Catalogue no. 75-006-X
ISSN 2291-0840
ISBN 978-0-660-79901-8

Insights on Canadian Society

Does screen time make a difference? A longitudinal study of youth screen time and well-being

by Cait Brunton, Eton Boco, Travis Facette and Lauren Pinault

Release date: March 19, 2026

Statistics Canada Statistique Canada

Canada

How to obtain more information

For information about this product or the wide range of services and data available from Statistics Canada, visit our website, www.statcan.gc.ca.

You can also contact us by

Email at infostats@statcan.gc.ca

Telephone, from Monday to Friday, 8:30 a.m. to 4:30 p.m., at the following numbers:

- Statistical Information Service 1-800-263-1136
- National telecommunications device for the hearing impaired 1-800-363-7629
- Fax line 1-514-283-9350

Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner. To this end, the Agency has developed standards of service which its employees observe in serving its clients. To obtain a copy of these service standards, please contact Statistics Canada toll-free at 1-800-263-1136. The service standards are also published on www.statcan.gc.ca under "Contact us" > "Standards of service to the public."

Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued co-operation and goodwill.

Does screen time make a difference? A longitudinal study of youth screen time and well-being

by Cait Brunton, Eton Boco, Travis Facette and Lauren Pinault

Overview of the study

Canadian youth are using electronic devices more and more, and concerns are growing about how that usage affects their well-being, including their mental health; their academic performance; and other subjective indicators. Yet many important parts of their lives are mediated through a screen, from consuming entertainment and socializing to learning and staying informed. To better understand the amount of time youth are spending in front of screens and possible associated outcomes, this study uses longitudinal data from the Canadian Health Survey on Children and Youth from when youth were aged 12 to 17 in 2019 and 16 to 21 in 2023. Specifically, it looks at relationships between screen time and healthy behaviours and whether screen time is associated with certain well-being outcomes. The study also sheds light on whether physical activity can offset the association between screen time and well-being outcomes.

- Over 1 in 3 Canadian youth (37%) exceeded screen time recommendations in both 2019 and 2023, compared with over 1 in 10 youth (14%) who followed[1] screen time guidelines in both years.
- Men and boys+ (men and boys and some non-binary people), people with a disability, and those living in urban areas were more likely to exceed screen time recommendations than their respective counterparts (women and girls+, people without a disability, and those living in rural areas).
- Youth who followed screen time guidelines were more likely to meet physical activity recommendations than youth who exceeded screen time recommendations.
- Youth who followed screen time guidelines were significantly more likely to report better well-being across a host of outcomes (e.g., mental health, life satisfaction and stress levels) than those who exceeded guidelines.
- Men and boys+ reported better grades when they followed screen time guidelines, while women and girls+ were less likely to report suicidal ideation when they followed guidelines.
- Following physical activity guidelines partially offset some of the associations observed between non-adherence to screen time guidelines and well-being.

Introduction

As technology has become increasingly intertwined with every part of people's lives, there have been growing concerns about the impacts of excessive screen time, especially for children and youth.[2] Several countries and many Canadian provinces have banned or limited phones in classrooms because of concerns over their effects on child and youth well-being.[3] Public pressure has even pushed certain platforms to enforce age restrictions and put additional protections in place, such as teen accounts on certain social media platforms that limit who can contact users and their exposure to certain content.[4]

Research from the Canadian Paediatric Society (CPS) allowed for the establishment of screen time guidelines based on age: no screen time for those younger than 2 and no more than one hour per day for those younger than 5.[5] Beyond the age of 5, the CPS acknowledges that it becomes more challenging to recommend time limits, since technology is heavily integrated into society and plays a role in education, socialization and entertainment, particularly for older youth. Indeed, some researchers argue that screen time limits are difficult to advise on and that not all screen time should be considered equal.[6] From the perspective of limiting sedentary behaviours, for example, the Canadian Society for Exercise Physiology (CSEP) recommends no more than two hours of recreational screen time per day for those aged 5 to 17 and no more than three hours for those aged 18 and older.[7,8]

In 2019, the Canadian Health Survey on Children and Youth (CHSCY) implemented a nationally representative assessment of screen time and wellbeing among children and youth. At that time, over half (56%) of youth aged 12 to 17 met the CPS screen time recommendation of fewer than two hours per day. In 2019, youth median screen time was under two hours per day, spread across watching TV, playing video games and using an electronic device (e.g., a computer, tablet or smart phone). By 2023, the CHSCY showed median screen time increased to five hours per day among 12- to 17-year-olds. The increase in screen use from 2019 to 2023 could have resulted in part from the precautionary measures implemented during the COVID19 pandemic (e.g., physical distancing, virtual classes and lockdowns).

Screen time is growing among Canadian youth, yet outcomes associated with this increase are not fully understood. Research has linked excessive screen time to declines in prosocial functioning, socioemotional difficulties, disrupted sleep, anxiety and depression. However, there is debate as to what constitutes excessive screen time, and, indeed, the number of hours used as the threshold varied across studies.

This study uses the CHSCY, a nationally representative longitudinal dataset, to characterize youth who follow or exceed screen time guidelines, as recommended by the CPS. In 2023, the CHSCY implemented a longitudinal component for survey respondents from 2019, providing an opportunity to follow up with the same group of youth and track their screen time in both 2019 and 2023. Screen time was defined as using any electronic device, such as a mobile device, computer, tablet, video game console or television, while sitting or lying down. It should be noted that screen time was a self-reported measure and therefore subject to recall issues. For the purposes of this study, youth were categorized as either remaining within the CPS recommendations of no more than two hours daily in both 2019 and 2023 or exceeding recommendations by any amount in both years.

Youth who adhered to guidelines in only one of the two years (representing about 49% of youth) were also analyzed. Youth were more likely to have stopped following screen time guidelines between the two years than they were to begin following them. Among youth who followed screen time guidelines in only one of the two years, associations with well-being outcomes were mixed, with results often falling between those of youth who followed guidelines and those of youth who did not. For simplicity, their findings are not reported in this paper.

Based on screen time guideline adherence, this study examines other healthy behaviours and well-being outcomes of youth associated with their screen time. The study also looks at whether physical activity can serve to counteract any potential associations between non-adherence to screen time guidelines and well-being.

Exceeding screen time guidelines was more prevalent among men and boys+, people with a disability, and those living in more urban areas

In general, relatively few youth adhered to screen time guidelines across both years of the study—when they were assessed at ages 12 to

17 in 2019 and again at ages 16 to 21 in 2023. Specifically, 14% of Canadian youth met screen time recommendations in both years—that is, less than two hours daily for youth and less than three hours daily for adults.[9] By comparison, during that same period, youth were over 2.5 times more likely (37%) to exceed guidelines in both years, while nearly half (49%) followed screen time guidelines in one of the two years. Regardless of sociodemographic group, youth were more likely to exceed rather than follow screen time guidelines in both years of the study (Table 1).

Table 1
Percentage and predicted probability of following screen time guidelines, by socioeconomic and geographic characteristics, youth aged 12 to 17, 2019

		Followed guidelines in 2019 and 2023				Did not follow guidelines in 2019 or 2023			
			95% confidence interval				95% confidence interval		
Characteristics	Total	Proportion	Lower	Upper	Predicted probability	Proportion	Lower	Upper	Predicted probability
					percent				
Total	**100.0**	**14.0**	**12.6**	**15.4**	**…**	**37.1**	**35.1**	**39.0**	**…**
Gender									
Men and boys+	**51.3**	14.1	12.1	16.0	28.1	39.7	36.9	42.4	25.0**
Women and girls+ (ref.)	**48.7**	14.0	12.1	15.8	29.5	34.4	31.7	37.0	21.0
Racialized identity									
Racialized	**34.3**	11.9	9.8	14.0	28.0	33.6	30.4	36.9	20.8**
Non-racialized, non-Indigenous (ref.)	**65.7**	14.9	13.1	16.8	28.9	38.7	36.3	41.1	24.1
Immigrant status									
Immigrant or non-permanent resident	**17.7**	15.1	11.6	18.6	22.8**	31.1	26.5	35.7	25.5
Non-immigrant (ref.)	**82.3**	13.8	12.3	15.4	30.0	38.4	36.3	40.5	22.6
Disability status									
Disability	**12.4**	13.5†	9.5	17.4	22.1**	43.6	38.1	49.0	31.0**
No disability (ref.)	**87.6**	14.2	12.6	15.7	29.7	36.3	34.2	38.4	21.9
Indigenous identity									
Indigenous	**3.3**	14.1†	7.5	20.8	31.9	43.0	33.4	52.6	24.3
Non-Indigenous (ref.)	**96.7**	13.9	12.5	15.4	28.9	37.0	35.0	38.9	24.1
Region									
Atlantic	**6.1**	11.6	8.5	14.8	22.4**	40.2	35.4	44.9	26.7
Quebec	**21.0**	13.8	9.9	17.7	30.1*	37.9	32.5	43.2	20.8**
Ontario (ref.)	**41.0**	13.8	12.0	15.6	27.2	38.2	35.6	40.8	25.4
Prairies	**19.5**	16.5	13.2	19.8	31.6**	31.9	27.9	35.9	18.7**
British Columbia	**12.5**	12.4†	8.8	16.0	30.8*	38.8	33.2	44.4	24.2
Area type									
Rural	**16.8**	21.5	17.8	25.3	32.9**	29.8	25.9	33.6	19.1**
Population centre (ref.)	**83.2**	12.5	11.1	13.9	27.9	38.6	36.4	40.7	23.8
Household-adjusted income quintile									
$21,213 or less	**17.3**	16.8	13.2	20.4	32.0	29.8	25.3	34.2	18.4**
$21,214 to $35,777	**19.0**	15.4	11.9	18.8	29.1	34.1	29.9	38.3	21.4
$35,778 to $50,229	**20.4**	12.4	9.7	15.2	27.4	37.4	33.2	41.5	24.1
$50,230 to $75,000	**22.4**	11.2	8.8	13.6	27.6	44.9	40.9	48.9	26.6*
More than $75,000 (ref.)	**20.9**	15.1	12.0	18.2	28.5	37.1	33.0	41.1	23.2

… not applicable
* significantly different from reference category (ref.) ($p < 0.05$)
** significantly different from reference category (ref.) ($p < 0.01$)
† high sampling variability
Notes: Predicted probabilities are adjusted for gender, racialized group, immigrant status, disability status, Indigenous identity, region, area type and household-adjusted income quintile.
Given that the non-binary population is small, data aggregation to a two-category gender variable is sometimes necessary to protect the confidentiality of responses provided.
Men and boys+ include men, boys and some non-binary people.
Women and girls+ include women, girls and some non-binary people.
Indigenous people include First Nations people, Métis and Inuk (Inuit).
Source: Statistics Canada, Canadian Health Survey on Children and Youth, 2019 and 2023.

Along gender lines, men and boys+ (40%) were more likely to exceed screen time guidelines in both years than women and girls+ (34%).[10] This finding aligns with previous research, which showed that boys aged 8 to 13 spent up to twice as much time using digital technology on weekends than girls of the same age.[11] Yet women and girls+ were not more likely to follow the recommendations in both years than men and boys+ (14% each).

In addition, youth with a disability (44%) were more likely to exceed screen time recommendations than those without a disability (36%). This may be attributable, in part, to situations where youth with disabilities require the assistance of screens to mediate interactions or navigate their environment. Besides gender and disability, there were other differences between sociodemographic groups: people who are both non-racialized and non-Indigenous, immigrants, and those in the 4th income quintile ($50,230 to $75,000) were more likely to exceed screen time recommendations relative to racialized people, non-immigrants and those in the highest income quintile (over $75,000).[12] These findings remained after controlling for all sociodemographic characteristics.[13]

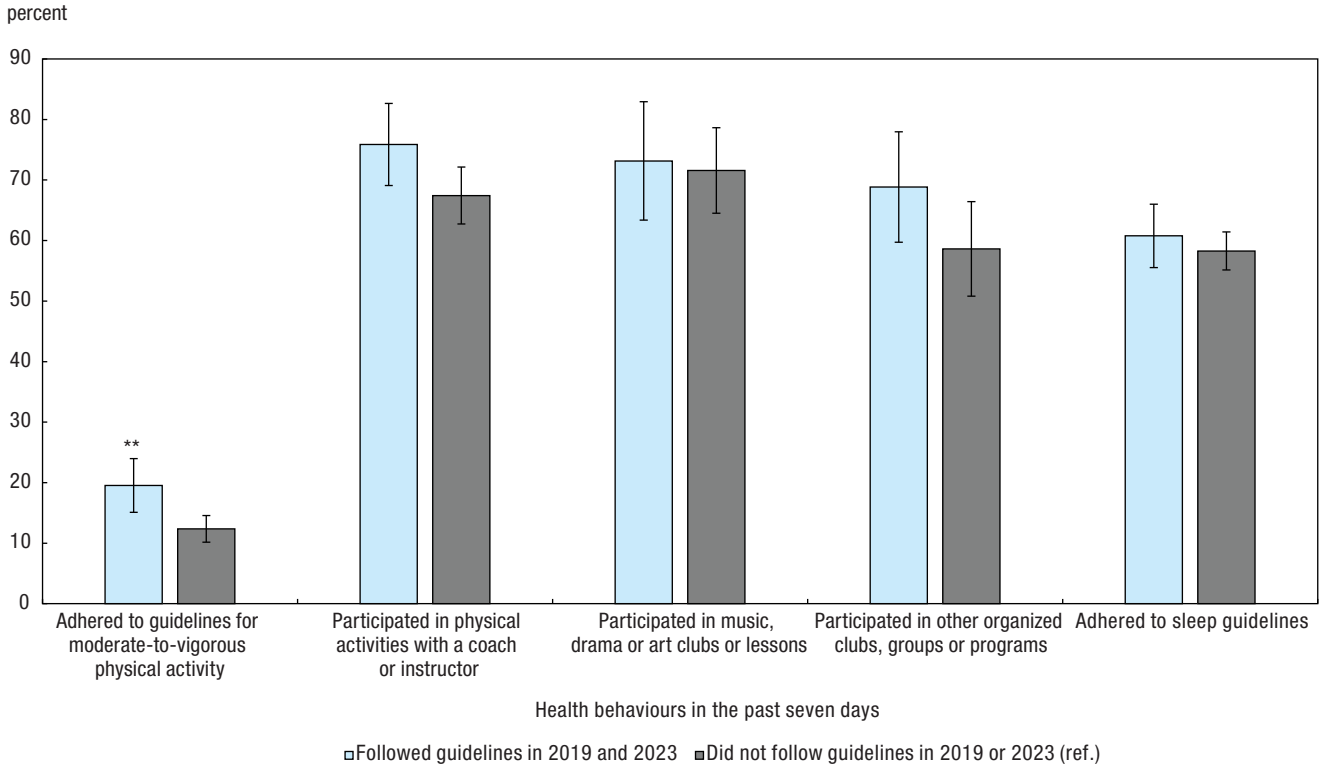
Geographic differences were observed in screen time behaviours as well. Youth who lived in small, medium or large population centres were more likely to exceed recommendations in both years (39%) than those living in rural areas (30%). In fact, youth living in rural areas were more likely to meet the recommendations in both years than those living in population centres (22% versus 13%, respectively). Along the same lines, youth in Quebec, the Prairies and British Columbia were more likely to follow screen guidelines in both years than youth in Ontario.

Youth who follow screen time recommendations are more likely to also comply with physical activity guidelines

An important motivation for screen time recommendations is to limit sedentary behaviours. Previous research has found that screen time can replace time spent being physically active and may incur physical health effects such as obesity.[14] In line with these findings, youth who met screen time recommendations in 2019 and 2023 were over 1.5 times more likely to meet physical activity guidelines in 2023 than those who exceeded screen time guidelines (20% compared with 12%, respectively) (Chart 1). Meeting screen time recommendations was predictive of following physical activity guidelines, even after adjusting for sociodemographic characteristics.

Compared with youth who exceeded screen time guidelines in both years, those who met recommendations were not more likely to participate in organized sports or in music, drama, art or other clubs in 2023.[15] Additionally, youth who met recommendations were not more likely than those who exceeded recommendations to adhere to CSEP sleep guidelines within the same period.[16]

Chart 1
Percentage of youth aged 16 to 21 who engaged in healthy behaviours, by screen time guideline compliance, 2023



** significantly different from reference category (ref.) ($p < 0.01$)
Notes: Significance is based on predicted probabilities adjusted for screen time guideline compliance, gender, racialized group, immigrant status, disability status, Indigenous identity, region, area type and household-adjusted income.
Indigenous people include First Nations people, Métis and Inuk (Inuit).
Error bars represent the 95% confidence intervals.
Source: Statistics Canada, Canadian Health Survey on Children and Youth, 2019 and 2023.

Using screens before bed

Although youth adherence to screen time guidelines was not associated with following sleep guidelines, other associations were observed between screen use and sleep. In fact, the time of day when youth use screens may be associated with sleep outcomes. In 2023, most youth aged 12 to 17 used screens before falling asleep, with older adolescents being more likely to do so. More than half (57%) of 12-year-olds reported that they had used an electronic device in their bedroom before falling asleep, while 9 in 10 17-year-olds (90%) reported having done so.[17] This finding may be explained by younger children being less likely than older adolescents to own a cell phone, a common screen to look at before bedtime.[18]

Using a screen before bed was associated with not meeting sleep recommendations. In 2023, over 6 in 10 youth aged 12 to 17 (64%) had the recommended amount of sleep for their age. Yet this differed between those who used screens before going to sleep and those who did not. Youth who did not use screens before bed were more likely to meet sleep recommendations (75%) than those who used screens before bed (60%).

Using screens before bed was also associated with greater difficulty falling asleep. In 2023, among youth aged 12 to 17 who reported using screens before bed, over half (57%) reported having difficulty falling asleep at least once per month, a higher percentage than that of their counterparts who did not use screens before bed (44%).[19] These findings align with previous research that found using a screen in the evening and having a screen in the bedroom were associated with lower sleep duration and quality.[20]

Youth who exceed screen time guidelines are more likely to report worse overall well-being

Despite similarities in other health-promoting behaviours (e.g., participation rates in organized sports), differences across a range of well-being outcomes emerged between youth who followed screen time guidelines and those who exceeded them. These well-being outcomes were based on Canada's Quality of Life Framework, which measures how well Canadians are doing.

In 2023, youth who followed screen time guidelines in both 2019 and 2023 were 1.5 times more likely than those who exceeded guidelines to say that most of their days were not at all stressful (37% versus 25%, respectively), 1.5 times more likely to report excellent or very good mental health (58% versus 38%) and 1.2 times more likely to report excellent or very good health (76% versus 63%) (Table 2). Youth who met recommendations were also more likely than those who exceeded recommendations to report being at least somewhat happy and interested in life (95% versus 84%, respectively) and report high life satisfaction (89% versus 78%). These associations remained after adjusting for sociodemographic characteristics.

Previous research has shown that Canadian youth who exceeded six hours of personal screen time per day reported higher anxiety, depression, mental distress and suicidal ideation. However, the current data indicate that these associations are observable at a lower threshold of daily screen time, above current CPS guidelines of two hours per day.

Table 2
Percentage and predicted probability of well-being outcomes, by screen time guideline compliance, youth aged 16 to 21, 2023

	Followed guidelines in 2019 and 2023				Did not follow guidelines in 2019 or 2023 (ref.)			
		95% confidence interval				95% confidence interval		
Well-being outcomes	Proportion	Lower	Upper	Predicted probability	Proportion	Lower	Upper	Predicted probability
	percent							
Perceived most of their days as not at all stressful or not very stressful	37.1	32.2	42.1	46.6**	25.2	22.4	28.1	27.8
Perceived themselves as at least somewhat happy and interested in life	94.8	92.8	96.8	94.5**	83.8	81.6	86.0	84.0
Were very satisfied or satisfied with life in general	89.3	86.2	92.4	88.6**	77.8	75.2	80.3	78.0
Had excellent or very good self-perceived health	75.7	71.1	80.4	75.2**	62.7	59.7	65.7	63.3
Had excellent or very good self-perceived mental health	58.3	53.2	63.5	57.0**	37.9	34.9	41.0	38.2
Never felt so sad or hopeless that they stopped some usual activities in the past 12 months[1]	82.7	77.2	88.2	89.1**	70.0	66.1	74.0	73.1
Never considered attempting suicide or taking their own life in the past 12 months[1]	92.5	88.7	96.3	92.3*	84.1	81.0	87.1	83.9
Were never preoccupied or were preoccupied a few times with a desire to be thinner in the past 12 months	75.4	71.2	79.7	74.4*	68.8	65.8	71.7	68.9
Did not experience headaches in the past six months	45.0	39.9	50.2	45.4**	36.5	33.5	39.4	36.3
Did not experience sleep difficulties in the past six months	50.6	45.4	55.7	49.4**	37.4	34.3	40.6	36.6
Had an approximate overall mark of 70% or higher this year	93.7	90.8	96.6	93.3*	88.2	86.1	90.3	87.9

* significantly different from reference category (ref.) ($p < 0.05$)
** significantly different from reference category (ref.) ($p < 0.01$)
1. Asked of youth aged 15 and older as of 2019.
Notes: Predicted probabilities are adjusted for gender, racialized group, immigrant status, disability status, Indigenous identity, region, area type and household-adjusted income quintile. Indigenous people include First Nations people, Métis and Inuk (Inuit).
Source: Statistics Canada, Canadian Health Survey on Children and Youth, 2019 and 2023.

Those who met screen time recommendations in both years were also less likely to report suicidal ideation than those who exceeded guidelines. This may be related to reporting better mental health. Specifically, among youth surveyed in 2023 who met screen time recommendations in both years, 83% said feelings of sadness or hopelessness had never stopped them from doing their usual activities in the previous 12 months, compared with 70% of those who exceeded guidelines.[21] Similarly, 93% of those who met recommendations reported they had never seriously considered suicide within the past 12 months, compared with 84% of those who exceeded guidelines. That being said, suicide attempts were relatively rare events among youth, with no significant difference between the screen time groups in terms of youth who reported that they tried to take their own life.

Relatedly, youth who met recommendations in both 2019 and 2023 were less likely to report body image issues. In 2023, three in four youth who met recommendations (75%) stated that they never felt preoccupied with a desire to be thinner or they felt this way only a few times within the past 12 months, compared with 69% of those who exceeded recommendations. However, actions taken to lose weight, including vomiting or changing eating habits, did not differ significantly between the two groups.

Beyond challenges to mental health, youth who followed screen time guidelines in both years were less likely to report headaches or sleep difficulties than those who exceeded guidelines. Just over half of those who met recommendations (51%) reported they rarely or never had sleep difficulties within the past six months in 2023, higher than the 38% who exceeded recommendations. Likewise, 45% of those who met recommendations reported they rarely or never had headaches during that same period, higher than the 37% of those who exceeded recommendations. These relationships held after adjusting for sociodemographic characteristics in a logistic regression model.

Average grades were also higher among youth who met screen time recommendations in both years. Youth who met recommendations were more likely than those who exceeded recommendations to achieve an overall grade of 70% or higher (94% versus 88%, respectively). This finding is in line with previous research, which showed that the amount of screen time was related to academic stress and that nighttime screen use was associated with lower academic performance.

While the regression analysis suggests that exceeding screen time guidelines may predict the reporting of poorer well-being outcomes, it cannot demonstrate causality. It may equally be possible that youth who already have poor well-being turn to screens more often than those who report more positive well-being, for various reasons.

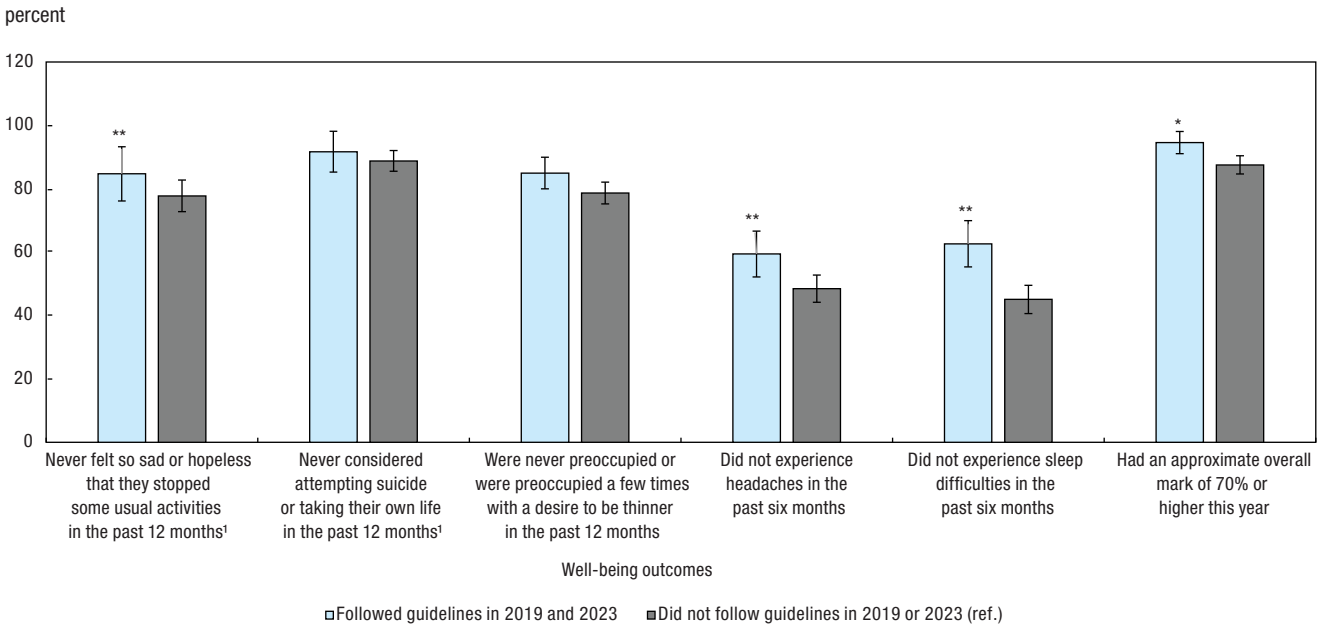
Men and boys+ and women and girls+ report similar benefits while adhering to screen time guidelines

The tendency to report better well-being outcomes when meeting screen time recommendations in 2019 and 2023 was observed across men and boys+ and women and girls+. Within their respective gender groups, men and boys+ and women and girls+ who met screen time recommendations reported better general well-being outcomes (i.e., stress level, interest in life, life satisfaction, and physical and mental health) than men and boys+ and women and girls+ who exceeded guidelines.[22] Similarly, men and boys+ and women and girls+ who followed guidelines were less likely than their counterparts who exceeded guidelines to have stopped activities because they felt sad or hopeless, have had headaches, or have had sleep difficulties.

However, a few gender-based differences emerged. While there was no significant difference between the two screen time groups in terms of men and boys+ who seriously considered suicide (Chart 2-A), women and girls+ who followed guidelines were more likely to report that they had not considered suicide in the past 12 months than women and girls+ who exceeded guidelines (93% versus 79%, respectively) (Chart 2-B). While there was no significant difference in achieving an overall grade of 70% or higher among women and girls+ who either followed or exceeded guidelines, men and boys+ who followed guidelines were more likely to report getting 70% or higher than men and boys+ who exceeded guidelines (95% versus 88%, respectively). All associations remained after adjusting for sociodemographic characteristics in a logistic regression model.

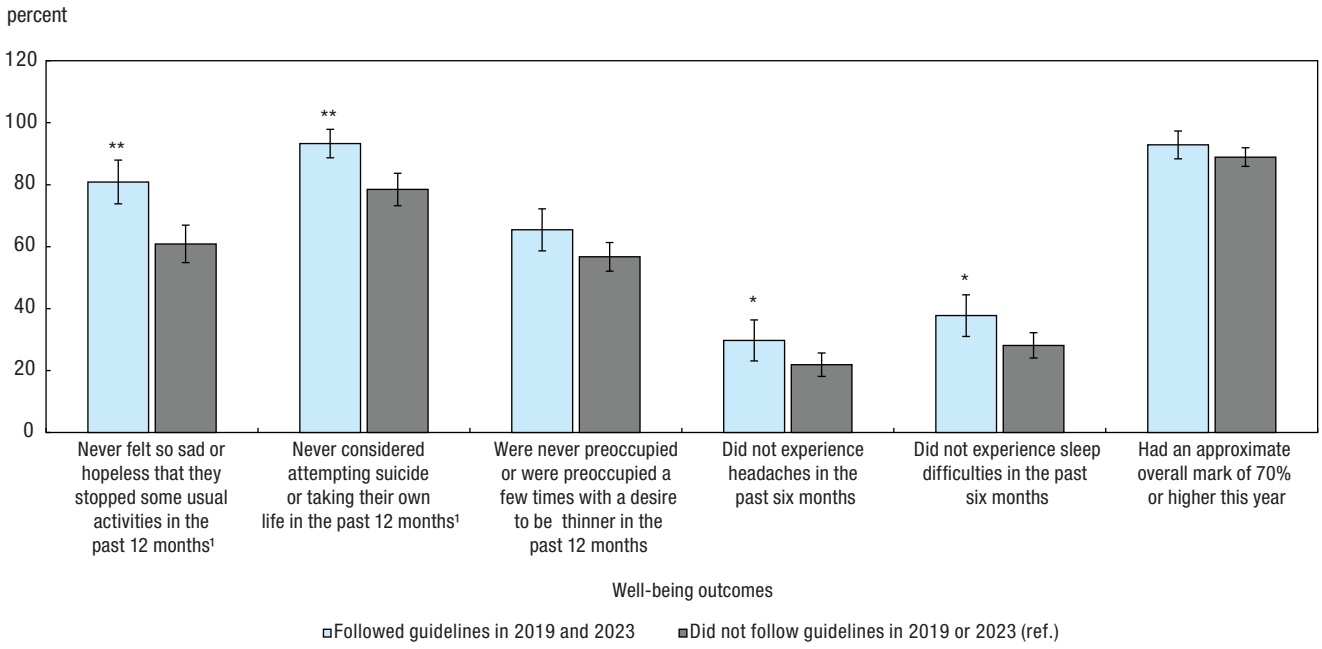
Chart 2-A

Percentage of men and boys+ with high well-being outcomes, by screen time guideline compliance, youth aged 16 to 21, 2023



* significantly different from reference category (ref.) ($p < 0.05$)
** significantly different from reference category (ref.) ($p < 0.01$)
1. Asked of youth aged 15 and older as of 2019.
Notes: Significance is based on predicted probabilities adjusted for screen time guideline compliance, racialized group, immigrant status, disability status, Indigenous identity, region, area type and household-adjusted income.
Given that the non-binary population is small, data aggregation to a two-category gender variable is sometimes necessary to protect the confidentiality of responses provided.
Men and boys+ include men, boys and some non-binary people.
Indigenous people include First Nations people, Métis and Inuk (Inuit).
Error bars represent the 95% confidence intervals.
Source: Statistics Canada, Canadian Health Survey on Children and Youth, 2019 and 2023.

Chart 2-B
Percentage of women and girls+ with high well-being outcomes, by screen time guideline compliance, youth aged 16 to 21, 2023



* significantly different from reference category (ref.) ($p < 0.05$)
** significantly different from reference category (ref.) ($p < 0.01$)
1. Asked of youth aged 15 and older as of 2019.
Notes: Significance is based on predicted probabilities adjusted for screen time guideline compliance, racialized group, immigrant status, disability status, Indigenous identity, region, area type and household-adjusted income.
Given that the non-binary population is small, data aggregation to a two-category gender variable is sometimes necessary to protect the confidentiality of responses provided.
Women and girls+ include women, girls and some non-binary people.
Indigenous people includes First Nations people, Métis, and Inuk (Inuit).
Error bars represent the 95% confidence intervals.
Source: Statistics Canada, Canadian Health Survey on Children and Youth, 2019 and 2023.

Physical activity alone does not fully offset the associations between screen time and well-being

A possible explanation for these differences in well-being may be related to differences in overall physical activity, rather than screen time. The Canadian 24-Hour Movement Guidelines emphasize physical activity and decreased sitting, including sedentary screen use. It is possible that increased physical activity may, therefore, mitigate some of the observed well-being indicators associated with screen time.

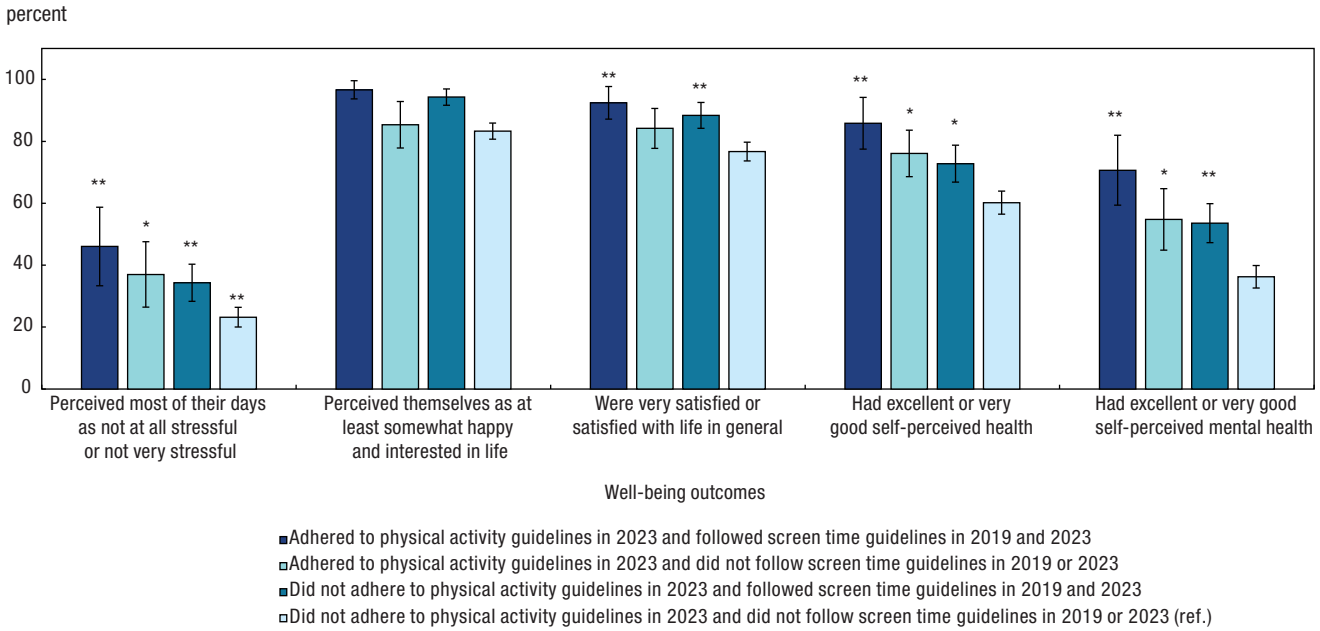
Indeed, youth who followed physical activity recommendations in 2019 but not screen time guidelines in 2019 or 2023—compared with youth who followed neither set of guidelines—reported better well-being in terms of low levels of stress (37% compared with 23%, respectively), positive physical health (76% compared with 60%) and positive mental health (55% compared with 36%) (Chart 3-A). However, for the remaining well-being outcomes measured, following physical activity recommendations but not screen time guidelines resulted in no significant differences in well-being, relative to youth who followed neither set of guidelines.

One might anticipate that following both screen time and physical activity guidelines would be associated with the most positive well-being outcomes among any group. Indeed, following both sets of guidelines was associated with better well-being compared with following neither set of guidelines for all general well-being outcomes (i.e., stress levels, interest in life, life satisfaction, and physical and mental health). It was also associated with lower reports of

stopping usual activities because of feelings of sadness or hopelessness and having sleep difficulties. These findings align with a longitudinal study of Finnish adolescents, who reported decreased stress and depressive symptoms when they had higher physical activity levels and lower screen time.[23]

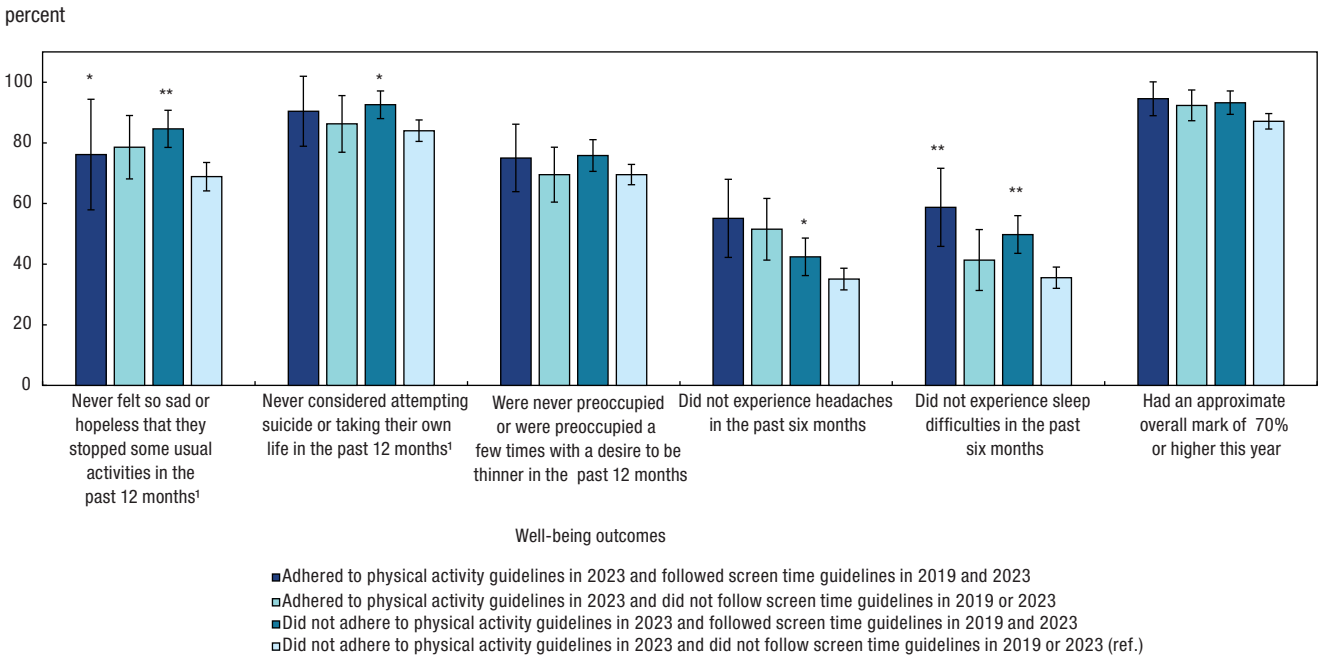
In addition to those well-being outcomes, youth who followed only screen time guidelines—and not physical activity guidelines—reported higher well-being outcomes for suicidality and headaches. In 2023, youth who followed screen time guidelines but not physical activity guidelines were the only group significantly more likely to report that they had never seriously considered suicide in the past 12 months (93%), compared with those who followed neither set of guidelines (84%) (Chart 3-B). Additionally, youth who followed screen time guidelines but not physical activity guidelines were more likely to report that they never or rarely had headaches within the past six months in 2023 (42%) than those who followed neither set of guidelines (35%). Although physical activity is beneficial, it does not fully offset the associations between well-being and screen time.

Chart 3-A
Percentage of youth aged 16 to 21 with high general well-being outcomes, by adherence to physical activity and screen time guidelines, 2023



* significantly different from reference category (ref.) ($p < 0.05$)
** significantly different from reference category (ref.) ($p < 0.01$)
1. Asked of youth aged 15 and older as of 2019.
Notes: Significance is based on predicted probabilities adjusted for screen time guideline compliance, gender, racialized group, immigrant status, disability status, Indigenous identity, region, area type and household-adjusted income.
Indigenous people include First Nations people, Métis and Inuk (Inuit).
Error bars represent the 95% confidence intervals.
Source: Statistics Canada, Canadian Health Survey on Children and Youth, 2019 and 2023.

Chart 3-B
Percentage of youth aged 16 to 21 with high specific well-being outcomes, by adherence to physical activity and screen time guidelines, 2023



* significantly different from reference category (ref.) ($p < 0.05$)
** significantly different from reference category (ref.) ($p < 0.01$)
1. Asked of youth aged 15 and older as of 2019.
Notes: Significance is based on predicted probabilities adjusted for screen time guideline compliance, gender, racialized group, immigrant status, disability status, Indigenous identity, region, area type and household-adjusted income.
Indigenous people include First Nations people, Métis and Inuk (Inuit).
Error bars represent the 95% confidence intervals.
Source: Statistics Canada, Canadian Health Survey on Children and Youth, 2019 and 2023.

Conclusion

Spending time on screens is very common among all Canadians, and particularly among youth. Youth aged 12 to 17 were more likely to exceed the recommended two hours of screen time per day (37%) than to meet the recommendation (14%) in both 2019 and 2023. However, it is important to recognize that nearly half of youth (49%) followed screen time guidelines in only one of the two years, largely youth who followed guidelines in 2019 and then stopped following them in 2023. These youth had mixed well-being outcomes, which often landed between those of youth who followed guidelines and those of youth who did not.

Gender, disability and geographic factors were predictive of exceeding guidelines, as were being both non-racialized and non-Indigenous and having a lower household income. Men and boys+, youth with a disability, and those living in an urban area were more likely to exceed guidelines in both 2019 and 2023, while non-immigrants, youth without a disability and those living in a rural area were more likely to follow guidelines in both years. Youth who followed screen time guidelines were also more likely to adhere to physical activity recommendations, as outlined by the CSEP.

Youth who followed screen time guidelines in 2019 and 2023 were more likely to report better well-being across multiple outcomes in 2023, including mental and overall health, suicidality, and academic performance. These associations were similarly observed for men and boys+ and women and girls+, with some notable differences. Men and boys+ reported higher grades when they followed guidelines versus when they did not, while women and girls+ reported less frequent

suicidal ideation when they followed guidelines versus when they did not.

Meeting physical activity guidelines, regardless of screen time, was found to be only partially associated with better well-being outcomes. Following physical activity guidelines but not screen time guidelines was related to better stress levels, physical health and mental health; however, these outcomes were not significantly different from those observed among individuals who followed neither set of guidelines.

Although this study suggests that exceeding screen time guidelines is associated with poorer overall well-being, other research suggests that time spent using screens is only part of the picture. How screens are being used—also called quality of screen use—is an important piece of the puzzle. Currently, nationally representative data sources have not measured the quality of screen time for youth, be it for school, work, entertainment or socialization, all of which may contribute differently to well-being. This information could nuance the findings of this study. Given the widespread use of screens, having a better understanding of associations between screen time and well-being outcomes will help inform parents, educators, researchers, decision makers and youth themselves of the potential benefits to staying within screen time guidelines. Further research is needed to better understand not only the amount of time spent using screens but also the quality of screen use as it relates to well-being.

Cait Brunton *and* ***Travis Facette*** *are analysts, and* ***Lauren Pinault*** *is a chief with the Centre for Social Data Development and Insights at Statistics Canada.* ***Eton Boco*** *is an analyst with the Centre for Population Health Data at Statistics Canada.*

Data sources, methods and definitions

This study used data from the longitudinal components of the 2019 and 2023 Canadian Health Survey on Children and Youth (CHSCY), which was administered from February 11 to August 2, 2019, and again from March to June 2023. The 2023 CHSCY is a cross-sectional and longitudinal survey that collects information on issues that affect the physical and mental health of children and youth in Canada. It covers a broad range of topics, including physical activity, the use of electronic devices, time spent in school, extracurricular activities, mental health, childhood experiences, substance use and the impact of the COVID19 pandemic. The target population was the population aged 1 to 17 as of January 31, 2019, living in the 10 Canadian provinces, excluding children and youth living on First Nations reserves and other Indigenous settlements in the provinces; children and youth living in foster homes; the institutionalized population; and residents of Yukon, the Northwest Territories and Nunavut.

More information is available on the Canadian Health Survey on Children and Youth (CHSCY) page on Statistics Canada's website.

Statistical analysis

This study examined youth aged 12 to 17 as of January 31, 2019, who responded to question EDV_Q050 on the 2019 CHSCY ("In the past 7 days, how much time in total did you spend using any electronic device such as a mobile device, computer, tablet, video game console or television while you were sitting or lying down?") and question EDV_Q050 on the 2023 CHSCY ("On a typical day, how much time in total do you spend using any electronic device such as a mobile device, computer, tablet, video game console or television while you are sitting or lying down?"). Weekly averages in 2019 were converted to daily averages by dividing by seven. This study also measured the percentage of youth who met physical activity and sleep guidelines.

Representative population mean estimates and upper and lower 95% confidence levels of the mean were produced using CHSCY bootstrap survey weights for youth and the balanced repeated replication variance estimation method. Additionally, the Bonferroni method was used to adjust for multiple comparisons.

Logistic regression was used to investigate associations between meeting or exceeding screen time guidelines, meeting physical activity guidelines, general well-being outcomes (i.e., stress levels, interest in life, life satisfaction, and physical and mental health) and specific well-being outcomes (i.e., stoppage of usual activities because of feeling sad or hopeless, serious consideration of suicide, preoccupation with a desire to be thinner, headache frequency, sleep difficulty frequency and average grades) while adjusting for sociodemographic characteristics. The well-being analyses were stratified by gender. Consistent with previous studies, well-being outcomes were recoded as binary measures. For logistic regression, predicted margins were produced using CHSCY bootstrap survey weights for youth and significance was measured based on $p > 0.05$.

Limitations

Use of electronic devices while being inactive was measured differently in the 2019 and 2023 CHSCY. In 2019, the CHSCY measured use of electronic devices while being inactive based on total time in the past seven days, whereas the 2023 CHSCY measured it by total hours on a typical day.

This meant the average amount of sedentary screen time could not be calculated for 2019.

This study was unable to account for the type of content consumed during screen time or what proportion of screen time was spent on various online activities.

It should be noted that the information used in this analysis came from self-reported data; therefore, responses are subject to recall issues (e.g., number of hours spent using a screen while inactive).

First Nations communities and Inuit Nunangat were not included in the sample because they fall outside the scope of the survey. These areas often have low connectivity and may have differences in screen time among youth compared with other areas.

Definitions

Disability status was determined based on any reported functional difficulty, including anxiety and depression, as measured by the Washington Group on Disability Statistics Short Set on Functioning in the 2019 CHSCY.

A rural area was defined as having a population of fewer than 1,000 people, while a population centre was defined as any small, medium or large population centre with 1,000 people or more.

Notes

1. In this article, "following" and "meeting" guidelines are used interchangeably. However, the question in the survey did not examine intent – rather whether the youth was meeting guidelines.
2. Cooper and Mellis, 2024.
3. See review by Saw Swee Hock School of Public Health, 2024.
4. Associated Press, 2024.
5. Ponti, 2023.
6. Lewis & Yap, 2022.
7. Canadian Society for Exercise Physiology, 2025.
8. Canadian Society for Exercise Physiology, n.d.
9. Unless indicated otherwise, the term "youth" refers to respondents who were aged 12 to 17 as of January 31, 2019.
10. Given that the non-binary population is small, data aggregation to a two-category gender variable is sometimes necessary to protect the confidentiality of responses provided. Men and boys+ include men, boys and some non-binary people. Women and girls+ include women, girls and some non-binary people.
11. Topić et al., 2023.
12. Income quintiles were adjusted for household size.
13. Sociodemographic characteristics included gender, racialized group, immigrant status, disability status, Indigenous identity, region, area type and household-adjusted income quintile.
14. See review by Nakshine et al., 2022.
15. Participation in organized sports and clubs was measured as participation within the past seven days in 2023.
16. Non-adherence to sleep guidelines included youth who underslept and overslept for their age group. The Canadian 24-Hour Movement Guidelines for Children and Youth recommend that children and youth aged 5 to 13 get 9 to 11 hours of sleep per night, youth aged 14 to 17 get 8 to 10 hours of sleep per night and youth aged 18 to 21 get 7 to 9 hours of sleep per night.
17. Use of an electronic device in the bedroom before falling asleep was measured as bedtime use within the past seven days in 2023.
18. CBC/Radio-Canada Research and Analysis, 2023.
19. Difficulties falling asleep were measured as difficulties within the past six months in 2023.
20. Saunders et al., 2022.
21. Questions on suicide were asked only to respondents aged 15 to 17 as of January 31, 2019.
22. Comparisons between men and boys+ and women and girls+ often showed that men and boys+ reported higher well-being outcomes, regardless of screen time. For this reason, the analysis focused on within-gender analyses to identify how the two groups may benefit differentially from meeting screen time recommendations.
23. Haapala et al., 2025.

References

Associated Press. 2024. "Instagram rolls out teen accounts, other privacy changes designed to protect those under 18." *CBC News*.

Canadian Society for Exercise Physiology. 2025. "Canadian 24-hour Movement Guidelines for the Children and Youth (5-17 years): An Integration of Physical Activity, Sedentary Behaviour, and Sleep." *Canadian Society for Exercise Physiology*.

Canadian Society for Exercise Physiology. n.d. "Canadian 24-Hour Movement Guidelines for Adults aged 18-64 years: An Integration of Physical Activity, Sedentary Behaviour, and Sleep." *Canadian Society for Exercise Physiology*.

CBC/Radio-Canada Research and Analysis. 2023. "Charged Up and Ready to Connect Kids and Cell Phones." *Media Technology Monitor Junior*.

Cooper, Michael and Sheldon Mellis. 2024. *A Generation at Risk: The State of Youth Mental Health in Canada*. Mental Health Research Canada. Mississauga.

Haapala, Eero A., Marja H. Leppänen, Silja Kosola, Kaija Appelqvist-Schmidlechner, Siiri-Liisi Kraav, Juuso J. Jussila, Tommi Tolmunen, David R. Lubans, Aino-Maija Eloranta, Ursula Schwab and Timo A. Lakka. 2025. "Childhood Lifestyle Behaviors and Mental Health Symptoms in Adolescence." *JAMA Network Open*. Vol. 8, no. 2, pp. e2460012.

Lewis, Ruth and Jason C. H. Yap. 2022. *Evidence Review of Screen Use in Childhood*. Saw Swee Hock School of Public Health. Queenstown. National University of Singapore.

Nakshine, Vaishnavi S., Preeti Thute, Mahalaqua Nazli Khatib and Bratati Sarkar. 2022. "Increased screen time as a cause of declining physical, psychological health, and sleep patterns: A literary review." *Cureus*. Vol. 14, no. 10, pp. e30051.

Ponti, Michelle. 2023. "Screen time and preschool children: Promoting health and development in a digital world." *Paediatrics & Child Health*. Vol. 28, no. 3, pp. 184–192.

Saunders, Travis J., Travis McIsaac, Jenny Campbell, Kevin Douillette, Ian Janssen, Jennifer R. Tomasone, Amanda Ross-White, Stephanie A. Prince and Jean-Philippe Chaput. 2022. "Timing of sedentary behaviour and access to sedentary activities in the bedroom and their association with sleep quality and duration in children and youth: a systematic review." *Health Promotion and Chronic Disease Prevention in Canada: Research, Policy and Practice*. Vol. 42, no. 4, pp. 139–149.

Saw Swee Hock School of Public Health. 2024. *Screen Use in Childhood: Update July 2024*.

Topić, Marina Kotrla, Tihana Brkljačić and Andreja Brajša-Žganec. 2023. "Digital technology use and preoccupation with digital technology as predictors of life satisfaction in children." *Child & Family Social Work*. Vol. 28, no. 4, pp. 1131–1138.