Report 1 / Rapport 1
Due Date / Date Limite: July 22, 2005

Request for Applications (RFA): Toward Canadian Benchmarks for Health Services Wait Times – Evidence, Application and Research Priorities

FRN # / N° NRF: ___76440_____

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TITLE OF YOUR RESEARCH GRANT / TITRE DE VOTRE SUBVENTION DE RECHERCHE:
Towards Establishing Evidence-Based Benchmarks for Acceptable Waiting Times for Joint Replacement Surgery

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1.0 Executive Summary

Our research team’s goal is to offer critical input to informing the work of federal/ provincial/ territorial Deputy Ministers of Health on benchmark waiting times for joint replacement surgery. To do this, we have begun and herein report on a comprehensive and global systematic review:

Towards establishing evidence-based benchmarks for acceptable waiting times for joint replacement surgery.

This first report informs CIHR Objective # 3, calling for investigators to identify areas/ procedures where there is sufficient evidence, and general consensus exists regarding waiting time benchmarks; and to indicate the benchmarks being used, and the range of settings where such benchmarks are currently applied.

The inputs to this review and the Report are three-fold: published literature, grey literature, (including web-based references) and key informant interviews. This work continues, in-progress, as we turn our attention to the impact of waiting times on outcomes. What may be synthesized from the work thus far is:

- There is some consistency across benchmarks developed specifically for hip and knee arthroplasty of not greater than 6 months from specialist assessment to surgery.
- The majority of waiting time benchmarks developed internationally apply to all surgical procedures, including joint replacement surgery; these benchmarks range from 3-12 months.
- Benchmarks that have been implemented are generally formulated using a consensus method, with surgeon input.
- More recently, proposed benchmarks have paid more attention to literature reviews and international experiences, though are still based on clinical consensus methods.
- Although clinical evidence on the impact and effects of waiting times on health status and outcomes is not sufficiently conclusive to permit the formulation of specific benchmarks, recent studies have provided some insight towards this possibility.
- Performance indicators are most commonly used to monitor benchmarks.
- To ensure patient access to scheduled surgical services, most countries have implemented a variety of management strategies in addition to benchmarks.

The extent to which this interim analysis may be used to develop national benchmarks, by Dec 2005, remains to be determined. However, the development of measurable, acceptable benchmarks is an integral part of any waiting time reduction strategy. While these issues are not unique to Canada, they remain in the forefront.

A) PRELIMINARY FINDINGS:
Describe the extent to which the third objective of the RFA has been achieved (additional pages may be used if required). Specifically, the following points must be addressed:

1. Identification of areas / procedures where there is currently sufficient evidence, and general consensus exists, regarding wait time
2. Description of the benchmarks being used, for what purposes and by whom
3. Description of the range of settings where such benchmarks are currently applied

2.0 Waiting Times in Perspective for Arthroplasty

2.1 Extent of Problem
Canadians wait too long for many scheduled health care services, with none being more notable than long waiting times for joint replacement. Shoulder and elbow replacements are uncommon
but hip and knee arthroplasties are two of the most common procedures for elective surgery. Median waiting times from assessment by a specialist to surgery, range from 11-37 weeks across Canada and frequently cited outliers wait much longer (1-4). Arthroplasty works and the effectiveness of hip and knee replacement is well documented (5-7). There is considerably less information about the impact of waiting times for arthroplasty on health-related quality of life, perioperative complications and longer-term health outcomes.

2.2 Causes of Problem
For arthroplasty, the causes underlying long waiting times are many, varied and changeable, as are the solutions. Resource limitations and bottlenecks in care are apparent, yet they vary in place, time and intensity. Early use of priority-setting tools is becoming apparent (8). Nonetheless, the order of patients on waiting lists by-and-large continues to demand attention and better management, and is based on a variety of clinical and nonclinical factors, which themselves vary across institutions and health care providers.

While priority-setting tools may help to direct limited resources to those patients most in need, they will not correct the mismatch between the demand for and supply of joint replacement surgery.

2.3 Why Important
Why this is important is because, at best, it is unfair to patients. Worse still, it may be bad for their health (9). It is bad for the economy in terms of lost productivity while patients wait. Furthermore, it is burdensome for providers and sufficiently visible to the public that they are genuinely losing confidence in the health care system’s timeliness and capacity, and their ability to access it. Canadians have identified long waits as the primary barrier to specialized services (10). All of this is brought into even sharper focus with the recent Supreme Court of Canada’s decision associated with long waiting times for hip replacement (Chaoulli v Quebec : SCC35, 2005).

2.4 Potential for Benchmarks
It is for these compelling reasons that more can and must be done. Priority-setting has to broaden across Canada, such that order in the queue is based on degree of urgency. Yet, there is little point in being in the correct order, if the line moves too slowly. Hence, for levels of urgency, there should be acceptable levels of waiting. All of this was recognized clearly with the meeting of Canada’s First Ministers on September 16, 2004, from which concrete steps were announced to address long waiting times. National priority areas were designated with joint replacement being named as one of five targets to be addressed. The Waiting Time Reduction Fund was announced to assist jurisdictions in their diverse intentions to reduce waiting times. As one component of this important undertaking, it was agreed to formulate evidence-based benchmarks for medically acceptable waiting times for joint replacement (as well as cancer, heart, diagnostic imaging, and sight) by December 31, 2005, following which multi-year targets would be established to achieve priority benchmarks in each jurisdiction by December 31, 2007. This is critical, as it is only through targets or benchmarks that the delivery of arthroplasty surgery can be measured and the necessary system changes made to shorten waiting times.

This first report to the Canadian Institute of Health Research of a comprehensive and systematic review of existing information is offered by the investigators of the Western Canada Waiting List Project. The report is submitted pursuant to consideration of Objective #3 and instructions around the July 22 report.

3.0 Methods

Goal: To offer critical input to informing the work of federal/provincial/territorial Deputy Ministers of Health on benchmark waiting times for joint replacement surgery.
3.1 General Concepts and approach to Objectives
The six objectives as laid out by the Canadian Institutes of Health Research (CIHR) are inter-related and portend the need for a broad and comprehensive strategy for systematic review and better understanding of existing information. The inputs to this review are three-fold: published literature, grey literature (including web-based references and sites), and key informant interviews in provinces and countries of relevance.

3.2 Special Considerations for Objective #3
The instructions for this report and Objective #3 are: Identify areas/procedures where there is currently sufficient evidence, and general consensus exists, regarding waiting time benchmarks; indicate the benchmarks being used, the range of settings where such benchmarks are currently applied.

The following definitions or interpretations are offered as a means of clarifying our understanding and, accordingly, shaping our response to this objective:

- **Currently**: Presently operational, or if not presently, has been operational for at least 2-3 years of the past 5 years.
- **Sufficient evidence**: All evidence is considered, in order to be comprehensive, with no intent to determine or quantify ‘sufficient’.
- **General consensus exists**: Beyond one practice or local service to broader acceptance, with attention to manifest opposition and disagreement.
- **Waiting time benchmark**: A timeframe or designation meant to represent a goal, target or standard for the length of waiting time for a specified service.

Benchmarks being used, for what (purpose), and by whom and the range of settings where benchmarks are currently applied (country, level, service) and monitoring, may be found in Table 1. Definition of headings and clarification of terms are found in the notes to Table 1.

3.3 Literature Selection and Review
A broad search for peer-reviewed and grey literature was conducted, using search terms established in consultation with the research team.

3.4 Published Literature
A variety of multidisciplinary bibliographic databases including MEDLINE, EMBASE, Cochrane Library, EconLit and Social Sciences Abstracts were searched. Literature retrieved was limited to adult studies published after 1984. Thus far, a total of 1819 abstracts have been retrieved and reviewed.

Applying inclusion/exclusion criteria developed by the research team, two independent reviewers screened abstracts for inclusion of content relevant to this report. The degree of agreement with a focus on benchmark waiting times was strong (Kappa = 0.76).

3.5 Grey Literature
An exhaustive search of the grey literature was conducted, which included six grey-literature-specific databases and 106 Canadian and international government and organization web sites. Web sites targeted for review were identified by the research team, and supplemented by information gathered through key informant interviews.

3.6 Key Informant Interviews
Information from key informants was added to the strategy to supplement sources from grey literature and web-based content. This had the added advantage of offering new leads and content. Key informants were purposively selected from among national and international collaborators known to the Western Canada Waiting List Project; representatives of the Organization for Economic Co-operation and Development (OECD), and selected others. A
A semi-structured interview guide was used (Table 3), attempting to determine if regional, provincial, or national legislation, regulation or policy exists on benchmarks, standards or targeted waiting times for joint replacement. Key informant contact is continuing and will deepen over the course of this work, yielding further potential input to Objective #3.

An aggregate list of both electronic database and grey literature sources can be found in Table 2. A detailed list is available upon request.

4.0 Preliminary Findings

Results of this review and a description of columnar headings are summarized in Table 1. The first two columns of Table 1 describe the country or province(s) to which the benchmark applies and the level of government or specific organization responsible for setting the benchmark. The third column describes the range of scheduled surgical services that are covered by the benchmark and indicates whether generic benchmarks for surgical services or total joint replacement (TJR) - specific benchmarks are provided. Column 4 describes the purpose of the benchmark. Columns 5 to 8 describe the benchmark term, the time frame of the benchmark, and the basis for choosing that benchmark. In addition to providing benchmarks that are currently operational, benchmarks that are proposed or planned are also included. The last column describes the steps taken to monitor performance.

The key inclusion criterion for the published literature to be used in this report was that it pertains directly to Objective #3 of the RFA, as outlined in Section 3.2 of this report. Our key source of information was the grey literature as well as international key informant interviews. A small number of peer-reviewed articles that relate to benchmarks, or provide background information to supplement the grey literature, are also included. The literature used for this report did not include peer-reviewed studies that dealt with patient or physician perceptions of how long patients should wait or studies that examined the effects of waiting on health or outcomes. Selected articles from these sources, which will be synthesized and included in the next reports, were used as evidence to support consensus decisions on benchmark waiting times. However, they are not the focus of this report.

Results showed that benchmarks for all elective surgery are either currently implemented or planned by national governments in the United Kingdom (11-14), New Zealand (15-18), Australia (19-22), Spain (23), Sweden (23-26), the Netherlands (27,28), and Finland (23,29,30), and provincial governments in Saskatchewan (31,32) and Alberta (33). In Ireland, the government has produced a strategy document that provides recommended waiting times (23,34) and in Italy, the government has recommended maximum waiting times for outpatient and inpatient care (27,28). Although the overall goal of benchmarks is to reduce waiting times, the purpose reflects the intent of the benchmark. For example, in the United Kingdom, the goal is to provide a minimum standard (level of service), with continuous improvement. Therefore, the National Health Service (NHS) has developed moving wait time targets as standards are met (14).

Waiting time benchmarks for joint replacement most frequently relate to the time between specialist assessment and inpatient treatment/intervention. There is some consistency for a benchmark of 3 to 6 months, though there is variability and selected examples of up to 12 months. Recognizing that efforts to meet these benchmarks may lengthen the wait to see a specialist, some countries have also proposed benchmarks for the waiting time from GP referral to specialist assessment (28). These range from 3 weeks to 6 months. The United Kingdom has set a target of 4.5 months (18 weeks) by 2008, from GP referral to inpatient treatment/intervention. The explicit basis for the choice of this 18-wk target is, as yet, unclear.

What do we know about the basis behind these benchmarks? Firstly, more work is required to understand how particular numbers were chosen for waiting time targets in places such as the United Kingdom. Secondly, there appears to be little documented information on the processes
used or the inputs considered to derive waiting time benchmarks. Thirdly, benchmarks appear to be based mostly on consensus, with input from clinicians/surgeons. Finally and generally, they are not based on high-level evidence pertaining specifically to the effects of waiting on patient health status. Arguably, this is because there is not enough of it.

Within Canada, a number of organizations have proposed benchmarks, with a maximum time frame of 5 – 6 months from assessment by a specialist to treatment (8;35-38). These benchmarks are consensus-derived with surgeon input, a review of other jurisdictions, and a review of the literature on the effects of waiting on health. Although evidence on the effects of waiting time on health outcomes from arthroplasty is inconclusive (39-42), one recent study showed that outpatient waits (GP referral to specialist assessment) of more than 6 months and inpatient waits (specialist assessment to surgery) of more than 12 months had a significant effect on 12-month outcomes after hip replacement (9). Other studies have also shown that patients with worse preoperative functional status may have comparatively worse pain and function up to 2 years after arthroplasty (43;44). Continuing analysis and synthesis will shed more light on the impact of waiting times on outcomes. In addition to clinical evidence, patient and public input have been considered by the Western Canada Waiting List Project as inputs to decisions on benchmarks, resulting in the formation of maximum acceptable waiting times for surgery, based on levels of urgency (high 4 weeks; mid 16 weeks; and low 20 weeks), which is assessed by a reliable and valid priority-setting tool known as the WCWL Hip and Knee Priority Criteria Score (45).

Where benchmarks are currently in use, they are most commonly monitored by using performance indicators. For example, in the UK, performance is rated against national standards (12). Most reports have also documented a variety of associated strategies to deal with waiting time management that are both necessary and important to successfully meeting benchmarks. These include financial incentives based on performance (19); increasing the capacity of hospitals, equipment and staff (19); booking systems (11); nationally consistent prioritization of patients (11); improving communication between GPs, specialists, and hospitals (16); and, giving patients certainty of treatment (16) and choices if the benchmark is not met (24).

5.0 Conclusions and Discussion

Notwithstanding these are preliminary findings and more information may come as continued work ensues, the early conclusions are, in summary:

- There is some consistency across benchmarks developed specifically for hip and knee arthroplasty of not greater than 6 months from specialist assessment to surgery.
- The majority of waiting time benchmarks developed internationally apply to all surgical procedures, including joint replacement surgery; these benchmarks range from 3-12 months.
- Benchmarks that have been implemented are generally formulated using a consensus method, with surgeon input.
- More recently, proposed benchmarks have paid more attention to literature reviews and international experiences, though are still based on clinical consensus methods..
- Although clinical evidence on the impact and effects of waiting times on health status and outcomes is not sufficiently conclusive to permit the formulation of specific benchmarks, recent studies have provided some insight towards this possibility.
- Performance indicators are most commonly used to monitor benchmarks.
- To ensure patient access to scheduled surgical services, most countries have implemented a variety of management strategies in addition to benchmarks.

Beyond these key points, it is apparent that many countries and provinces are interested in lengthy waiting times and are pursuing knowledge and actions around trying to improve...
management of these. This prompts international collaboration and knowledge-sharing, which has begun but could go substantially further. At the Canadian-level, work is largely in silos, mostly along geographic lines. Some Provinces have moved forward with explicit waiting time targets and are currently implementing them, though at this stage it is too early to assess the outcomes of these initiatives.

Hip and knee osteoarthritis is by far the commonest reason for arthroplasty. This condition and its consequences are not going away, any time soon. While the way arthroplasties are done may change, the need for them will not. This is particularly true because arthroplasty works and there is a demographic bulge on the horizon. To manage this challenge, there will need to be waiting time benchmarks based on the best available information and evidence. Furthermore, they will have to be met.

B) 6.0 PROGRESS REPORT

Briefly summarize progress toward the other following objectives of the RFA, in a maximum of two (2) full pages:

1. Synthesis of the research evidence regarding the relationships between patient characteristics (e.g. age, clinical severity or stage of illness, co-morbidities, etc.), health service wait times, and mortality, health status or quality of life.

2. Summary of wait time benchmarks that are currently used nationally or internationally, and research evidence (if any) that was used to support their selection.

3. See A) above.

4. Identification of the priority areas and questions for future research (particularly with respect to the types of relationships between wait times and health status/quality of life described in objective 1 above) that are likely to yield research evidence of use to provinces and territories in considering additional wait time benchmarks.

Progress towards CIHR Objective #1

In an attempt to better understand the relationships between patient characteristics, waiting times, and health outcomes, we searched both the grey and peer-reviewed literature with respect to the following:

- impact of waiting times on health status while waiting for surgery
- impact of waiting times on health outcomes after surgery
- impact of waiting times on peri-operative and post-operative health outcomes
- factors (e.g. age, gender) that interact with pre-operative health status and waiting and effect outcomes after surgery
- costs – financial or non-financial – associated with waiting
- disease progression or consequences of non-intervention

Abstracts of peer-reviewed literature retrieved through the above searches were screened, by two independent reviewers, for possible relevance. A preliminary subset has been judged potentially relevant. Next steps will entail (i) obtaining the full text of peer-reviewed articles and applicable grey literature, (ii) scanning items for relevance, and (iii) critically appraising them for methodological quality. Reference lists of articles and grey literature reports considered to be key will be scanned for studies that may have been previously missed (step iv). A cited reference search of key articles will also be conducted to track down and evaluate additional articles in which our ‘key’ articles have been cited (step v). Finally, we will synthesis this research evidence in a manner that prioritizes consistent research findings based on sound methods (step vi).

Another aspect of this objective that we will begin to research following submission of report #1 is:

- the relationship between pre-operative health status and post-operative outcomes of surgery (even if no mention of waiting times). Includes appropriateness studies that inform the relationship between pre-operative health status and post-operative outcomes.

Specifically, we will identify, in consultation with the research team, appropriate search terms to capture relevant literature, conduct the literature search, and scan abstracts using two
independent reviewers. We will then continue with steps (i) through (vi) as outlined above.

**Progress towards CIHR Objective #2**

Two primary sources of data were used toward achieving Objective 2: interviews with key informants; and grey literature (including government and organizational reports and documents) (Section 3.0 Methods). Our processing of this data is largely complete. A list of key national and international informants was developed, and interviews with those available have been conducted. A list of key national and international websites was compiled, these websites have been searched in their entirety, and relevant documents have been downloaded.

The present report represents our synthesis of these data. Though our work to date on this objective has been thorough, we acknowledge the possibility that additional documents and information may emerge as we pursue additional objectives.

Additionally, we have found key informant input particularly valuable and wish to broaden and deepen this by contacting additional informants in countries already accessed and adding Finland, Ireland, Spain, Italy and the Netherlands, given the leads that seem worth pursuing.

**Progress towards CIHR Objective #3**

Regarding the research evidence on benchmarks or maximum acceptable wait times, we have conducted a search of the relevant grey and peer-reviewed literature as outlined (Section 3.0 Methods). Abstracts retrieved from the search of the peer-reviewed literature were read by two independent reviewers, and approximately 15 were viewed as potentially relevant, based on the following inclusion criteria:

- benchmark (or target, guaranteed, or recommended maximum) waiting times for [the relevant] surgery (including evidence used to support these benchmarks, how patients are managed so as to meet the benchmarks, determinants of satisfaction with waiting time, and articles that focus on prioritization of patients for surgery that might also inform benchmark waiting times)

These articles have been retrieved in full text and scanned for relevance, and have been incorporated into the present report, as appropriate. Following submission of this report, next steps will include critically appraising full-text articles for methodological quality; scanning reference lists of key articles; and conducting cited reference search for key articles. Thus, concerning this objective, we may have additional comments to make in subsequent reports both from peer-reviewed literature and key informants.

**Progress towards CIHR Objective #4**

We anticipate that all sources of data (peer-reviewed literature; grey literature; web-searches; informant interviews) will contribute importantly to the identification of priority areas and critical questions for future research. Throughout our work thus far, we have continually considered this objective, and expect to refine our recommendations while pursuing Objectives 1, 2, 4, 5 and 6 and carrying out the necessary work for further reports.

**Priority Areas and Questions for Future Research**

Preliminarily, what can be said is that high-level evidence is lacking on the impact of long waiting times for scheduled services from the perspective of patients, clinicians and the system. The consequence is that we are underinformed as to the maximally acceptable level of waiting and this uncertainty challenges the formulation of national and provincial benchmarks for waiting
times. Hence, research on the impact of waiting times is required around clinical, socio-behavioral, system-level considerations, and from patient, clinician and public perspectives.

C)  
7.0 Additional Comments (e.g. challenges you have faced and how you have/are addressed/ing them, deviation(s) from your original research proposal…)

There have been no substantial deviations from the original proposal for this work. Collaboration has ensued with Dr. Masri’s group. We have exchanged proposals and will share these first reports. Pursuant to this, we shall confer on the optimal means and nature of continuing collaboration.

While this report addresses CIHR Objective #3, it is anticipated that with the continuing work on Objectives 1, 2, 4, 5 and 6 that additional information will be forth-coming and will complete Objective #3.
<table>
<thead>
<tr>
<th>Country</th>
<th>Level</th>
<th>Service</th>
<th>Purpose</th>
<th>Term</th>
<th>Time</th>
<th>Benchmark</th>
<th>Basis</th>
<th>Monitoring</th>
</tr>
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<tbody>
<tr>
<td>UK (11-14)</td>
<td>National Government (P)*</td>
<td>All</td>
<td>Staged reduction in waiting times: Minimum standard with continuous improvement if meeting standards</td>
<td>Maximum waiting time target</td>
<td>T0</td>
<td>3 m (2005)</td>
<td>Not strongly evidence-based (13)</td>
<td>Performance Indicators set by Healthcare Commission</td>
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<td>T1</td>
<td>6 m (2005); 3 m (2008)</td>
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<td>T0a</td>
<td>18 w (2008)</td>
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<tr>
<td>New Zealand (15-18)</td>
<td>National Government (P)*</td>
<td>All</td>
<td>Ensure access to elective surgery before patients reach a state of unreasonable distress, ill health, and/or incapacity</td>
<td>Maximum waiting time</td>
<td>T0</td>
<td>6 m</td>
<td>Consensus</td>
<td>Performance Indicators</td>
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<td></td>
<td>T1</td>
<td>6 m (for those meeting threshold)</td>
<td></td>
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<tr>
<td>Australia (19-22)</td>
<td>National Government (P)*</td>
<td>All</td>
<td>To set targets for hospitals to encourage achievement of national standards</td>
<td>Maximum waiting time</td>
<td>T1</td>
<td>Category 1 (urgent) 30 d; Category 2 (semi-urgent) 90 d; Category 3 (non-urgent) some time in the future (12 m is used to define a long waiting patient)</td>
<td>Health department in consultation with clinical advisory group (surgeons, administration, government)</td>
<td>Performance indicators; targets; bonus funding subject to performance</td>
</tr>
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<td>Spain (23)</td>
<td>Each regional health service (P)*</td>
<td>All</td>
<td>To reduce wait times</td>
<td>Maximum waiting time guarantee</td>
<td>T1</td>
<td>6 m (except cardiac surgery)</td>
<td></td>
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<tr>
<td>Italy (27,28)</td>
<td>National Government (R)</td>
<td>Selected (THR)</td>
<td>To reduce wait times</td>
<td>Maximum waiting time target</td>
<td>T1</td>
<td>50% within 90 d; 90% within 180 d</td>
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<td>Sweden (23-26)</td>
<td>National Government (P)</td>
<td>All</td>
<td>To reduce wait times</td>
<td>National Care Guarantee</td>
<td>T0</td>
<td>3 m</td>
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<td></td>
<td>T1</td>
<td>3 m (to be introduced)</td>
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<td>The Netherlands (27,28)</td>
<td>National Government (P)*</td>
<td>All</td>
<td>To achieve delivery of care within the waiting time norms</td>
<td>Maximum acceptable waiting time</td>
<td>T0</td>
<td>80% within 5 w</td>
<td>Consensus with input from hospitals, physicians, health insurers</td>
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<td>T1</td>
<td>80% within 7 w</td>
<td></td>
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<tr>
<td>Ireland (23,34)</td>
<td>National Government (R)</td>
<td>All</td>
<td>To reduce waiting times for elective treatments</td>
<td>Recommended Waiting Time Target</td>
<td>T1</td>
<td>3 m</td>
<td></td>
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<td>Finland (23, 27,29,30)</td>
<td>National Gov (P)</td>
<td>All</td>
<td>To ensure access to treatment</td>
<td>Maximum waiting time</td>
<td>T0</td>
<td>3w (recommendation) (27)</td>
<td>To be monitored nationally and regionally</td>
<td></td>
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<td></td>
<td>T1</td>
<td>3 – 6 m</td>
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<td>Country</td>
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<tr>
<td>Canada (35)</td>
<td>Committee of the Canadian Orthopedic Association (R)</td>
<td>Scheduled Orthopedic</td>
<td>Produce benchmarks for orthopaedic wait times</td>
<td>Maximum Acceptable Waiting Time (MAWT):</td>
<td>T0</td>
<td>3 m</td>
<td>Priority 1: 1 m; Priority 2: 3 m; Priority 3: 6m.</td>
<td>Consensus based on data from Canadian, US, and International sources. Included literature review and policies in other jurisdictions.</td>
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<td>Canada: 6 Medical Specialties (36)</td>
<td>Wait Time Alliance (R)</td>
<td>Selected (TJR)</td>
<td>To provide governments and the public with medical expertise on medically acceptable wait times</td>
<td>Benchmark</td>
<td>T1</td>
<td>See: The National Standards Committee of the Canadian Orthopedic Association</td>
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<td>Canada: Saskatchewan (31,32)</td>
<td>Saskatchewan Health (P)</td>
<td>All (TJR)</td>
<td>To monitor and track patients and help to ensure they receive care according to their level of need</td>
<td>Target Time Frames</td>
<td>T1</td>
<td>Target time frames are linked to priority levels (1 through 6). For example, Priority 6 has a target time frame of ‘80% within 12 m’. The target time frame for all patients is within 18 m.</td>
<td>Consensus with surgeon input and information from other jurisdictions</td>
<td>Monitor % of patients within target time frame</td>
</tr>
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<td>Canada: Nova Scotia 37</td>
<td>Provincial Wait Time Project Steering Committee (R)</td>
<td>Selected (TJR)</td>
<td>To research and recommend a standardized, province-wide approach to collecting and reporting wait-time information</td>
<td>Target wait time: goals or objectives towards which the system can strive to better serve patients</td>
<td>T1</td>
<td>Priority A: 24 hr or less; priority B/C: 24 hrs to 6 w; Priority D/E: 6 w – 6 m</td>
<td>Based on clinical opinion: Working Group (with representatives of orthopedic services and general surgery) in consultation with the clinical community.</td>
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</tr>
<tr>
<td>Canada: Ontario (38)</td>
<td>Institute for Clinical Evaluative Services (ICES) (R)</td>
<td>Selected (TJR)</td>
<td>To document the state of access in Ontario for defined health services as part of the Ontario Wait Time Strategy</td>
<td>Recommended maximum wait time (RMWT) (definition recognizes that judgement is used and RMWT may change over time)</td>
<td>T1</td>
<td>26 w (not formally established)</td>
<td>A review of other jurisdictions’ recommendations; a review of literature about the consequences of waiting for these procedures; and the best judgement of clinicians and researchers</td>
<td></td>
</tr>
<tr>
<td>Canada: 4 Western Provinces (8)</td>
<td>WCWL: Partnership: Federal, Provincial Govt. Regions, Medical Associations (R)</td>
<td>Selected (TJR)</td>
<td>To develop a process for formulating maximum acceptable waiting times</td>
<td>Maximum acceptable waiting time (MAWT)</td>
<td>T1a</td>
<td>Urgency 1: 20 w Urgency 2: 12 w Urgency 3: 4 w</td>
<td>Consensus of a Wait Time Panel using clinical, patient, public input, literature review</td>
<td></td>
</tr>
</tbody>
</table>

Note: Elective surgery is defined by the OECD as ‘surgery is necessary but the patient can be sent home and the timing of the procedure can be scheduled’ (28)
<table>
<thead>
<tr>
<th>Heading</th>
<th>Definition</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td>Country, province, or jurisdiction (citations)</td>
<td></td>
</tr>
<tr>
<td>Level</td>
<td>Level of government or specific organization that set or recommended benchmark (status of implementation)</td>
<td>Status P = policy or plan, Status R = recommendation or findings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Currently implemented based on available information</td>
</tr>
<tr>
<td>Service</td>
<td>Elective surgical services to which benchmarks apply</td>
<td>All = benchmarks apply to all elective surgical services, Selected = benchmarks apply to selected surgical services, All (TJR) = benchmarks are in place or proposed for all surgical services and are specified for cataract surgery, Selected (TJR) = benchmarks are in place or proposed for selected surgical services and are specified for cataract surgery</td>
</tr>
<tr>
<td>Purpose</td>
<td>Purpose of benchmark</td>
<td></td>
</tr>
<tr>
<td>Term</td>
<td>Term used to define or describe benchmark</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Definition of time frame for benchmark</td>
<td>T0 = Date from GP referral to date of first consult with surgeon, T0a = Date from GP referral to inpatient treatment/intervention, T1 = Specialist assessment to inpatient treatment/intervention</td>
</tr>
<tr>
<td>Benchmark</td>
<td>Time expressed in days (d), weeks (w), or months (m) for TJR where specified and for all elective surgery if not specified for TJR</td>
<td></td>
</tr>
<tr>
<td>Basis</td>
<td>Basis of benchmark decision</td>
<td></td>
</tr>
<tr>
<td>Monitoring</td>
<td>Measures taken to monitor or evaluate performance</td>
<td></td>
</tr>
</tbody>
</table>
# TABLE 2 - Data Sources

## Peer-Reviewed Bibliographic Databases Searched

1. ABI Inform Global (Proquest)
2. Biological Abstracts (ERLWebSPIRS)
3. CINAHL (OVID)
4. Cochrane Library (OVID)
5. EconLit (EBSCO)
6. EMBASE (OVID)
7. MEDLINE (OVID)
8. PsycINFO (OVID)
9. Social Sciences Abstracts (Wilson)

## Grey Literature Databases Searched

1. Canadian Research Index (Microlog)
2. Dissertation Abstracts (Proquest)
3. PapersFirst (OCLC)
5. Health Technology Assessment (HTA) database [http://www.york.ac.uk/inst/crd/crddatabases.htm](http://www.york.ac.uk/inst/crd/crddatabases.htm)

## Web Sources

1. 53 Canadian web sources (32 government & 21 organization)
2. 16 UK web sources (7 government & 9 organization)
3. 12 US web sources (5 government & 7 organization)
4. 8 Australia web sources (2 government & 6 organization)
5. 5 New Zealand web sources (3 government & 2 organization)
6. 6 International government web sources (exclusive of those listed above)
7. 6 International organization web sources (exclusive of those listed above)

Total: 106 web sources
### Table 3

**Interview guide for key informant interviews**

1. Does your regional, provincial, or national government currently have legislation, regulations or written policies on benchmarks, or standards or target waiting times for joint arthroplasty and/or cataract surgery (sight restoration).
   a. Differentiate between official government vs. clinical standards
   b. Are there benchmarks for other procedures?

   **YES**

2. Describe the current legislation or policy & benchmarks
   a. Get copies or links to documentation
   b. What is the actual standard
   c. Why was it adopted
   d. By whom was it adopted
   e. When was it implemented

3. Would you describe the process that was used to reach the benchmark / standard/target waiting times
   a. What evidence was taken into account
   b. What was the source of the evidence
   c. Who was involved
   d. Get methodology if available

4. Is there an ongoing monitoring mechanism in place to assess whether or not standards are being met?
   a. Are the benchmark/standards/target waiting times being met?
   b. What steps are taken if the benchmark/standards/target waiting times are not met?
   c. Has the system been formally evaluated and reported?

   **NO**

5. If no, is legislation, policy or organized approaches currently planned for benchmark/standards/target waiting times for joint arthroplasty?
   a. Elucidate initiatives underway to develop standards
Reference List


(13) Harley Dr M. Director, Inter-Authority Comparisons and Consultancy Health Services Management Centre, University of Birmingham. 2005. 6-17-2005.


(17) Geddis DrD. Chief Medical Advisor, Elective Services, New Zealand Ministry of Health. 6-23-2005. 
Ref Type: Personal Communication

(18) Wills B. Senior Project Manager, Elective Services, New Zealand Ministry of Health. 6-23-0005. 
Ref Type: Personal Communication


(22) Duckett S. Professor of Health Policy, Dean of Faculty of Health Sciences and Pro Vice-Chancellor (Learning and Teaching), La Trobe University, Victoria, Australia. 6-13-2005. 
Ref Type: Personal Communication


Ref Type: Personal Communication


