THE STATE OF ARTHRITIS INCANADA



TABLE OF CONTENTS

PREFACE TO THE PROPERTY OF THE	1
EXECUTIVE SUMMARY	2
ABOUT ARTHRITIS SOCIETY CANADA	3
METHODOLOGY	4
FINDINGS: PROVINCIAL AND TERRITORIAL RANKING – OVERALL GRADES	7
OVERALL KEY FINDINGS	8
2023 ACCESS TO CARE AND TREATMENT CATEGORY RESULTS	9
EXPLAINING THE ACCESS CATEGORY INDICATORS	12
2023 WELLNESS CATEGORY RESULTS	15
EXPLAINING THE WELLNESS CATEGORY INDICATORS	18
2023 RESEARCH & INNOVATION CATEGORY RESULTS	20
EXPLAINING THE RESEARCH AND INNOVATION CATEGORY INDICATORS	23
CALL TO ACTION AND RECOMMENDED NEXT STEPS	24
APPENDIX	26

PREFACE:

A LETTER FROM TRISH BARBATO, CEO OF ARTHRITIS SOCIETY CANADA

I am pleased to present Arthritis Society Canada's Report Card on The State of Arthritis in Canada. This report would not have been possible without the hard work and support of many individuals and organizations dedicated to improving arthritis care and health outcomes. I want to express my sincere gratitude for their contributions to this important endeavor.

I extend my appreciation to Arthritis Consumer Experts, Canadian Arthritis Patient Alliance, Canadian Rheumatology Association, Arthritis Society Canada (ASC) Integrated Scientific and Medical Advisory Committee, Canadian Orthopaedic Association, Arthritis Health Professions Association, Canadian Spondyloarthritis Association, Arthritis Research Canada and especially to Arthritis Community Research and Epidemiology Unit (ACREU) who was a significant contributor, assisting with data analysis throughout the project. Each of these groups and individuals played an indispensable role in shaping this report card, including the patient voice and their experiences, and ensuring its accuracy, integrity, and relevance. Also, a special thank you to Santis Health for their work in facilitating the group meetings and drafting the report.

While this report card serves as a testament to the progress made in the field of arthritis, it also highlights the immense gap that still exists.

We acknowledge that more needs to be done to bridge this gap, particularly around inequities within the health care system, and it is our collective responsibility to address the pressing issues that affect individuals living with arthritis every day. One area that requires immediate attention is the need for better data. Accurate and comprehensive data form the foundation for informed decision-making, and it is essential that we prioritize improving the collection of appropriate data, and making it timely, accessible, and transparent for all stakeholders.

With this report card, we are laying the groundwork for future conversations. It serves as a launch point, with a renewed sense of urgency, collaboration, and innovation in the field of arthritis. We must come together as a community, including governments – provincial, territorial and federal, embracing the power of partnership and leveraging our collective strengths to enact meaningful change.

TRISH BARBATO
President and CEO,
Arthritis Society Canada



EXECUTIVE SUMMARY

Arthritis is the most common chronic disease in Canada, causing pain and disability, and incurring significant costs to individuals and society. There are over 100 different types of arthritis, and despite the misconception that it is only a disease of the elderly, more than half of Canadians with arthritis are younger than 65.

Arthritis causes painful inflammation and stiffness in the joints, limiting mobility and causing long-term disability and loss of productivity. Arthritis can have a profound and distressing impact on an individual's life, making everyday tasks challenging and causing mental health issues. Furthermore, many individuals with arthritis have additional serious diseases such as heart disease or diabetes, and some types of arthritis can even affect other organs such as the heart, eyes, lungs, kidneys, and skin.

The prevalence of arthritis in Canada is high, with six million individuals, or one in five people, affected by the disease. By 2040, it is estimated that 24% of the population, or one in four individuals, will have arthritis. This increasing prevalence of arthritis will add further strain on already stretched health care resources, highlighting the need for access to timely care, effective treatment strategies, and management plans to alleviate the burden of arthritis on individuals and society as a whole.

Arthritis Society Canada undertook the task of developing a report card to identify strengths and gaps in diagnosing, treating and managing arthritis within health care systems across Canada, and to identify opportunities for improvement. In consultation with a working group, Arthritis Society Canada selected 12 indicators across three categories: access to arthritis care, wellness, and commitment to research and innovation. Arthritis Society Canada used publicly available data to assess the indicators in each province and territory and weighted them based on importance to provide each a grade out of 100 points.

The report concludes with four recommendations for action:

- 1. **Enhance** the quality of health data
- 2. **Improve** access to arthritis care
- 3. **Invest** in arthritis research
- 4. Raise awareness

Arthritis Society Canada will work with the broader arthritis ecosystem to share this report with policy makers and advocate for action to address these issues. As well, Arthritis Society Canada will begin the longer-term work of developing a comprehensive plan with detailed solution-oriented actions to improve the health outcomes of Canadians living with arthritis.



EXECUTIVE SUMMARY CONT.

As health care and health systems are primarily under the jurisdiction of the provinces and territories, the federal government was not included in this report; however, it needs to be a key partner in improving the state of arthritis in Canada. The federal government provides significant funding to the provinces and territories and has an opportunity to play an instrumental role through funding agreements, investing in arthritis research, and encouraging greater collaboration among all levels of government. Especially, there is an immediate need to accelerate initiatives that will enhance data access and usability.

The analysis revealed low grades for the majority of provinces and territories, indicating a need for substantial improvements in arthritis care access, wellness and commitment to research nationwide. The limited availability of, or in many cases, the absence of publicly accessible data posed a challenge in conducting a comprehensive evaluation and influenced the indicators selected, highlighting the importance of supporting ongoing efforts to improve data collection methods and accessibility. As an example, there are no publicly available data on wait times to see a rheumatologist, an issue that is often cited as a significant concern by patients and clinicians. Including this indicator in future reports is crucial, as timely access for patients to consult their rheumatologists plays a vital role in managing arthritis effectively.

About Arthritis Society Canada

Arthritis Society Canada is dedicated to extinguishing arthritis. We represent the six million Canadians living with arthritis today, and the millions more who are impacted or at risk. Fueled by the trust and support of our donors and volunteers, Arthritis Society Canada is fighting the fire of arthritis with research, advocacy, innovation, information and support. We are Canada's largest charitable funder of cutting-edge arthritis research. We will not give up our efforts until we realize a world free of arthritis.



METHODOLOGY

This evaluation provides a broad picture of the state of arthritis in Canada by analyzing publicly available data to assess how provinces and territories address this significant health condition. Through virtual meetings, and extensive communication via emails and discussions with arthritis community collaborators, a set of 12 indicators were chosen for analysis and evaluation. The indicators were grouped under three broad categories:

- 1. Access to Care and Treatment (6 indicators);
- 2. Wellness (4 indicators); and
- 3. Research and Innovation (2 indicators).

Jurisdictions were graded on a point system based on their performance on each of the 12 indicators, which were weighted based on their importance and relevance. Provinces and territories were graded out of a total of 100 points based on the 12 indicators with each indicator worth a maximum of 10 points. Category one was weighted the heaviest at 50 points, category two at 30 points, and category three at 20 points. Individual scoring scales were developed for each indicator, and these are available separately.

It is important to note that some data for the territories were not available as these jurisdictions were not included in the reports from the data sources. This resulted in the omission of certain indicators and thus, appropriate calculations were applied for the absent data.

As well, we encountered challenges with the quality of available, arthritisspecific data, which may not have entirely represented the information we intended to convey. This limitation resulted in selection of indicators that were based on the best data that were accessible for the majority of jurisdictions and from reliable sources.

Finally, we recognize that new data and improved data sources emerge regularly. Therefore, it is important to clarify that our analysis is based on the data that were available up to March 31, 2023. Although more recent data may have been released, we utilized the most current and up-to-date data for our analysis until March 31, 2023.



METHODOLOGY CONT.

Category 1: Access to Care and Treatment

60 Raw Points Total 50 Weighted Points Overall

Indicator	Main Data Source
Availability of Medications	Arthritis Consumer Experts Report Card
Wait Times for Joint Replacements	Canadian Institute for Health Information (CIHI) – Joint Replacement Wait Times
Wait Times to See an Orthopaedic Surgeon ——	Fraser Institute – Waiting Your Turn: Wait Times for Health Care in Canada 2022
Number of Rheumatologists in the Workforce –	<u>Canadian Medical Association –</u> <u>Rheumatologists</u>
Number of Orthopaedic Surgeons in the Workforce	Canadian Medical Association – Orthopaedic Surgeons
Number of Individuals Without a Regular Primary Care Provider	Canadian Community Health Survey / ACREU

Category 2: Wellness

40 Raw Points Total 30 Weighted Points Overall

Indicator	Main Data Source
	Canadian Community Health Survey /ACREU*
	Canadian Community Health Survey /ACREU*
	Canadian Community Health Survey /ACREU*
- · · · · · · · · · · · · · · · · · · ·	Canadian Community Health Survey /ACREU*

METHODOLOGY CONT.

Category 3: Research and Innovation

20 Raw Points Total20 Weighted Points Overall

IndicatorMain Data SourceCommitment to InnovationArthritis Society Canada's Wait
Times ReportArthritis Research Funding
Landscape Report

*The link to the Canadian Community Health Survey (CCHS) provides information about the survey and offers access to two tables containing summarized data on specific health indicators at a high level. Most of the data accessed by the Arthritis Community Research and Epidemiology Unit (ACREU) in the CCHS for this report are not readily available to the public. ACREU thanks the Statistics Canada Research Data Centres Program for providing access to the data file.

FINDINGS:

Arthritis SOCIETY CANADA

PROVINCIAL AND TERRITORIAL RANKING – OVERALL GRADES

The following provides a comprehensive breakdown of the points awarded to each jurisdiction within the three categories, culminating in a final score out of 100 points, and accompanied by corresponding letter grades.

JURISDICTION	Access Category Points /50	Wellness Category Points /30	Research & Innovation Category Points /20	Total Score /100	LETTER GRADE
British Columbia	34	21	9	64	С
Alberta	33	16	13	62	С
Saskatchewan	28	12	6	46	D
Manitoba	24	- 11	12	47	D
Ontario	38	14	12	64	С
Quebec	35	16	8	59	С
New Brunswick	32	5	9	46	D
Nova Scotia	33	9	10	52	D
Prince Edward Island	23	9	3	35	F
Newfoundland and Labrador	33	8	5	46	D
Northwest Territories	10	18	0	28	F
Yukon	16	20	0	36	F
Nunavut	2	14	0	16	F

GRADES: 85-100 A | 70-84 B | 55-69 C | 40-54 D | 0-39 F

OVERALL KEY FINDINGS

Arthritis Society Canada undertook an extensive journey to develop this report card, employing a systematic approach to evaluate each province and territory. While availability of arthritis-specific data in Canada is limited, we made every effort to gather all accessible data points to gain a comprehensive understanding of the current state of arthritis in 2023. Ultimately through this process, our research and analysis have confirmed and validated the key findings below:

- 1. Although British Columbia, Ontario, Alberta, and Québec scored the highest among all jurisdictions, their scores reflect that much work still needs to be done across Canada. The highest grade among these jurisdictions was a "C," indicating significant room for improvement.
- 2. Due to unavailable data, there is a significant gap in information regarding the territories, making it challenging to provide an accurate assessment of their status in terms of arthritis care.
- 3. The current data available for evaluating the state of arthritis in Canada are not sufficient, highlighting the need for ongoing efforts to improve data collection methods and access to information.





2023 ACCESS TO CARE AND TREATMENT CATEGORY RESULTS

2023 ACCESS TO CARE AND TREATMENT CATEGORY RESULTS

The Access category comprises 6 separate indicators that together provide insight into the level of accessibility of arthritis care in each jurisdiction. In our assessment, provinces and territories were evaluated based on their performance across each of these indicators. The jurisdictions could receive a maximum score of 10 points per indicator.

Higher scores were awarded to jurisdictions that had a comprehensive list of available medications on their drug formulary, more patients receiving timely hip/knee replacement surgeries, shorter wait times to see an orthopaedic surgeon, a recommended number of rheumatologists and orthopaedic surgeons per 100,000 population, and fewer individuals without a regular health care provider. These factors collectively would suggest that individuals with arthritis have better access to care in these jurisdictions.

Overall Caveats:

A crucial caveat to address in this section is the lack of data for wait times to see a rheumatologist. As timeliness of diagnosis of inflammatory arthritis, and subsequent treatment plans are strongly linked to patient outcomes, this indicator would serve as one of the most important metrics for evaluating arthritis patients' access to care and treatment.

It should also be noted that data for the two indicators, Wait Times for Joint Replacements and Wait Times to see an Orthopaedic Surgeon, were not reported for the Northwest Territories and Yukon. As a result, these two territories received scores out of 40 rather than 60.

For Nunavut, data for the three indicators, Availability of Medications, Wait Times for Joint Replacements, and Wait Times to see an Orthopaedic Surgeon were not reported, resulting in scores out of 30 points instead of the original 60 points.



JURISDICTION	of	Wait Times for Joint Replacements	Wait Times to See an Orthopaedic Surgeon	Number of Rheumatologists in the Workforce	Number of Orthopaedic Surgeons in the Workforce	Number of Individuals Without a Regular Primary Care Provider	Total Raw Points /60	Total Weighted Points Out of 50
British Columbia	7	8	8	7	4	7	41	34
Alberta	8	6	5	8	4	8	39	33
Saskatchewan	9	4	5	5	3	7	33	28
Manitoba	7	5	1	5	4	7	29	24
Ontario	9	8	9	7	4	9	46	38
Quebec	9	5	9	8	5	6	42	35
New Brunswick	9	5	6	5	4	9	38	32
Nova Scotia	7	6	5	8	5	8	39	33
Prince Edward Island	6	6	5	0	4	7	28	23
Newfoundland and Labrador	7	5	8	7	5	8	40	33
Northwest Territories	6	*N/A	*N/A	0	1	1	8	10
Yukon	5	*N/A	*N/A	0	1	7	13	16
Nunavut	*N/A	*N/A	*N/A	0	1	0	1	2



EXPLAINING THE ACCESS CATEGORY INDICATORS

Access Indicator 1: Availability of Medications

The data source for this indicator was the Arthritis Consumer Experts Report Card on JointHealth. To assess the availability of medications for arthritis, this report was used to tally the total number of drugs listed for inflammatory arthritis that were listed, under review and declined on the jurisdiction's formulary.

However, it is essential to note that the report mainly focuses on provision of reimbursement for medications approved for inflammatory arthritis rather than their accessibility. Being listed on the formulary does not necessarily guarantee accessibility of those medications. Furthermore, access to most of these drugs is typically dependent on the availability of and accessibility to rheumatologists, who are responsible for prescribing them.

Access Indicator 2: Wait Times for Joint Replacements

The data source for this indicator came from CIHI's report on joint replacement wait times. The report provides information on the percentages of knee and hip replacements that were performed within the recommended wait time target of 6 months, for the period of 2021-2022. The wait time reported is the number of days between the date the patient and the specialist agree to a hip or knee replacement and the date the patient receives the surgery, often referred to as Wait 2. It does not include the wait from when the referral is received to the date of the first consultation with specialist occurs, generally referred to as Wait 1, which can be many months.

It is worth noting that this indicator solely focuses on hip and knee replacements and does not account for other patients with arthritis who require joint replacements outside of these specific areas.

Access Indicator 3:

Wait Times to see an Orthopaedic Surgeon

The data source for this indicator was the Fraser Institute – Waiting Your Turn: Wait Times for Health Care in Canada 2022. This report provides information on the number of months patients have to wait to see different specialists.

While measuring the wait times for both rheumatologists and orthopaedics separately would have been preferable, the data for wait times to see a rheumatologist were not available. Therefore, it was decided to use the wait times for patients to see an orthopaedic surgeon after referral from a general practitioner for this indicator rather than using the wait times to see a general specialist. Additionally, this data is based on patients needing referral to an orthopaedic surgeon for any condition or problem, not just for arthritis.



Access Indicator 4:

Number of Rheumatologists in the Workforce

The data source for this indicator was the Canadian Medical Association (CMA) Master File that provides data on the number of rheumatologists in the workforce per 100,000 population which was updated in 2019. However, the numbers used from this file is likely an underestimate as it was reported 4 years ago.

The recommended ratio of rheumatologists per population, according to a <u>study</u> by Stephanie C. Kulhawy-Wibe et al., is between 1 rheumatologist per 75,000 and 2 rheumatologists per 100,000 population. This was used as a baseline to score each jurisdiction for this indicator.

Importantly, it should be called out that rheumatologists are not only dedicated to treating arthritis, but they also specialize in a diverse array of conditions that extend beyond arthritis. These include connective tissue diseases, vasculitis, lupus, and various other ailments.

Access Indicator 5:

Number of Orthopaedic Surgeons in the Workforce

The data source for this indicator was the Canadian Medical Association (CMA) Master File that provides data on the number of orthopaedic surgeons in the workforce per 100,000 population which was updated in 2019. However, the numbers used from this file is likely an underestimate as it was reported 4 years ago.

While there was no recommended ratio of orthopaedic surgeons per 100,000 population in Canada, it was suggested we evaluate this indicator based on the recommendation in the United States. Therefore, we used the ratio of 8 to 10 practicing orthopaedic surgeons out of 100,000 population to develop a scoring method for this indicator.

However, while orthopaedic surgeons provide treatment for arthritis patients, it should be noted that they also care for a wide range of other conditions, such as trauma and fractures.



Access Indicator 6: Number of Individuals without a Regular Primary Care Provider

The data for this indicator were provided by Arthritis Community Research and Epidemiology Unit (ACREU) derived from Statistics Canada, Canadian Community Health Survey (CCHS). This is an annual survey that collects information related to health status, health care utilization and health determinants for the Canadian population. The analysis of the survey used for this report covers the population 15 years of age and over, living in the ten provinces and three territories from 2019 to 2020.

The aim was to evaluate multidisciplinary care, including occupational therapy, physical therapy, social work, and kinesiology. However, due to limitations in data sources and payment models, this was not possible. Instead, this indicator focuses on the percentage of individuals without a primary care provider as an indicator of their navigation and entrance into the health care system.

It should be noted that the prevalence of arthritis in Canada as reported above is a likely underestimate, as many people do not know that they have the condition, in part due to a lack of primary care providers, access to primary care providers who can diagnose and refer patients to appropriate care.





2023 WELLNESS CATEGORY RESULTS

2023 WELLNESS CATEGORY RESULTS

The Wellness category consists of four separate indicators that collectively provide insight into the well-being of individuals living with arthritis in each jurisdiction. In our assessment, provinces and territories were evaluated based on their performance across these indicators. The jurisdictions could receive a maximum score of 10 points per indicator.

Jurisdictions that received higher scores demonstrated smaller differences between the Canadian population's average and the average for the population of individuals with arthritis across these important indicators. These indicators include obesity rates, physical activity levels, interruption of physical activity due to pain, and employment rates. Smaller differences indicate that individuals with arthritis in these provinces and territories have a more comparable experience to the overall Canadian population in these areas.

By contrast, provinces and territories with lower scores had larger disparities between the overall population and those with arthritis in these areas, indicating that there is room for improvement in addressing the needs of individuals with arthritis.



JURISDICTION	Impact of Arthritis on Physical Activity Level	Impact of Arthritis Pain on Activities	Obesity Rates within the Arthritis Population	Impact of Arthritis on Employment	Total Raw Points /40	Total Weighted Points Out of 30
British Columbia	9	4	9	6	28	21
Alberta	6	4	5	6	21	16
Saskatchewan	4	4	2	6	16	12
Manitoba	3	3	3	5	14	11
Ontario	4	4	6	4	18	14
Quebec	3	6	7	5	21	16
New Brunswick	2	3	1	1	7	5
Nova Scotia	4	4	2	2	12	9
Prince Edward Island	2	4	3	3	12	9
Newfoundland and Labrador	3	4	3	0	10	8
Northwest Territories	9	6	0	9	24	18
Yukon	10	4	2	10	26	20
Nunavut	10	5	4	0	19	14



EXPLAINING THE WELLNESS CATEGORY INDICATORS

Data for the following four indicators in the Wellness category were provided by Arthritis Community Research and Epidemiology Unit (ACREU) derived from Statistics Canada's, Canadian Community Health Survey (CCHS). This annual survey collects information related to health status, health care utilization and health determinants for the Canadian population. The analysis of the survey used for this report covers the population 15 years of age and over, living in the ten provinces and three territories from 2019 to 2020.

Wellness Indicator 1: Physical Activity Level

The data for this indicator is derived from survey questions that asked individuals about their physical activity levels over the last 7 days, including any activities done continuously for a minimum of 10 minutes. We compared the proportion of people in Canada who are physically active below the World Health Organization (WHO) recommended minimum among those with arthritis and the general population across Canada.

Arthritis is a debilitating disease that can cause significant physical strain even while performing seemingly simple tasks. Research shows that consistent exercise can reduce joint pain, improve mobility, and alleviate stress levels that may otherwise contribute to more frequent flare-ups. Therefore, this indicator measures whether individuals with arthritis in that jurisdiction are able to maintain physical activity despite their condition.

Wellness Indicator 2:

Impact of Arthritis Pain on Activities

The data for this indicator were collected by asking respondents the question, "How many activities does your pain or discomfort prevent?" We compared the proportion of individuals with arthritis who reported pain or discomfort that prevented them from performing activities with the percentage of the overall Canadian population reporting the same.

As individuals with arthritis may experience more pain and discomfort during physical activities, this indicator is particularly important in understanding the impact of arthritis pain on the daily lives of affected individuals.

Wellness Indicator 3:

Obesity Rates within the Arthritis Population

The data for this indicator were collected through a survey question asking individuals to report their height and weight, which was then used to calculate their Body Mass Index (BMI). This allowed for the comparison of the proportion of individuals with arthritis who are considered obese in each jurisdiction to the overall proportion of obese individuals across Canada.



Given the debilitating nature of arthritis, individuals with this condition may face challenges in daily routine activities or physical exercise activities. This indicator helps to identify the excess prevalence of obesity within the arthritis population in each jurisdiction.

Wellness Indicator 4: Impact of Arthritis on Employment

These data look at the age and sex standardized prevalence ratio of not being in the labour force for individuals between the ages of 20-64, comparing individuals with arthritis to the general population.

Arthritis can have a significant impact on an individual's ability to work, and this, in turn, can impact their employment levels. Statistics show that individuals with arthritis have a higher risk of unemployment and work disability compared to those without the disease.

While there are many other factors to consider, employment levels can be one indication of how well an individual is able to manage their arthritis. However, a more holistic approach to understanding the impact of arthritis on employment may involve looking at workplace strategies and support for individuals with arthritis.





2023 RESEARCH & INNOVATION CATEGORY RESULTS

2023 RESEARCH & INNOVATION CATEGORY RESULTS

The Research and Innovation category comprises 2 indicators that together provide insight into the level of commitment to arthritis research and innovation in each jurisdiction. In our assessment, provinces and territories were evaluated based on their performance across each of these indicators.

Higher points were awarded to jurisdictions that had actioned Arthritis Society Canada's recommendation outlined in *The Wait: Addressing Canada's Critical Backlog of Hip and Knee Replacement Surgeries* report and higher investments towards arthritis research when compared to the diabetes research funding in Canada, a comparator chronic disease.

Overall Caveats:

While the scores for the Commitment to Innovation indicator for the territories were assigned, the data for the arthritis research funding indicator were not available. Thus, the territories should have had a correction factor, however, since the scores for the "Commitment to Innovation" indicator were ZERO, the application of a correction factor had no impact, resulting in overall scores for the territories of ZERO.

Lastly, we originally conceived of a third indicator "Quality, Availability and Accessibility of Health Data" however, it was not feasible to rate the jurisdictions based on available data. Technically, ALL provinces have administrative health data (hospitalization data, physician billing, vital stats etc.). However, data collection across provinces and territories is not standardized. Furthermore, accessing these data can be time consuming and costly.

We acknowledge the existence of several arthritis clinical cohorts throughout Canada which strive to bridge these data gaps. However, due to the inherent gaps and challenges associated with data collection, we concluded that ranking jurisdictions based on this indicator would be unachievable. Nonetheless, we firmly believe that efforts to enhance the quality, availability, and accessibility of health data are essential and worthy of support.

The data should be continually assessed including input from patients and caregivers. Capturing relevant data that are high quality and collected in a consistent and standardized manner is critical to establishing a foundation for evidence-informed decisions to improve arthritis care and quality of life and enable the health care system innovation.



JURISDICTION	Commitment to Innovation	Arthritis Research Funding	Total Raw Points /20	Total Weighted Points Out of 20
British Columbia	6	3	9	9
Alberta	9	4	13	13
Saskatchewan	6	0	6	6
Manitoba	9	3	12	12
Ontario	9	3	12	12
Quebec	6	2	8	8
New Brunswick	9	0	9	9
Nova Scotia	9	1	10	10
Prince Edward Island	3	0	3	3
Newfoundland and Labrador	5	0	5	5
Northwest Territories	0	*N/A	0	0
Yukon	0	*N/A	0	0
Nunavut	0	*N/A	0	O



EXPLAINING THE RESEARCH AND INNOVATION CATEGORY INDICATORS

Research and Innovation Indicator 1:

Commitment to Innovation

To assess each jurisdiction's commitment to innovation, we examined 5 distinct actions derived from the recommendations outlined in Arthritis Society Canada's 2021 Wait Times Report named "THE WAIT: Addressing Canada's Critical Backlog of Hip and Knee Replacement Surgeries". We assessed each province and territory by analyzing the extent of their actions in response to each recommendation. The five recommendations are as follows:

- 1. Single-Entry Triage
- 2. Surgical Backlog Strategy / Task Force
- 3. Publicly Available Wait Times Data
- 4. Surgical Centres
- 5. Dedicated Funding for Surgical Backlog

Research and Innovation Indicator 2:

Arthritis Research Funding

This indicator focuses on the estimated average annual investment in arthritis research per person living with arthritis in a given province. Research investment data were taken from the Canadian Arthritis Research Funding Landscape Review, a report produced by Arthritis Society Canada in partnership with the Canadian Institutes of Health Research - Institute of Musculoskeletal Health and Arthritis in 2021. This is the most recent and complete analysis of arthritis research investment across the country and includes data from participating research funders from 2005 to 2019. These 15 years of funding data were used to determine the average annual investment in arthritis, and investment per person living with arthritis was determined using estimated arthritis prevalence available in the Status of Arthritis in Canada statistic reports developed by Arthritis Society Canada in partnership with the Arthritis Research and Epidemiology Unit (ACREU), updated in 2021. To provide a meaningful relative comparison across jurisdictions, we used a benchmark of \$12 invested per person with the disease as a reference point; this was derived from the investment in research on diabetes, a chronic disease with many comparable features to arthritis, per person living with the disease as found in the original Canadian Arthritis Funding Landscape Review produced by the Arthritis Alliance of Canada in 2011.





CALL TO ACTION AND RECOMMENDED NEXT STEPS

This pan-Canadian score card on arthritis marks an important milestone in gaining a comprehensive national perspective. While we acknowledge the progress achieved thus far, the report clearly illustrates that there is still much more work that needs to be done. In light of this, four top recommendations have been identified:

1. Enhance data quality and accessibility

The findings of this report clearly indicate the need for better and more accessible data for researchers and the public. It is important to determine the appropriate type of data to collect, and establish standardized collection methods to ensure comparability. Arthritis Society Canada supports the development of the pan-Canadian Health Data Strategy and recognizes the importance of engaging the patient community in discussions and strategy implementation.

2. Improve access to arthritis care

It is evident that individuals living with arthritis in Canada face significant challenges in accessing necessary care and programs. While there have been notable advancements in treatment, particularly for those with inflammatory arthritis, there is a pressing need to explore, invest in, and innovate different care models that allow Canadians to receive timely access to suitable care and support for managing their condition. Promising examples, such as team-based care and providing care through digital technology are already being implemented across the country, and should be further explored and optimized for better use.

3. Increase investment in arthritis research

Despite its burden and prevalence, arthritis research is underfunded compared to research for other diseases. Given that the number of people in Canada living with arthritis is expected to exceed 9 million by 2040, it is crucial to increase investment in arthritis research to meet the growing demand and improve outcomes for affected individuals.

4. Raise awareness by sharing the pan-Canadian report card publicly

Moving forward, this report card should be shared with the public and policy makers across Canada, to highlight actionable steps and policy changes that can be taken immediately to address the challenges and gaps identified.

Arthritis Society Canada will immediately focus on implementing the recommendations outlined above. It will also use this report in collaboration with the broader arthritis community to develop a comprehensive plan that outlines specific recommendations and solutions-oriented actions aimed at enhancing access to care and improving health outcomes for Canadians living with arthritis.

APPENDIX

Thank you to all those who have contributed to shaping this report:

Brenda Delodder, Executive Director, Canadian Spondyloarthritis Association

Shawn Brady, Vice President, Arthritis Rehabilitation and Education Program & Innovation, Arthritis Society Canada

Sian Bevan, Chief Science Officer, Arthritis Society Canada

Claire Barber, MD, PhD, FRCPC, Associate Professor Cumming School of Medicine University of Calgary, Scientific Director Bone & Joint Health Strategic Clinical Network, Alberta Health Services

Eric Bohm, BEng MD MSc FRCSC, Professor of Surgery, University of Manitoba, Director, Health System Performance, Centre for Healthcare Innovation, Primary and Revision Hip and Knee Arthroplasty

Madeline Cooper, Consultant, Santis Health

Joanne Di Nardo, Senior Director, Public Policy & Government Affairs, Arthritis Society Canada

Sally Eo, Consultant, Santis Health

Margretha Gonsalvez, Specialist, Public Policy & Government Affairs, Arthritis Society Canada

Kelly Gorman, Senior Director, Public Policy & Government, Arthritis Society Canada

Cheryl Koehn, President, Arthritis Consumer Experts

Linda Li, PT, PhD, Professor & Harold Robinson Arthritis Society Chair in Arthritic Diseases University of British Columbia, Senior Scientist, Arthritis Research Canada

Diane Lacaille, Mary Pack Chair in Rheumatology Research, Scientific Director, Arthritis Research Canada/Arthrite-Recherche Canada, Professor, Division of Rheumatology, University of British Columbia Kelly Lendvoy, Vice President, Communications & Public Affairs, Arthritis Consumer Experts

Laurie A Hiemstra, MD, PhD, FRCSC, Orthopaedic Surgeon, Banff Sport Medicine, Clinical Professor, Dept of Surgery, University of Calgary

Monique A.M. Gignac, PhD, Scientific Director & Senior Scientist, Institute for Work & Health. Professor, Dalla Lana School of Public Health, University of Toronto

Carolyn Goard, PhD, Director, Knowledge Translation and Exchange, Arthritis Society Canada

Osk Jenkins, OT Reg (Ont), ACPAC

Rhona McGlasson, PT, MBA

Anthony V Perruccio, Senior Scientist, Schroeder Arthritis Institute, Co-Director, ACREU

Elizabeth M Badley, Scientist Emeritus, Schroeder Arthritis Institute, Co-Director, ACREU

Ross Wallace, Principal, Santis Health

Linda Wilhelm, President, Canadian Arthritis Patient Alliance

Jessica Widdifield, PhD, Holland Chair in Musculoskeletal Clinical Research Senior Scientist | Sunnybrook Research Institute | ICES, Associate Professor, Institute of Health Policy, Management & Evaluation, University of Toronto

Jessica Wilfong, Research Associate, Schroeder Arthritis Institute, ACREU

