

THE PRICE OF INACTIVITY

Measuring the Powerful Impact of Sport, Physical Activity, and Recreation in Canada

The association between regular physical activity and health is well-established. Despite this, physical inactivity remains one of four leading risk factors of death worldwide.

Here in Canada, roughly half (51%) of Canadian adults (18 to 79 years) and 72% of children and youth (5 to 17 years) are *not* active enough to meet physical activity guidelines. The association between regular physical activity and health, in terms of reduced risk of morbidity and mortality for certain non-communicable health conditions, has been well-established. More specifically, physical inactivity is a modifiable risk factor linked to health conditions such as cardiovascular disease, type 2 diabetes, and depression – all which can lead to significant health care costs. Adding to these challenges, Canada (and the world) has been forced to respond to several serious crises including the growing impacts of climate change and a global pandemic, which have posed serious repercussions to both individual and community health and well-being. The sport, physical activity and recreation sector has played an

essential part in addressing and helping to navigate and mitigate these impacts.

Though the sport, physical activity and recreation sector is a vital contributor to creating healthy individuals, vibrant and inclusive communities, and a prosperous economy, decision-makers at all levels of government and in organizations and institutions are frequently required to justify investments in sport, physical activity and recreation. They require quantifiable outcome measures that demonstrate the value of investing in these building blocks of communities.

The Canadian Fitness and Lifestyle Research Institute (CFLRI) and the Canadian Parks and Recreation Association (CPRA) have collaborated to provide decision- and policy-makers in governments at all levels, non-government organizations, and researchers with concrete, detailed evidence and information about the social, health, environmental and economic impacts of sport, physical activity and recreation, collected through a credible and objective process.

To quantify the contribution of sport, physical activity and recreation to our society, their impacts were analyzed based on four categories – social, health, environmental and economic. The framework of indicators (77 in total) that informed this work was derived from various sources: national policies, frameworks and strategies, international work, literature and internal sources.

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THE IMPACT

On an average annual basis, sport, physical activity and recreation provides the following financial impacts:

\$37.2 billion
to the economy



\$13.6 billion
in social impacts to
individuals and communities



\$42.5 billion
in environmental impacts



\$3.9 billion
in health impacts



*Given these numbers assess different constructs or concepts, these amounts cannot be added together.

Economic Impacts

One of the objectives of this project was to estimate the total economic impact of the sport, physical activity and recreation sector. To accomplish this, economic data was obtained from Statistics Canada, analyzed and summarized. The economic impact of sport, physical activity and recreation was derived from the summation of values for gross domestic product (GDP) of sport and recreation, and retail sales of sport, physical activity and recreation products. **The economic impact of sport, physical activity and recreation has been estimated at \$37.2 billion in 2022 (i.e., \$8.8 billion contributed from recreation and amusement, \$6.9 billion from the sport sector and \$21.5 billion in retail sales).**

Although not included in the overall estimate of the economic impact of sport, physical activity and

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recreation for various reasons (e.g., timing and/or duplication of data), other important economic factors were also considered in this project. This type of data includes the financial contribution of sport tourism, operating activities in the sport, physical activity and recreation industry (i.e., operational sales, expenditures and profit margin) and the impact of sport, physical activity and recreation on employment. This project found that in 2021, industries in the “other amusement and recreation” industry group reported \$9.6 billion dollars in operational revenue and \$8.9 billion in expenditures for a profit margin of 7.7% (an increase from 4.8% in the previous year). This observed growth is important, as it signifies a return to pre-pandemic levels and is on par with (and in some cases ahead of) other industries. Indeed, a profit in the amusement and recreation industry was observed for the past decade, with the highest profit margin reported in 2021.

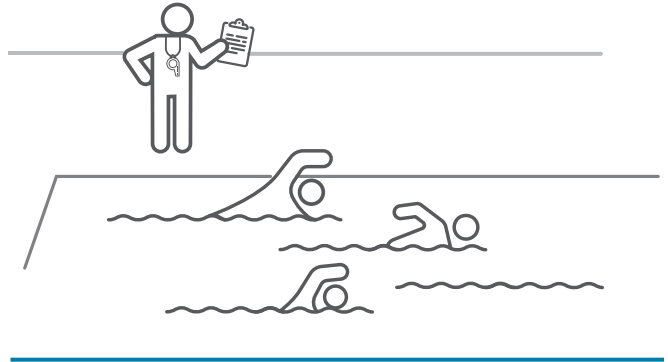
In addition to this, government investment in sport and recreation infrastructure was also explored. In 2022, the federal, provincial/territorial and municipal governments invested roughly \$2 billion in sport, physical activity and recreation infrastructure, of which a sizable proportion (\$1.5 billion) was derived from municipal governments. Despite this, results from CFLRI’s Social, Health, Economic and Environmental Impact survey found that many Canadians (61%) supported increasing financial contribution from governments towards sport, physical activity and recreation.

Social Impact

Next, this project explored the economic impact as it relates to social benefits (i.e., volunteering). Sport and recreation would not exist without volunteers, making volunteers essential to community health and well-being. According to the CFLRI's 2020 Sport Monitor, 27% of adults reported volunteering in an activity related to sport. When considering hours volunteered, sport and recreation (105 hours/year) was the third highest among organizations represented, following hospitals (111 hours/year) and religious organizations (110 hours/year). The value of volunteering was estimated based on the total volunteering hours in Canada along with the average hourly wage of the amusement and recreation industry. **The value of volunteering in Canada has been estimated at \$13.6 billion in 2020.**

Although not assigned a monetary value in this project, the physical and mental health benefits described in the literature regarding social support, connectedness, cohesion and loneliness are important. Given the relationship between social connections and population health, and the growing recognition that physical activity is an

The value of volunteering in Canada has been estimated at **\$13.6 billion** in 2020.



effective method to help increase social cohesion, it is reasonable to conclude that investing in physical activity has the potential to yield considerable gains in social capital. Also not assigned a monetary value, but discussed in the literature, are the relationships between sport, physical activity and recreation and crime and risky behaviours (for example, through the promotion of pro-social behaviours), academic achievement, employment, and the development of life skills.



Environmental Impact

The physical and built environment (i.e., the surrounding conditions where individuals live, work and play) have been recognized as an important determinant of health. For example, parks, forests and other green spaces have been shown to have a positive impact on mental health and have been linked to increased physical activity. Conversely, air pollution, exposure to contaminants (e.g., nitrogen, sulphur oxides, fine particulate matter and ozone) and effects of climate change have the potential to negatively affect overall health, as well as participation in sport, physical activity and recreation. Despite Canada having lower levels of air pollution compared to countries around the world, exposure to air pollutants has had a direct and indirect impact on the Canadian health care system such as hospital and emergency room visits, hospitalization, reduced productivity or premature death. Given its importance to health and well-being, this report describes the environmental impacts on sport, physical activity and recreation specifically, by looking at increasing active transportation, public transit, parks, and green spaces.

Although not included in the overall estimate for the environmental impact, this project estimated the cost of modifying behaviour from private vehicle use to active modes of transportation. Active transportation involves movement by human activity or human-powered aids (such as bicycles, e-bikes, scooters, wheelchairs, rollerblades, skates) and has been recognized for its important role in mitigating air pollution. Although these calculations can be very

A 1% conversion of private car use to active transportation could reduce greenhouse gas emissions and result in potential savings of \$564 million annually.



complex, researchers in this project applied a simplistic model to attempt to determine an approximate value associated with the reduction of greenhouse gas emissions (i.e., carbon dioxide, methane, and nitrous oxide) related to the reduction of car use. Based on these calculations, a 1% conversion of private car use to active transportation could reduce greenhouse gas emissions and result in potential savings of \$564 million annually, 5% conversion could yield \$2.82 billion savings per year, while a 10% conversion could result in \$5.64 billion in savings per year.

Of equal importance are public transit systems. More specifically, promoting public transit use would benefit not only the environment and household expenses (e.g., households can save roughly \$10,000 per year by using public transit), but would also improve activity levels and, therefore, potential savings to public health and health care costs, more generally. Beyond this, there are added economic benefits to converting from car usage to active transportation, such as fewer traffic fatalities.

According to 2020 infrastructure data, the replacement value for sidewalks in poor, very poor or fair condition is roughly \$6.9 billion. For other core assets like footbridges, paved pathways, and non-paved trails, the estimated replacement value is \$562 million for those in poor or very poor condition, and another \$1.5 billion for those in fair condition (for a total of roughly \$9 billion).

In addition to the previously mentioned costs pertaining to investments in active transportation (\$9.0 billion), the total estimated replacement values of core public infrastructure assets related to sport, physical activity and recreation facilities that are either in very poor, poor or fair condition would be approximately \$33.5 billion. **Adding these values together, the environmental impact of sport, physical activity and recreation has been estimated at \$42.5 billion in 2020, based on replacement value of recreation and sport facilities and active transportation infrastructure.** Investment in infrastructure can help make these facilities more accessible and affordable, thereby facilitating usage.

Health Impact

The final section of the report summarizes the implications of sport, physical activity and recreation on health. Being physically active offers many benefits; for example, there is overwhelming evidence in the literature demonstrating its role in preventing and/or managing morbidity and mortality from various non-communicable diseases, improved cognition and, overall mental health. Despite this evidence, it continues to be a global public health concern as rates of inactivity have remained high both in Canada and in many parts of the world.

More specifically, physical inactivity is a modifiable risk factor linked to various non-communicable diseases and mental health disorders, such as cardiovascular disease, hypertension, breast and colon cancer, diabetes (type 2) and depression. According to Canadian statistics, about four in ten Canadians



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report having at least one chronic condition. Furthermore, the most prevalent chronic condition in Canada is hypertension which affects roughly a quarter of the adult population. Given the breadth of knowledge we now have regarding the link between physical inactivity and chronic conditions and the steep health care costs required to treat them, this project aimed to provide an updated estimate of the health care costs which could be averted by reducing physical inactivity. To this end, **the health care costs of physical inactivity has been estimated at \$3.9 billion (\$3.87 billion and \$36.9 million in direct costs and indirect costs related to mortality, respectively) in 2022.**

The most expensive diseases identified in this report were type 2 diabetes at \$1.6 billion, cardiovascular disease at \$1.2 billion followed by depression at \$409 million (CAD). When calculating the economic impact of reducing inactivity, it was estimated that a 10-percentage point decrease in inactivity levels among Canadian adults could result in an annual savings of \$629 million annually in health care costs associated with eight chronic conditions (i.e., cardiovascular disease, stroke, type 2 diabetes, breast and colon cancer, hypertension, osteoporosis and depression).

SUMMARY

This project amassed a sizable amount of social, health, environmental and economic data with the purpose of demonstrating the importance of sport, physical activity, and recreation to these four areas. The results showed that investments in sport, physical activity, and recreation have the potential for significant economic, health, social, and environmental gains. A more detailed description of the methodology, findings, and references is available in the full report.

SPREADING THE WORD

As part of the project, CFLRI and CPRA have produced a set of easy-to-use knowledge products that summarizes the key findings of the research framework and provides practical ways to help “make the case” for sport, physical activity and recreation. This project provides a consistent assessment across the country.

For more information visit www.measuring-impact.ca.

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Canadian Fitness and Lifestyle Research Institute
230-2733 Lancaster Rd.
Ottawa, ON K1B 0A9
www.cflri.ca



Canadian Parks and Recreation Association
1180 Walkley Road, PO Box 83069
Ottawa, ON, K1V 2M5
www.cptra.ca