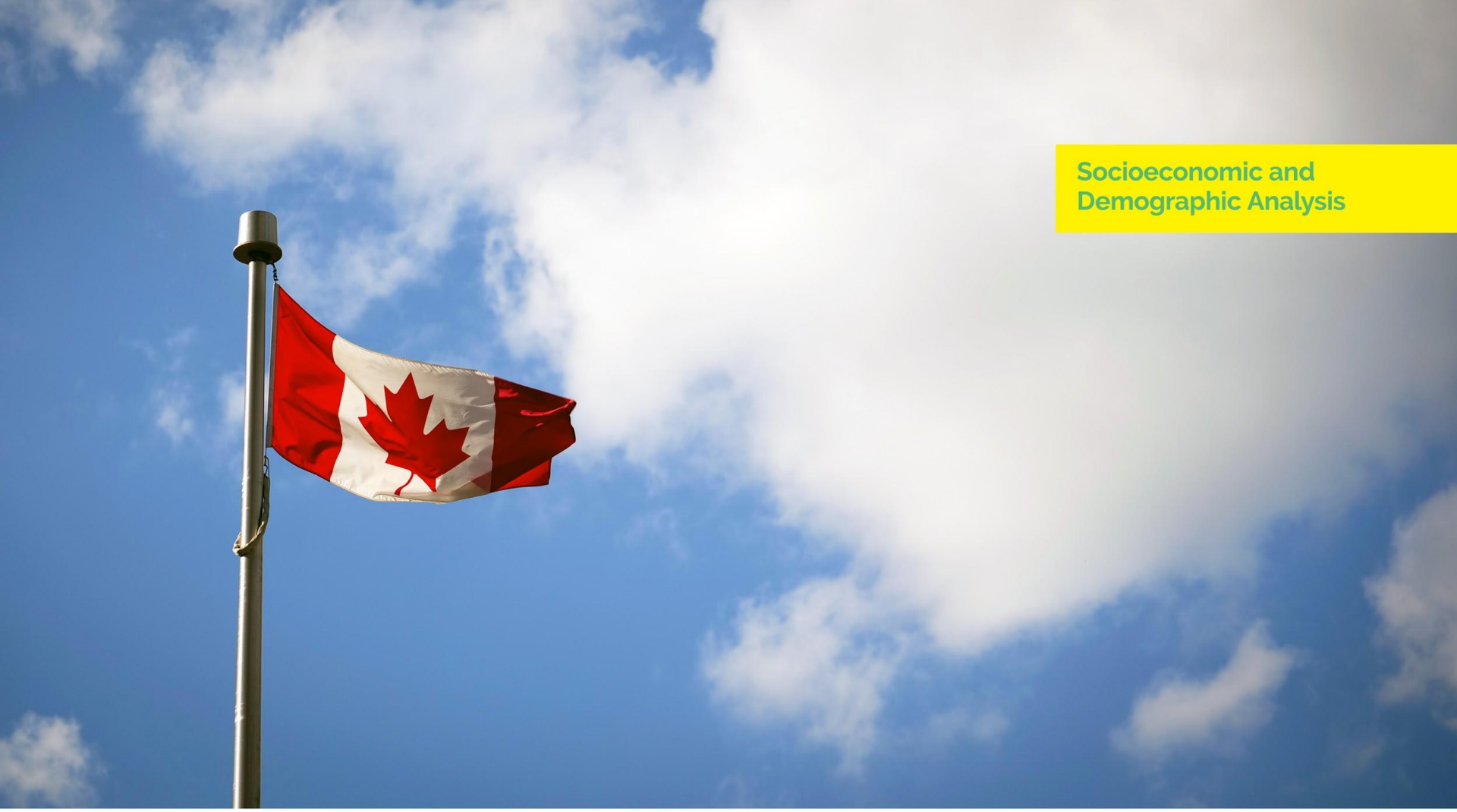

Socioeconomic and Demographic Analysis

COVID-19 CHILD AND YOUTH WELL-BEING STUDY: Socioeconomic and Demographic Analysis

MAXIMUM CITY

Prepared by Maximum City with Dr. Raktim Mitra, Ryerson University

August 2020

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Introduction

In the spring and summer of 2020, Maximum City conducted parallel Canada-wide and Toronto-based studies of the impacts of COVID-19 social and physical distancing on the self-reported behaviours, school experiences, and feelings of children (aged 9-12) and youth (13-15) in 932 households. Previous reports focused on the overall findings, while this analysis looks at results by ethno-racial background, household income and composition, municipality population size, age and gender, and private vs. public schooling. The main questions explored are:

- Are some groups of children and youth disproportionately affected by their experience of living through pandemic conditions, and what are their socioeconomic and demographic characteristics?
    - Are there statistically different changes in behaviours related to physical activity, time outdoors, sleep, and screen time associated with any socioeconomic or demographic characteristics?
    - Are there statistically different changes in school experience associated with any socioeconomic or demographic characteristics?
    - Are there statistically different changes in self-reported feelings associated with any socioeconomic or demographic characteristics?

Summary of Key Findings: Ethno-Racial Background

The following key findings focus on the differences revealed by an analysis of socioeconomic and demographic variables, organized first in a summary by characteristics then under specific indicators and study topics. As there were consistencies among groups in some self-reported behaviours, and especially in feelings and school experiences, certain variables were not associated with any statistical differences.

Ethno-Racial Background

- BIPOC (Black, Indigenous, and People of Colour) parents were more likely to report a decrease in income due to COVID-19, along with a greater impact on the ability to meet daily costs compared to White European parents.
- BIPOC children and youth were less likely to report that what is happening with COVID-19 has some positive effects on their life compared to White European children and youth.
- BIPOC children and youth were more likely to report:
  - a decrease in physical activity.
  - going outside less, feeling less safe outside, and having fewer places to play or exercise outside of home.
  - not spending enough time in nature or being physically active enough.
  - an increase in sleep duration and decrease in sleep quality.
  - people in their household are getting along more.
  - being worried about meeting basic needs such as food and shelter,
  - being worried about getting COVID-19.

Summary of Key Findings: Household Composition; Household Income

Household Composition

- Children and youth with younger parents were less likely to report a decrease in physical activity and more likely to report an increase in screen time.
- Children and youth from multi-child households were less likely to report an increase in screen time and more likely to report a decrease in sleep quality.
- Children and youth from multi-child and single-parent households were more likely to report a decrease in sleep duration.

Household Income

- Parents from lower income households were more likely to report a decrease in income due to COVID-19, along with a greater impact on the ability to meet daily costs compared to higher income parents.
- Children and youth from lower income households were less likely to report that what is happening with COVID-19 has some positive effects on their life.
- Children and youth from lower income households were more likely to report:
    - going outside less, feeling less safe, and having fewer places to play or exercise outside of home.
    - school being less interesting, more stressful, and having more difficulty concentrating.
    - being worried about getting COVID-19.

Summary of Key Findings: Municipality Size; Age and Gender; Private vs. Public School

Municipality Population Size

- Children and youth in small municipalities were less likely to report a decrease in physical activity compared to those in medium and large cities.
- Children and youth in medium-sized municipalities were more likely to report an increase in screen time.
- Children and youth from large municipalities were more likely to report:
    - an increase in sleep duration, decrease in sleep quality, and increase in worrying.
    - going outside less, feeling less safe outside, and having fewer places to play or exercise outside of home.
    - continuing to receive extra support needs during the pandemic, if they had extra support needs.

Age and Gender

- Older youth were more likely to report a decrease in physical activity compared to younger children.
- Boys were more likely to report a decrease in sleep duration.

Private vs. Public School

- Students from public schools were more likely to report an increase in screen time compared to private and independent schools.
- Students from public schools were more likely to report a decrease in schoolwork compared to private and independent schools.

Key Findings: Physical Activity

PHYSICAL ACTIVITY: Figures 1 - 4 and Table 1 in Appendix

- On average, **physical activity has declined** during the COVID-19 pandemic among Canadian children and youth aged 9-15.
- Fewer children/youth of younger parents experienced a decrease in physical activity levels.
- With regard to ethnicity, White European children/youth were less likely to report a decrease in physical activity and East or South-East Asians were more likely to report a decrease. As a group, BIPOC (Black, Indigenous, and People of Colour) children and youth were more likely to report a decrease in physical activity,
- Youth aged 12 years or above were more likely to report a decrease in physical activity, compared to younger children.
- There are spatial inequalities in the reported decrease in physical activity. Small municipalities (with less than 100,000 population) were less likely to report a decrease in children's physical activity, while medium-sized municipalities (with population between 100,000 and 400,000) had a higher proportion of children and youth with decreased physical activity levels, compared to the small and large (more than 400,000 population) municipalities.

Figure 1: Changes in healthy movement behaviours during COVID-19

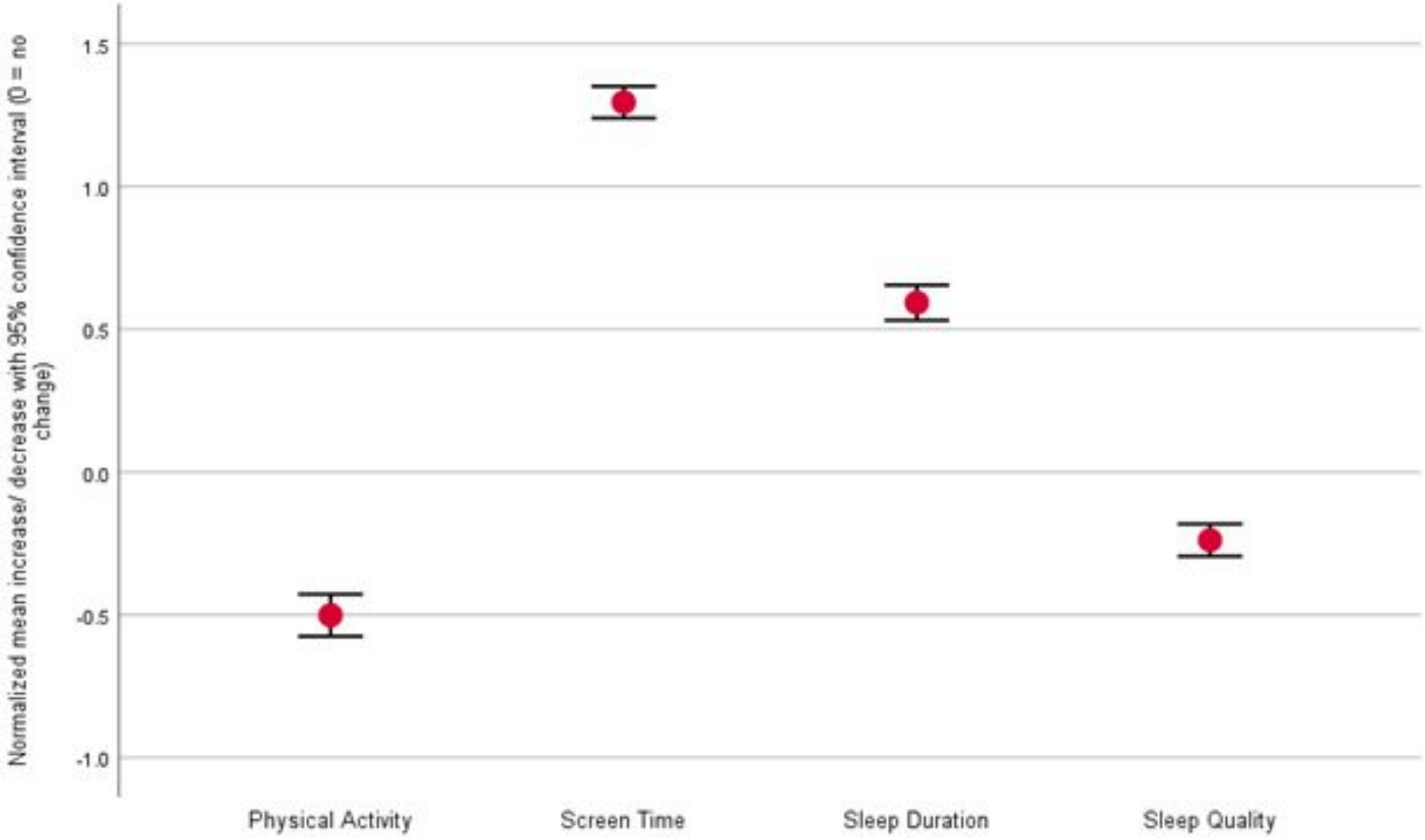


Figure 2: Percentage of children and youth with changes in levels of healthy movement

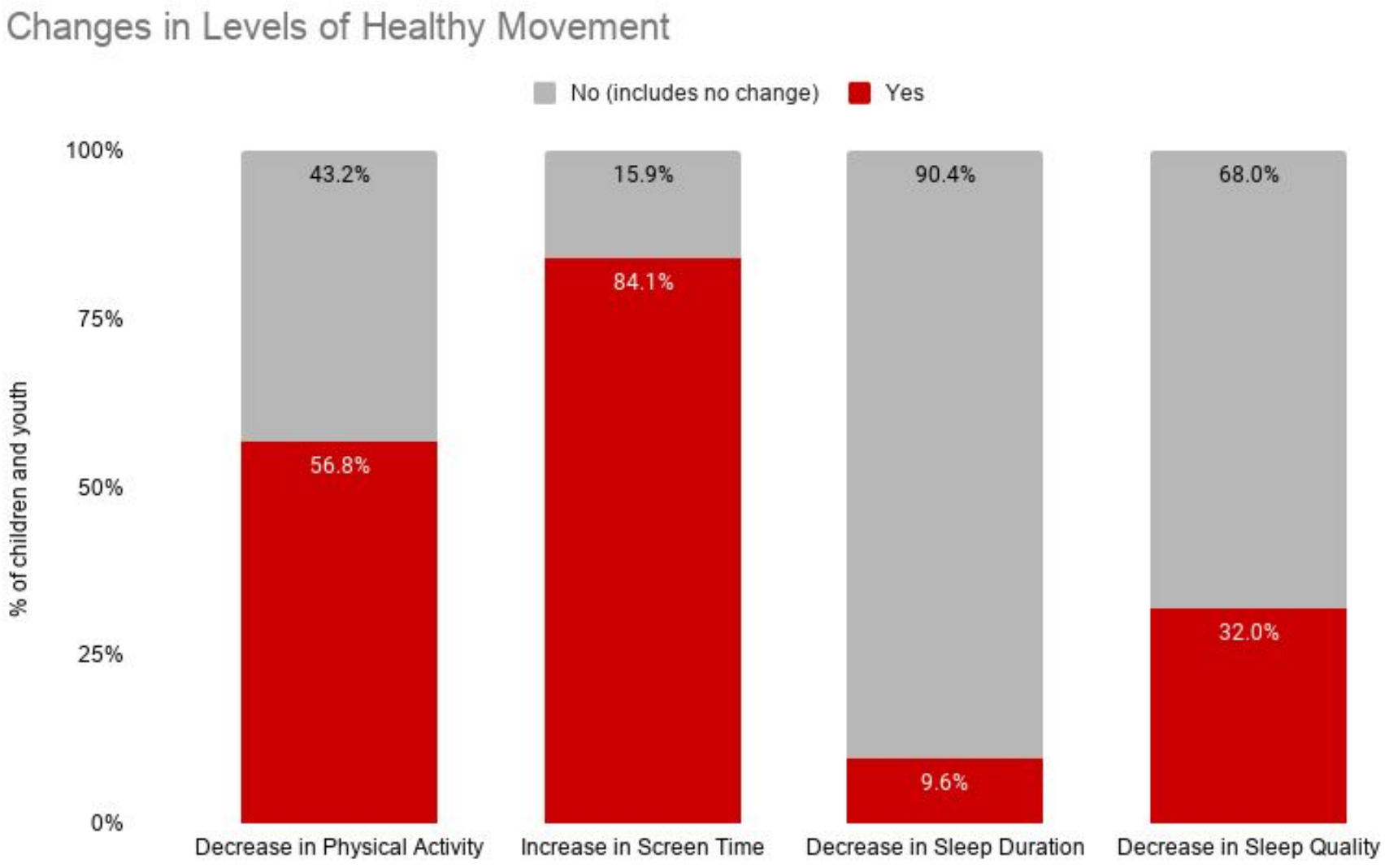


Figure 3: Changes in physical activity by ethno-racial background

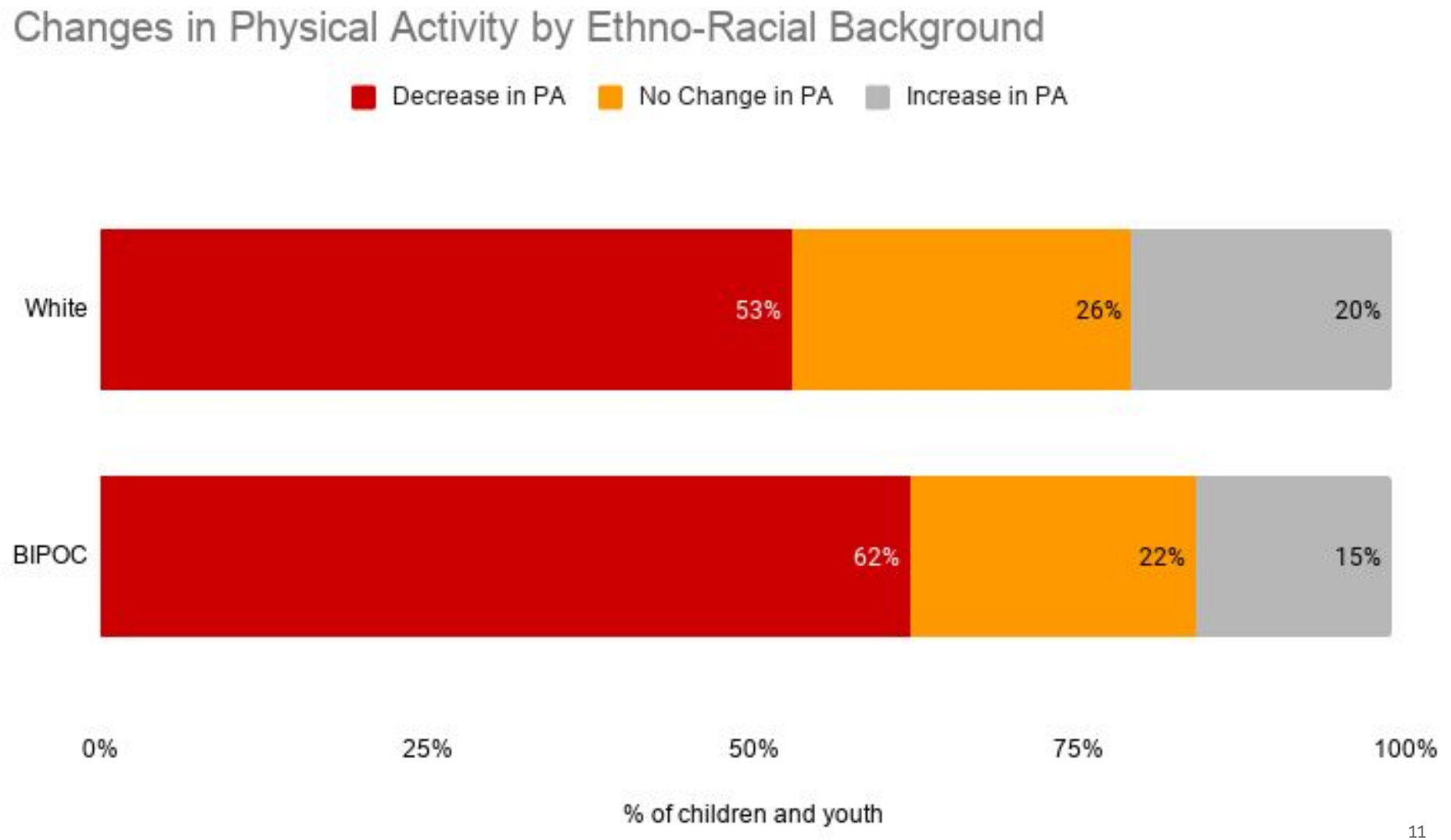
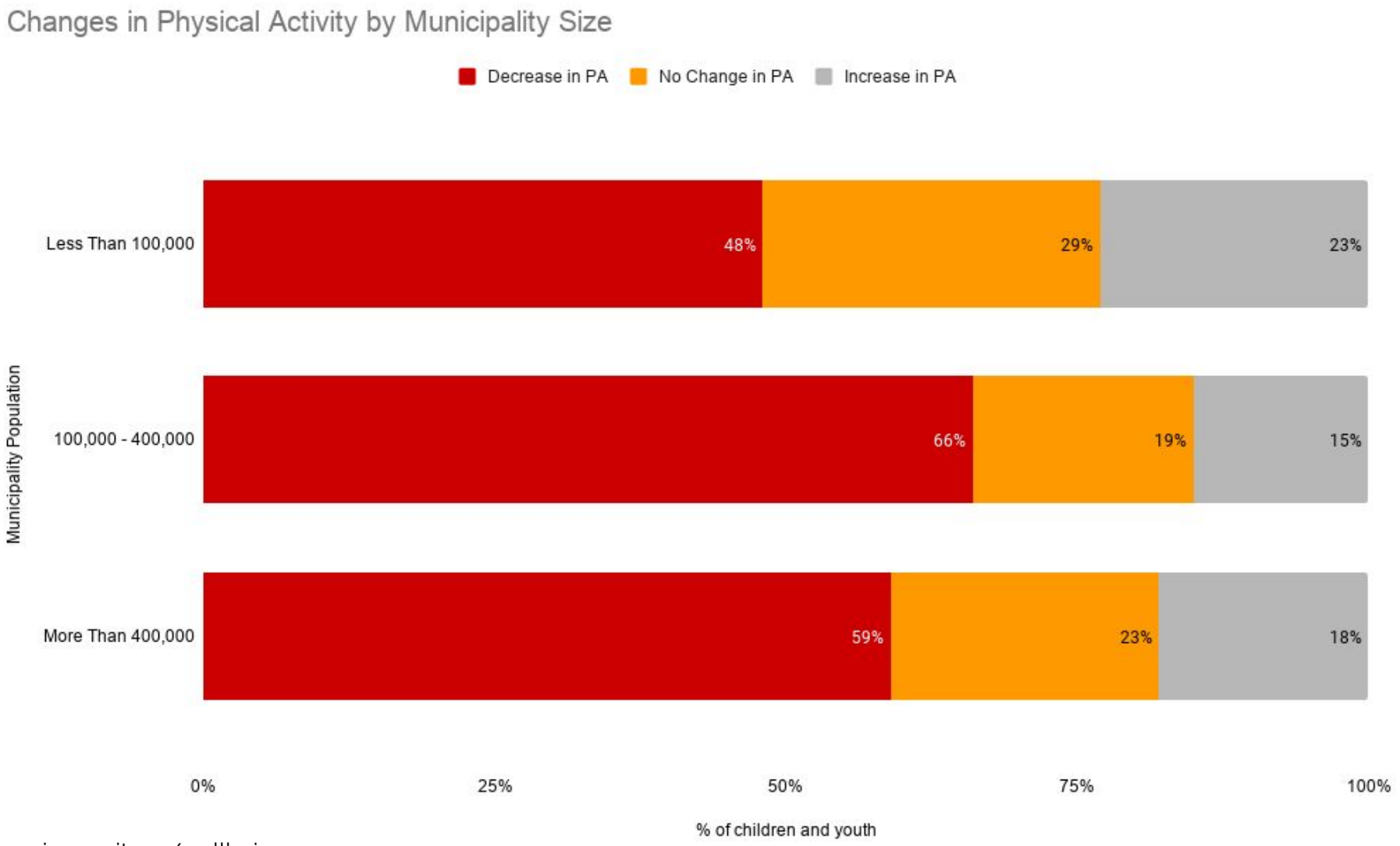


Figure 4: Changes in physical activity by municipality size

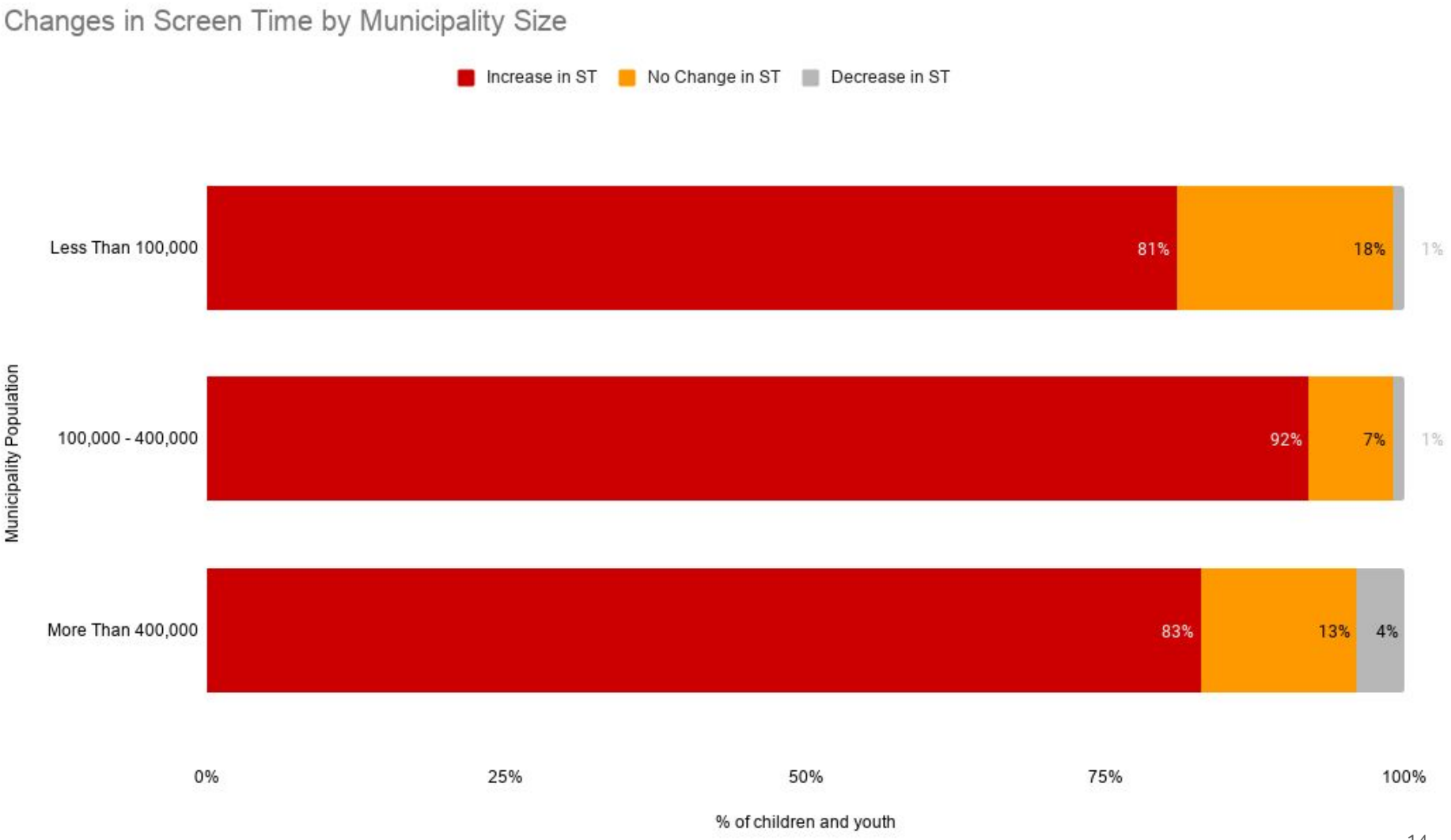


Key Findings: Screen Time

SCREEN TIME: Figures 1, 2, 5 and Table 2 in Appendix

- On average, **screen time has increased significantly** during the COVID-19 pandemic among Canadian children and youth aged 9-15. This includes recreational and academic screen time.
- Children/youth with younger parents were more likely report an increase in screen time.
- Children/youth from multi-child households were less likely to report an increase in screen time. Other socioeconomic factors such as a child's gender or age, or the family's income, ethnicity or family structure were not associated with an increase (vs. no increase) in screen time.
- Similar to what we observed with regard to physical activity, there are spatial inequalities in the reported increase in screen time. Children and youth from medium-sized municipalities (with population between 100,000 and 400,000) were more likely to report an increase in screen time compared to other municipalities.
- Students from public schools were more likely to report an increase in screen time compared to private and independent schools.

Figure 5: Changes in Screen Time by Municipality Size



Key Findings: Sleep

SLEEP: Figures 1, 2, 6-8 and Table 3 in Appendix

- On average, **sleep duration has increased and sleep quality has declined** during the COVID-19 pandemic among Canadian children and youth aged 9-15.
- More children/youth from single-parent households, and children/youth from multi-child households, reported a decrease in sleep duration during the pandemic.
- Boys' sleep duration was more affected during the pandemic compared to girls'.
- While most socioeconomic or demographic variables were not statistically different, BIPOC children and youth were more likely to report an increase in sleep duration and decrease in sleep quality. Children/youth from large municipalities were more likely to report an increase in sleep duration, decrease in sleep quality, and increase in worrying.
- With regard to sleep quality, only children from multi-child households were affected, where a significantly higher proportion of children/youth from multi-child households reported a decrease in their sleep quality during the pandemic.

Figure 6: Changes in Sleep Duration by Ethno-Racial Background

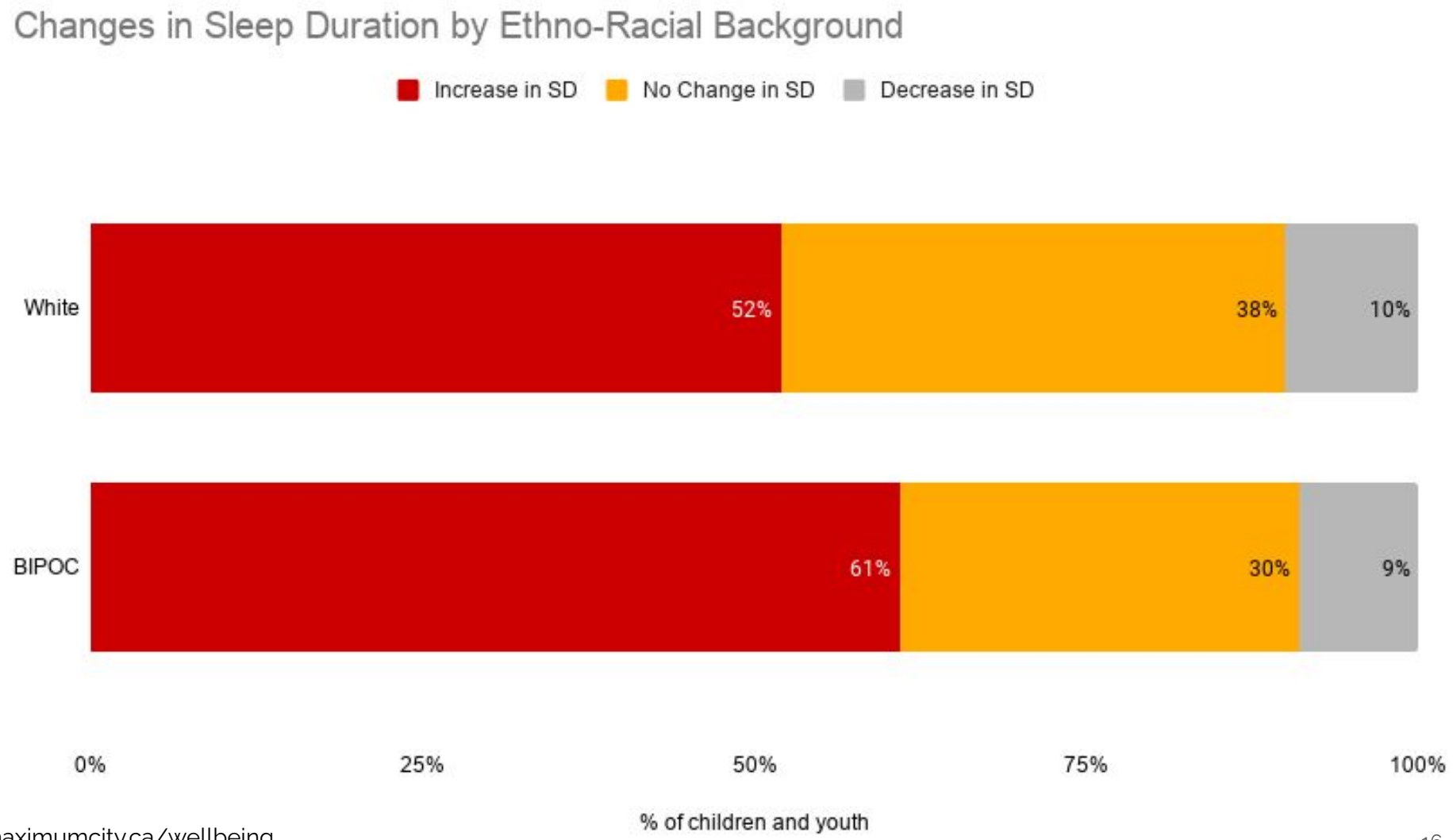


Figure 7: Changes in Sleep Quality by Ethno-Racial Background

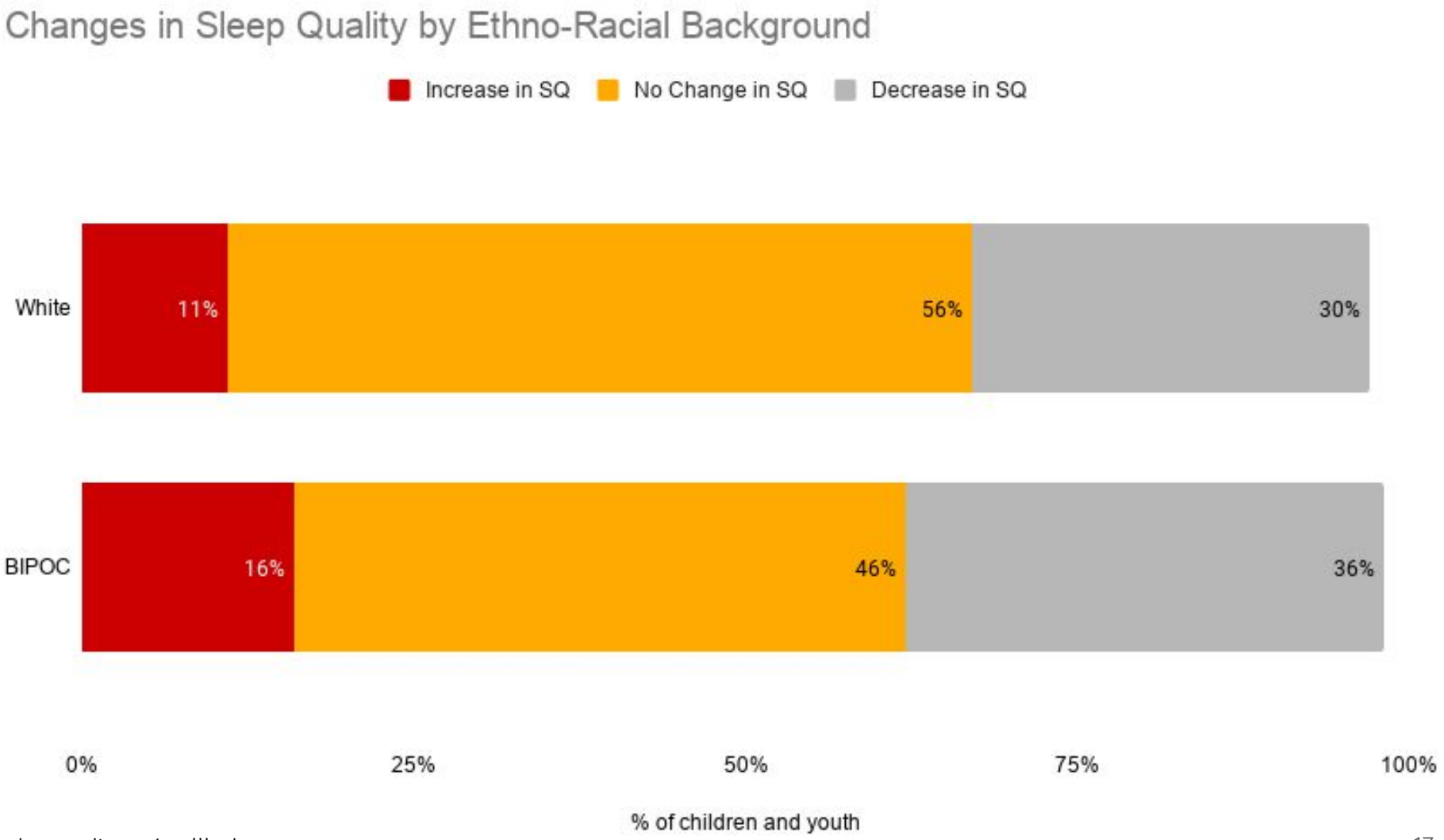
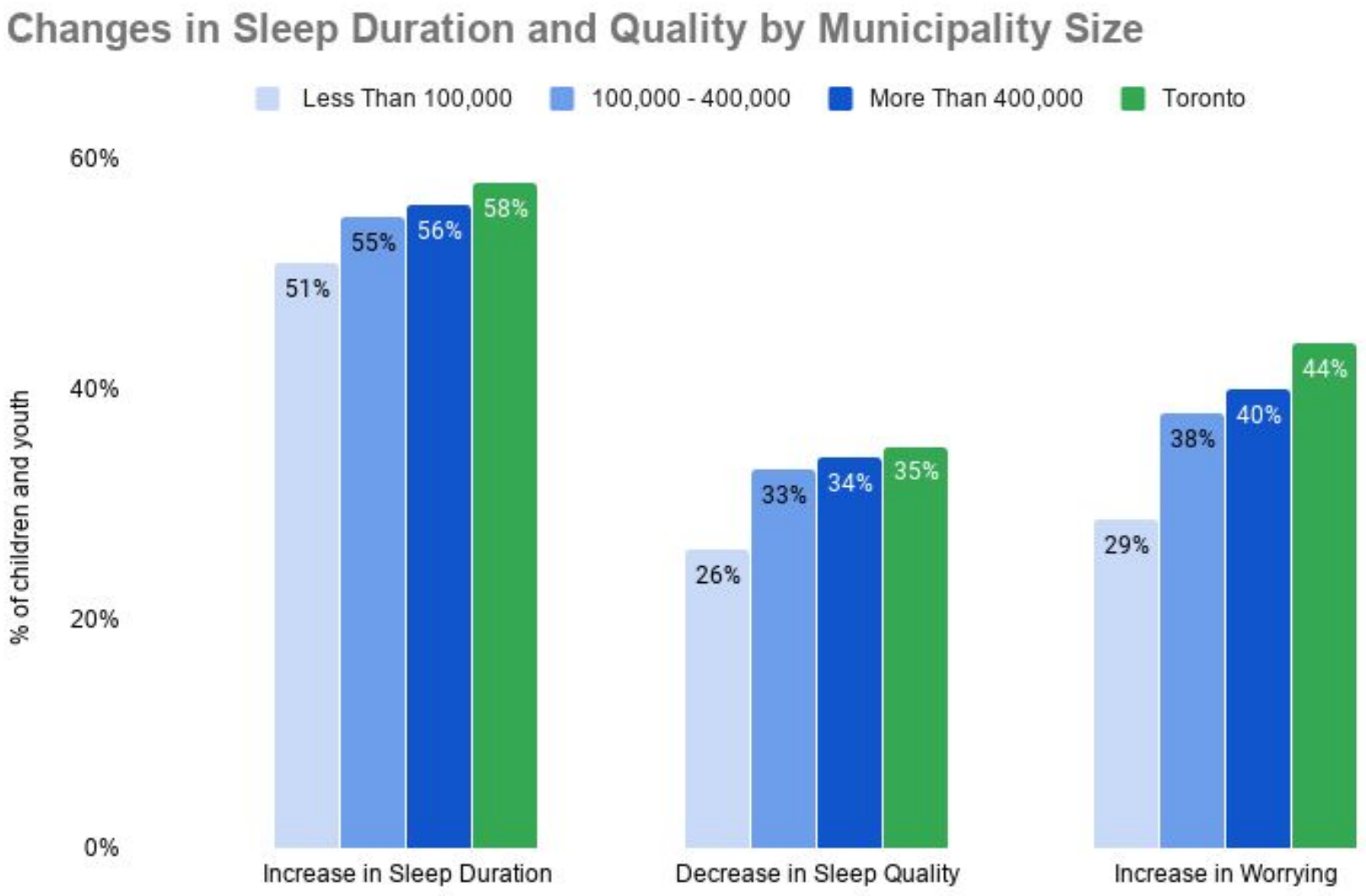


Figure 8: Changes in sleep duration and quality by municipality size



Key Findings: Going Outside

Going Outside: Figures 9-12

- Nearly half of Canadian children and youth aged 9-15 report **going outside less than once a day** during COVID-19.
- As a group, BIPOC children and youth were more likely to report going outside less, feeling less safe outside, and having fewer places to play or exercise outside of home compared to White European peers. Middle Eastern, East and South Asian children/youth were more likely to report going outside less and, along with Black children/youth, report feeling less safe outside.
- There are spatial inequalities in the reported differences in going outside, available outdoor amenities, and feelings of safety. Children and youth from large municipalities (with population more than 400,000) were more likely to report going outside less, feeling less safe, and having fewer places to play or exercise outside of home.
- These inequalities were present but somewhat less pronounced when applying household income as a variable.

Figure 9: Going outside during COVID-19 by Ethno-Racial Background

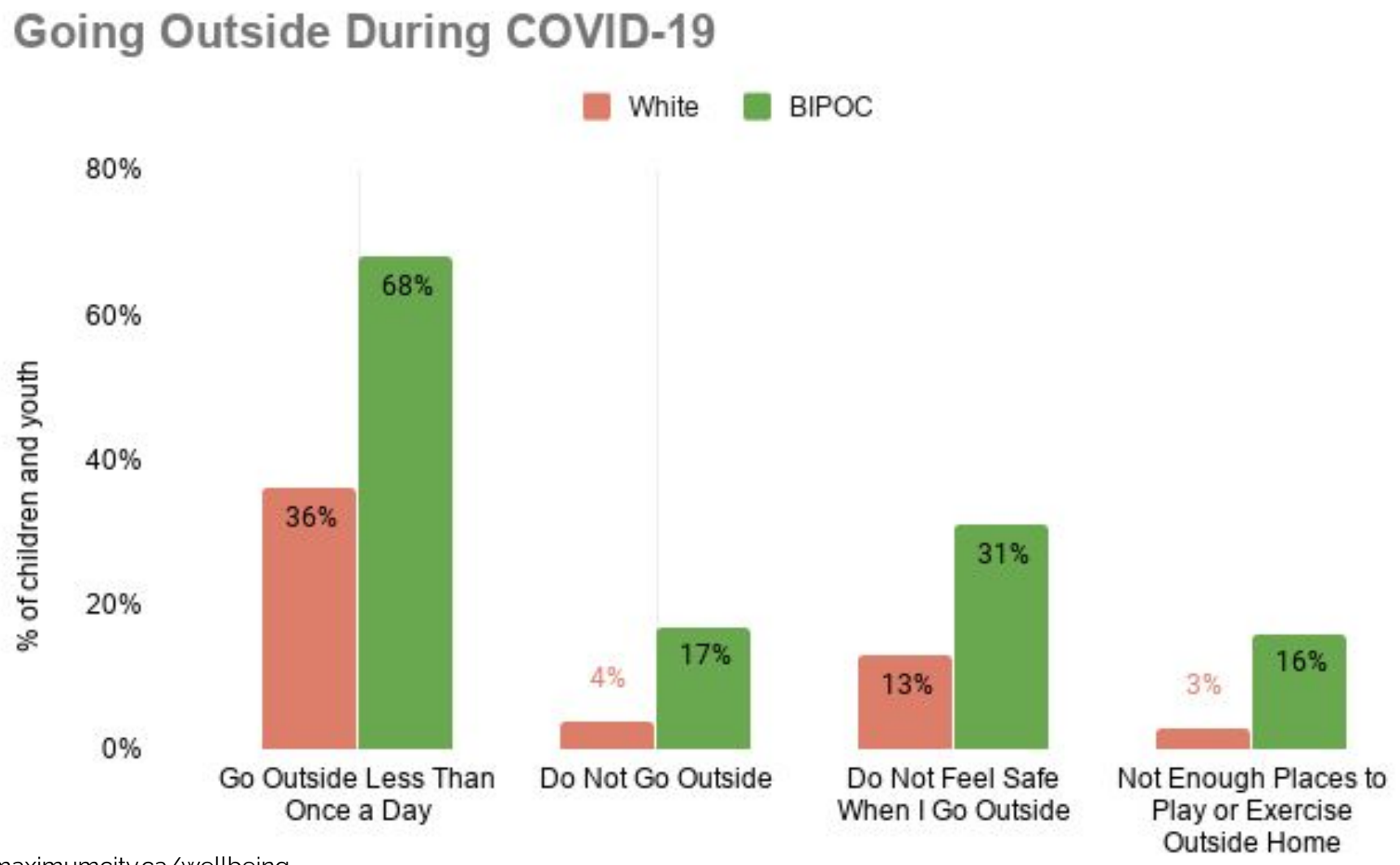


Figure 10: Going outside during COVID-19 disaggregated

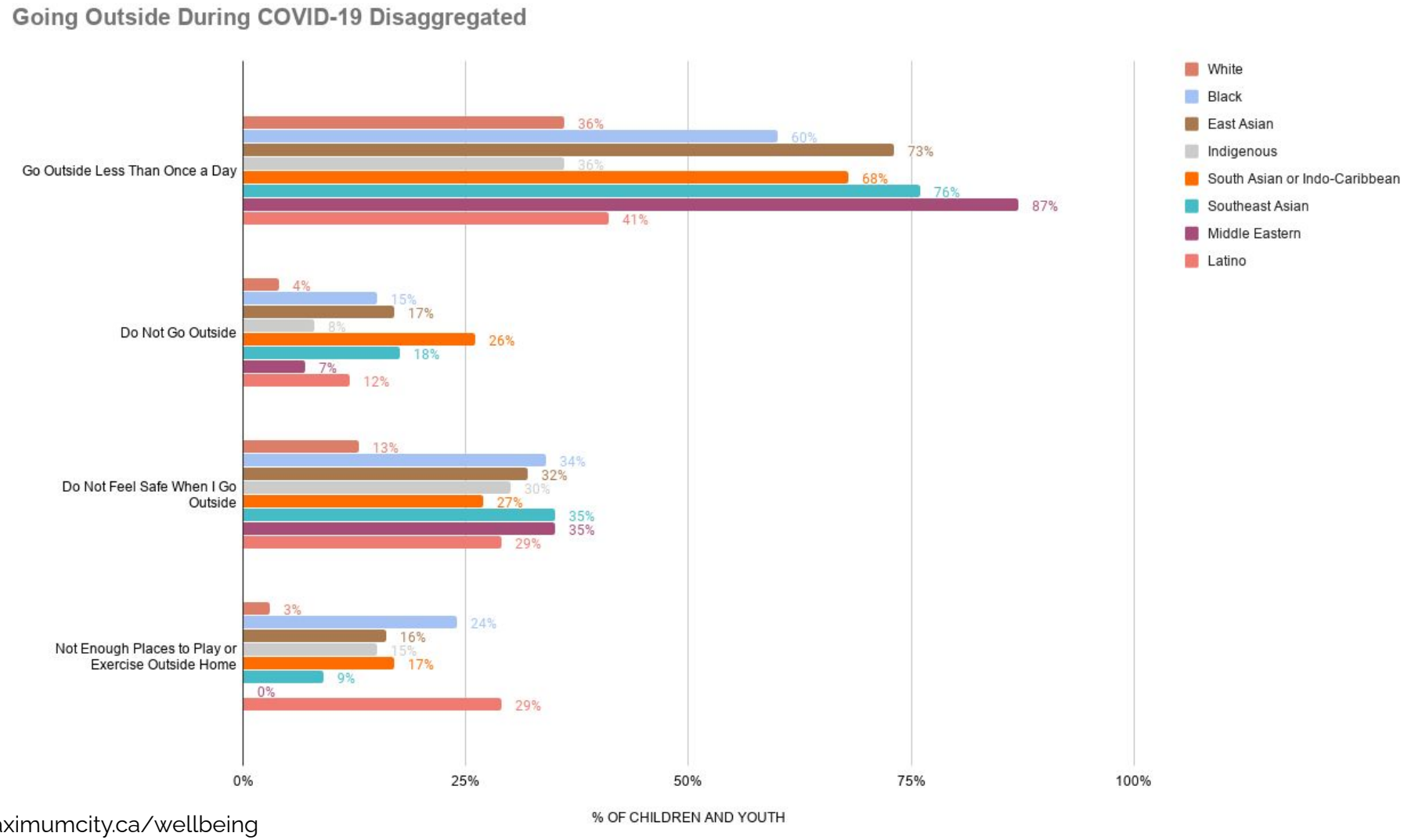


Figure 11: Going outside during COVID-19 by municipality size

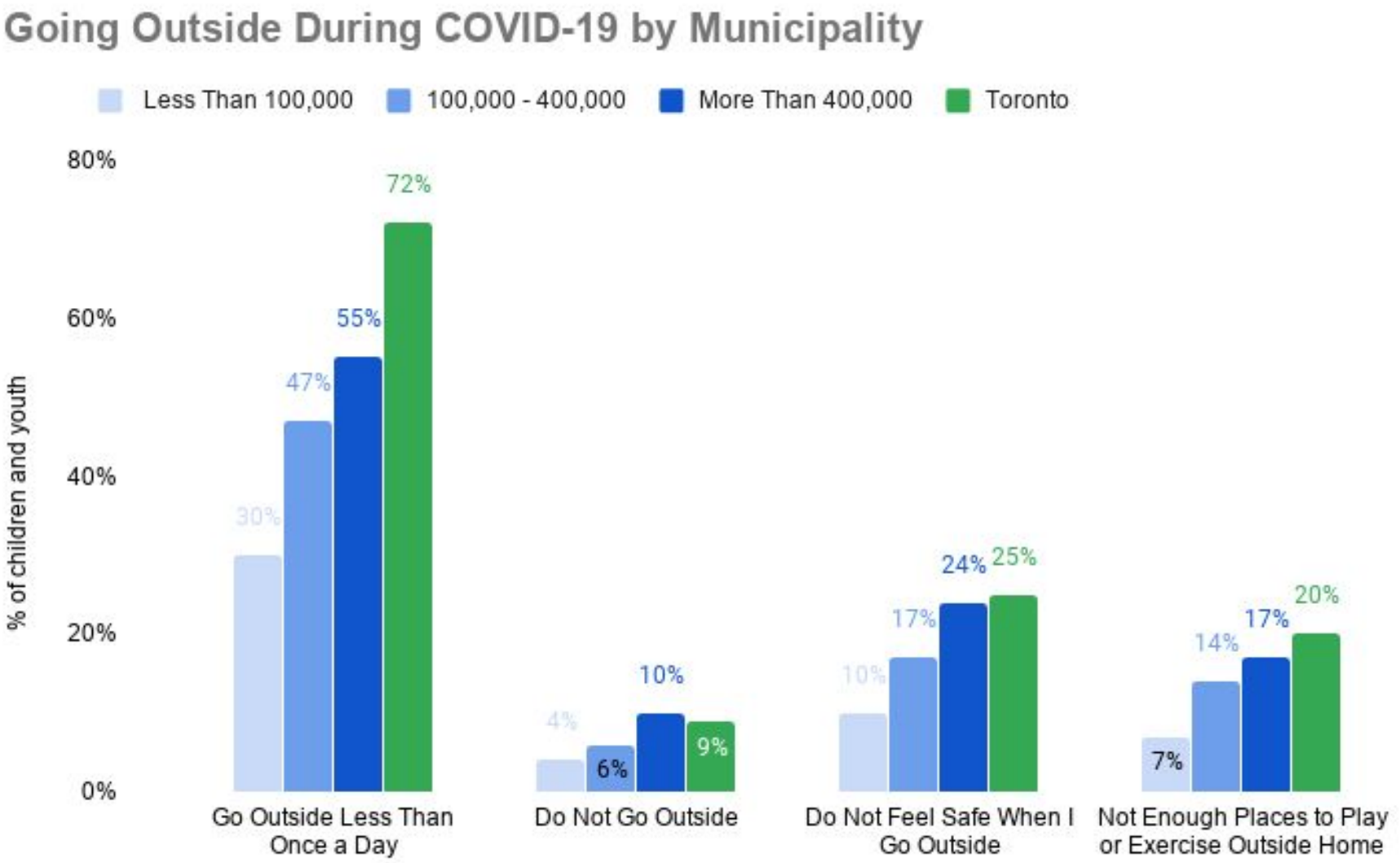
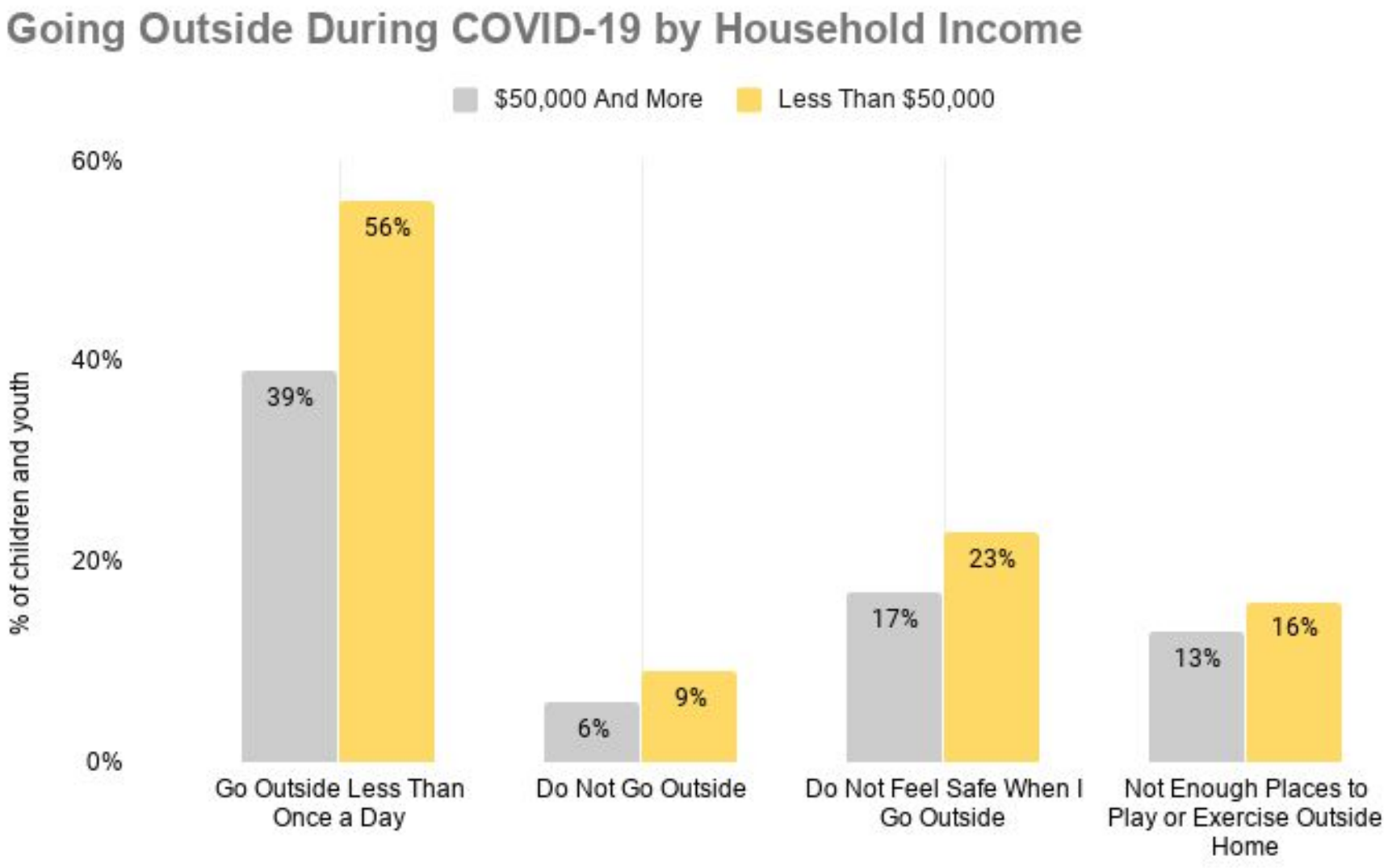


Figure 12: Going outside during COVID-19 by household income



Key Findings: School Experience

School Experience: Figures 13-15

- Nearly half of Canadian children and youth aged 9-15 find school less interesting during the pandemic, and nearly a third find it more stressful. More than a fifth do not have a good place to work at home or are missing what they need to complete schoolwork remotely. Nearly two-fifths find it harder to concentrate on school during COVID-19.
- While most socioeconomic or demographic variables were not statistically different for reported school experiences, children and youth from lower income households were more likely to report school being less interesting, more stressful, and having more difficulty concentrating.
- Nearly half of students with extra needs reported no longer receiving supports during the pandemic (as reported by a parent). Students with extra needs in large municipalities were more likely to still be receiving supports.
- Students from public schools were more likely to report a decrease in schoolwork and increase in screen time compared to private and independent schools.

Figure 13: School during the pandemic by household income

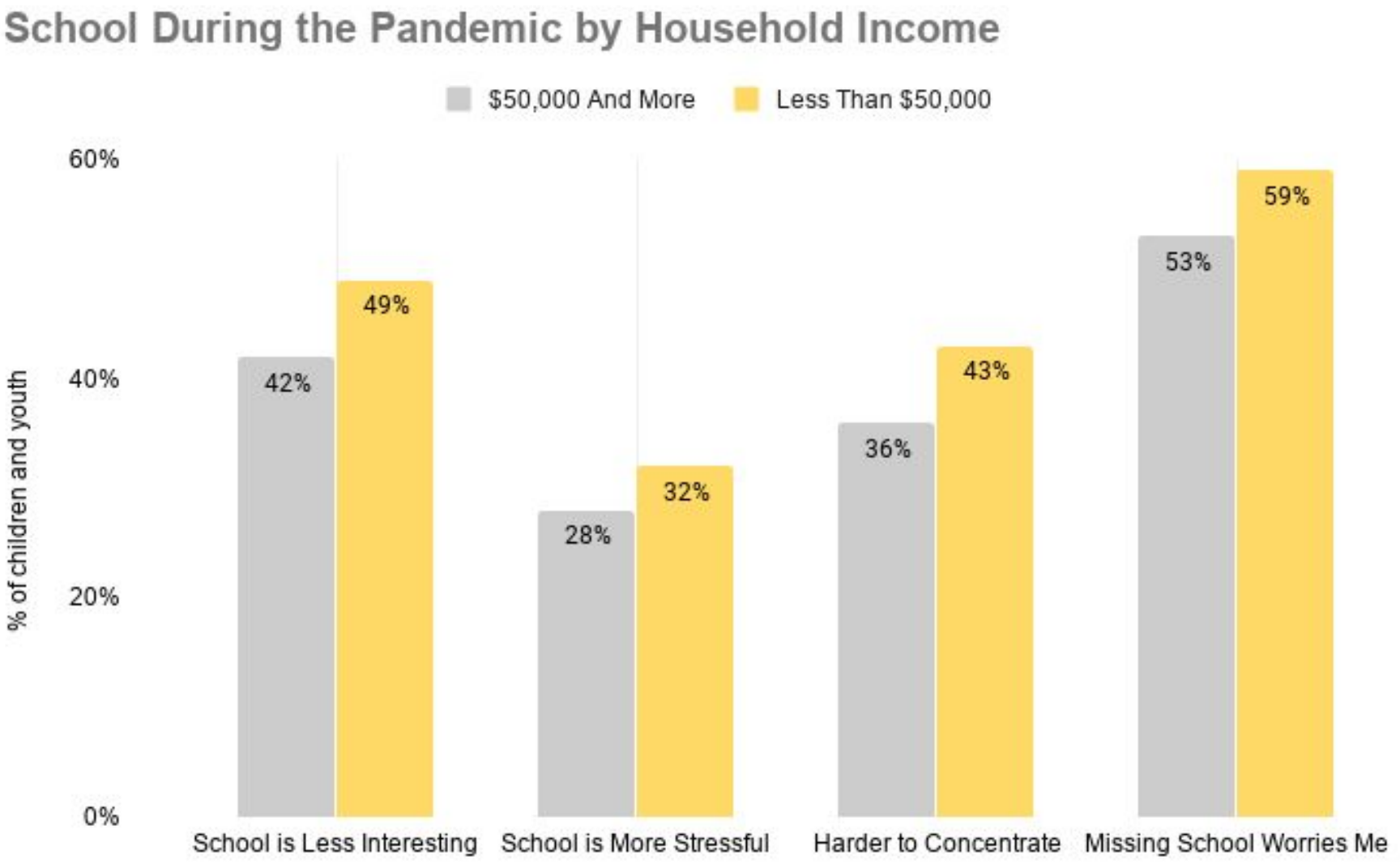


Figure 14: Remote learning needs during the pandemic

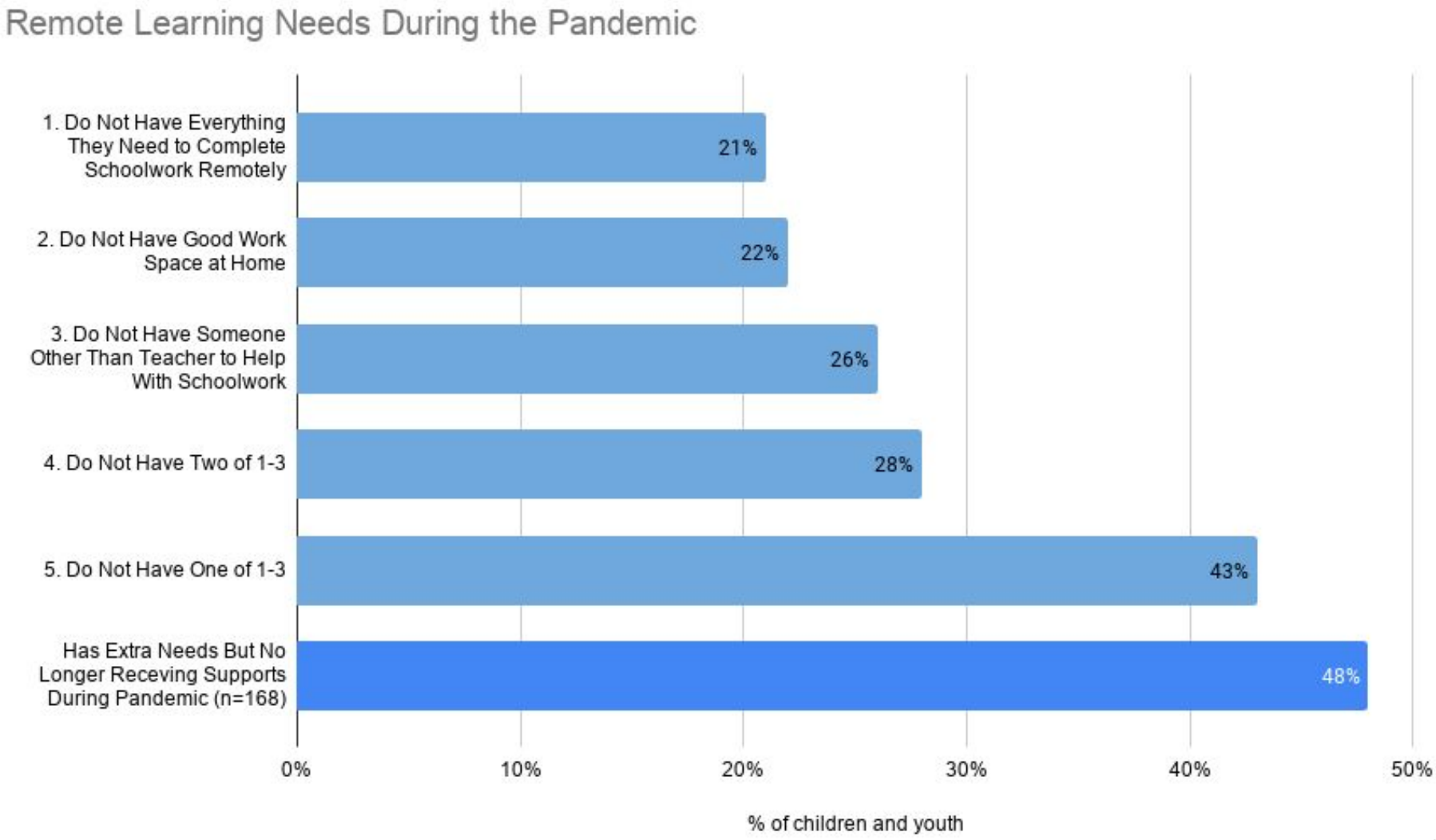
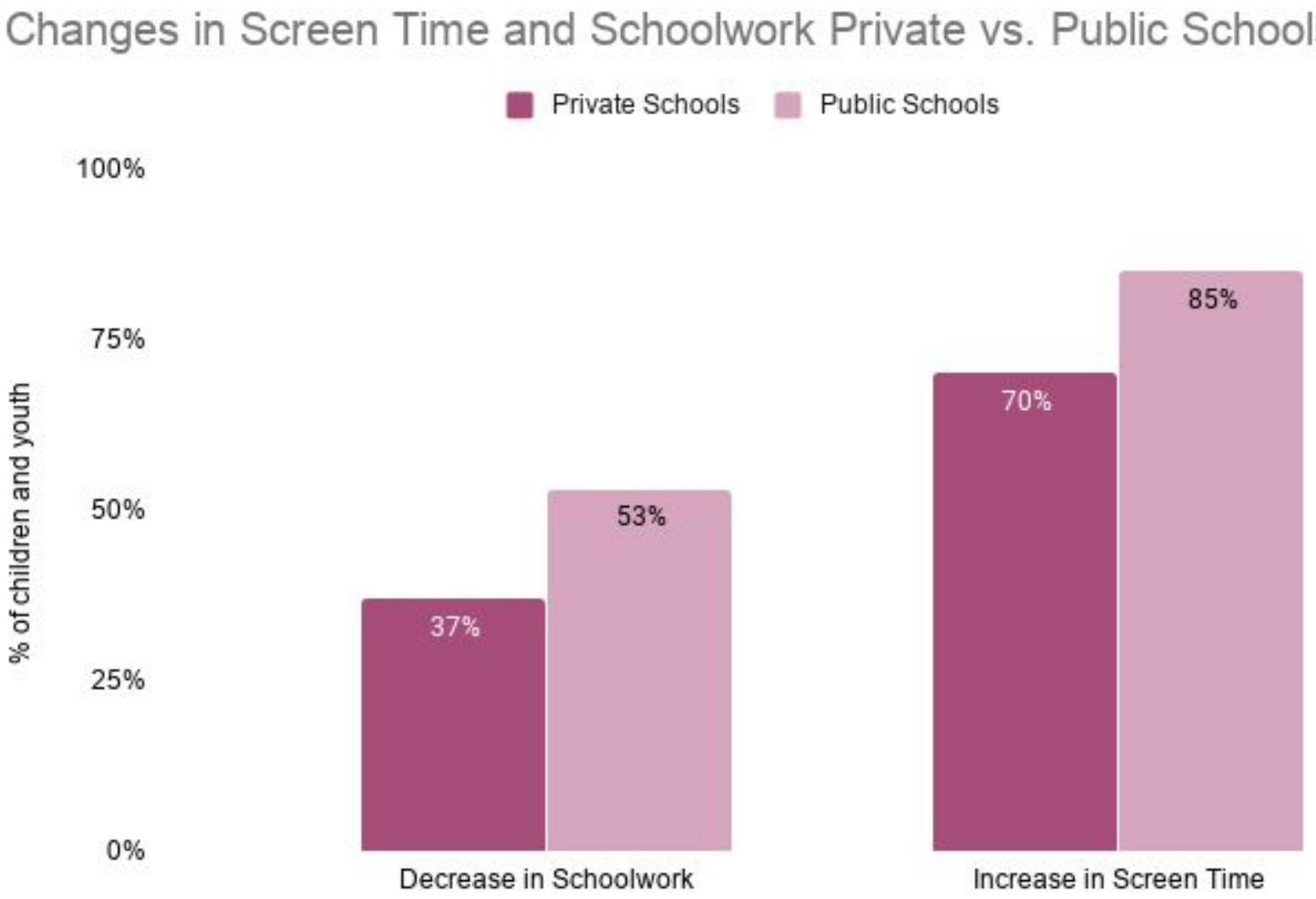


Figure 15: Changes in Schoolwork and Screen Time Private vs. Public Schools

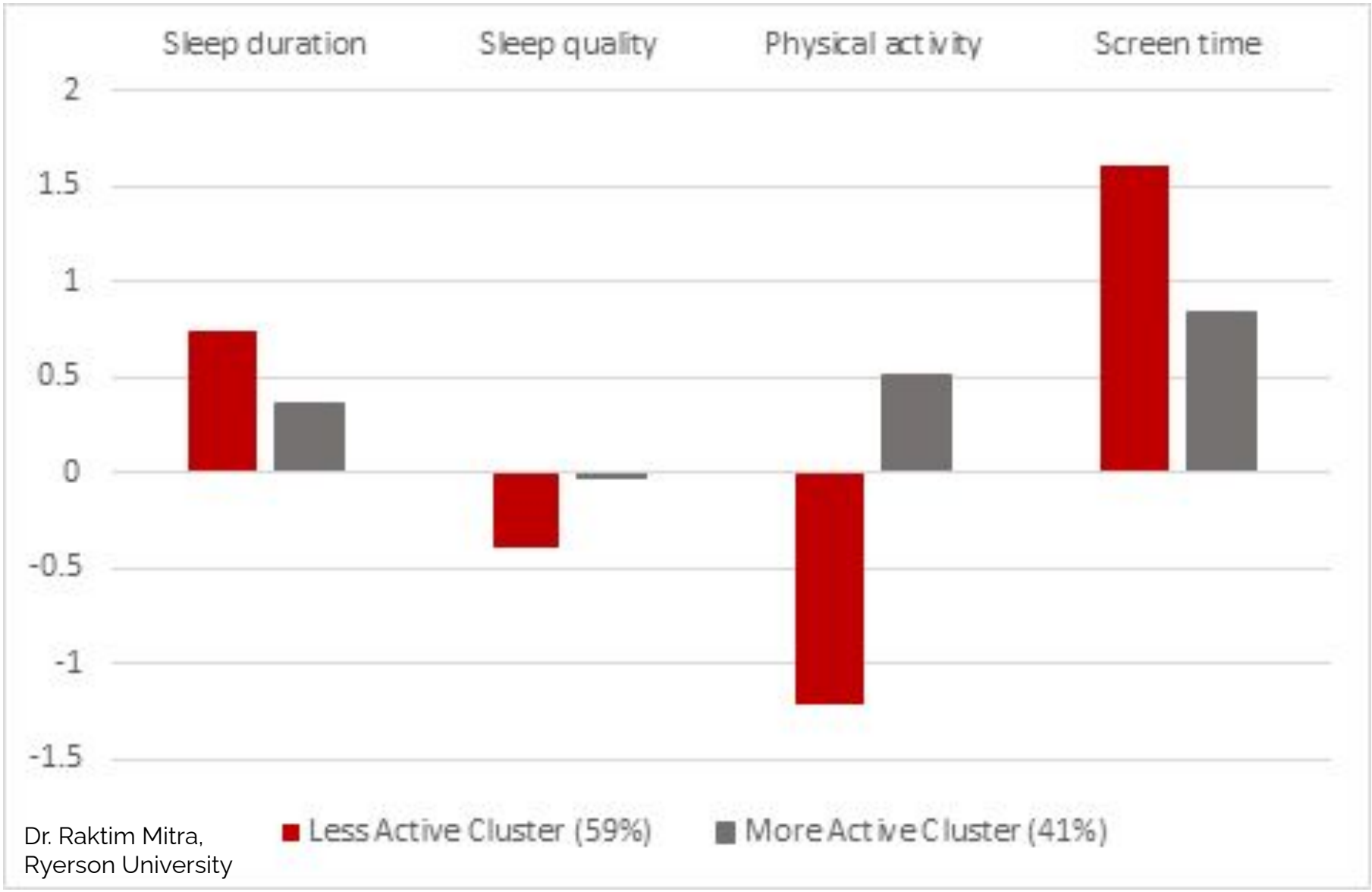


Key Findings: Statistical Patterns in Healthy Behaviours

Statistical Patterns in Healthy Behaviors: Figure 16

- Children and youth surveyed represented two distinct clusters (i.e. statistically defined groups that are homogenous within the groups but distinct between groups).
- One group reported an increase in physical activity, less decrease in sleep quality, and less increase in sleep time and screen time. Of all children and youth, 41% belonged to this “More Active” cluster.
- The other group (59% of children/youth) reported a decrease in healthy movement behaviours during COVID-19, and are identified in Figure 13 as the “Less Active” cluster.
- In Figure 13, normalized average increase/decrease in activities for each group are summarized. In the chart, zero means no change, a positive value means an increase in healthy behaviour and a negative value means a decrease in a healthy behaviour.

Figure 16: Statistical patterns in healthy behaviours



Dr. Raktim Mitra,
Ryerson University

Key Findings: Other

Other: Figures 17-22

- BIPOC children and youth were more likely to report that people in their household were getting along more since the pandemic began and were more likely to be worried about meeting basic needs such as food and shelter, compared to White European children/youth.
- BIPOC parents were more likely to report a decrease in income due to COVID-19, along with a greater impact on the ability to meet daily costs. The same was true of lower income parents.
- BIPOC children and youth were more likely to report that they were not spending enough time in nature or being physically active enough during COVID-19.
- There was little statistical difference in the reported feelings of children and youth across groups and variables.
- BIPOC were more likely to report that they were worried about getting COVID-19, and less likely to report that what is happening with the pandemic has some positive effects on their life. The same was true of lower income households compared to higher income households.

Figure 17: Household harmony and needs during COVID-19 by ethno-racial background

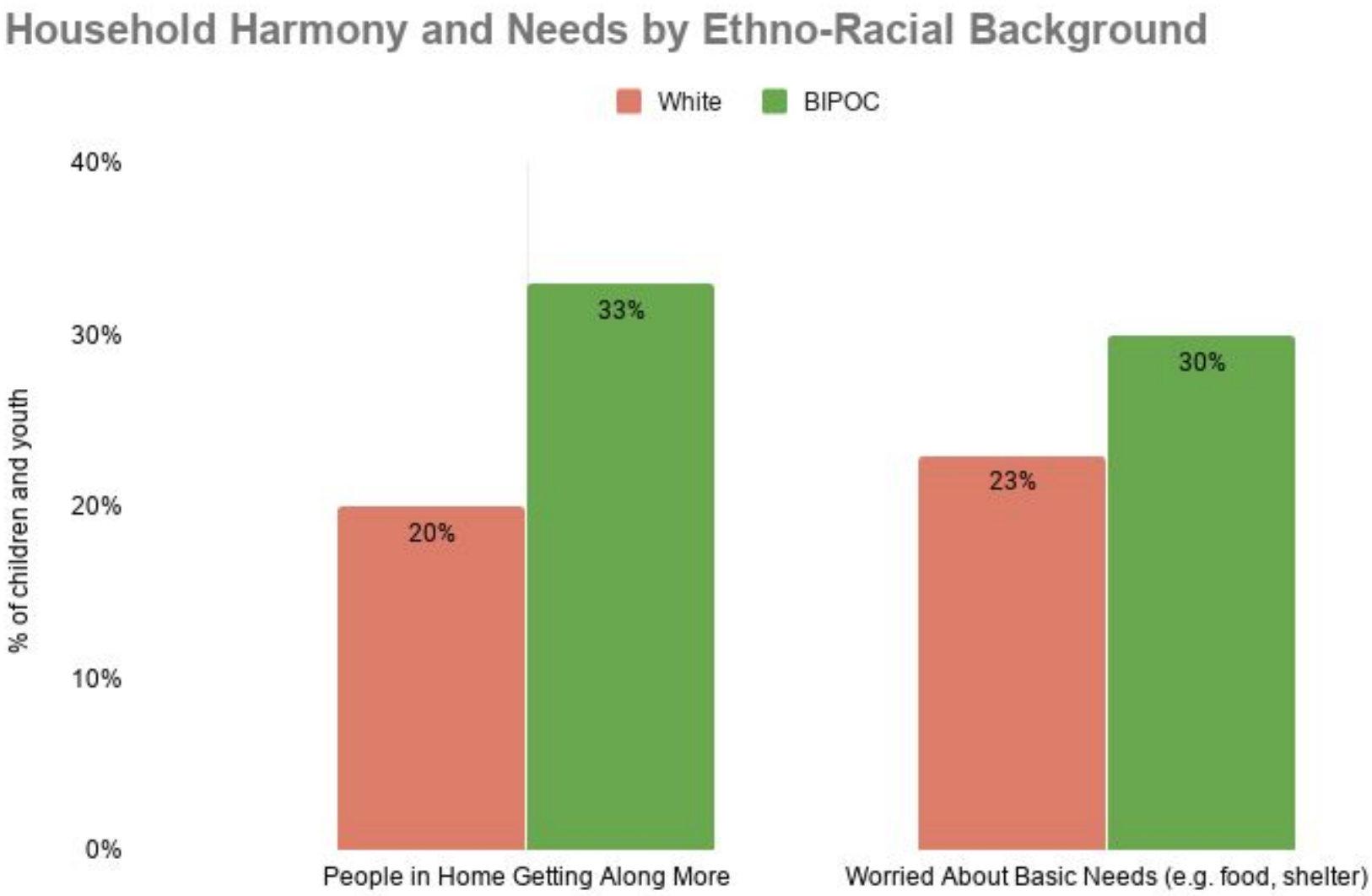


Figure 18: Income loss by ethno-racial background

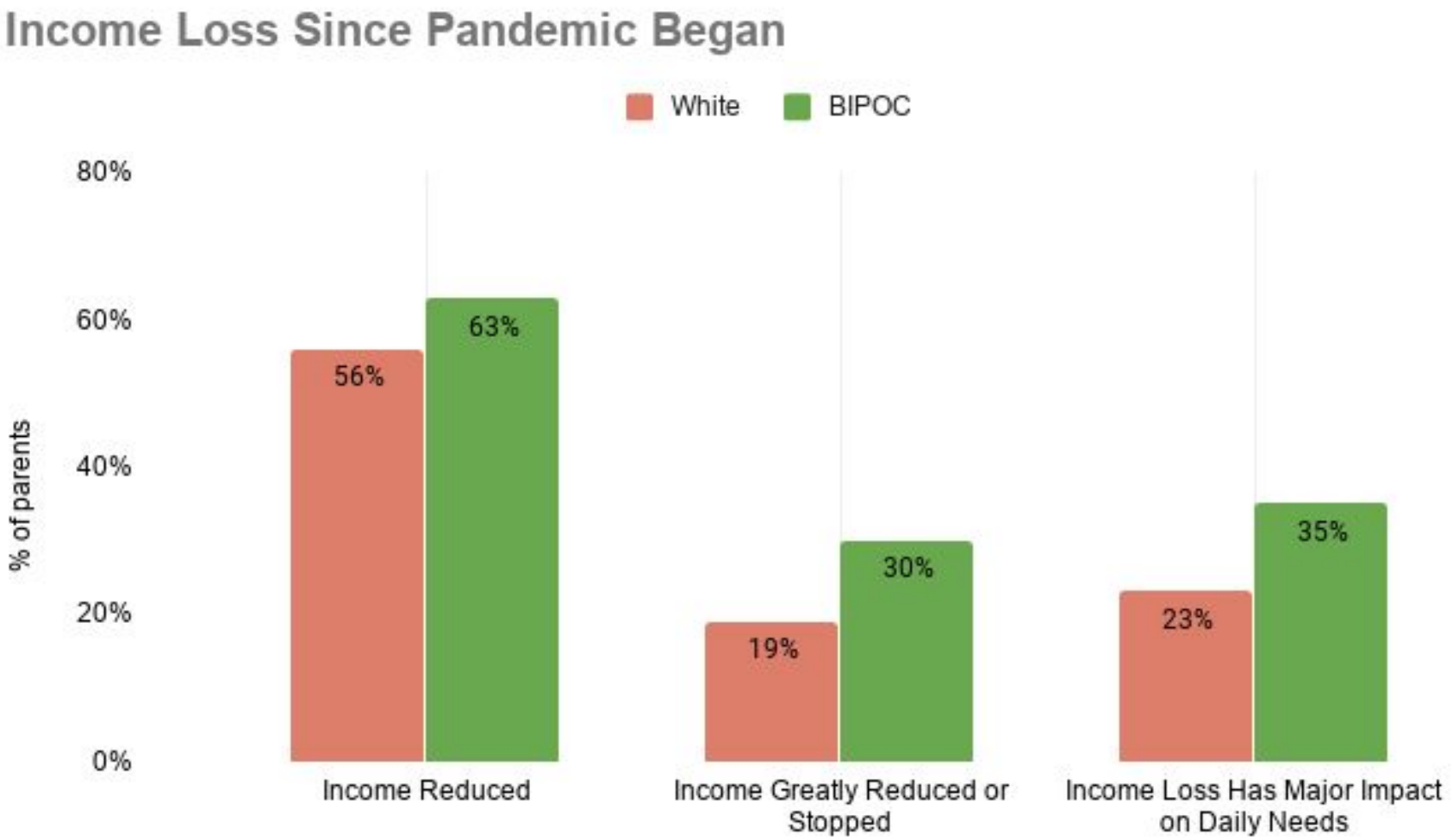


Figure 19: Income loss by household income

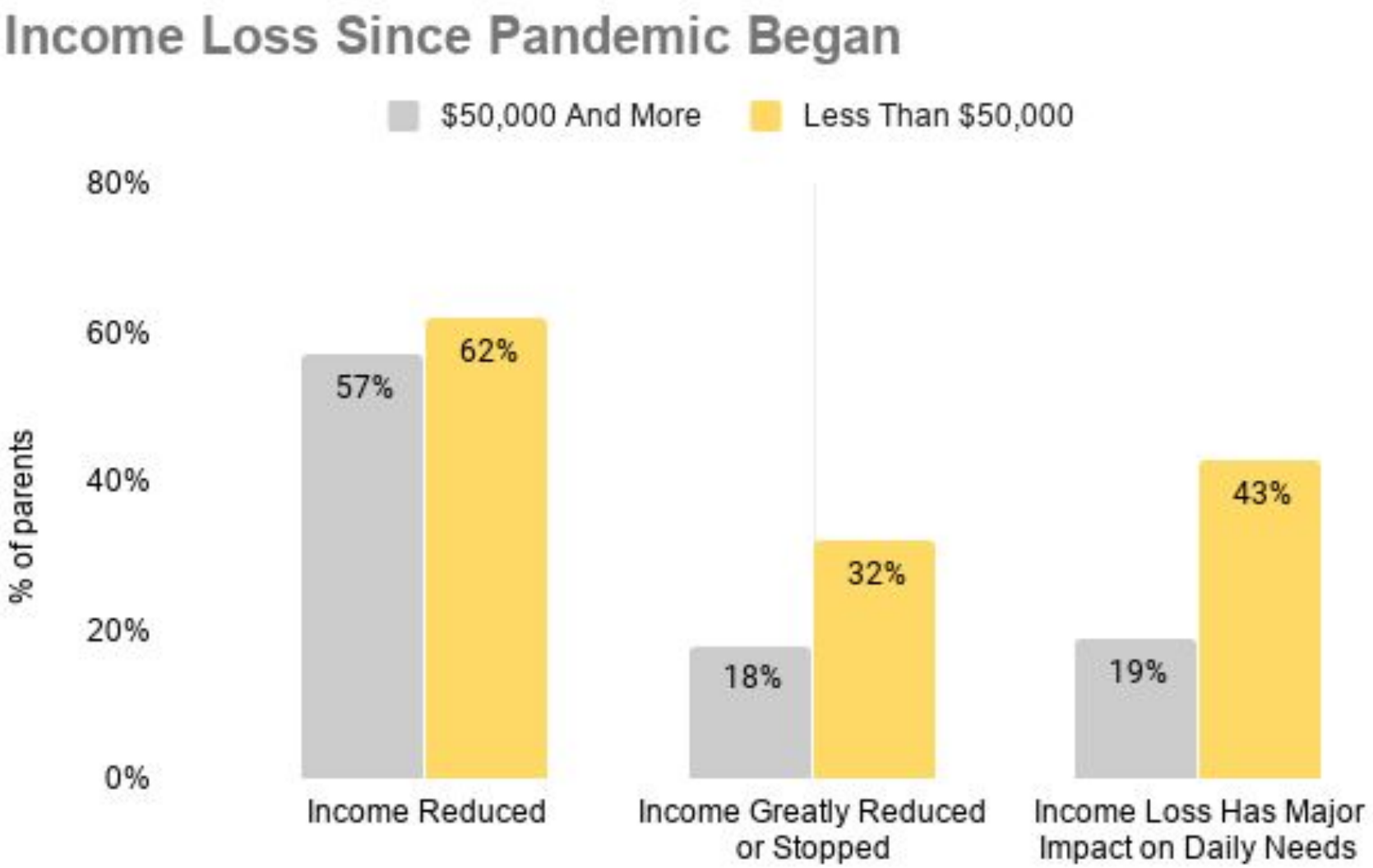


Figure 20: Not enough time spent on activities by ethno-racial background

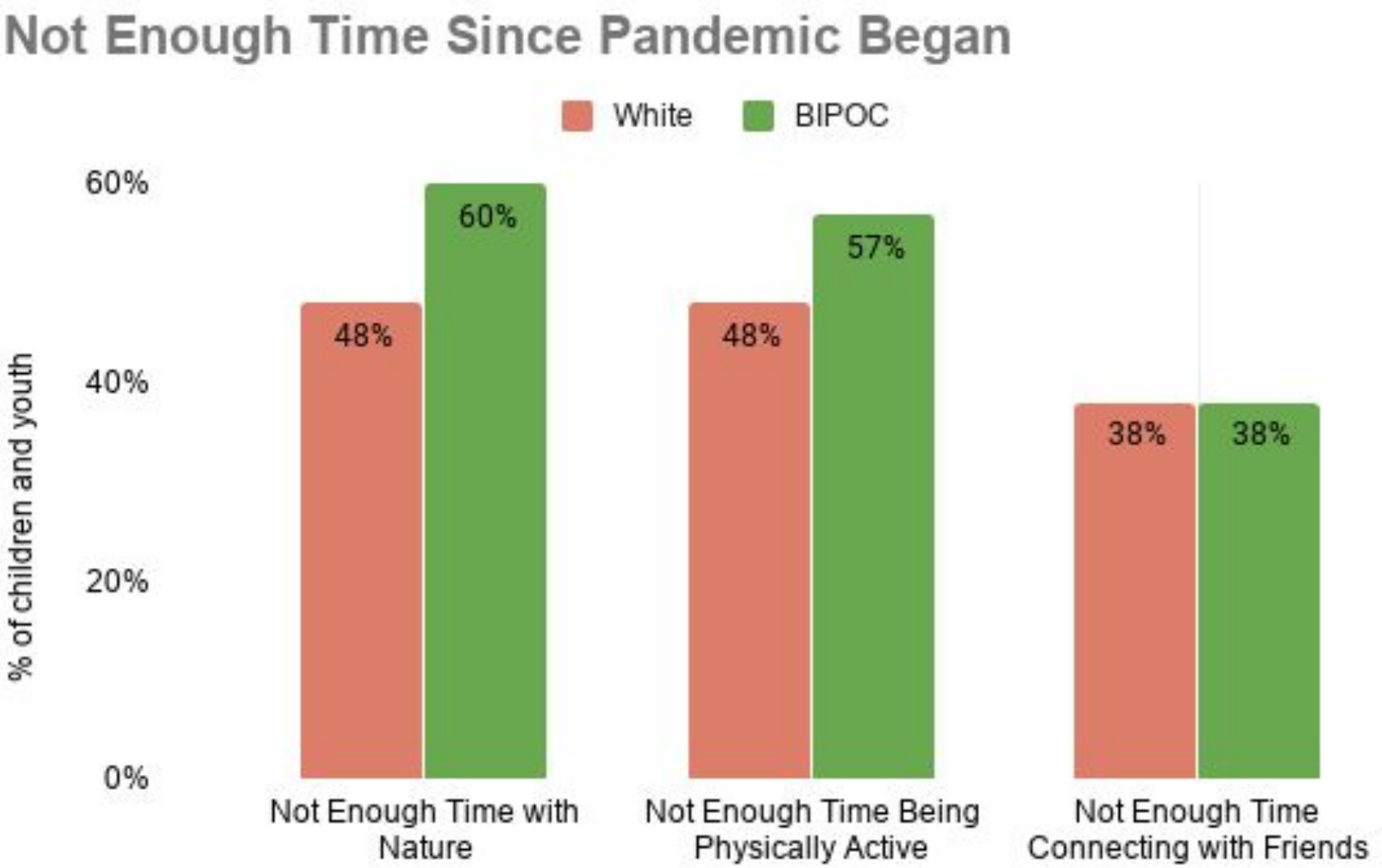


Figure 21: Feelings experienced more strongly since COVID-19 began

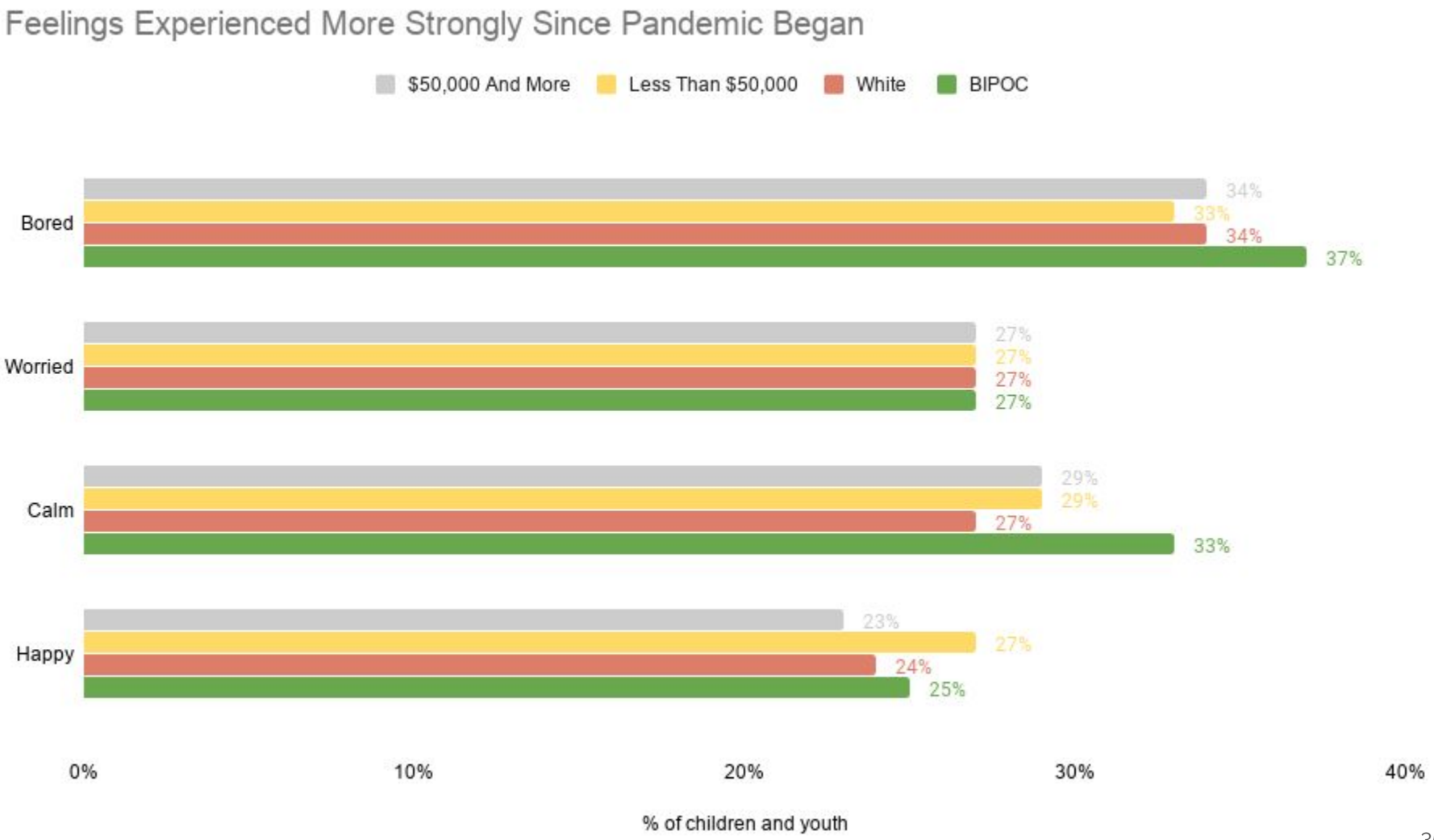
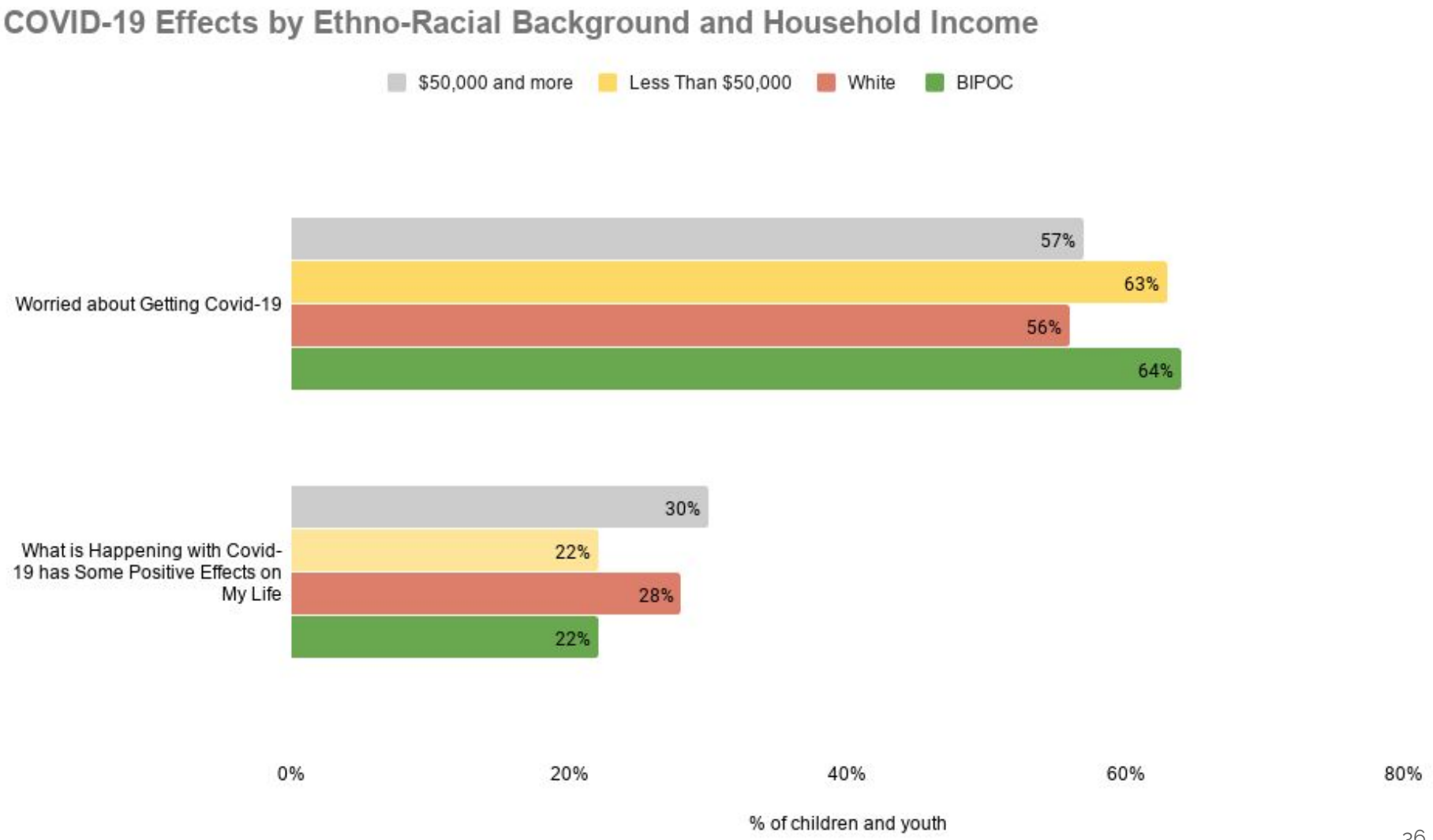


Figure 22: COVID-19 effects by ethno-racial background and household income



Recommendations: July 2020

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

Recommendations

AVOID	INCLUDE	INCREASE	INVEST IN
A return to the status quo	Focus on what can be done differently and better right away	Synchronous learning and collaboration	$ Outdoor classrooms, naturalized playgrounds, and play equipment
Waiting to act until things return to normal	Time and support to talk about experiences	Interaction with teachers and among peers	$ High speed internet and computers
Assuming that impacts are evenly distributed	Time and support for play and other activities	Rich and deep learning tasks	$ Online videos, materials and forums for support
Assuming that impacts are all negative	Time outside and in nature	Outdoor lessons	$ Mental and emotional health and well-being supports
Rushing to fill the learning gap	Time away from screens	Project-based learning	$ Training and support for teachers and program staff
Quantity over quality of school instruction	Time for social connection with friends and community	Play-based learning	$ Peer mentors and councillors
Overprogramming of life beyond school	Time with family	Place-based learning and neighbourhood inquiry projects	$ Health and safety protocols
One-size-fits-all solution for different contexts	Celebration of milestones and achievements	Variety of instructional strategies and tools	$ Parks and public spaces
Inconsistent messaging or unclear expectations	Opportunities to continue passion projects	Student choice and voice	$ Community partnerships for sharing outdoor and indoor spaces
Opening up services or schools again before it is safe to do so	Opportunities to continue social impact projects	Authenticity and agency	$ Walkable communities
	Monitoring and re-assessing	Rigor, accountability and meaningful assessment	$ Streets for play
		Understanding of well-being	$ Financial support for families in need
		Resources for students with extra support needs	
		Programs and activities for remote and in-person participation	

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Recommendations: September 2020

The Canadian 24-Hour Movement Guidelines for Children and Youth recommend the following:[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 pandmeic.

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.

Research Team

The Maximum City research team consisted 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

Appendix: Tables

Table 1: Changes in Physical Activity

Dr. Raktim Mitra, Ryerson University

Variables Of Difference	No Decrease In Physical Activity (%)	Decrease In Physical Activity (%)	Chi-sq Test Significance (P)
Parent's Age			0.100
18 To 34 Years	52.9*	47.1*	
35 To 44 Years	42.3	57.7	
45 Years Or More	43.2	56.8	
Ethnicity			0.064
White European	46.1*	53.9*	
East Or South-East Asian	30.1*	69.9*	
South Asian	46.6	53.4	
Black	38.5	61.5	
Indigenous	45.5	54.5	
Middle Eastern	33.3	66.7	
Other	35.0	65.0	
Child's Age			0.024
9-11 Years	47.9	52.1	
12-17 Years	40.1	59.9	
Municipal Population Size			0.002
Less Than 100,000	52.1*	47.9*	
100,000 To 400,000	34.4*	65.6*	
More Than 400,000	41.5	58.5	

Table 2: Changes in Screen Time

Dr. Raktim Mitra, Ryerson University

Variables Of Difference	No Increase In Screen Time (%)	Increase In Screen Time (%)	Chi-sq Test Significance (P)
Parent's Age			0.000
18 To 34 Years	39.4*	70.6*	
35 To 44 Years	14.7	85.3	
45 Years Or More	13.3	86.7	
Multi-child Households			0.023
Yes	19.6	80.4	
No	13.6	86.3	
Municipal Population Size			0.006
Less Than 100,000	19.8	80.2	
100,000 To 400,000	7.8*	92.2*	
More Than 400,000	16.6	83.4	

Table 3: Changes in Sleep Duration

Dr. Raktim Mitra, Ryerson University

Variables Of Difference	No Decrease In Sleep Duration (%)	Decrease In Sleep Duration (%)	Chi-sq Test Significance (P)
Family Structure			0.081
Single-parent Household	87.3	12.7	
Two-parent Household	91.4	8.6	
Multi-child Households			0.052
Yes	87.9	12.1	
No	91.9	8.1	
Gender Of Child			0.097
Boy	88.6	11.4	
Girl Or Other	92.0	8.0	