Canadian Institute for Health Information

Institut canadien d'information sur la santé

September 2009

Youth Health Outcomes and Behaviours in Relation to Developmental Assets

Summary

This Analysis in Brief explores associations among five developmental assets and seven health outcomes and behaviours for Canadian youth age 12 to 15. Analyses are conducted for all youth and for males and females separately. Findings suggest the more developmental assets youth had, the more likely they were to report positive health outcomes and the less likely they were to report risky behaviours. Youth from the highest income households and those from households with the highest education were more likely to report a high level of a given asset than youth from the lowest income households and those from households with the lowest education. Statistically significant differences were found for males and females when comparing high levels and medium–low levels of developmental assets, although no clear pattern across all developmental assets was found by gender. Results may help to illustrate the importance of considering gender-specific perspectives and needs in youth development program planning and policy development.

Introduction

Developmental assets have been defined as the "positive relationships, opportunities, competencies, values and self-perceptions that youth need to succeed."[1] The 2005 report *Improving the Health of Young Canadians* from the Canadian Population Health Initiative (CPHI) demonstrated a positive link between developmental assets and selected adolescent health outcomes and behaviours.[2]

Improving the Health of Young Canadians explored associations between five developmental assets—parental nurturance, parental monitoring, school engagement, volunteerism and peer connectedness—and seven health outcomes and behaviours of Canadian youth—high level of self-worth, excellent or very good health, low level of anxiety, contact with peers who commit crimes, alcohol use, tobacco use and marijuana use.[2]

The analyses in *Improving the Health of Young Canadians* used data from Cycle 4 (2000–2001) of the National Longitudinal Survey of Children and Youth (NLSCY).[i] This Analysis in Brief (AiB) reproduces the aforementioned analyses using more recent Cycle 6 (2004–2005) NLSCY data. Developmental assets and health outcomes and behaviours are examined and include household income and education as socio-economic variables. Developmental assets, health outcomes and behaviours among youth are also analyzed and compared by sex. The findings of the present analyses are then compared with some of the general findings from *Improving the Health of Young Canadians*.

Methodology

Data Source

Data used for the analyses in this AiB is extracted from Statistics Canada's NLSCY Cycle 6 (2004–2005). The NLSCY is a national longitudinal survey that examines the development of Canadian children from birth to adulthood.[3] The NLSCY target population sample includes youth living in the 10 provinces and excludes youth living on Indian reserves or Crown lands, in institutions and in some remote regions.[3] The information gathered in the survey is centred on factors that influence the social, emotional and behavioural development of children and the ways in which these factors may impact a child's development over time.[3]

Methods

The analyses in this AiB were produced by equal proportions tests using NLSCY Cycle 6 cross-sectional weights. The analyses examined 3,786 respondents age 12 to 15, representing 1,556,600 Canadian youth. The distribution of males and females was 1,940 and 1,846, respectively, representing 795,813 male and 760,787 female youth age 12 to 15.

Developmental Assets

The developmental assets used for the present analyses were identified in CPHI's *Improving the Health of Young Canadians* report. For complete variable descriptions, including response categories, categorical score/continuous score ranges and non-response rates, please refer to the appendix at the end of this AiB.

Parental nurturance "refers to the extent to which parents praise and show pride in their child, ensure their child feels appreciated, listen to their child's ideas and problem-solve with the child when disagreements occur."[2]

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i. Please refer to *Improving the Health of Young Canadians*, available from www.cihi.ca/cphi, for information on the original analyses, data and references.

Parental monitoring pertains "to the extent to which parents take an interest in where their child is going, with whom and what they are doing, set curfews and limit the frequency with which their children go out."[2]

School engagement "refers to the degree of importance a youth places on doing well academically, learning new things, making friends, participating in extracurricular activities, getting involved with student council or similar groups and expressing their opinion in class."[2]

Volunteerism as a measure of community engagement refers to youth who indicated that they engaged in one or more of the following in the past 12 months: supporting a cause, fundraising, helping in one's community, helping neighbours or relatives or performing another organized volunteer activity.[2]

Peer connectedness is represented by the friends score, which is composed of multiple items on the NLSCY. These questions asked youth "to indicate whether or not they have many friends, the ease with which they get along with others their own age and whether other youth their own age like them and want to be their friend."[2]

Health Outcomes and Health Behaviours

The seven outcomes and behaviours examined in this AiB are the following:[ii]

Health Outcomes

- **Self-worth**—Youth were classified as either having a high level of self-worth or having a medium–low level of self-worth.[iii]
- **Self-rated health**—Youth were classified as either having excellent or very good self-rated health or having a medium–low level of self-rated health.
- **Anxiety**—Youth were classified as either having a low level of anxiety or a medium–high level of anxiety.

Health Behaviours

- **Contact with peers who commit crimes**—Youth were classified as either having contact with peers who commit crimes or not having contact with peers who commit crimes.
- **Alcohol use**—Youth were classified as either consuming alcohol or not consuming alcohol.
- **Tobacco use**—Youth were classified as either consuming tobacco or not consuming tobacco.
- **Marijuana use**—Youth were classified as either consuming marijuana or not consuming marijuana.

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ii.   For complete variable descriptions, including response categories, categorical score/continuous score ranges and non-response rates, please refer to the appendix at the end of this AiB.

iii. As with the *Improving the Health of Young Canadians* report, medium and low categories were combined due to the small sample size of the low category.

Limitations

The analyses presented in this AiB are cross-sectional. A causal relationship between the variables cannot be inferred. This AiB presents data on youth age 12 to 15, while the *Improving the Health of Young Canadians* report studied youth age 12 to 15 and, in some cases, 12 to 17.[iv] As with the *Improving the Health of Young Canadians* report, analyses in this AiB did not control for socio-economic status or other potential confounding variables.

Analysis

This section examines developmental assets and health outcomes and behaviours using NLSCY Cycle 6 data. The objective was to compare reported health outcomes and health behaviours of youth with high levels of developmental assets to those of youth with medium–low levels of developmental assets. These analyses are conducted for all youth and for males and females separately.

Table 1   Percentage of Youth (Age 12 to 15) Reporting Health Outcomes and Behaviours in Relation to Parental Nurturance

Health Outcomes and Behaviours	Parental Nurturance					
	All Youth		Females		Males	
	High	Medium– Low	High	Medium– Low	High	Medium– Low
High Self-Worth	80*	56	74*	50	85*	61
Excellent or Very Good Health	85*	71	84*	66	85*	76
Low Level of Anxiety	93*	86	90*	80	95	91
Contact With Peers Who Commit Crimes	13*	27	8*	25	19*	28
Alcohol Use	26*	44	25*	52	27*	37
Tobacco Use	5*	16	5*E	21	5*E	12
Marijuana Use	13*	26	11*	28	15*	24

Notes
* Significantly different than medium–low parental nurturance at the 95% confidence level.
E Coefficient of variation between 16.6% and 33.3% (interpret with caution).
Source
CPHI analyses of National Longitudinal Survey of Children and Youth, Cycle 6, 2004–2005, Statistics Canada.

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iv. Please refer to Table 8 for differences in the studied age groups.

As shown in Table 1, youth with a high level of parental nurturance were more likely to report high self-worth, excellent or very good health and a low level of anxiety than youth with a medium–low level of parental nurturance. They also reported less contact with peers who commit crimes and lower use of alcohol, tobacco and marijuana than youth with a medium–low level of parental nurturance.

Compared to all youth, similar findings were observed for female and male youth, although no statistically significant difference was found for a low level of anxiety among males.

Table 2   Percentage of Youth (Age 12 to 15) Reporting Health Outcomes and Behaviours in Relation to Parental Monitoring

Health Outcomes and Behaviours	Parental Monitoring					
	All Youth		Females		Males	
	High	Medium–Low	High	Medium–Low	High	Medium–Low
High Self-Worth	77*	63	71*	58	82*	67
Excellent or Very Good Health	85*	73	84*	69	86*	76
Low Level of Anxiety	91	89	88	85	95	92
Contact With Peers Who Commit Crimes	16*	22	11*	18	20	26
Alcohol Use	29*	38	30*	41	28*	36
Tobacco Use	7*	12	10^E	12	4*	11
Marijuana Use	15*	21	15	20	16	21

Notes
* Significantly different than medium–low parental monitoring at the 95% confidence level.
E Coefficient of variation between 16.6% and 33.3% (interpret with caution).

Source
CPHI analyses of National Longitudinal Survey of Children and Youth, Cycle 6, 2004–2005, Statistics Canada.

Analyses indicated that a larger proportion of youth with a high level of parental monitoring reported high self-worth and excellent or very good health than those with a medium–low level of parental monitoring. They were also less likely to report contact with peers who commit crimes and less likely to report the use of alcohol, tobacco and marijuana than youth with a medium–low level of parental monitoring. Please see Table 2.

Similar findings were observed for female youth, with the exception that no statistically significant difference was found for tobacco and marijuana use.

Findings for male youth were similar to female youth, with the exception that male youth with a high level of parental monitoring reported lower use of tobacco than males with a medium–low level of parental monitoring, and no statistically significant difference was observed for contact with peers who commit crimes.

Table 3   Percentage of Youth (Age 12 to 15) Reporting Health Outcomes and Behaviours in Relation to School Engagement

Health Outcomes and Behaviours	School Engagement					
	All Youth		Females		Males	
	High	Medium–Low	High	Medium–Low	High	Medium–Low
High Self-Worth	77*	51	73*	42	82*	58
Excellent or Very Good Health	81*	72	80*	68	82*	74
Low Level of Anxiety	90	88	88*	80	92	93
Contact With Peers Who Commit Crimes	15*	28	12*	23	19*	31
Alcohol Use	26*	49	29*	52	23*	48
Tobacco Use	6*	18	8*	22ᴱ	4*	15
Marijuana Use	12*	32	12*	32	12*	32

Notes
* Significantly different than medium–low school engagement at the 95% confidence level.
E Coefficient of variation between 16.6% and 33.3% (interpret with caution).

Source
CPHI analyses of National Longitudinal Survey of Children and Youth, Cycle 6, 2004–2005, Statistics Canada.

As shown in Table 3, a greater percentage of youth with a high level of school engagement reported high self-worth and excellent or very good health than those with a medium–low level of school engagement. Youth with a high level of school engagement were less likely to report the use of alcohol, tobacco and marijuana than youth with a medium–low level of school engagement. They were also less likely to report contact with peers who commit crimes.

Findings for female youth were similar to all youth, with the exception that females with a high level of school engagement were also more likely to report a low level of anxiety than those with a medium–low level of school engagement.

Compared to female youth, similar findings were noted for male youth, with the exception that no statistically significant difference was observed for a low level of anxiety.

Table 4   Percentage of Youth (Age 12 to 15) Reporting Health Outcomes and Behaviours in Relation to Volunteerism

| | Volunteerism | | | | | |
| Health Outcomes and Behaviours | All Youth | | Females | | Males | |
	Volunteer	Non-Volunteer	Volunteer	Non-Volunteer	Volunteer	Non-Volunteer
High Self-Worth	72*	66	70*	54	76	73
Excellent or Very Good Health	79	79	78	76	81	80
Low Level of Anxiety	90	90	87	84	92	93
Contact With Peers Who Commit Crimes	17	21	15	14	20*	26
Alcohol Use	33	34	34	37	31	32
Tobacco Use	8	11	9*	16^E	7^E	8^E
Marijuana Use	17	20	15*	23	20	18

Notes
*   Significantly different than non-volunteers at the 95% confidence level.
E   Coefficient of variation between 16.6% and 33.3% (interpret with caution).
Source
CPHI analyses of National Longitudinal Survey of Children and Youth, Cycle 6, 2004–2005, Statistics Canada.

As shown in Table 4, a greater percentage of youth who volunteer reported high self-worth than non-volunteers.

Among female youth, a larger proportion of volunteers reported high self-worth and lower use of tobacco and marijuana than non-volunteers.

Among male youth, volunteers had a lower level of contact with peers who commit crimes than non-volunteers.

Table 5   Percentage of Youth (Age 12 to 15) Reporting Health Outcomes and Behaviours in Relation to Peer Connectedness

Health Outcomes and Behaviours	Peer Connectedness					
	All Youth		Females		Males	
	High	Medium–Low	High	Medium–Low	High	Medium–Low
High Self-Worth	76*	49	70*	41	82*	54
Excellent or Very Good Health	81*	69	81*	60	81	74
Low Level of Anxiety	91*	81	89*	72	94*	87
Contact With Peers Who Commit Crimes	18	20	14	18	23	20
Alcohol Use	33	31	33*	43	33*	24
Tobacco Use	9	10	11	14[E]	7	8[E]
Marijuana Use	18	17	16	22	20	14[E]

Notes
*   Significantly different than medium–low peer connectedness at the 95% confidence level.
E   Coefficient of variation between 16.6% and 33.3% (interpret with caution).

Source
CPHI analyses of National Longitudinal Survey of Children and Youth, Cycle 6, 2004–2005, Statistics Canada.

Compared to youth with a medium–low level of peer connectedness, a greater percentage of youth with a high level of peer connectedness reported high self-worth, excellent or very good health and a low level of anxiety. Please see Table 5.

Findings for female youth were similar to all youth, with the exception that female youth with a high level of peer connectedness were also less likely to report the use of alcohol than females with a medium–low level of peer connectedness.

Compared to female youth, similar findings were observed for male youth, with the exception that no statistically significant difference was observed for males who reported excellent or very good health.

Multiple Assets and Health

Improving the Health of Young Canadians concluded that, "in general, the more assets youth have, the more likely they are to report positive health outcomes and the less likely they are to engage in risky health behaviours."[2] The following analyses examine the proportion of youth who had valid[v] responses to the five assets grouped in three categories by health outcomes and behaviours.

Forty-six percent of Canadian youth[v] reported high levels of four or five developmental assets, 44% two or three assets and 10% one or no assets. Fifty-two percent of female youth reported high levels of four or five assets, 41% two or three assets and 7% one or no assets. Thirty-nine percent of male youth reported high levels of four or five assets, 48% two or three assets and 13% one or no assets.

Table 6   **Percentage of Youth (Age 12 to 15) Reporting Health Outcomes and Behaviours in Relation to Multiple Developmental Assets[v]**

	Number of Assets	High Self-Worth	Excellent or Very Good Health	Low Level of Anxiety	Contact With Peers Who Commit Crimes	Alcohol Use	Tobacco Use	Marijuana Use
All Youth	0–1	37	64	82	32	45	14^E	26
	2–3	62*	76*	88	22*	40	14	24
	4–5	86*†	86*†	94*†	12*†	25*†	4*†	11*†
Females	0–1	22^E	49	68	34^E	61	–	34^E
	2–3	54*	73*	82*	17*	44*	–	24
	4–5	81*†	85*†	93*†	9*†	25*†	–	10*† E
Males	0–1	46	72	90	30^E	36	–	22^E
	2–3	68*	78	92	26	37	–	24
	4–5	93*†	88*†	96	17*†	24*†	–	13† E

Notes
* Significantly different than one or no positive assets at the 95% confidence level.
† Significantly different than two or three positive assets at the 95% confidence level.
E Coefficient of variation between 16.6% and 33.3% (interpret with caution).
– Sample sizes for female and male youth were too small to meaningfully report tobacco use.

Source
CPHI analyses of National Longitudinal Survey of Children and Youth, Cycle 6, 2004–2005, Statistics Canada.

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v. Youth who did not respond to an asset question were removed from the multiple asset score. Please refer to the appendix for more detail.

Among all youth, a larger proportion of those with four or five assets reported high self-worth, excellent or very good health and a low level of anxiety than youth with two or three assets and youth with one or no assets. Youth with four or five assets also reported less contact with peers who commit crimes and lower use of alcohol, tobacco and marijuana than youth with two or three assets and youth with one or no assets. In addition, a larger proportion of youth with two or three assets had a high level of self-worth and excellent or very good health than youth with one or no assets. Youth with two or three assets also reported less contact with peers who commit crimes than youth with one or no assets. Please see Table 6.

Among female youth, a higher proportion of those with four or five assets reported a high level of self-worth, excellent or very good health and a low level of anxiety than female youth with two or three assets and those with one or no assets. Female youth with four or five assets reported less contact with peers who commit crimes and lower use of alcohol and marijuana than female youth with two or three assets and those with one or no assets. A larger proportion of female youth with two or three assets reported a high level of self-worth, excellent or very good health and a low level of anxiety than female youth with one or no assets. Female youth with two or three assets reported less contact with peers who commit crimes and lower use of alcohol than female youth with one or no assets.

A greater proportion of male youth with four or five assets reported a high level of self-worth and excellent or very good health than males with two or three assets and those with one or no assets. Male youth with four or five assets also reported less contact with peers who commit crimes and lower alcohol use than youth with two or three assets and those with one or no assets. A smaller proportion of male youth with four or five assets also reported marijuana use than among male youth with two or three assets. A greater proportion of male youth with two or three assets reported high self-worth than males with one or no assets. There was no difference in the proportion of the low level of anxiety outcome.

Distribution of High Level of Assets by Income Quartile

Table 7   **Percentage of Youth (Age 12 to 15) Reporting High Level of Assets by Household Income Quartile**

	Household Income Quartile	Parental Monitoring	Parental Nurturance	Volunteerism	School Engagement	Peer Connectedness
All Youth	Income Quartile 1 (Lowest)	41	42	48	57	60
	Income Quartile 2	45	48	51	61	65
	Income Quartile 3	44	53*	56	63	71*
	Income Quartile 4 (Highest)	47	56*†	59*†	67*	70*
Females	Income Quartile 1 (Lowest)	47	47	59	60	68
	Income Quartile 2	47	49	61	65	69
	Income Quartile 3	44	58*	62	66	73
	Income Quartile 4 (Highest)	47	57	65	70	73
Males	Income Quartile 1 (Lowest)	34	37	38	53	52
	Income Quartile 2	42	48*	42	57	61
	Income Quartile 3	44	48*	49*	60	68*
	Income Quartile 4 (Highest)	47*	56*	55*†	64*	67*

Notes
* Significantly different than Q1 at the 95% confidence level.
† Significantly different than Q2 at the 95% confidence level.

Source
CPHI analyses of National Longitudinal Survey of Children and Youth, Cycle 6, 2004–2005, Statistics Canada.
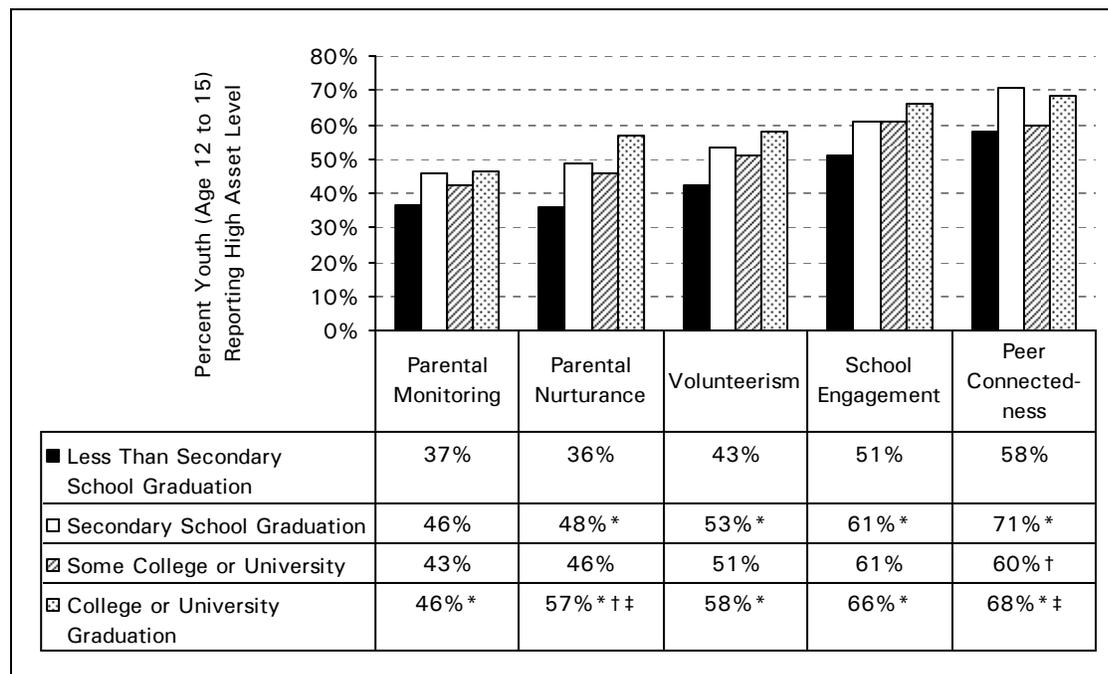
As shown in Table 7, a greater proportion of youth from households in the highest income quartile (quartile 4) reported a high level of parental nurturance, volunteerism, school engagement and peer connectedness than youth from households in the lowest income quartile (quartile1). The proportion of youth with a high level of parental nurturance and volunteerism is also greater in the highest income quartile households than in the second quartile. A larger proportion of youth from households in the third income quartile reported a high level of parental nurturance and peer connectedness than youth from households in the lowest income quartile.

A greater percentage of female youth from households in the third income quartile reported a high level of parental nurturance than female youth from the lowest income quartile.

For all five assets, male youth from households in the highest income quartile reported a higher level of each asset than those from households in the lowest income quartile. The proportion of male youth who volunteer was greater in the highest income quartile households than male youth from second income quartile households. A greater percentage of male youth from households in the third income quartile reported a high level of parental nurturance, volunteerism and peer connectedness than youth from households from the lowest income quartile. A greater proportion of male youth from households in the second income quartile reported a high level of parental nurturance than those from households in the lowest income quartile.

Distribution of High Level of Assets by Household Education Level

Figure 1   Distribution of High Level of Assets by Household Education Level

	Parental Monitoring	Parental Nurturance	Volunteerism	School Engagement	Peer Connected-ness
■ Less Than Secondary School Graduation	37%	36%	43%	51%	58%
□ Secondary School Graduation	46%	48%*	53%*	61%*	71%*
▨ Some College or University	43%	46%	51%	61%	60%†
▧ College or University Graduation	46%*	57%*†‡	58%*	66%*	68%*‡

Y-axis: Percent Youth (Age 12 to 15) Reporting High Asset Level

Notes

*   Significantly different than "Less Than Secondary School Graduation" at the 95% confidence level.
†   Significantly different than "Secondary School Graduation" at the 95% confidence level.
‡   Significantly different than "Some College or University" at the 95% confidence level.

Source
CPHI analyses of National Longitudinal Survey of Children and Youth, Cycle 6, 2004–2005, Statistics Canada.
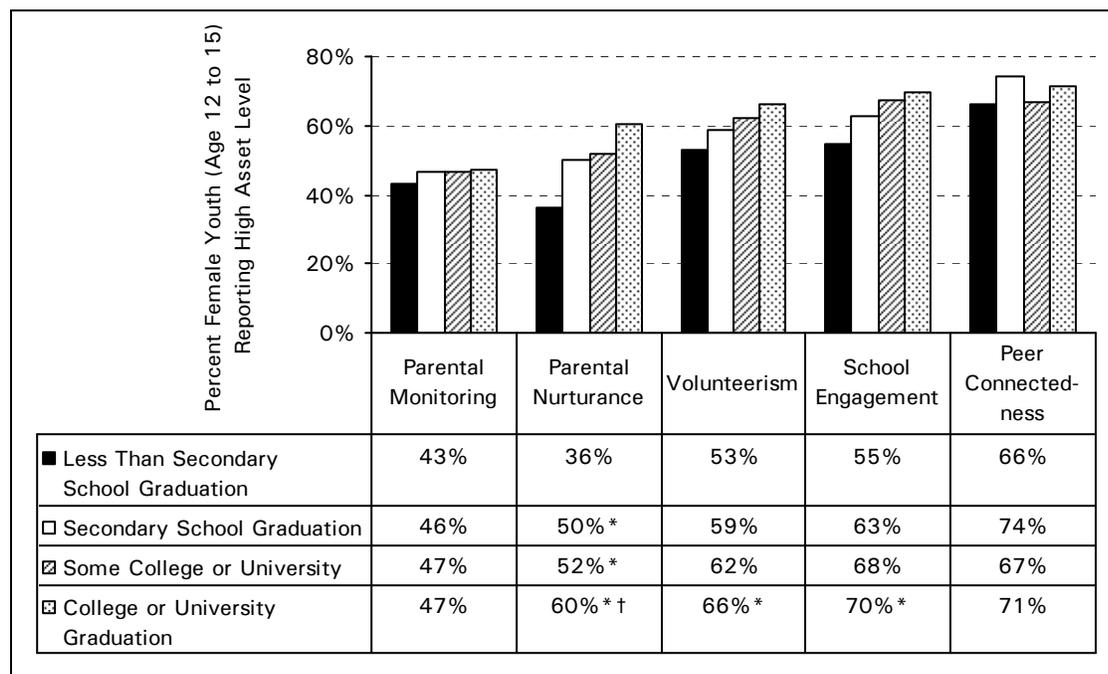
As shown in Figure 1, the proportion of youth reporting a high level of each asset is higher in households with college or university graduation than in households with less than secondary school graduation. Compared to youth from households with less than secondary school graduation, a greater proportion of youth from households with college or university graduation reported a high level of parental monitoring, parental nurturance, volunteerism, school engagement and peer connectedness. A greater proportion of youth from households with college or university graduation also reported a high level of parental nurturance than youth from households with secondary school graduation. Youth from households with college or university graduation were also more likely to report a high level of parental nurturance and peer connectedness than youth from households with some college or university.

A greater proportion of youth from households with secondary school graduation reported a high level of parental nurturance, volunteerism, school engagement and peer connectedness than youth from households with less than secondary school graduation. A smaller proportion of youth from households with some college or university reported a high level of peer connectedness than youth from households with a secondary school graduation.

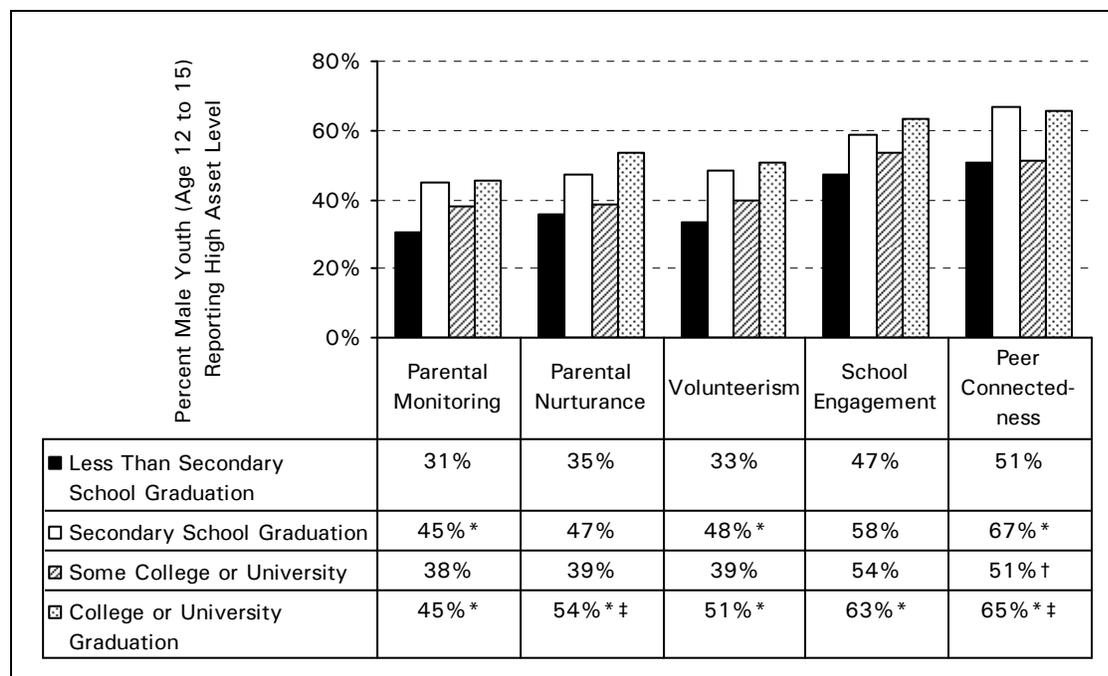**Figure 2   Female Youth—Distribution of High Level of Assets by Household Education Level**

	Parental Monitoring	Parental Nurturance	Volunteerism	School Engagement	Peer Connected-ness
■ Less Than Secondary School Graduation	43%	36%	53%	55%	66%
□ Secondary School Graduation	46%	50%*	59%	63%	74%
▨ Some College or University	47%	52%*	62%	68%	67%
▨ College or University Graduation	47%	60%*†	66%*	70%*	71%

Notes
*   Significantly different than "Less Than Secondary School Graduation" at the 95% confidence level.
†   Significantly different than "Secondary School Graduation" at the 95% confidence level.
Source
CPHI analyses of National Longitudinal Survey of Children and Youth, Cycle 6, 2004–2005, Statistics Canada.

A greater proportion of female youth from households with college or university graduation reported a high level of parental nurturance, volunteerism and school engagement than youth from households with less than secondary school graduation. A greater proportion of female youth from households with college or university graduation also reported a high level of parental nurturance than female youth from households with secondary school graduation. Female youth from households with some college or university and female youth from households with secondary school graduation were more likely to report a high level of parental nurturance than female youth from households with less than secondary school graduation. Please see Figure 2.

Figure 3   Male Youth—Distribution of High Level of Assets by Household Education Level

	Parental Monitoring	Parental Nurturance	Volunteerism	School Engagement	Peer Connected-ness
■ Less Than Secondary School Graduation	31%	35%	33%	47%	51%
□ Secondary School Graduation	45%*	47%	48%*	58%	67%*
☒ Some College or University	38%	39%	39%	54%	51%†
☒ College or University Graduation	45%*	54%*‡	51%*	63%*	65%*‡

Notes

* Significantly different than "Less Than Secondary School Graduation" at the 95% confidence level.

† Significantly different than "Secondary School Graduation" at the 95% confidence level.

‡ Significantly different than "Some College or University" at the 95% confidence level.

Source

CPHI analyses of National Longitudinal Survey of Children and Youth, Cycle 6, 2004–2005, Statistics Canada.

Across all assets, male youth from households with college or university graduation were more likely to report high levels than youth from households with less than secondary school graduation. A greater percentage of males from households with college or university graduation reported a high level of parental monitoring, parental nurturance, volunteerism, school engagement and peer connectedness than males from households with less than secondary school graduation. A greater proportion of male youth from households with college or university graduation also reported a high level of parental nurturance and peer connectedness than male youth from households with some college or university. A greater proportion of male youth from households with secondary school graduation reported a high level of parental monitoring, volunteerism and peer connectedness than among male youth from households with less than secondary school graduation. Please see Figure 3.

Among male youth from households with some college or university, a smaller proportion reported high peer connectedness than male youth from households with secondary school graduation.

Comparing NLSCY Cycle 6 and Cycle 4

Table 8   Youth Health Outcomes and Behaviours in Relation to Developmental Assets: Comparing NLSCY Cycle 6 and Cycle 4

Health Outcomes and Behaviours	Developmental Assets									
	Parental Nurturance		Parental Monitoring		School Engagement		Volunteerism*		Peer Connectedness	
	Cycle 6	Cycle 4	Cycle 6	Cycle 4	Cycle 6	Cycle 4	Cycle 6	Cycle 4	Cycle 6	Cycle 4
High Self-Worth	+	+	+		+	+	+	+	+	+
Excellent or Very Good Health	+	+	+		+	+		+ §	+	+ §
Low Level of Anxiety	+	+				+		−	+	+
Contact With Peers Who Commit Crimes	−	−	−		−	−		§		N/A
Alcohol Use	−	−	−	−	−	−		§		§
Tobacco Use	−	−	−	−	−	−		− §		§
Marijuana Use	−	−	−	−	−	−		− §		§

Notes

* Volunteerism is composed of volunteers and non-volunteers.

+ Among youth reporting a high level of the asset, a greater proportion reports a high level of the health outcome than youth with a medium–low level of the given asset.

− Among youth reporting a high level of the asset, a smaller proportion reports a high level of the health outcome than youth with a medium–low level of the given asset.

   Youth age 12 to 15, unless otherwise noted.

§ Includes youth age 12 to 17.

Source

CPHI analyses of National Longitudinal Survey of Children and Youth, Cycle 4, 2000–2001, and Cycle 6, 2004–2005, Statistics Canada.

Parental Nurturance

The results of the analyses from cycles 4 and 6 exhibited similar patterns of health outcomes and behaviours. For all measured health outcomes and behaviours, there was a statistically significant difference in the proportion of youth with a high level of parental nurturance and those with a medium–low level.

Parental Monitoring

In Cycle 6, a greater proportion of youth with a high level of parental monitoring reported high self-worth and excellent or very good health and less contact with peers who commit crimes than youth with a medium−low level of parental monitoring. There were no statistically significant differences for these outcomes in the Cycle 4 analyses.

School Engagement

For school engagement, patterns of health outcomes and behaviours were similar among the two cycles, with the exception of the low level of anxiety outcome. In the Cycle 6 analyses, there was no difference in the proportion of youth with a high and medium−low level of school engagement who reported a low level of anxiety; in Cycle 4, a greater proportion of youth with a high level of school engagement reported a low level of anxiety than youth with a medium−low level of school engagement.

Volunteerism

The volunteerism asset presented the greatest difference between the two cycles. Different methodologies were used in the analyses of the cycles, specifically the exclusion of youth age 16 and 17 in the Cycle 6 analysis. Compulsory community involvement activities, such as those required by the Ontario secondary school program,[4] may also impact response outcomes.

In both cycles, a larger proportion of volunteers reported high self-worth than non-volunteers. For the Cycle 6 analyses, there were no differences across any of the other measured health outcomes and behaviours.

The analysis of Cycle 4 demonstrated that volunteers reported excellent or very good health in greater proportions than non-volunteers. A smaller proportion of volunteers reported a low level of anxiety than non-volunteers. Results from Cycle 4 also indicated that a larger proportion of non-volunteers reported the use of tobacco and marijuana than their peers who volunteer.

Peer Connectedness

Between the two cycles, the patterns of health outcomes were the same for youth who reported a high level of peer connectedness. In Cycle 6 analyses, there was no difference in the proportion of youth with a high and medium−low level of peer connectedness that reported having contact with peers who commit crimes; findings for this outcome were not available for the analysis of Cycle 4.

Discussion

This analysis adds to previous research investigating the impact of developmental assets on health outcomes and behaviours, and further complements existing research by examining health outcomes by sex. Findings in this AiB have shown that youth with a high level of a given developmental asset were more likely to report positive health outcomes and less likely to report risky health behaviours than youth with a medium–low level of a given asset. Furthermore, the more developmental assets youth had, the more likely they were to report positive health outcomes and the less likely they were to report risky behaviours. Statistically significant differences were found for males and females when comparing high levels and medium–low levels of developmental assets, although no clear pattern across all developmental assets was found by sex.

Consistent with the analyses presented here, previous research has shown that measures of parental connectedness were associated with self-esteem[5, 6] and perceived health.[7] Results from another study also indicate that self-worth was higher among youth who reported school involvement.[8]

Findings for alcohol, tobacco and marijuana use are consistent with studies that have demonstrated that connectedness to the school environment[9, 10] and parental monitoring[7, 11, 12] are negatively associated with measures of substance use. An exception in our findings was that the proportion of youth who reported the use of tobacco and marijuana by level of parental monitoring was not consistently significant when examined by sex.

Whereas this AiB examined concurrent assets and health outcomes at a single point in time, past studies considered assets as predictive of health outcomes by examining changes in assets and outcomes over time.[5, 13] Longitudinal studies can suggest which assets are actually determinants of good health through causal relationships with health outcomes. This type of analysis is a potential application of the longitudinal method using NLSCY data, which captures asset level and health outcomes regarding specific individuals at different time points.

Our analyses consider engagement in school as an asset variable. Other research that examines the school environment has suggested that certain aspects of that context might provide stronger positive influences on health outcomes. Prior investigations differentiated between types of activities in which youth participate. Each asset is composed of various activities that are associated with different outcomes, and each activity can be associated with both positive and negative health outcomes. For example, one component of school engagement could be participation in sports, student government or performing arts. Youth who participate in school sports are likely to have a lower level of anxiety[14] but are more likely to use alcohol[8, 14] and marijuana.[14] In contrast, youth who participate in performing arts or student government are less likely to use alcohol[8, 14] and marijuana.[14] These findings suggest the importance of considering what dimension of the asset (for example, type of activity) is related to the health outcome, which would contribute to better understanding the relationship between assets and outcomes.

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Our analyses consider peer connectedness as an asset, but the variable used to measure this asset did not assess whether peers exert a positive or negative influence. The results of other studies suggest the value of considering additional dimensions of peer connectedness, such as characteristics of the peer group. In general, positive peer influence is associated with higher self-worth,[8] with health-promoting behaviours and with less use of alcohol[8, 12, 15] and tobacco.[15] Conversely, when peer influence is considered negative, connectedness is associated with more risky behaviour; for example, having friends who use alcohol is predictive of alcohol use among youth.[13] These findings suggest that, in addition to considering whether or not youth are connected, examining the qualities of the peer interaction is important to understanding the relationship between assets and outcomes. Further research could measure other components, such as the type of influence, in the relationship between peers.

Conclusions

This AiB demonstrates that youth who reported a high level of a given developmental asset were more likely to report positive health outcomes and less likely to report risky health behaviours than those with a medium–low level of the asset. In addition, the more developmental assets youth had, the more likely they were to report positive health outcomes and the less likely they were to report risky behaviours. Youth from the highest income quartile households and those from households with college or university graduation were more likely to report a high level of a given asset than youth from the lowest income quartile and youth from households with less than secondary school graduation. Statistically significant differences were found for males and females when comparing high levels and medium–low levels of developmental assets, although no clear pattern across all developmental assets was found by sex. These findings may help to inform the areas of policy, research and practice regarding the importance of the gender dimension in program planning and policy development.

About CIHI

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Production of this analysis is made possible by financial contributions from Health Canada and provincial and territorial governments. The views expressed herein do not necessarily represent the views of Health Canada or any provincial or territorial government.

Appendix

Age group examined for all analyses: youth age 12 to 15.

NLSCY Assets

Parental nurturance—Derived score based on the following NLSCY items: My parents . . . smile at me; praise me; make me feel appreciated; speak of the good things I do; seem proud of the things I do; listen to my ideas and opinions; solve a problem together with me whenever we disagree about something.

Response Categories:
- Never
- Rarely
- Sometimes
- Often
- Always
- Refusal/not stated

Continuous Score Range (0 to 28):
- Medium–low (0 to 20)
- High (21 to 28)

High score indicates a high degree of parental nurturance.

Non-Response Rate: All youth 17%; females 16%; males 17%

Parental monitoring—Derived score based on the following NLSCY items: My parents . . . want to know exactly where I am and what I am doing; tell me what time to be home when I go out; let me go out any evening I want; take an interest in where I am going and who I am with; find out about my misbehaviour.

Response Categories:
- Never
- Rarely
- Sometimes
- Often
- Always
- Refusal/not stated

Continuous Score Range (0 to 20):
- Medium–low (0 to 14)
- High (15 to 20)

High score indicates a high degree of parental monitoring.

Non-Response Rate: All youth 15%; females 14%; males 16%

School engagement—Compound variable derived by CPHI based on the degree of importance a youth places on the following items: getting good grades; making friends; participating in extra-curricular activities; getting to class on time; learning new things; expressing one's opinion in class; getting involved in the student council or other similar groups.

Response Categories:
- Very important
- Somewhat important
- Not very important
- Not important at all
- Refusal/not stated

Continuous Score Range (0 to 21):
- Medium–low (0 to 13)
- High (14 to 21)

High score indicates a high level of school engagement.

Non-Response Rate: All youth 13%; females 12%; males 13%

Volunteerism—Compound variable derived by CPHI based on youth who indicated that in the past 12 months they engaged in one or more of the following activities without pay:

- Supporting a cause (food bank, environmental group)
- Fundraising (charity, school trips)
- Helping in one's community (hospital volunteering, work in a community organization)
- Helping neighbours or relatives (cutting grass, babysitting, shovelling snow for a neighbour)
- Doing another organized volunteer activity

Response Categories:

- Yes
- No
- Not applicable
- Refusal/not stated

Categorical Score:

- Volunteer
- Non-Volunteer

Non-Response Rate: All youth 15%; females 14%; males 16%

Peer connectedness—Derived score based on the following NLSCY items (friends score): I have many friends; I get along easily with others my age; others my age want me to be their friend; most others my age like me.

Response Categories:

- False
- Mostly false
- Sometimes true/sometimes false
- Mostly true
- True
- Refusal/not stated

Continuous Score Range (0 to 16):

- Medium–low (0 to 11)
- High (12 to 16)

High score indicates a high level of peer connectedness.

Non-Response Rate: All youth 15%; females 13%; males 16%

Multiple assets—Grouping of parental nurturance, parental monitoring, peer connectedness, school engagement and volunteerism assets. Categorization is based on youth reporting a high level of all five assets. Only youth who had a valid response to the five assets were included in the multiple assets score.

CPHI-Derived Score Range:

- 0 or 1 asset
- 2 or 3 assets
- 4 or 5 assets

NLSCY Outcome Variables

Self-rated health—Asks youth to indicate their health status in general.

Response Categories:

- Excellent
- Very good
- Good
- Fair

- Poor
- Refusal/not stated

Categorical Score:
- Excellent or very good
- Good
- Fair or poor

Non-Response Rate: All youth 14%; females 13%; males 15%

Anxiety—Derived NLSCY score based on the following items: I am unhappy or sad; I am not as happy as other people my age; I am too fearful or nervous; I worry a lot; I cry a lot; I am nervous, high-strung or tense; I have trouble enjoying myself.

Response Categories:
- Never true or not true
- Sometimes or somewhat true
- Often or very true

Continuous Score Range (0 to 14):
- Low (0 to 7)
- Medium–high (8 to 14)

Non-Response Rate: All youth 15%; females 15%; males 15%

Alcohol use—Asks youth which of the following best describes their experience with drinking alcohol.

Response Categories:
- I have never had a drink of alcohol
- I have only had a few sips
- I only tried once or twice (at least one drink)
- I do not drink alcohol anymore
- A few times a year

- About once or twice a month
- About 1 or 2 days a week
- About 3 to 5 days a week
- About 6 or 7 days a week
- Not applicable
- Refusal/not stated

Categorical Score:
- Ever had a drink
- Never had a drink

Non-Response Rate: All youth 14%; females 13%; males 14%

Tobacco use—Asks youth which of the following best describes their experience with smoking cigarettes.

Response Categories:
- I have never smoked
- I have only had a few puffs
- I do not smoke anymore
- A few times a year
- About once or twice a month
- About 1 or 2 days a week
- About 3 to 5 days a week
- About 6 or 7 days a week
- Refusal/not stated

Categorical Score:
- Ever smoked
- Never smoked

Non-Response Rate: All youth 14%; females 13%; males 14%

Marijuana use—Asks youth which of the following best describes their experience with using marijuana and cannabis products (also known as a joint, pot, grass or hash) during the past 12 months.

Response Categories:

- I have never done it
- I have done it but not during the past 12 months
- A few times
- About once or twice a month
- About 1 or 2 days a week
- About 3 to 5 days a week
- About 6 or 7 days a week
- Refusal/not stated

Categorical Score:

- Ever used marijuana
- Never used marijuana

Non-Response Rate: All youth 14%; females 13%; males 14%

Self-worth—Derived NLSCY score based on the following items (general self score): in general, I like the way I am; overall, I have a lot to be proud of; a lot of things about me are good; when I do something I do it well.

Response Categories:

- False
- Mostly false
- Sometimes false/sometimes true
- Mostly true
- True
- Refusal/not stated

Continuous Score Range (0 to 16):

- Medium–low (0 to 11)
- High (12 to 16)

High score indicates positive general self-worth.

Non-Response Rate: All youth 13%; females 13%; males 14%

Contact with peers who commit crimes—Asks respondents how many of their close friends do the following: break the law by stealing, hurting someone or damaging property.

Response Categories:

- None
- A few
- Most
- All
- Refusal/not stated

Categorical Score:

- Has friends who break the law
- Does not have friends who break the law

Non-Response Rate: All youth 13%; females 13%; males 14%

Income quartile—Total household income before taxes and deductions distributed in quartiles.

Response Categories:

- First income quartile (lowest), income less than $36,000
- Second income quartile, income of $36,000 up to $61,999
- Third income quartile, income of $62,000 up to $98,699
- Fourth income quartile (highest), income of $98,700 or higher

Household education level—A grouped variable that considers the highest level of educational attainment within a household.

Response Categories:

- Less than secondary school graduation
- Secondary school graduation
- Some postsecondary education (college or university)
- Postsecondary graduation (college or university)

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