



Kids CAN PLAY!

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

Activity levels of children and youth in Newfoundland and Labrador

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 Newfoundland and Labrador took an average of roughly 11,200 steps; this is not significantly different from the national average. There has been no significant change in the number of steps taken by children living in Newfoundland and Labrador since 2005-07.

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

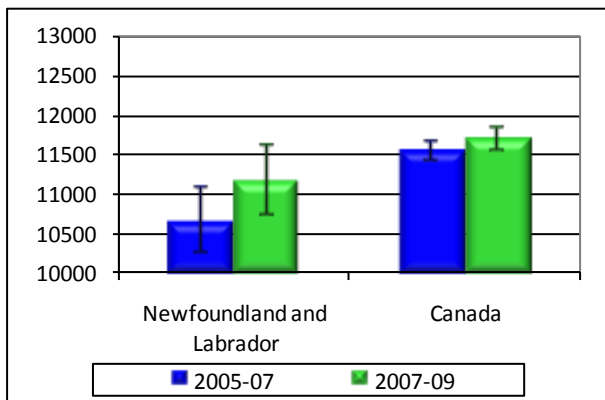
Child characteristics

Similar to national findings, children and youth living in Newfoundland and Labrador take more steps if they:

- Are younger children (age 5 to 10) compared to older youth (age 15 to 19); and
- participate in organized physical activity and sport compared to those who do not.

FIGURE 1

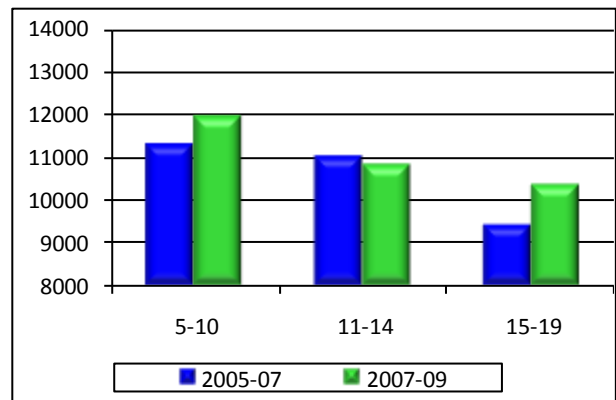
Average steps, overall, Newfoundland and Labrador and Canada



CANPLAY 2005 - 2009, CFLRI

FIGURE 2

Average steps, by child age, Newfoundland and Labrador



CANPLAY 2005 - 2009, CFLRI



Interestingly, girls in Newfoundland and Labrador take a similar number of steps daily as boys. This is contrary to findings at the national level, where boys take more steps than girls.

Parent and household characteristics

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

- University education of parents compared to those with a secondary level of education.
- Highest income households (\$100,000 or greater) compared to those in low to middle income households.
- 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 Newfoundland and Labrador.

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, 90% of children and youth in 2007-09 living in Newfoundland and Labrador do not accumulate enough daily steps associated with the guidelines. This proportion does not differ significantly from the national average. Within Newfoundland and Labrador, 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, 83% of children and youth in 2007-09 living in Newfoundland and Labrador do not accumulate enough daily steps associated with the 15,000 criterion. This proportion does not differ significantly from the national average and, similarly, has not significantly changed within the province 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, 72% of children and youth in Newfoundland and Labrador do not accumulate enough daily steps. This proportion does not differ significantly from the national average. As with the other two criteria, the proportion in Newfoundland and Labrador not meeting these criteria is similar to the rate in 2005-07.

Table 1 summarizes the characteristics of children and youth living in Newfoundland and Labrador 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, Newfoundland and Labrador

	CPAG criterion	15,000 step criterion	BMI-referenced criteria
Overall proportion	90%	83%	72%
Change from 2005-07	No change	No change	No change
Provincial comparisons	Similar to other provinces	More children in NL do not meet criteria compared to those in BC and YT	More children in NL do not meet criteria compared to those in BC and YT
Child characteristics	Girls more than boys	Girls more than boys Those not participating in organized PA and sport	Older youth more than younger children Those not participating in organized PA and sport
Parental and household characteristics	Unlike nationally, no relationships		

CANPLAY 2005 - 2009, CFLRI

References

1. Health Canada and Canadian Society for Exercise Physiology (n.d.). *Canada's Physical Activity Guidelines to Healthy Active Living*. Available from: <http://www.phac-aspc.gc.ca/pau-uap/paguide/>.
2. Beighle, A. & Pangrazi, R.P. (2006). Measuring children's activity levels: the association between step-counts and activity time. *Journal of Physical Activity and Health*, 3, 221-229.
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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