



## **SECTION A: PHYSICAL ACTIVITY AND SPORT PARTICIPATION RATES IN CANADA**



## Introduction

The federal, provincial, and territorial (FPT) Ministers concerned with sport, physical activity and recreation have adopted a joint goal of increasing physical activity in every jurisdiction by 10 percentage points by 2010.<sup>1</sup> By 2012, the Canada Sport Policy has it as a mission to increase the proportion of “Canadians from all segments of society who are involved in quality sport activities at all levels and in all forms of participation.”<sup>2</sup>

To this end, Sport Canada and advisory groups involved in sport participation (that have been established under the direction of the FPT Ministers) will also be establishing similar goals focusing on increasing sport participation among the general population as well as specific target groups who have been identified in research as being less active. These groups include women, girls, low income populations, and inactive Canadians as examples.

This section describes data from two different sources. The first topics describe activity levels of Canadian adults and youth, and progression among each jurisdiction towards achieving the goal. The data on physical activity levels originate from Statistics Canada’s 2002/03 Canadian Community Health Survey, cycle 2.1. For the topics on physical activity levels of adults and youth, a classification based on energy expenditure in all non-work, non-chore activity is used. A classification of *active* represents an average daily energy expenditure of at least 3 kilocalories per kilogram (KKD) of body weight during the previous 12 months. *Moderately active* represents average energy-expenditure values that are greater than 1.5 and less than 3.0 KKD. *Inactive* corresponds to average energy-expenditure values of less than or equal to 1.5. For the purposes of goal reporting, physical activity combines moderately and active categories (1.5 KKD or greater).

To demonstrate these physical activity classifications, consider a simple example where a person walks as the sole means of accumulating physical activity during their day. In this case, they would be considered

- Active, if they walked at least 1 hour every day (3.0+ KKD);
- Moderately active, if they walked 1/2 hour every day (1.5–2.9 KKD); and,
- Inactive, if they walked no more than 1/4 hour every day (<1.5 KKD).

This section also discusses participation in walking and bicycling. Although prevalence rates of a larger list of activities is available elsewhere,<sup>3</sup> this report focuses only on walking and bicycling, as these activities are the focus for many of the factors related to physical environment discussed in this report (see later sections in this report). In this report, the data on walking and bicycling were obtained from Statistic Canada’s 2002/03 Canadian Community Health Survey (cycle 2.1). Participation in walking and bicycling is defined to survey participants as participation in these activities during leisure time within the past three months.

Moreover, this section discusses participation in organized and unorganized physical activities in the past year. These data are based on the Canadian Fitness and Lifestyle Research Institute’s 2004 Physical Activity Monitor. Examples of organized activities or

sports included aerobics, walking clubs or baseball. Examples of unorganized activities included walking to work or bicycling.

This section of the report also discusses Canadians' participation rates in sport. These data will help to establish targets for sport participation in Canada. Based on the 2004 Physical Activity Monitor question, participation in sport is defined as active participation as a player, as well as other roles such as a coach, assistant coach, volunteer, manager, referee or official, board of directors, and other types of paid personnel. Data from this study reveals that the majority of individuals who participated in sport did so as an active participant playing in sport.

This section also examines the prevalence of specific sports identified by the participants, when asked what type of sport they currently participate in most frequently. Participants were allowed to respond with up to four sporting activities. It is important to note that participants volunteered these sports rather than being probed with a set list of activities as per the questions used historically in the Canadian Fitness and Lifestyle Research Institute's Physical Activity Monitor and in Statistic Canada's Canadian Community Health Survey. As a result, prevalence rates in this report perhaps may be lower because activities were volunteered. Prevalence rates of a larger list of physical activities participated in more frequently is available elsewhere.<sup>3</sup>

In addition, this section also examines the type of participation in sport. For these analyses, sport participants were asked whether or not they compete or train in the sports that they participate in and whether or not the sport activities are primarily undertaken in a structured or organized environment (including a league, private facility, or sports club), primarily within an unstructured environment (such as pick-up sports), or in both of these types of environments. Based on responses to these questions, a definition was derived to examine the overall type of sports participation, and this definition includes both a competition and a degree of structure component. Consequently, this definition consists of four categories: competitive and structured sport activities, competitive and unstructured sport activities, non-competitive and structured sport activities, and non-competitive and unstructured sport activities.

Finally, this section discusses whether or not the sport participant has a coach and whether the individual competes within his/her sport. If there is a competition component, the level of competition is explored.

## Physical activity among adults

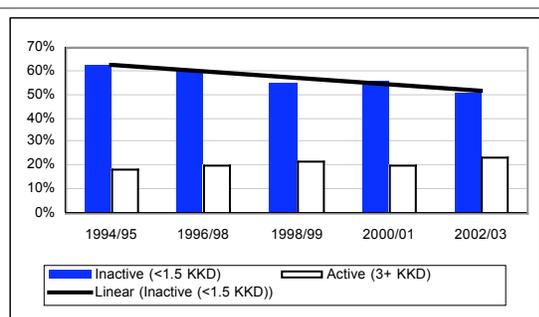
Based on data collected through the 2002/03 Canadian Community Health Survey, 49% of Canadians (aged 20 and older) are at least moderately active during their leisure time, accumulating at least 1.5 KKD of physical activity on average every day. This amount of physical activity could be achieved through walking a total of half an hour or more a day. Roughly one-quarter of adults are classified as moderately active (25%), while the same proportion are classified as active (24%).

**Regional differences** People living in British Columbia and Alberta are most likely to be classified as at least moderately active and those living in New Brunswick, Prince Edward Island, Newfoundland and Quebec are the least likely.

**Population Groups** Men are more likely than women to be at least moderately active, whereas women are more likely than men to be inactive. Adults in older age groups are less likely to be active, and therefore more likely to be inactive. Adults who have attained higher levels of education (higher than secondary school) are more likely than those with secondary school education or lower to be active. Generally speaking, those with greater household income levels are more likely to be classified as at least moderately active. Adults who are not working due to leave, unemployment, or job action are half as likely (25%) to be at least moderately active that those who work on a full time basis (50%) are retired (51%). Adults who are single are more likely to be active (56%) than those who are living with a partner (48%), who in turn are more likely than adults who are widowed, divorced or separated (42%), to be at least moderately active.

**Trends** Canada's *Physical Activity Guide to Healthy Active Living* for adults recommends that those aged 25–55 years should achieve 60 minutes of physical activity every day, or 30 minutes for 4 days a week if activity is moderate to vigorous in intensity. Adults older than 55 should achieve 30–60 minutes of moderate activity most days of the week. The percentage of the population that is at least moderately active has not only increased by a significant percentage (11 percentage points) since 1994/95, but also by 5% since the last reporting period (2000/01). These increases have occurred across all age groups, but less so for older adults, and older women in particular. It should be noted, however, that a change in methods by Statistics Canada might account for at least some of the differences that have appeared over time.

**PHYSICAL ACTIVITY**  
trends, adults 1994/95 – 2002/03



National Population Health Survey, 1994/95 to Canadian Community Health Survey, 2002/03

**PHYSICAL ACTIVITY**  
for adults, by province and territory

	2010 goal, at least moderately active	2002/03, at least moderately active*	2000/01, at least moderately active*	Percent change
Newfoundland	46%	42%	36%	+6%
Prince Edward Island	49%	41%	39%	+2%
Nova Scotia	52%	45%	42%	+3%
New Brunswick	47%	43%	37%	+6%
Quebec	49%	45%	39%	+6%
Ontario	53%	48%	43%	+5%
Manitoba	51%	48%	41%	+7%
Saskatchewan	53%	47%	43%	+4%
Alberta	58%	53%	48%	+5%
British Columbia	65%	58%	55%	+3%
Territories	59%	50%	49%	+1%

Canadian Community Health Survey, 2000/01–2002/03

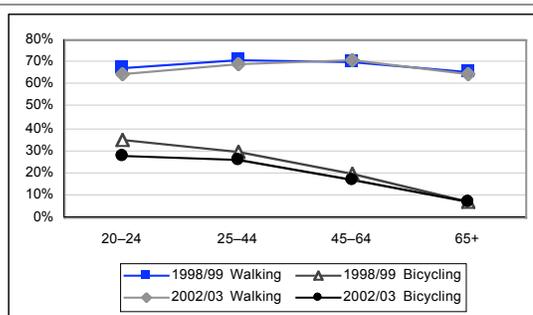
## Walking or bicycling during leisure time—adults

According to the 2002/03 Canadian Community Health Survey, 69% of Canadians aged 20 and older report walking during their leisure time during the past 3 months. One out of five adults reports bicycling during the past 3 months. People living in British Columbia, Alberta are most likely to report walking, whereas residents of Quebec are the least likely. Residents of the Atlantic Provinces and Ontario are less likely to report that they bicycle; yet those in Quebec are more likely to report bicycling.

**Population Groups** Women are more likely than men to report walking for exercise, whereas men are more likely than women to report bicycling. Walking is least prevalent for young adults (aged 20–24) and older adults (65+ years of age). Bicycling is clearly less prevalent in older age groups; as 28% of younger adults (20–24 years) report bicycling compared to 7% of older adults (65+). Both walking and bicycling are more frequently reported by individuals who have attained higher education levels and have higher household income levels (> \$50,000 per annum) compared to those with lower education and lower household incomes. Adults who are not working due to leave, unemployment, or job action are less likely to walk or bicycle compared to that those who work or who are retired.

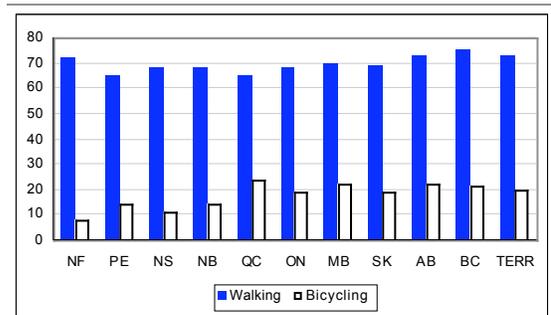
**Trends** The percentage of the population that report walking during leisure time has not changed since 1998/99. Women are still more likely to cite walking and it is still the most frequently reported activity among all age groups. The prevalence of bicycling has decreased, albeit only slightly, in the past 4 years. Earlier observed differences that men are more likely to cite bicycling than women, and that participation in bicycling is less likely in older age groups still persists in 2003.

**WALKING AND BICYCLING**  
trends, adults 1998/99 – 2002/03



National Population Health Survey 1998/99 and Canadian Community Health Survey 2002/03

**WALKING AND BICYCLING**  
for adults, by province and territory



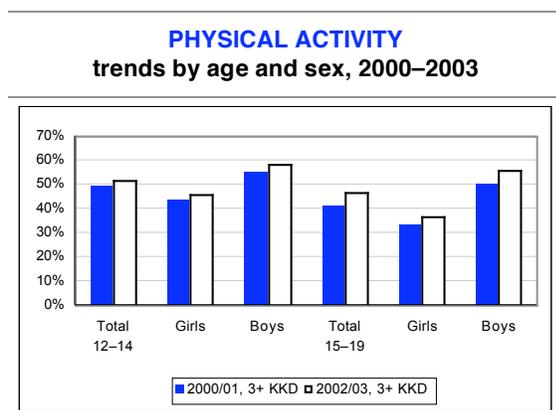
Canadian Community Health Survey, 2002/03

## Physical activity among teenagers

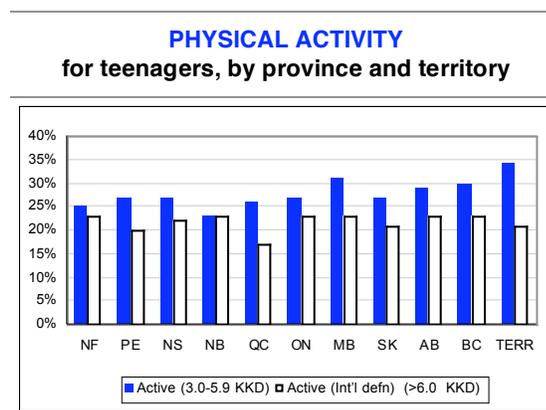
Half of Canadian teenagers (49%) are active during their leisure time, accumulating the equivalent of at least one hour of walking a day (3+ KKD). However, only 21% are accumulating enough daily activity to meet the international guidelines for optimal growth and development (6+ KKD).<sup>4</sup> This international guideline for physical activity could be achieved through playing team sports for an hour or a half or participating in an hour of martial arts, combined with an accumulated hour of walking throughout the day. Teenagers living in Quebec are least likely to meet the 3+ KKD criterion.

**Population Groups** Teenage boys (27%) are almost twice as likely as teenage girls (14%) to meet the international guidelines for optimal growth and development. They are also more likely to meet the 3+ KKD criteria. Teenagers, aged 12 to 14 are more likely to be active than those aged 15 to 19, according to both the 6.0+ KKD and the 3.0 KKD criteria. Although gender differences appear for both age groups, the gap is wider among older youth. That is, for the 3.0+ KKD criteria, 63% of girls 15–19 years are inactive compared to 44% of boys in the same age group; whereas 55% of girls aged 12–14 years and 43% of boys in the same age group are inactive.

**Trends** The proportion of youth who are physically active has increased over the past decade. Moreover, activity levels of youth have increased over the past two years (since 2000/01). Although this is promising, activity levels for Canadian children and youth are still far from sufficient.<sup>5</sup> *Canada's Physical Activity Guides for Children and Youth* recommend that children increase their daily activity to include an additional 90 minutes per day.<sup>6</sup> During the last two years, significant increases in youth activity have occurred in Quebec, Ontario and Manitoba. As discussed with regard to adults (see topic entitled “Physical activity among adults”), at least some of this increase may be related to a change in methodology between the 2002/03 CCHS and the 2000/01 CCHS.



Canadian Community Health Survey, 2000/01–2002/03



Canadian Community Health Survey, 2002/03

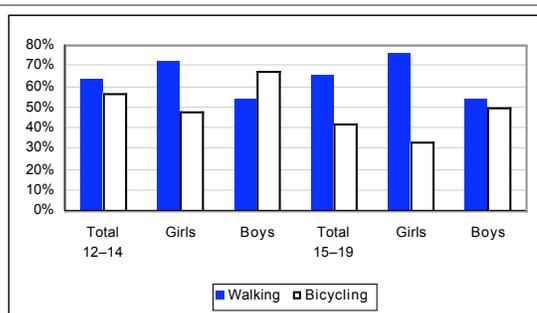
## Walking or bicycling during leisure time—youth

According to the 2002/03 Canadian Community Health Survey, 64% of Canadian adolescents (12–19 year olds) report walking during their leisure time during the past 3 months. Almost half of youth (48%) report bicycling. Adolescents living Quebec are less likely than Canadian youth in general to report walking. Youth living in Quebec are more likely than youth overall to report that they bicycle, whereas those in the Territories are less likely to report bicycling.

**Population Groups** Adolescent girls (74%) are more likely than boys (54%) to report walking for exercise, whereas boys (56%) are more likely than girls (38%) to report bicycling. Although younger (12–14 year olds) children are equally as likely to cite walking as are their older peers (15–19 year olds), the gender gap is observed for both age categories. Bicycling is clearly less prevalent in older youth; 57% of younger adolescents (12–14 years) report bicycling compared to 42% of older adolescents (15–19 years). Youth from homes with the lowest household incomes (<\$20,000 per annum) are more likely to report walking during leisure (70%) than those from homes of the highest household incomes (>\$80,000 per year). Youth in households with incomes of \$30,000 or greater are more likely than those with lower incomes to report bicycling.

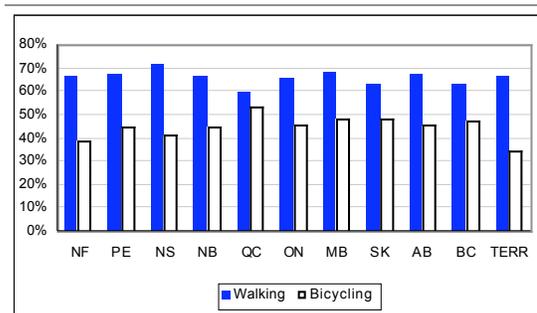
**Trends** The percentage of the population that reports walking as an activity has increased just slightly over the past 8 years, whereas the prevalence of bicycling among youth has remained stable. Gender differences—where girls are more likely than boys to cite walking and boys are more likely to cite bicycling—still persist over this 8 year span.

**WALKING AND BICYCLING**  
by age and gender 2002/03



Canadian Community Health Survey, 2002/03

**WALKING AND BICYCLING**  
for youth, by province and territory



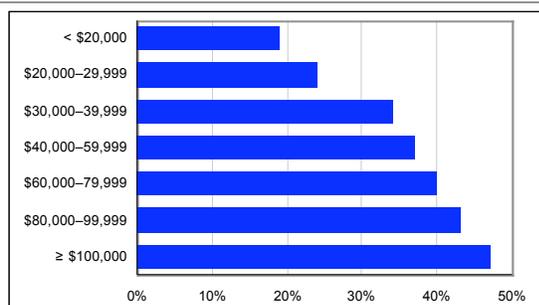
Canadian Community Health Survey, 2002/03

## Participation in organized physical activity or sport

In the 2004 Physical Activity Monitor, Canadians were asked if they had participated in organized physical activities or sports in their community such as aerobics, walking clubs or baseball in the previous twelve months. Over one-third of adults report that they have engaged in this type of activity at some point within the last year. When compared to Canadians overall, those living in the Northwest Territories (47%) and Saskatchewan (43%) are the most likely to say that they have participated in some type of organized activity. Quebec residents on the other hand, are less likely than other Canadians to report this, with only 29% of residents indicating that they have been involved in organized activities within the last year. Significantly more sport participants (56%) report that they have engaged in organized physical activities or sports in their community at some point within the last year compared to the general population. Sport participants in the Atlantic region and in the North are more likely than sport participants overall to report participating in these types of activities.

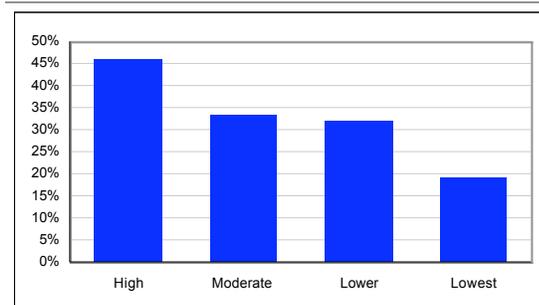
**Socio-economic and -demographic factors** The percentage of Canadian adults who report having participated in organized physical activity or sport during the past twelve months is significantly lower in older age groups. This is true for the general population and for sport participants more specifically. A greater percentage of Canadians in higher income brackets or who have higher levels of education say that they have participated in organized physical activity or sport during the past twelve months. These relationships with income and education that appear at the population level do not appear among sport participants. Individuals living in communities of at least 10,000 citizens are more likely than those living in smaller communities to say that they have participated in some form of organized physical activity or sport during the last year. However, this pattern for the population more generally is not evident for sport participants. Just under half of those who have never been married—many of whom are younger adults—say that they have participated in organized physical activity or sport within the year, making these individuals the most likely to engage in organized activity. This pattern also appears among sport participants.

**PARTICIPATION IN ORGANIZED ACTIVITIES OR SPORT by income**



2004 Physical Activity Monitor, CFLRI

**PARTICIPATION IN ORGANIZED ACTIVITIES OR SPORT by activity level**

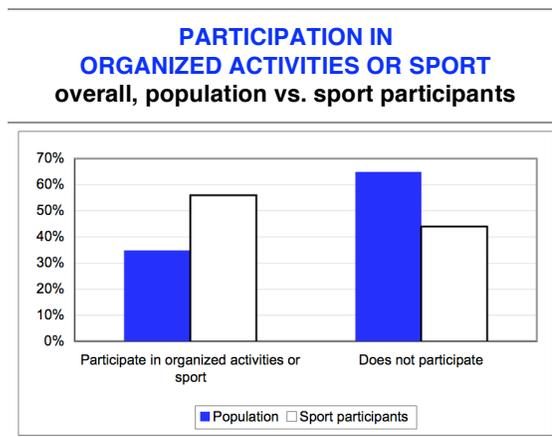


2004 Physical Activity Monitor, CFLRI

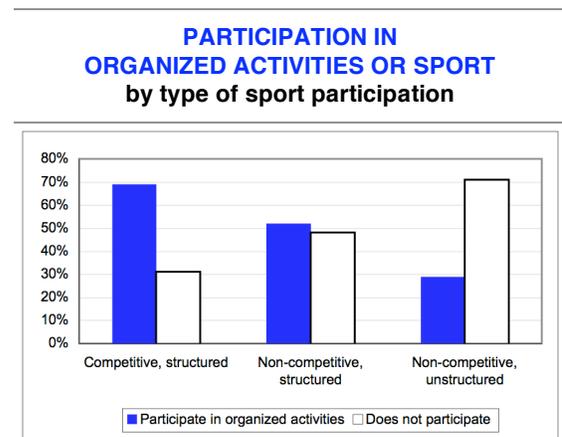
## Participation in organized physical activity or sport (cont'd)

**Activity level** Participation in organized activities is also related to overall activity level, with highly active adults being more than two times as likely as sedentary adults to report doing so in the general population. Although there are differences between the most active and the least active sport participants, the gap is not as large as that in the general population.

**Type of sports participation** As one would expect, sport participants who report that they participate in competitive and structured activities are more likely to report that they participate in organized physical activities and sport compared to those who participate in non-competitive activities, regardless of the degree of structure.



2004 Physical Activity Monitor, CFLRI



2004 Physical Activity Monitor, CFLRI

## Participation in unorganized physical activity or sport

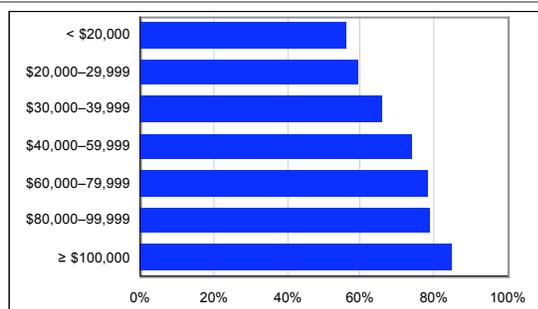
In addition to being asked if they had participated in organized physical activities or sports during the previous twelve months, Canadians were also asked if they had been involved in any type of unorganized activity, such as walking or bicycling. Seven in ten Canadians say that they have participated in this type of activity at some point during the past year. Those living in the Northwest Territories are more likely than Canadians in general to participate in unorganized physical activities or sports, with 78% of respondents saying they have done so within the year.

Compared to the general population, a significantly higher proportion of sport participants (83%) indicate that they participate in unorganized activity, such as walking or bicycling. Sport participants residing in the North are more likely to report this compared to sport participants overall.

**Socio-economic and -demographic factors** The number of Canadians reporting that they have participated in unorganized physical activity or sport during the last twelve months is less prevalent in successive older age groups, with older adults (65+) being less than half as likely as teenagers (15–17) to say that they have engaged in this type of activity. This pattern that appears at the population level also appears among sport participants, however, the disparity between the age groups is not as great.

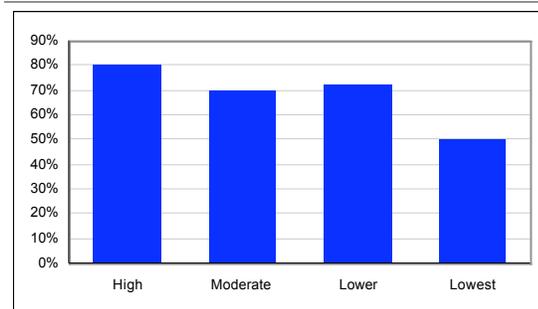
Adults with higher levels of education and income are increasingly more likely to report they have participated in unorganized physical activity or sport during the past year. Although the differences that appear for education at the population level do not exist for sport participants, there are differences with income. Among sport participants, those in the lowest income category (< \$20,000 per year) are less likely than those in the highest income category ( $\geq$  \$100,000 per year) to report participation in unorganized physical activities and sports. Canadians living in communities with a population of more than 5,000 citizens are more likely than those living in smaller municipalities to say that they have participated in unorganized physical activity or sport sometime in the past year. This pattern with respect to community size that appears for the population in general is not evident for sport participants more specifically. Over four in five adults who have never been married say that they have participated in some form of unorganized physical activity or sport within the past year.

**PARTICIPATION IN UNORGANIZED ACTIVITIES OR SPORT by income**



2004 Physical Activity Monitor, CFLRI

**PARTICIPATION IN UNORGANIZED ACTIVITIES OR SPORT by activity level**

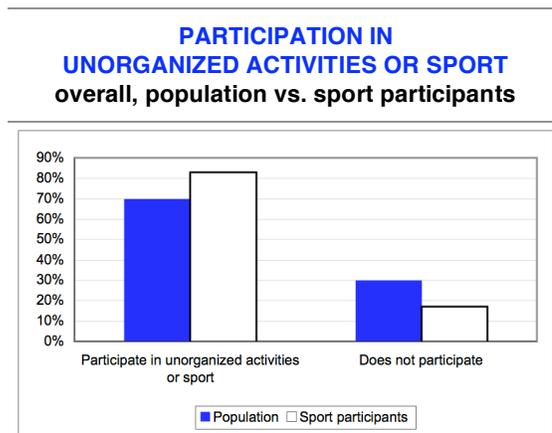


2004 Physical Activity Monitor, CFLRI

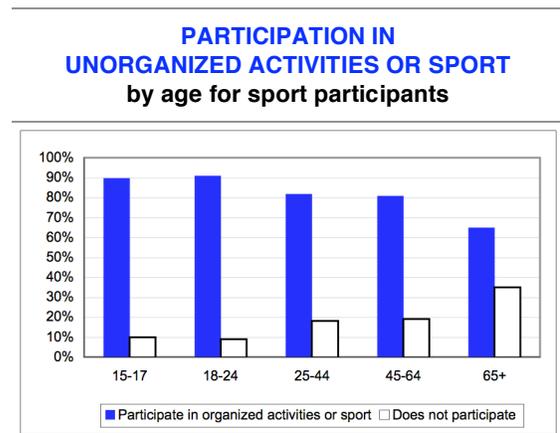
## Participation in unorganized physical activity or sport (cont'd)

**Activity level** As is the case with organized physical activity and sport, more active Canadians are more likely to say that they have participated in unorganized activities. Among sport participants, those with the highest activity level are more likely to indicate that they participate in unorganized activities compared to those with the lowest level of activity.

**Type of sports participation** Interestingly, there are no apparent differences in the proportion of sport participants indicating participation in unorganized physical activities and sports and the degree of competitiveness and structure of their participation.



2004 Physical Activity Monitor, CFLRI



2004 Physical Activity Monitor, CFLRI

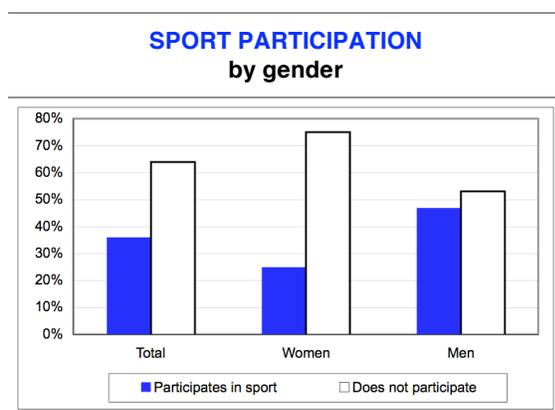
## Sport participation in Canada

Slightly more than one-third (36%) of the Canadian population (age 15 and older) state that they participate in sport. Among youth specifically (age 15-19), this percentage is substantially higher (61%) compared to the proportion for adults age 20 and older (34%). Residents of Newfoundland are less likely, whereas those in the North are more likely than the national population to report that they participate in sport.

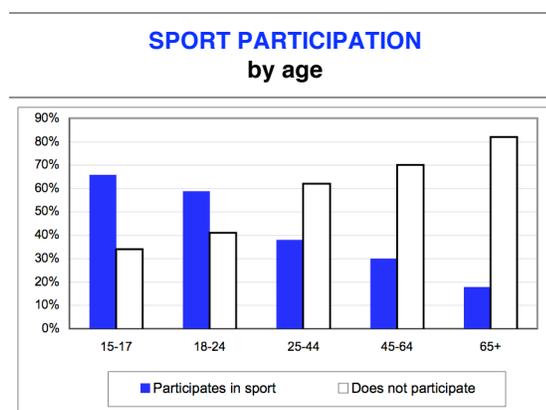
**Age and sex** Men (age 15+) are almost twice as likely as women to report that they participate in sport. There is a dramatic decrease in the prevalence rate of sport participation with increasing age, where 66% of 15-17 year olds compared to 18% of adults age 65 or older report participating in sport. The gender gap increases among successive age groups and peaks among middle age adults, where 43% of men aged 45-64 years participated in sport compared to only 17% of women in this age group. However, among older adults (age 65+) the gender gap completely disappears with 18% of men and 18% of women of this age participating in sport.

**Socio-economic and -demographic factors** Adults who have attained higher levels of education are more likely than those with secondary school education or lower to participate in sport. Generally speaking, those with greater household income levels ( $\geq \$40,000$ ) are more likely to report participating in sport compared to those with lower incomes. Individuals who are not working due to leave, unemployment, or job action are less likely to participate in sport compared to those who work on a full time or a part time basis. Students are most likely to report participating in sport compared to individuals in others types of employment status. This is partly due to the high proportion of youth who are classified as students. Respondents who are single are more likely to participate in sport compared to those who are married, who in turn are more likely to participate than adults who are widowed, divorced or separated. Adults in smaller communities (<10,000 residents) are less likely than those in larger ones to report participating in sport.

**Activity level** Canadians who are the least active are also the least likely to indicate that they participate in sport compared to those who are moderately or highly active.



2004 Physical Activity Monitor, CFLRI



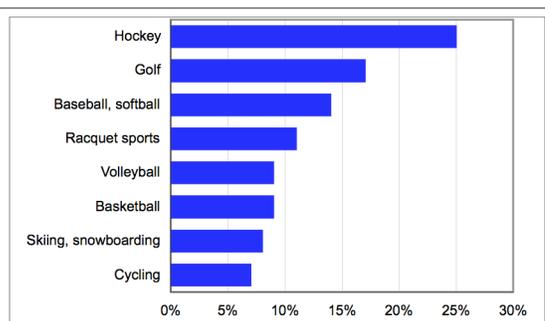
2004 Physical Activity Monitor, CFLRI

## Popular sports in Canada

Sport participants were asked to list the top four sports that they participated in over the past year. The sports most prevalent among sport participants are hockey, golf, baseball, softball, fastball, racquet sports such as badminton and tennis, basketball, volleyball, skiing, cycling, water activities (swimming, diving, water polo), football or rugby, soccer, weight lifting, exercises and conditioning, curling, track and field, jogging or running, and hiking and walking. It is important to note that these prevalence rates were derived from volunteered activities rather than from a prescribed list of activities, and were only answered by sport participants. Generally, percentages are lower when responding to volunteered activities compared to a prescribed list and may be lower when the question is asked of sport participants compared to all respondents. These sports were further categorized as team sports compared to individual sports and vigorous-intensity compared to more moderate-intensity activities. Accordingly, 53% of sport participants report participating in team sports compared to 46% participating in individual sports. Most (70%) participate in vigorous activities compared to 39% that participate in more moderate activities.

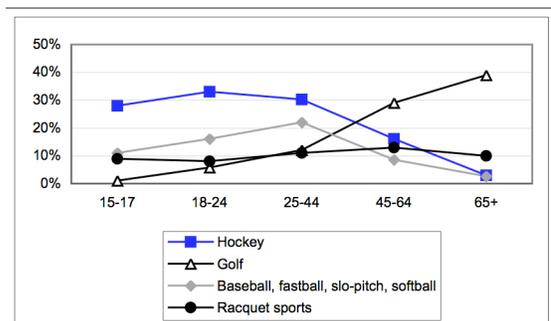
**Age and sex** Men are more likely to participate in hockey and golf. Women are more likely to participate in water activities. Women are slightly more likely than men to report participating in individual sports whereas men are more likely than women to report participating in team sports. Men are more likely than women to participate in vigorous-intensity sports, however, women and men are equally likely to report participating in moderate-intensity sports. There is a decrease in participation in team sports with increasing age of the participant. This includes sports such as hockey, soccer, basketball, football or rugby, and volleyball. However, the inverse is true for golf: older adults are more likely than younger adults to participate. These age differences are particularly evident when examining the type of sport. In particular, 81% of young sport participants (15-17 years) report participating in team sports compared to 21% of sport participants 65 years and older. Conversely, 30% of young sport participants participate in individual activities compared to 62% of older adults. There is also a decrease in participation rates in vigorous-intensity activities with increasing age of participants. The opposite relationship is true for moderate-intensity sports, where 13% of young adults report participating in these activities compared to 72% of older adults.

**POPULAR SPORTS**  
overall for sport participants



2004 Physical Activity Monitor, CFLRI

**POPULAR SPORTS**  
by age for sport participants



2004 Physical Activity Monitor, CFLRI

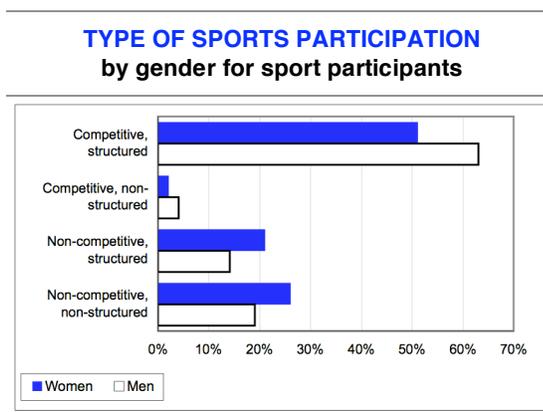
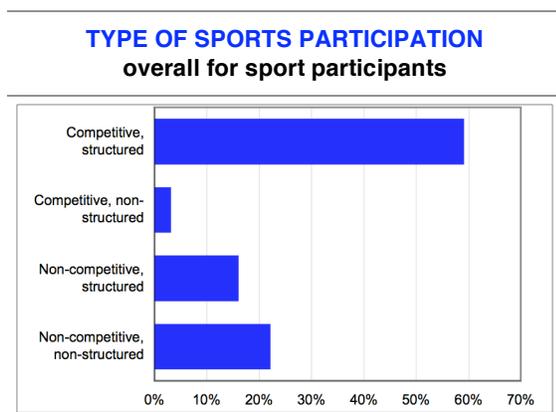
## Type of sports participation

Sport participants were asked whether or not they compete or train in the sports cited and whether or not the sport activities are primarily in a structured or organized environment (such as a league, private facility, or sports club), primarily in an unstructured environment (such as pick-up games), or in both types of environments. The definition of type of sports participation considered both a competition and a degree of structure component. Overall, 59% of sport participants 15 years of age or older participate in a competitive and structured environment. Less than one-quarter of sport participants participate in non-competitive but structured activities (16%) and in non-competitive and unstructured activities (22%). The remaining 3% participate in competitive sport in a unstructured environment.

**Age and Sex** Men are more likely than women to participate in competitive and structured sporting activities whereas women are more likely to report participating in non-competitive and unstructured activities.

The prevalence of sport participants reporting that they have engaged in competitive and structured sport is lower in successive older age groups, with 53% of older sport participants (65 years and older) saying that they have engaged in this type of activity compared to 81% of teenaged participants. Conversely, with increasing age, sport participants are more likely to report participating in non-competitive yet structured sports.

**Socio-economic and -demographic factors** Sport participants with secondary school education or less are more likely to participate in competitive and structured sport compared to those with higher levels of education. The overall pattern of the type of sport participation is not clear within income. Students are more likely than those working on a full-time basis or those who are retired to participate in competitive and structured sport activities; however, this relationship may be due in part to the higher proportion of students among young people.

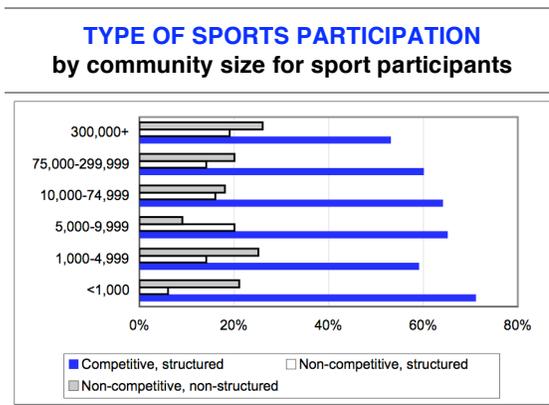


## Type of sports participation (cont'd)

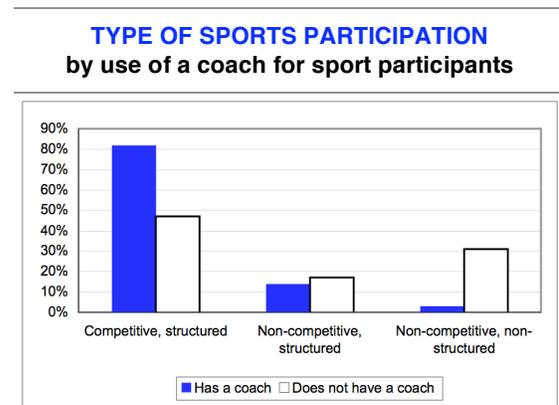
**Socio-economic and -demographic factors (cont'd)** The type of participation varies by community size. Indeed communities with less than 1,000 residents are significantly more likely to report participation in competitive and structured sport than those residing in the largest communities with 300,000 residents or more.

**Activity level** Adults who are the least active are less likely than those in the highest activity level to report participation in competitive and structure sports, yet are more likely to report participation in non-competitive and unstructured activities.

**Competition and training** Almost all sport participants (97%) who compete participating in a competitive and structured sports environment. The majority (82%) of sports participants who have a coach participate in a competitive and structured environment compared to only 47% of those who do not have a coach. Those who do not have a coach are more likely to report participating in non-competitive sports, regardless of the degree of structure, compared to those who do report using a coach.



2004 Physical Activity Monitor, CFLRI



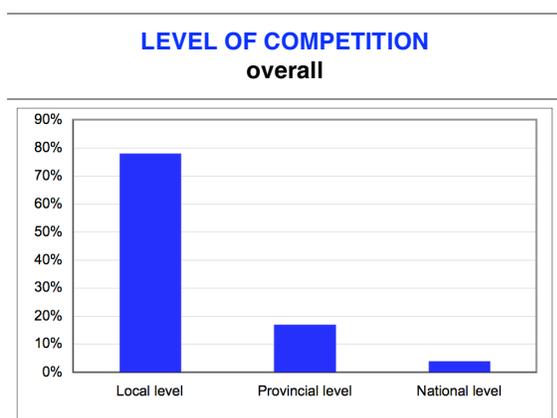
2004 Physical Activity Monitor, CFLRI

## Competition and training

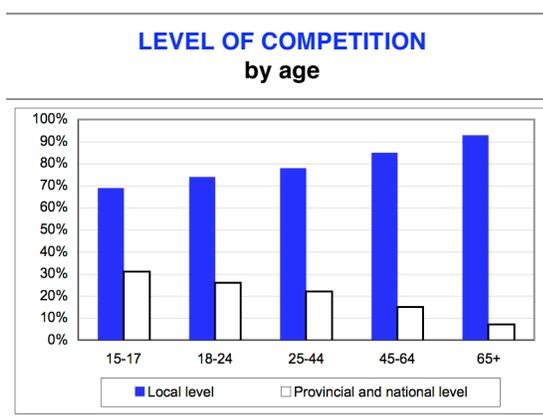
Sport participants were also asked if they have a coach or receive coaching and, if they compete, at what level they compete. One-third of sport participants indicate that they receive coaching. The overwhelming majority (78%) compete at a local level, whereas 17% compete at a provincial level, and 4% compete at a national level. Sport participants in the Atlantic region are less likely to report that they compete at a local level compared to the overall population, yet are more likely report competing at a provincial level.

**Age and sex** Women are more likely than men to report that they use the services of a coach. The proportion of sport participants who indicate that they have a coach decrease with increasing age, where 68% of 15-17 year olds receive coaching compared to 24% of adults aged 45-64. Although there are no overall gender differences between sport participants who compete at the various levels, the proportion competing at a local level increases with increasing age. For example, 69% of 15-17 year old sport participants compete at a local level compared to 93% of adults 65 years and older. Generally speaking, younger adults are more likely to compete at higher levels of competition.

**Socio-economic and -demographic factors** Sport participants with a university education are less likely to report that they have a coach compared to participants with less than some secondary education. There are no clear patterns that emerge among receiving coaching and household income level. There is no clear relationship between education level or household income and competition level. Part time workers or students are more likely to have a coach compared to full-time workers. They are also less likely than retired individuals to compete at a local level. Roughly two in five (42%) of those who have never been married—many of whom are younger adults—say that they have a coach, making these individuals the most likely to report using the services of one. These single adults are less likely than those who are widowed, divorced, and separated to compete at a local level.



2004 Physical Activity Monitor, CFLRI



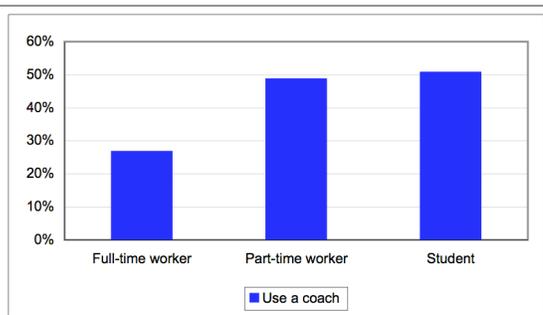
2004 Physical Activity Monitor, CFLRI

## Competition and training (cont'd)

**Activity level** There is no clear pattern in the relationship between having a coach or competing at various levels of competition and the activity level of an individual.

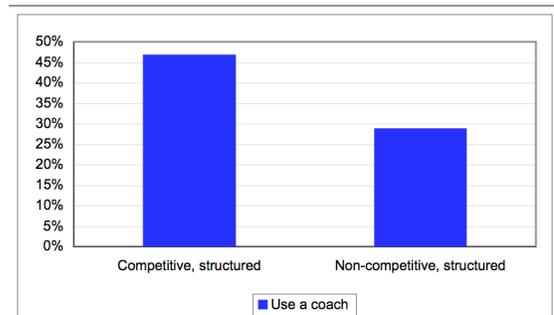
**Type of sport participation** Among those who compete at a national level, the majority of sport participants report having a coach (88%) compared to less than half (42%) who compete at a local level. Sport participants who report that they participate in competitive and structure sport activities (47%) are more likely to report having a coach compared to those in a non-competitive but structured environment (29%). In addition, those who participate in structured and competitive sport activities are more likely than those in a non-structured yet competitive environment to compete at a higher level.

**LEVEL OF COMPETITION**  
by employment status



2004 Physical Activity Monitor, CFLRI

**LEVEL OF COMPETITION**  
by type of sport participation



2004 Physical Activity Monitor, CFLRI

## *Summary and discussion of section*

The proportion of active adults and youth have increased over the past two years. Some of these increases may be due to methodological changes between the two data collection cycles; a lower proportion of Canadians completed face to face interviews in the second of these cycles of the Canadian Community Health Survey. The observed increases are most clearly evident in particular jurisdictions.

Although the long-term trend to increasing physical activity level during leisure-time may be continuing, there also continues to be marked disparities between population groups: men are more active than women, activity is increasingly less prevalent in older age groups, and in those with lower levels of education. Generally speaking, physical activity levels among these population groups have increased over time. Moreover, along with differences by income, adults who are not working due to reasons other than retirement or attending school are half as likely to be active as other Canadians. Finally, although differences in physical activity level are not available for community size, differences are observed in the types of activities in which people participate.

### *Who is least likely to be active?*

- Women
- Teenage girls
- Older teenagers (compared to younger teenagers)
- Older adults
- Adults with lower levels of education
- Adults in households with lower income
- Adults who are not working for reasons other than retirement
- Adults who are widowed, divorced or separated
- Residents of New Brunswick, Prince Edward Island, Newfoundland and Quebec

This section also summarizes who participates in sports in Canada. The data reveals marked disparities between certain segments of the population, notably: men are almost twice as likely as women to participate in sport; prevalence rates of sport participation dramatically decrease with increasing age; and participation in sport is greater among those with higher levels of education and income, those who have never been married, and those living in larger communities. As one would expect, many of these findings for sports participation also mirror the differences in physical activity levels between population groups as described above: men are more active than women, activity is increasingly less prevalent in older age groups, and in those with lower levels of education.

### *Who is least likely to participate in sport?*

- Women
- Older adults
- Adults with lower levels of education
- Adults in households with lower income
- Adults who are not working for reasons other than retirement
- Adults who are widowed, divorced or separated
- Adults who are live in smaller communities

The gender and age-related differences apparent among participation rates in sport are also apparent for the level of intensity, type of sports reported and the degree of competitiveness or structure. Women are less likely than men to participate in sports that involve teams or that are more vigorous in intensity. Women are also less likely to participate in competitive or structured sport activities, and are more likely to be involved in non-competitive, unstructured, and moderate-intensity sports. Older adults also participate in fewer team sports and in sports that are more moderate in intensity.

### *Implications and Recommendations*

Despite a trend to increasing physical activity during leisure time,<sup>7</sup> one-half of Canadian adults are still inactive and approximately 80% of youth are not active enough to meet international guidelines for physical activity of expending 6+ KKD daily in physical activity. In addition, 27% of youth do not meet the minimum 3.0 KKD adult criteria. Given the apparent conflict between escalating rates of obesity in Canada among youth and adults and greater likelihood to be active, other mitigating factors may be involved. These factors may include reduced energy expenditure outside of leisure time due to improved technology; development of urban design and suburban environments which favour motorized vehicles,<sup>7</sup> or other non-active modes of commuting; an imbalance in dietary practices and food intake; and perhaps genetics or metabolic circumstances. For example, a study examining food intake and food habits of adults and adolescents compared to the recommendations from *Canada's Food Guide to Healthy Eating* found a large contribution of carbohydrate and fat intake from foods such as soft drinks, desserts, candies, oils, and potatoes,<sup>8</sup> and that these foods were the prevailing source of energy for youth and adults.

Current estimates place the cost of physical inactivity in Canada at \$5.3 billion (\$1.6 billion in direct costs and \$3.7 billion in indirect costs) and the cost of obesity in Canada at \$4.3 billion (\$1.6 billion of direct costs and \$2.7 billion of indirect costs) in health care expenditures.<sup>9</sup> This represents the total economic cost as 2.6% and 2.2% respectively of the total health care costs in Canada.<sup>9</sup> There is concern that chronic disease resulting from obesity may threaten or cripple the health care system in Canada. The federal, provincial, and territorial Ministers of health have been addressing physical inactivity and poor nutrition as key modifiable factors in combating the obesity epidemic among Canadians—both young and old. Consequently they have adopted the goal set by the FPT Ministers concerned with sport, physical activity and recreation to increasing physical activity in every jurisdiction by 10 percentage points by 2010.<sup>1</sup> It is recognized that

higher levels of physical activity are associated with greater health benefits,<sup>10</sup> which in turn reduce the public health burden. Appropriate participation in sport provides opportunities for achieving these higher levels of physical activity. The Canada Sport Policy has as a mission to increase the proportion of “Canadians from all segments of society who are involved in quality sport activities at all levels and in all forms of participation.”

Although a significant increase in activity levels for several jurisdictions over the last two years appears promising at first blush, it is important to understand possible factors that may have affected the observed differences. Included in this may be differences in data collection methodologies over the period (see the section in the appendix entitled “Survey Methodology” for further discussion of methodological differences). Therefore, activity levels should be monitored over multiple time periods to assess progress.

Walking is an easy, low-skill, inexpensive, and convenient mode of incorporating physical activity into daily life. To effectively promote walking as an effective means of incorporating physical activity into daily living, a supportive physical environment which encourages safe and walkable routes is important. Communities could provide linkages between residential, business, and retail areas with a system of well-networked trails and pathways, or ensure that transportation policies incorporate networking of trails and pathways with public transportation routes. Other means of increasing the supportiveness of environments include ensuring public transportation that supports bicycle commuting, with bicycle carriers, bicycle racks, or safe storage facilities. Municipal officers and urban planners could identify problem areas in traffic or transit patterns to ensure that active commuting can be realized (e.g., restricting streets to walking or bicycling only, ensuring bicycle friendly lanes on roadways). Safety issues must also be taken into consideration, and can be identified through safety audits on streets or trails, and addressed through bike patrols on bicycle paths, and well-maintained and lit sidewalks or paths.

Although obtained from different surveys with different methods, it appears that sports participation may have reached a plateau over the last 8 years. A sport supplement to the General Social Survey (GSS)<sup>11</sup> conducted in 1998 revealed that 34% of the Canadian population (aged 15 and over) participated in sport on a regular basis, which was lower than the 45% reporting participation in the 1992 GSS<sup>12</sup>. The current survey found that 36% of Canadians 15 years of age and older participate in sports, a figure similar to that of 1998.

Results from this survey also mirror the 1998 GSS survey in that men are more likely than women to participate in sports (43% vs. 26% respectively in 1998), the current survey found that men are almost twice as likely as women to participate in sports. The gender and age-related differences that appear among participation rates in sport also appear for the level of intensity, and type of sports, and the degree of competitiveness or structure. Women and older adults are less likely than men and younger age groups to participate in: (1) team sports (2) those more vigorous in intensity (3) in competitive or structured sport activities.

To reach the goal of increasing sport participation among these populations, a strategy would need to include a balance of some vigorous activities with more moderate sports or physical activities. Preference for, or access to certain activities among certain groups is key for tailoring programs to suit the preferences and needs of these particular groups. Interventions to increase adoption or maintenance of sport and physical activity become challenging given that the majority of inactive Canadians have moderate intentions at best of becoming active (58%), and a further 29% only somewhat intend or have no intentions of becoming active at all. In addition, inactive Canadians are more likely than active Canadians to report that it is somewhat or not at all feasible to fit an ideal physical activity regime into their lives, and that they could maintain such a regime only for less than 3 months.<sup>3</sup> These findings need to be considered when developing strategies for increasing activities overall and encouraging sport participation.

In addition, data from this survey also support the 1998 GSS in that socio-economic disparities continue to occur in sport participation. Adults and youth of lower income status are less likely to report participation in sport. Addressing real and perceived barriers associated with income may be important considerations for increasing sport participation for this segment of the population. For example, adults with lower household income levels in the general population are approximately three times more likely to report cost, lack of skill, and difficulty getting to places to be active as key barriers compared to adults of higher incomes (see later sections in the report), and in addition they are roughly four times more likely to cite safety concerns compared to higher income individuals in the general population. Providing easy and low-cost opportunities for sport or physical activity that can be easily integrated in one's day may be useful for this segment of the population.

Opportunities for both organized and unorganized physical activities and opportunities to participate in sport appear to be lacking or less accessible in small communities (less than 10,000 residents). As seen in a later section (see later sections in the report), residents of small communities are less likely to cite many available places to walk and bicycle, cite fewer recreational trails, and are generally less likely to be very satisfied with the number of opportunities for physical activity and sport that are currently available in their community. Research has shown that access to exercise facilities such as trails, is positively correlated with physical activity and that access to walking trails in a rural community may be beneficial to certain population segments who are particularly susceptible to physical inactivity, including women and individuals of lower socioeconomic status.<sup>13</sup> For small and rural communities that have little access to physical activity facilities, the promotion of facilities that may or may not be specifically designed for physical activity and sport may be useful. These can include schools outside of school hours, community centres, or meeting rooms within places of worship.

Eight out of every ten Canadian workers commute by automobile. A mere 8% actually take active forms of transportation to work, such as walking or bicycling.<sup>14</sup> Moreover, only one out of ten adults take public transport, which provides some opportunity for walking. Workplaces could get involved through the promotion of active commuting to and from work. This could be done with encouragement, incentives, awards, rewards,

role modelling, and ensuring the availability of amenities such as showers, change areas, lockers, and safe bicycle racks and storage. Walking “trails” can be set up throughout the work environment, involving early morning, lunchtime, and after work walking clubs. Workplaces could also promote incidental physical activity through motivational signage encouraging stair use and encouraging recreational physical activity by sponsoring employee walking or skiing clubs and promoting participation in local special events (e.g., walk for cancer research).

Given that physical inactivity during childhood has been linked to sedentary behaviours in adulthood,<sup>15</sup> schools could play a key role in promoting physical activity and sport, by providing opportunities to participate in organized and unorganized activities, and in increasing walking and bicycling as modes of active transportation to and from school.<sup>16</sup> Results from this study indicate that participation in organized and unorganized physical activity is increasingly less prevalent in older age groups and participation in these types of activities are more likely to be done by those who are already more active. Encouraging children and youth of all levels of skill, development, interest and confidence may be key to promoting a life-long interest in adopting a physically active lifestyle. This should be targeted towards pre-adolescent children, and girls in particular, as physical activity is less prevalent among older youth.<sup>17</sup>

Research from this report reveals socio-economic disparities: adults and youth of lower income status are less likely to report walking and bicycling and less likely to report participating in both organized and unorganized physical activities. Addressing perceived barriers associated with income may be important considerations for increasing physical activity participation among this group. For example, adults with lower household income levels are approximately three times more likely to report cost, lack of skill, and difficulty getting to places to be active as key barriers compared to adults of higher incomes (see later sections in the report), and in addition they are roughly four times more likely to cite safety concerns compared to higher income individuals. Research has shown that low-income adults are more likely to walk to work and to shops than to travel by car.<sup>18</sup> Providing easy and low-cost opportunities for physical activity that can be easily integrated in one’s day may be useful for this segment of the population.