

PROMs Collection for Hip and Knee Replacement Patients

OVERVIEW



**Ontario
Health**

Meeting Agenda





Part 1:

Introduction and Background

Introduction: Project Partners



Ministry of Health

- Oversees project

Ontario Health

- Supports sites with PROMs implementation and data collection

Canadian Institute for Health Information (CIHI)

- Analyses PROMs data and develops hospital-level summaries and progress reports.

Patient Reported Outcome Measures (PROMs)

- PROMs are measurement instruments (i.e., surveys) that patients complete to provide information on aspects of their health status and quality of life, including symptoms, function, pain and physical and mental health
- PROMs are essential to understanding whether health care services and procedures make a difference to health status and experiences
- By comparing answers before and after surgery, “health gain” is assessed

Other Countries with Joint Registries



United Kingdom



Sweden



New Zealand



United States

The Ministry's Strategy

- The Ministry of Health is expanding its musculoskeletal strategy by implementing systematic collection of patient-reported outcomes (PROMs) for patients having elective hip/knee replacement surgery at all 57 orthopedic clinics in Ontario.
- This initiative is part of the Quality Based Procedure (QBP) program
- PROMs collection is a requirement for sites participating in the hip and knee QBP (All orthopedic hospitals as of April 1, 2019)

Reasons that the Ministry is supporting Hip and Knee Replacement PROMs Collection:



Is patient-centred & evidence-based



Complement traditional patient data



Measure patient's view



Allow for comparative reporting and benchmarking

Ontario Health's Role



Ontario Health

Agency created by the Government of Ontario, connecting and coordinating healthcare system across the province, ensuring that Ontarians receive the best possible care.

One of the **largest cancer symptom management databases** in the world.

More than a decade of experience implementing and **overseeing electronic PROMs collection** at over 70 cancer sites in Ontario.

OH leverages its existing experiences, change management expertise, and technological infrastructure to **spread PROMs collection to hip and knee patients**.



Part 2: Implementation & ISAAC Demo

Phased Implementation

11 SITES ENGAGED RECENTLY;
INITIAL OUTREACH (19%)

0 SITES PENDING
ENGAGEMENT (0%)

42 SITES LIVE (74%)

4 SITES ENGAGED AND PENDING
GO-LIVE (7%)

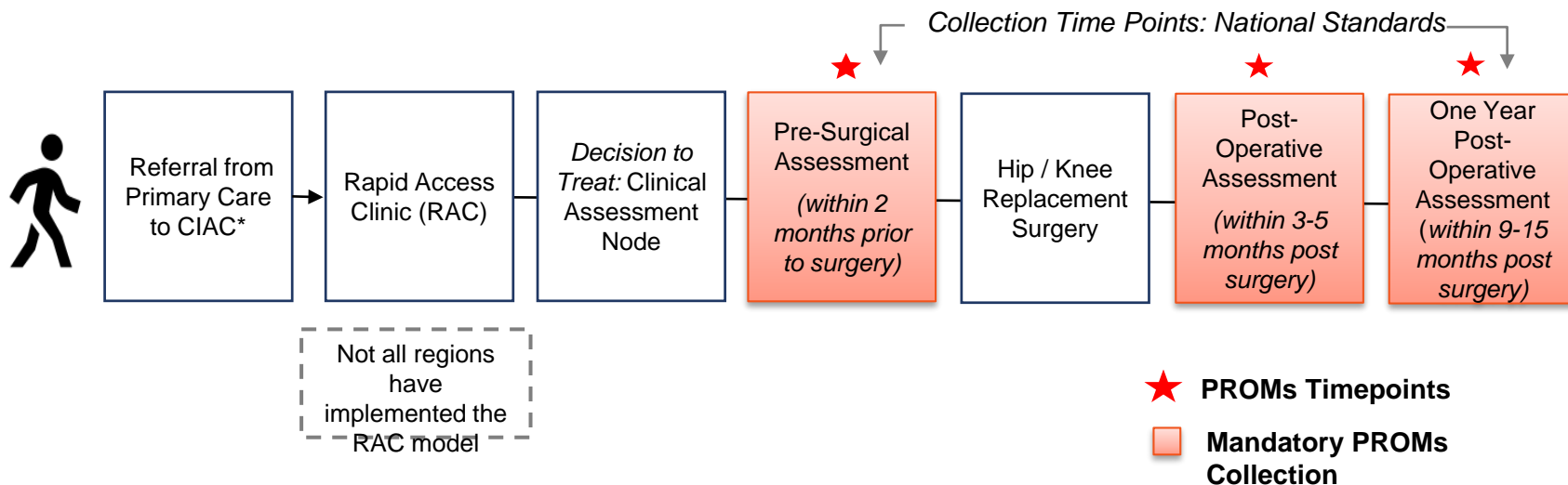
57

Total Number of Orthopedic
Hospitals across Ontario

PROMs Patient Pathway

When and where data will be collected

Participating hospitals will collect PROMs at **3 MANDATORY TIMEPOINTS** along the patient journey:



*CIAC = Central Intake and Assessment Centre

PROMs for Hip and Knee Replacement Patients



Oxford Hip Scale



Oxford Knee Scale



Patient Post-Surgery Satisfaction



EQ-5D-5L



Patient General Health

12 items	12 items	1 item	6 items (including 1 visual analog scale)	1 item
Used to assess function and pain in the hip	Used to assess function and pain in the knee	Used to assess patient satisfaction with each joint/laterality being treated after surgery	Used to assess quality of life	Used to assess patient general health

- All PROMs will be available electronically (on ISAAC) in English and French.
- Certain language translations are also available via the licensor (managed by CIHI).

ISAAC Functionality

ISAAC (Interactive Symptom Assessment and Collection) platform is a standardized and secure web-based tool accessible to patients and clinicians

- Adapted to accommodate PROMs collection for hip and knee replacement patients
- **Patient Portal:** Platform for patients to complete PROMs at different timepoints.
- **Administrative Portal:** Platform for clinic staff to enroll patients, upload survey data, access reports, configure devices.

Primary access points include:

- Kiosks (Desktop/laptop computers), Tablets, Paper
- Home/remote completion:

<https://promsortho.ontariohealth.ca>



ISAAC Patient Portal Demo



Brief walk-through of patient-facing ISAAC portal via our **test environment**.

<https://promsortho.pst.ontariohealth.ca>

A screenshot of the Ontario Health ISAAC Patient Portal login page. The header features the Ontario Health logo on the left and a 'Français' button on the right. The main content area is divided into two sections by a vertical line. The left section contains the text 'Enter the 10 numbers of your Ontario Health Card (no letters, no spaces):' followed by a text input field labeled 'Health Card Number'. Below this field are two buttons: 'Clear x' and 'Start →'. The right section contains a checkbox with the text 'If you don't have an Ontario Health Card, select this box then enter your Medical Record Number'. The word 'OR' is centered between the two sections.

ISAAC Patient Registration

Role of Clinic Staff

- Complete **One-time patient registration** in the ISAAC Administrative portal prior to the patient's visit at the clinic
 - Patients can be registered in 3 ways:
 - Individually (as shown in picture)
 - CSV batch upload
 - ADT Build (Admit Discharge Transfer)
 - **There are 5 mandatory fields:**
 - First name** **Last name**
 - HCN** **MRN (optional if N/A)**
 - Gender** **Birth date**
- Communicate/usher patients to kiosks/tablets
- Manage hardware

The screenshot displays the 'Enroll Patient' form within the ISAAC Administrative portal. The top navigation bar includes tabs for Patient, Reports, Configuration, Surveys, and File Upload. The form is divided into two main sections: 'Search for Existing Patient' and 'Enroll New Patient'.

Search for Existing Patient

Health Card Number:

Medical Record Number:

Enroll New Patient

Patient does not exist. Complete the form below and click the "Enroll" button.

* Health Card Number: ☐ 0 = Insured resident of province, but HCN not available at time of registration
☐ 1 = Not Applicable

Medical Record Number:

* Surname:

* First Name:

* Gender:

* Birth Date:

Demo: ☐

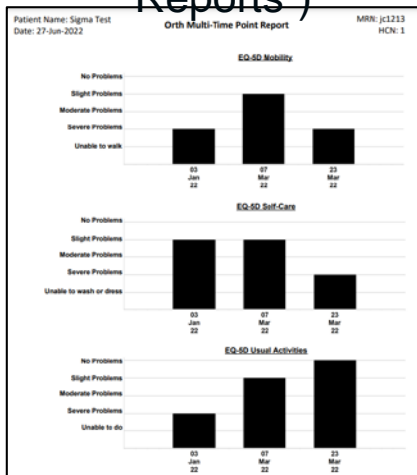
PROMs Reports

Some examples of reports available for sites:

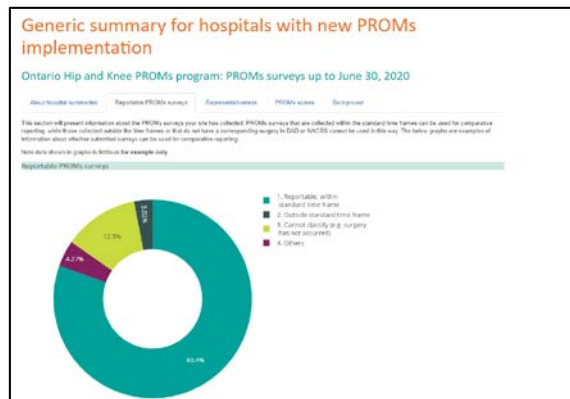
Single Time-Point Patient-level Reports (ISAAC Admin Portal: “Patient”)

Survey Question	Survey Answer
MOBILITY	2
SELF-CARE	2
USUAL ACTIVITIES	1
PAIN / DISCOMFORT	2
ANXIETY / DEPRESSION	1
YOUR HEALTH TODAY	80

Multi Time-Point Patient-level Reports (ISAAC Admin Portal: “Reports”)

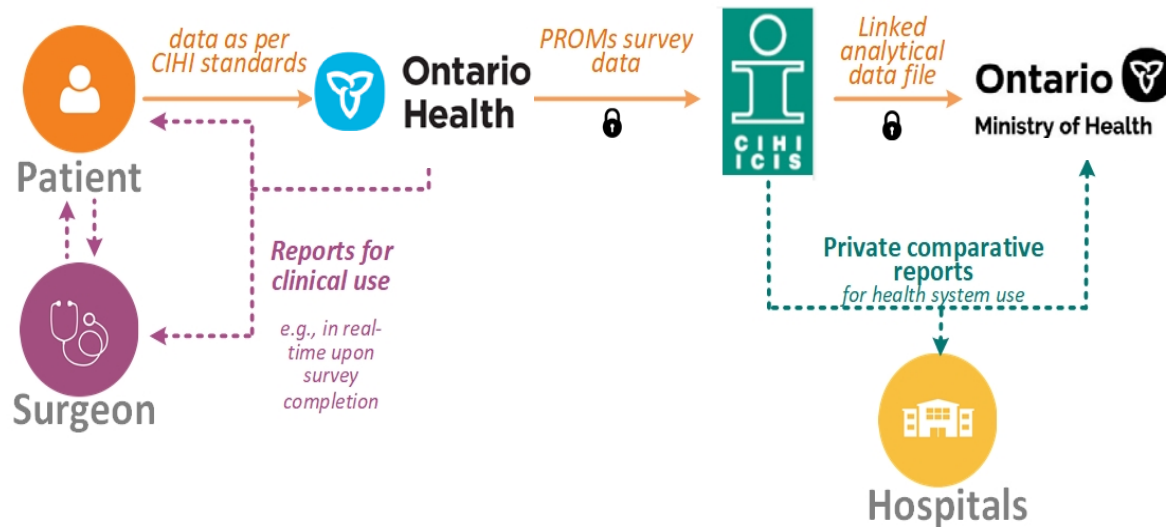


Hospital-Specific Comparative Reports (Facilitated by CIHI)



PROMs Data Storage and Linkages

- PROMs data will be sent from the ISAAC platform to the ISAAC database in real-time
- Clinical care team has immediate access to **individual patient responses** via the ISAAC Administrator portal
- Ontario Health will use the data from ISAAC to **link to Wait Times database** for additional information
- Ontario Health will provide monthly data cuts to CIHI for **provincial and national standardized reporting**

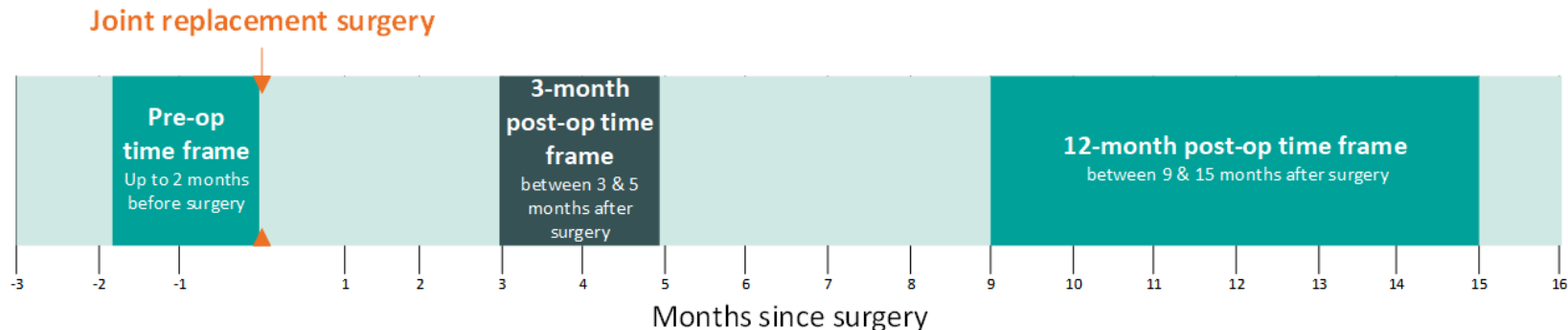


Report Methodology

CIHI links PROMs surveys to inpatient and day surgery databases to categorize them in relation to the timing of the surgery

Patient's PROMs and surgery data are included if they meet the following criteria:

- The surgery has been completed and reported in inpatient and day surgery databases.
- The surgery meets eligibility criteria for the QBP Program.
- The survey falls within the standard collection time frames for CIHI's health system reporting.



**Optional time point:
Rapid Access Clinic (RAC)*



National PROMs
standard time frame



Additional time frame
specific to ON PROMs

Lessons Learned Thus Far



PEOPLE



Identify operational champion (Act as super user and train other staff)

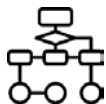


Obtain buy-in from administrators, clinicians and clinic staff



Provide support for patients when completing PROMs (Help from volunteers/students)

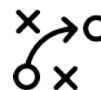
PROCESS



Understand clinic flow

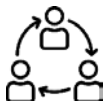


Upload patient registration in bulk before patient's first visit, during clinic off hours; or set up automatic patient registration



Plan to use multiple strategies to remind patients for PROMs completion

TECHNOLOGY



Engage IT leadership and local registration authority (LRA) early on



Ensure hardware requirements are addressed (ISAAC compatibility & hospital security)



Consider the type of hardware that is most appropriate for the setting where PROMs are collected



Part 3: Next Steps

Next Steps for Your Site

01 Participation Agreement

This **agreement will cover data sharing** by providing Ontario Health with permission to access, use and disclose hospital level data through the ISAAC database. **Schedule C is optional** to sites requiring funding for hardware (tablets, computers, etc.).

02 Funding Agreement (Optional)

To be circulated to hospitals desiring hardware funding as per Schedule C of Participation Agreement. Ontario Health will send a list of compatible ISAAC hardware devices to help facilitate hardware selection. **All funds must be spent by March 31, 2022, and written confirmation (via email) of related activities is due by May 2, 2022.**

03 CIHI PROMs License Registration

This registration will provide your site with **permission to use paper copies of the PROMs** (i.e., patient preference for paper, ISAAC downtime). Ontario Health to facilitate the introduction, CIHI manages this process.

04 Readiness Checklist

This **checklist** is to be completed by site level staff prior to go-live. It is meant to provide a snapshot of current practice within clinics to inform change process prior to launching ISAAC.

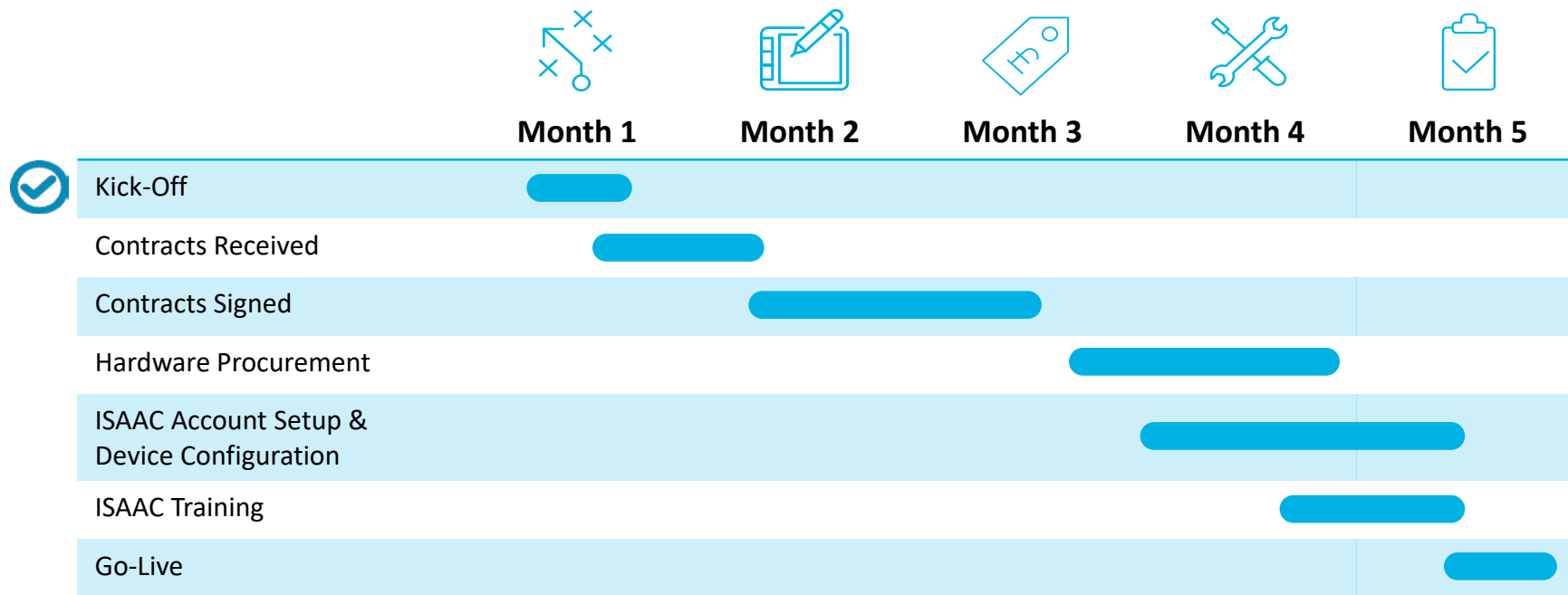
05 Setup Access to ISAAC

All clinic and IT staff who will be involved in orthopedic PROMs collection should have access to ISAAC. Complete the bulk user registration form and ask your site's **Local Registration Authority (LRA)** to email it to the ISAAC inbox for processing (8-10 business days). One mandatory **60-minute ISAAC user training** will be provided by Ontario Health to demo and teach required ISAAC functionalities.



Site Specific Timeline

This is a high-level approximation of project timeline:





Part 4: Discussion & Questions



Appendix

Oxford Hip Scale (OHS)

PROBLEMS WITH YOUR HIP

Check (✓) one box for every question.

1. During the past 4 weeks...

How would you describe the pain you usually have from your hip?

None Very mild Mild Moderate Severe
☐ ☐ ☐ ☐ ☐

2. During the past 4 weeks...

Have you had any trouble with washing and drying yourself (all over) because of your hip?

No trouble at all Very little trouble Moderate trouble Extreme difficulty Impossible to do
☐ ☐ ☐ ☐ ☐

3. During the past 4 weeks...

Have you had any trouble getting in and out of a car or using public transportation because of your hip? (whichever you tend to use)

No trouble at all Very little trouble Moderate trouble Extreme difficulty Impossible to do
☐ ☐ ☐ ☐ ☐

4. During the past 4 weeks...

Have you been able to put on a pair of socks, stockings/nylons or tights/leggings?

Yes, easily With little difficulty With moderate difficulty With extreme difficulty No, impossible
☐ ☐ ☐ ☐ ☐

5. During the past 4 weeks...

Could you do the household/grocery shopping on your own?

Yes, easily With little difficulty With moderate difficulty With extreme difficulty No, impossible
☐ ☐ ☐ ☐ ☐

6. During the past 4 weeks...

How long have you been able to walk before pain from your hip becomes severe? (with or without a stick/cane)

No pain/More than 30 minutes 16 to 30 minutes 5 to 15 minutes Around the house only Not at all/pain severe when walking
☐ ☐ ☐ ☐ ☐

7. During the past 4 weeks...

Have you been able to climb a flight of stairs?

Yes, easily With little difficulty With moderate difficulty With extreme difficulty No, impossible
☐ ☐ ☐ ☐ ☐

8. During the past 4 weeks...

After a meal (sitting at a table), how painful has it been for you to stand up from a chair because of your hip?

Not at all painful Slightly painful Moderately painful Very painful Unbearable
☐ ☐ ☐ ☐ ☐

9. During the past 4 weeks...

Have you been limping when walking because of your hip?

Rarely/never Sometimes, or just at first Often, not just at first Most of the time All of the time
☐ ☐ ☐ ☐ ☐

10. During the past 4 weeks...

Have you had any sudden, severe pain - "shooting", "stabbing" or "spasms" - from the affected hip?

No days Only 1 or 2 days Some days Most days Every day
☐ ☐ ☐ ☐ ☐

11. During the past 4 weeks...

How much has pain from your hip interfered with your usual work (including housework)?

Not at all A little bit Moderately Greatly Totally
☐ ☐ ☐ ☐ ☐

12. During the past 4 weeks...

Have you been troubled by pain from your hip in bed at night?

No nights Only 1 or 2 nights Some nights Most nights Every night
☐ ☐ ☐ ☐ ☐



Oxford Knee Scale (OKS)

PROBLEMS WITH YOUR KNEE

Check (✓) one box for every question.

1. During the past 4 weeks...

How would you describe the pain you usually have from your knee?

None ☐ Very mild ☐ Mild ☐ Moderate ☐ Severe ☐

2. During the past 4 weeks...

Have you had any trouble with washing and drying yourself (all over) because of your knee?

No trouble at all ☐ Very little trouble ☐ Moderate trouble ☐ Extreme difficulty ☐ Impossible to do ☐

3. During the past 4 weeks...

Have you had any trouble getting in and out of a car or using public transportation because of your knee? (whichever you tend to use)

No trouble at all ☐ Very little trouble ☐ Moderate trouble ☐ Extreme difficulty ☐ Impossible to do ☐

4. During the past 4 weeks...

How long have you been able to walk before pain from your knee becomes severe? (with or without a stick/cane)

No pain/More than 30 minutes ☐ 16 to 30 minutes ☐ 5 to 15 minutes ☐ Around the house only ☐ Not at all/pain severe when walking ☐

5. During the past 4 weeks...

After a meal (sitting at a table), how painful has it been for you to stand up from a chair because of your knee?

Not at all painful ☐ Slightly painful ☐ Moderately painful ☐ Very painful ☐ Unbearable ☐

6. During the past 4 weeks...

Have you been limping when walking because of your knee?

Rarely/never ☐ Sometimes, or just at first ☐ Often, not just at first ☐ Most of the time ☐ All of the time ☐

7. During the past 4 weeks...

Could you kneel down and get up again afterwards?

Yes, easily ☐ With little difficulty ☐ With moderate difficulty ☐ With extreme difficulty ☐ No, impossible ☐

8. During the past 4 weeks...

Have you been troubled by pain from your knee in bed at night?

No nights ☐ Only 1 or 2 nights ☐ Some nights ☐ Most nights ☐ Every night ☐

9. During the past 4 weeks...

How much has pain from your knee interfered with your usual work (including housework)?

Not at all ☐ A little bit ☐ Moderately ☐ Greatly ☐ Totally ☐

10. During the past 4 weeks...

Have you felt that your knee might suddenly 'give out' or let you down?

Rarely/never ☐ Sometimes, or just at first ☐ Often, not just at first ☐ Most of the time ☐ All of the time ☐

11. During the past 4 weeks...

Could you do the household/grocery shopping on your own?

Yes, easily ☐ With little difficulty ☐ With moderate difficulty ☐ With extreme difficulty ☐ No, impossible ☐

12. During the past 4 weeks...

Could you walk down one flight of stairs?

Yes, easily ☐ With little difficulty ☐ With moderate difficulty ☐ With extreme difficulty ☐ No, impossible ☐



EQ-5D-5L (Quality of Life)

Under each heading, please tick the ONE box that best describes your health TODAY.

MOBILITY

- I have no problems in walking about ☐
- I have slight problems in walking about ☐
- I have moderate problems in walking about ☐
- I have severe problems in walking about ☐
- I am unable to walk about ☐

SELF-CARE

- I have no problems washing or dressing myself ☐
- I have slight problems washing or dressing myself ☐
- I have moderate problems washing or dressing myself ☐
- I have severe problems washing or dressing myself ☐
- I am unable to wash or dress myself ☐

USUAL ACTIVITIES (e.g. work, study, housework, family or leisure activities)

- I have no problems doing my usual activities ☐
- I have slight problems doing my usual activities ☐
- I have moderate problems doing my usual activities ☐
- I have severe problems doing my usual activities ☐
- I am unable to do my usual activities ☐

PAIN / DISCOMFORT

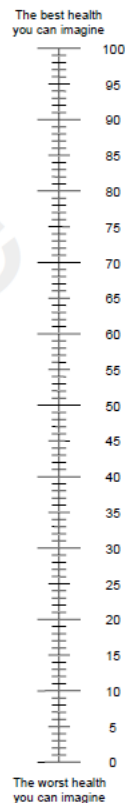
- I have no pain or discomfort ☐
- I have slight pain or discomfort ☐
- I have moderate pain or discomfort ☐
- I have severe pain or discomfort ☐
- I have extreme pain or discomfort ☐

ANXIETY / DEPRESSION

- I am not anxious or depressed ☐
- I am slightly anxious or depressed ☐
- I am moderately anxious or depressed ☐
- I am severely anxious or depressed ☐
- I am extremely anxious or depressed ☐

- We would like to know how good or bad your health is TODAY.
- This scale is numbered from 0 to 100.
- 100 means the best health you can imagine.
0 means the worst health you can imagine.
- Mark an X on the scale to indicate how your health is TODAY.
- Now, please write the number you marked on the scale in the box below.

YOUR HEALTH TODAY =



Dimensions used to assess

PROMs

1 Psychometric Properties	2 Clinical Acceptance and Health System Applicability	3 Patient Relevance and Considerations	4 Length of Survey and Time to Complete
Only existing validated PROMs instruments meeting psychometric standards (e.g., reliability, validity responsiveness) were considered	Results from the instruments should be able to inform clinical decision-making and evaluation of services. Instruments which are accepted by the clinical community and can be used to support routine care were preferred	Questions from the instruments should be relevant to patients and easy to understand	The length of the instrument has an impact on perceived burden of data collection by patients and potential resources required by health systems to collect surveys. Shorter instruments were preferred
5 Existing recommendations and guidelines	6 Licensing and Costs	7 Canadian Use	8 International Use
PROMs guidelines and recommendations from the International Society of Arthroplasty Registries (ISAR) and International Consortium for Health Outcome Measurements (ICHOM) were reviewed	Use of the instrument should not be cost-prohibitive. Instruments that do not require licensing fees (i.e., available at no cost) were preferred	Instruments already used in existing programs in Canada were preferred to support national comparative reporting and feasibility of implementing standardized PROMs collection across jurisdictions	Instruments already used in other countries are preferred to allow for comparisons with other countries and arthroplasty registries