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A Profile of Youth Not in Employment, Education or Training (NEET) in Canada, 2015 to 2017

by Jordan Davidson and Rubab Arim

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A Profile of Youth Not in Employment, Education or Training (NEET) in Canada, 2015 to 2017

by

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Abstract

Reducing the proportion of youth **not in employment, education or training** (NEET) is one of the targets of the United Nations Sustainable Development Goal 8. This has become an important indicator that is monitored by many countries and international organizations since youth NEET are prone to long-term economic and social difficulties.

Although Canada-centric studies on youth NEET exist, they tend to focus on sociodemographic characteristics and on educational and employment outcomes. This report aims to expand the information on Canadian youth NEET by examining various sociodemographic and psychosocial characteristics. It also aims to explore whether different subgroups of youth NEET experience similar psychosocial characteristics. This study is based on data from three recent Canadian Community Health Survey cycles (2015 to 2017).

This study indicated various sociodemographic and psychosocial differences between Canadian youth NEET and non-NEET, and also highlighted the diversity among different youth NEET subgroups. Future research should continue to identify risk and protective factors related to NEET status by distinguishing among the subgroups of this population.

Keywords: youth, Canada, NEET, household income, physical health, mental health, mood disorder, anxiety disorder, substance use, life satisfaction

Executive summary

Youth **not** in **employment**, **education or training** (NEET) are considered to be at risk for long-term economic and social difficulties. The number of youth NEET is important to Canada and has also become a global issue, as evidenced by its inclusion as an indicator in the United Nations Sustainable Development Goals. To date, most of the Canadian studies on this topic have focused on the sociodemographic characteristics of youth NEET and on their educational and employment experiences during their transition from school to work. Thus, relatively little is known about the psychosocial well-being of youth NEET in the Canadian context. This report aims to address this gap by providing a psychosocial profile of youth NEET compared with youth non-NEET in Canada.

Using data from three recent Canadian Community Health Survey cycles (2015 to 2017), this study examined a profile of Canadian youth NEET (aged 18 to 29) compared with youth non-NEET. Youth NEET were further divided into three subgroups according to their reported main activity—looking for paid work, caring for children and "other" (i.e., their main activity was not looking for paid work or caring for children).

Overall, 11.1% of Canadian youth in the sample were identified as NEET. Of all youth NEET, 38.0% were looking for paid work, 27.5% were caring for children and 34.5% were classified as "other." Youth NEET were more likely to be older (25 to 29) and, compared with youth non-NEET, were also more likely to have lower educational attainment and to live in households in the lowest income quintile. Different patterns were observed among the youth NEET subgroups.

Youth NEET were more likely to have poorer self-reported physical and mental health, and lower physical activity levels. They were also more likely to report mood and anxiety disorders and to have suicidal thoughts. Once again, different patterns emerged among the youth NEET subgroups. Notably, youth NEET who were looking for paid work or caring for children had some health characteristics comparable with youth non-NEET, but those who were classified as "other" had consistently poorer characteristics compared with youth non-NEET.

Youth NEET were more likely to be daily cigarette smokers, but the percentage of those who reported illicit drug use in the past year was similar to youth non-NEET. In contrast, youth NEET were less likely to engage in binge drinking in the past year compared with youth non-NEET, but this gap was mainly driven by youth NEET who were caring for children and youth NEET in the "other" subgroup.

Youth NEET also had lower levels of life satisfaction compared with youth non-NEET. Youth NEET who were looking for paid work had the lowest levels of life satisfaction, while youth NEET who were caring for children had comparable life satisfaction with youth non-NEET.

These differences largely remained similar after controlling for gender, age and educational attainment. Overall, these findings indicate various sociodemographic and psychosocial differences between Canadian youth NEET and non-NEET, and also highlight the diversity among youth NEET, particularly in psychosocial well-being. Future research should continue to explore the differences among youth NEET and help develop a better understanding of why youth in Canada become NEET.

1 Introduction

The terminology describing youth NEET (referring to "not in education, employment or training") first appeared in a late-1990s United Kingdom government report to describe youth who were having trouble securing employment or making a successful transition into higher education (Social Exclusion Unit 1999). Since then, NEET¹ has become a regularly reported indicator for youth by the Organisation for Economic Co-operation and Development (OECD). Today, the number of youth NEET is a global issue, and youth NEET are considered to be at risk for long-term economic and social difficulties (Elder 2015; Goldman-Mellor et al. 2016; O'Dea et al. 2016; Ose and Jensen 2017; Statistics Canada and CMEC 2017). The United Nations included the substantial reduction of youth NEET rates (ages 15 to 24) as one of its 2030 Sustainable Development Goals (SDGs) as part of SDG 8—sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all (United Nations 2015). Statistics Canada continues to track Canada's progress towards this goal (Statistics Canada n.d.c).

In 2017, the OECD reported that the percentage of youth NEET (ages 15 to 29) in Canada was 12.2%, slightly lower than the OECD average (13.2%) and the United States (13.3%), similar to the United Kingdom (12.2%), but higher than Australia (11.0%) and Germany (9.4%) (OECD 2018). Historically, the percentage of youth NEET in Canada remained relatively stable between 2000 and 2017, ranging from a high of 13.7% in 2000 to a low of 11.8% in 2008, with the largest increase occurring from 11.8% in 2008 to 13.4% in 2009 during the start of the global recession. Youth NEET are more likely to experience multiple economic, health and psychosocial challenges, such as poor labour market outcomes (e.g., long-term unemployment), poor housing conditions, early parenthood, depression and social exclusion (Bynner and Parsons 2002; Dorsett and Lucchino 2014; Kieselbach 2003; Rodwell et al. 2018). Furthermore, if youth are NEET once, they are at risk of becoming NEET again in the future (Henderson et al. 2017; O'Dea et al. 2016; Powell 2017).

Although there has been Canadian research on youth NEET, in particular at Statistics Canada (Bourbeau and Pelletier 2019; Brunet 2018; Galarneau 2013; Henderson et al. 2017; Marshall 2012; Ravanera et al. 2017; Statistics Canada and CMEC 2017; Statistics Canada and CMEC 2018; Uppal 2017; Wall-Wieler et al. 2018), most of these studies focused on the sociodemographic characteristics and educational and employment experiences of youth NEET during their transition from school to work. Thus, relatively little is known about the psychosocial well-being of youth NEET in the Canadian context. Previous research conducted in other countries showed an association between NEET status and mental health problems, including suicide risk and substance abuse (Baggio et al. 2015; Rodwell et al. 2018). Focus on psychosocial well-being is particularly important given the role of mental health in successful transitions from school to employment or to further education or training in young adulthood. This report aims to address this gap by providing a psychosocial profile of youth NEET compared with youth non-NEET in Canada, using recent data available from the Canadian Community Health Survey (CCHS). Additionally, many studies tend either to present youth NEET as a homogenous group or to examine differences by sociodemographic factors (e.g., age groups, or unemployed versus not in the labour force). By contrast, this study primarily distinguishes subgroups of youth NEET by their main activity, including those who were caring for children, to explore diversity among youth NEET.

Section 2 discusses the data and methods used in the study. Results are presented in Section 3. The final section concludes with a summary and discussion of the results.

^{1.} Individual definitions of NEET vary considerably depending on the age considered (e.g., youth aged 15 to 29 versus 25 to 29 years old) and the inclusion criteria (e.g., youth who are "unemployed" versus "unemployed or not in the labour force").

2 Data and methods

This study is based on data from three recent CCHS cycles (2015 to 2017). The CCHS is a cross-sectional survey that is designed to collect information related to health status, health care utilization and health determinants for the Canadian population aged 12 and older living in the 10 provinces and 3 territories. The following populations are excluded from the survey population and "represent less than 3% of the Canadian population aged 12 and older": "persons living on reserves and other Aboriginal settlements in the provinces, full-time members of the Canadian Armed Forces, the institutionalized population, children aged 12 - 17 that are living in foster care, and persons living in the Quebec health regions of Région du Nunavik and Région des Terres-Cries-de-la-Baie-James." (Statistics Canada n.d.a, under "Target population") Although all provinces and territories participate in the CCHS, data from the territories are released only with every two-year cycle. Therefore, responses from the territories were removed from the entire sample.

The sample for this study included youth aged 18 to 29 from three recent CCHS cycles. Consistent with previous OECD and Statistics Canada studies (Brunet 2018; OECD 2018), youth who responded to the survey in the summer months (May to August) were excluded from the study sample to avoid misclassifying youth who would potentially be returning to secondary or postsecondary education. The upper age (29 years old) criterion was chosen to be consistent with previous OECD and Statistics Canada studies on youth NEET (Brunet 2018; Marshall 2012; OECD 2018). The lower age criterion was raised to 18 years because few youth (less than 2%) aged 15 to 17 were NEET in the non-summer months, and the remainder were likely to still be in mandatory schooling. Thus, the study sample (N=13,537) included youth aged 18 to 29 who participated in the survey (excluding those who participated in the summer months). Two items (i.e., working status in the past week and currently attending school) were considered to classify youth as NEET or non-NEET. Youth who were not working (or not absent from regular work²) in the past week and who were not currently attending school were classified as NEET. Youth who had missing information on either of these items (n=267; less than 2%) were excluded from the sample as their NEET status could not be identified. The final sample (N=13,270) included youth aged 18 to 29 who participated in the survey (excluding those who participated in the summer months) and provided a valid response to the two key questions needed to define NEET status.

Consistent with previous work (Eurofound 2016), three youth NEET subgroups were created based on respondents' main activity in the past week: looking for paid work (subgroup 1: "looking for paid work"); child care³ (subgroup 2: "caring for children," whether they are caring for one child or multiple children); or "household work," "retired," "long-term illness," "volunteering," "care-giving other than for children," or "other" (subgroup 3: "other") (Statistics Canada n.d.b, Question MAC_Q005, response items. 06, 07, 09, 10, 11 and 12).⁴ Of subgroup 3, approximately half reported their main activity as "other," one-quarter reported household work, and one-fifth reported having a long-term illness or disability. All analyses were weighted using the sample weights.⁵

^{2.} Temporary lay-offs, seasonal lay-offs, casual jobs with no hours in the past week, and self-employed with no work available are considered as "absent from regular work" (i.e., employed) as long as participants indicate that they were "absent from regular work" in the past week.

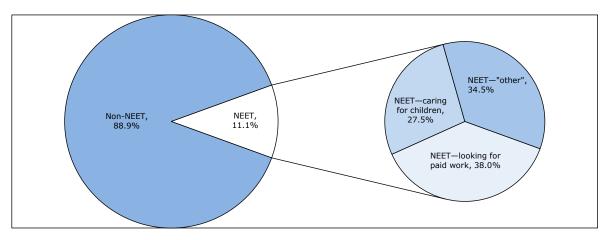
^{3.} This subgroup of youth NEET also includes those who reported that they were not working (or not absent from regular work), but still selected their main activity as maternity or paternity leave. Further analysis ensured that those who indicated maternity or paternity leave from paid work were not classified in this group.

^{4.} Less than 2% of the final study sample completed a proxy interview. A proxy interview was conducted for selected respondents who were unable to complete the survey for physical or mental health reasons. Youth NEET were more likely to have a proxy interview compared with youth non-NEET (8.0% versus 1.2%). However, this difference was largely because of youth NEET in the "other" subgroup having a proxy interview. Thus, estimates, in particular for youth NEET in the "other" subgroup, may have been underestimated.

^{5.} For the years 2015 and 2016, sample weights were standardized to the overall population weight for 2017 (e.g., 2015 sample weight multiplied by [2015 yearly weighted population]) to create one master sample weight for the study.

3 Results

Chart 1
Distribution of study sample, youth NEET and non-NEET



Note: NEET: not in employment, education or training. **Source:** Statistics Canada, Canadian Community Health Survey, 2015, 2016 and 2017.

In the study sample, 11.1% of Canadian youth were identified as NEET. Of all youth NEET, 38.0% were looking for paid work, 27.5% were caring for children and 34.5% were classified as "other" (Chart 1).

Overall, the results regarding sociodemographic characteristics suggest that youth NEET in Canada have a similar socioeconomic profile to youth NEET in other Western nations. Compared with youth non-NEET, youth NEET were more likely to be older (aged 25 to 29), with no overall difference in gender. Compared with youth non-NEET, youth NEET were also more likely to be married or in a common-law relationship, but this difference was mainly attributable to youth NEET who were caring for children. Youth NEET had lower educational attainment than youth non-NEET, with 38.9% of youth NEET completing postsecondary education, compared with 53.1% of youth non-NEET. Youth NEET were also more likely to live in lower-income households.⁶ This was noticeably evident in the lowest national household income quintile: while 22.5% of youth non-NEET were in this range, almost double that rate of youth NEET (40.9%) were living in households in the lowest income quintile (Table 1).

^{6.} National household income quintiles, adjusted for household size and location, were reported instead of youth personal income. Fewer youth NEET than youth non-NEET were living with a parent or parents (45.1% versus 49.7%).

Table 1
Sociodemographic characteristics of youth NEET and non-NEET

	Non-NEET (reference)	NEET—overall	NEET—looking for paid work	NEET—caring for children	NEET—"other"
	(reference)	NLL1—Overall	percent	ioi ciliaren	NLL1— Other
Age (years)			·		
18 to 24	57.2	49.2 *	57.5	31.1 *	53.4
25 to 29	42.8	50.8 *	42.5	68.9 *	46.6
Gender					
Male	50.6	49.5	69.9 *	8.0 *D	60.4 *
Female	49.4	50.5	30.1 *	92.0 *	39.6 *
Marital status					
Married / common law	26.0	36.7 *	21.1	73.4 *	25.6
Single	74.0	63.3 *	78.9	26.6 *	74.4
Educational attainment					
Less than high school	6.2	20.6 *	13.8 *	23.7 *	26.1 *
High school diploma	40.7	40.5	43.4	34.7	42.1
Above high school	53.1	38.9 *	42.8 *	41.6 *	31.8 *
Household income (quintiles)					
Lowest	22.5	40.9 *	34.8 *	46.1 *	44.0 *
Second	20.4	19.9	19.7	20.6	20.1
Third	18.7	16.5	19.8	15.7	14.0 *
Fourth	20.0	12.6 *	15.2 *	9.8 * ^C	10.3 * ^C
Тор	18.3	10.1 *	10.5 *	7.9 * ^D	11.6 * ^C

^{*} significantly different from reference category (p < 0.05)

Note: NEET: not in employment, education or training; CV: coefficient of variation.

Source: Statistics Canada, Canadian Community Health Survey, 2015, 2016 and 2017.

Physical health

Youth NEET reported poorer general physical health than youth non-NEET. Youth NEET were less likely to report very good or excellent general health compared with youth non-NEET (55.9% versus 72.0%). A similar pattern was observed among all youth NEET subgroups. Among youth NEET, 62.9% of those who were caring for children reported very good or excellent health; the figure was 58.8% for those who were looking for paid work and 46.3% for those in the "other" subgroup (Chart 2).

Regarding physical activity levels, youth NEET were less likely than youth non-NEET (57.7% versus 69.0%) to report activity levels that were at or over the Canadian Physical Activity Guidelines (CPAG).⁷ While a comparable percentage of youth NEET who were looking for paid work (70.0%) reported being at or over the CPAG standard, a smaller share of those who were caring for children and in the "other" subgroup reported this level (51.2% and 49.9%, respectively) (data not shown).

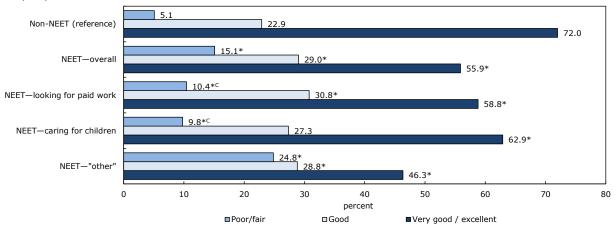
 $^{^{\}text{C}}$ quality of the estimate is marginal (i.e., 0.15 < CV ≤ 0.25)

^D quality of the estimate is marginal (i.e., $0.25 < CV \le 0.35$)

^{7.} The CPAG defines being physically active as having "at least 150 minutes of moderate- to vigorous-intensity aerobic physical activity per week, in bouts of 10 minutes or more." (CSEP/SCPE n.d., under "FOR ADULTS - 18 – 64 YEARS").

Chart 2 Perceived health of youth NEET and non-NEET

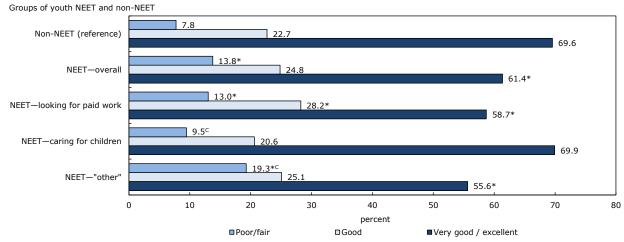
Groups of youth NEET and non-NEET



^{*} significantly different from reference category (p < 0.05) $^{\rm C}$ quality of the estimate is marginal (i.e., 0.15 < CV \leq 0.25)

Source: Statistics Canada, Canadian Community Health Survey, 2015, 2016 and 2017.

Chart 3 Perceived mental health of youth NEET and non-NEET



^{*} significantly different from reference category (p < 0.05) $^{\rm C}$ quality of the estimate is marginal (i.e., 0.15 < CV \leq 0.25)

Note: NEET: not in employment, education or training; CV: coefficient of variation. **Source:** Statistics Canada, Canadian Community Health Survey, 2015, 2016 and 2017.

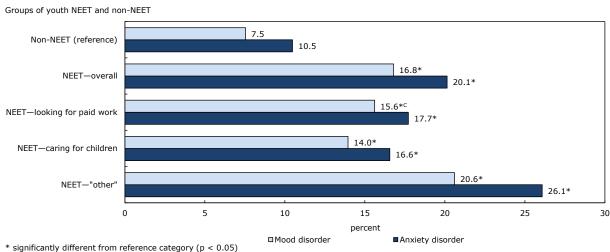
These findings begin to highlight the diversity of the characteristics of youth NEET, and they suggest that it can be misleading to treat youth NEET as a homogenous group. For example, youth NEET overall reported both poorer general health and lower levels of physical activity than youth non-NEET, which is in line with previous studies (Henderson et al. 2017; Ose and Jensen 2017). However, differences can be observed within youth NEET to the extent that some youth NEET (such as those looking for paid work) may be more similar to youth non-NEET for certain characteristics, such as physical activity.

Note: NEET: not in employment, education or training; CV: coefficient of variation.

Mental health

Mental health among youth NEET has been a major concern. Overall, youth NEET reported poorer mental health⁸ than youth non-NEET, with 13.8% of youth NEET reporting poor or fair mental health, compared with 7.8% of youth non-NEET. Additionally, 61.4% of youth NEET reported very good or excellent mental health, compared with 69.6% of youth non-NEET. Among youth NEET, while those who were caring for children were, in general, similar to youth non-NEET, those looking for paid work and in the "other" subgroup were more likely to report poor or fair mental health (13.0% and 19.3%, respectively) and were less likely to report very good or excellent mental health (58.7% and 55.6%, respectively) (Chart 3).

Chart 4
Mood and anxiety disorders of youth NEET and non-NEET



c quality of the estimate is marginal (i.e., $0.15 < CV \le 0.25$)

Note: NEET: not in employment, education or training; CV: coefficient of variation.

Source: Statistics Canada, Canadian Community Health Survey, 2015, 2016 and 2017.

Youth NEET were also more likely to report mood and anxiety disorders, compared with youth non-NEET (16.8% versus 7.5% for mood disorders and 20.1% versus 10.5% for anxiety disorders). A similar pattern of differences was observed among all youth NEET: all three subgroups were more likely to report mood and anxiety disorders. The percentages for mood and anxiety disorders were lowest for those caring for children (14.0% for mood disorders and 16.6% for anxiety disorders) and highest for those in the "other" subgroup (20.6% for mood disorders and 26.1% for anxiety disorders), followed by those looking for paid work (15.6% for mood disorders and 17.7% for anxiety disorders) (Chart 4).

Just under one-quarter of youth NEET (23.7%) reported seriously contemplating suicide¹⁰ in the past year, compared with 14.9% of youth non-NEET (data not shown). A comparable percentage of youth NEET who were caring for children (20.4%) reported considering suicide in the past year. The figure was higher, at 24.1%, among those who were looking for paid work, and was 26.5% among those in the "other" subgroup (data not shown).

^{8.} Proxy interviews did not ask about perceived mental health.

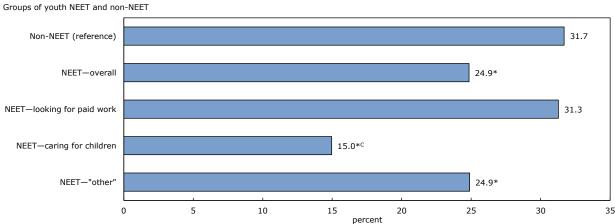
^{9.} Mood disorders included disorders such as depression, bipolar disorder, mania or dysthymia. Anxiety disorders included disorders such as a phobia, obsessive-compulsive disorder or a panic disorder.

^{10.} Proxy interviews did not ask about suicidal thoughts. In addition, this item was part of optional survey content, which was designed to give jurisdictions the opportunity to address their own public health priorities, and therefore may not have been asked of all participants in all the survey cycles. The non-response rate resulting from optional content was comparable between youth NEET and non-NEET (34.4% versus 35.4%) for this variable.

These findings further highlight the diversity among youth NEET. For example, youth NEET who were caring for children did not differ from youth non-NEET in their perceived mental health or suicidal thoughts, yet they were more likely to report mood and anxiety disorders. 11 In contrast. youth NEET who were looking for paid work reported consistently poorer mental health characteristics, compared with youth non-NEET. Youth NEET in the "other" subgroup fared worse. Mental health issues among youth NEET have been noted in previous works, with a specific focus on higher incidents of depression (Gutiérrez-García et al. 2017; Henderson et al. 2017; O'Dea et al. 2016; Ose and Jensen 2017; Statistics Canada and CMEC 2017). This study supports and extends previous findings.

Substance use

Chart 5 Binge drinking once a month or more in the past year among youth NEET and non-NEET



* significantly different from reference category (p < 0.05) $^{\text{C}}$ quality of the estimate is marginal (i.e., 0.15 < CV \leq 0.25)

Notes: Binge drinking is defined as five or more drinks for men and four or more drinks for women on one occasion. NEET: not in employment, education or training; CV: coefficient of variation.

Source: Statistics Canada, Canadian Community Health Survey, 2015, 2016 and 2017.

Another concern identified for youth NEET was substance use. Youth NEET were more likely to be daily cigarette smokers than youth non-NEET (20.3% versus 10.0%), and this pattern was observed among all youth NEET subgroups: 20.8% of those who were looking for paid work, 20.5% of those who were caring for children, and 19.9% of those in the "other" subgroup were daily smokers (data not shown). In contrast, youth NEET were less likely to have engaged in binge drinking¹² once a month or more in the past year compared with youth non-NEET (24.9% versus 31.7%), but this difference was mainly driven by youth NEET who were caring for children and by those in the "other" subgroup. Notably, while 31.3% of youth NEET who were looking for paid work engaged in binge drinking (a similar percentage compared with youth non-NEET), the figure was significantly lower (15.0%) for those who were caring for children, and was 24.9% for those in the "other" subgroup, compared with youth non-NEET (Chart 5).¹³

At the opposite end of the alcohol consumption spectrum, findings showed that youth NEET were more likely not to have consumed any alcohol in the past year than youth non-NEET

^{11.} A cautionary note given the known gender differences in mood and anxiety disorders (see McRae et al. 2016): while just under half (49.4%) of youth non-NEET were female, a majority (92%) of youth NEET who were caring for children were female. Please refer to the appendix for findings adjusted for gender.

^{12.} Binge drinking is defined as having five (or more) drinks for men and four (or more) drinks for women on one

^{13.} This analysis was repeated among a subsample of older youth (aged 25 to 29) who were working only (not in school). The results were similar, with one exception: differences between youth NEET in the "other" subgroup and youth non-NEET were no longer statistically significant (28.1% versus 33.0%).

(25.1% versus 13.8%), but once again this gap was mainly driven by youth NEET who were caring for children and by those in the "other" subgroup (33.8% and 31.8%, respectively). The figure for those who were looking for paid work (13.0%) was similar to that of youth non-NEET (data not shown). This finding is in line with a recent study that indicated that drinking behaviour was not strongly associated with NEET status after controlling for other risk factors (Rodwell et al. 2018).

Illicit drug¹⁴ use was similar between youth NEET overall and youth non-NEET (22.3% versus 22.4%). However, differences emerged once again among subcategories of youth NEET. For illicit drug use, while the rate for those in the "other" subgroup (25.7%) was comparable with the rate for youth non-NEET, youth NEET who were caring for children were less likely (8.3%) and those who were looking for paid work were more likely (29.6%) to report using illicit drugs in the past year, compared with youth non-NEET (Chart 6).15

Groups of youth NEET and non-NEET Non-NEET (reference) 22.4 NEET-overall NEET-looking for paid work 29.6*

8.3*0

10

Chart 6 Use of illicit drugs in the past year among youth NEET and non-NEET



* significantly different from reference category (p < 0.05) $^{\text{C}}$ quality of the estimate is marginal (i.e., 0.15 < CV \leq 0.25)

Note: NEET: not in employment, education or training; CV: coefficient of variation. Source: Statistics Canada, Canadian Community Health Survey, 2015, 2016 and 2017.

Perhaps more so than physical and mental health characteristics, the findings on substance use encapsulate the diversity among youth NEET and the importance of better understanding these differences. Previous research generally supported that substance abuse was associated with NEET status (Goldman-Mellor et al. 2016; Gutiérrez-García et al. 2017; Henderson et al. 2017; Powell 2017). This study's findings suggest that this association may not hold for all youth NEET.

percent

Social well-being

NEET—caring for children

NEET-"other"

Overall, youth NEET were less satisfied with their lives 16 than youth non-NEET. This was evident when considering the highest levels of life satisfaction (a score of 9 or 10): 33.2% of youth NEET were very satisfied, compared with 39.7% of youth non-NEET (Chart 7). While youth NEET who were caring for children and those in the "other" subgroup were as likely to be very satisfied with their lives as youth non-NEET, those who were looking for paid work were less likely to be very satisfied with their lives.

25.7

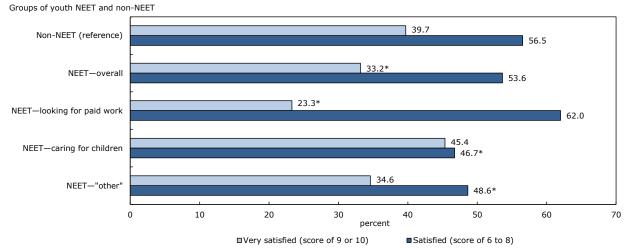
25

^{14.} Proxy interviews did not ask about illicit drug use. This item was also part of optional survey content. The nonresponse rate resulting from optional content was comparable between youth NEET and non-NEET (32.1% versus 33.5%) for this variable.

^{15.} This analysis was also repeated among a subsample of older youth (aged 25 to 29) who were working only (not in school). The pattern of differences was similar.

^{16.} Proxy interviews did not ask about life satisfaction.

Chart 7
Life satisfaction of youth NEET and non-NEET



* significantly different from reference category (p < 0.05) **Note:** NEET: not in employment, education or training.

Source: Statistics Canada, Canadian Community Health Survey, 2015, 2016 and 2017.

These findings are consistent with previous research indicating lower levels of life satisfaction among youth NEET (Kins and Beyers 2010; Schoon and Lyons-Amos 2017; Voßemer and Eunicke 2015). Research has also suggested that youth's perceptions of their transition to adulthood (e.g., becoming a parent, completing a set goal such as pursuing higher education or obtaining work, or more broadly defined markers such as gaining personal independence) may influence how they rate their well-being (Kins and Beyers 2010; Schoon and Lyons-Amos 2017). This may explain the similar rates of being very satisfied with life between youth NEET who were caring for children and youth non-NEET.

It is important to note that the observed differences between youth NEET and non-NEET were not adjusted for differences in social determinants of health, such as gender and education. Indeed, various sociodemographic factors may explain these observed differences. To shed some light on this, post-hoc analyses were conducted where the effects of gender, age and education level were controlled for, based on the categories presented in Table 1. The primary purpose of these analyses was to examine whether the pattern of differences, including statistically significant differences, would change after controlling for the effects of gender, age and educational attainment. When any one of these three sociodemographic factors was controlled for, or when all three were controlled for simultaneously, the general pattern of the findings remained, with few changes in the statistical significance of the results. These findings are summarized in the appendix which contains a more detailed presentation of the results from each model (e.g., controlling for any one of the three sociodemographic factors and for all three simultaneously).

After the effects of gender, age and educational attainment (covariates) were controlled for, there were no statistically significant differences on illicit drug use between youth NEET who were looking for paid work and youth non-NEET (Table A.4). All other observed differences remained after controlling for the covariates.

Compared with youth non-NEET, three changes were observed for youth NEET who were caring for children, after controlling for the effects of covariates. Specifically, statistically significant differences between the two groups for reporting very good or excellent general physical health and mood and anxiety disorders did not remain.

Finally, after the effects of the covariates were accounted for, differences between youth NEET in the "other" subgroup and youth non-NEET did not remain for smoking, and life satisfaction.

Overall, these findings indicated that gender, age and educational attainment may account for some of the observed differences between youth NEET and non-NEET, though a majority of the differences still remained after controlling for these covariates.

4 Conclusion

In recent years, attention on youth not in employment, education or training (NEET) has increased. This topic is currently a priority for international organizations, as evidenced by the United Nations including the NEET indicator in its 2030 Sustainable Development Goals, and by the Organisation for Economic Co-operation and Development monitoring youth NEET over time for international comparisons. This topic is also relevant in the Canadian context because the NEET rate among Canadian youth has remained relatively stable at around 13% for the past two decades, and youth NEET are considered to be at risk for a multitude of long-term economic and social difficulties (Brunet 2018; Henderson et al. 2017; Marshall 2012; Statistics Canada and CMEC 2017).

Using recent data from the Canadian Community Health Survey (2015 to 2017) (Statistics Canada, n.d.a), this study built on the existing youth NEET literature by comparing various sociodemographic, physical and mental health, and social well-being characteristics between youth NEET and non-NEET. A further breakdown of youth NEET into three distinct subgroups allowed for a better understanding of the diversity among youth NEET. Overall, this study addressed an important gap in the Canadian literature—namely, understanding the diversity that exists within the NEET population, based on their main activity—and set the parameters for more in-depth research in this area.

The findings indicated that 11.1% of Canadian youth in the study sample were NEET. Of all youth NEET, 38.0% were looking for paid work, 27.5% were caring for children and 34.5% were classified as "other." Compared with youth non-NEET, youth NEET were more likely to be older (aged 25 to 29), to be married or in a common-law relationship, to have lower educational attainment and to live in households in the lowest income quintile. Different patterns of sociodemographic characteristics emerged among youth NEET subgroups (e.g., youth NEET who were looking for paid work were more likely to be older, and those who were caring for children were more likely to be female).

Youth NEET were more likely to report poorer physical health characteristics, such as lower levels of self-reported physical health and physical activity levels. They were also more likely to perceive their mental health as poor or fair, to report mood and anxiety disorders, and to have suicidal thoughts. Once again, different patterns were found among youth NEET subgroups. Notably, youth NEET who were classified as "other" had consistently poorer characteristics, whereas those who were looking for paid work and those who were caring for children reported similar self-reported physical activity levels and perceived mental health, respectively, compared with youth non-NEET.

While youth NEET were more likely to be daily cigarette smokers, the percentage of those who reported illicit drug use in the past year was similar to youth non-NEET. In contrast, youth NEET were less likely to have engaged in binge drinking at least once a month in the past year compared with youth non-NEET. However, these findings were largely because of youth NEET who were caring for children. Notably, youth NEET who were caring for children were less likely to report illicit drug use and binge drinking in the past year compared with youth non-NEET and youth NEET in the other two subgroups.

Lastly, youth NEET were less satisfied with their lives compared with youth non-NEET. In particular, youth NEET who were looking for paid work had the lowest rate of "very satisfied" responses to the life satisfaction question, while youth NEET who were caring for children and youth NEET in the "other" subgroup had rates comparable with youth non-NEET.

These differences largely remained after controlling for gender, age and educational attainment, except for a few variables such as illicit drug use for youth NEET who were looking for paid work; general physical health and mood and anxiety disorders for youth NEET who were caring for children; and smoking and life satisfaction for youth NEET in the "other" subgroup. Overall, these

findings indicated various sociodemographic and psychosocial differences not only between Canadian youth NEET and non-NEET, but also among youth NEET themselves. Certain similarities were also observed, in particular between some youth NEET subgroups and youth non-NEET. For example, all mental health characteristics were similar for youth non-NEET and youth NEET who were caring for children. These findings highlight the importance of considering the notion of becoming NEET by "choice" (e.g., through parenthood), which may still imply a successful transition to adulthood, even if it means being NEET. Because of sample size limitations, only three youth NEET subgroups (looking for paid work, caring for children and "other") were examined in this study.

Future research may better illuminate the diversity of this population and distinguish additional youth NEET subgroups, such as those who are conventionally unemployed, disengaged or opportunity seekers. In addition, this study was cross-sectional and, therefore, directionality in associations (e.g., are youth NEET more likely to develop mood and anxiety disorders, or are youth with mood and anxiety disorders more likely to become NEET?) could not be determined. The observed associations may certainly be bidirectional. This may be particularly true for one-fifth of youth NEET in the "other" subgroup. Future research can shed light on this by using longitudinal data. Furthermore, a better understanding of the risk and protective factors related to NEET status would be valuable for helping to meet the United Nations goal of reducing the NEET rate worldwide. When NEET status is identified in future research, it is important to consider youth's perceptions of their transition to adulthood. At the minimum, it would be important to examine youth NEET who are caring for children separately (Rodwell et al. 2018).

In conclusion, studying youth NEET may facilitate a better understanding of the multifaceted disadvantages many youth NEET have, particularly for youth who are attempting to enter the labour force (Eurofound 2016). NEET status may be experienced differently among various gender and age groups, and among youth from different cultural and socioeconomic backgrounds (Hutchinson, Beck and Hooley 2016). The results from this study allow for a critical examination of the diverse experiences of youth NEET and stimulate future research questions that can help to better understand NEET status among Canadian youth.

Appendix: Post-hoc analyses controlling for gender, age and educational attainment variables

The observed differences in this study were not adjusted for differences in social determinants of health such as gender and education. To shed some light on this issue, post-hoc analyses were conducted to examine whether differences in gender, age and educational attainment (covariates) may explain some of the observed differences between youth not in employment, education or training (NEET) (i.e., the three subgroups) and non-NEET.

Thus, for each psychosocial variable, an ordinary least squares regression model was conducted after controlling for the effects of covariates with post-hoc analyses comparing four groups (i.e., youth non-NEET as the reference group, NEET looking for paid work, NEET caring for children and NEET in the "other" subgroup). Separate models were examined, including each of the three covariates one at a time, and all three simultaneously.

The summary tables below highlight whether the previously observed statistically significant differences between each youth NEET subgroup and the non-NEET group changed after controlling for the effects of the covariates.

Table A.1

Summary of changes in statistical significance levels for the three subgroups of youth NEET after controlling for youth gender variable

Controlling for	Does statistical significance level change?			
Characteristic	Response	NEET—looking for paid work	NEET—caring for children	NEET—"other"
Perceived health	Very good / excellent	No	No	No
Physical activity	At or over CPAG	No	No	No
Perceived mental health	Very good / excellent	No	No	No
Mood disorder	Yes	No	No	No
Anxiety disorder	Yes	No	Yes ¹	No
Contemplated suicide (past year)	Yes	No	No	No
Smoking	Daily	No	No	No
	Not at all	No	No	No
Binge drinking (past year)	Never	No	No	No
	Once a month or more	No	No	No
Illicit drug use (past year)	Yes	Yes ¹	No	No
Life satisfaction	Very satisfied	No	No	No
	Satisfied	No	No	No

^{1.} Now not significant.

Notes: When only gender differences were controlled for (based on the two categories presented in Table 1), two changes were observed: (1) youth not in employment, education or training (NEET) looking for paid work were no longer different than youth non-NEET in terms of using illicit drugs in the past year (dropping from 7.2% higher to 6.2%) and (2) youth NEET caring for children were no longer different than youth non-NEET in terms of reporting an anxiety disorder (dropping from 6.1% higher to 3.1%). CPAG: Canadian Physical Activity Guidelines.

Table A.2
Summary of changes in statistical significance levels for the three subgroups of youth NEET after controlling for youth age cohort

Controlling for a	Does statistical significance level change?			
Characteristic	Response	NEET—looking for paid work	NEET—caring for children	NEET—"other"
Perceived health	Very good / excellent	No	No	No
Physical activity	At or over CPAG	No	No	No
Perceived mental health	Very good / excellent	No	No	No
Mood disorder	Yes	No	No	No
Anxiety disorder	Yes	No	No	No
Contemplated suicide (past year)	Yes	No	No	No
Smoking	Daily	No	No	No
	Not at all	No	No	No
Binge drinking (past year)	Never	No	No	No
	Once a month or more	No	No	No
Illicit drug use (past year)	Yes	No	No	No
Life satisfaction	Very satisfied	No	No	No
	Satisfied	No	No	No

Notes: When youth age cohort (based on the two categories presented in Table 1) was controlled for, there were no changes in any of the previously observed statistical significance levels. NEET: not in employment, education or training; CPAG: Canadian Physical Activity Guidelines.

Table A.3
Summary of changes in statistical significance levels for the three subgroups of youth NEET after controlling for youth educational attainment

Controlling for educati	Does statistical significance level change?			
Characteristic	Response	NEET—looking for paid work	NEET—caring for children	NEET—"other"
Perceived health	Very good / excellent	No	No	No
Physical activity	At or over CPAG	No	No	No
Perceived mental health	Very good / excellent	No	No	No
Mood disorder	Yes	No	No	No
Anxiety disorder	Yes	No	No	No
Contemplated suicide (past year)	Yes	No	No	No
Smoking	Daily	No	No	No
	Not at all	No	No	Yes ¹
Binge drinking (past year)	Never	No	No	No
	Once a month or more	No	No	Yes ¹
Illicit drug use (past year)	Yes	Yes ¹	No	No
Life satisfaction	Very satisfied	No	Yes ¹	No
	Satisfied	No	No	No

^{1.} Now significant.

Notes: When only differences in educational attainment were controlled for (based on the three categories presented in Table 1), four changes were observed: (1) youth not in employment, education or training (NEET) looking for paid work were no longer different than youth non-NEET in terms of using illicit drugs in the past year (dropping from 7.2% higher to 5.3%), (2) youth NEET caring for children became statistically significantly more likely than youth non-NEET to be very satisfied with their lives (rising from 5.7% higher to 6.6%), and youth NEET "other" were no longer different than youth non-NEET (3) in terms of being non-smokers (dropping from 8.0% higher to 3.9%) and (4) in binge drinking (changing from 6.8% lower to 6.0%). CPAG: Canadian Physical Activity Guidelines.

Table A.4
Summary of changes in statistical significance levels for the three subgroups of youth NEET after controlling for youth gender, age cohort and educational attainment

Controlling for geno and educational	Does statistical significance level change?			
Characteristic	Response	NEET—looking for paid work	NEET—caring for children	NEET—"other"
Perceived health	Very good / excellent	No	Yes ¹	No
Physical activity	At or over CPAG	No	No	No
Perceived mental health	Very good / excellent	No	No	No
Mood disorder	Yes	No	Yes ¹	No
Anxiety disorder	Yes	No	Yes ¹	No
Contemplated suicide (past year)	Yes	No	No	No
Smoking	Daily	No	No	Yes ¹
	Not at all	No	No	Yes ¹
Binge drinking (past year)	Never	No	No	No
	Once a month or more	No	No	No
Illicit drug use (past year)	Yes	Yes ¹	No	No
Life satisfaction	Very satisfied	No	No	No
	Satisfied	No	No	Yes ¹

^{1.} Now significant.

Notes: When all three covariates are controlled for, the following changes were observed: (1) youth not in employment, education or training (NEET) looking for paid work were no longer different than youth non-NEET in terms of using illicit drugs in the past year (dropping from 7.2% higher to 4.6%), (2) youth NEET caring for children were no longer different than youth non-NEET in terms of reporting very good or excellent general physical health (changing from 9.1% lower to 5.3%) and mood and anxiety disorders (mood disorders: dropping from 6.5% higher to 3.1%; anxiety disorders: dropping from 6.1% higher to 2.3%), (3) youth NEET "other" were no longer different than youth non-NEET in terms of smoking (daily: dropping from 9.9% higher to 4.9%; not at all: changing from 8.0% lower to 2.7%) and life satisfaction (satisfied: changing from 7.9% lower to 7.5%). CPAG: Canadian Physical Activity Guidelines.

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