (n=95) and houses (n=424).

Figure 15: Changes in physical activity by Toronto dwelling type

Changes in Physical Activity by Toronto Dwelling Type Fall 2020

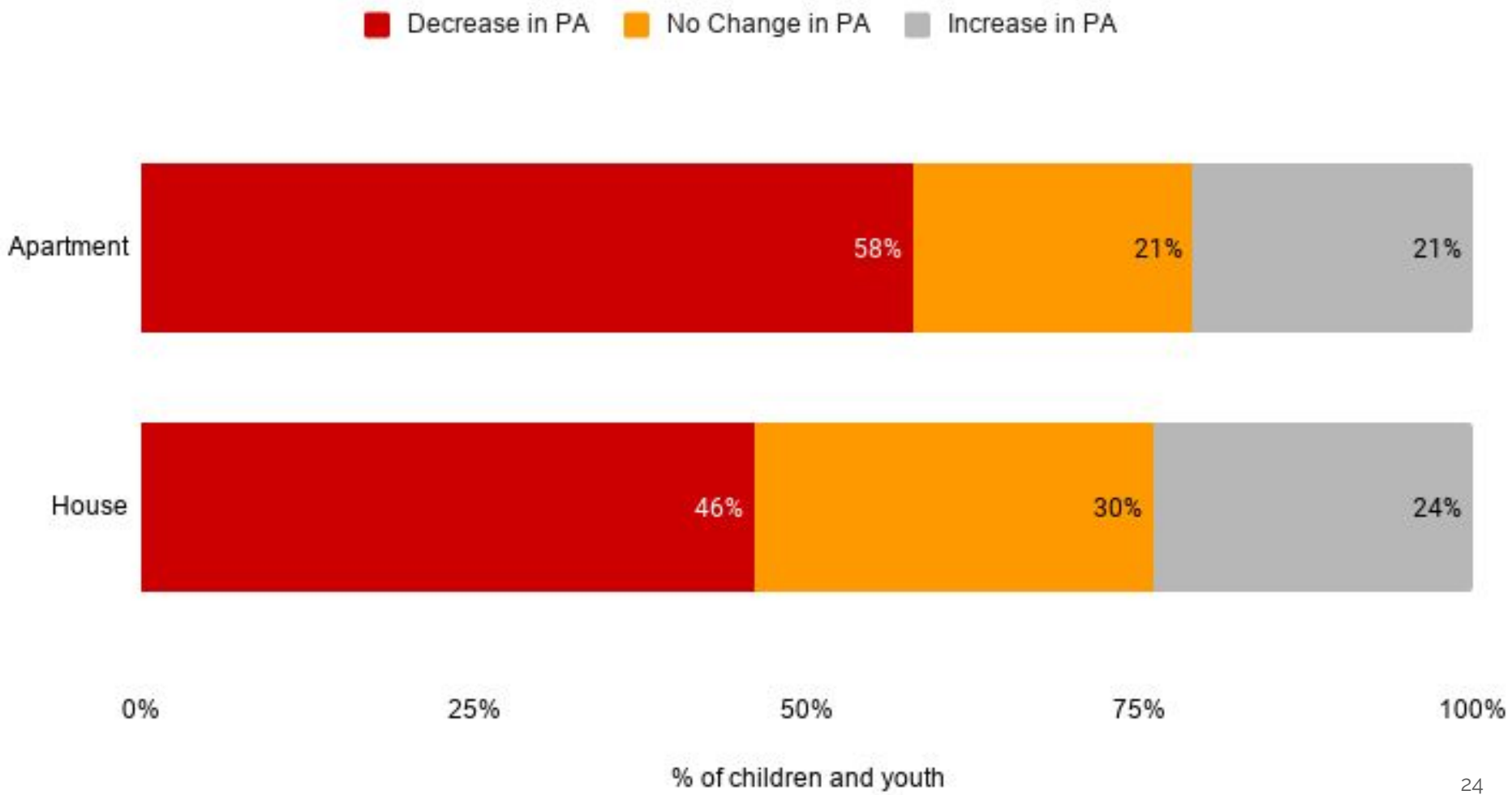


Figure 16: Changes in time outdoors by Toronto dwelling type

Changes in Time Outdoors by Toronto Dwelling Type Fall 2020

■ Decrease in TO ■ No Change in TO ■ Increase in TO

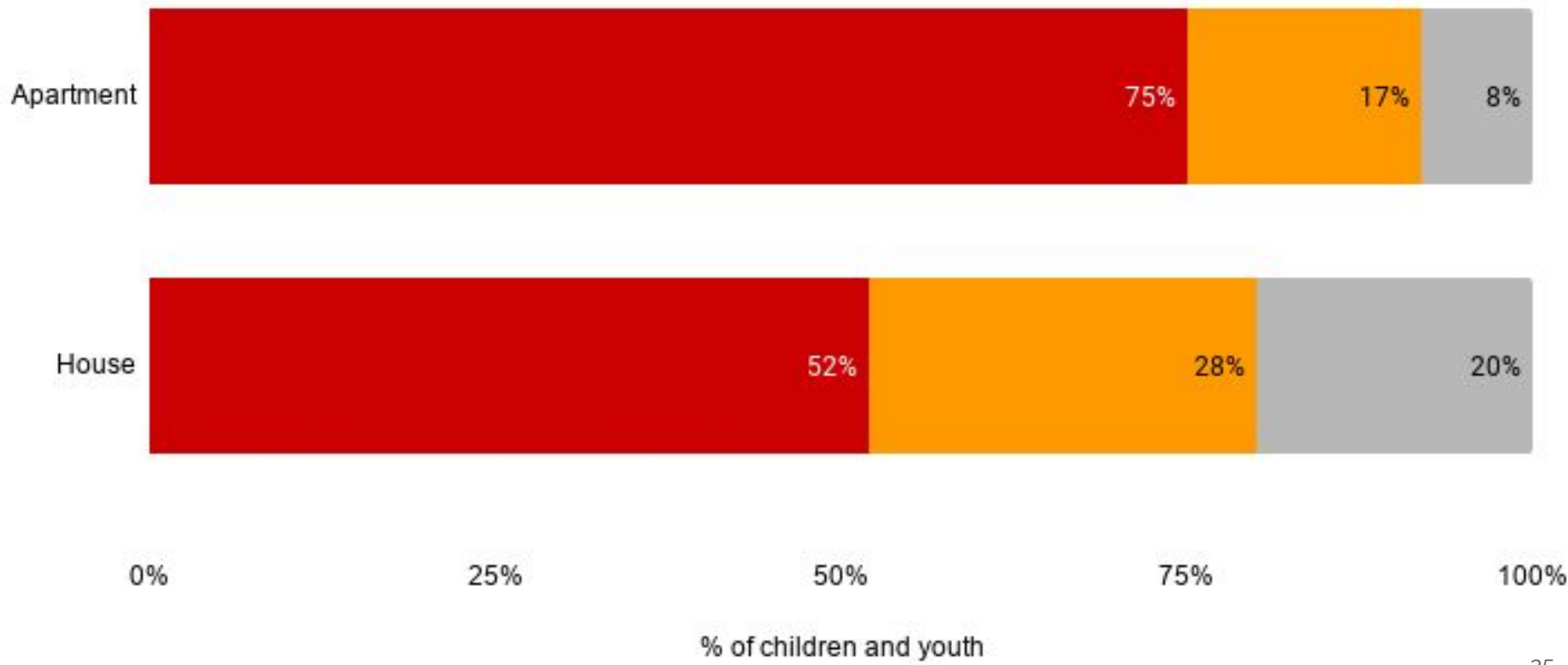
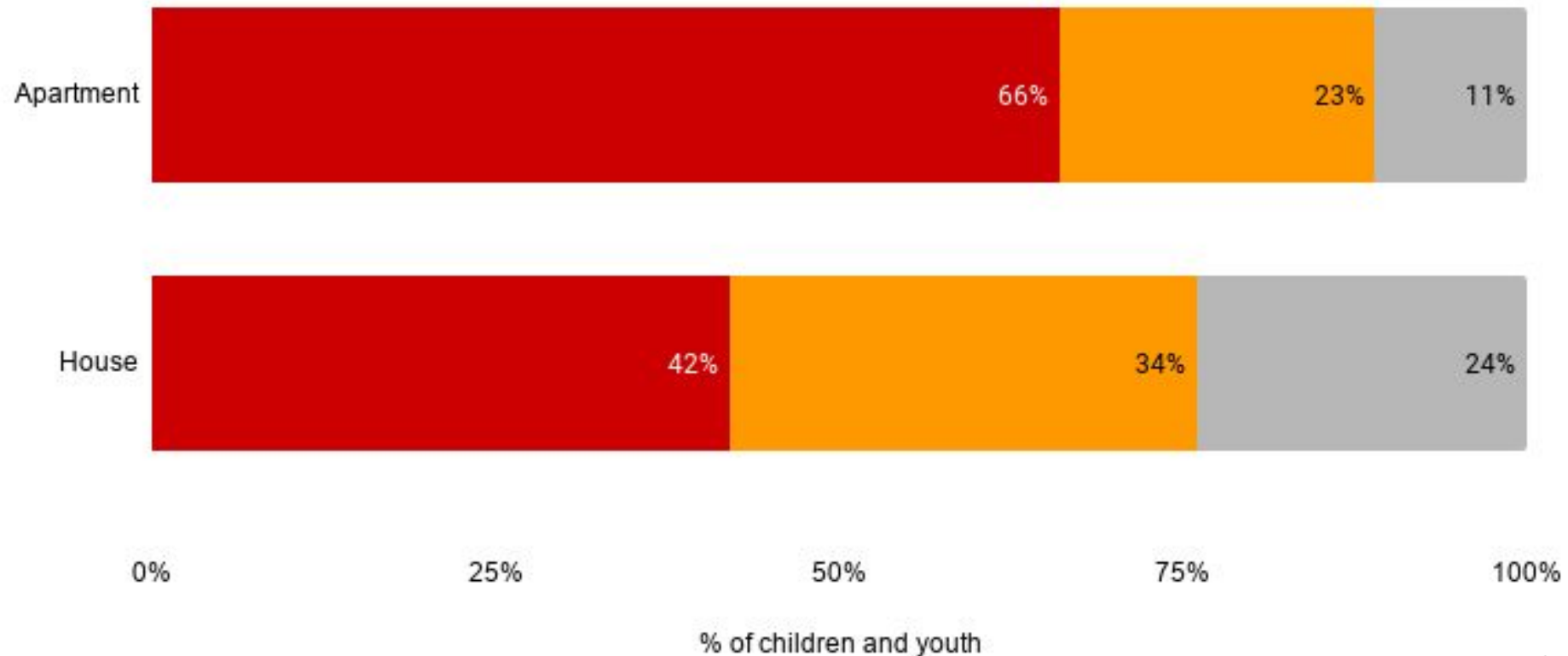


Figure 17: Changes in walking and biking by Toronto dwelling type

Changes in Walking and Biking by Toronto Dwelling Type Fall 2020

■ Decrease in AT ■ No Change in AT ■ Increase in AT



Recommendations: July 2020

COVID-19 CHILD AND YOUTH WELL-BEING STUDY: CANADA PHASE ONE REPORT

Recommendations

AVOID	INCLUDE	INCREASE	INVEST IN
<ul style="list-style-type: none"> ✘ A return to the status quo ✘ Waiting to act until things return to normal ✘ Assuming that impacts are evenly distributed ✘ Assuming that impacts are all negative ✘ Rushing to fill the learning gap ✘ Quantity over quality of school instruction ✘ Overprogramming of life beyond school ✘ One-size-fits-all solution for different contexts ✘ Inconsistent messaging or unclear expectations ✘ Opening up services or schools again before it is safe to do so 	<ul style="list-style-type: none"> ✔ Focus on what can be done differently and better right away ✔ Time and support to talk about experiences ✔ Time and support for play and other activities ✔ Time outside and in nature ✔ Time away from screens ✔ Time for social connection with friends and community ✔ Time with family ✔ Celebration of milestones and achievements ✔ Opportunities to continue passion projects ✔ Opportunities to continue social impact projects ✔ Monitoring and re-assessing 	<ul style="list-style-type: none"> + Synchronous learning and collaboration + Interaction with teachers and among peers + Rich and deep learning tasks + Outdoor lessons + Project-based learning + Play-based learning + Place-based learning and neighbourhood inquiry projects + Variety of instructional strategies and tools + Student choice and voice + Authenticity and agency + Rigor, accountability and meaningful assessment + Understanding of well-being + Resources for students with extra support needs + Programs and activities for remote and in-person participation 	<ul style="list-style-type: none"> \$ Outdoor classrooms, naturalized playgrounds, and play equipment \$ High speed internet and computers \$ Online videos, materials and forums for support \$ Mental and emotional health and well-being supports \$ Training and support for teachers and program staff \$ Peer mentors and councillors \$ Health and safety protocols \$ Parks and public spaces \$ Community partnerships for sharing outdoor and indoor spaces \$ Walkable communities \$ Streets for play \$ Financial support for families in need

Recommendations: September 2020

The Canadian 24-Hour Movement Guidelines for Children and Youth recommend the following, each day:¹

- at least 1 hour of moderate-to-vigorous physical activity;
- several hours of a variety of structured and unstructured light physical activities;
- no more than 2 hours per day of recreational screen time and limited sitting for extended periods;
- 8-11 hours of uninterrupted sleep depending on age.

A 2020 Unicef study of child well-being found strong links between the frequency of playing outside and children's happiness (and ranked Canada 30th of 38 rich countries in child well-being outcomes).² Given these guidelines and our study's findings, we recommend the following targeted measures at home, at school, and in the community in tandem with our overall recommendations:

1. Promote and structure vigorous and light physical activity among BIPOC children and youth, older youth, and those who live in large and medium-sized cities, where the decline in these healthy behaviours was more pronounced during the pandemic.
2. Promote and structure going outside at least once a day, and spending some time in nature, among BIPOC children and youth, lower income youth, and those who live in large cities, where the decline in these activities was more pronounced during the pandemic. Establish and communicate community safety guidelines with child-friendly principles and language.
3. Plan and program more outdoor and shared indoor play and physical activity spaces in racialized and high-density communities. If public health guidelines call for closing these spaces, establish alternatives for these communities through policy and planning.

1: <https://csepguidelines.ca/children-and-youth-5-17/>

2: https://www.unicef.ca/sites/default/files/2020-08/WorldsOfInfluence_EN.pdf

Recommendations: September 2020

4. Promote and structure screen time breaks among children and youth with younger parents, those in single-child households, and in medium-sized cities, where the increase in screen time was more pronounced during the pandemic.
5. Promote and structure 8-11 hours of uninterrupted sleep per night among boys and children/youth from single-parent households, where the decline in sleep duration was more pronounced during the pandemic.
6. Promote sleep quality, including strategies to fall and stay asleep, among BIPOC children and youth, those in large cities, and from multi-child households, where the decline in sleep quality was more pronounced during the pandemic.
7. Improve support for students from lower income households, and those with extra support needs, with the materials and resources they need for effective remote learning, including quiet/comfortable spaces to complete schoolwork.
8. Avoid using long blocks of synchronous learning for direct instruction on a screen, given the increase in screen time both academically and recreationally. Use synchronous learning time for social interaction, physical activity, play, collaboration, hands-on, outdoor, and inquiry.
9. Improve access to pandemic supports and services in racialized and lower income communities.
10. Engage and consult with children and youth in lower income, high-density, and racialized communities so that they have opportunities to participate in decisions that impact their lives.

Recommendations: December 2020

In progress

Research Team

The Maximum City research team consists of:

- Josh Fullan, Study Lead **josh@maximumcity.ca**
- Alex Lavasidis, Research and Analysis
- Hannah Miller, Presentation and Design
- Jaime Rosen, Graphic Design
- Meredith Gillespie, Research Assistant

Additional analysis conducted by:

- Dr. Raktim Mitra, Ryerson University

More info: <https://maximumcity.ca/wellbeing>