



# ANNUAL REPORT

## 2021/2022



# GLA:D™ Canada Project Team

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## Acknowledgements

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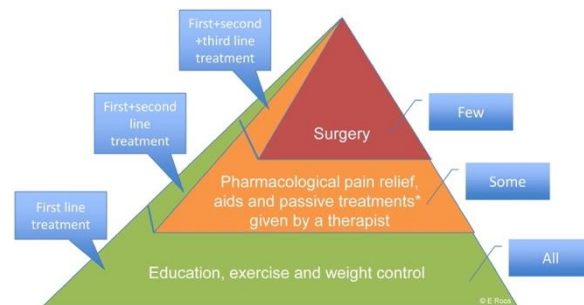
# Introduction

## In Review 2021 and 2022

Throughout 2021 and into 2022, governments across Canada were continuing to manage the COVID 19 pandemic. Each province and territory across the country set its own policies and restrictions that resulted in limitations to patient access to rehabilitation clinics and their ability to provide group-based sessions due to risk of exposure. Many clinics continued to provide the GLA:D program through virtual care including both the education and the exercise sessions with the patients participating in the safety of their own homes. As such, the patient volumes were low and the data for 2021 and 2022 has been amalgamated for presentation in this report.

## GoodLife with osteoArthritis in Denmark (GLA:D®)

- ✚ a supervised, evidence-based education and personalized, targeted exercise program for people with symptomatic hip and or knee osteoarthritis (OA).
- ✚ aligned with the international guidelines for the management of hip and knee osteoarthritis.
- ✚ branded as GLA:D™ Canada for sites to implement across Canada (referenced as GLA:D throughout this report).



## Three Elements of the GLA:D® Program

### One: Health Care Provider Certification

- ✚ Certification of Health Care Providers (HCPs) in a 1.5-day course.
- ✚ HCPs include physiotherapists, chiropractors, regulated kinesiologists, exercise physiologists.

### Two: Patient Education and Exercises

- ✚ 2 (or 3) education and 12 sessions exercise in a group session.
- ✚ Exercises are supervised and individualized using the NEuroMuscular EXercise program (NEMEX) to improve movement.
- ✚ Delivered over a 6-to-8 week period which is organized by each site to meet the needs of their patients.

### Three: Quality Monitoring

- ✚ Data from pre-program (baseline), 3- and 12-month follow-up are input into the national electronic GLA:D registry.
- ✚ Data includes patient-reported, validated outcome measures and functional tests.

## Accessing GLA:D

- Patients need a diagnosis of hip and/or knee osteoarthritis which can be provided by a physician, surgeon, physiotherapist or chiropractor.
- Referrals can be made by a physician or surgeon or therapists can refer their patients directly into the program.
- The programs are available through insurance and self-pay and in some regions are available through public funding.

## GLA:D Aims to:

- Implement evidence into clinical practice.
- Give individuals the information and skills to self-manage their condition.
- Ensure patients have access to conservative management prior to deciding on surgery.

## GLA:D Canada Overview

The GLA:D National team continued to coordinate the services that support the program across Canada including hosting the training for the health care providers through a 1.5-day virtual training session and helping the clinics to launch the program by answering clinical and operational questions related to both in-person and virtual care. The GLA:D registry team supported the clinicians and patients to input information into the registry to collect the outcome data. The results of this activity are presented in this report and allow the effectiveness of the program to be tracked across the country in providing care for people with hip and knee OA.

The GLA:D National team are also responsible for the updates to the GLA:D materials including patient and health care provider education. In 2021, an update was undertaken for all the educational materials to ensure it reflects the most recent evidence. A training course (Masters course) using online learning modules was also piloted in 2022 for health care providers who had received their training on or before 2019 to update them on the evidence.

### Training Courses

All training courses were hosted virtually in 2021 and in 2022.

Training Courses	2021	2022
Number of Courses	4	4
Number of Health professionals	220	203
Breakdown by Health professionals		
- Physiotherapists	67%	65%
- Chiropractors	16%	19%
- Kinesiologists	10%	10%
- Other (Exercise physiologists)	5%	6%



# Where is GLA:D available?

## Overview

The volume of clinics offering the program and the patients that attended the GLA:D programs in 2021 and 2022 continued to grow, however the growth was lower than would have been expected without the effects of the pandemic and outcome data was difficult to interpret as many patients attended the program (completely or partially) through virtual care. It was noted by clinicians that moving to virtual care reduced their ability to encourage patients to input their data into the registry which had resulted in lower response rates. In total 15,187 patients are registered in the program since its inception of which 10,316 have provided their outcome data. The attendance numbers were noted to increase towards the

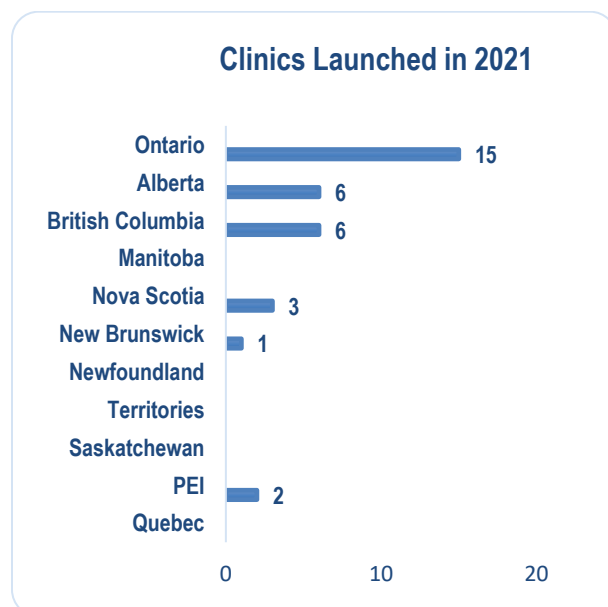
end of 2022 as sites returned to their usual programming including in-person sessions. To address the concerns about the lower rates of data input, the GLA:D National team worked with the clinics to provide re-education to staff on the use of the registry.

With the results on over 10,000 patients across the country, and the return to a more normal program delivery including in person sessions, discussions were resumed on the ability to use the data for analysis at a national and provincial/territorial level to guide care delivery to meet the needs of Canadians.

## Clinics

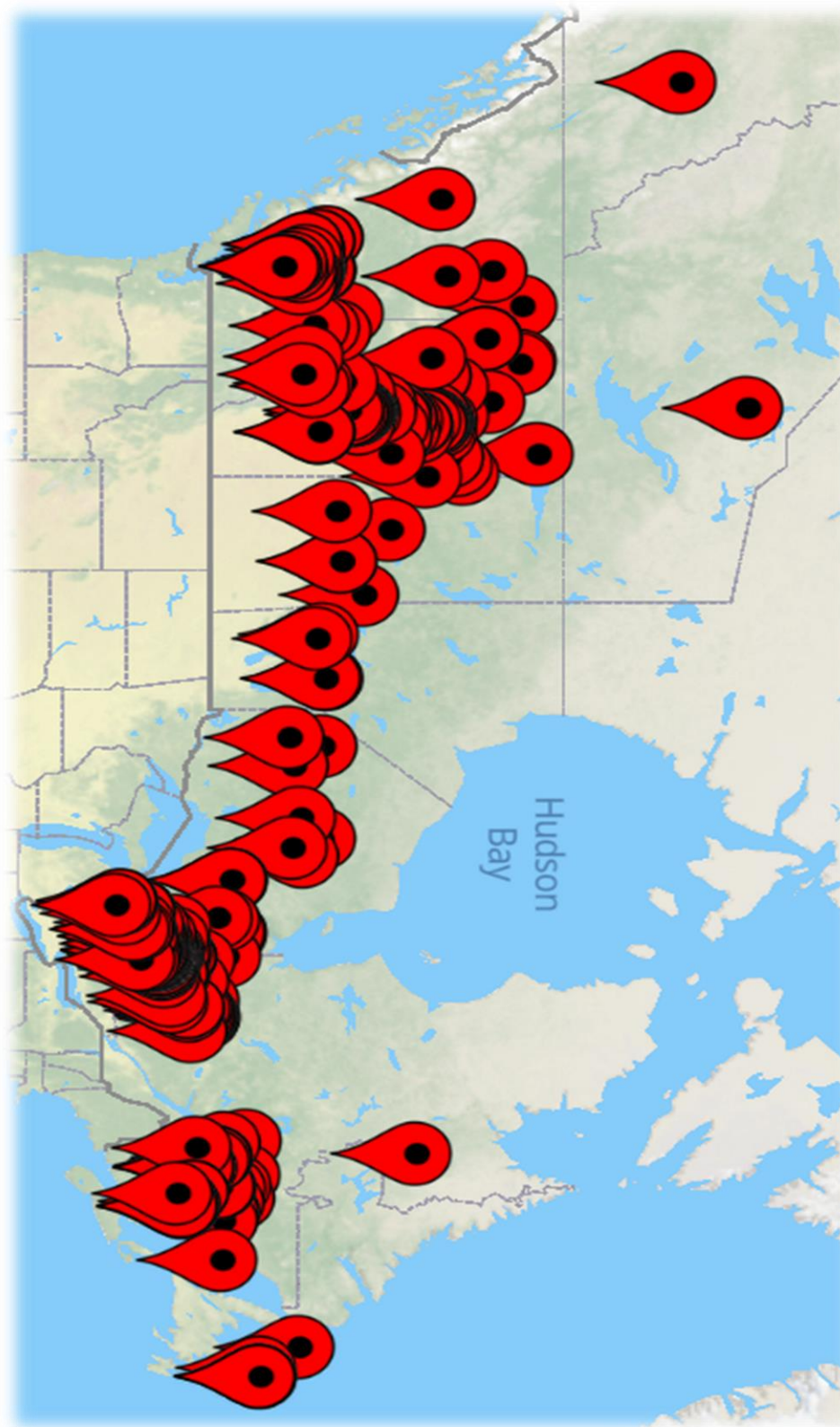
### GLA:D Sites Launched 2021/22

A total of 37 clinics launched the program across Canada in 2021 with an increase to 60 clinics in 2022 for a total of 97 clinics.



## Geographical Locations of GLA:D Sites Across Canada

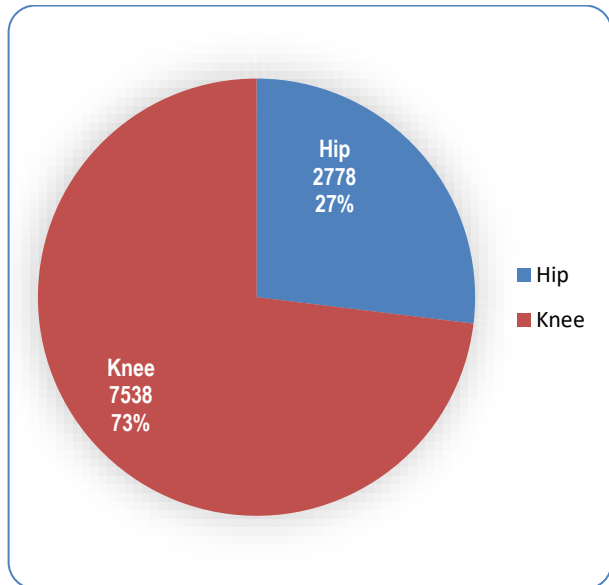
GLA:D is available in all provinces, except Quebec, and in 2 territories. There were 486 clinics registered as offering the program.



GLA:D locations in Canada

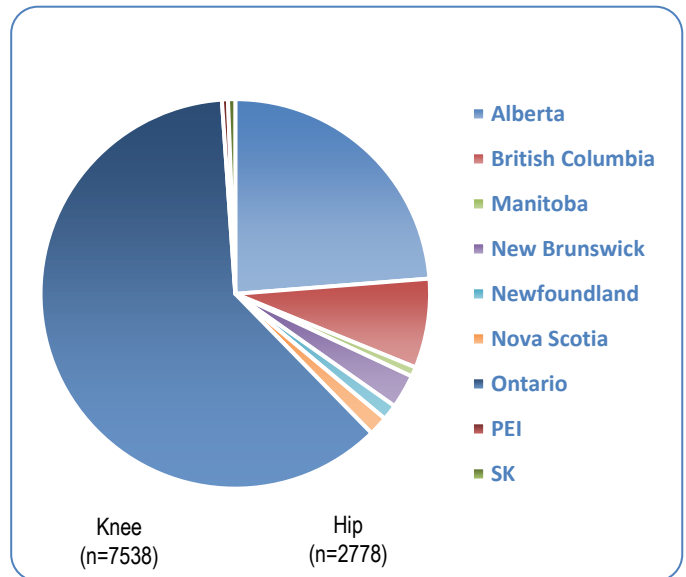
## Total Hip and Knee Patients 2016 - 2022

Since inception in 2016, 10,316 patients experiencing hip and knee osteoarthritis symptoms have provided their outcome data.



## National Distribution of GLA:D® Program Participants 2016-2022

All provinces except Quebec have provided the program.



## Public and Private Funding

Through 2021 and 2022 the GLA:D program was offered at some sites using public funding. In each case additional criteria for patient's access were developed, processes were set up to triage referrals and pathways were developed to promote equitable access and meet the needs of the local community.

Successful implementation in regions of varying geographic and socioeconomic status demonstrated the versatility of the program and the opportunity to contribute to improving health equity across the different populations.

In one Ontario program, pathways had been developed from hospital sites for patients being assessed for consideration of joint replacement surgery. However, COVID reduced patients access through the hospital system therefore the pathways were transitioned to accepting referrals directly from primary care using the

same referral criteria. The GLA:D sites were based in communities to increase patient access and were located in a hospital, primary care site (e.g., community health centres) or private clinics. Each was assigned a volume to meet the needs of their community which was confirmed through a signed agreement. The process was straightforward to implement through the hospital and primary care, however the primary care model, which included using private clinics, increased flexibility and improved efficiency as the sites were able to manage the fluctuating volumes and patients were not required to attend an unnecessary assessment at the hospital.

The GLA:D National team have supported activity within these projects including working with providers and project leads to identify areas of need, provide training for clinicians, and analyze data to confirm that sites are meeting the deliverables of the project.

## Baseline Characteristics

By the end of 2022 the baseline characteristics of the patients who have attended the GLA:D program were:

**Gender:** 76% female, 24% male

**Age:** >55 10%, 56-64 32%, 65-74 43%, <75 15%

**Work status:** 68% retired, 32% working

**Weight (overweight/obese):** 68% hips, 79% knees

**Symptom duration (years):** Hip: 4.4 Knee 6.7

**Medications:** 69% of patients have taken medications for their joint symptoms with the top medications being Acetaminophen, non-steroidal anti-inflammatory drugs (NSAIDs) in both oral and topical formats.

**Surgery:** 8.1% of hip patients and 21.5% of knee patients had undergone previous surgery

**Pain (Numeric Pain Rating Scale):** 5.2 (0 no pain – 10 worst pain)

### Summary

The individuals who are attending the GLA:D program are typically females. Most people are between 56 and 74 years of age and are retired. There are differences between hip and knee OA in weight where 10% more individuals with knee OA are overweight/obese. Symptom duration before diagnosis also differs with an additional 2 years of symptoms prior to diagnosis for knee OA. The individuals present with a pain score of 5.2 with 69% taking medication, which includes acetaminophen, and oral and topical NSAIDs.



## Participant Engagement and Impact

The rate of participation in the GLA:D program are high with patients attending the education and the exercise sessions:

- 77% of hip and 76% of knee participants attended all the education sessions.
- 77% of participants missed no more than one exercise session.
- Patients felt the program helped them manage their condition with 87% reporting that the program was beneficial or very beneficial.
- The program education, which is provided in structured sessions and is reinforced through the exercise sessions, resulted in 90% of patients reporting they use the education every week and 52% reporting using it at least once per day.

### Summary

The GLA:D program requires that patients receive both education and exercise with the goal of changing movement patterns and levels of physical activity. The high level of reported benefit (87%) and the continued use of the learnings from the program demonstrate that the program is meeting this goal.

## Participant Outcomes at 3-Month

### Pain

After GLA:D the pain improved by 36.5% for hip participants and 43.1% for knee participants. 55.3% of hip participants experienced a meaningful improvement in their symptoms and 57.1% of knee participants.

### Beliefs

Decreases were seen in the proportions of patients reporting that they were afraid of damaging their joint at the 3-month follow-up, with 37% and 47.4% reductions for hip and knee patients, respectively.

### Improved Quality of Life

The average improvement in quality of life for hip participants was 17.3% and knee participants 17.6% which is clinically significant. The percentage of participants that reported an improvement to their quality of life was 37.7% of hip and 43.9% of knee participants 3 months after starting the program.

## Participant Outcomes at 12-Month

### Pain

Pain improved for the majority of participants with 55.8% hip and 58.3% knee participants having a meaningful change in their pain. The pain level was improved by 40.7% for hip participants and 40.1% of knee participants.





### Beliefs

At 12 months there was a sustained decrease in the proportions of patients reporting that they were afraid of damaging their joint with 36.6% and 50.7% reductions for hip and knee patients, respectively.

## Improved Function

Both hip and knee participants reported an improvement in function (hips 52.7%, knees 57.3%). This was demonstrated in the functional tests where 71.5% of hips and 73.2% of knees participants had a meaningful improvement in their sit to stand function with an increase in 2 or more. Walking also improved with 38% of hips and 40% of knees participants having a meaningful improvement of over 0.2 metres per second.



### Proportion of participants that had an improvement from baseline to 3 months

		Hip	Knee
Function		52.7 %	57.3 %
30 sec chair to stand		71.5 %	73.2 %
40-meter walk test		38 %	40 %
Quality of life		37.7 %	43.9 %

## Improved Function and Quality of Life

At 12 months 51% of hip and 56.4% of knee participants reported an improvement in their function and 57.6% of hip and 64.4% knee participants reported an improvement in their quality of life.

### Proportion of participants that had an improvement

		Hip	Knee
Function		51 %	56.4 %
Quality of life		57.6 %	64.4 %

# Hip and knee OA treatment in Canada

## Hip and Knee OA Treatment in Canada

Through 2021 and 2022 the pandemic continued to limit access to health care for individuals with hip and knee OA across Canada. This included access to the first line treatments of education and exercise-therapy resulting in virtual care continuing to be used in many clinics and remaining a viable option post pandemic. However, a return to in person care was noted at the end of 2022 with many clinics offering a hybrid option to continue to provide the program to individuals who are restricted in their ability to access care. These ongoing changes have resulted in the need for the GLA:D National team to re-engage with clinics as they continued to redeveloped their operational processes.

The pandemic also led to reduced physical activity due to the lock downs, as well as reduced patient access to hospitals with respect to joint replacement surgery, including both consultation and surgery. This resulted in new pathways being developed that support patients access to public and private clinics directly from the hospitals as well as from their primary care providers. This system of multiple points of access has helped patients access care even when they are experiencing on long wait lists to see a surgeon and, for those who are deemed surgical cases, increased wait times for joint replacement surgery.

## Next Steps in 2023

The GLA:D program has been launched across the country in 2 territories and all provinces, except Quebec. With the significant pressures on the health care system, the GLA:D program is well positioned to reduce the burden by helping Canadians improve their OA symptoms and become more physically active. As such, over the next year GLA:D will:

- Continue to train clinicians and launch new program sites to meet the needs of patients in their local communities across Canada.
- Continue to re-engage with clinics who are re-starting their programs to facilitate a quick return to clinical and operational fidelity.
- Work with the GLA:D clinics to increase awareness of the benefits of the GLA:D program within their communities.
- Continue to educate specialists, primary care physicians, nurse practitioners and other health care professionals who can referral patient to the program for their patients with hip and knee OA.
- Host the Masters course to provide clinicians who underwent their training prior to 2020 access to the updated evidence.
- Work with the provincial governments to support program access through public funding where it is deemed appropriate, with a focus of offloading the healthcare system through reducing the wait lists for joint replacement surgery.
- Analyse the data through research funding to define the needs of the Canadian population and the opportunities to enhance clinical outcomes and reduce the burden of OA on the healthcare system, including reducing wait times for joint replacement surgery for those who need it.
- Continue to strive for equitable access to GLA:D for all Canadians, including supporting further research on the success of in person and virtual GLA:D programs.

# GLA:D Canada Leadership Team 2021-2022

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