Moving toward a Better Normal



ParticipACTION Report Card on Physical Activity for Adults



Keport Card Development Team	
The future is physical: Moving to a better normal in Canada	
Indicators & Grades	
Why is Physical Activity Important?	
Why is Reducing Sedentary Behaviour Important?	
Why is Sleep Important?	
24-Hour Movement Behaviours	
Daily Behaviours	
Total Daily Steps	
Light Physical Activity (LPA)	
Moderate-to-Vigorous Physical Activity (MVPA)	
Muscle Strengthening Activities	
Balance Activities	
Active Transportation (AT)	
Sport Participation	
Sleep	
Sedentary Behaviours (SB)	
24-Hour Movement Behaviours	
Individual Characteristics	
Perceived Capability	
Perceived Opportunity	
Motivation	
Spaces, Places & Cultural Norms	
Facilities and Infrastructure	
Programming	
Policies and Leadership	
Social Environment	
Strategies & Investments	
Government	
Abbreviations	
Major Data Sources	
References	

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About ParticipACTION

ParticipACTION is a national non-profit organization that inspires and supports Canadians to make physical activity a vital part of their everyday life. As Canada's premier physical activity brand, ParticipACTION works with its partners, which include organizations in the sport, physical activity and recreation sectors, alongside government and corporate sponsors, to help Canadians reduce sedentary time and move more through innovative engagement initiatives and thought leadership.

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Canadian Fitness and Lifestyle Research Institute Institut canadien de la recherche sur la condition physique et le mode de vie

The future is physical: Moving to a better normal in Canada

Virtually every person living in Canada experienced a tremendously challenging 2020 — with the onset of the COVID-19 pandemic, our physical health, mental well-being, financial security and social connections slipped away.



These threats were not felt proportionately across the country. Food bank usage hit record levels. Thousands of manufacturing and service sector employees were laid off or got sick at work. A disproportionate number of women had to choose between working and taking care of their children as schools and daycares shut down. Many older adults were afraid to leave their homes for weeks or months. These changes meant that walks to work, park playdates, busy shifts and other once accessible ways to stay active either fell to the bottom of our priority lists or were no longer available because of public health guidelines.

The lifestyles of those who were able to work from home also underwent a drastic transformation. Active transportation and bustling workdays with active breaks for walking meetings or coffee runs were replaced with week-after-week spent cooped up at home.

Gyms and yoga studios closed; sports leagues stopped playing. The entire nation was told to stay put to protect our health and avoid the virus. So, we took comfort on the couch. We were safe in our sweats (which, for the most part, never had to live up to their name). Screens replaced social outings. However, not all of us were resigned to this sedentary state. Some people managed to keep their bodies moving through the crisis, without conventional brick-and-mortar spaces, teams, or clubs, by getting outside, participating in active transportation and finding ways to stay active within their own four walls. Now we need to take collective and meaningful action so that all of us have the passion for movement and the resources required to adopt and maintain physically active lifestyles that will endure whatever challenges life presents. <u></u>

A physically active future is vital for a better road ahead

ParticipACTION is calling on Canadian leaders, decision makers and citizens to embrace future-friendly, innovative ideas that will make physical activity fun, accessible and valued by all people living in Canada. Our motivation is there: 79 percent of Canadians aspire to be active; we earned a B+ in this category. It's time to harness this awareness and dismantle barriers like age, income, race, gender, sexual orientation, physical ability and other socioeconomic factors to allow everyone in Canada to have access to the resources required to benefit from the recommended 150 minutes of weekly physical activity. Strong mental, physical, and social health can help equip us for the known challenges of everyday life and whatever unpredictable events lie ahead. That's important because now, more than ever, we understand how quickly our lives can pivot, and what personal and systemic resilience is required to wade through such challenges.

A physically active future is vital for our mental health

Many individuals living in Canada have reported that their mental health worsened because of COVID-19. Physical activity can minimize symptoms of depression and anxiety, promote feelings of happiness, boost moods and build resiliency — making it an essential component in our mental health tool kits. During the pandemic, many of us did include regular physical activity to help cope with our new and unrecognizable daily grind. Movement broke up the monotony, added fun and supported positive mental wellness. A couple of months after the onset of the pandemic, some people returned to their fitness routines like running or cycling. And while the number of those participating in moderate to vigorous physical activity never returned to pre-pandemic levels — Canadians earned a C- in this area — people began to connect the dots. Attending a virtual yoga class helped people face that millionth online meeting feeling more refreshed. A brisk daytime walk helped some find sleep when many tossed and turned with worry. A morning bike ride on a city trail made coming home to manage parenting while teaching and working a little easier. A midday family walk served as a beneficial break between online learning sessions.

<u>Research</u> shows that this time spent outdoors, interacting with nature, can improve our mental health. And the benefits of being active outdoors can go even further as many of us cope with anxiety about climate change and the environment. We can feel empowered that when we choose to walk, ride or wheel, we're also decreasing our environmental footprint.

It's time for all of us to make these mind-body connections. Educators and decision makers must help build awareness about the mental health benefits of movement and create opportunities to allow everyone living in Canada to enjoy the mood-boosting, joy-inducing, smile-evoking pleasures of being active to help us better navigate whatever stressors lie ahead.



A physically active future is vital for our social well-being

Whether it's a brisk walk with a sibling, a family hike, cutting a rug in a group dance class or having a friendly faceoff during a house league game, so many of our favourite physical activities involve engaging with others. The pandemic demonstrated the irreplaceable role that social connection plays in supporting our quality of life. No longer having these options to meet up with others to get active surely contributed to why so many of us expressed feelings of loneliness; <u>half of all Canadians said they were</u> feeling lonely and isolated as a result of physical distancing <u>rules</u>. Research shows that the impact of these feelings goes beyond the immediate and can make us more susceptible to cognitive decline, depression and social anxiety. As we plan for a stronger, healthier Canada, let's embrace the benefits of bonding through movement with friends, family members and neighbours. Let's look at our programs and spaces through a new lens to ensure we are welcoming those in our community who in the past may have not felt safe or seen themselves represented. Our communities are stronger when people from all ages, backgrounds and cultures and across the economic spectrum are inspired and supported to come together to share stories, laugh and connect through movement.



A physically active future is vital for our physical health

It shouldn't take a pandemic for us to appreciate our health and commit to it. Yet, in many ways, COVID-19 was a wakeup call for a lot of us about the fragility of not only our bodies, but of our healthcare system.

While the virus took most of us by surprise, we've known for decades about another increasingly problematic health crisis — sweeping, chronic sedentary behaviour. In 2021, Canadians earned a grade of 'F' in this area, meaning we have a long way to go in reducing the hours we spend being sedentary. While not a contagious virus, a lack of physical activity can also cause catastrophic health problems and strain our taxed health-care system.

Regular physical activity can prevent and treat obesity, prevent cardiovascular disease, type 2 diabetes and dementia, improve mobility, prolong healthy independent living, and even prevent sudden cardiac death.

When our society commits to active living today, we're reducing our risk of preventable illness and disease while helping our health-care system to remain nimble and responsive for unforeseeable challenges of the future.





While the impacts of COVID-19 were felt disproportionately across various populations, the learning outcomes of the catastrophe should benefit the well-being of everyone living in Canada.

We urge all individuals living in Canada who took up or maintained regular physical activity during the pandemic to keep it up.

If you struggled to leave your home or find safe ways to get active, this is not a time for guilt or judgement. This is an opportunity for meaningful change.

This critical societal shift cannot happen if we depend on individual actions alone. Let's encourage and advocate for others — friends, children, workers, parents, neighbours, colleagues — to establish a more active Canada across the lifespan and the socioeconomic spectrum. This means increasing culturally relevant, inclusive and accessible opportunities to make our bodies and minds stronger through movement.



Breaking barriers to physical activity

To date, barriers to getting active have varied among both individuals and communities based on several factors, including access to transportation and childcare, employment sector, availability of safe places to move and more. Let's change that by investing in convenient, welcoming opportunities that support and welcome everyone living in Canada to move more in communities and workplaces.

Some employers are offering a new hybrid working model — this can be a huge asset to our health and an opportunity to refuse to sit for eight hours straight!

Many people have significantly decreased their commuting; let's use that 'found' time to take a morning walk or a virtual class.



Let's dust off our bikes and embrace the freedom of getting around on two wheels, with more infrastructure that makes active transportation safe and convenient. When communities are planned around active transportation, they reap a multitude of benefits, including the positive environmental outcome of decreasing our dependence on fossil fuels. And when we build communities that make it a pleasure to walk, ride, wheel and run, our local economies thrive because it's that much simpler to eat, shop and take in entertainment in our own backyards.

Let's build spaces that allow us to easily insert movement into our days through fun and play: a gentle exercise class in the pool, a game of pickup with a pal, an inclusive yoga class at the park or a mindful hike with the family. Let's immerse ourselves in Canada's world-renowned natural beauty, whether in urban areas or rural regions. The pandemic inspired an uptick of getting active outdoors; we can't let that fade like a passing trend. This could be just the beginning of a nation-wide revolution to walk, wheel, hike, bike and explore, supported by planning and policies that make outdoor activities accessible and appealing to everyone.





Working together to create a more active nation

These goals may be ambitious. But their impacts are far-reaching. If this pandemic has proven anything, it's that people can rally resources, both human and monetary, to make immediate, monumental changes. We saw it on a global level with the creation of the vaccines. We saw it nationally with unprecedented investments to bolster our health-care system, safeguard our economy and support business owners. Schools went virtual. Employees switched to home offices, and frontline workers adopted entirely new protocols and practices.

We have an opportunity to apply this ingenuity, adaptability and collective spirit to make physical activity part of the lives of all people living in Canada. Unlike many of the forced changes brought on by the pandemic, pivoting to become a more active nation will bring joy, build our physical strength, improve our mental fortitude and make <u>everything better</u>, including our community connections, environment and economy.

The 2021 ParticipACTION Report Card on Physical Activity for Adults is more than a look back at what we did and did not accomplish in the past. This document is a tool to empower Canadians with insights on how to build stronger, healthier and more vibrant communities in the future. We understand how the benefits of a physically active society intersect with broader societal goals, improving everything from our population's mental health to our environmental sustainability. Now we must ask, will Canadians and our leaders make the necessary choices to move toward a new, better normal?

Indicators & Grades

Grades are common to every report card. The 2021 Report Card Research Committee (RCRC) assigned letter grades to 18 different indicators grouped into four categories (Figure I): **Daily Behaviours** (Total Daily Steps, Light Physical Activity [LPA], Moderate-to-Vigorous Physical Activity [MVPA], Muscle Strengthening Activities, Balance Activities, Active Transportation, Sport Participation, Sedentary Behaviours, Sleep, 24-Hour Movement Behaviours), **Individual Characteristics** (Perceived Capability, Perceived Opportunity, Motivation), **Spaces, Places & Cultural Norms** (Facilities and Infrastructure, Programming, Policies and Leadership, Social Environment), and **Strategies & Investments** (Government). This year, the RCRC changed the names of some of the categories and indicators to better align with the ParticipACTION Report Card on Physical Activity for Children and Youth, and <u>A Common Vision for increasing</u> *physical activity and reducing sedentary living in Canada: Let's* <u>Get Moving</u>, as well as to better reflect their corresponding benchmarks and data. Changes are outlined below:

2019 Indicators	Status	2021 Indicators
Overall Physical Activity	Removed	
Daily Movement	Changed name	Total Daily Steps
	Added	Light Physical Activity
Moderate-to-Vigorous Physical Activity	Removed requirement for bouts of 10 minutes or more, and shifted to weekly average.	Moderate-to-Vigorous Physical Activity
Muscle & Bone Strength	Changed name	Muscle Strengthening Activities
Balance	Changed name	Balance Activities
	Added	Active Transportation
	Added	Sport Participation
Sleep		Sleep
Sedentary Behaviour		Sedentary Behaviour
	Added	24-Hour Movement Behaviours
Intentions	Changed	Perceived Capability Perceived Opportunity Motivation
 Settings & Sources of Influence Social Support Workplace & Environment Health & Primary Care Settings 	Changed	 Spaces, Places & Cultural Norms Facilities & Infrastructure Programming Policies & Leadership Social Environment
Government		Government

Letter grades are based on an examination of current data for each indicator against a benchmark(s). Together, the indicators provide a complete and robust assessment of how we are doing as a country regarding the promotion and facilitation of physical activity among adults (18 to 64 years) and older adults (65 years and older) living in Canada.

А	В	С	D	F	INC
A+ 94-100%	B+ 74-79%	C+ 54-59%	D+ 34-39%		A grade of Incomplete (INC) indicates that there was insufficient data (or data of poor quality) to assign a letter grade.
A 87-93%	B 67-73%	C 47-53%	D 27-33%	F 0-19%	
A- 80-86%	B- 60-66%	C- 40-46%	D- 20-26%		

Categories of grade assignments are outlined below:

Disclosure

Developed by a team of Canadian researchers and stakeholders in the field of adult physical activity, recreation and sport, this report represents a targeted and purposeful synthesis of relevant literature and data sources. While in-depth literature searches and expert consultations were undertaken, systematic reviews and meta-analyses were not carried out. Available data provide limited information about people living with disabilities.

2021 Adult Report Card Indicators

Together, the indicators provide a comprehensive assessment of how we are doing as a nation regarding the promotion and facilitation of physical activity among adults living in Canada.

Daily Behaviours

Total Daily Steps Light Physical Activity Moderate-to-Vigorous Physical Activity Muscle Strengthening Activities Balance Activities Sport Participation Sedentary Behaviours Active Transportation 24-hour Movement Behaviours Sleep

Individual Characteristics

Perceived Capability Motivation Perceived Opportunity

Spaces, Places & Cultural Norms

Facilities and Infrastructure Programming Social Environment Policies and Leadership

Strategies & Investments

Government

Figure I: 2021 Adult Report Card Indicators

As humans, we were designed to move, and people move in a variety of different ways. However, physical activity has been increasingly engineered out of our daily lives technology and the structure of our communities have made it easier and more enticing to us not to move. Given the many positive benefits associated with physical activity, we must make it an intentional and valued part of our day; sedentary behaviours should be limited where possible and sleep prioritized — our health and well-being depend on it (see Figure 2). Changes to the physical environment and policies will support a healthier society.



Why is Physical Activity Important?

Research shows that physical activity is good for us physically, mentally and socially. Being physically active is a key factor in maintaining health across the life-course.¹ It helps in the prevention of several types of cancer, including breast, colon, endometrial, kidney, bladder, esophageal and stomach.² It can also reduce blood pressure, heart attacks, cardiovascular disease, systemic inflammation, fat around organs, depression and anxiety, osteoporosis, osteoarthritis, dementia and Alzheimer disease; decrease psychological stress and falls; improve diabetes and metabolic syndrome, mood, sleep and physical functioning; and maintain muscle and bone mass.^{3, 4, 5, 6} Physically active older adults, compared with inactive older adults, show benefits in terms of physical and cognitive function, brain health, mobility, musculoskeletal pain, risk of falls and fractures, depression, quality of life, and includes shorter periods of disability (for some).¹ The impact on society include a healthier economy through increased social cohesion, neighbourhood community life and productivity; and decreased absenteeism, injuries and turnover.^{7,8}



Why is Reducing Sedentary Behaviour Important?

Sedentary behaviour has emerged as a new risk factor for poor health and increased risk for many chronic diseases among adults. Minimizing time spent being sedentary may lower risk of all-cause mortality, cardiovascular disease, type 2 diabetes, overweight/obesity and several cancers (endometrial, colon and lung). High levels of sedentary behaviours in adults are associated with poorer mental health, cognitive function, physical activity and health-related quality of life.. Reducing or breaking up periods of prolonged inactive sedentary times may have beneficial effects on markers of cardiometabolic risk and body composition, as well as increased productivity and focus.^{1, 2, 9, 10, 11, 12, 13, 14}



Too little, and in some cases too much, sleep is linked with a wide variety of health problems including obesity, type 2 diabetes, cardiovascular disease and depression, as well as an increased risk of cognitive decline and dementia.^{15, 16} It can also lead to an increased likelihood of falls, mistakes in the workplace and motor vehicle collisions, and lower psychomotor performance.¹⁷





Physical activity, sedentary behaviour and sleep are the three components of the new <u>Canadian 24-Hour Movement</u> <u>Guidelines for Adults</u>.¹⁸ Each of these movement types falls along a continuum of energy expenditure and contribute to overall health.¹⁹ Research shows that the combined effect of movement behaviours is associated with health outcomes across the lifespan, and this underscores the importance of considering the whole day.²⁰ These Guidelines are written for the general population and may not always be appropriate for all adults who are pregnant or persons who are living with a disability or a medical condition.



Figure 2: Total Daily Behaviours Continuum



These indicators speak to specific movement behaviours that occur over a 24-hour period.



Total Daily Steps

Previous Grade (2019): C

Total daily steps refers to the cumulative number of steps taken per day in the course of everyday life, including light physical activity and moderate-to-vigorous physical activity.²¹

Indicator name changed from Daily Movement in 2019.

Benchmark

• % of Canadians 18 years or older achieving ≥7,500 steps per day in a variety of light, moderate and vigorous activities that contribute to daily movement.

Impact of COVID-19

- Individuals who reported decreased physical activity (PA) before and during initial COVID-19 restrictions reported poorer mental health and well-being.²²
- 75% of Canadians were using trails for exercise and leisure time in June 2020.²³

Key Findings



- 51% of adults 18 to 64 years
- 39% of adults 65 to 79 years
- ➡ 53% of men take at least 7,500 steps per day, while 46% of women do so (Statistics Canada, custom tabulation, CHMS, Cycle 6 [2018 and 2019]).
 - 47% of adults with one or more chronic conditions achieve ≥7,500 steps per day, while 57% of adults with no chronic conditions achieve this (Statistics Canada, CHMS, Cycle 6 [2018 and 2019]).
- Physical inactivity is the strongest risk factor for COVID-19 susceptibility across all outcomes, compared with the commonly cited modifiable risk factors, including smoking, obesity, diabetes, hypertension, cardiovascular disease and cancer.²⁴

About Total Daily Steps

When it comes to physical activity (PA), every step counts toward overall health and well-being.²⁵ Opportunities to engage in light, moderate and vigorous PA throughout the day contribute to total daily steps. Regular PA — such as walking, Nordic walking, cycling, swimming, wheeling, yoga, dancing, doing sports or active recreation, active transportation, childcare and running errands, as well as daily tasks and chores done at home and at work — provide significant benefits for health. We know that some PA is better than doing none, and by becoming more active throughout the day in relatively simple ways, people can work toward achieving the activity levels recommended in the 24-Hour Movement Guidelines.^{18, 19, 20, 21, 26}

- Any level of PA, including low levels of walking, can prevent depression.²⁷
- 7,000 steps/day were related to an approximate reduction of 60% in the rate of subjective cognitive decline.²⁸
- A greater number of daily steps (up to at least 10,000 12,000 steps) was significantly associated with lower all-cause mortality.^{29, 30}
- Increasing steps in middle age is associated with maintaining body mass index (BMI) at the same level.³¹
- Older adults can benefit from practicing a more physically active lifestyle by increasing the number of steps they take per day.³²
- More daily steps are related to a reduced rate of cognitive decline.^{28, 33}
- PA levels post-operatively can decrease the length of adults' hospital stays.³⁴

Recommendations/Gaps

Policy

- Levidence supports that any movement throughout the day, regardless of intensity, is beneficial. Policies and health promotion campaigns should support people getting PA throughout the day in various settings, including in communities, at home, in the workplace and in educational institutions.
- 2. Policies and practices in communities should support people in getting physically active. For example, moving around outdoors in your neighbourhood is an easy way to increase PA; communities should ensure that sidewalks are in good condition year-round to enable walking and wheeling in all seasons.
- Policies and practices in communities should support people to move more. Cycling lanes and trails maintained year-round allow for active travel and recreation.
- 4. Policies should consider the needs of the less active and provide low-barrier opportunities for them to integrate more movement throughout the day.
- 5. Targeted, evidence-based PA guidelines for people living with disabilities are needed.



Practice

- I. Practitioners should develop strategies and provide opportunities for community members to increase daily step counts — especially for those individuals who are not currently active. Examples include getting off the bus one stop earlier, parking farther away from the grocery store, and getting up and walking around during commercials.
- 2. Practitioners should develop programs and services that support lifelong engagement in PA, such as sport and recreational opportunities for all age and ability groups, while considering equity, diversity and inclusion.
- Practitioners should develop PA information and resources for persons living with disabilities.

- 1. National data are needed to understand the PA levels of distinct population groups (e.g., ages, genders, people living with disabilities, Indigenous peoples, newcomers to Canada, individuals who are pregnant).
- 2. More research is needed on the impact of different domains of PA on health (e.g., occupational vs. leisure-time PA).
- Continue surveillance and research on the PA habits of older adults, especially those over the age of 79 years.
- 4. More research is needed to better understand the common characteristics of the 'low active' population group to better support these individuals in moving more.
- **5.** Research is needed to understand how to support virtual or non-structured activities.
- 6. High-quality epidemiological studies are also needed to examine the association between PA and the risk of non-communicable diseases in people living with a disability.





Light Physical Activity (LPA)

New in 2021

LPA is defined as activity that is performed between 1.5 and 3 metabolic equivalents (METs), such as walking at a slow pace, standing work or light housework such as washing dishes.³⁵

Benchmark

• % of adults engaging in at least 3 hours per day of light physical activity.

Impact of COVID-19

- Roughly one-quarter (23%) of adults indicated that they were doing *more* (either somewhat or much more) light PA when surveyed compared to their typical level of activity prior to COVID-19 (whereas 55% indicated that they were doing the same amount and 20% were doing *less* light physical activity (custom tabulation, Canadian Fitness and Lifestyle Research Institute [CFLRI], Impact of COVID-19 on Physical Activity Survey, 2020-2021).
- For older adults, performing even LPA during the COVID-19 pandemic helped to reduce the negative mental health impacts of social/physical distancing guidelines during the COVID-19 pandemic.³⁶

Key Findings

Based on accelerometer data, 56% of adults 18 to 79 years living in Canada get at least 3 hours per day of LPA (Statistics Canada, custom tabulation, CHMS, Cycle 6 [2018 and 2019]).

- ⇒ The percentage of adults achieving at least 3 hours of LPA per day does not generally vary significantly by age, gender, having a chronic condition or ethnicity. (Statistics Canada, custom tabulation, CHMS, Cycle 6 [2018 and 2019])
 - 58% of adults 18 to 64 years
 - 43% of adults 65 to 79 years
 - 58% of men and 53% of women get at least 3 hours of LPA per day (Statistics Canada, custom tabulation, CHMS, Cycle 6 [2018 and 2019]).
 - 52% of adults with one or more chronic condition and 68% of adults with no chronic condition report at least 3 hours of LPA per day (Statistics Canada, custom tabulation, CHMS, Cycle 6 [2018 and 2019]).

- → 71% of adults identifying as Indigenous and 55% of non-Indigenous adults report at least 3 hours of LPA per day (Statistics Canada, custom tabulation, CHMS, Cycle 6 [2018 and 2019]).
- → 59% of adults who identify as a visible minority and 53% of those who do not, cite at least 3 hours of LPA per day (Statistics Canada, custom tabulation, CHMS, Cycle 6 [2018 and 2019]).

About Light Physical Activity

Light physical activities include activities that are part of daily life, such as casual walking, doing household chores, gardening or other light-intensity activities throughout the day. When it comes to your health and wellness, all movement across the whole day matters.²⁰

- Research shows that health benefits begin with the first increase in activity (e.g., moving from no activity to some), that some PA is better than none and that more PA is better for optimal health outcomes.^{35, 37}
- LPA helps reduce all-cause mortality risk and some cardiometabolic risk factors (including increased waist circumference, obesity, triglyceride levels, insulin and presence of metabolic syndrome), provides meaningful improvements in depressive symptoms and is beneficial for balance.^{37, 38, 39, 40}
- Replacing sedentary behaviour (SB) with light activity is associated with lower mortality risk in frailer individuals.⁴¹
- For some conditions, like diabetes, even light activity can result in risk reduction.³⁷
- Greater LPA is associated with positive physical health and well-being in older adults.⁴²
- Increased LPA is associated with a reduced risk of subsequent depressive symptoms in later life.⁴²
- Increased LPA is associated with higher executive functioning in community-dwelling older adults.⁴³

Recommendations/Gaps

Policy

- New evidence supports that building more LPA into your day, even in short bouts (i.e., a few minutes at a time) is beneficial. This should be supported in workplaces, educational settings, leisure policies and health promotion campaigns.
- **2.** Long-term care facilities and extended living facilities should have policies to promote LPA for residents.

Practice

 Adults living in Canada should be encouraged, through workplace interventions or enhancements to the built environment, to move more and reduce sedentary time, for example. Doing more PA at a light intensity level is associated with health benefits compared to sedentary behaviours.

- **1.** Provide clarity about what LPA is.
- 2. More research and data are needed to understand achievement of LPA across various population groups (e.g., ages, genders, abilities, socio-economic status and cultural diversity including Indigenous peoples and newcomers to Canada).
- 3. Examine where and how LPA is achieved in the population (e.g., work vs. the rest of the day, short bouts vs. long bouts).
- **4.** Continued surveillance is required on the correlates of LPA.
- **5.** Continued surveillance and research are needed on how to support adults through their life-course in achieving minutes of LPA.
- **6.** Gain understanding of how LPA is achieved by adults within key settings.



Moderateto-Vigorous Physical Activity (MVPA)

Previous Grade (2019): F

MVPA is defined as any bodily movement produced by skeletal muscles that result in substantial energy expenditure above resting levels. This would be PA that is performed at \geq 3 METs (i.e., \geq 3 times the intensity of rest), such as playing tennis, jogging, swimming or dancing.³⁵

Benchmark

 % of adults 18 years and older living in Canada who meet the PA components of Canadian 24-Hour Movement Guidelines (at least 150 minutes of weekly MVPA).

Notes:

- I. Earlier guidelines stated that PA should be accumulated in at least 10-minute bouts; this stipulation has now been removed to make clear that every minute counts toward the recommended 150 minutes per week. This change reflects the research that supports total minutes of PA no matter the length of the bout.
- 2. The previous Report Card used minutes per week; this is now an average of minutes per week.
- 3. Given these changes, the difference in grades is not significant.

Impact of COVID-19

- Compared to the pre-COVID period, 28% of adults report achieving *more* (either somewhat or much more) moderate-intensity activity at the time of the survey than previous, whereas 35% were achieving about the same amount and 34% less activity. However, 17% of adults reported either somewhat or much *more* vigorous intensity activity compared to their typical activity prior to COVID-19, whereas 31% said the same amount and 42% said somewhat or much *less* activity at this level (CFLRI, custom tabulation, Impact of COVID-19 on Physical Activity Survey, 2020-2021).
- Based on self-reported PA, achieving 150 minutes per week of MVPA in bouts of 10 minutes, 57% of adults were active to this amount in 2018 (pre-COVID) and 57% were in 2020 (during COVID-19 pandemic). There was no significant difference in the percentage of adults aged 18 to 64 achieving this amount; however, 35% of older adults aged 65 and over met the recommendations in 2018 compared to 40% in 2020.⁴⁴
- Moderate aerobic exercise may help to reduce the risk of influenza-related infection and improve the immune responses to influenza or pneumonia vaccination in older adults.⁴⁵
- Engaging in regular PA may help prevent severe COVID-19 and its complications, including death.⁴⁶

Key Findings

49% of adults 18 to 79 years living in Canada obtain at least 150 minutes of MVPA per week (Statistics Canada, custom tabulation, CHMS, Cycle 6 [2018 and 2019]).

- A higher percentage of adults aged 18 to 64 (53%) indicate that they achieve at least 150 minutes of MVPA per week compared to adults aged 65 to 79 (28%) (Statistics Canada, custom tabulation, CHMS, Cycle 6 [2018 and 2019].
- ⇒ 52% of men and 46% of women obtain at least 150 minutes of MVPA per week (Statistics Canada, custom tabulation, CHMS, Cycle 6 [2018 and 2019]).
- ♦ 47% of adults with one or more chronic condition achieve at least 150 minutes of MVPA per week, while 56% of adults with no chronic conditions achieve this amount (Statistics Canada, custom tabulation, CHMS, Cycle 6 [2018 and 2019]).
- ⇒ 56% of adults identifying as a visible minority obtain at least 150 minutes of MVPA per week (Statistics Canada, custom tabulation, CHMS, Cycle 6 [2018 and 2019]).

For individuals not currently meeting these recommendations, doing some MVPA will nonetheless bring benefits to health.³⁵

- MVPA below current recommendations still reduced mortality by 22% in older adults. A further increase in PA improved these benefits in a linear fashion. Older adults should be encouraged to include even low doses of MVPA in their daily lives.⁴⁹
- One hour of MVPA per day can reduce cancer-related fatigue during and after cancer treatment.⁵⁰
- PA before and after a diagnosis of breast or colon cancer is likely to be relevant for improved survival, with data suggesting that post-diagnosis PA provides greater mortality benefits than pre-diagnosis PA.²
- Both cardiovascular and strength training have been shown to be effective in reducing depressive symptoms, and may also prevent future depression.^{27, 51}



About Moderate-to-Vigorous Physical Activity

The 24-Hour Movement Guidelines for Adults recommend that adults accumulate at least 150 minutes of MVPA per week.¹⁸

MVPA includes activities that increase your heart rate and make you breathe heavier, such as brisk walking, Nordic walking, tennis, hiking, in-line skating, wheeling, cycling, swimming, hockey, soccer, circuit weight training, dancing and pickleball.

• MVPA can improve cardiorespiratory and muscular fitness as well as bone and functional health; reduce the risk of non-communicable diseases, depression, anxiety and insomnia symptom severity; elevate mood; and slow cognitive decline in older adults.^{47, 48}

Policy

1. New evidence supports that any movement is good and incorporating even short bouts (i.e., a few minutes at a time) of MVPA into one's day is beneficial. This should be supported in workplaces, educational settings, leisure policies and health promotion campaigns.

Practice

- 1. Adults living in Canada should be encouraged to move more and reduce sedentary time. Doing PA in the moderate- and vigorous-intensity zones is associated with greater fitness and health benefits. For example, health-care providers and physicians should promote MVPA by activities such as providing prescription pads that indicate how much MVPA people need.
- 2. Practitioners should recognize that the current guidelines may not always be appropriate for all adults who are pregnant or persons living with a disability or a medical condition, and in these cases, the recommended levels of PA may need to be adjusted.
- Programs and initiatives to attenuate the decline of MVPA with increasing age are required.

- I. More research and data are needed to understand achievement of MVPA across various population groups (e.g., ages, genders, abilities, socio-economic status and cultural diversity, including Indigenous peoples and newcomers to Canada).
- 2. Continued surveillance data are required to understand the MVPA behaviours of older adults, specifically those over the age of 79, including the support of longitudinal data to help understand the factors affecting the decline in MVPA participation with age.
- 3. More research is needed to better understand the common characteristics of the low active population group to better support these individuals in moving more.





Muscle Strengthening Activities

Previous Grade (2019): INC

This type of activity uses resistance to induce muscular contractions, which build strength, anaerobic endurance and size of skeletal muscles.

Indicator name changed from Muscle & Bone Strength in 2019 Report Card

Benchmark

• % of adults 18 years and older living in Canada who engage in muscle strengthening activities, using major muscle groups, at least twice a week.

Impact of COVID-19

• The majority (82.8%) of those engaged in resistance training prior to lockdown appeared mostly able to maintain these behaviours, with only slight adaptations required in both the location and types of training performed. However, people trained with lower perceived effort, had lower motivation, perceived training as less effective and enjoyable, and reported they were similarly or less likely to continue with their current training compared with pre-lockdown.⁵²

Key Findings

0

25% of adults 18 years or older engage in muscle strengthening activities at least twice a week (2021 Physical Activity Monitor Health Survey, CFLRI).

About Muscle Strengthening Activities

The 24-Hour Movement Guidelines recommend muscle strengthening activities, using major muscle groups, at least twice a week.¹⁸

Benefits of strength training include reduced risk of all-cause mortality, chronic disease and premature death.53 Strength training increases muscle and bone density and metabolism, and is accompanied by significant decreases in fat, reduced low back pain, decreased arthritic discomfort, increased functional independence, enhanced movement control, increased walking speed, improved glucose control and reduced risk of type 2 diabetes. It also helps reduce resting blood pressure, improve blood lipid profiles and enhance blood vessel health. Strength training can decrease symptoms of depression, increase self-esteem and physical self-concept, and improve cognitive ability. Resistance training has been shown to reverse aging factors in skeletal muscle such as loss of muscle strength and muscle mass and the potential impacts these factors have on physical functioning, mobility, independence,

chronic disease management, psychological well-being, quality of life and healthy life expectancy.^{54, 55} Benefits of strength training include improved physical performance, movement control, walking speed, functional independence, cognitive abilities and self-esteem.⁵⁵

- Resistance training improves muscle strength in adults, and both muscle strength and physical functioning in adults over the age of 65 years.²⁰
- There is strong evidence to support the benefits of resistance exercise for countering many age-related processes of muscle loss, muscle weakness, mobility loss, chronic disease, disability and even premature mortality.⁵⁴
- Supervised group exercises and individually prescribed home exercise programs that combine both balance and strength exercises are most effective in preventing falls among those living independently.^{56, 57}

Recommendations/Gaps

Policy

- Long-term care facilities and extended living facilities should have policies that promote muscle strengthening activities at least two days per week to reduce the risk of residents' falls and to improve their independence.
- 2. Policies should be in place to support either the employment of qualified exercise professionals or the provision of training for staff in long-term care facilities and extended living facilities, as well as through homecare, so they are able to offer and implement muscle strengthening programs and activities.
- 3. Policy-makers should develop more focused campaigns for promoting strength training as an important part of overall PA for all adults.

Practice

- 1. Communities, as well as long-term care facilities and extended living facilities, should promote and provide indoor and outdoor opportunities and practices that support engaging in at least two sessions per week of muscle strengthening activities, as a means to reduce the risk of falls and improve independence among all adults.
- 2. Practitioners should promote and build awareness about the importance for adults living in Canada to adopt muscle strengthening activities as early as possible so that individuals can maintain their mobility and maintain independence for longer.

- Additional national-level data are needed regarding the achievement of muscle strengthening guidelines among adults.
- 2. More research is needed on specific populations that are less likely to be doing strength training (e.g., women, older adults, people from specific cultures) on how to encourage them to add strength training to their lives.
- 3. In the context of lockdowns, research is needed on how to do strength training virtually/home based/ without a gym across a variety of populations.





Balance Activities

Previous Grade (2019): INC

This indicator covers static and dynamic exercises designed to improve an individual's ability to withstand challenges from postural sway or destabilizing stimuli caused by self-motion, the environment or other objects.⁵

Indicator name changed from Balance in 2019 Report Card

Benchmark

• % of adults 65 years or older living in Canada who perform physical activities that challenge balance.

Impact of COVID-19

Due to gym closures and stay-at-home orders, many older adults looked to home-based physical activities. Specifically, home-based strength training has been found to induce moderate effects on muscle strength and balance in healthy older adults.⁵⁸

Key Findings

23% of adults 65 and older reported they had engaged in balance activities in the past week (CFLRI, custom tabulation, 2021 Physical Activity Monitor Health Survey).

About Balance Activities

The 24-Hour Movement Guidelines for Adults recommends PA that challenges balance.¹⁸ Balance activities include activities such as dancing, standing on one leg, balancing on a wobble board, practicing tai chi and walking heel to toe. In addition, strength training and flexibility improve balance.⁵⁹

- Tai chi and other exercises that target balance, gait and muscle strength have been found to prevent falls in older adults and improved physical functioning in healthy community-dwelling adults aged 65 years and older.^{5, 6, 37, 60}
- There is also benefit in improving balance and aerobic capacity in those with poor fitness.⁶⁰
- Tai chi is also beneficial in those with osteoarthritis, Parkinson's disease, chronic obstructive pulmonary disease (COPD) or declining cognitive functioning.⁶⁰
- Balance activities help to keep older members of our society autonomous and independent.⁶¹
- In healthy older adults, dance-based mind-motor activities reduce the risk for falls and improve balance, mobility and lower body strength.⁶²

Policy

- Fall prevention programs should be made more widely available and accessible to the public, as they have been found to be cost-effective.
- 2. Long-term care facilities and extended living facilities should have policies to promote balance activities to reduce the risk of residents' falls and improve their independence.
- 3. Policies should be in place to support either the employment of qualified exercise professionals or the provision of training for staff in long-term care facilities and extended living facilities, as well as through homecare, so they are able to offer and implement balance programs and activities to older adults who need it most.

Practice

- Practitioners should promote and build awareness about the importance for adults 65 years and older living in Canada to adopt balance activities.
- 2. Long-term care facilities and extended living facilities, as well as homecare, should implement practices that promote balance activities to reduce the risk of falls and to improve their independence.

- More research is needed to understand the balance activities that are available to support older adults in various settings.
- National-level data are needed on achievement of the balance guidelines among older adults (65 years or older).
- More research is needed on how to reduce declines in balance that take place through the life-course.





Active Transportation (AT)

New in 2021

Active transportation refers to any form of human-powered transportation, such as walking, cycling, wheeling, in-line skating, paddling or skiing, performed for getting to and from places.⁶³

Benchmark

• % of adults 18 years or older years who use active transportation to get to and from places (e.g., work, university/college, the park, the mall, a friend's house).

Impact of COVID-19

- Data collected during the COVID-19 pandemic related to active travel yielded a large percentage (30%) who reported that travelling to work or university/college was not applicable. This is due, in part, to the sample and also to the restrictions and shift to virtual offices during the pandemic. Further, 4% of adults stated that they were using active travel more (somewhat or much more) than their typical behaviour prior to the pandemic to get to work or school, whereas 26% indicated the same amount and 39% stated that they used active travel less (somewhat or much less) to travel to work or university/college (CFLRI, custom tabulation, Impact of COVID-19 on physical activity survey, 2020-2021).
- Responding to public health guidelines, more Canadians on average worked from home during the pandemic compared to pre-pandemic (22% vs. 4%). As a result, there has been a shift in active travel behaviours during this time.⁶³
- According to the Canadian Perspectives Survey Series (CPSS), 7% of Canadians engaged in active transportation (walking or cycling to work) prior to the pandemic, and this proportion remained relatively unchanged at 6% in June of 2020, whereas the proportion using public transit was significantly reduced from 13% in 2015 to 3% in 2020.⁶⁴
- 34% of public transit users switched modes of transportation during the pandemic; the majority switched to private modes, while a small proportion walked or bicycled to work.⁶⁵
- In the UK, AT decreased during the early stages of the pandemic.⁶⁶

Key Findings



7% of adults living in Canada use active travel, walking/bicycling to travel to work (Statistics Canada, Census 2016).

39% of adults indicated that they walk either part or all of the way as a means to get to work or school or to get around generally, and 12% indicated that they bicycle either part or all of the way (CFLRI, custom tabulation, Physical Activity Monitor, 2019-2021).

About Active Transportation

AT can contribute to MVPA and total daily steps, and can help individuals to achieve PA goals and improve their health. Having all adults using active travel is not expected; however, it is an effective way of integrating regular PA into a sedentary lifestyle where possible.⁶⁵

- It provides fitness benefits, decreases cardiovascular risk factors and helps to control diabetes.^{67, 68, 69}
- AT can offset air pollution from motorized vehicles, and contribute to social and environmental goals such as improving social cohesion and reducing CO₂ emissions.⁶⁹
- Walking to and from public transit can help adults achieve eight to 33 minutes more PA each day and accounts for 1,250 steps on average.^{70,71}
- AT policies should operate at three levels: 1) land use;
 2) pedestrian and bicycle networks, and infrastructure such as Complete Streets policies; and 3) design interventions and placemaking such as building orientation and access, street furnishings, and safety and traffic-calming measures, which can have a positive impact on local businesses.⁷²



Promoting active transportation (or human-powered transportation) through policy, systems and environmental change is one of the leading evidence-based strategies to increase physical activity, regardless of age, income, racial/ethnic background, ability or disability.⁷³

Recommendations/Gaps

Policy

- Increasing AT should be part of all transportation policies to increase overall PA and reduce CO2 emissions.
- 2. Ensure crossover between the national PA, sport, and recreation strategies (Common Vision, Canadian Sport Policy, Framework for Recreation in Canada) with the National Active Transportation Strategy.
- **3.** Safe AT infrastructure should be included in new development and reconstruction projects.
- **4.** Workplaces should provide facilities and policies to encourage and support AT (e.g., secure bike racks, showers, relaxed dress codes).
- **5.** AT infrastructure should be maintained year-round.



Practice

- **1.** Practitioners should promote and build awareness about the options for local AT and the multitude of benefits of AT.
- 2. Practitioners should consider the 6 E's of Active Transportation (education, encouragement, engineering, enforcement, evaluation and equity) to help create more bikeable and walkable communities throughout the region.
- **3.** Practitioners should work to create and embrace a culture of AT similar to some European cities.

- More research is needed to understand AT barriers and the needs of adults and older adults.
- 2. Researchers should use objective measures of AT, such as wearable Global Position System (GPS) loggers, Geographic Information System (GIS) software, accelerometry and bike counters in their studies.
- **3.** Research is needed to investigate the impact/benefits of e-bikes, the built environment, and the addition of bike lanes and trails supporting AT.
- **4.** Research is needed to understand how to best support rural communities with AT.



Sport Participation

New in 2021

Sport participation is a subset of physical activity that is structured and goal-oriented; it can be competitive and/or contest-based.

Benchmark

• % of adults 18 years or older years who participate in sport.

Impact of COVID-19

- The majority of adults (48%) indicated that they are participating in *less* activity (somewhat or much less) at sport and recreation facilities compared to their typical behaviour prior to the pandemic, while 20% indicated the same amount and only 4% noted an increase (somewhat or much more activity) (CFLRI, custom tabulation, Impact of COVID-19 on Physical Activity Survey, 2020-2021).
- Due to public health measures, most sport activities were suspended, thereby decreasing participation levels in sport during the pandemic.

Key Findings

27% of adults 18 years or older participate in sport (CFLRI, custom tabulation, Physical Activity Monitor, 2019-2021).

- A greater percentage of men than women participate in sport.
- Participation decreases substantially with age, from 44% of 18- to 24-years-olds to 16% of adults 65 years and older
 - Participation is higher among adults living in higher income households (CFLRI, custom tabulation, Physical Activity Monitor, 2019-2021).

About Sport Participation

Sport is a form of PA that can be undertaken as part of a team or group, or undertaken individually.⁷³ Sport participation is one type of activity that can contribute to total daily PA, including MVPA. Having 100% of adults participating in sport is not expected, but sport participation is one of the ways to be physically active and meet targets in the 24-Hour Movement Guidelines.

- Sport is a form of leisure-time PA for adults that can produce a range of health benefits.⁷⁴
- Older adults play sports for a range of health-related and social reasons. Whatever the reason, sport participation can contribute to the experience of aging well, including maintaining health, feeling and being part of a community, and taking advantage of opportunities to develop relationships. Other reasons for sport participation include competing and attaining a feeling of achievement, taking advantage of opportunities for travel, and being part of a team. Sport was identified as contributing to the overall experience of successful aging.⁷³
- A wide range of different positive social, psychological and psychosocial health outcomes associated with team sport participation were identified in one study; the most frequently reported benefits were emotional social support, sense of belonging, social network, social interaction and higher self-esteem.⁷⁵
- Sport contributes to well-being and to reduced distress and stress. Sport may be associated with improved psychosocial health in addition to improvements attributable to participation in PA. Specifically, club-based or team-based sport seems to be associated with improved mental health outcomes compared to individual activities due to the social nature of the participation.⁷⁴



Recommendations/Gaps

Policy

- Sport programs should be available to adults and older adults regardless of their ability level.
- 2. Sport organizations should have policies in place to ensure safe and welcoming environments for adults and older adults, and particularly for newcomers and people from a variety of cultures.
- Policies should be in place to support women both as participants and leaders.

Practice

- Practitioners should ensure sports are accessible (including equipment, facilities and programming) to adults and older adults living with disabilities.
- Practitioners should ensure sports are accessible to lower-income adults and older adults.
- 3. Practitioners should provide sport offerings that are attractive to adults of new immigrant families and those from a variety of ethnic, socio-economic and cultural backgrounds.

- More research is needed to understand the needs and barriers for sport participation among adults and older adults.
- **2.** More intervention research is needed to assess the impact of recreational sport on social and mental health among adults.
- Research is needed to identify and understand gender and age disparities in sport participation.
- **4.** More research is needed on adult sport participation in rural and remote locations.



Sleep

Previous Grade (2019): B-

Sleep is defined as a natural periodic state of rest for the mind and body, in which the eyes usually close and consciousness is completely or partially lost, so that there is a decrease in bodily movement and responsiveness to external stimuli.¹⁵

Benchmark

% of Canadian adults who meet the sleep duration recommendations:

- Seven to nine hours daily for adults 18 to 64 years of age
- Seven to eight hours daily for adults 65 years or older¹⁸

Impact of COVID-19

- Compared to their typical behaviours prior to the COVID-19 pandemic, 26% of adults reported an increase (somewhat or much more) in time spent sleeping, whereas 57% indicated the same amount, and 16% reported somewhat or much *less* time (CFLRI, custom tabulation, Impact of COVID-19 on Physical Activity Survey, 2020-2021).
- Sleep loss and poor sleep quality have markedly increased across the globe with the COVID-19 pandemic.^{76,77} On the other hand, there have also been some reports of improved sleep health among other individuals due to reduced rigid work/school/commuting schedules and the opportunity to get more sleep in the morning.⁷⁸

Key Findings



73% of adults 18 to 79 years living in Canada meet sleep duration recommendations (Canadian Community Health Survey [CCHS] Rapid Response Module):

- 77% of 18- to 64-year-olds meet sleep recommendations
- 55% of 65- to 79-year-olds meet sleep recommendations



About Sleep

Sleep is important for overall health and well-being, including cognitive, emotional and physical health.¹⁵ The 24-Hour Movement Guidelines recommend getting good-quality sleep on a regular basis, with consistent bed and wake-up times.¹⁸

- Too little and in some cases too much sleep is linked to increased fatigue, decreased psychomotor performance, increased incidence of motor vehicle collisions and other injuries, reduced cognitive function, reduced physical and psychological health, and increased depression, Alzheimer's and Parkinson's disease symptoms. Adequate sleep can also improve weight regulation, blood sugar regulation, blood pressure and cardiovascular health, which can lead to decreased obesity, type 2 diabetes, cardiovascular disease (e.g., coronary artery disease, myocardial infarction, stroke) and improve bone health (e.g., osteoporosis, low bone mineral density, fractures).^{15, 79, 80}
- Insufficient sleep is also associated with decreased health-related quality of life, work productivity (e.g., absenteeism, presenteeism, tests of productivity) and increased sedentary behaviour.¹⁵
- It can also lead to falls, workplace mistakes and injuries, and lower psychomotor performance.¹⁷
- Short sleep duration, poor sleep quality and later bedtimes are all associated with increased food intake, poor diet quality and excess body weight.⁸¹
- Short sleep duration in midlife is associated with an increased risk of late-onset dementia.⁸⁰
- Sleep benefits the retention of memory.^{82, 83}
- The benefits of PA for sleep are realized immediately, with exercise having a positive impact on sleep. Regular exercise leads to even greater subjective and objective sleep benefits over time.⁸⁴
- Participation in an exercise training program has positive effects on sleep quality in adults.^{85, 86}

Recommendations for Healthy Sleep Habits

Follow sleep hygiene recommendations to maintain a healthy sleep, including:

- going to bed at a regular time;
- removing screens from the bedroom;
- reducing screen time exposure during the day;
- increasing physical activity level throughout the day;
- breaking up sitting time throughout the day;
- making sure the bedroom is dark, quiet, comfortable and cool;
- reducing caffeine consumption later in the day; and
- having a relaxing bedtime routine.



Recommendations/Gaps

Policy

- I. National policies for increasing PA and reducing sedentary behaviour can emphasize the importance of sleep (amount and quality) and promote sleep guidelines within a 24-hour context.
- Companies should be encouraged to use self-luminous display screens, which block the blue light of screens.
- Workplace policies should promote flexible work schedules for employees that promote healthy sleep practices.

Practice

- Given the evidence for the effects of poor sleep on health and chronic disease, health-care practitioners should assess patients' sleep health, including sleep duration, sleep quality, sleep timing, daytime alertness and the presence/absence of sleep disorders.
- 2. To help their clients maintain healthy sleep habits, practitioners should encourage them to avoid screens at least one hour before bedtime, and should discourage recreational screen use in the bedroom.

- Future research should continue to develop and update evidence-informed sleep guidelines for different target groups (e.g., new parents, shift workers).
- 2. There is a need for improved monitoring of sleep health in Canada, including objective assessments of sleep health with actigraphy, and updating and refining sleep questions for use in national health surveys.





Sedentary Behaviours (SB)

Previous Grade (2019): INC

Sedentary behaviour is any waking behaviour characterized by an energy expenditure ≤1.5 METs while in a sitting, reclining or lying posture.^{35, 87}

Benchmark

• % of adults living in Canada who limit sedentary time to eight hours or less per day.

Impact of COVID-19

- Compared to their typical behaviour prior to the COVID-19 pandemic, 61% of adults indicate spending somewhat or much *more* time in front of screens, whereas 33% spend the same amount and 6% spend *less* time (somewhat or much less). Similarly, 58% of adults reported spending more time sitting per day, while 33% spend about the same and 9% spend somewhat or much less time sitting per day compared to the pre-COVID-19 period (CFLRI, custom tabulation, Impact of COVID-19 on Physical Activity Survey, 2020-2021).
- Pandemic control measures of lockdowns and prolonged periods of inactivity have likely contributed to the unintended consequence of reducing PA and increasing SB, which carries various health risks and increases levels of stress, depression and anxiety.^{45, 88, 89, 90}
- A recent study showed that the majority of participants reported that they increased their TV time (60% of men and 66% of women) and internet usage (63% of men and 69% of women), while less than a quarter reported that they increased their video game participation.⁹¹
- In relation to the COVID-19 lockdown, 50.1% reported increased sitting and 62.8% reported increased use of screen-based devices for leisure.⁶⁶

Key Findings

12% of adults 18 to 79 years achieved ≤8 hours of sedentary time per day (Statistics Canada, custom tabulation, CHMS, Cycle 6 [2018 and 2019])

About Sedentary Behaviours

The amount of time spent in SB is concerning since they have been identified as an independent and distinct risk factor for chronic disease from physical inactivity.⁹

Adults should avoid accumulating high levels of SB.¹³ In fact, being sedentary for extended periods of time (e.g., sitting while doing another activity such as watching television, playing computer/video games, listening to music, talking on the phone, doing paperwork or office work, or driving/riding in a car, bus or train) can increase the risk of cardiovascular diseases, type 2 diabetes, obesity, some cancers, pulmonary disease and all-cause mortality.^{9,90} It is also important to note that not all SB are created equal — there is some evidence to show cognitive benefits from engaging in sedentary activities like sitting while typing, reading, playing a musical instrument, doing arts and crafts, etc.^{92,93}

High levels of SB in adults can contribute to poorer cognitive function, increased depression, and decreased function, PA levels and physical health-related quality of life.^{13, 94}

It is recommended that adults break up inactive sedentary time every 30 minutes.¹⁸

- Reducing or breaking up periods of prolonged sitting as much as possible may have beneficial effects on markers of cardiometabolic risk and body composition.¹³
- The sedentary lifestyles that predominate in older age result in premature onset of ill health, disease and frailty. Regular PA is safe for both healthy and frail older people, and the risks of developing major cardiovascular and metabolic diseases, obesity, falls, cognitive impairments, osteoporosis and muscular weakness are decreased by regularly completing activities ranging from low-intensity walking to more vigorous sports and resistance exercises.⁹⁵
- For all-cause and cardiovascular disease mortality, a threshold of six to eight hours per day of total sitting and three to four hours per day of TV viewing was identified, above which the risk was increased.⁹⁶

- Replacing 30 minutes per day of sedentary time with equal amounts of LPA was associated with better physical health.⁴⁰
- Low SB combined with moderate or high PA is associated with life satisfaction, happiness and perceived health status.⁹⁷
- The evidence linking sitting to poor health therefore suggests that health benefits may be derived from many lower-intensity physical activities of everyday living if they displace or disrupt prolonged sitting.¹¹
- Sedentary time is associated with an increased risk of subsequent depressive symptoms.⁴¹



Policy

- Policy-makers should develop SB policies to support adults and older adults, pregnant individuals and people working at desks.
- 2. Policy-makers should develop educational campaigns about the risks of prolonged sitting, which are distinct from those of physical inactivity.
- 3. Workplaces should create a culture of movement by adopting policies that allow employees regular breaks or alternatives to sitting (e.g., variable standing desks, support for active meetings, prompts to break up sitting time more often) to reduce sedentary time at work; management should lead by example.



Practice

- Health-care providers should promote reduced sitting time and encourage able-bodied individuals to break up long periods of sitting as often as possible.
- 2. Healthcare and workplace wellness practitioners should encourage individuals to move their bodies often and take a break from sitting (e.g., at their computer, while watching television, standing during meetings) every 30 minutes.

- More evidence is required on unhealthy thresholds for prolonged sitting.
- 2. Future research should focus on developing interventions to reduce SB in a variety of settings among adults and older adults (e.g., home, work, school, outdoors).
- 3. More research is required on the potential of behavioural compensation (e.g., reduction of PA across the day) resulting from getting people to reduce their engagement in SB.
- **4.** Research is required on minimum amounts of SB required to maintain health (e.g., among those with high-activity occupations).



24-Hour Movement Behaviours

New in 2021

This indicator is an integration of the Physical Activity, Sedentary Behaviour and Sleep indicators, and completes the set of 24-Hour Movement Guidelines, which provide recommendations for healthy movement behaviours for the whole day for all Canadians.^{18,20}

Benchmark

• % of adults meeting the MVPA, sedentary behaviour and sleep recommendations of the Canadian 24-Hour Movement Guidelines.

Key Findings

Incomplete due to unavailability of data that use the same criteria as the guidelines

About the 24-Hour Movement Behaviours

A healthy 24-hour day comprises a combination of sleep, SB, LPA and MVPA. The 24-Hour Movement Guidelines recognize the importance of integrating all movement behaviours and thus provide more movement options for Canadians, as well as more prevention and treatment options for practitioners.²⁰

- A change in the amount of time spent in any one of these movement-related behaviours in the course of a 24-hour day will change the amount of time spent in another.²⁰
- Time reallocation between sleep, SB, LPA and MVPA may be associated with a number of health outcomes.⁹⁷


Recommendations/Gaps

Policy

- Policy-makers should develop educational campaigns about the benefits of meeting the 24-Hour Movement Guidelines.
- 2. Workplaces should create a culture of movement by adopting policies that allow employees regular breaks or alternatives to sitting (e.g., variable standing desks, support for active meetings, prompts to break up sitting time more often) to reduce sedentary time at work and encourage PA throughout the day; management should lead by example.

Practice

- Health-care providers should promote reduced sitting time, encourage able-bodied individuals to break up long periods of sitting as often as possible, and prioritize good sleep habits.
- 2. Practitioners should encourage individuals to stand and take a break from sitting (e.g., at their computer, while watching television, standing during meetings) every 30 minutes, achieve 150 minutes of MVPA per week, and sleep an appropriate number of hours per night based on age.

- More evidence is required on the benefits of meeting 24-Hour Movement Guidelines for people with disabilities, pregnant individuals, shift workers, etc.
- Future research should focus on developing interventions to meet the 24-Hour Movement Guidelines among adults and older adults.



Individual Characteristics

This category speaks to personal features or characteristics that contribute to physical activity levels. In the 2019 Report Card, there was one indicator in the Individual Characteristics category called "Intentions." For this report, the COM–B (Capability, Opportunity, Motivation — Behaviour) model is used to demonstrate Individual Characteristics (see Figure 3). The model has been modified slightly, replacing "Opportunity" with "Perceived Opportunity".



Figure 3: COM-B Model⁹⁹



Perceived Capability

New in 2021

Capability is defined as the individual's physical and psychological capacity to engage in a given activity. It includes having the physical strength or stamina, the psychological capability and the skill to perform the behaviour.⁹⁸

Benchmark

• % of adults who moderately or strongly agree that they are *physically* capable of participating in physical activity (e.g., skills, training).

Key Findings



66% of adults living in Canada agree that they have the ability to be active (CFLRI, custom tabulation, Impact of COVID-19 on Physical Activity Survey, 2020-2021).

69% of adults living in Canada agree that they could successfully be active/participate in sport (CFLRI, Sport Monitor [SM], 2021).

- A greater percentage of adults aged 25 to 44 years agree to some extent that they have the ability to be active compared to adults older than 44 years (CFLRI, custom tabulation, Impact of COVID-19 on Physical Activity Survey, 2020-2021).
- Similarly, a higher percentage of adults aged 25 to 64 agree to some extent that they can be successful at participating in sport or being active compared to older adults (65 years and older) (CFLRI, custom tabulation, Sport Monitor, 2020).
- A higher percentage of adults living in the highest income households agree to some extent that they have the ability to be active or that they could be successful in participating compared to those living in lower income households (CFLRI, custom tabulation, Impact of COVID-19 on Physical Activity Survey, 2020-2021; CFLRI, custom tabulation, Sport Monitor, 2020).

About Perceived Capability

When it comes to PA, capability is both the physical and mental or psychological ability to participate.

Physical Capability

Physical ability and skill development are key to capability. Strength, skills and stamina can be developed through practice or training or, if health limits are an issue, potentially through medication, surgery or prostheses.^{63,99} PA at some level is relatively easy to perform and can be adapted to all sorts of physical conditions.¹⁰⁰

Psychological Capability

Thought processes such as knowledge or understanding, comprehension, reasoning and attention, as well as developing emotional, cognitive and/or behavioural skills, are the second part of capability.⁶⁶ The ability to self-monitor and plan for action, and knowledge of PA, are all part of capability.^{100, IOI}

- Participants' perceptions of positive experience were associated with their subsequent self-efficacy fostering PA.¹⁰²
- Knowledge was a commonly reported barrier, with women lacking information on safe activities during pregnancy and describing the information received from their midwife as limited.¹⁰³
- Having the physical capability to carry out PA were also identified as barriers.¹⁰⁴
- It is important for adults to understand the health risks of long periods spent sitting at work.¹⁰⁴

Recommendations/Gaps

Policy

- Policy-makers should develop educational campaigns about the benefits of PA and focus on both the physical and psychological capabilities needed.
- 2. Communities should support adults in trying new PA, and encourage them to increase their PA and reduce their SB.

Practice

- Practitioners should provide adequate information and skills training to enhance their clients' physical and psychological capability for increasing PA and reducing SB.
- Practitioners should encourage individuals to develop physical capability and support their psychological capability.

- More evidence is required on the effects of having the capability to increase PA and reduce SB.
- 2. Future research should focus on developing interventions to support the development of capability among adults and older adults using a comprehensive predefined theoretical framework such as the COM-B model.





Perceived Opportunity

New in 2021

Perceived opportunity is defined as all the factors that lie outside the individual that make the behaviour possible or prompt it and may be social or physical opportunities. Both can be achieved through environmental change.^{98,99}

Benchmarks

- % of adults who moderately or strongly agree that they have the physical opportunity to support them in participating in PA (e.g., perceived available opportunities in the community and a lack of barriers such as environmental barriers).
- % of adults who moderately or strongly agree that they have the social opportunities to participate in physical activity (e.g., perceived social support from peers, family, sources of influence).

Impact of COVID-19

- In a recent study, adults in the UK were more likely to have maintained or increased their PA during the COVID-19 lockdown if they believed they had the physical opportunity and were motivated to do so.⁶⁶
- Physical opportunity was the primary restriction imposed in the COVID lockdown, but social opportunity also decreased with COVID closures.⁶⁶

Key Findings



58% of adults living in Canada agreed that they have the opportunity to be active (CFLRI, custom tabulation, Impact of COVID-19 on Physical Activity Survey, 2020-2021).



74% of adults living in Canada agreed that they live in an area where there are many opportunities for individuals to engage in PA/sport (CFLRI, custom tabulation, Sport Monitor, 2020).



74% of adults living in Canada agreed that people close to them feel positively about them being active/participating in sport (CFLRI, custom tabulation, Sport Monitor, 2020).



77% of adults living in Canada agreed that friends and family support them in being active/ participating in sport (CFLRI, custom tabulation, Sport Monitor, 2020).



70% of adults living in Canada indicated that they receive a moderate to great deal of support in being active from friends and peers (CFLRI, custom tabulation, Physical Activity Monitor, 2019-2021). 80% indicate that they receive this level of support from doctors or health-care practitioners (CFLRI, custom tabulation, Physical Activity Monitor, 2019-2021).

About Perceived Opportunity

When looking at PA, perceived opportunity includes both the social and physical opportunities to participate.

Social opportunity is the culture that dictates the way we think about things (e.g., the words and concepts that make up our language, the culture and language that shapes our thinking, and interpersonal factors). It is defined by social support from family, social support from non-family, and subjective norms.¹⁰⁰

- Information leaflets on how to use the facilities improves knowledge.¹⁰⁵
- Participation in PA is improved by instructor-led sessions.¹⁰⁶
- Pregnant women suggest that being active is easier when they are supported by their partners.¹⁰⁴
- PA opportunities that allow mothers to care for their babies (e.g., mother-and-baby exercise classes) create a supportive, baby-led environment where the mother feels comfortable tending to the baby's needs (such as feeding, soothing, changing and keeping the baby entertained) during the activity.⁹⁸

Physical opportunity is influenced by the environment (e.g., resources) and the situations that limit or support a behaviour (e.g., time, equipment and access to places to play).⁶⁷ Barriers and facilitators, and the availability and condition of local resources, also affect physical opportunity.

- People have opportunities to be physically active every day, at no extra economic cost.¹⁰²
- Built environment restructuring can improve public health through increased opportunity for healthy behaviours.¹⁰⁶

- Physical opportunity and reflective motivation (e.g., beliefs) appear to be the most consistent predictors of behaviour. If people perceive they have the physical opportunity to participate in PA and are motivated to do so, they are more likely to maintain or increase overall PA (including for transport, at work and in the neighbourhood). Physical opportunity is the sole predictor of PA at recreation/sports facilities.⁶⁶
- New mothers expressed a preference for engaging in PA with another person or a group because it provided accountability and encouragement to persevere during the activities. Specifically, participants preferred groups of new mothers because they were all 'in the same boat' and created a non-judgmental environment where they appreciated that others were 'not going to be looking as you were pre-pregnancy.' They could share experiences, advice and support specifically relating to motherhood.⁹⁸
- Childcare is the key consideration for physical opportunity.⁹⁸
- Women also identified lacking the physical opportunity to carry out PA as a barrier; experiencing pain, a lack of time, having other children and working prevented them from being active.¹⁰⁴
- Results show new public transit options can substantially contribute to increasing low- to moderate-intensity exercise levels, which has the potential to improve health on a population scale.¹⁰⁶
- Improving neighbourhood walkability, quality of parks and playgrounds, and providing adequate AT infrastructure is likely to generate positive impacts on activity.¹⁰⁷
- Time, location and cost of activities influenced new mothers' access to activities. Environmental facilitators are good walking surfaces, safe spaces, well-lit spaces, and access to green space and facilities (e.g., coffee shops or baby changing areas). Bad weather was a barrier for postnatal women because it also exposed the baby to the cold/wet weather.⁹⁷
- Rates of crime, lack of facilities and open green spaces, and poor urban planning impacted levels of PA for women.¹⁰⁸
- Availability of home PA equipment positively impacts levels of PA.^{109, IIO}

Recommendations/Gaps

Policy

- Policy-makers should develop educational campaigns about the opportunities for PA.
- Policy-makers should prioritize safe and accessible infrastructure that encourages and supports daily PA.
- 3. Workplaces should provide opportunities for employees to take regular breaks or provide a variety of alternatives to sitting (e.g., variable standing desks, support for active meetings, prompts to break up sitting time more often) to reduce sedentary time at work, and provide opportunities for employees to be physically active; management should lead by example.

Practice

- Communities and organizations should provide opportunities for adults to participate in instructor-led PA.
- Communities and organizations should provide opportunities for adults and older adults to try new PA.
- Communities and organizations should provide access to childcare to allow parents to engage in PA.
- **4.** Communities and organizations should provide access to low-barrier PA opportunities and environments.
- 5. Health-care practitioners provide an excellent opportunity during consultations to encourage Canadians to be active and reduce sedentary behaviours.
- 6. Health care should build programs beyond cardiac rehab that support the transition from acute care to community PA for other chronic conditions (e.g., cancer, diabetes, knee and hip replacement) so that Canadians can be active after treatment.

- More evidence is required about social opportunities to support PA.
- 2. Future research should focus on developing interventions to improve opportunity in a variety of settings among adults and older adults (e.g., home, work, school, outdoors).





Motivation

New in 2021

Motivation is defined as all those brain processes that energize, direct and guide behaviour. It is not just goals and conscious decision-making; it includes habitual processes, emotional responding, as well as analytical decision-making.¹⁰⁰

Benchmark

• % of adults who moderately or strongly agree that they have the motivation (e.g., desire, interest, positive attitude) to participate in PA.

Key Findings



79% agreed that they have the intention to participate in PA/sport in the next 12 months (CFLRI, custom tabulation, Sport Monitor, 2020).



83% of adults agreed to some extent that they feel positively about participating in sport or being active (CFLRI, custom tabulation, Sport Monitor, 2020).

- A higher percentage of men indicated that they agree that they feel positively about participating in sport or being active.
- Older adults (65 years and older) are least likely of all age groups to intend to participate in PA or sport in the next 12 months.
- The percentage of those agreeing about their intention to be active or feeling positively about participating in sport or being active generally was higher among higher educated adults and those who live in higher income households (CFLRI, custom tabulation, Sport Monitor, 2020).

About Motivation

Motivation is driven by reflective thought processes, where individuals assess options, evaluate situations, make decisions and plan to be physically active, as well as by automatic or unconscious responses, which are shaped by emotional reactions, habits, desires and impulses.^{66, 98}

Reflective processes can be changed through increasing knowledge and understanding, and eliciting positive (or negative) feelings about PA.

- Physical opportunity and reflective motivation appear to be the most consistent predictors of behaviour. If people perceive they have the physical opportunity and are motivated, they are more likely to maintain or increase overall PA (including for transport, at work and in the neighbourhood).⁶⁶
- In a workplace environment, employees felt that they would find it less awkward or embarrassing to stand up at work if everyone else in their office also implemented plans to break up their sitting time.¹⁰⁵
- Enjoyment is a key aspect of participants' automatic motivation. Activities that are perceived as fun and enjoyable are more likely to maintain participation. A second automatic motivation is the opportunity to 'get out of the four walls' (e.g., going for a walk is seen as a chance to get outside and get some fresh air). Building on this, participants in one study said they desired social interaction, which 'can be as small as saying hi to the person behind the tills in the post office,' having adult conversations or developing friendships with other like-minded people.⁹⁸

Automatic processes are shaped by emotional reactions (positive and negative), habits, desires, and impulses that come from learning and/or individual characteristics.⁶⁶

- Positive affective experiences during PA predict future experiences.^{III}
- Habit (i.e., stimulus-response bonds formed from repeating a behaviour in the same context) is the largest automatic motivation predictor of PA.¹¹²
- Self-efficacy (belief in our abilities) predicts future performance.¹⁰³
- Intention, or the willingness to invest effort in a particular behaviour, is an important link between cognition and behaviour.¹¹³



Recommendations/Gaps

Policy

- I. Policy-makers should develop policies and strategies that can enhance motivation to increase PA and decrease SB by making PA an easy option for adults and older adults living in Canada.
- 2. Policy-makers should increase promotion and educational efforts about the benefits of PA and the risks of prolonged sitting, capitalizing on motivations to be active.
- Policy-makers should make promoting PA in health care an easier option (i.e. with appropriate billing codes, providing education, and increasing the number professionals to support PA counselling in clinical care and exercise referral).

Practice

- Health-care providers should encourage adults to participate in PA with friends or family members.
- Exercise professionals should provide a wide variety of PA options to adults and older adults by emphasizing habit formation.

- More evidence is required to explore the wide range of factors that motivate adults to be physically active and to reduce SB, and that help people translate positive intentions into action.
- Implementation and evaluations of trials addressing multiple components of the COM-B domains are recommended.

Spaces, Places & Cultural Norms

These indicators speak to the various environments (physical, social and cultural) that impact physical activity levels. This category was changed from Settings & Sources of Influence in the 2019 Report Card.



Facilities and Infrastructure

New in 2021

For the purposes of this report, this is defined as safe, maintained and sufficient facilities to support PA and sport.

Benchmarks

- % of key settings (e.g., municipalities, workplaces, sport and recreation organizations, public health) providing a supportive environment for AT (e.g., bicycle lanes, access to public transportation, access to non-motorized trails).
- % of key settings (e.g., municipalities, workplaces, sport and recreation organizations, public health) supporting access to safe and appropriate facilities for PA/sport.

Impact of COVID-19

- The majority (62%) of Canadian communities with at least 1,000 residents and 72% of sport organizations agree to a great extent that their overall ability to open, maintain or sustain facilities for recreation and sport was affected by the COVID-19 pandemic (CFLRI, custom tabulation, Opportunities for Physical Activity in Canadian Communities Survey, 2020-2021; CFLRI, custom tabulation, Sport Organizations Survey, 2020-2021). An additional 31% of these communities and 23% of sport organizations report this to some extent (CFLRI, custom tabulation, Opportunities for Physical Activity in Canadian Communities Survey, 2020-2021; CFLRI, custom tabulation, Sport Organizations Survey, 2020-2021).
- During COVID-19, parks and trails provided opportunities for individuals to get active and be outdoors. These venues also provided benefits in terms of social connections, as people met for physically distanced gatherings and activities outdoors.¹¹⁴
- Findings from a national market research survey reported that 75% of Canadians were using trails for exercise and leisure time in June 2020.²³ A similar study in November 2020 reported that usage of trails was up 50% across all age groups.¹¹⁵
- Roads in many places across the country were shut down (at least temporarily) or made into shared spaces in favour of pedestrian and cyclist use, and an effort is being made to continue this with opportunities for outdoor recreation year-round.

Key Findings

Active Transportation

66% of communities with at least 1,000 residents indicated that they have at least one of the following amenities to help support active travel in their community: a public transport system; carriers for bicycles on buses and public transport; bicycle parking at public transit park and ride lots; a walkable or pedestrian-friendly downtown core; or pedestrian-friendly elements in the design of super centres. (CFLRI, custom tabulation, Opportunities for Physical Activity in Canadian Communities Survey, 2020-2021).

74% of communities with more than 1,000 residents have at least one of the following facilities to support AT within their community: designated bike lanes; non-motorized multipurpose trails; and multi-purpose trails that also permit vehicular traffic (CFLRI, custom tabulation, Opportunities for Physical Activity in Canadian Communities Survey, 2020-2021).

66-68% of workplaces have at least one of the following facilities onsite or nearby to support AT within their community: bicycle racks; designated bicycle lanes; traffic calming in high pedestrian routes; access to public transportation; public transit park-and-ride lots; bicycle parking at public transit park-and-ride lots; walkable or pedestrian-friendly areas; access to safe sidewalks, intersections or pathways; access to walking or bicycling trails; and showers and change rooms. (CFLRI, custom tabulation, Opportunities for Physical Activity at Work Survey, 2020-2021).

Physical Activity and Sport

65-70% of all municipalities have facilities that are in better than fair condition (CIRC, 2019).

73% of communities with more than 1,000 residents state that repair of sporting facilities, poor lighting and crime are not important barriers in their community (CFLRI, custom tabulation, Opportunities for Physical Activity at Work Survey, 2020-2021).



75% of communities with more than 1,000 residents have at least one of the following facilities: family changing facilities in recreational facilities; washrooms at parks and green spaces; drinking fountains at parks and green spaces; childcare services to support participants of PA or sport programs (CFLRI, custom tabulation, Opportunities for Physical Activity in Canadian Communities Survey, 2020-2021).

88% of sport organizations agree to some extent that they focus on facilities that are physically safe, and 58% agree that they focus on facilities being welcoming (note: for the latter, there is a high percentage, 17% of sport organizations, that did not know or indicated that the question was not applicable for them), and that provide equitable access to at least some extent (80%, with 11% indicating that they did not know or not applicable) (CFLRI, custom tabulation, Sport Organization Surveys [2020- 2021]).

About Facilities and Infrastructure

Facilities and infrastructure include a wide variety of developed spaces and places that foster PA. These include paths, parks, green spaces, trails, ice roads, recreation and sport fields and facilities, gardens, playgrounds and dedicated bike lanes.

- Exercise facilities may have the potential to promote PA among residents and to support an active lifestyle throughout the year.¹¹⁶
- Having many exercise facilities near one's home may increase the chance of finding a mode of exercise that is attractive in terms of type of activity, cost and social atmosphere.¹¹⁶
- Access to parks and recreational facilities correlates with increased PA levels among older adults.¹¹⁷
- Safe, walkable and aesthetically pleasing neighbourhoods, with access to overall and specific destinations and services, can afford older adults the opportunity for participation and positively influence older adults' PA participation.¹¹⁸

- One study showed a positive effect of walkability components, provision of quality parks and playgrounds, and installation of or improvements in AT infrastructure for AT, PA, and visits to or use of settings. Improving neighbourhood walkability and the quality of parks and playgrounds, and providing adequate AT infrastructure, is likely to generate positive impacts on activity.¹⁰⁸
- In addition to other positive consequences of walkability and access to green space, these environmental characteristics may also contribute to prevention of type 2 diabetes.¹¹⁹
- Urban sprawl due to haphazard urban and transport design, limited accessibility to parks and sport facilities, negative perceptions about active travel, and limited understanding of PA are key challenges faced by individuals.¹²⁰
- Considering the amount of time individuals spend at work, the workplace is an ideal setting to support opportunities to be more physically active and less sedentary throughout the day. This is especially important for those in office-based settings, where most of the day is spent sitting.
- There are many ways in which workplaces can support increases in PA and reductions in SB throughout the workday. These benefits can span across the health and social well-being of employees, the image of the workplace and economic aspects of the workplace.¹²¹
- Despite general support for policies and built environment interventions to promote PA across Canada, significant gaps in evidence, policy and practice exist in non-urban settings.¹²²

Recommendations/Gaps

Policy

- Policy-makers should prioritize development of safe, walkable and aesthetically pleasing neighbourhoods in the planning and redevelopment processes.
- 2. Workplaces should provide safe, secure facilities for storage of a variety of methods of AT.
- 3. Workplaces should create policies that support reductions in sedentary behaviour throughout the workday (i.e., accessible stairways, access to sit-stand workstations, walking breaks or meetings).

Practice

- Communities should ensure that all members of society have access to facilities and programs across their life-course.
- Communities should invest in safe, accessible and connected AT and leisure walking/cycling infrastructure.
- Communities should support the repair and maintenance of, and improvements to, existing facilities.
- **4.** Workplaces should consider on-site or near access to facilities that support employees in being active.

- **1.** Research is needed that examines how to promote greater uptake of community-based programs and facilities across the life-course.
- Research is needed to understand what types of facilities will engage the most people.
- **3.** Future research should take into consideration equity, diversity and inclusion when studying facilities and infrastructure.



Programming

New in 2021

This indicator measures the level of organization, variety, range of abilities, frequency and target populations of structured PA.

Benchmark

• % of key settings (e.g., municipalities, workplaces, sport and recreation organizations, public health) supporting programming for various populations.

Impact of COVID-19

60% of Canadian communities with at least 1,000 residents and 71% of sport organizations agree to a great extent that their overall ability to provide quality programming was affected by the COVID-19 pandemic (CFLRI, custom tabulation, Opportunities for Physical Activity in Canadian Communities Survey, 2020-2021; CFLRI, custom tabulation, Sport Organizations Survey, 2020-2021). An additional 32% of these communities and 24% of sport organizations somewhat agree with this statement (CFLRI, custom tabulation, Opportunities for Physical Activity in Canadian Communities Survey, 2020-2021; CFLRI, custom tabulation, Opportunities for Physical Activity in Canadian Communities Survey, 2020-2021; CFLRI, custom tabulation, Sport Organizations Survey, 2020-2021; CFLRI, custom tabulation,

Key Findings



84% of communities with at least 1,000 residents provide programming to at least one specific targeted population (CFLRI, custom tabulation, Opportunities for Physical Activity in Canadian Communities, 2020-2021).



44% of sport organizations provide programming that supports specific targeted populations (e.g., youth, women and girls, persons with disabilities, Indigenous populations) (CFLRI, custom tabulation, Sport Organizations Survey, 2020-2021).



About Programming

Organized PA includes guidance about a range of physical exercises and the amount of time each exercise should be performed.

Municipal and community partners have been working to enhance the well-being of people for many decades by providing meaningful recreational programs. These programs help reduce barriers to participation and increase PA, as well as addressing healthy eating/nutrition, personal health and wellness, mental health, social inclusion and local needs.¹²³ The quality of sport, recreation, health or other organized PA programs can impact individuals, and high-quality, engaging experiences can have lasting positive effects for life.¹²⁵

- Employees can improve their psychological well-being by participating in any form of PA interventions in an office setting.¹²⁴
- A review on active workplace interventions reported significant effects in relation to reduced body weight, BMI and waist circumference.¹²⁵
- Walking groups are effective and safe with good adherence and wide-ranging health benefits.¹²⁶

Recommendations/Gaps

Policy

- Policy-makers should provide funding to promote participation in PA programming for adults, older adults, individuals with disabilities and cultural groups living in Canada.
- 2. Sport and recreation organizations should develop policies to include older adults, individuals with disabilities and cultural groups in their programming.
- Workplaces should develop flextime policies to encourage participation in PA programming.
- **4.** Policy-makers and organizations should consider the needs of the low-active population when planning.



Practice

- 1. Health-care providers should provide exercise prescriptions to adults, older adults, individuals with disabilities and cultural groups when needed to encourage participation in community-based PA programming.
- 2. Practitioners should provide information about PA programming to adults, older adults, individuals with disabilities and cultural groups.
- 3. Programs should be adapted as necessary to encourage participation by older adults, individuals with disabilities and cultural groups.

- More evidence is required on what programs adults, older adults, individuals with disabilities and cultural groups prefer.
- 2. Future research should focus on developing interventions in a variety of programs for adults, older adults, individuals with disabilities and cultural groups.



Policies and Leadership

New in 2021

This indicator considers policies that support active behaviours in all forms, and the intention to provide positive influences on the lives and behaviours of others.

Benchmarks

- % of key settings (e.g., municipalities, workplaces, sport and recreation organizations, public health) that have a formal strategy or plan for PA, sport, recreation or active travel.
- % of key settings (e.g., municipalities, workplaces, sport and recreation, public health) that are aware of/use PA guidelines and information.

Key Findings

42% of communities with at least 1,000 residents have a master plan for parks and recreation, and 22% have a formal strategy for PA and sport opportunities for its citizens (CFLRI, custom tabulations, Opportunities for Physical Activity in Canadian Communities, 2020-2021).



17% of communities with at least 1,000 residents have a plan for AT (CFLRI, custom tabulations, Opportunities for Physical Activity in Canadian Communities, 2020-2021).

61% of communities with more than 1,000 residents indicate use of key resources or guidelines in programming (CFLRI, custom tabulations, Opportunities for Physical Activity in Canadian Communities, 2020-2021).



85% of sport organizations indicate that strategic resources or guidelines have influenced their policies or programming (CFLRI, custom tabulation, Sport organization survey, 2020-2021).

About Policies and Leadership

Policy is a powerful tool used to influence the PA levels of populations.¹²⁷ Increasing PA requires a systems-based approach — there is no single policy solution.²⁶

• A PA policy can be defined as: 'formal written policies, unwritten formal statements, written standards and guidelines, formal procedures, and informal policies (or lack thereof) that may directly or indirectly affect community or population-level PA.' ¹²⁸ • The WHO toolkit *Active*, launched in 2019, provides more specific technical guidance on how to start and implement the 20 policy recommendations outlined in its Global Action Plan. The Global Action Plan and ACTIVE propose policy options that can be adapted and tailored to local cultures and contexts to help increase levels of PA globally.¹²⁹

Recommendations/Gaps

Policy

- Reliable funding should be provided to organizations to support programs and research on adults' and older adults' PA, SB and sleep.
- Policy-makers should develop strategies and plans to encourage increases in PA and decreases in SB.

Practice

- **1.** Medical curriculum and educational training programs for health practitioners should include teaching on PA, SB and sleep.
- 2. Practitioners in a variety of settings should develop strategies or plans for their clients to increase PA and decrease SB.

- More evidence is required on the impact of strong leadership for PA.
- **2.** Future research should focus on the impact of the *Common Vision* and the *WHO Global Action Plan*.





Social Environment

New in 2021

Social environment refers to the immediate physical and social setting in which people live.¹³⁰ In this report, social environment refers to the groups to which we belong, the neighborhoods in which we live, the organization of our workplaces and the policies we create to facilitate PA. This indicator was changed from Social Support in the 2019 Report Card, which was Incomplete due to a lack of data.

Benchmarks

- % of key settings (e.g., municipalities, workplaces, sport and recreation organizations, public health) that have sufficient staffing and human resources to fulfill the setting's mandate and vision in relation to PA/sport.
- % of key settings (e.g., municipalities, workplaces, sport and recreation organizations, public health) that support volunteers.
- % of key settings (e.g., municipalities, workplaces, sport and recreation organizations, public health) that have partnerships/collaborations for facility or program delivery.

Key Findings

PA/Sport



42% of municipalities indicate sufficient administrative, managerial and executive staff/ personnel to fulfill their mandate to a considerable extent (CFLRI, custom tabulation, Opportunities for Physical Activity in Canadian Communities, 2020-2021).

- 38% of municipalities indicate sufficient leaders, coaches, technical staff and officials to fulfill their mandate to a considerable extent (CFLRI, custom tabulation, Opportunities for Physical Activity in Canadian Communities, 2020-2021).

28% of municipalities indicate sufficient volunteers to fulfill their mandate to a considerable extent (CFLRI, custom tabulation, Opportunities for Physical Activity in Canadian Communities, 2020-2021).



60% of sport organizations indicate sufficient administrative, managerial and executive staff/ personnel to fulfill their mandate to a great extent (CFLRI, custom tabulation, Sport organization survey, 2020-2021).



33% of sport organizations indicate sufficient coaches and technical staff to fulfill their mandate to a great extent (CFLRI, custom tabulation, Sport organization survey, 2020-2021). 22% of sport organizations indicate sufficient volunteers to fulfill their mandate to a great extent (CFLRI, custom tabulation, Sport organization survey, 2020-2021).

Volunteers

51% of municipalities and 48% of sport organizations indicate a mechanism to allow feedback from volunteers (CFLRI, custom tabulation, Sport organization survey, 2020-2021).

48% of municipalities and 39% of sport organizations indicate a mechanism to ensure appropriate training for volunteers (CFLRI, custom tabulation, Sport organization survey, 2020-2021).

28% of municipalities and 19% of sport organizations indicate a mechanism to evaluate the number and quality of volunteers (CFLRI, custom tabulation, Sport organization survey, 2020-2021).



Partnerships/Programs



83% of municipalities indicate partnerships/ collaboration for delivery of sport programming (CFLRI, custom tabulation, Opportunities for Physical Activity in Canadian Communities, 2020-2021).



86% of municipalities indicate partnerships/ collaboration for facilities (CFLRI, custom tabulation, Opportunities for Physical Activity in Canadian Communities, 2020-2021).

About Social Environment

Any member within an environment can control or influence the PA opportunities and participation of adults within that setting.

- Ecological models suggest that a strategy for increasing PA participation within a population is to reconstruct the 'social climate.' This can be accomplished through:
 - Changing norms and beliefs;
 - Providing direct support for modifying environments; and
 - Implementing policies to encourage PA.¹³¹
- A means to achieve behaviour change of whole populations may be to de-normalize physical inactivity and re-normalize PA through changing norms and beliefs, and by providing direct support for modifying environments and policies to encourage PA.^{131, 132}
- In general, older adults, those living in urban or semi-urban settings and individuals meeting PA guidelines have higher odds of reporting seeing people walking or exercising, or kids playing actively outdoors in their neighborhood.^{132, 133}
- People with greater social support for PA are more likely to do light physical activity (LPA), especially when the social support comes from family members.¹⁰⁸
- Research has shown that the provision of advice or counselling about PA by physicians can result in increased PA.¹³⁴
- Workplaces can support their employees to move more and reduce sedentary time through increasing employee awareness and education, programs and policies, community assets and partnerships, social support and organizational support.¹³⁵

Recommendations/Gaps

Policy

- Policy-makers should create national media campaigns that aim to change the social norms around PA, SB and sleep.
- 2. Consistent funding should be provided to organizations providing PA opportunities, programming and research.
- 3. Workplaces should create a culture of movement by adopting policies that allow employees regular breaks or alternatives to sitting and that increase PA.

Practice

 Practitioners and health-care providers should change the norms and beliefs about PA and SB among adults by providing accurate, up-to-date information to clients and patients.



- **1.** Measurement efforts should include assessment of the social climate regarding physical (in)activity and monitor changes over time.
- Future research should focus on the impact of volunteers in supporting PA, recreation and sport.

Strategies & Investments

This indicator speaks to how various governmental activities impact PA levels of individuals and populations.



Government

Previous Grade (2019): B-

For this report, government refers to any governmental body with authority to influence (through policy, legislation or regulation) adults' PA opportunities or participation.

Benchmarks

- Demonstrated progress through the key stages of public policy making (e.g., policy agenda, policy formation, policy implementation, policy evaluation and decisions about the future).
- Evidence of leadership and commitment in promoting PA opportunities for adults of all ages and abilities.
- Funds and resources are allocated for the implementation of physical activity promotion strategies and initiatives for adults of all ages, abilities and cultures.
- Investments are made in professional organizations.

Impact of COVID-19

- In response to the global COVID-19 pandemic, jurisdictions across Canada implemented a number of public health measures, such as closing most non-essential business services (including city and provincial recreation and fitness facilities, national parks, trails and playgrounds).⁹⁰ These restrictions varied across the country during the waves of the pandemic.
- Recognizing the importance of physical activity, some municipalities expanded spaces available to pedestrians and cyclists through temporary bike lanes and "shared streets", in which streets were opened up to motorists, cyclists and pedestrians, and speed limits were reduced for motorized vehicles.
- Government support for non-profit organizations in the physical activity sector faltered. While some organizations faced funding cuts, funding ceased altogether for two long-standing pillars in the sector. Saskatchewan In Motion closed its doors after 18 years of promoting PA for kids throughout Saskatchewan. The Community Initiatives Fund, resourced through casino revenues, made the difficult decision to discontinue funding to Saskatchewan In Motion as casinos in Saskatchewan were closed for months due to the pandemic. The Centre for Active Living (CAL) also lost funding after 32 years of operation and closed in 2021. The only organization of its kind in Canada, CAL's mandate was to promote active living by bridging research, practice and decision-making. The Alberta Ministry of Culture, Multiculturalism and Status of Women funded CAL, but the government reallocated funding to address the pandemic.

Key Findings

The 2021 federal budget allocated no new funds to ParticipACTION to support the organization's efforts to improve the country's PA levels.¹³⁶ However, the budget pledged \$80 million over two years, starting in 2021-22, to Canadian Heritage to remove barriers to participation in sports programming and to help community organizations kick-start local organized sports that are accessible to all.

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In April 2021, the Government of Canada announced new funding to help support inclusive, accessible and local sport participation across the country. It will also provide relief for COVID-19 recovery efforts in the Canadian sport community and promote sport for social development in Indigenous communities. The government allocated \$300 million over two years to Canadian Heritage to establish a Recovery Fund for Arts, Culture, Heritage and Sport Sectors.¹³⁶

Budget 2021 proposed providing \$14.3 million over five years, beginning in 2021-22, and \$2.9 million ongoing, to ensure that Indigenous women and girls have access to meaningful sports activities through the Sport for Social Development in Indigenous Communities program.¹³⁶ In March 2021, the federal government released Canada's first-ever National Active Transportation Strategy (2021-2026).¹³⁷ Supported by the deployment of the Active Transportation Fund, this plan allocated \$400 million over five years to help build new and expanded networks of pathways, bike lanes, trails and pedestrian bridges. The Active Transportation Fund is part of the Government's recently announced \$14.9 billion over 8 years for public transit projects and complements other federal funding such as that provided by the Investing in Canada Plan.

The 2018 federal budget highlighted the government commitment to PA by pledging to invest \$5 million per year for five consecutive years (totaling \$25 million) in ParticipACTION.¹³¹ Approximately \$2 million per year was committed by Sport Canada to support ParticipACTION's efforts to increase sport participation (ending March 2021).¹³¹

The 2018 federal budget announced \$30 million over three years to support data, research and innovative practices to promote women's and girls' participation in sport, and \$47.5 million over five years as well as \$9.5 million per year ongoing to expand the use of sport for social development in more than 300 Indigenous communities.¹³¹





In May 2018, federal, provincial and territorial ministers responsible for sport, PA and recreation released A *Common Vision for Increasing Physical Activity and Reducing Sedentary Living in Canada: Let's Get Moving!* — a pan-Canadian PA policy framework to guide and stimulate coordinated and collaborative policies and actions to increase PA and reduce SB among all Canadians across the life course.¹ In 2020, the Public Health Agency of Canada pledged \$1.2 million to support the implementation of the *Common Vision* in partnership with provinces, territories and the non-governmental sector. An additional \$120,000 was provided by the provinces and territories to assist with implementation efforts.

To complete, enhance and maintain the Trans Canada Trail, in partnership with the provinces and individual Canadians, Budget 2017 proposed to invest \$30 million over five years, starting in 2017-18, to be delivered through the Parks Canada Agency.¹³⁸ More than \$3 million of this funding is earmarked for active transportation.^{139, 140}

According to representatives from federal, provincial and territorial governments, 92% note having policies and programs that support increasing PA and reducing SB among Canadians (ParticipACTION, 2019).^{Custom analysis}

Almost 70% of federal, provincial and territorial governments report that funds invested in physical activity programming has remained the same over the past fiscal years, while close to 10% of provinces/territories noted a decrease and 25% an increase (ParticipACTION, 2019).^{Custom analysis}

Over 90% of federal, provincial and territorial governments reported modifying or adapting their respective physical activity policies and programs to better align with the *Common Vision* (ParticipACTION, 2019). ^{Custom analysis}

About Government

Leadership is essential to get the country to move more and reduce sedentary time more often. All levels of governments can help build, broker and convene partners. Government departments and agencies with a responsibility for sport, recreation, health, infrastructure, culture, heritage, transportation, education and other policy areas can all play a key role in setting the stage for success.¹²³

Government can create and strengthen leadership, establish governance, foster multisectoral partnerships, increase workforce capabilities, and develop advocacy and information systems across sectors to increase PA and reduce SB.²⁶

Local governments can strengthen governance through policy and intersectoral collaboration, improving community design and accessibility to parks, considering the needs of diverse populations, and improving knowledge and attitudes toward PA.¹²⁰

There is a need for political commitment and capacitybuilding on how the built environment can promote PA, national political policies on PA that promote safe infrastructure for AT, and how accessibility to sport and recreational facilities increases PA. Negative perceptions of active travel require a society-wide paradigm shift.¹²⁰ Since 2015, the Government of Canada has invested more than \$130 million in 126 AT projects through the Investing in Canada plan. In addition, hundreds more infrastructure projects funded by the Government of Canada have included components that promote AT.

The Global Action Plan on Physical Activity 2018-2030 from the World Health Organization outlines four policy action areas and 20 specific policy recommendations and actions that member states, international partners and the World Health Organization can take action on to increase PA worldwide. The *Global Action Plan* calls for countries, cities and communities to adopt a 'whole-ofsystem' response involving all sectors and stakeholders taking action at global, regional and local levels to provide safe and supportive environments and more opportunities to help people increase their levels of PA.¹⁴¹ Effective national action to reverse current trends and reduce disparities in PA requires a systems-based approach with a strategic combination of 'upstream' policy actions aimed at improving the social, cultural, economic and environmental factors that support PA, combined with 'downstream', individually focused (educational and informational) approaches.²⁶

Recommendations/Gaps

Policy

- I. Governments at all levels should seek to understand and intentionally address the issues faced by people with the greatest need and access issues, by targeting policies to eliminate disparities in PA participation levels and meeting the needs of the low-active population.
- All provinces/territories should have clear and concise policies, appropriate levels of funding, and an accountability mechanism to support the implementation and evaluation of the *Common Vision*.
- Indicators should be identified for each area of focus in the Common Vision.

Practice

- **1.** Practitioners should continue to advocate for greater and sustained funding for PA initiatives.
- 2. Governments should provide leadership development, training and community capacity-building for those living in rural or remote communities, for new adults living in Canada and for marginalized populations.
- 3. Communities should ensure that all members of society have access to facilities and programs across their life-course, rather than focusing solely on children and youth.
- **4.** Communities should invest in AT infrastructure.
- Practitioners should deliver PA, sport and recreation programming in concert with provincial/territorial strategies.

- Appropriate PA and sport surveillance monitoring systems must be maintained.
- 2. Implementation plans at the federal/provincial/ territorial levels should have clear and well-resourced evaluation plans that can gauge whether initiatives are meeting intended goals.



Abbreviations

- AT = Active Transportation
- BMI = Body Mass Index
- CCHS = Canadian Community Health Survey
- CCS = Survey of Physical Activity Opportunities in Canadian Communities
- CFLRI = Canadian Fitness and Lifestyle Research Institute
- CHMS = Canadian Health Measures Survey
- CIRC = Canadian Infrastructure Report Card
- CPSS = Canadian Perspectives Survey Series
- INC = Incomplete
- LPA = Light Physical Activity
- METs = Metabolic Equivalents
- MVPA = Moderate-to-Vigorous Physical Activity
- PA = Physical Activity
- PAM = Physical Activity Monitor
- RCRC = Report Card Research Committee
- RRM = Rapid Response Module
- SB = Sedentary Behaviour
- SM = Sport Monitor
- SOS = Sport Organization Surveys
- WHO = World Health Organization

Major Data Sources

The following are major data sources used in the 2021 Adult Report Card:

Canadian Community Health Survey

(Statistics Canada, CCHS; bit.ly/3qxpnLr)

Formed in 1991, the CCHS is a cross-sectional survey that collects information related to health status, health care utilization and health determinants for the Canadian population every two years. The main objectives of this survey include: supporting health surveillance programs by providing health data at the national, provincial and intra-provincial levels; providing a single data source for health research on small populations and rare characteristics; and creating a flexible survey instrument that includes a rapid response option to address emerging issues related to the health of the population.

Canadian Community Health Survey Rapid Response Module

(Statistics Canada, CCHS-RRM; bit.ly/3hYKoMt)

The rapid response component is offered to organizations interested in national estimates on an emerging or specific issue related to the population's health.

Canadian Health Measures Survey

(Statistics Canada, CHMS; bit.ly/3dkgxLS)

The CHMS, launched in 2007, is collecting key information relevant to the health of Canadians by means of direct physical measurements such as blood pressure, height, weight and physical fitness. As part of the CHMS, a clinical oral health examination helps to evaluate the association of oral health with major health concerns such as diabetes, and respiratory and cardiovascular diseases. In addition, the survey is collecting blood and urine samples to test for chronic and infectious diseases as well as nutrition and environment markers. Through household interviews, the CHMS is gathering information related to nutrition, smoking habits, alcohol use, medical history, current health status, sexual behaviour, lifestyle and PA, the environment and housing characteristics, as well as demographic and socio-economic variables.

Canadian Infrastructure Report Card

(The Association of Consulting Engineering Companies Canada, Canadian Construction Association, Canadian Parks and Recreation Association, Canadian Public Works Association, Canadian Society for Civil Engineering, Canadian Urban Transit Association, Canadian Network of Asset Managers and the Federation of Canadian Municipalities, CIRC; <u>bit.ly/3wJNOGS</u>)

The Canadian Infrastructure Report Card assesses the condition of Canada's municipally owned infrastructure to help decision-makers identify cracks in this important foundation, and inform solutions to address them. The survey included several types of culture, recreation and sport facilities: ice arena facilities (indoor with I-5 pads or more and outdoor); pool facilities (indoor pools of 25 metres or 50 metres or more, leisure pools, outdoor pools, wading pools and splash pads); arts and culture facilities (galleries, libraries, museums and archives, and presentation and performance spaces); and other facilities (indoor and outdoor skate parks, indoor curling rinks, indoor and outdoor stadiums, indoor and outdoor tennis courts, indoor and outdoor sports fields, community centres, and multi-purpose facilities).

Canadian Perspectives Survey Series

(Statistics Canada, CPSS; bit.ly/3wDfVrd)

The CPSS involves creating a pool of people who agree to complete several very short online surveys over a period of one year. This is the first time that Statistics Canada is conducting this type of survey.

Physical Activity Monitor: Health and Physical Activity Survey 2021 (CFLRI; cflri.ca/publication-study)

In 2021, the Canadian Fitness and Lifestyle Research Institute conducted a panel survey to assess the relationship between health and sport and physical activity participation, especially in light of the COVID-19 pandemic.

Impact of COVID-19 on Physical Activity Survey

(CFLRI; cflri.ca/publication-study)

This panel survey was conducted by the Canadian Fitness and Lifestyle Research Institute (CFLRI) to measure the impacts of the COVID-19 pandemic on physical activity and sport participation among Canadian adults aged 18 years and older. The survey has been conducted in two waves; cycle 1 was collected at the end of 2020 and cycle 2 was collected in March 2021.

Opportunities for Physical Activity at Work Survey

(CFLRI; cflri.ca/publication-study)

The CFLRI Workplace Survey collects data on supportive workplace policies, availability of facilities at or near work to be active, work-related benefits and barriers to PA, demand for resources, and encouragement for PA.

Physical Activity Monitor

(CFLRI, PAM; <u>cflri.ca/publication-study</u>)

CFLRI's PAM is an annual telephone survey of nationally representative population samples that tracks PA and sport participation among Canadians and tracks changes in PA patterns over time, along with factors influencing participation. The representativeness of various specific populations (for example, gender, age, geographic and socio-economic groups) is a strength of the surveys. The surveys are cross-sectional in nature, so the data are applicable to surveillance- and hypothesis-generating purposes but are not applicable for assessing cause and effect.

Sport Monitor

(CFLRI, SM; cflri.ca/publication-study)

The CFLRI's Sport Monitor asked Canadians about their participation in sport and other factors related to participation.

Sport Organization Surveys

(CFLRI, SOS; cflri.ca/publication-study)

The Canadian Fitness and Lifestyle Research Institute conducted a survey to collect data for assessing policy, programs and facilities among sport organizations. The survey was administered to sport administrators at a local, provincial-territorial and national level in 2020.

Survey of Physical Activity Opportunities in Canadian Communities (CFLRI, CCS; cflri.ca/publication-study)

This survey conducted by the Canadian Fitness and Lifestyle Research Institute examines municipal perspectives on programs, facilities, policies and opportunities for PA.

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