

# Getting Kids Active!

2010 PHYSICAL ACTIVITY MONITOR: FACTS & FIGURES



## Methodology for the 2010 Physical Activity Monitor

The Physical Activity Monitors (PAM) are national, random-digit dialing telephone-based surveys of a representative population sample conducted during the 12-month period, which have been developed by the Canadian Fitness and Lifestyle Research Institute. The surveys strengths include its national scope and the fact that they are representative of various specific populations, however, the surveys are cross-sectional in nature so associations but not causal relationships may be determined.

The Physical Activity Monitors are funded by the Public Health Agency of Canada, Sport Canada of Canadian Heritage, and the provincial and territorial government departments responsible for physical activity, sport, and recreation through the auspices of the Interprovincial Sport and Recreation Council. The content in this bulletin series does not necessarily reflect the views of these organizations.

### Questionnaire content

The 2010 PAM focuses on physical activity and sport opportunities available to Canadian children and youth. The content was determined by the Institute in collaboration with the Monitoring Program Advisory Committee comprised of representatives of the government funders. The data from this study are published in a series of bulletins which are designed to describe prevalence data as well as trends, by updating previously released data where available on:

- Sport participation of children and youth
- Active pursuits after school
- Sedentary pursuits after school
- Access to after school programs
- Parental involvement in physical activity
- Physical environments support physical activity (public and commercial facilities and programs, local parks, other places to be active)
- Active transportation
- Opportunities at school (physical education and other opportunities)
- Preferences for types of activities
- Barriers to children's participation

### Data collection and survey design

Data for the 2010 PAM was collected from April 2010 to March 2011. Interviewing for the Physical Activity Monitors was conducted by the Institute for Social Research (ISR) at York University, Toronto, Canada on behalf of the Canadian Fitness and Lifestyle Research Institute. The Physical Activity Monitors use Computer-Assisted Telephone Interviewing (CATI) software, which involves immediate data entry electronically and facilitates data quality by enabling coding through programmed lists or coding of question order. Through ISR, all survey questions as well as procedures undergo ethics review by the York University's Human Participants in Research Committee, York University's Ethics Review Board. This Review Board conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. The 2010 Physical Activity Monitor has also undergone and received ethics approval from Health Canada's Research Ethics Board.

The 2010 PAM is designed to collect information on 4000 young people aged 5 to 17 years, through parental reports. The Physical Activity Monitors sampling procedures usually apply a two-stage probability selection process to select a survey respondent. The first stage involves the selection of households by randomly selecting telephone numbers. The second stage of sample selection involves the random selection of an eligible respondent (18 years of age or older, who for 2010 is also a parent or legal guardian) in the household. Information on the age, the number of such adults in the household is obtained, and when there is more than one eligible adult living in the household, a respondent is selected based on the nearest birthday, as this method yields a representative sample. In 2010, an eligible child aged 5 to 17 was also selected at random and data collected by proxy interview of the selected parent or legal guardian. Although the response rate varies year to year and is generally lower now than that experienced in 1995-1999, there is no indication that this has introduced a differential non response bias.

The final sample size for the 2010 PAM was roughly 4,000. The sample taken by region is shown in Table 1.

**TABLE 1**  
Sample taken by region

Region	Parents
Canada	3,997
Atlantic	1,008
Quebec	480
Ontario	984
West	1,008
North	517

*Physical Activity Monitor 2010, CFLRI*

### Data analysis

The samples for Physical Activity Monitors are generally designed to represent the adult population in Canada as a whole; in 2010 it is designed to represent the population of young people 5 to 17 years old. The household weight is derived from the number of the adults and children in the household taking into account the number of households in the province or territory. The probability of a member of the household being selected varies inversely with the number of eligible people living in that household. Generally, the data is weighted to offset selection bias. A provincial weight is applied to the record to represent the provincial or territorial population. The national sample weight is comprised of a household weight multiplied by a provincial weight. Finally, a post-stratified age and sex adjustment is made to the national sample weight to reflect the latest census distributions for age and sex (and in 2010 of households with parents).

Given the nature of the sample design, complex sampling methods are required to take into account stratification by province or territory within Canada (households selected approximately proportional to size within the province and territory). As such, the Complex Sample cross tabulation procedure is used to calculate frequencies and prevalence estimates by participant characteristics. All numbers have a statistical error associated with them by virtue of the random selection of the sample. 'Don't know' and 'refused' generally amount to less than 3%. In such cases, these categories are excluded in analyses as they have a negligible effect on the estimates of the distribution of categories. With each estimate, 95% confidence intervals surrounding the estimates are used to determine significant differences between estimates.

### References

1. Craig CL, Cameron C, Griffiths J, Bauman A, Tudor-Locke C, Andersen RE. Non-response bias in physical activity trend estimates. *BMC Public Health*. 2009 Nov 22;9:425.

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