Adult participation in physical activity and sport

Physical activity levels of adults

Physical inactivity is a significant public health issue, as low levels of physical activity are associated with increased risk of non-communicable diseases (e.g., heart disease, diabetes, certain cancers), chronic disease risk factors (e.g., obesity and hypertension), anxiety and depression, and premature mortality.\(^1\)\(^2\) The World Health Organization (WHO) reports that physical inactivity is the fourth leading risk factor of global mortality, estimating 3.2 million deaths globally attributable to inactivity.\(^3\) In addition to the impact on the lives of the individual, there are societal costs. For example, the economic impact of physical inactivity in Canada in terms of chronic disease, obesity and health care costs is estimated at CAD $6.8 billion per annum.\(^4\)

Federal, provincial, and territorial governments utilize the Canadian Community Health Survey (CCHS)\(^5\) as a data source for tracking physical activity levels of adults in Canada. Within this Canadian study, leisure time physical activity has been examined as a risk factor for health surveillance, as part of policies and programs related to health more generally. Indeed, the federal, provincial, territorial, and non-government sectors established the Pan-Canadian Healthy Living Strategy [2005],\(^6\) outlining a series of targets incorporating healthy weights, healthy eating, and physical activity.

Using the data collected in 2003 CCHS\(^5\) as a baseline figure, 50.4% of adults 20 years and older were considered active. A 20% increase of the 2003 estimate would yield about a 10 percentage point increase by 2015, therefore, from 50.4% to 60.5% in order to meet this target. Although there have been slight increases and decreases over time, the proportion considered active has hovered around 50% since 2003. Based on the most current and available data (2013 CCHS),\(^5\) slightly more than half (52.1%) of Canadian adults (20 years and older) are considered active.

Based on 2013 data, more men (53.9%) are considered active compared to women (50.4%).\(^5\) This pattern has persisted since 2003. According to the 2013 CCHS, activity levels decrease substantially with increasing age, whereby 60.1% of 20 to 34 year olds, 52.2% of 35 to 44 year olds, 51.2% of 45 to 64 year olds, and 48.4% of those 65 years and older are considered active.\(^7\) This pattern generally holds for both men and women.

Differences in activity levels exist by province and territory. Compared to the national average, a lower proportion of those living in Newfoundland and Labrador, Prince Edward Island, New Brunswick, and Quebec, and a greater proportion of those living in British Columbia or the Yukon are considered active.\(^5\)

FIGURE 1
Physical activity levels by age and sex, 2013

---

©2014, Canadian Fitness & Lifestyle Research Institute

*Update: Physical Activity and Sport*

**SUMMARY OF FINDINGS FOR CANADA AND SASKATCHEWAN**

---

**Physical activity target**

edBy 2015, increase by 20% the proportion of Canadians who participate in regular physical activity based on 30 minutes/day of moderate to vigorous activity as measured by the CCHS and the Physical Activity Benchmarks/Monitoring Program.\(^8\)

---

Canadian Community Health Survey,\(^7\) 2013
Physical Activity and Sport

Adult participation in physical activity and sport

FIGURE 2
Physical activity levels by province/territory, 2003, 2013

Canadian Community Health Survey, 2003, 2013

Physical activity of adults in Saskatchewan

In 2013, physical activity levels of adults (20 years and older) living in Saskatchewan did not significantly differ from the national average (51.2% in Saskatchewan and 52.1% in Canada). The proportion at least moderately active in Saskatchewan has not differed significantly since 2003.

Contrary to the national picture, men and women living in Saskatchewan did not differ significantly in their activity levels (51.2% for both). This is a pattern that has remained fairly consistent over time as there have been no significant overall gender differences in activity levels since 2003. In 2013, older adults (65 years and older) were generally less active compared to younger adults (aged 20 to 34) and this relationship has persisted over time.

FIGURE 3
Physical activity levels for Canada and Saskatchewan, 2003-2013

Canadian Community Health Survey, 2003-2013

Sport Participation of adults

The General Social Survey (GSS) demonstrates a decline in sport participation among Canadians from 1992 (45%) to 2010 (26%). Despite a larger sample in the GSS and a slightly different definition, other estimates show similar trends. The trend over 5 years suggests the decline in sport participation based on Physical Activity Monitor (PAM) data is similar to the decline in GSS rates. The Sport Monitor shows less of a decline, however, this survey has a specific focus on sport, whereas the PAM and GSS do not.

Sport participation, defined here as physical activities that involve competition, rules, and the development of specific skills, was explored in the 2011-2012 Sport Monitor. The national rate is 34% according to this survey. Many Canadians (48%) participate in sport all year long, whereas 30% participate for 6 to 11 months, and 22% participate less often. During these months, Canadians were also asked how frequently they participate. Overall, 4% report participating every day, 26% indicate 4 to 5 days per week, 44% say 2 to 3 days per week, 20% report once a week, and 6% less frequently than that.

More men (45%) than women (24%) participate in sport. Participation declines substantially with increasing age, where 70% of 15 to 17 year olds participate compared to 20% of older adults, 65 years and older. This difference between men and women appears among adults 25 years and older, but it is not significant among those younger than 25. Although there are no age and gender differences with respect to the regularity of participation during the year (i.e., the number of months participating in the year), a greater proportion of younger adults (18 to 24 years) say that they participate in sport frequently (4 to 5 times a week) compared to 25 to 44 year olds.
Compared to this national average, relatively fewer residents of Newfoundland and Labrador (21%), Prince Edward Island (22%), Nova Scotia (22%), and New Brunswick (25%) participate in sport. There are no regional differences related to the number of months participating or frequency of participation in sport, as reported by Canadians.9

Key Findings

- The cost of physical inactivity is high:
  - Cost to individuals for example, premature mortality, chronic disease, obesity
  - Cost to society estimated at $6.8 billion annually.
- The most recent estimates considered 52.1% of adults active (20 years and older). There have been slight increases and decreases over time.
- Sport participation has generally declined over time.
- Disparities persist by age, gender, and province/territory in the percentage of Canadians who are active and who participate in sport.

References

5. Statistics Canada. Canadian Community Health Survey (CCHS), 2003-2013. Reproduced and distributed on an "as is" basis with the permission of Statistics Canada.
Child participation in physical activity and sport

Physical activity levels of children

Since 2005, the Canadian Fitness and Lifestyle Research Institute’s CANPLAY study (Canadian Physical activity Levels Among Youth study) has been used to measure the physical activity levels of children and youth, by using pedometers to measure daily steps. Based on data collected in 2011-2014, the CANPLAY study shows that Canadian children and youth (aged 5 to 19) take approximately 11,000 steps per day on average.

Boys take more steps than girls, and younger children take more steps than older children. Children living in Newfoundland and Labrador take the lowest number of steps per day on average, and those living in the Yukon take the most steps per day; however, only the average steps per day in the Yukon differs significantly from the national average.

Establishment of targets of physical activity for children and youth

In May 2008, the federal, provincial, and territorial governments set national physical activity targets for children and youth (aged 5 to 19) to (1) increase the proportion achieving 16,500 steps per day on average (roughly equivalent to adding 90 minutes of activity to daily life) by seven percentage points by 2015, and (2) increase the average daily steps from 11,500 to 14,500 on average (equivalent to roughly an increase of 30 minutes per day) by 2015. CANPLAY is used to monitor progress towards the goal at the national and provincial/territorial levels and uses data from 2005-2007 as a baseline for these targets.

Progress towards targets of physical activity

Using CANPLAY data collected during 2005-2007 (Year 1 and 2) as a baseline, there has been a significant decrease in the overall average steps of children and youth in Canada in 2011-2014. Mean steps over the first three time periods have roughly averaged between 11,500 and 11,700 steps per day. For the first time, data from 2011-2014 shows a significant decline. This decline in average steps in the combined years of 2011-2014 appears for both boys and girls, and for the various age groups compared to earlier years (except only for 11 to 19 year olds who took a similar number of daily steps in 2009-2011). Generally speaking, there have been relatively few significant changes in average steps by province and region.
greater proportion of younger children (aged 5 to 10 years) achieve this criterion compared to their older counterparts, and indeed, young boys are the highest proportion achieving this criterion. Compared to the national average, there are no significant differences by province or territory.

Physical activity levels of children and youth in Saskatchewan

The average number of steps (11,300) taken per day by children and youth living in Saskatchewan is similar to the national average. The average number of daily steps taken in Saskatchewan from 2011-2014 is lower than the baseline years of 2005-2007, but is similar to the number of steps taken from 2007-2009 and 2009-2011. Children and youth residing in Saskatchewan take more steps than children and youth living in Newfoundland and Labrador in 2011-2014. There are, otherwise, no significant differences between children and youth residing in Saskatchewan and other provinces and territories in Canada. In 2011-2014, boys took a similar number of steps on average than girls in Saskatchewan, which differs from patterns in previous years in which boys took more steps than girls on average. Younger children take more steps than older youth in Saskatchewan and this pattern has persisted over time. The proportion (8%) achieving 16,500 steps per day on average in Saskatchewan has varied little from the national rate over the four time periods, with the exception of 2005-2007 when the rate was higher in Saskatchewan than the national average. In Saskatchewan, the rate from 2011-2014 achieving this criterion is lower than the proportion from 2005-2007. About 6% of children and youth living in Saskatchewan achieve 12,000 steps 7 days a week. This rate has not varied over time and does not significantly differ in each year compared to the Canadian estimates.
Sport Participation among children and youth

The 2010-2011 Physical Activity Monitor asked parents whether their children (aged 5 to 17 years) participated in sport during the prior 12 months (defined here as physical activities that involve competition and rules, and that develop specific skills). According to this definition, 74% of children and youth participate in sport. Compared to the national average, a greater proportion of children and youth residing in Saskatchewan and the Yukon participate in sport.

A higher proportion of boys and young children (aged 5 to 12 years) participate in sport compared to girls and older children, respectively. In general, sport participation increases with increasing household income and parental education.

Parents were also asked about the frequency of their child’s participation. According to parents, 27% participate for less than 8 months out of the year, 26% participate for 8 to 11 months, and 46% participate all year around. Parents were also asked about the frequency of their child’s participation during these months. One-third (34%) said that their child participates four or more times per week, 50% participate two to three times per week, 14% participate one to two times per week, and 3% say their child participates less often than this, or that their participation was variable.

Compared to Canadian children overall, relatively fewer children living in Manitoba participate in sport all year long. Children and youth residing in Quebec and Saskatchewan are more likely to participate for 8 to 11 months out of the year whereas Ontario residents are less likely to do so. Parents of children residing in the Atlantic, Western and Northern regions are more likely to report a higher frequency of weekly participation (i.e., more likely to indicate that their child participates four or more times per week).

Boys were more likely to participate all year long and were more likely to participate 4 or more times per week, whereas girls were more likely than boys to participate 1 or 2 times per week. Older children (ages 13 to 17 years) were more likely than younger (5 to 12 years) to participate four or more times a week, whereas younger children are more likely to participate one to three times per week.

Children in the highest income households (≥$100,000/year) are more likely to participate in sport all year round and to participate in sports four or more times per week compared to those with household incomes less than $80,000, whereas those in the lowest two quartiles of income participate in sport less than 8 months out of the year. Parents with a university education are most likely to say their child participates all year long, whereas parents with less than a secondary level education say their child participates for 8 months or less. Children living in small communities (1,000 to 9,999 residents) are more likely than those from the larger communities (100,000 to 249,999 residents) to participate two to three times per week. Conversely, children living in larger communities (100,000 to 249,999 residents) are more likely than those from smaller (10,000 to 99,999 residents) to participate four or more times per week.

Key Findings

- There has been a decrease in the overall average steps of children and youth in Canada in 2011-2014 compared to earlier years.
- Nationally, boys take more steps on average than girls. A greater proportion of boys participate in sport.
- Steps and sport participation vary by region.
- The relationships between in average steps and gender and age have persisted over time.
- The majority of children participate in sport at some point throughout the year, fairly frequently (8 months or more per year), and regularly (at least 2 times per week).
- Based on data collected until 2014, the targets for increasing physical activity among children and youth have not been achieved.

References