Wait Time Information Strategy
for Ontario

April, 2005

Submitted to Dr. Alan Hudson,
Lead, Ontario Wait Time Strategy

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1.1 Background

Reducing wait times for key health services is one of the Ontario government’s top priorities and an important part of its strategy to transform the province’s health system. Wait times are a symptom of a broader problem: managing how patients get access to care.

On November 17, 2004, the Minister of Health and Long-Term Care, George Smitherman, officially announced Ontario’s Wait Time Strategy. The Strategy is designed to reduce wait times by improving access to healthcare services for adult Ontarians in five areas by December 2006: cancer surgery, selected cardiac procedures, cataract surgery, hip and knee total joint replacements, and MRI and CT scans.

A solid Provincial IT solution is critical to the success of the Wait Time Strategy. The IT solution will be used to collect a standard set of data from physicians and hospitals and report on wait times and wait lists across the province.

The Wait Time Information Strategy (WTIS) addresses Ontario’s requirement for a Wait Time Information System by developing an overall framework and requirements for Ontario’s Wait Time Registry (WTR). The WTR will initially contain wait time data for the five key service areas and will be used to report wait times by hospital, by LHIN and provincially and report wait list information by surgeon and by hospital. The Wait Time Information Strategy contains a set of decisions and recommendations to Alan Hudson, lead for the Ontario Wait Time Strategy, on key issues related to a WTR for the province.
1.1 Background: Focus of the Wait

The Wait Time Strategy will initially focus on the time between a specialist’s decision to treat, and the actual provision of the treatment. This is identified in the figure below as Wait 2.
1.2 Approach

The approach taken to develop the Wait Time Information Strategy (WTIS) was to consult with key stakeholders as the primary means of gathering information, informing recommendations and defining the business and data requirements for the Wait Time Registry (WTR). This approach was taken in order to ensure a greater likelihood of success and buy-in for the Strategy.

The WTIS project team worked closely with the clinical expert panels and other key stakeholders such as ICES, CIHI, OHA and hospitals to ensure that the WTR appropriately addresses key business and clinical requirements as well data standardization and quality issues. The WTIS project team closely studied the experience of other jurisdictions that have instituted wait time strategies (e.g. SSCN, B.C., WCWL, NHS) to understand the key lessons learned from the perspective of standardization, implementation, governance and management, and has applied these experiences to our analysis and recommendations.

The WTIS addresses key questions, such as whether the recommended IT Solution will be a reporting system only or whether it will provide the functionality to manage wait lists on a prospective basis, whether all service areas will use a single system, and who will govern and manage the data and the WTR. The WTIS project team has provided detailed recommendations regarding funding allocation, resource allocation, privacy, communications, and change management. Finally, the recommendations respond to the strategic questions of governance, accountability, and the linkage of funding to provision of key data for wait time data reporting.
1.3 Project Team and Key Stakeholders

The WTIS project team, under the leadership of Sarah Kramer, was formed to develop a Wait Time Information Strategy for the province. Courtyard Group Ltd. was engaged to provide the resources for the project team.

During the Strategy development process, the WTIS project team met with numerous stakeholders. Recognizing the importance of building on expertise in the field of health IT, as well as the province’s current infostructure, the WTIS project team has worked very closely with the government’s e-Health Office, and engaged key stakeholders from across the hospital, broader health care and information management communities.

The WTIS project team has also worked closely with the following expert panels to identify information needs for collection and reporting as well as the processes and technology needed to prioritize patients in each of the five areas:

- Cancer – Cancer Care Ontario (Dr. Carole Sawka)
- Cardiac – The Cardiac Care Network of Ontario (Dr. Kevin Glasgow)
- Cataract – Dr. Phil Hooper (Chair)
- Hip and Knee Joint Replacements – Ontario Joint Replacement Registry (Dr. Robert Bourne, Chair)
- MRI and CT scans – Dr. Anne Keller (Chair)

The diagram on the next page shows the organizational structure and key stakeholders of the Wait Time Information Strategy as well as the alignment of the Information Strategy with the overall Wait Time Strategy.
The Wait Time Strategy leverages input from experts in the areas of information management, hospital operations, clinical practice, and process improvement.

Key IM/IT Stakeholders

| CIHI ICES | Hospital CIO's | OHA e-Health Council | CCO CCN OJRR | MoHLTC eHealth Office SSHA |

Clinical Expert Panels:
- Cancer (Dr. Carol Sawka)
- Cardiac (Dr. Kevin Glasgow, Chair)
- Cataract (Dr. Phil Hooper, Chair)
- Joint Replacement (Dr. Robert Bourne, Chair)
- MRI/CT (Dr. Anne Keller, Chair)
- Surgical Process Analysis and Improvement (Valerie Zellermeyer, Chair)
- Critical Care (Dr. Robert Bell, Chair)

Information Management Expert Panel
Sarah Kramer, Chair

Wait Times Lead
Dr. Alan Hudson

Senior Advisor for Wait Times
Dr. Peter Glynn

Project Manager
Wait Time Strategy
Rachel Solomon

Information Management
(Adelsteinn Brown, Lead)

OHA Reference Group
(Murray Martin, Chair)

Access Atlas: Institute for Clinical Evaluative Sciences (ICES)
(Dr. Andreas Laupacis)
1.3 Information Management Expert Panel

In addition to the WTIS Team, a Wait Time Information Management Expert Panel was formed to advise Sarah Kramer on the Strategy and provide knowledgeable feedback on information system options, implementation approaches and change management strategies. To date, the Information Management Expert Panel has met twice.

Membership of the Information Management Expert Panel includes a broad range of stakeholders from across the province:

**Technology and Informatics Leadership**
- Matt Anderson, VP and CIO, University Hospital Network
- Harry Jones, Wait Times Manager, Ottawa Hospital
- Bala Kathireson, CIO, Niagara Health System
- Glen Kearns, VP and CIO, Grand River Hospital
- Sam Marafioti, VP eHealth, and CTO, Sunnybrook and Women’s College
- Paul McAuley, IT Director, Kingston General Hospital
- Doug Tessier, Project Manager, MoHLTC E-Health Office
- Jennifer Zelmer, VP Research and Analysis, CIHI

**Clinical Leadership**
- Dr. Michael Marcaccio, Chief of Surgery, Hamilton Health Sciences Centre
- Dr. Claudio Martin, London Health Sciences Centre
- Dr. Jack Tu, Senior Scientist, ICES

**Hospital Leadership**
- Pat Campbell, President and CEO, Grey Bruce Health Services
- Janice Skot, CEO, Royal Victoria Hospital (Barrie)
1.4 Guiding Principles

A number of principles were articulated to guide development of the Wait Time Information Strategy.

- Use the Saskatchewan Surgical Care Network model as a starting point
- Wait Time data capture will align with business processes - which must be standardized where appropriate
- Data will be collected and reported in a consistent & standardized manner using common definitions
- The data collection process will provide value to the users (surgeons, managers, CEOs) in the form of performance information to support wait list management
- Only the data required to fulfill the mandate of wait time reporting and wait list management will be collected (minimum data set) - each data element will be put through a filter of understanding its purpose and use
- The Strategy will comply with Ontario’s privacy legislation, and international privacy frameworks
- Where possible, the Wait Time Registry will build on existing systems and architectures
- The Wait Time Registry will be built with the flexibility to expand to other surgical areas as time and resources allow
- The Strategy will align with other relevant province-wide strategies, particularly e-Health, LHIN, and Information Management
- Accountability for wait list information will rest with hospital boards and CEOs
- The wait time “facts” will be shared with the public
- Key decisions will be made rapidly
2.0 Key Decisions and Recommendations

The Wait Time Information Strategy addresses a number of important questions and makes decisions and recommendations on key issues:

1. Will the recommended IT solution include both wait time and wait list management information?
2. Will there be one wait time registry or several?
3. Will target wait times be set and measured against?
4. Will there be a standard patient prioritization tool for each service area?
5. What are the specific wait time indicators/measures that will be reported and to whom?
6. How will existing wait list management activities/technologies/organizations be affected (e.g. hospitals, registries)?
7. Will procurement of the IT solution go through a competitive selection process?
8. How will the privacy issues surrounding collection and reporting of patient data be addressed?
9. What is the total and annual investment required?
10. What is the implementation approach?

In keeping with the principle of rapid decision cycles, key decisions have been made throughout the Strategy development process.
2.1 Will the recommended IT solution include both wait time and wait list management information?

Decision #1

The Wait Time Registry (WTR) will include wait time reporting functions and wait list management information. It will not include the functionality to directly manage wait lists. Specifically, the WTR will provide:

- **Wait List Management Information** at the surgeon, service and hospital level to allow informed decision-making about:
  - Who is waiting for which surgeon;
  - At what urgency level are people waiting;
  - How many people are waiting;
  - How long people have been waiting;
  - How long people are waiting compared to target time

Standard **Wait Time Reporting** for each service/procedure at the province, LHIN, hospital, service and surgeon levels and Public posting of waits so that patients and providers can make informed choices.
2.2 Will there be one wait time registry or several?

**Decision #2:**

There will be one Surgical Wait Time Registry (S-WTR) and one MRI/CT Wait Time Registry (DI-WTR) for the province.

- The Surgical Wait Time Registry will initially include data for Cataract Surgery, Hip and Knee Replacement Surgery, Cancer Surgery and Cardiac Surgery, cardiac catheterization and angioplasty, as collected by CCN.
- The Surgical Wait Time Registry will be designed to allow for the capture of additional surgical specialties in the future, with some customization.
- The MRI/CT will include data for all MRI and CT procedures. It will not be designed to capture additional diagnostic imaging procedures.

The diagram on the next page shows the high level architecture for the Surgical and MRI/CT Wait Time Registries.
2.2 Will there be one wait time registry or several? (continued)

- Cardiac Surgeon’s Office
- Surgeon’s Office
- CCN*
- Province-wide Surgical Registry
- Public Website
- OR Booking Office
- Referring Physician
- Diagnostic Imaging Department
- MRI/CT Registry

Data flow:
- Electronic data submission using web form
- Electronic data submission using web form

Information flow:
- Provides a snapshot of wait time status for each service area
- Calculate wait times using data submitted by hospitals
2.3 Will target wait times be set and measured against?

**Decision #3:**
Consistent, realistic targets will be established for each service area, based on current wait times and overall system capacity.

- The work to set benchmarks and targets will begin in Summer ’05
- Work done by ICES, WCWL and the CMA Wait Time Alliance, among others will be leveraged.

The table below provides an example of the target time that have been set by the Saskatchewan Surgical Care Network:

<table>
<thead>
<tr>
<th>Priority Level</th>
<th>Target Level of Surgeries Completed within Target Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority I</td>
<td>95% within 24 hours</td>
</tr>
<tr>
<td>Priority II</td>
<td>95% within 3 weeks</td>
</tr>
<tr>
<td>Priority III</td>
<td>90% within 6 weeks</td>
</tr>
<tr>
<td>Priority IV</td>
<td>80% within 3 months</td>
</tr>
<tr>
<td>Priority V</td>
<td>80% within 6 months</td>
</tr>
<tr>
<td>Priority VI</td>
<td>80% within 12 months</td>
</tr>
<tr>
<td>All cases</td>
<td>Within 18 months</td>
</tr>
</tbody>
</table>
2.4 Will there be a standard patient prioritization tool for each service area?

**Decision #4:**

A clinical assessment tool and urgency levels for each of the four surgical areas will be developed by the Clinical Expert Panels by June 2005.

- The WTIS team will work with the Clinical Expert Panels to ensure consistency of urgency levels between the service areas.
- The June 2005 deadline is necessary to facilitate the S-WTR design process.

**Decision #5:**

There will not be a clinical assessment tool for MRI/CT. Standard urgency levels for MRI/CT will be set and measured against.

**Decision #6:**

Each clinical assessment tool should be tested and validated manually (on paper) in two to three hospitals by the fall of 2005.
2.5 What are the specific wait time indicators/measures that will be reported and to whom?

**Recommendation #1:**

Recommended indicators for reporting information to the public, to government, to LHINs, Hospitals and Surgeons have been defined in Appendix F.

The recommended indicators are divided into five categories:

1. Measurement of Wait Times for the Most Recent Period
2. Achievement of Wait Time Targets for Most Recent Period
3. Descriptors of the Current Wait List
4. Descriptors of Patient Volumes over the Most Recent Time Period
5. Measurement of Reporting Compliance
6. Comparison of Indicators over a Historical Period

**Definition of indicators will continue to evolve over time.**

The table below provides examples of the recommended indicators.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Median wait time</strong></td>
<td>The 50th percentile of current wait time</td>
</tr>
<tr>
<td><strong>90\textsuperscript{th} Percentile</strong></td>
<td>The 90th percentile of current wait time</td>
</tr>
<tr>
<td><strong>Percentage of cases meeting recommended wait</strong></td>
<td>For a given time period, the percentage of completed procedures that met the recommended wait as specified by the clinical assessment tool.</td>
</tr>
</tbody>
</table>
2.6 How will existing wait list management activities/technologies/organizations be affected (e.g. hospitals, registries)?

**Decision #7:**
Discontinue the use of the Ontario Joint Replacement Registry as the primary system for orthopedic surgical wait times capture and reporting.
- Streamline and consolidate the reporting of a minimum data set for Wait Times to the Surgical Wait Time Registry (S-WTR) over the course of implementation;
- Transition to direct reporting to the Canadian Joint Replacement Registry, thereby enhancing Ontario’s contribution to the success of the national registry for post-market surveillance of implants.
- Effect this transition by December 2006

**Decision #8:**
Continue Cardiac Care Network as a stand-alone registry with a direct feed into the S-WTR, with a view to integrate overtime.
- Establish governance structure with skills and experience necessary to oversee the upgrade of CCN’s IT infrastructure and ensure integration and alignment with the Wait Time Strategy

**Decision #9:**
The WTIS will be able to be implemented in a complementary fashion to existing hospital wait time management solutions (e.g. UHN and Kingston General).
- The technical design of the WTR and the implementation approach will consider an effective way to achieve the required integration.
2.7 Will procurement of the IT solution need to go through a competitive selection process?

**Decision #10:**
Procurement of a system vendor to develop the Wait Time Registry will go through a competitive selection process.

**Decision #11:**
Procurement will be done through Cancer Care Ontario, on behalf of the Provincial Wait Time Strategy. This will allow for a quick decision cycle and faster process.

**Decision #12:**
Ontario’s Surgical Wait Time Registry will leverage the Saskatchewan Surgical Registry software.

- Saskatchewan Health has provided the Surgical Registry software to Ontario through an open source agreement.
- A technical and functional evaluation of the Saskatchewan software should be conducted at the start of Phase 2 of the Wait Time Information Strategy.
- Results of this evaluation will determine the system development requirements for Ontario.
2.8 How will the privacy issues surrounding collection and reporting of patient data be addressed?

**Recommendation #2:**

Continue implementation of the 4 point privacy plan including:

1. A Legal Analysis
2. A Cross-Jurisdictional Review of Wait Time Programs in other jurisdictions
3. A Privacy Impact Assessment on the Wait Time Strategy, which will be submitted to the IPC for comments.
4. A Privacy Communication Plan
2.9 What is the total investment required?

A high-level cost estimate and funding requirements to implement the Wait Time Information Strategy has been submitted to government. The project awaits decision on funding allocation.

Recommendation # 3:
Further work is required to determine the annual ongoing operating cost of the Wait Time Registry. These costs will be developed during Phase 2 of the Strategy.
2.10 What is the implementation approach for the Wait Time Information System?

**Decision #13:**
A survey of hospital information systems, radiology information systems and surgical scheduling system across Ontario will be conducted in order to determine the most viable options for integration between HIS, RIS, surgical scheduling system and the WTR. Integration requirements will be built into the WTR technical specifications.

**Decision #14:**
An adoption and change management strategy will be developed in order to maximize physician, administrative and hospital leadership utilization of the WTR.
- Benefits of the WTR for surgeons and radiologists must be clearly articulated.
- Physician champions should be identified and given roles

**Decision #15:**
The Wait Time Registry will be implemented in 5 hospitals in 05/06
- Criteria will be developed for selection of the first 5 sites. The selection criteria will be based on such things as connectivity within a facility, across multiple sites and with off-site surgeon’s offices, level of automation, availability of resources and existence of Hospital Management Information Technology and Medical leadership.

**Decision #16:**
The Surgical Wait Time Registry will be populated with data directly from surgeon’s offices, hospitals and from the Cardiac Care Network registry.
- A web form for direct data input in surgeon’s offices will be available.

**Decision #17:**
Data collection using the Surgical Wait Time Registry and the MRI/CT Wait Time Registry will be mandated for the five service areas and will be tied to volume funding.
- Hospital leadership will be incented to drive the WTR implementation in their local environments in order to maintain eligibility for Wait Time volume funding.
Implementation Timeline

**Hospital Implementations**
- First 5 hospital implementations complete
- Hospital implementations – 80% penetration

**IT System Design & Development**
- IM Strategy Complete
- Communicate IM Strategy
- Develop Clinical Tools
- Procure IT System Vendor
- IT System Procurement Complete
- Test Clinical Tools
- Develop IT System
- IT System Development Complete

**Public Reporting**
- ICES Atlas
  - Retrospective Wait Times
- Wait Times per Volume Funding Letters
  - Manual Data Collection
- Wait Times using WT Information System
  - (Real time capture using Clinical Assessment Tools)
  - ICES Atlas II

**Timeline**
- Mar 31/05
- April 05
- June 05
- July 05
- Nov 05
- March 06
- Dec 06