



Kids CAN PLAY!

Encouraging children to be active at home, at school, and in their communities

Activity levels of children and youth in New Brunswick

Average Steps The Canadian Fitness and Lifestyle Research Institute's Canadian Physical Activity Levels Among Youth (CANPLAY) study measures physical activity levels of children and youth by using pedometers to measure daily steps. Most of the analyses in this bulletin are based on combined data collected in year three and four (2007-2009) of data collection (unless otherwise stated).

During this time period, children and youth (between the ages of 5 and 19) in New Brunswick took an average of 10,900 steps; this is slightly lower than the national average. There has been no significant change in the number of steps taken by children living in New Brunswick since 2005-07.

Compared to other regions across Canada, children and youth in New Brunswick take fewer steps than those in Ontario, Manitoba, Saskatchewan, British Columbia and Yukon, but a similar number of steps to those in other provinces or territories.

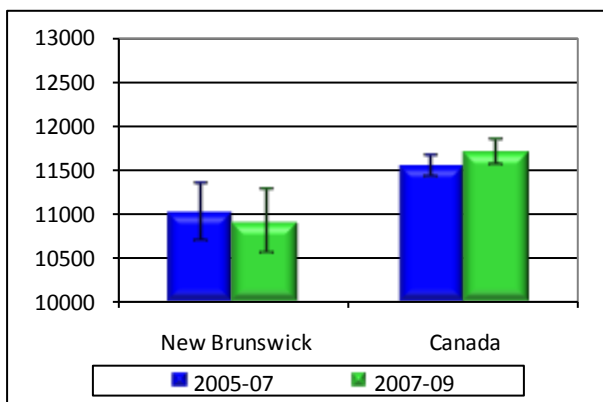
Child characteristics

Similar to national findings, children and youth living in New Brunswick take more steps if they are:

- younger children (age 5 to 10) compared to older youth (age 11 to 19);
- boys compared to girls; and
- participants in organized physical activity and sport compared to those who are not.

FIGURE 1

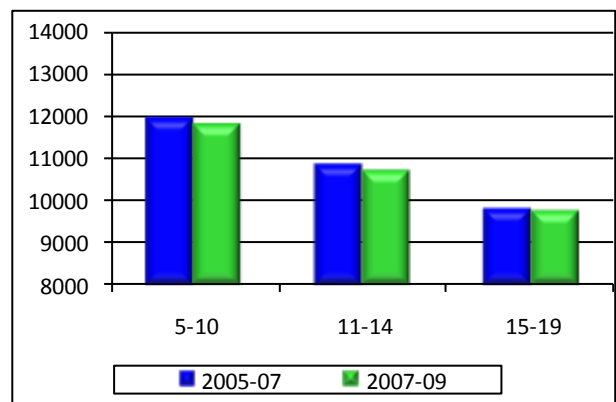
Average steps, overall, New Brunswick and Canada



CANPLAY 2005 - 2009, CFLRI

FIGURE 2

Average steps, by child age, New Brunswick



CANPLAY 2005 - 2009, CFLRI



Parent and household characteristics

At the national level, certain parental or household characteristics are associated with higher steps in children:

- University educated adults compared to those with a secondary level of education
- More active parents compared to those who are less active (slightly) than their peers.

These relationships, however, are not significant among children and youth living in New Brunswick. In New Brunswick, children and youth who are in the lowest household income bracket generally take the fewest daily steps.

How many steps are sufficient for children and youth to be healthy?

How many steps are required to be healthy? No definitive guidelines have been established regarding the number of steps required for health benefits for children and youth. However, several criteria have been suggested, and they are described below.

Canada's Physical Activity Guide (CPAG) for children and youth sets a goal that children add 90 minutes of moderate-to-vigorous activity to the incidental activities required by daily living, which translates roughly into 16,500 steps daily.^{1,2} When using this criterion, 93% of children and youth in 2007-09 living in New Brunswick do not accumulate enough daily steps associated with the guidelines. This proportion is higher than the national average. Within New Brunswick the proportion not meeting this criterion has not changed significantly since 2005-07.

15,000 step criterion for children and youth is based on research that suggests 120 to 150 minutes of moderate-to-vigorous activity (here considered an equivalent of 15,000 steps) for both boys and girls is required for health.^{2,3} Using this criterion, 85% of children and youth in 2007-09 living in New Brunswick do not accumulate enough daily steps associated with the 15,000 criterion. This proportion is slightly higher

than the national average. The proportion of children and youth in New Brunswick not meeting this criterion has not changed significantly since 2005-07.

BMI-referenced criteria for children and youth, 12,000 steps daily for girls and 15,000 steps daily for boys, is based on research that suggests that these step counts are associated with a healthy body mass index (BMI) among 6 to 12 year-olds.⁴ Using these criteria, 76% of children and youth in New Brunswick do not accumulate enough daily steps. This proportion is higher than the national average. As with the other two criteria, the proportion not meeting these criteria in New Brunswick is similar to the rate in 2005-07.

Table 1 summarizes the characteristics of children and youth living in New Brunswick that are more likely not to meet each of the three criteria.

TABLE 1

Characteristics of children and youth who do not meet step criteria, New Brunswick

	CPAG criterion	15,000 step criterion	BMI-referenced criteria
Overall proportion	93%	85%	76%
Change from 2005-07	No change	No change	No change
Provincial comparisons	More children in NB do not meet criteria compared to those in ON, MB, SK, BC, YT, and NWT	More children in NB do not meet criteria compared to those in ON, MB, BC and YT	More children in NB do not meet criteria compared to those in ON, MB, SK, AB, BC and YT
Child characteristics	Girls more than boys Those not participating in organized PA and sport	Girls more than boys Those not participating in organized PA and sport	Older youth more than youngest children Those not participating in organized PA and sport
Parental and household characteristics	Unlike nationally, no relationships	Lowest income households	Lowest income households

CANPLAY 2005 - 2009, CFLRI

References

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3. Epstein, L.H., Paluch, R.A., Kalakanis, L.E., Goldfield, G.S., Cerny, F.J. & Roemmich, J.N. (2001). How much physical activity do youth get? A quantitative review of heart-rate measured activity. *Pediatrics*, 108, e44.
4. Tudor-Locke, C., Pangrazi, R.P., Corbin, C.B., Rutherford, W.J., Vincent, S.D., Raustorp, A., Tomson, L.M. & Cuddihy, T.F. (2004). BMI-referenced standards for recommended pedometer-determined steps/day in children. *Preventive Medicine*, 38, 857-864.

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