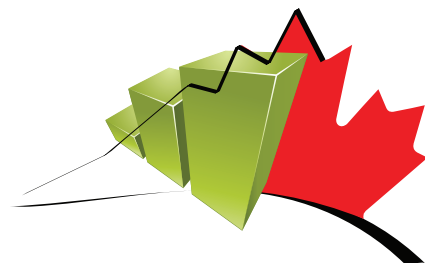


Catalogue no. 36-28-0001
ISSN 2563-8955

Economic and Social Reports

Use of child care before and after school in Canada



by Mila Kingsbury and Leanne Findlay

Release date: August 25, 2021



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 STATCAN.infostats-infostats.STATCAN@canada.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

Depository Services Program

- Inquiries line 1-800-635-7943
- Fax line 1-800-565-7757

Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner. To this end, Statistics Canada has developed standards of service that its employees observe. 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.

Published by authority of the Minister responsible for Statistics Canada

© Her Majesty the Queen in Right of Canada as represented by the Minister of Industry, 2021

All rights reserved. Use of this publication is governed by the Statistics Canada [Open Licence Agreement](#).

An [HTML version](#) is also available.

Cette publication est aussi disponible en français.

Use of child care before and after school in Canada

by Mila Kingsbury and Leanne Findlay

DOI: <https://doi.org/10.25318/36280001202100800004-eng>

Abstract

The purpose of this project was to describe participation in various types of before- and after-school child care by Canadian kindergarten and elementary school children. Data were drawn from the Canadian Health Survey on Children and Youth. The sample included 22,136 children aged 4 to 11 years who were enrolled in school at the time of the survey (February to August 2019). Parents answered questions about their children's participation in child care, as well as several sociodemographic indicators and health measures, via electronic questionnaire or telephone interview.

Results suggested that roughly one-third of Canadian school-aged children regularly participated in some form of before- or after-school care, the most common type being a before- or after-school program. Participation varied across subpopulations; for example, younger children, children residing with a single parent, children in urban areas and children whose primary caregiver was employed were more likely to participate in child care. Children belonging to groups designated as visible minorities, Indigenous children, children from immigrant backgrounds, and those whose family income was below \$40,000 per year were less likely to participate in child care overall. Differences by child care type were also noted—among children in any type of care, children in rural areas, Indigenous children and children belonging to groups designated as visible minorities were more likely to be cared for by a relative, and children whose family income was below \$40,000 were more likely to participate in before- or after-school programs. Results are discussed in terms of the affordability and accessibility of child care for all Canadian families.

Keywords: child care, school-age children, before and after school care

Authors

Mila Kingsbury and Leanne Findlay are with the Child Health Section of the Health Analysis Division, Analytical Studies and Modelling Branch, at Statistics Canada.

Introduction

Over the past several decades, there has been growing demand for non-parental child care services, caused in part by a rise in dual-earner families and single-parent households who may require child care while working or studying (Uppal 2015). Previous work has described the use of child care for preschool-aged children in Canada and other high-income countries (Burchinal et al. 2015; Findlay 2019; Friendly et al. 2018), as well as a positive relationship between child care participation and younger children's linguistic, cognitive and social development (Bratsch-Hines et al. 2020; NICHD Early Child Care Research Network 2006; Romano, Kohen and Findlay 2020). However, much less information is available to describe the use of child care for school-aged children. Thus, the purpose of the current study is to describe the use of non-parental child care for kindergarten and elementary school children (aged 4 to 11 years), including type of care and number of hours in care, as well as to identify predictors and correlates of child care use for this demographic.

The length of the standard school day in Canada varies, but in all cases it is shorter than the typical eight-hour workday. Factoring in time spent commuting, many Canadian families are left with significant gaps of time, either before school, after school, or both, during which their children require supervision. International research suggests that the availability of before- and after-school care impacts the maternal employment rate for women in nuclear families, but that this may not be the case in multi-generational households in which grandparents may take on child care responsibilities (Takaku 2019). Further, the availability of after-school child care (defined as the ratio of child care spaces to the number of elementary school children in a given area) has been associated with greater labour force participation among mothers of elementary school children (Morita and Sakamoto 2017). This suggests that finding adequate before- and after-school child care is an important obstacle facing dual-earner or single-parent families.

Family-level sociodemographic factors may influence children's participation in before- and after-school care. First, demand for child care may be higher among certain families who are more likely to require child care before and after school hours, including single-parent families and families in which both parents are employed outside the home (Kleiner, Nolin and Chapman 2004). Second, barriers to child care use may be more prominent for certain families; for example, financial stress may limit access to paid before- and after-school care for socioeconomically disadvantaged families (Belle 1999). As another example, recent immigrants with restricted social networks may have less access to unpaid or informal care by family members or friends (Phan et al. 2015), though they may prefer such care when it is available (Obeng 2007). As a result of such barriers, some families rely on self-care or sibling care for their children (i.e., with no adult supervision) (Belle 1999).

Outcomes of before- and after-school care

It remains unknown how participation in before- and after-school child care may be associated with children's adjustment. Data from other high-income countries suggest that high-quality after-school programs may be associated with positive outcomes for children (Brilli, Del Boca and Pronzato 2016) and may be particularly beneficial for certain groups, such as children from low-income families (Marshall et al. 1997). For example, structured after-school programs have been associated with improvements in both academic achievement and social adjustment (Blau and Currie 2006; Posner and Vandell 1994). By contrast, self-care (i.e., lack of adult supervision) has been associated with poorer adjustment (Pettit et al. 1997). However, little is known about outcomes of child care for school-aged children in a Canadian context.

Objectives

The primary objective of this study was to describe the use of child care before and after school for Canadian children aged 4 to 11 years. The specific aims of the project were to

1. describe the proportion of Canadian school-aged children in various types of formal and informal, non-parental child care arrangements before and after school
2. describe how child care usage may differ based on children's immigrant status, Indigenous identity, family income and other key demographics
3. describe predictors and adjustment-related correlates of participation in before- and after-school child care in Canada, both in terms of use and duration of time in care.

Data and methods

Data source

Data were drawn from the Canadian Health Survey on Children and Youth, a national survey of the physical and mental health of Canadian children. The survey covers the population aged 1 to 17 years living in Canada's 10 provinces and 3 territories, with the exception of children and youth living on First Nations reserves and other Indigenous settlements in the provinces, children and youth living in foster homes, and the institutionalized population. The overall response rate was 52%, resulting in a total sample size of $N = 47,871$. Data were collected from February to August 2019, via electronic questionnaire or telephone. The person most knowledgeable about the child (in 96.2% of cases this was a birth parent, hereafter referred to as a parent) was selected to answer questions about the child.

To focus on before- and after-school care, the analytical sample included children aged 4 to 11 years whose parents reported that they were currently enrolled in school, resulting in a sample size of $n = 22,136$.

Measures

Child care usage

Parents reported on their use of various forms of paid and unpaid child care "on a regular basis, that is, child care you use during your usual work or your usual school hours" (Statistics Canada 2019, CCR_R001) (excluding care provided by the other parent or care used only when the child was sick, on professional development days, during school breaks, or for occasional babysitting). Parents were asked to indicate whether they used each of the following types of care: care in a private home by a relative, care in a private home by a non-relative (e.g., nanny, home daycare), daycare centre, before- or after-school program, and nursery school or preschool. Parents also reported the number of hours in the previous seven days that they used child care for the target child.

Demographics

Children's age was considered in two-year intervals: 4 to 5, 6 to 7, 8 to 9, and 10 to 11. Children's gender (gender male, gender female and gender other, referred to here as boy, girl and gender diverse) was reported by parents.

Children's residence in a rural area versus a population centre was considered. Based on participants' postal codes, rural areas were defined by population concentration and density per square kilometre and proximity to core areas (Statistics Canada 2020).

Parents reported on each household member's Indigenous identity using the question "Is this person an Aboriginal person, that is, First Nations (North American Indian), Métis or Inuk (Inuit)?" (Statistics Canada 2019, Question AEB_Q1AA) ("Yes" or "No"). Each household member's immigrant status was assessed using the question "Where was this person born?" (Question IMM_Q01A). Responses were "Born in Canada" or "Born outside Canada." Children were considered to be members of an immigrant family when they or either parent was born outside of Canada. Children's visible-minority status was derived from their parents' report of the population groups the child belonged to (White, South Asian, Chinese, Black, Filipino, Arab, Latin American, Southeast Asian, West Asian, Korean, Japanese, other). Children were considered to be members of a visible-minority population group if their parent reported a population group other than "White."

The parent's employment status was assessed by the questions "Last week, did this person work at a job or business?" (Question LMAM_Q01A) and "Last week, did this person have a job or business from which he or she was absent?" (Question LMAM_R02). The parent was considered to be employed if they answered "yes" to either question.

Parents reported their current marital status; for the present study, this was dichotomized as married or living with a common-law partner versus widowed, divorced, separated or never married.

Annual household income in dollars, before taxes and deductions, was reported by parents. Household income was dichotomized (below \$40,000 or \$40,000 and above) to reflect Canada's average official poverty line (based on a family of two adults and two children; Employment and Social Development Canada 2018).

Child health characteristics

Parents reported on their child's exceptionalities and special education needs. Parents were asked whether their child had an Individual Education Plan, Special Education Plan, or Inclusion and Intervention Plan, and, if so, whether it was for a permanent physical disability; a cognitive, behavioural, or emotional disability; giftedness; or other.

Mental health

Parents reported on children's general mental health ("In general, how is [the child's] mental health?" [Statistics Canada 2019, Question GEN_Q020]: "Excellent," "Very good," "Good," "Fair" or "Poor"). This variable was dichotomized to compare children in excellent or very good mental health with those in good, fair or poor mental health. Parents also reported on the frequency of children's specific symptoms of anxiety ("How often does [the child] seem very anxious, nervous or worried?" [Question WSH_Q155]: "Daily," "Weekly," "Monthly," "A few times a year" or "Never") and depression ("How often does [the child] seem very sad or depressed?" [Question WSH_Q160]: "Daily," "Weekly," "Monthly," "A few times a year" or "Never"). Children were considered to have a functional difficulty in these domains if their parent reported that they experienced the symptom daily (Statistics Canada 2020). Children's social difficulty was assessed with the item "Does [the child] have difficulty making friends?" (Question WHS_Q150) with the responses "No difficulty," "Some difficulty," "A lot of difficulty" or "Cannot do at all." Children were considered to have a social difficulty if their parent selected "A lot of difficulty" or "Cannot do at all" (Statistics Canada 2020).

Physical health

Parents reported on children's general physical health ("In general, how is [the child's] health?" [Statistics Canada 2019, Question GEN_Q005]: "Excellent," "Very good," "Good," "Fair" or "Poor"). This variable was dichotomized to compare children in excellent or very good health with those whose parents reported good, fair or poor health.

Parents additionally reported on their child's long-term health conditions, including asthma, diabetes, epilepsy, diagnosed anxiety disorder, mood disorder, eating disorder, learning disability, attention deficit disorder or attention deficit hyperactivity disorder, autism spectrum disorder, and fetal alcohol spectrum disorder. For this study, the presence of any long-term health condition (versus none) was considered. Finally, children's injuries (broken or fractured bone, head injury or concussion, or serious cut or puncture) in the previous 12 months were also considered.

Analysis

To address **Objective 1**, the weighted proportions of children who were in each type of child care were estimated. To address **Objective 2**, the sample was stratified based on the family-level demographic and child characteristics, and proportions were compared across strata using chi-square tests of independence. To address **Objective 3**, a series of logistic regression analyses predicting child care usage from the predictors identified was conducted. Among children participating in any form of child care, linear regressions were used to predict hours in child care per week.

Cases with missing data on covariates were deleted analysis-wide, resulting in different sample sizes across analyses.

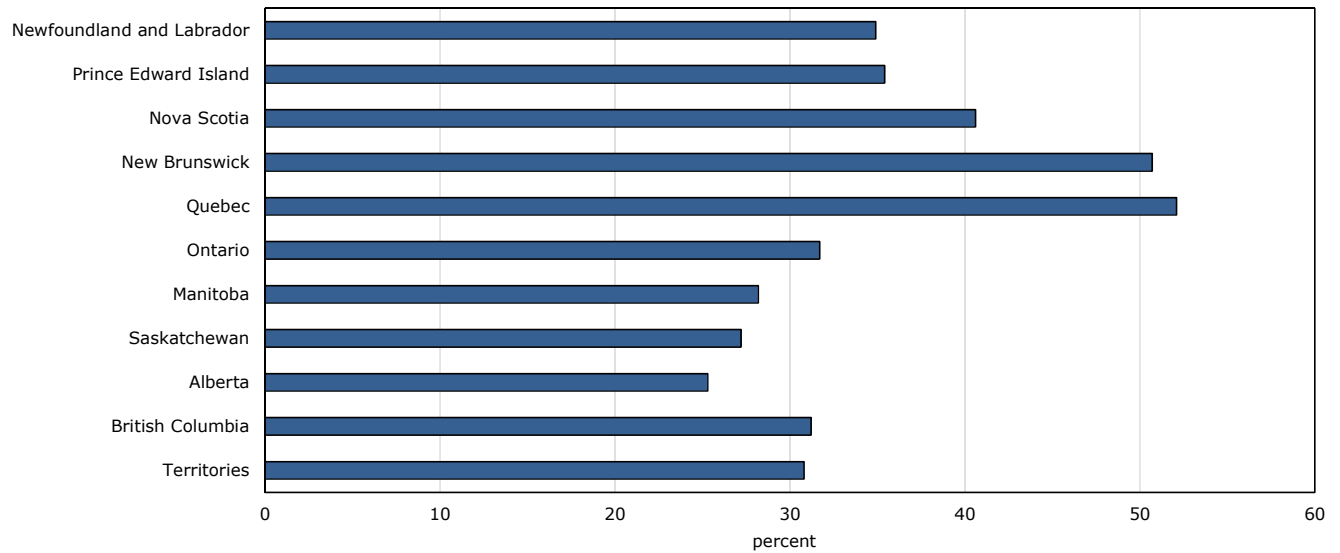
Results

Participation in before- and after-school child care

Overall, 35% of Canadian children aged 4 to 11 years participated in any form of before- or after-school, non-parental child care.¹ Proportions of children in any form of child care, stratified by province, are presented in Chart 1. Children who participated in any form of child care did so for an average of 12.3 hours per week (95% confidence interval: 12.0, 12.7; Chart 2). Of children in any form of child care, 60% attended a before- or after-school program, 22% were cared for by a relative, 16% were cared for by a non-relative in a private home and 12% attended a daycare centre. As shown in Chart 3, participation in different types of child care varied greatly across the provinces. For example, in Quebec, 90% of children who participated in before- or after-school child care were enrolled in a before- or after-school program (compared with 16% in Saskatchewan), whereas participation in other types of child care was much lower than for other provinces.

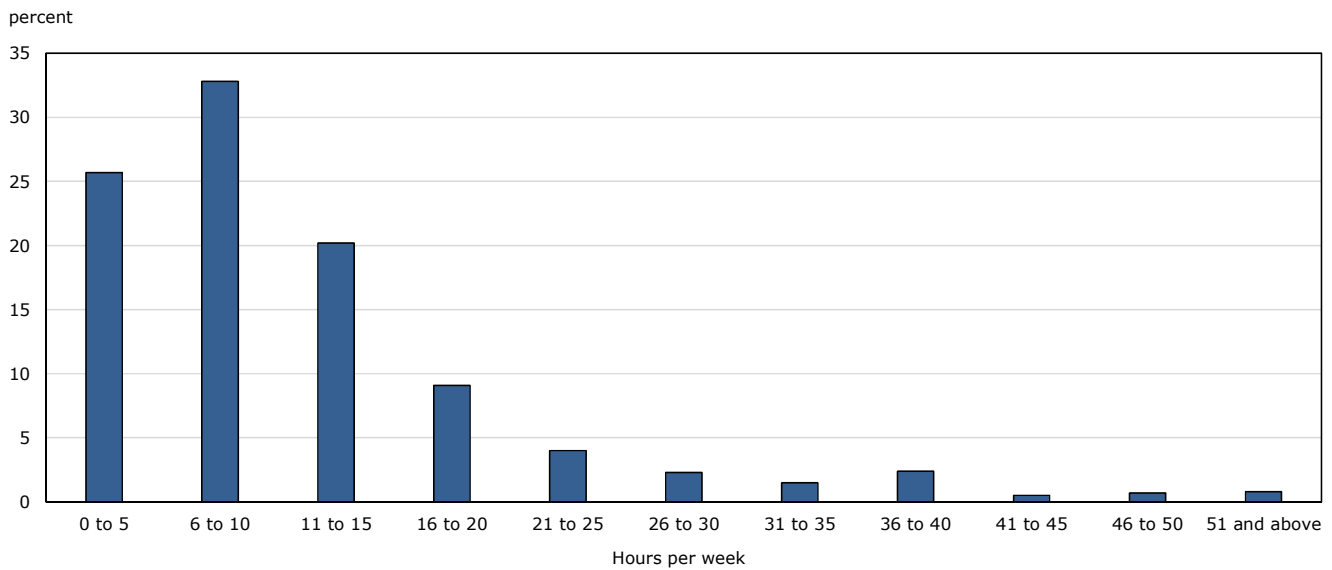
1. When only those children whose primary caregivers were employed are considered, 41% participated in before- or after-school care. In sensitivity analyses, correlates of child care usage among children whose caregivers were employed were similar to those for the full sample.

Chart 1
Weighted proportion of children in any form of before- or after-school care, by province or territories



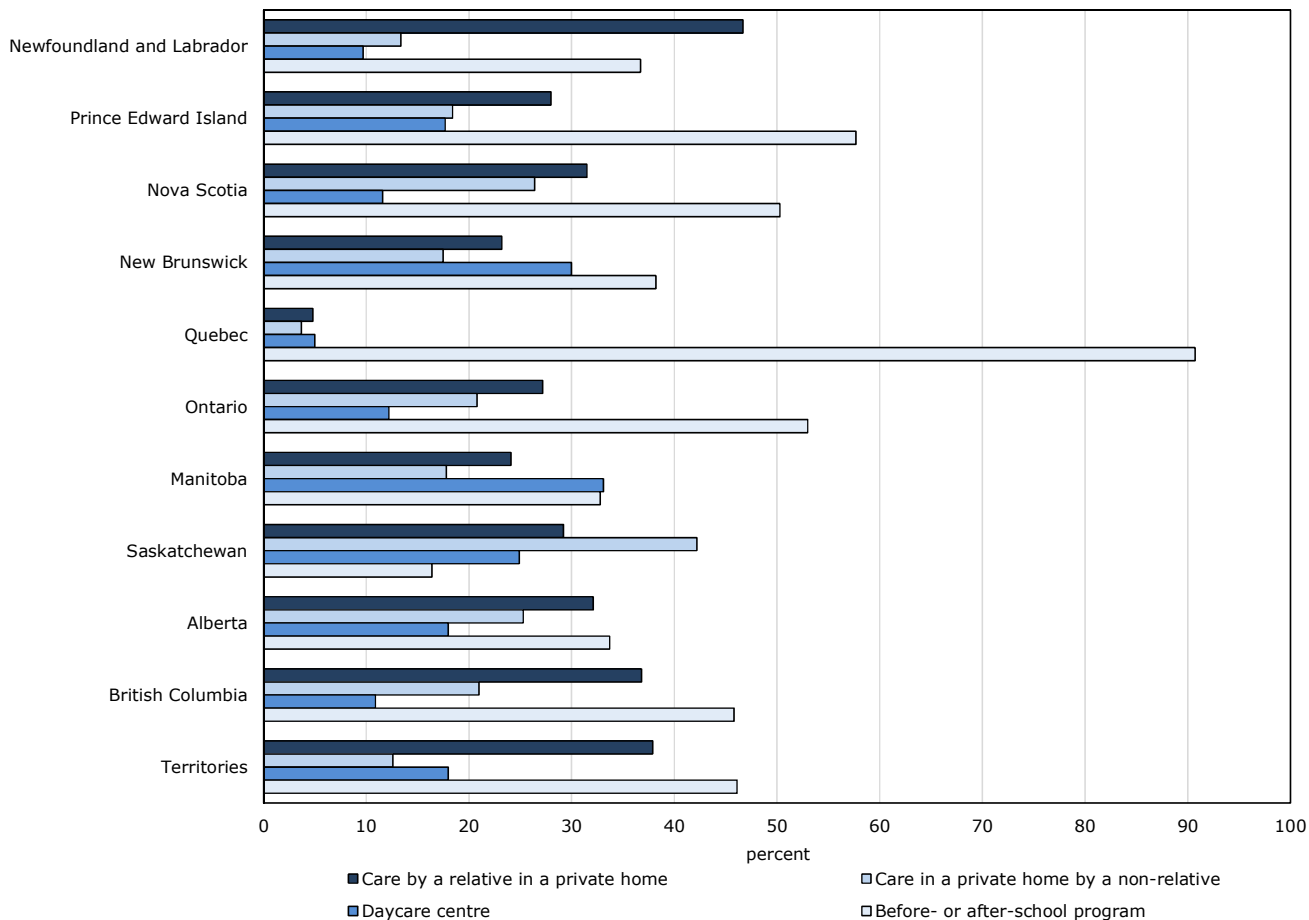
Source: Statistics Canada, Canadian Health Survey on Children and Youth, 2019.

Chart 2
Histogram of hours per week in before- or after-school care, among children in any form of care



Source: Statistics Canada, Canadian Health Survey on Children and Youth, 2019.

Chart 3
Among children in any type of child care, weighted proportion of children in various types of child care, by province or territories



Source: Statistics Canada, Canadian Health Survey on Children and Youth, 2019.

Factors associated with participation in before- and after-school child care

Proportions of children participating in each form of child care, stratified by child demographic and health characteristics, are presented in Table 1. Participation in child care varied by age (see Table 1), with a higher proportion of younger children participating in any form of before- or after-school care, compared with older children who may be more likely to care for themselves before or after school. Overall, participation did not vary by child health characteristics, with the exception of general physical health: a higher proportion of children in very good or excellent health participated in before- or after-school child care.

Table 1
Weighted proportions of children in before- and after-school child care

	Any child care ¹	Care in a private home by a relative ²	Care in a private home by a non-relative ²	Daycare centre ²	Before- or after-school program ²
			percent		
Total	35.4	21.9	16.3	11.8	60.0
Variable					
Age group					
Age 4 to 5	44.7 *	20.8 *	18.9	20.9 *	50.2 *
Age 6 to 7	42.7 *	19.2 *	15.6	9.6 *	65.1 *
Age 8 to 9	36.0 *	20.7 *	15.4	9.0 *	64.7 *
Age 10 to 11	20.9 *	31.3 *	15.1	6.6 *	56.6 *
Boys	35.5	22.8	16.4	11.5	59.0
Girls ³	35.4	21.0	13.7	12.1	61.0
Urban residence	36.3 *	21.2 *	15.3 *	11.7	60.6 *
Rural residence	31.3 *	25.6 *	21.7 *	12.4	50.4 *
Non-immigrant	36.9 *	19.0 *	18.8 *	10.9	60.5
Immigrant	29.8 *	24.6 *	14.0 *	11.9	59.1
Non-Indigenous	35.6 *	21.3 *	16.6	11.5 *	60.5 *
Indigenous	31.2 *	31.9 *	13.9	16.7 *	50.7 *
Parent unemployed	12.6 *	24.1	12.3	13.6	56.4
Parent employed	41.5 *	21.6	16.8	11.5	60.4
Parent not married	45.6 *	23.8	14.6	14.0	59.3
Parent married	33.1 *	21.3	16.8	11.1	60.2
Not a visible minority	37.9 *	20.3 *	17.4 *	11.2	61.1 *
Visible minority	29.6 *	26.5 *	13.5 *	13.3	56.4 *
Income under \$40,000	29.1 *	24.4	13.1 *	14.1	56.5
Income \$40,000 or over	36.8 *	21.5	16.8 *	11.4	60.6
No chronic illness	35.1	21.8	15.9	12.7 *	59.6
Chronic illness	36.7	21.8	17.7	8.8 *	61.7
No Individual Education Plan	35.7	21.8	17.0	11.1	60.2
Has an Individual Education Plan	34.0	25.0	16.5	11.5	57.6
No social difficulty	34.9	21.6	16.7	10.1	62.2
Social difficulty	33.1	24.8	16.9	10.5	56.8
No depression	34.9	21.6	15.8	10.0	62.2
Depression	33.6	26.0	15.2	x	54.5
No anxiety	34.9	21.6	15.7	9.8	62.4
Anxiety	35.2	22.9	18.2	13.3	56.2
Mental health very good or excellent	35.7	21.1 *	16.0	11.8	61.0 *
Mental health poor, fair or good	34.2	26.1 *	18.1	11.7	54.4 *
Physical health very good or excellent	35.8 *	21.0 *	16.4	11.5	60.9 *
Physical health poor, fair or good	32.1 *	30.4 *	15.1	14.0	51.7 *
No injury in past 12 months	35.4	21.2 *	16.5	6.0	60.2
Injury in past 12 months	35.7	27.1 *	15.5	6.3	57.8

x suppressed to meet the confidentiality requirements of the *Statistics Act*

* significant difference between categories (chi-square test of independence for this variable) (p < 0.05)

1. The denominator for these percentages is all children in the sample.

2. The denominator for these percentages is children in any type of before- or after-school child care.

3. Because of small cell sizes, results for gender-diverse children are suppressed to meet the confidentiality requirements of the *Statistics Act*.

Source: Statistics Canada, Canadian Health Survey on Children and Youth, 2019.

Predictors of participation in before- and after-school child care

Results of logistic regression predicting participation overall and in each type of child care are presented in Table 2. After adjusting for all other predictors, age was a significant predictor of participation in before- and after-school child care, with younger children having higher odds of participation. Rural residence, visible-minority status, immigrant status and Indigenous identity were all associated with lower odds of participation in any form of before- or after-school child care. Children whose primary caregiver was employed or a single parent showed higher odds of participation in child care, as did children with a chronic illness. When they did participate in child care, children in rural areas, Indigenous children and children belonging to groups designated as visible minorities were less likely to participate in a before- or after-school program and were more likely to be cared for by family members.

Table 2
Results of logistic regression models predicting participation in child care

	Any child care			Care in a private home by a relative			Care in a private home by a non-relative			Daycare centre			Before- or after-school program		
	Prediction	95% CI		Prediction	95% CI		Prediction	95% CI		Prediction	95% CI		Prediction	95% CI	
	value	low er bound	upper bound	value	low er bound	upper bound	value	low er bound	upper bound	value	low er bound	upper bound	value	low er bound	upper bound
Age 4 to 5	1.78 *	1.50	2.11	0.78 *	0.59	1.04	1.23	0.91	1.67	1.50	1.05	2.16	0.83	0.65	1.06
Age 6 to 7	1.39 *	1.21	1.59	0.78 *	0.61	0.99	0.95	0.73	1.23	1.00	0.72	1.38	1.19	0.97	1.47
Age 8 to 9 (reference)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Age 10 to 11	0.40 *	0.34	0.47	1.39 *	1.05	1.83	0.98	0.71	1.36	0.46 *	0.29	0.75	0.84	0.65	1.08
Child gender—girl (reference: boys)	1.02	0.91	1.13	0.91	0.75	1.10	0.96	0.78	1.17	1.01	0.77	1.32	1.07	0.90	1.28
Family income under 40,000\$	0.83	0.67	1.02	1.02	0.71	1.47	0.60 *	0.37	0.98	0.80	0.52	1.25	1.45 *	1.02	2.04
Rural	0.72 *	0.62	0.83	1.57 *	1.21	2.04	1.38 *	1.07	1.77	1.09	0.75	1.58	0.57 *	0.45	0.71
Immigrant	0.81 *	0.70	0.94	1.16	0.87	1.55	0.87	0.66	1.14	0.80	0.55	1.19	1.03	0.82	1.29
Indigenous	0.67 *	0.50	0.90	1.73 *	1.01	2.97	1.17	0.67	2.05	2.78 *	1.42	5.47	0.44 *	0.26	0.73
Visible minority	0.73 *	0.62	0.86	1.46 *	1.09	1.96	1.02	0.75	1.37	1.33	0.93	1.92	0.71 *	0.55	0.91
Parent employed	5.85 *	4.81	7.12	1.14	0.74	1.75	1.18	0.70	2.01	0.68	0.40	1.16	1.20	0.82	1.76
Single parent	2.53 *	1.94	3.30	1.14	0.75	1.73	1.14	0.70	1.85	2.10 *	1.36	3.23	0.67 *	0.46	0.96
Chronic illness	1.20 *	1.04	1.38	0.82	0.64	1.06	1.16	0.89	1.51	0.82	0.59	1.15	1.21	0.97	1.51
Poor physical health	0.89	0.72	1.11	1.45 *	1.02	2.06	0.94	0.62	1.44	1.06	0.64	1.74	0.72	0.52	1.00
Poor mental health	1.05	0.88	1.25	1.06	0.80	1.40	1.36	1.00	1.86	1.24	0.83	1.84	0.67 *	0.52	0.88
Injury in past 12 months	0.95	0.78	1.16	1.57 *	1.11	2.22	0.90	0.62	1.30	0.92	0.57	1.48	0.86	0.63	1.17

... not applicable

* significantly different from reference category (odds ratios) (p < 0.05)

Note: CI: confidence interval.

Source: Statistics Canada, Canadian Health Survey on Children and Youth, 2019.

Results of the linear regression analysis predicting hours per week in child care from demographic variables (among children who participated in any form of child care) are presented in Table 3. To assess differences in time spent in before- and after-school child care across subpopulations, all sociodemographic variables were included in the model. None of the child health variables was a significant predictor of hours in child care, and these variables did not add significant explanatory power to the model (results not shown). Therefore, they were excluded from the final model. Younger children spent a greater number of hours in before- and after-school care, as did children with family incomes under \$40,000 and members of visible-minority groups. Children living in rural areas spent fewer hours in before- and after-school child care.

Table 3
Results of linear regression predicting weekly hours in child care

Full model ¹	Weekly hours in child care		
	Unstandardized regression coefficient	standard error	p-value
Age 4 to 5	5.57 *	0.56	< 0.001
Age 6 to 7	0.96 *	0.41	0.020
Age 8 to 9 (reference)	...	...	...
Age 10 to 11	0.87	0.78	0.266
Child gender—girls	-0.18	0.41	0.666
Family income under \$40,000	2.19 *	1.08	0.043
Rural	-1.26 *	0.42	0.003
Immigrant	0.79	0.51	0.124
Indigenous	0.78	0.99	0.431
Visible minority	1.74 *	0.59	0.003
Parent employed	0.37	1.19	0.755
Single parent	-0.34	1.02	0.736

... not applicable

* significantly different from reference category ($p < 0.05$)

1. The R-squared for the full model is 0.05.

Source: Statistics Canada, Canadian Health Survey on Children and Youth, 2019.

Discussion

In this representative sample of 22,136 Canadian school-aged children, over one-third of children aged 4 to 11 years regularly participated in some form of before- or after-school care. For children who participated in such care, the most common arrangement was a before- or after-school program. Participation varied greatly by province, likely reflecting interprovincial differences in availability and affordability of child care. For example, participation was notably high in Quebec, where after-school care is subsidized and routinely offered by school boards at low cost to parents (Childcare Resource and Research Unit 2016).

In terms of predictors of participation in before- and after-school care, the findings of this study echoed those of previous work suggesting that participation in before- and after-school child care is higher for children from single-parent families and families in which both parents are employed (Brandon and Hofferth 2003; Kleiner, Nolin and Chapman 2004). In the present study, children living with a single parent had 2.5 times the odds of participating in child care compared with those living with two parents; those

whose primary caregiver (most often the mother) was employed had almost 6 times the odds of participation in before- or after-school child care.²

Rural residence was, overall, negatively associated with participation in before- and after-school child care. However, when children in rural areas did participate, they were more likely to be cared for by a relative or in a private home and less likely to be enrolled in a before- or after-school program. This may be associated with differences in the availability of such programs in rural areas. Research on child care for preschool-aged children suggests that parents in rural areas more often rely on informal child care because of a lack of available licensed child care in rural areas (Prentice 2017). Parents in rural areas may face additional barriers to accessing child care, as low population density means that children must travel longer distances to child care facilities, compounding problems such as lack of reliable transportation and snow removal (Prentice 2017; Friendly et al. 2016). Children in rural areas with long commutes to school may spend a significant amount of time on the school bus, which parents may factor in their child care plan.

Children with immigrant or visible-minority status and those with an Indigenous identity were also associated with lower odds of participation in child care. These findings echo those of research on early childhood care, which suggest that participation in early-years child care is lower among children from immigrant backgrounds in Canada and elsewhere (Cleveland and Forer 2010; Kingsbury, Findlay and Arim, forthcoming; Miller et al. 2014). There are multiple reasons that use of child care among immigrant families and families belonging to groups designated as visible minorities may differ from that of Canadian-born, non-visible-minority families. Some Canadian research suggests that labour market segregation among women belonging to groups designated as visible minorities and immigrant women results in immigrant mothers earning lower wages than their native-born counterparts (Samuel and Basavarajappa 2006; Rose and Chicoine 1991). Qualitative research on child care use by Canadian families with school-aged children suggests that mothers belonging to groups designated as visible minorities and immigrant mothers may also be more likely to work non-standard schedules (Rose and Chicoine 1991), which are difficult to accommodate in formal child care settings. However, other studies have reported no differences with respect to immigrant or visible-minority status for parents working non-standard hours (Lero et al. 2019).

In addition, immigrant families and families belonging to groups designated as visible minorities may have different child care preferences—for example, many immigrant parents and parents belonging to groups designated as visible minorities prioritize language instruction (either exposure to the official languages or instruction in their native language) and cultural sensitivity when selecting child care options (Obeng 2007; Rose and Chicoine 1991). Qualitative research suggests that cultural differences between parents and educators and, at the extreme, a lack of cultural sensitivity on the part of educators, can lead to conflict and dissatisfaction for parents in preschool settings (Bernhard et al. 1998); similar mechanisms are likely to operate in child care settings for older children.

With respect to Indigenous families, research on younger children suggests that patterns of participation in early-years child care by Indigenous children are similar to those of the general Canadian population (Findlay and Kohen 2010). However, others have suggested that the Indigenous population in Canada remains underserved with respect to available formal child care spaces in areas with the highest density of Indigenous children (Prentice 2017; Prentice and White 2019). Affordability of child care may be of particular importance to Indigenous families, given that 30% of Indigenous children in urban areas live below the poverty line (Arriagada, Hahmann and O'Donnell 2020). Moreover, owing to the long-lasting impact of colonial structures aimed at the assimilation of Indigenous peoples into mainstream culture,

2. In exploratory analyses, having three or more adults aged 18 or older living in a household was associated with lower odds of participation in any child care. Among those who did participate in non-parental child care, living with three or more adults was associated with higher odds of child care by a family member.

including residential schools, cultural preservation may be especially important for Indigenous families (Bombay, Matheson and Anisman 2014). As research suggests, child care that incorporates cultural content, including Indigenous language instruction delivered by Indigenous providers, has positive impacts on the developmental outcomes of Indigenous children (Findlay and Kohen 2010; Findlay and Kohen 2013; Preston et al. 2012). However, a minority of Indigenous parents report that their child care arrangement promotes such cultural content (Findlay and Kohen 2010), further highlighting the need for culturally sensitive and relevant child care.

Economic disadvantage has been hypothesized to decrease access to formal types of after-school care for parents who cannot afford fees (Brandon and Hofferth 2003). In the present study, however, after covariates were adjusted for, use of any care before or after school was not associated with low-income status. Moreover, among children in any type of care, use of after-school programs specifically was more likely for families living below the poverty line. In all provinces except Quebec, low-income families with children younger than 12 may be eligible to receive government subsidies to cover the cost of child care; eligibility requirements and subsidy amounts vary by province (Kozicka 2016). In Quebec, licensed child care providers receive funding directly, with no need for parents to apply, lowering costs to all parents. The availability of child care funding for low-income families may explain why the present results are different than those from countries where such funding is not available.

With a few exceptions, child health was not significantly associated with participation in child care or the number of hours in care. Two notable exceptions were that children in poorer physical health and those who had been injured in the previous 12 months were more likely to be cared for by a relative than children in very good to excellent health or who had not been injured. This may indicate difficulty accessing formal programs (i.e., programs equipped to meet a child's specific needs may not be available in all locations), or a greater degree of trust in relatives to provide specific care needed by children in poorer health; however, direction of effect cannot be determined from the present cross-sectional data.

Some previous literature has suggested that high quality after-school care may have beneficial effects for children (Blau and Currie 2006), particularly for children from low-income families and impoverished neighbourhoods (Marshall et al. 1997). In the current study, exploratory analyses based on low family income did not moderate the associations between child care participation and child health (results not shown). However, evidence suggests that, as with early childhood education, the quality of after-school programs is the most important predictor of child outcomes (Shernoff 2010)—an aspect of care that could not be assessed in the present study and is difficult to measure on a parent-report survey.

While predictors of participation in before- and after-school child care have been described, the results of this study suggest that many Canadian kindergarten and elementary school children were not participating in any form of before- or after-school child care. Though the present study did not assess parents' reasons for not using child care, it is possible that parents were not able to find their preferred type of care at an acceptable cost. To cope with the gaps of time during which children are not in school, parents may "off-shift," coordinating their work schedules around school hours, arrange for telework in order to be physically present when children are home, or leave children in self-care or sibling care, particularly when children are older (Christensen, Schneider and Butler 2011).

Strengths and limitations

Strengths of this study include the use of a large, representative sample of Canadian children. Results should nonetheless be interpreted in the context of certain limitations. First, as the data were cross-sectional, it was not possible to assess directionality of associations. For example, it was noted that child care participation was higher among children in good or excellent health. However, it was not possible to determine the direction of this association—that is, whether children in poorer health enroll in child care at lower rates, or participation in child care leads to better health. Second, child care usage and child

health variables were both assessed by a single informant, the parent. Use of a single informant may lead to overestimation of the associations between constructs (Sweeting 2001). Parents' reports of their children's health, particularly mental health, may be influenced by parents' mental health, as well as aspects of the parent-child relationship (Bajeux et al. 2018; Van Roy et al. 2010). Finally, the present study assessed participation in before- and after-school child care but did not include assessments of the availability of such child care to parents. Availability and cost of child care vary between provinces and regions and are important drivers of participation. Future research with repeated, multiple-informant measurements of child health, including assessments of the quality of before- and after-school child care, may better explore the potential benefits of quality of care for child health and development.

Conclusion

Over one-third of Canadian children aged 4 to 11 years regularly participate in some form of before- or after-school child care, the most common type being a before- or after-school program. Younger children and those from low-income families spend a greater number of hours in before- and after-school care. Lower participation in child care arrangements for school-aged children in rural areas, immigrant children, children belonging to groups designated as visible minorities and Indigenous children may suggest that child care is either not available or not appealing to these families. Ensuring that before- and after-school care is affordable, accessible and culturally sensitive is critical to meeting the child care needs of Canadian families.

References

- Arriagada, P., T. Hahmann, and V. O'Donnell. 2020. "Indigenous people in urban areas: Vulnerabilities to the socioeconomic impacts of COVID-19." *StatCan COVID-19: Data to Insights for a Better Canada*. Statistics Canada Catalogue no. 45-28-0001. Ottawa: Statistics Canada.
- Bajeux, E., D.H. Klemanski, M. Husky, E. Leray, C. Chan Chee, T. Shojaei, C. Fermanian, and V. Kovess-Masfety. 2018. "Factors associated with parent-child discrepancies in reports of mental health disorders in young children." *Child Psychiatry and Human Development* 49: 1003–1010.
- Belle, D. 1999. "Dilemmas." In *The After School Lives of Children*, ed. D. Belle, p. 52–82. New York: Psychology Press.
- Bernhard, J.K., M.L. Lefebvre, K.M. Killbride, G. Chud, and R. Lange. 1998. "Troubled relationships in early childhood education: Parent-teacher interactions in ethnoculturally diverse child care settings." *Early Education and Development* 9: 5–28.
- Blau, D., and J. Currie. 2006. "Pre-school, day care, and after-school care: Who's minding the kids?" *Handbook of the Economics of Education* (2): 1163–1278.
- Bombay, A., K. Matheson, and H. Anisman. 2014. "The intergenerational effects of Indian Residential Schools: Implications for the concept of historical trauma." *Transcultural Psychiatry* (51): 320–338.
- Brandon, P.B., and S.L. Hofferth. 2003. "Determinants of out-of-school childcare arrangements among children in single-mother and two-parent families." *Social Science Research* (32): 129–147.

- Bratsch-Hines, M.E., R. Carr, E. Zgourou, L. Vernon-Feagans, and M. Willoughby. 2020. "Infant and toddler child-care quality and stability in relation to proximal and distal academic and social outcomes." *Child Development* (91): 1854–1864.
- Brilli, Y., D. Del Boca, and C.D. Pronzato. 2016. "Does child care availability play a role in maternal employment and children's development? Evidence from Italy." *Review of Economics of the Household* (14): 27–51.
- Burchinal, M., K. Magnuson, D. Powell, and S.S. Hong. 2015. "Early childhood education." In *Handbook of Child Psychology and Developmental Science (7th ed.)*, ed. R.M. Lerner, M.H. Bornstein, and T. Leventhal, p. 223–267.
- Childcare Resource and Research Unit. 2016. "Quebec." [Finding Quality Child Care: A Guide for Parents](http://findingqualitychildcare.ca). Toronto. Available at: <http://findingqualitychildcare.ca>.
- Christensen, K., B. Schneider, and D. Butler. 2011. "Families with school-age children." *The Future of Children* 21 (2): 69–90.
- Cleveland, G., and B. Forer. 2010. *Child Care Use and Child Development in Immigrant, Lone Mother, Rural, and Official Language Minority Families in Canada*. Human Resources and Skills Development Canada.
- Employment and Social Development Canada. 2018. *Opportunity for All: Canada's First Poverty Reduction Strategy*. Ottawa: Employment and Social Development Canada.
- Findlay, L. 2019. *Early Learning and Child Care for Children Aged 0 to 5 Years: A Provincial/Territorial Portrait*. Economic Insights, no. 99. Statistics Canada Catalogue no. 11-626-X. Ottawa: Statistics Canada.
- Findlay, L.C., and D. Kohen. 2010. "Child Care for First Nations Children Living Off Reserve, Métis Children, and Inuit Children." *Canadian Social Trends*, no. 90. Statistics Canada Catalogue no. 11-008-X. Ottawa: Statistics Canada.
- Findlay, L.C., and D. Kohen. 2013. "Linking culture and language to Aboriginal children's outcomes: Lessons from Canadian data." In *Proceedings of the 17th Foundation for Endangered Languages Conference*, p. 132–137. Foundation for Endangered Languages.
- Friendly, M., C. Ferns, B. Grady, and L. Rothman. 2016. *Child Care Can't Wait Till the Cows Come Home: Rural Child Care in the Canadian Context*. Occasional Paper no. 30. Toronto: Childcare Resource and Research Unit.
- Friendly, M., E. Larsen, L. Feltham, B. Grady, B. Forer, and M. Jones. 2018. *Early Childhood Education and Care in Canada 2016*. Toronto: Childcare Resource and Research Unit.
- Kingsbury, M., L. Findlay, and R. Arim. *Differences in Childcare Participation Between Immigrant and Canadian-born Families*. Forthcoming.
- Kleiner, B., M.J. Nolin, and C. Chapman. 2004. "[Before- and after-school care, programs, and activities of children in kindergarten through eighth grade, 2001](http://nces.ed.gov)." *Statistical Analysis Report* (April). Available at: <http://nces.ed.gov>.

Kozicka, P. "[Child-care subsidies: What parents in every province need to know.](https://globalnews.ca/news/2985338/child-care-subsidies-what-parents-in-every-province-need-to-know/)" *Global News*, October 6, 2016. Available at: <https://globalnews.ca/news/2985338/child-care-subsidies-what-parents-in-every-province-need-to-know/> (accessed January 7, 2021).

Lero, D.S., S. Prentice, M. Friendly, B. Richardson, and L. Fraser. 2019. *Non-standard Work and Child Care in Canada: A Challenge for Parents, Policy Makers, and Child Care Provision*. Childcare Resource and Research Unit and University of Guelph.

Marshall, N.L., C.G. Coll, F. Marx, K. McCartney, N. Keefe, and J. Ruh. 1997. "After-school time and children's behavioral adjustment." *Merrill-Palmer Quarterly* (43): 497–514.

Miller, P., E. Votruba-Drzal, R. Levine Coley, and A.S. Koury. 2014. "Immigrant families' use of early childcare: Predictors of care type." *Early Childhood Research Quarterly* 29 (4): 484–498.

Morita, Y., and K. Sakamoto. 2017. "The impact of afterschool childcare on the 'first grade wall': Labor supply of mothers with school age children in Japan." *The Empirical Economics Letters* (16): 209–220.

NICHD Early Child Care Research Network. 2006. [The NICHD Study of Early Childcare and Youth Development: Findings for Children Up to Age 4½ Years](https://www.nichd.nih.gov/publications/pubs/documents/seczyd_06.pdf). Available at: https://www.nichd.nih.gov/publications/pubs/documents/seczyd_06.pdf.

Obeng, C. 2007. "Immigrants families and childcare preferences: Do immigrants' cultures influence their childcare decisions?" *Early Childhood Education Journal* (34): 259–264.

Pettit, G.S., R.D. Laird, J.E. Bates, and K.A. Dodge. 1997. "Patterns of after-school care in middle childhood: Risk factors and developmental outcomes." *Merrill-Palmer Quarterly* (43): 515–538.

Phan, M.B., R. Banerjee, L. Deacon, and H. Taraky. 2015. "Family dynamics and the integration of professional immigrants in Canada." *Journal of Ethnic and Migration Studies* 41 (13): 2061–2080.

Posner, J.K., and D.L. Vandell. 1994. "Low-income children's after-school care: Are there beneficial effects of after-school programs?" *Child Development* 65 (2): 440–456.

Prentice, S. 2017. "The challenge of rural childcare in Canada." *Cadernos Cedes* (37): 419–441.

Prentice, S., and L.A. White. 2019. "Childcare deserts and distributional disadvantages: The legacies of split childcare policies and programmes in Canada." *Journal of International and Comparative Social Policy* 35 (1): 59–74.

Preston, J.P., M. Cottrell, T.R. Pelletier, and J.V. Pearce. 2012. "Aboriginal early childhood education in Canada: Issues of context." *Journal of Early Childhood Research* (10): 3–18.

Romano, E., D. Kohen, and L.C. Findlay. 2010. "Associations among child care, family, and behavior outcomes in a nation-wide sample of preschool-aged children." *International Journal of Behavioral Development* 34 (5): 427–440.

Rose, D., and N. Chicoine. 1991. "Access to school daycare services: Class, family, ethnicity and space in Montreal's old and new inner city." *Geoforum* (22): 185–201.

Samuel, J., and K. Basavarajappa. 2006. "The visible minority population in Canada: A review of numbers, growth, and labour force issues." *Canadian Studies in Population* (33): 241–269.

Shernoff, D.J. 2010. "Engagement in after-school programs as a predictor of social competence and academic performance." *American Journal of Community Psychology* (45): 325–337.

Statistics Canada. 2019. [Canadian Health Survey on Children and Youth – 2019](#). Last updated February 5, 2019. Available at: https://www23.statcan.gc.ca/imdb/p3Instr.pl?Function=assembleInstr&lang=en&Item_Id=1209093 (accessed July 8, 2021).

Statistics Canada. 2020. *Canadian Health Survey on Children and Youth (CHSCY): Derived Variables Specifications*. Ottawa: Statistics Canada.

Sweeting, H. 2001. "Our family, whose perspective? An investigation of children's family life and health." *Journal of Adolescence* (24): 229–250.

Takaku, R. 2019. "The wall for mothers with first graders: Availability of afterschool childcare and continuity of maternal labor supply in Japan." *Review of Economics of the Household* (17): 177–199.

Uppal, S. 2015. "Employment patterns of families with children." *Insights on Canadian Society* 9 (89): 90–108.

Van Roy, B., B. Groholt, S. Heyerdahl, and J. Clench-Aas. 2010. "Understanding discrepancies in parent-child reporting of emotional and behavioural problems: Effects of relational and socio-demographic factors." *BMC Psychiatry* 10, 56