

Case for Successful Quick-Win Execution:

Hip and Knee Joint Replacement Integrated Model of Care

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1. Executive Summary

In October 2006, the South West Local Health Integration network (“South West LHIN”) identified several high-level action plans in their Integrated Health Services Plan. One of these action plans involved accessing the right services, in the right place, at the right time. The work of the Steering Committee was identified as a Quick Start opportunity. This resulted in the creation of the Hips and Knees Priority Action Team (“Hips and Knees PAT”) in early 2007 to promote and build on the work of the Steering Committee to ensure an integrated approach to hip and knee total joint replacements across the LHIN. The work of the Hips and Knees PAT will also serve to inform other South West LHIN access and integration activities. Membership included several members from the previously existing Steering Committee but also included members not involved in the previous work. This report summarizes the work of the Hips and Knees PAT.

APPROACH

The Hips and Knees PAT used the information in the Steering Committee’s Current State Report and the Future State Report as a starting point for discussion. The Hips and Knees PAT:

- Refreshed quantitative data;
- Reviewed inventories of services and practices. At the hospital and agency level, care pathways and education tools were obtained;
- Conducted further best practice research;
- Developed a proposed model of integrated service delivery for total joint replacement in the South West LHIN; and,
- Developed a community engagement strategy and conducted community engagement.

In order to fully design the recommendations, guidelines, outcomes and indicators of the various components of the model, the Hips and Knees PAT formed four Task Teams in late November, 2007.

- Standardized Referral, Central Registry and Assessment, and Secondary Prevention Task Team
 - The purpose of this time-limited task team was to fully design the recommendation, guidelines, outcomes and indicators for Standardized Referral, Central Registry and Assessment, and Secondary Prevention, and conduct detailed implementation planning for successful execution of a standardized referral process and central registry process in 2008/2009.
- In-Hospital Care
 - The purpose of this team was to conduct an inventory of in-hospital care practices, design the high-level recommendation, guidelines, outcomes and indicators for what in-hospital care should look like in the South West LHIN. Detailed design of the recommendation and implementation planning for successful execution will continue in 2008/09. The scope of this team’s work was limited to designing the recommendation.

- Post-Acute Care
 - The purpose of this team was to design the high-level recommendation, identify the various streams of post-acute rehabilitation, and create the guidelines, outcomes and indicators for post-acute rehabilitation in the South West LHIN. Detailed design and implementation planning for successful execution will continue in 2008/2009. The scope of this team's work was limited to designing the recommendation.
- Education Tools
 - The purpose of this time-limited task team was to fully design the recommendation, guidelines, tools, outcomes and indicators and, conduct detailed implementation planning for successful execution of the common education tools in 2008/2009.

The Hips and Knees PAT and the Task Teams used the Health System Integration Methodology (“HSIM”) to provide a consistent planning and implementation approach. This involved a step-by-step process whereby certain activities and tools were completed. Task Teams met independently with occasional combined sessions for facilitated workshops and for the purposes of keeping the work of the entire project aligned. Task Team Leads provided regular updates on the team's progress at biweekly Team Lead conference calls and monthly PAT meetings. Task Team Leads presented their final Team recommendations to the Hips and Knees PAT on March 5th, 2008. The HSIM's Building Block framework was used as a guide to aid teams in the future design of their recommendations and to help illustrate how the design can be applied in the system by components.

This process has been a learning experience for the PAT members and South West LHIN. The Hips and Knees PAT is the first PAT to proceed to this stage of implementation planning for an integrated service delivery model for the South West LHIN. It is important to note that wait time is a complex function of many different variables. The integrated model of care addresses many of those variables; however, it does not fully address system-wide capacity issues such as the availability of health human resources, acute care beds, and other facilities to move patients into at the end of their hospital stay. These capacity issues limit the number of surgeries that can be performed and are not within the scope of the Hips and Knees PAT.

CURRENT STATE

A current state assessment of total hip and knee replacement services in the South West LHIN identified several key findings.

- Extensive human resource shortages:
 - Nurses – limiting the number of beds that can be open and overworking the nurses currently working in the system causing burnout;
 - Anesthesiologists – more would increase surgical capacity; and
 - Therapists – the current numbers are stretched too thin and patient care in the recovery phase is starting to suffer.
- System-wide bed shortages:
 - Lack of beds in hospitals performing surgeries is limiting the number of surgeries that can be performed; and
 - Lack of beds in Long-Term Care and Alternate Level of Care facilities means that patients stay longer in hospitals.
- Desire for a standardized provincial care path that is well established and clearly describes the roles of each player along the path.
- Need for better segmentation of patients into those who need acute care and those who could be ambulatory; and treatment of patients according to their individual needs.

- Timing of patient discharge is causing strain on post-acute care facilities and organizations.
- Interest in centralized patient waitlist to ensure patients are referred to the most appropriate surgeon and providers have access to wait list to enable better planning.
- Need to increase knowledge and information sharing across various providers along the patient care path. This will require changes to processes and enhanced information technology capabilities. Privacy and security will be the major issues to overcome.
- Funding needs to better reflect the actual costs of delivering care and it needs to align better with long-term capacity planning.

RECOMMENDATION

Rationale for Change

Currently, wait times in the South West LHIN for hip replacement surgery and for knee replacement surgery are above the provincial benchmark of 182 days. With the demand for hip and knee total joint replacement expected to grow significantly in the coming years and continued constraints on hospital resources such as available beds, operating room time, and staff, this presents a challenge that demands change.

Integrated Model of Care

In response to the current and evolving needs of this specific patient population, the Hips and Knees PAT is recommending this integrated model of care to improve service delivery efficiency and effectiveness, resulting in decreased wait times, enhanced quality of care for the patient and increased access. A fundamental goal is to ensure consistency in the delivery of hip and knee care throughout the South West LHIN, by incorporating a combination of best practices and lessons learned from a review of comparable existing models and associated research.

It is expected that the new integrated model of care will decrease hip and knee total joint replacement surgery wait times in the South West LHIN to be equal to or lower than the provincial benchmark of 182 days. In addition, this new model could be used as a framework for future cross-LHIN surgical processes.

Mission: The hip and knee replacement delivery model strives to ensure that individuals have timely, appropriate and equitable access to hip and knee replacement services based on best practices and evidence-based care. Through the use of a common multidisciplinary pathway spanning primary and secondary prevention through post-acute care, services are standardized and delivered efficiently in a coordinated manner.

Vision: Within the next five years, measures will show achievement of the following elements in the evidence-based care and management of hip and knee replacement patients within the South West LHIN:

- Clearly defined continuum of care available to all patients across the South West LHIN resulting in positive clinical and functional outcomes;
- Individuals have equitable timely access to services across the South West LHIN;
- Reduction in surgical wait times;
- The patient, family and/or their support system is an active participant in their care and self management;
- Demonstrated improvement in consumer satisfaction measures; and

- The South West LHIN delivers high quality, best practice care.

The mission and vision are closely aligned with the South West LHIN Vision for Integration.

The integrated model of care incorporates the following:

- Standardized Referral, Central Registry and Assessment and Education Centres to improve the overall flow of patients and ensure common information is obtained at referral and assessment;
- Enhancements to the role of Secondary Prevention and Post-Acute Care, addressing gaps in provision and access;
- A combination of best practices and lessons learned from other jurisdictions, modified to the specific needs of the South West LHIN and its providers and patients;
- Common clinical guidelines, indicators, education tools and care pathways that span across each of the steps along the continuum of care;
- Processes and systems that enhance the flow of communication between healthcare providers at each step along the continuum allowing for more integrated care and a more responsive system of care; and
- A performance management component that collects and evaluates data and outcomes in order to be more responsive to the needs of our patients.

Service delivery components of the integrated model of care are listed below:

- Standardized Referral Process – a standardized referral form will incorporate patient choice and streamline the intake process to expedite patients to receive appropriate services;
- Central Registry – will be the single point of entry into the system and will allow for the use of a single wait list to help ensure wait times are distributed appropriately across the LHIN;
- Assessment and Education Centres - At the Centres, an initial assessment will be performed by multi-disciplinary assessment teams with musculoskeletal expertise to determine if patient is a surgical candidate, to direct patient to appropriate secondary prevention services, to aid in pre-arranging necessary post-acute care. In addition, the team will educate all patients as required and distribute patient education binder;
- Secondary Prevention – refers to a wide variety of support available through specific community programs, providers, select outpatient departments and other resources;
- Pre-Admit / In-Hospital – use of a common clinical care pathway will ensure patient treatment across the South West LHIN is equitable and in accordance with best practices. Adherence to pathway in combination with the Assessment and Education Centres and Secondary Prevention should result in a reduction in the length of stay;
- Post-Acute – post-acute planning will begin with the initial assessment conducted in the early stages of the integrated model of care and confirmed while the patient is in-hospital. Clinical staff will use common guidelines to determine the most appropriate post-acute stream of care for the patient. Post-Acute service providers will use guidelines to ensure that all patients receive the same evidence-based quality of care; and
- Health Information – is coordinated and communicated along the care continuum to ensure that key information flows between care providers in a timely fashion as the patient moves through the process.

Governance and Accountability

Significant components of the governance and accountability structures include the development and implementation of a new governance structure, the negotiation of memorandums of understanding and securing funding arrangements.

Governance and Accountability Structure

It is recommended that a **Hips and Knees Accountability Council** (“Accountability Council”) be established to serve as an oversight function for the implementation of the integrated model of care and to provide ongoing oversight of the model to ensure optimal performance and achievement of the expected outcomes. The Accountability Council would have the combined accountability of the South West LHIN and key health care service providers. Membership would have the influence and authority to effect change in their organizations. The membership would consist of the following:

- Representation from the South West LHIN, at the Senior Director level or above, and a representative from the Board of Directors;
- Champions from each of the seven surgical sites, preferably a surgeon and a Vice-President or CEO;
- Champions from key community health service organizations that have the authority to influence their organizations; and
- Representation from the Hips and Knees PAT for continuity.

A full-time dedicated Project Manager would be chosen by the Accountability Council to manage the full scope of the project on a day to day basis. The role of the Project Manager will be to provide focused effort in terms of coordinating and facilitating all project activities related to the implementation of the integrated model of care.

A **Hips and Knees Implementation Steering Committee** would be formed to support and direct the Implementation process. Membership would include: individuals with an operational role from each surgical site and from key community organizations covering the entire continuum of care, and some members from the Hips and Knees PAT.

Implementation Task Teams would be established as needed to focus on specific tasks for a limited time and in a facilitated environment. These teams would work towards the final conceptualization and design of specific components of the model of care.

Memorandum of Understanding

In order to increase accountability and support the development of a more integrated model of care for hip and knee replacement surgery, expectations associated with the delivery of the model would be part of the Memorandum of Understanding between the South West LHIN, hospitals and community health service providers.

The Memorandum of Understanding would serve to establish the accountabilities and responsibilities of the involved parties. Development and negotiation of this legal document would be one of the first tasks of the new governance structure.

Funding Arrangements

The Hips and Knees PAT did not have the authority or the mandate to negotiate funding arrangements. The presence of the Accountability Council and signed Memorandum of Understanding will help guide discussions concerning securing required funding and other resources. Discussions would focus on obtaining further clarification of the required resources and establishing possible sources of required resources. The finalization of commitments to provide resources will need to proceed on a timely basis in order to keep the momentum of the project moving forward. If significant delays are expected, the team may want to reprioritize their activities and move forward with the work of activities with minimal associated costs, as appropriate.

IMPLEMENTATION

In order for the integrated model of care to be implemented successfully, the following success factors are critical:

- Strong leadership support to drive the change – at a senior management and physician level from the key health organizations and the South West LHIN;
- Funding to support the model;
- Stakeholder buy-in and involvement in the detailed design of the model;
- Dedicated project management to coordinate activities and ensure completion of key milestones;
- Comprehensive change management and communication plan to engage and manage stakeholders effectively; and
- Establishment of a solid foundation for the project in the Pre-Implementation Period.

Several critical barriers to change are highlighted in the report. The Hips and Knees PAT has identified two barriers that are perceived to present the most risk and must be managed proactively to mitigate them.

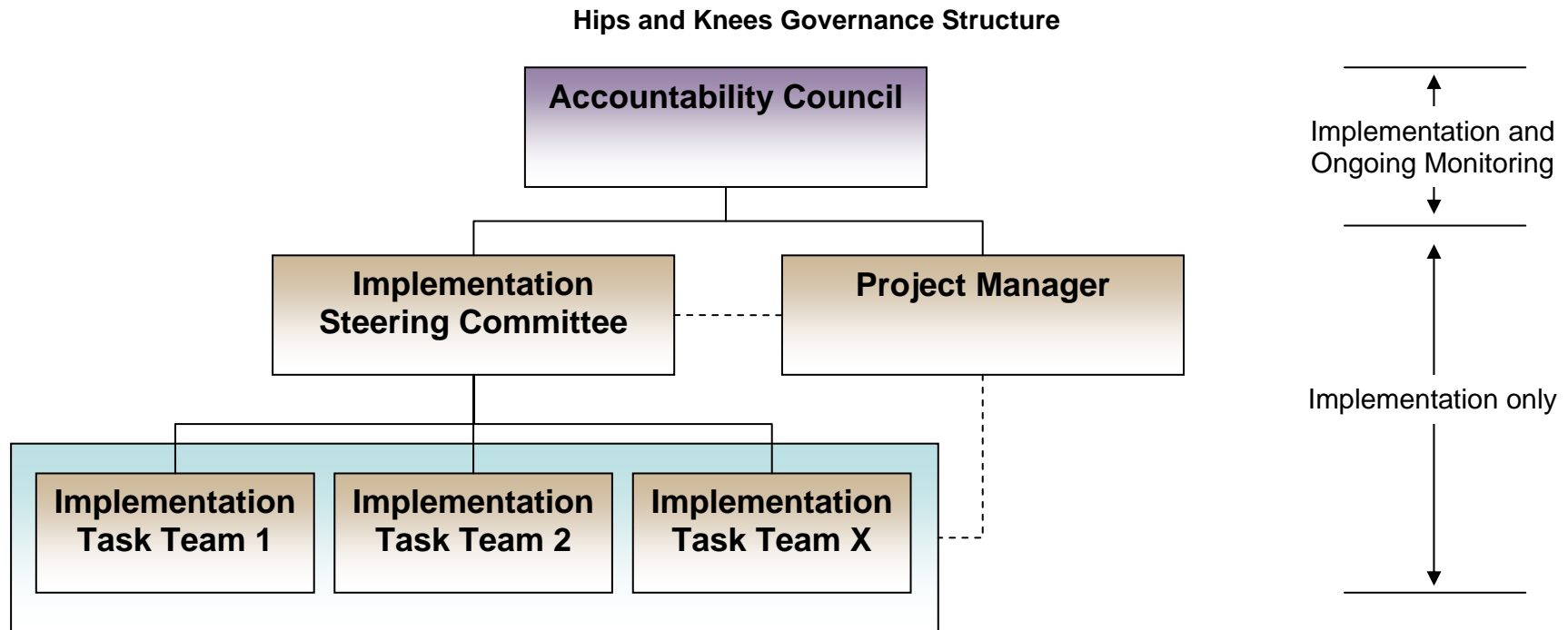
- Funding – In other jurisdictions such as Toronto Central and Hamilton Niagara Haldimand Brant, the requested funds from the MOHLTC have still not been made available to the LHINs. If the Pre-Implementation period takes undue time, momentum for the initiative may be lost and there is a risk of losing the interest of the membership of the Hips and Knees governance structure and other stakeholders if work to date does not continue to move forward. This may require a review of the recommendations for activities with minimal associated costs and a reprioritization of activities within the detailed project plan.
- Obtaining desired level of stakeholder engagement - Stakeholders have many demands on their time but are willing to share their thoughts and expertise. However, most do not have the time available to engage in detailed documentation and other time-intensive activities required to support final design and implementation. This may be mitigated by dedicated project management to aid in overall planning of participants' work, making participation as easy and time-effective as possible and, providing teams with directions and tools that are straight forward and easy to understand.

The major activities to implementing the integrated model of care fall into three time periods.

Pre-Implementation Period (estimated to be 3 months, depending on timing of endorsements and funding)

- Finalize endorsements from Strategic Advisory Group, South West LHIN Board of Directors and certain health service providers;
- Finalize governance and accountability structure;
- Implement governance structure;

- Finalize Memorandum of Understanding with South West LHIN and health service providers;
- Confirm anticipated costs and funding sources; and
- Establish project management.



Implementation Period (the following 24 months)

- Throughout the Implementation Period
 - Manage project through activities of Governance and Accountability, Performance Management, Financial Accountability, Change Management and Communication. This would include ongoing stakeholder engagement, communication and training at appropriate intervals.
 - Certain components of Phase One and Phase Two may occur in parallel, with consideration given to key points of interdependency.
 - Monitoring, evaluating and refining Standardized Referral, Central Registry and Education Tools.
- Phase One
 - Confirm tools and processes associated with Standardized Referral, Central Registry and Education Tools and move forward with LHIN-wide implementation within six months from start of implementation period.
 - Specific components of the model will have a staged introduction, with initial introduction at a specific location and refinements made before moving forward with LHIN-wide implementation.

- Phase Two
 - Confirm detailed design of tools and processes associated with Assessment and Education Centres, Secondary Prevention, In-Hospital Care and Post-Acute Care within 12 months from start of implementation period.
 - Modify tools and processes associated with Phase One implementation as necessary to incorporate feedback and align with new processes to be implemented as part of Phase Two.
 - Confirm tools and processes and launch all components of the integrated model of care within 24 months from the start of implementation period.
 - Specific components of the model will have a staged introduction, with initial introduction at a specific location and refinements made before moving forward with LHIN-wide implementation.

Post-Implementation Period (the following 12 months)

- Monitoring, evaluating and refining.
- Transition to future sustainability model of project.

Implementation Requirements

The identification of detailed costs and the configuration of services for the integrated model of care is an iterative process and preliminary estimates have been provided by the Hips and Knees PAT as summarized in the table below. The costs reflect best estimates based on information readily available to the Hips and Knees PAT and assumptions made on patient volumes and other variable factors. These costs do not represent firm amounts. It is not possible to identify and quantify all costs at this point in the planning given that the detailed design has not been completed and many of the costs identified are dependent on volumes and other variable factors and thus, cannot represent firm amounts at this point in time. In addition to the unknown costs that have been identified and discussed below, there may be additional resource requirements that have not been identified. The costs reflected below should by no means be taken to represent a budget.

Preliminary Estimated Costs

| Component | One-time Costs | | Ongoing Costs | |
|---|---|--|---------------|---|
| | Estimated | Unknown | Estimated | Unknown |
| Project management | \$120,000 annually for project manager | Support from LHIN and resources required to support work of the governance and accountability structures | | |
| Clinical guidelines, education tools, care pathways | \$18,000 for document design and website design | Initial Printing and distribution | | Ongoing Printing and distribution Website maintenance and hosting, if not covered by |

| Component | One-time Costs | | Ongoing Costs | |
|--|---------------------------------|---|---|---|
| | Estimated | Unknown | Estimated | Unknown |
| | | | | the host site |
| Information technology | | Central Registry database Information sharing between facilities Performance tracking | | Central Registry database Information sharing between facilities Performance tracking |
| Change management, Communication plan, Performance management plan | | To be determined once the plans are finalized | | To be determined once the plans are finalized |
| Standardized referral process | No significant incremental cost | | No significant incremental cost | |
| Central Registry | \$3,500 for office setup | Training Telecommunications | \$87,750 for clerical and management support \$0 for space | Telecommunications |
| Assessment and Education Centres | | Training | \$411,588 annually for assessment team \$0 for space | Training |
| Initial assessment with surgeon | No significant incremental cost | | No significant incremental cost | |
| Secondary Prevention | | Expansion of existing programs - To be determined through RFP process | | Expansion of existing programs - To be determined through RFP process |
| Pre-Admit Clinic and In-Hospital Care | None | | | Incremental costs could vary between facility based on variance between current practice and the common clinical pathway. |
| Post-Acute Care | None | | | Expansion of existing Post-Acute Care programs to ensure access is equitable (geographically disbursed and publicly funded) across the LHIN |

2. Approach to Step 2-3-4

2.1 Our Project Team

Hips and Knees Priority Action Team - Core Team

Co-Chairs

- Tom McHugh, Tillsonburg District Memorial Hospital
- Jessica Meleskie, Coordinator – Evidence-Based Care Program, Grey Bruce Health Network

LHIN Resource

- Christina Janson, Planner, South West Local Health Integration Network

Board Liason

- John Van Bastelaar, Board Liaison

Members

- Nancy Ambrogio, Regional Director – Client Services, The Arthritis Society – London and Middlesex
- Lois Beamish Taylor, Regional Director, Closing the Gap Healthcare Group
- Robert Campbell, Community Member
- Silvie Crawford, Director of Surgical Care, London Health Sciences Centre – University Hospital
- Mary Jane Dandeno, Corporate Manager – Utilization Management, Grey Bruce Health Services
- Dr. Dave Dixon, Family Physician, Bryon Family Medical Clinic
- Pat Elliot, Director of Patient Care, Woodstock General Hospital
- Keary Fulton-Wallace, Reporting Coordinator - Performance Management, Huron Perth Healthcare Alliance
- Julie Gilvesy, Senior Executive Leader/Chief Nursing Executive, Tillsonburg District Memorial Hospital
- Joanne Hardy, Manager – Client Services, COTA Health
- Brenda Lambert, Vice President Patient Services, St. Thomas Elgin General Hospital
- Nancy Maltby-Webster, Chief Operating Officer, Middlesex Hospital Alliance
- Mary Robertson, Director of Patient Care, Middlesex Hospital Alliance
- Diane Van Dyk, Community Developer, West Elgin Community Health Centre
- Gwen Vanderheyden, Regional Manager – Client Services, South West Community Care Access Centre
- Jennifer Woodroffe, Physiotherapy Manager, South Bruce Grey Health Centre

Resource Members

- Dr. Jan Henning, Orthopaedic Surgeon, Grey Bruce Health Services
- Dr. Ralph Pototschnik, Orthopaedic Surgeon, Huron Perth Healthcare Alliance - Stratford General Hospital
- Cathy Vandersluis, Health Human Resources Advisory Group

Hips and Knees Priority Action Team – Task Teams

Standardized Referral, Central Registry and Assessment and Secondary Prevention Task Team

Co-Chairs

- Silvie Crawford, Director of Surgical Care, London Health Sciences Centre – University Hospital
- Mary Jane Dandeno, Corporate Manager – Utilization Management, Grey Bruce Health Services

Members

- Pamela Matheson, Manager Central Scheduling and Registration/ Rural Site Supervisor Business Systems, Grey Bruce Health Services
- Diane McGall, Occupational Therapist, The Arthritis Society – Grey Bruce District
- Mary Robertson, Director of Patient Care, Middlesex Hospital Alliance
- Gwen Vanderheyden, Regional Manager – Client Services, South West Community Care Access Centre
- Diane Van Dyk, Community Developer, West Elgin Community Health Centre
- Margaret Vaz, Physiotherapist, The Arthritis Society – London and Middlesex

Resource Members

- Sarah Langford, Coordinator of Client Services – Friendly Visiting Program, Victorian Order of Nursing - Middlesex-London
- Dr. Steven MacDonald, Orthopaedic Surgeon, London Health Sciences Centre
- Dr. Dave Dixon, Family Physician, Bryon Family Medical Clinic

Education Tools Task Team

Chair

- Jessica Meleskie, Coordinator – Evidence-Based Care Program, Grey Bruce Health Network

Members

- Karin Burrows, Case Manager, Community Care Access Centre
- Hazel Celestino, London Health Sciences Centre
- Sharon Cummings, Occupational Therapist, The Arthritis Society – London and Middlesex
- Mary Lou Dodd, Professional Practice Leader – OT Adult Community, Closing the Gap
- Maureen Loft, Advanced Practice Nurse, Orthopaedics, St. Joseph's Health Care
- Melanie Potvin, Manager – 2NSurgery/COU, St. Thomas-Elgin General Hospital
- Mary Robertson, Director of Patient Care, Middlesex Hospital Alliance

Resource Member

- Lynda Bumstead, Manager Chronic Disease, Grey Bruce Health Unit (Co-Chair of Chronic Disease Prevention and Management PAT)

In-Hospital Care Task Team

Chair

- Deanna Massie, Physiotherapist, Middlesex Health Alliance – Strathroy

Members

- Loretta Bourke, Manager of Rehabilitation, Middlesex Health Alliance – Strathroy
- Pat Elliot, Director of Patient Care, Woodstock General Hospital
- Kim Holmes, Manager of Peri-operative Services, Huron Perth Healthcare Alliance – Stratford General
- Maureen Loft, Advanced Practice Nurse, Orthopaedics, St. Joseph's Health Care
- Melanie Potvin, Manager – 2NSurgery/COU, St. Thomas-Elgin General Hospital
- Sylvia Simon, Coordinator – L9, Orthopaedic, London Health Sciences Centre – University Hospital
- Donnalene Tuer-Hodes, Chief Nursing Executive, Huron Perth Healthcare Alliance – Stratford General
- Sue Weatherby, Grey Bruce Health Services
- Arlene Whitehead, Director of Ambulatory Care, Woodstock General Hospital

Resource Members

- Silvie Crawford, Director of Surgical Care, London Health Sciences Centre – University Hospital
- Keary Fulton-Wallace, Reporting Coordinator – Performance Management, Huron Perth Healthcare Alliance
- Jessica Meleskie, Coordinator – Evidence-Based Care Program, Grey Bruce Health Network
- Mary Helen Adams, Arthritis Society / London Health Sciences Centre – University Hospital
- Corrine Richards, Arthritis Society / London Health Sciences Centre – University Hospital

Post-Acute Care Task Team

Chair

- Joanne Hardy, Manager – Client Services, COTA Health

Members

- Lois Beamish Taylor, Regional Director, Closing the Gap Healthcare Group (also on Rehabilitation PAT part of Seniors and Adults with Complex Needs PATs)
- Robert Campbell, Community Member
- Julie Gilvesy, Senior Executive Leader/Chief Nursing Executive, Tillsonburg District Memorial Hospital
- Kathy Ikert, Physiotherapist, Middlesex Health Alliance
- Kate Lanis, Occupational Therapist, London Health Sciences Centre
- Jessica Meleskie, Coordinator – Evidence-Based Care Program, Grey Bruce Health Network
- Sean Willis, Physiotherapist, London Health Science Centre
- Jennifer Woodroffe, Physiotherapy Manager, South Bruce Grey Health Centre

Resource Member

- Megan Nichols, Client Services Manager, South West Community Care Access Centre

2.2 Approach to Rationale and Recommendation

Beginning the Hips and Knees work

The Government of Ontario has a number of initiatives aimed at improving the delivery of health care, enabling coordination across the health care system and enhancing accountability of providers for health outcomes. Central to these initiatives is the Wait Time Strategy which will hold providers accountable to reduce wait times with a focus on five key areas, one of which is hip and knee total joint replacement surgery. Within the South West, organizations engaged in the Wait Time Strategy have begun to make significant advancements that are resulting in reduced wait times and system improvements. The South West Local Health Integration network (“South West LHIN”) is working with these providers to support local solutions that will reduce wait times, as well as other strategies to improve the overall quality of and access to care.

In May of 2006, the South West LHIN formed the Hips and Knees Quality, Utilization and Access Steering Committee (“Steering Committee”) to work collaboratively and on behalf of the South West to share local approaches and identify, prioritize and support the implementation of strategies to increase access and decrease wait times for hip and knee total joint replacements. The purpose of the Steering Committee’s work was to increase capacity and strengthen components of the care continuum to reduce length of stay and improve patient outcomes and to guide development of a collaborative proposal among providers in the LHIN who are participating in the delivery of total hip and knee joint replacements.

Identifying the current state

The work of the Steering Committee started with identifying the current state and summarizing their finding in a report (see Appendix 1 Hips and Knees Quality, Utilization and Access Steering Committee – Current State Report – July 2006 (“Current State Report”). The Current State Report provides a situational assessment consisting of both quantitative and qualitative components. Information on current resources, patterns of service use, market share, utilization rates and level of activity were obtained from a variety of sources and analyzed. In addition, the Steering Committee incorporated a high-level analysis of Strengths, Weaknesses, Opportunities, and Threats (“SWOT”) into the Current State Report. The SWOT analysis was conducted to gain sector-specific background information on service delivery, system coordination, capacity, and information systems. The responses obtained from the corresponding interviews with key stakeholders enabled the team to assess current barriers, pressures and opportunities for change.

To assist in the planning process, a review of literature and informed practice models was also completed by the Steering Committee. Seminal literature dealing with best practice findings from Canada, New Zealand, Australia, England, and the United States was reviewed.

The surgical process analysis and improvement and the Hip and Knee expert panel recommendations were used in the initial framing of the Current State Report and to support alignment with current provincial initiatives. Both reports made recommendations at three levels: individual hospitals, region and province. The reports had commonalities in the broad areas of focus including benchmarking/standardization/best practices, human resources, technology/information management, funding, process improvements and organization to meet future needs.

Working together to develop the future state

The Current State Report was used to frame the approach for the Steering Committee's development of the future state. The Future State Report was developed to provide the contextual framework for how the providers and partners within the South West LHIN can continue to work together towards achieving a more coordinated approach to the delivery of hip and knee care (see Appendix 2 Hips and Knees Quality, Utilization and Access Steering Committee – Working Together – Future State Report – January 2007 (“Future State Report”)).

Early in the planning process, the Steering Committee had the opportunity to submit a proposal to the Ministry of Health and Long Term Care (“MOHLTC” or “the Ministry”) Wait Time Strategy Team to increase volume of hip and knee joint replacement surgeries in the South West LHIN. The proposal was submitted in July 2006 and was subsequently approved by the MOHLTC and, as a result, funding for surgical volumes for the 2006/2007 fiscal year increased by 350 procedures across the LHIN. While the key component of the proposal was to increase surgical procedures, it was stressed that the reduction in wait times could not be achieved solely by increasing surgical volumes. In order to support the additional volumes, coordinated pre and post surgical programs would be required. For more details, see Appendix 3 – South West LHIN Proposal to MOHLTC – Leveraging Best Practices – An Integrated Approach for Developing Capacity to Reduce Wait Time for Total Joint Replacement Procedures in the South West LHIN – July 2006.

This coordination of delivery, the seamless flow along the continuum, is fundamental to the development of the Future State model of care. Each component in the service continuum is connected to and impacts on the overall patient flow. The development of the Future State model of care is based upon the interplay and interrelationship of all service providers and services along the care continuum.

Refreshing the Current State

The Hips and Knees Priority Action Team (“Hips and Knees PAT”) was formed in early 2007 as a result of the Steering Committee work being identified as a Quick Start opportunity in the South West LHIN's Integrated Health Service Plan. Membership of the Hips and Knees PAT includes several members from the previously existing Steering Committee but also includes members not involved in the previous work. Therefore, the first few months were spent on education and reviewing the Steering Committee work. The Hips and Knees PAT members used the information in the Current State Report and the Future State Report as a starting point. They reviewed inventories of services and practices and obtained care pathways and education tools at the hospital and agency level. A similar level of detail was difficult to obtain across post-acute services but, was later addressed through a survey of providers in February 2008. The Hips and Knees PAT members used the summary of best practices research in the Current State Report and Future State Report, as well as their expertise to guide where they needed to search for further best practice research. A high-level planning group was formed during the summer of 2007 to review models of care and to draft a proposed model of integrated service delivery for total joint replacement in the South West LHIN. This group was also charged with planning the community engagement strategy.

The Hips and Knees PAT also undertook the task of refreshing quantitative data over the summer months. Data was obtained from multiple sources. Each of the seven hospital sites that do total joint replacements, as well as two community agencies provided data on such factors as volumes, length of stay, and complexity. Data was also retrieved and analyzed from the MOHLTC Provincial Health Planning Database. In addition to these sources, data was obtained from reports from the Canadian Institute for Health Information and the Institute of Canadian Evaluative Sciences. This information was compiled into a presentation containing updated statistics and additional detail in regard to population profile, health status and utilization of services and reviewed by the Hips and Knees PAT in September 2007 (see Appendix 4 - Hips and Knees

Priority Action Team Current State Data Refresh, September 5, 2007). As a result of questions and requests for additional information arising from the first presentation, the presentation was updated (see Appendix 5 - Hips and Knees Priority Action Team Current State Data Refresh – Update, October 17, 2007).

In October 2007, the Hips and Knees PAT reviewed the draft model of care that was created by the high-level planning group. In addition, the community engagement plan was shared and members of the Hips and Knees PAT volunteered for various engagement activities.

Engaging the Community

The Hips and Knees PAT implemented a variety of engagement strategies to involve stakeholders and enable effective communication between stakeholders and the PAT (see Appendix 6 - Hips and Knees Priority Action Team Community Engagement Plan and Critical Path). To aid the activities listed below, members of the Hips and Knees PAT were provided with talking points and a high-level slide presentation to use when sharing recommendations with their colleagues.

- Key Community Engagement activities held in conjunction with several other PATs included:
 - November 2007, Family Health Team Forum.
 - November and December 2007, Community Engagement sessions for health service providers and health care partners were held in each of the North, Central and South planning areas of the South West LHIN. The Hips and Knees PAT utilized the session to share an overview of their high level directions, touching on key messages, system challenges, system opportunities, proposed model, how you can help and next steps.
 - In February 2007, the South West LHIN partnered with the Ontario Medical Association (“OMA”) to host three physician workshops. The goal of these sessions was to inform physicians about the role of the LHIN in the health care sector, and to provide updates on the activities and initiatives currently underway. These meetings continue to build on the collaborative relationship that exists between the OMA and the South West LHIN. A Hips and Knees session was held at the London workshop, with participants from the Hips and Knees PAT and five attendees, providing the opportunity for roundtable discussion and feedback.
- Key Community Engagement activities conducted solely by the Hips and Knees PAT included:
 - Tom McHugh, Co-Chair, met regularly with Hospital CEOs, the South West CCAC Executive Director and the South West LHIN Senior Management to obtain input/advice over a period of time - a reference group with strong local knowledge.
 - The Hips and Knees PAT members in each of the North, Central and South planning areas met with Chiefs of Staff or Chiefs of Orthopaedics at hospitals in focus group setting to inform of model development, review proposed model recommendations and to obtain feedback on specific recommendations.
 - Task Team members engaged various service providers (focus groups and one-on-one) throughout the course of their work in designing the recommendation and action planning (as applicable).
 - Focus groups occurred with staff in hospitals and frontline care providers from community agencies.

2.3 Approach to Designing the Recommendation and Action Planning

Moving toward Designing the Recommendations

The High-Level Planning group of the Hips and Knees PAT developed a proposed model of care for future service delivery for joint replacement services in the South West LHIN. In order to fully design the recommendations, guidelines, outcomes and indicators of the various components of the model that span the continuum of care for this population, the group formed four Task Teams in late November, 2007. The priority recommendation, purpose and scope of work for each of the four Task Teams are outlined below:

- Standardized Referral, Central Registry and Assessment, and Secondary Prevention
 - A priority recommendation going forward to the Strategic Advisory Group in April 2008 is to:
 - Develop a standardized referral process and initial phases of a central registry for implementation;
 - Conduct detailed design and implementation planning for the final phases of the central registry and three assessment centres to improve care for the target population; and
 - Promote and strengthen secondary prevention programs for all patients who are referred to and awaiting joint replacement surgery and/or have had surgery.
 - The purpose of this time-limited task team was to fully design the recommendation, guidelines, outcomes and indicators for Standardized Referral, Central Registry and Assessment, and Secondary Prevention and conduct detailed implementation planning for successful execution of a standardized referral process and central registry process in 2008/2009. The work of this task team must align with the proposed recommendations of three other PATs: Primary Care, Rehabilitation and Chronic Disease Prevention and Management. It may be necessary to engage in cross-PAT activities to complete this work over the next few months.
 - The scope of this team's work included designing the recommendation and action planning.

- In-Hospital Care
 - A priority recommendation going forward to the Strategic Advisory Group in April 2008 is to develop guidelines, outcomes and indicators for in-hospital care that patients receive during their orthopedic consult, pre-operative care, surgery, and post-operative care.
 - The purpose of this time-limited task team was to conduct an inventory of in-hospital care practices, design the high-level recommendation, guidelines, outcomes and indicators for what in-hospital care should look like in the South West LHIN. Detailed design of the recommendation and implementation planning for successful execution will continue in 2008/09.
 - The scope of this team's work was limited to designing the recommendation.

- Post-Acute Care
 - A priority recommendation going forward to the Strategic Advisory Group in April 2008 is to create a basket of post-acute rehabilitation options for patients that have undergone joint replacement surgery and require ongoing rehabilitation care.
 - The purpose of this time-limited task team was to design the high-level recommendation, identify the various streams of post-acute rehabilitation, and create the guidelines, outcomes and indicators for post-acute rehabilitation in the South West LHIN. The work of this task team must align with the proposed post-acute rehabilitation recommendations of the Rehabilitation PAT. Detailed design and implementation planning for successful execution will continue in 2008/2009.
 - The scope of this team's work was limited to designing the recommendation.

- Education Tools
 - A priority recommendation going forward to the Strategic Advisory Group in April 2008 is to develop and implement common patient and provider education tools across the South West LHIN.
 - The purpose of this time-limited task team was to fully design the recommendation, guidelines, tools, outcomes and indicators and conduct detailed implementation planning for successful execution of the common education tools in 2008/2009.
 - The scope of this team's work included designing the recommendation and action planning.

The Hips and Knees PAT and the Task Teams used the Health System Integration Methodology (“HSIM”) to provide a consistent planning and implementation approach. This involved a step-by-step process whereby certain activities and tools were completed. Task Teams met independently, with occasional combined sessions, for facilitated workshops and for the purposes of keeping the work of the entire project aligned. Task Team Leads provided regular updates on the team's progress at biweekly Team Lead conference calls and monthly PAT meetings. Task Team Leads presented their final team recommendations to the Hips and Knees PAT on March 5th, 2008.

The HSIM's Building Block framework was used as a guide to aid teams in the future design of their recommendations and to help illustrate how the design can be applied in the system by components. The Task Teams utilized the Building Block framework to enable their discussions and documentation to achieve the following:

- Identify and describe how the proposed recommendation will address the current needs;
- Articulate the future design of the recommendations and identify how the design can be applied in the system;
- Select transitional and end state performance measures; and
- Identify the magnitude of change from the current state to the recommended future state.

In addition to utilizing the tools provided, the work of the Task Teams involved the following activities (to the extent required to support the overall purpose of the individual team):

- Development of a clear understanding of scope of what is currently happening within the LHIN (inventory);
- Review of best practices as identified in work completed to date by Steering Committee and the Hips and Knees PAT;
- Identification of additional best practices (often at a lower level of detail) through literature review and a review of what other organizations are currently doing;

- Identification of deficiencies and application of innovative thinking to develop solutions, giving consideration to best practices;
- Ongoing communication between various stakeholders as represented on team or contacted through team members;
- Consideration for flow of patient and information throughout model; and
- Creation of guidelines, outcomes and indicators.

Moving towards Action Planning

As set out in the high-level objectives of each team, the task of action planning fell primarily to the Standardized Referral, Central Registry and Assessment, and Secondary Prevention Task Team and the Education Tools Task Team. The action planning work of these Task Teams was supported through the use of a workbook. The HSIM guided the content of the workbook, which instructed the teams to work through key questions and document their comments and findings in regard to:

- Identification of Goals for Execution and Critical Success Factors;
- Barriers, Mitigation Strategies and Implications;
- Stakeholder Analysis;
- Leadership Requirements;
- Resources Required;
- Understanding the Roles and Accountabilities of Each Partner;
- Tracking and Reporting Performance Metrics;
- Communication – Value Proposition;
- Change Management; and
- Creating the Detailed Plan.

3. Background

3.1 Purpose

Overall Purpose of the Hips and Knees PAT in relation to the Integrated Health Service Plan of the South West LHIN

In October 2006, the South West LHIN identified several high-level action plans in their Integrated Health Services Plan. One of these action plans involved accessing the right services, in the right place, at the right time. Action Objective #3 of this action plan involves a Quick Start opportunity. Quick Start Action Plans will capitalize on the momentum of work already underway at the provincial level and move forward on “early win” opportunities for the South West. The overall action objective is to develop and promote local solutions for provincial priorities and incorporate lessons learned from these initiatives to inform other South West LHIN access and integration activities.

One of the Quick Start opportunities under this action plan resulted in the creation of the Hips and Knees PAT. The Hips and Knees PAT is building on and moving the work of the Steering Committee forward.

The Objectives for the Hips and Knees Quick Start Action Plan:

Overall:

- Develop and promote local solutions for provincial priorities and incorporate lessons learned from these initiatives to inform other South West LHIN access and integration activities.
- Promote and build on the work of the Steering Committee to ensure an integrated approach to hip and knee total joint replacement across the South West LHIN, including:
 - Collaborating with Public Health Units and primary care providers to develop strategies for ongoing education around health promotion, primary prevention, prehabilitation and secondary prevention;
 - Developing mechanisms needed to ensure effective patient flow along the care continuum (e.g., care pathways);
 - Streamlining the pre-surgical assessment and triage process;
 - Optimizing surgical capacity for total joint replacement procedures;
 - Confirming an organizational structure and processes required to support successful implementation;
 - Identifying clear measures and targets for wait time management;
 - Establishing processes for collecting and utilizing data to support wait time management;
 - Improving health outcomes by using best practices;
 - Supporting the successful implementation of the plan and establishment of the common care pathway;
 - Identify opportunities to leverage lessons learned from hip and knee strategy implementation to respond to locally-defined and provincially-defined wait time priorities; and
 - Extend implementation of wait time strategies to other areas in accordance with local and provincial priorities.
- Implement a variety of engagement strategies to involve stakeholders and enable effective communication between stakeholders and the Priority Action Team.

Year One: Building the Case for Change, Designing the Recommendations, Action Planning for Successful Execution (2007/08)

- Complete environmental scan and best practice research and detailed design and action planning of selected priorities.

Year Two: Execution and further Detailed Design and Action Planning for Execution (2008/09)

- Begin the implementation process of selected areas of future state design, and
- Complete detailed design and implementation planning of longer-term strategies.

Year Three: Execution

- Implementation of long-term future state design strategies.

Areas out of Scope

The Hips and Knees PAT identified the following areas as being out of scope for their planning work:

- The work of the Hips and Knees PAT will look to enhance effectiveness in the continuum of care for hip and knee total joint replacement. However, this will not fully address the issue of capacity in our hospitals, as this is a system-wide issue. Bed shortages are common in the health care system as a whole. These shortages are driven by a combination of factors including; increased demand, the availability of health human resources, and the lack of facilities to move patients into at the end of their hospital stay. Likewise, operating room time is impacted by the availability of health human resources and beds. These issues are outside of the scope of this project and are best addressed through coordinated South West LHIN or provincial strategies like the MOHLTC's current Health Human Resource Strategy.
- It has been identified that current funding for hip and knee total joint replacements does not properly reflect the underlying costs. Resolution of this issue requires a change at MOHLTC level in the way funds are allocated and thus outside the scope of this project.
- Public Health is not under the mandate of the South West LHIN, therefore the Hips and Knees PAT did not focus on prevention and health promotion.
- The focus of the Hips and Knees PAT was total joint replacement elective primary surgery and revisions, and not urgent and emergent surgery.
- Patients and services naturally flow across the geographic boundaries of the South West LHIN. In the South West LHIN, as many as 17% of surgeries are performed on patients residing in other LHINs. In comparison, a good proportion of South West LHIN residents are having surgery completed in another LHIN but require rehabilitation close to home. The focus of the Hips and Knees PAT has been on addressing issues within the boundaries of the South West LHIN.

3.2 Assumptions

The Hips and Knees Priority Action Team identified the following assumptions:

- The primary methods of improving wait time, within current capacity, will be through enhanced effectiveness arising from the introduction of new guidelines, processes and tools across the continuum of care as a whole.
- Wait times will be monitored continually to ensure that integration of processes and work to create equality in access have a positive effect.

- Further detailing of processes and configuration of services and development of a robust business case will occur in subsequent phases of the project as key decision makers become an integral part of the governance structure and more information becomes available.
- The information flow required to support the integrated model of care will be dependent on the Provincial E-Health strategy and E-Health priorities of the South West LHIN.

3.3 Context for Change

The Mission Statement and Vision of the Hips and Knees PAT are closely aligned with the stated South West LHIN Vision for Integration, and the Values of the Hips and Knees PAT are adopted from those of the South West LHIN. The details of the Mission Statement, Vision and Values of the Hips and Knees PAT are detailed below:

Mission Statement

The hip and knee replacement delivery model strives to ensure that individuals have timely, appropriate and equitable access to hip and knee replacement services based on best practices and evidence-based care. Through the use of a common multidisciplinary pathway spanning primary and secondary prevention through post-acute care, services are standardized, and delivered efficiently in a coordinated manner.

Vision

Within the next five years, measures will show achievement of the following elements in the evidence-based care and management of hip and knee replacement patients within the South West LHIN:

- Clearly defined continuum of care available to all patients across the South West LHIN resulting in positive clinical and functional outcomes;
- Individuals have equitable timely access to services across the South West LHIN;
- Reduction in surgical wait times;
- The patient, family and/or their support system is an active participant in their care and self management;
- Demonstrated improvement in consumer satisfaction measures; and
- The South West LHIN delivers high quality best practice care.

Values

In concert with the articulated values of the South West LHIN, The Hips and Knees PAT values are:

- Accountability;
- Collaboration;
- Coordination;
- Efficiency;
- Effectiveness;
- Competence;
- Integration; and
- Evidence-based practice.

The Principles of the Hips and Knees PAT are adopted from the South West LHIN decision making criteria. The accompanying table highlights how the overall recommendation of the Hips and Knees PAT aligns with their principles.

Table 1 Evaluation of Hips and Knees PAT Case for Quick Win Execution against the Principles of the Hips and Knees PAT

| Principles | Evidence supporting Principles |
|--|--|
| <p>Consumer-focused: Degree of support for:</p> <ul style="list-style-type: none"> • focusing on the needs of the consumer and the family supporting the consumer • emphasizing consumer participation and accountability for their health outcomes | <ul style="list-style-type: none"> • The referral process allows for informed patient choice of preferred surgeon, location or shortest wait time. • Different types of patients require different care pathways based on needs. These needs can be identified at the assessment phase of the process and are acknowledged throughout the integrated model of care. • Introduction of education and secondary prevention as early as possible to optimize patient’s mental and physical readiness for surgery, or to aid non-surgical patients in optimizing their condition. • The patient education binder and other education tools, such as the brochure, website, teaching checklist and links to other community resources, help ensure that the patient and family feel informed throughout the continuum of care and, are able to participate in activities to improve the patient’s health outcomes. • Secondary prevention improves patient knowledge, empowers the patient, addresses safety issues, improves level of fitness and function, enables patient to remain at work and/or at home longer, improves overall quality of life and outcomes. • Early assessment and pre-planning for post-acute care and confirmation of assessment in-hospital allow for informed patient choice, increased patient comfort in regards to next steps and a better transition throughout the continuum of care. |
| <p>Focused on Population health: Degree of support for:</p> <ul style="list-style-type: none"> • improving the health status of the population • emphasizing a focus on health promotion and disease prevention | <ul style="list-style-type: none"> • Increasing volumes and reducing wait times for hip and knee replacement surgery improves the overall health status of surgical patients. The earlier the intervention, the better the outcomes. • Introduction of education and secondary prevention as early as possible to optimize surgical patients’ function while awaiting surgery and aids non-surgical patients in optimizing their condition. • Secondary prevention improves patient’s knowledge, empowers the patient, addresses safety issues, improves level of fitness and function, enables patient to remain at work and/or at home longer, and improves overall quality of life and outcomes. • The Hips and Knees PAT has recognized the role of health promotion and disease prevention but, has not focused specifically on these areas in the recommendation as Public Health is not under the mandate of the South West LHIN. • The Hips and Knees PAT advocates that consideration should be given to incorporating public health data into the data set being tracked in conjunction with this project. This would not only allow for the Program to see the impact of changes to the model on the population but may enable insight into additional changes required in response to changing requirements of the population. |

| Principles | Evidence supporting Principles |
|---|--|
| <p>Evidence-based: Degree of support for the model by:</p> <ul style="list-style-type: none"> • a rationale that is demonstrated by qualitative and quantitative data • best practice research | <ul style="list-style-type: none"> • The rationale is clearly grounded in quantitative and qualitative data as incorporated into this report directly and by reference. • The integrated model of care and recommended implementation plan incorporate best practices and lessons learned from reviews of literature and other models of care, as well as identification of innovative ways to address deficiencies in our current state and incorporate feedback from key stakeholders. |
| <p>Promotes integration innovation: Degree of support for demonstrating systems thinking</p> | <ul style="list-style-type: none"> • The integrated model of care connects parts of the health care system to work better together and enables providers to work collaboratively together. It changes the ways in which providers work as a team and individually. • The integrated model of care aims to create additional capacity in the system by utilizing resources more effectively and streamlining service delivery. |
| <p>Supports sustainability: Degree of support for ensuring the future viability of the service</p> | <ul style="list-style-type: none"> • The integrated model of care establishes a framework for a sustainable health system, by optimizing use of available resources and increasing efficiency of service delivery. • The proposed governance structure ensures high-level oversight and accountability. • The introduction of new processes is supported by tools such as guidelines and care pathways that will help ensure that the processes carry on following implementation. • The need for guidelines, tools and processes to be updated on an ongoing basis is noted as a critical success factor and change management processes incorporate the concept of monitoring, evaluating and refining. • A performance management process helps ensure that stakeholders remain focused on managing the processes behind the metrics and accountable for reporting these metrics. |
| <p>Supports the health system: Degree of support for:</p> <ul style="list-style-type: none"> • promoting improved access to services • enhancing ease of movement through the system | <ul style="list-style-type: none"> • The integrated model of care emphasizes all possible avenues of referral and manages one wait list for all through the Central Registry. • The introduction of common tools and processes throughout the continuum of care will help ensure that the patient experience is similar across the South West LHIN. • Secondary prevention and post-acute care services to be expanded to ensure equitable access across the South West LHIN. • High-level performance management indicators will be assessed not only on average but compared by site or region to help ensure that implementation is resulting in the desired changes across the South West LHIN. • Ease of movement through the system will be facilitated by the Central Registry and Assessment and Education Centre. • Effective coordination across the continuum of care from primary care physicians, to hospitals, and other health service providers results in process improvements, better ease of movement for the patient through the system and, better care outcomes. |

| Principles | Evidence supporting Principles |
|---|--|
| <p>Demonstrates partnerships: Degree of support for establishing or strengthening of cross-sectoral networks and partnerships</p> | <ul style="list-style-type: none"> • The integrated model of care emphasizes the importance of multidisciplinary teams and strong partnerships and communications within the hospital setting and with community-based organizations. • Existing partnerships will be strengthened and new relationships formed as all providers work together towards the future state. |
| <p>Aligns with provincial directives: Degree of support for advancing the strategic goals and mandates of the MOHLTC and South West LHIN Integrated Health Service Plan Priorities</p> | <ul style="list-style-type: none"> • The integrated model of care advances the strategic directions of MOHLTC as it : <ul style="list-style-type: none"> ○ Renews community engagement and partnerships concerning health care, through stakeholder engagement and establishing more robust partnerships; ○ Improves the health status of Ontarians within the South West LHIN; ○ Ensures equitable access to health care to all Ontarians within the South West LHIN no matter where they live, by reducing barriers to access and contributing to reduced wait times; ○ Improves the quality of health outcomes, by increasing the focus on the consumer, improving integration and coordination of services, and building continuous quality improvement into the system; and ○ Establishes a framework for a sustainable health system, by optimizing use of available resources and increasing efficiency of service delivery. • The integrated model of care advances the South West LHIN goals for integration as the model: <ul style="list-style-type: none"> ○ Develops local health care services for local people though the most appropriate services across both rural and urban settings; ○ Establishes through partnerships, a single system of providers that offer: equity in access to quality services, ease of movement throughout the continuum, and informed and responsible consumer choice; ○ Leverages existing strengths and creates new ways of delivering health care that achieve optimal health outcomes and support health system sustainability; ○ Enhances the academic health care culture across the South West and strengthens leadership in education and knowledge transfer to support service innovation; and, ○ Promotes linkages with regional partnership and networks to enhance service delivery. |

4. Serving the Population

4.1 Rationale for the Recommendation

Rationale

Currently, wait times in the South West LHIN for hip replacement surgery and for knee replacement surgery are above the provincial benchmark of 182 days. With the demand for hip and knee total joint replacement expected to grow significantly in the coming years and continued constraints on hospital resources such as available beds, operating room time, and staff, this presents a challenge that demands change.

Key Findings of the Target Population

Typical client profile

The typical client profile for total knee replacement / total hip replacement:

- approximately 2/3 of patients are over the age of 61 with the average patient age being 68 years
- 60% of patients are women
- 80% of patients have osteoarthritis
- over 80% of patients are overweight or obese (meaning that they have a Body Mass Index greater than 25)

The number of individuals requiring hip and knee replacement surgery in Ontario and across Canada has dramatically increased in the past several years and this trend is expected to continue. Furthermore, improvements in the expected life of joint replacement materials and increased consumer awareness of the benefits of the surgery are expected to drive additional demand, resulting in a decrease in the average age of people requesting hip and knee surgery.

Disbursement of the population within the South West LHIN

The general population within the South West LHIN is concentrated in the South with approximately 71% of the population located there, 13% in the Central, and 15% in the North. In addition, the population in the South is generally younger than in the Central and the North.

Key Findings on Baseline Metrics

Health status

The increase in the number of individuals requiring hip and knee surgery is driven by a multitude of factors. One factor is overall population growth, with the 10 year population projection for the South West LHIN anticipating overall growth of 8%. The aging of our population has an even larger impact due to the aging of the Baby Boomer generation. The 10 year population projection for the South West LHIN anticipates growth of 47% in 65 to 74 year olds and growth of 32% in those 85 year olds and older. However, the overall rate of growth in required surgeries far surpasses the rate of growth attributed to the aging population. Other factors, such as the rising incidence of obesity and osteoarthritis, are also

causing an increased need. Increases in obesity contribute directly to the increasing demand for total joint replacement and, can be seen in the doubling of total joint replacement surgeries being performed in the 45 to 54 years age group during the last decade.

In addition, the South West LHIN has some of the highest rates of chronic disease in the province. This results in surgical candidates that have a higher complexity and thus, may require a longer length of stay and other additional resources, such as post-acute rehabilitation.

At present, the increasing demand is creating a challenge for some facilities in terms of meeting the provincial wait time benchmark of completing 90% of patients' surgeries within 182 days from the decision to operate.

Table 2 Wait Times by Facility for Total Joint Replacement (Oct-Nov-Dec 2007)

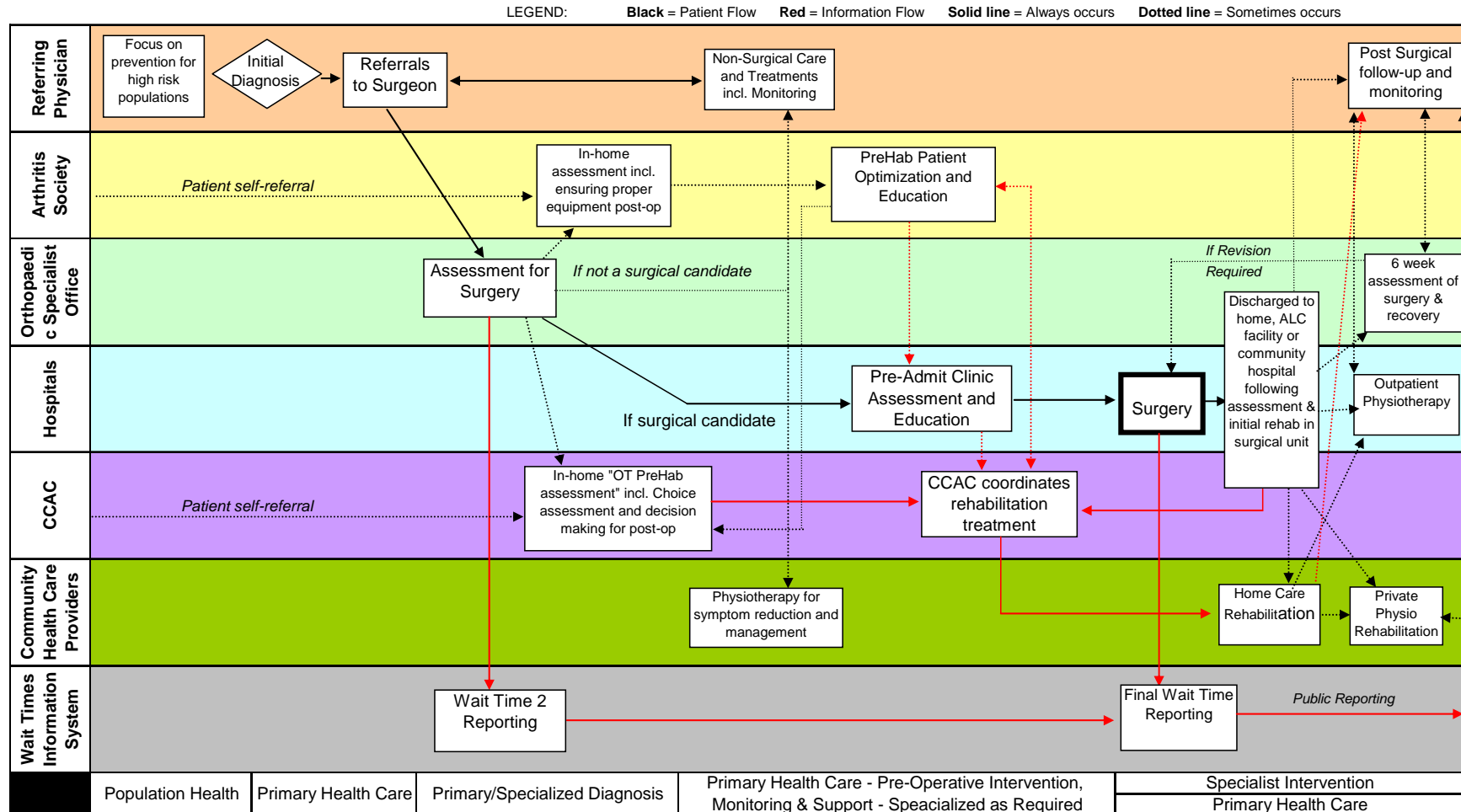
| Facility | Hip | Knee |
|---|------------|------------|
| Grey Bruce Health Services (Owen Sound) | 143 | 275 |
| London Health Sciences Centre (UH) | 173 | 184 |
| St. Joseph's Health Care London | 90 | 79 |
| St. Thomas Elgin General Hospital | 167 | 176 |
| Stratford General Hospital | 424 | 529 |
| Strathroy Middlesex General Hospital | 65 | 65 |
| Woodstock General Hospital | 482 | 328 |
| South West LHIN | 211 | 254 |
| Ontario Target | 182 | 182 |

Note: The wait times listed above represent the number of days that 90% of patients are waiting for surgery from the decision to operate.

Health services

The high-level findings of the Steering Committee's review of the current state are reflected in the accompanying diagram, Diagram 1 Hip and Knee Current State Diagram. This diagram illustrates the key activities that take place currently and, the associated flow of patients and information between health service providers. Additional discussion of each of the key components of the current state follows the diagram.

Diagram 1 Hip and Knee Current State Diagram



Entry to System

Some patients do not have a family physician and find it challenging to obtain an initial assessment and referral to surgery.

Secondary Prevention

Currently, the availability and type of secondary prevention services vary throughout the South West LHIN. In London and Middlesex County, the Arthritis Society’s Prehab program is an important part of the care pathway as part of a contract that they have with the South West CCAC. The Prehab program was introduced, in part, in response to long wait lists. Hospitals in other counties within the South West LHIN utilize

resources of the South West CCAC, the Arthritis Society or outpatient physiotherapy. The percentage of referrals and range of services available at each hospital can vary greatly. As wait lists get shorter, the use of formal secondary prevention programs such as the Prehab program will need to be re-evaluated.

In-Hospital Care

The volumes of elective hip and knee replacement surgeries vary among the hospitals, as indicated in Table 3. Length of stay also varies significantly by hospital due in part to the level of complexity of the patients.

Table 3 Total Surgical Volumes of Hip and Knee Replacement by Facility (2006/2007)

| Facility | Replacement Joint | | |
|---|-------------------|--------------|--------------|
| | Hip | Knee | Combined |
| Grey Bruce Health Services (Owen Sound) | 204 | 460 | 664 |
| Grey Bruce Health Services (Meaford) | 9 | | 9 |
| London Health Sciences Centre (UH) | 495 | 743 | 1238 |
| St. Joseph's Health Care London | 106 | 171 | 277 |
| St. Thomas Elgin General Hospital | 63 | 77 | 140 |
| Stratford General Hospital | 163 | 195 | 358 |
| Strathroy Middlesex General Hospital | 14 | 57 | 71 |
| Woodstock General Hospital | 73 | 116 | 189 |
| South West LHIN | 1,127 | 1,819 | 2,947 |

**PHPDB Inpatient Records 8 Aug 07*

The availability of health human resources and the availability of hospital beds limits the number of surgeries that can be performed. Initial analysis of the availability of health human resources within the South West LHIN hospitals, CCAC and other community-based providers revealed that human resource shortages were a major factor affecting the ability to meet demand. Furthermore, it is reported that Ontario orthopedic surgeons spent only 35% of their time dedicated to surgery, while in the United States, the recommended dedication of time is 62%. Bed shortages are not uncommon in the health care system as a whole. These shortages can be driven by increased demand, the availability of health human resources and the lack of facilities to move patients into at the end of their hospital stay.

Post-Acute Care

Post-Acute rehabilitation is provided by a wide variety of facilities and organizations. The availability of post-acute rehabilitation in terms of proximity, type of service and funding vary throughout the South West LHIN and these gaps will need to be addressed to ensure that all patients have equitable access to services that will maximize their outcomes.

Sources of additional information

For additional details on key findings on baseline metrics refer to the following:

- Appendix 1 Hips and Knees Quality, Utilization and Access Steering Committee – Current State Report - July 2006
- Appendix 2 Hips and Knees Quality, Utilization and Access Steering Committee – Working Together - Future State Report – January 2007
- Appendix 3 South West LHIN Proposal to MOHLTC – Leveraging Best Practices – An Integrated Approach for Developing Capacity to Reduce Wait Times for Total Joint Replacement Procedures in the South West LHIN – July 2006
- Appendix 4 Hips and Knees Priority Action Team Current State Data Refresh, September 5, 2007
- Appendix 5 Hips and Knees Priority Action Team Current State Data Refresh – Update, October 17, 2007

High-Level Financial Analysis

Hospital Funding

The allocation of Wait Time funding and volumes for hip and knee replacement in the South West LHIN for each of the past two fiscal years is detailed by site in Table 5, Total Hip and Knee Joint Replacement Wait Time Funding Allocation. Note, only those sites who take on volumes in addition to the base volumes receive an allocation of Wait Time funding. The base volumes are funded as part of overall hospital budgets.

The Wait Time funding per case takes into account various factors. Funding per case for the academic site, London Health Sciences Centre, is significantly higher than that of other sites. This factor in combination with the other adjustments outlined by the Ontario Joint Policy and Planning Committee may contribute to the differences in the funding per case. These other adjustments may include size of the hospital (smaller sites are expected to have higher costs per case), being a tertiary site (increased complexity expected to have higher costs, isolation (having to provide more services due to proximity to other hospitals) and chronic care hospitals adjustment.

In 2006/07, if hospitals were not able to meet their volume targets for which they received funding, the funding for surgeries not completed was clawed back by the Ministry's Treasury Office. For 2007/08, the process changed and each LHIN is now responsible for reallocating the funding across the LHIN. This is illustrated in the shift between the original allocations and the year end allocation for 2007/2008.

Total volumes are a combination of the base volume and incremental volume and include both primary and revision cases. Although not shown in Table 5, 2,758 surgeries were performed in 2005/2006. The total number of surgeries performed continued to increase with 3,001 surgeries performed in 2006/2006 and 3,345 performed in 2007/2008. Note that in 2007/2008 a new surgical site was introduced, Strathroy Middlesex General Hospital, utilizing the allocation of Wait Time funding only.

Table 4 Total Hip and Knee Joint Replacement Wait Time Funding Allocation

| Hospital: | Base Volume | Incremental Volume 2006/07 | Funding 2006/07 | Original Incremental Volume 2007/08 | Original Funding 2007/08 | Year-End Incremental Volume 2007/08 | Year-End Funding 2007/08 | Funding per Case 2007/08 |
|--------------------------------------|--------------------|-----------------------------------|------------------------|--|---------------------------------|--|---------------------------------|---------------------------------|
| Grey Bruce Health Services | 529 | 243 | \$1,672,300 | 225 | \$1,548,500 | 205 | \$1,410,856 | \$6,882.22 |
| London Health Sciences Centre | 968 | 300 | \$2,734,400 | 360 | \$3,336,600 | 300 | \$2,780,500 | \$9,268.33 |
| St. Joseph's Health Care | 278 | 21 | \$187,500 | 0 | \$0 | 0 | \$0 | \$0 |
| St. Thomas Elgin General | 154 | 0 | \$0 | 0 | \$0 | 0 | \$0 | \$0 |
| Stratford General Hospital | 228 | 100 | \$688,200 | 178 | \$1,253,700 | 178 | \$1,253,700 | \$7,043.26 |
| Strathroy Middlesex General Hospital | 0 | 0 | 0 | 150 | \$1,032,300 | 275 | \$1,892,550 | \$6,882.00 |
| Woodstock General Hospital | 120 | 60 | \$422,500 | 60 | \$414,800 | 110 | \$760,467 | \$6,913.33 |
| South West LHIN | 2277 | 724 | \$5,704,900 | 973 | \$7,585,900 | 1068 | \$8,098,072 | \$7,796.40 |

Community Engagement Activities

Steering Committee Past Linkages and Partnerships

The Steering Committee conducted engagement with various stakeholders and a synopsis of their linkages and partnerships are outlined in the Steering Committee’s Future State Report (see Appendix 2).

Priority Action Team Community Engagement Activities

- In November and December 2007, feedback was collected at the Family Health Team Forum and the three Community Engagement sessions following the Hips and Knees PAT presentation on their high-level direction. During the same time period, members of the Hips and Knees PAT were asked to share high-level direction with colleagues in their organizations. As a result, several focus group meetings and one-on-one meetings took place and additional feedback was collected.
 - Participants were asked the following questions:
 - What part of the directions did you like?
 - What part of the directions did you dislike or concerned you?
 - What was missing from the directions?
 - What does “Local” mean to you (measured in distance, travel time or other)?

- What part of the directions will have the greatest positive impact in our LHIN?
 - The most popular components of the proposed model related to Entry to the System and Assessment. Participants really liked the idea of the Central Registry and believed that it would streamline the system and create equity in the system.
 - The entire summary of the feedback collected is found in Appendix 7, Hips and Knees Priority Action Team Summary of Stakeholder Feedback.
- In February 2008, a small group of participants in the Hips and Knees physician workshop session provided the opportunity for discussion and feedback. Some of the key comments encourage the Hips and Knees PAT to:
 - Focus on the importance of the geographic area and urban/rural mix of the South West LHIN and to minimize the focus on other Canadian models of care that have different geographies and demographics;
 - Look at models from the United States because they have done lots of standardization and measurement may contain valuable lessons learned;
 - Look at wait times and volumes across the South West LHIN but also consider confounding variables between surgical sites (e.g., some hospitals operate on healthier individuals while other hospitals operate on the more complex cases);
 - Implement the standardized referral process and central registry soon because this will have the greatest short-term impact;
 - Keep the standardized referral form simple or physicians will not use it and will resort back to past referral patterns;
 - Integrate electronic data and information in the South West LHIN to enable the collection, monitoring and evaluation of standard information;
 - Ensure that the multidisciplinary team in the assessment centre liaises with post-acute care in a consistent manner;
 - Include pain management in the assessment centre visit;
 - Link to thehealthline.ca database to ensure effective linkages to secondary prevention options; and
 - Consider exclusion criteria or risk-adjusted measures in the care pathways (e.g., if the patient has a myocardial infarction immediately after their joint replacement surgery and requires longer length of stay in hospital, the total length of stay for this patient should not be counted in our data).

4.2 SWOT Analysis

Overview

The Steering Committee completed a SWOT Analysis as part of the content for their Current State Report (see full analysis in Appendix 1). The objectives of the SWOT analysis were to identify the current strengths and weaknesses of the system with respect to delivery of total hip and knee replacement surgery; and identify any potential opportunities for improvement as well as any threats to the system that could act as barriers to progress.

The SWOT analysis, which crossed organizational and geographical boundaries to obtain a broad system perspective within the LHIN, is based upon the following key areas of investigation: Service Delivery, System Coordination, Capacity and Information Systems. The inputs to this analysis were gathered via telephone interviews with key stakeholders. The frontline perspective of these stakeholders was invaluable in making recommendations both relevant and connected to the realities of the system.

Summary of Findings from SWOT Analysis

From the amalgamated data collected, several high level trends emerged:

- Extensive human resource shortages:
 - Nurses – limiting the number of beds that can be open and overworking the nurses currently working in the system causing burnout;
 - Anesthesiologists – more would increase surgical capacity; and
 - Therapists – the current numbers are stretched too thin and patient care in the recovery phase is starting to suffer.
- System-wide bed shortages:
 - Lack of beds in hospitals performing surgeries is limiting the number of surgeries that can be performed; and
 - Lack of beds in Long-Term Care and Alternate Level of Care facilities means that patients stay longer in hospitals.
- Desire for a standardized provincial care path that is well established and clearly describes the roles of each player along the path.
- Need for better segmentation of patients into those who need acute care and those who could be ambulatory; and treatment of patients according to their individual needs.
- Timing of patient discharge is causing strain on post-acute care facilities and organizations.
- Interest in centralized patient waitlist to ensure patients are referred to the most appropriate surgeon and providers have access to wait list to enable better planning.
- Need to increase knowledge and information sharing across various providers along the patient care path. This will require changes to processes and enhanced information technology capabilities. Privacy and security will be the major issues to overcome.
- Funding needs to better reflect the actual costs of delivering care and it needs to align better with long-term capacity planning.

4.3 Proof of Concept Recommendation and Application

Rationale

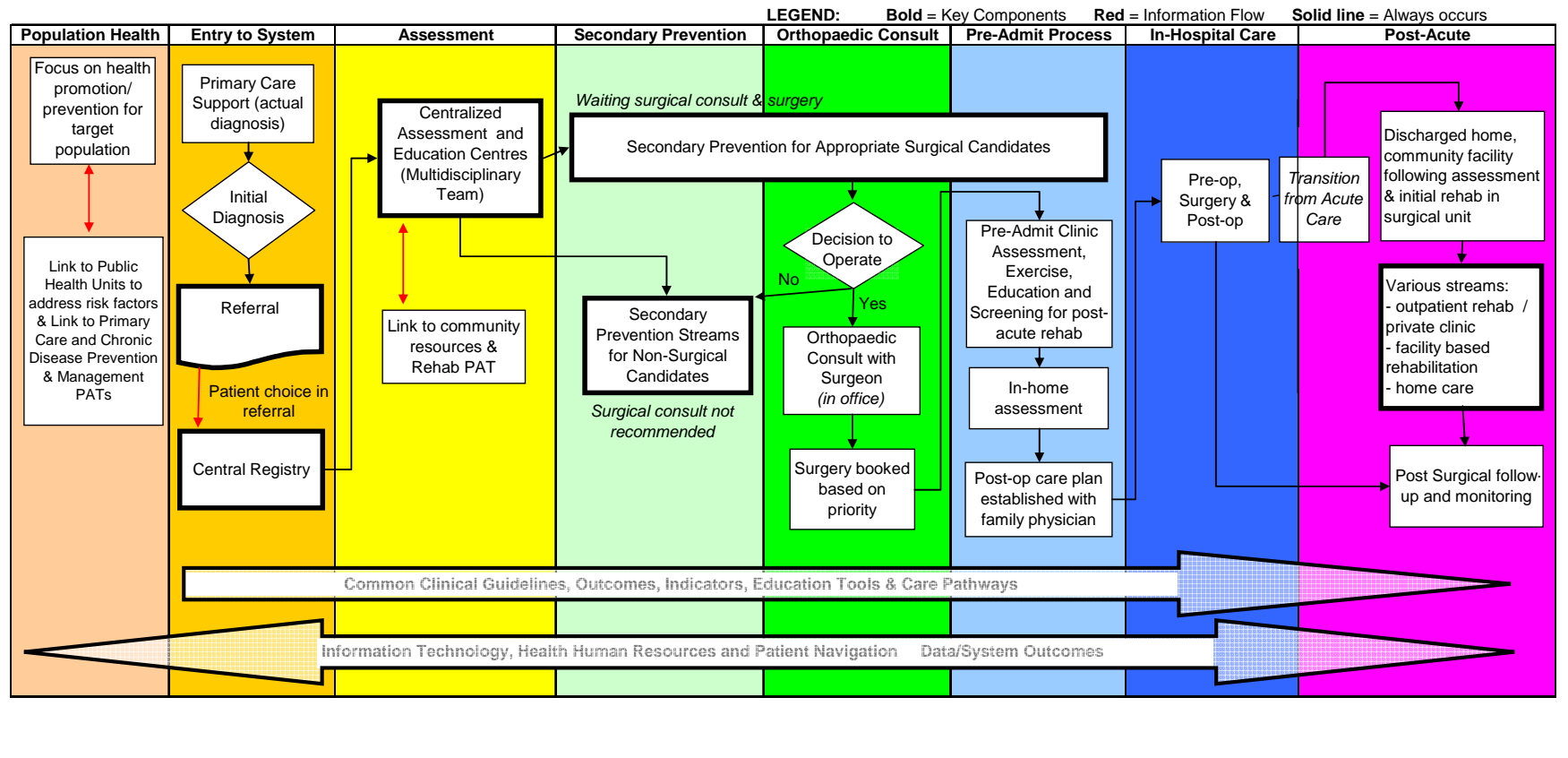
- Currently, wait times in the South West LHIN for hip replacement surgery and for knee replacement surgery are above the provincial benchmark of 182 days. With the demand for hip and knee total joint replacement expected to grow significantly in the coming years, and continued constraints on hospital resources such as available beds, operating room time and staff, this presents a challenge that demands change.

High-Level Recommendation

- In response to the current and evolving needs of this specific patient population, the Hips and Knees PAT is recommending this integrated model of care to improve service delivery efficiency and effectiveness, resulting in decreased wait times, enhanced quality of care for the patient and increased access. A fundamental goal is to ensure consistency in the delivery of hip and knee care throughout the South West LHIN by incorporating a combination of best practices and lessons learned from a review of comparable existing models and associated research.

| Building Blocks | Detailed Design Application of the Best Available Evidence |
|---|--|
| Target Population and Guiding Statements What is the purpose of the integrated service delivery model and who does it benefit? | |
| Target Population | <p>See heading “Key finding of the Target Population” under section 4.1 Rationale for Recommendation.</p> <p>The model will benefit individuals who:</p> <ul style="list-style-type: none"> • Are at a high risk of developing osteoarthritis; • Have osteoarthritis requiring secondary prevention and education; and • Require hip or knee replacement surgery. |
| Mission, Vision, Values and Goals | See Section 3.3 Context for Change. |
| System-level design | <p>The rationale and high-level recommendation for this integrated model of care are as noted above.</p> <p>Key components of this integrated model of care are:</p> <ul style="list-style-type: none"> • Standardized Referral, Central Registry and Assessment and Education Centres to improve overall flow of patients, assess surgical, secondary prevention and post-acute needs, introduce education as early as possible and ensure common information obtained at referral and assessment; • Enhancements to the role of Secondary Prevention and Post-Acute Care, addressing gaps in provision and access; • A combination of best practices and lessons learned from other jurisdictions, modified to meet the specific needs of the South West LHIN and its providers and patients; • Common clinical guidelines, indicators, education tools and care pathways that span the continuum of care; • Processes and systems that enhance the flow of communication between healthcare providers at each step along the continuum allowing for more integrated care and a more responsive system of care; and • A performance management component that collects and evaluates data and outcomes in order to be more responsive to the needs of our patients. <p>The recommended manner in which to organize and integrate these services is illustrated in Diagram 2 - Recommended Future Integrated Model of Care for South West LHIN Hip and Knee Joint Replacement Services.</p> |

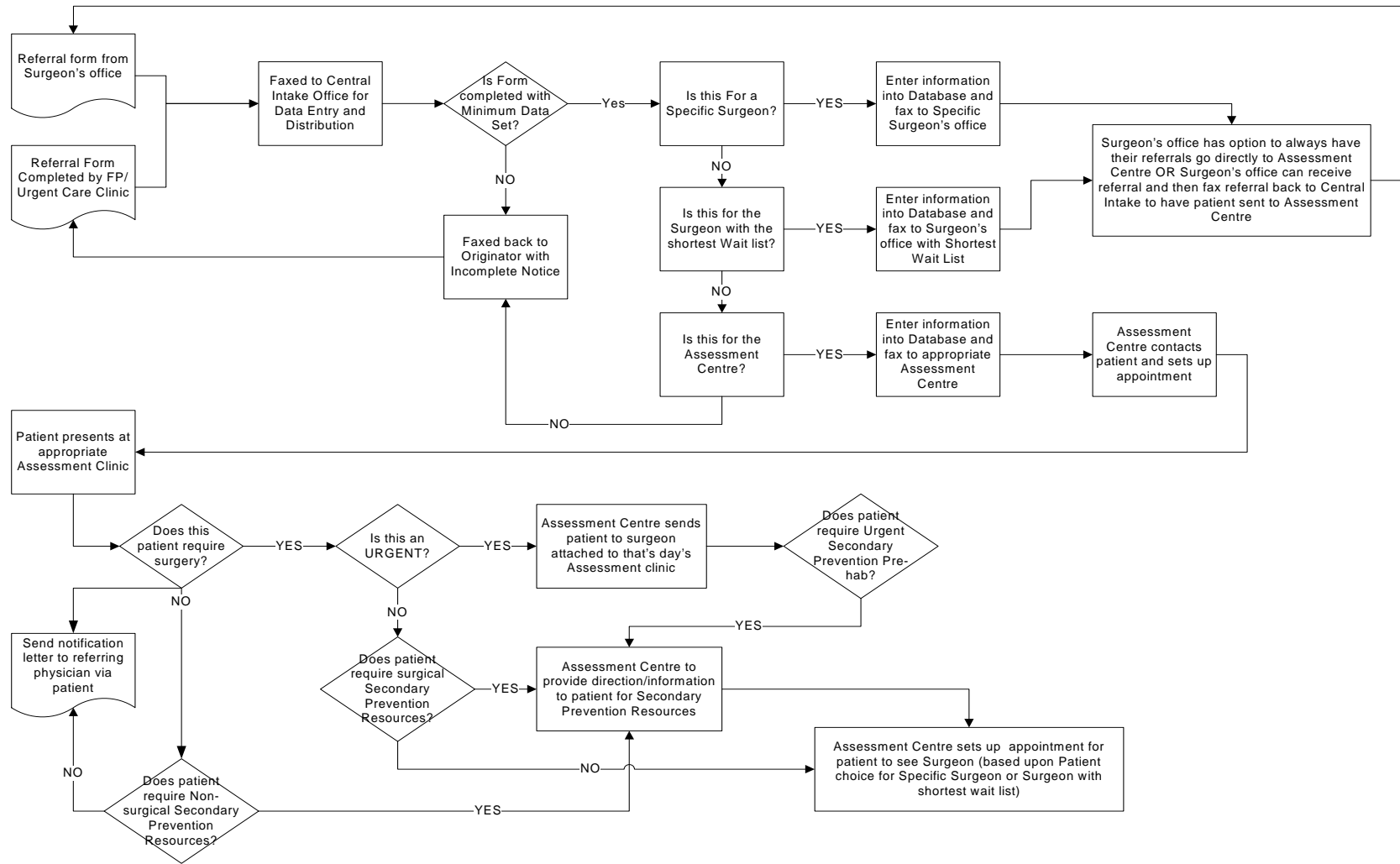
Diagram 2 Recommended Future Integrated Model of Care for South West LHIN Hip and Knee Joint Replacement Services



| Building Blocks | Detailed Design Application of the Best Available Evidence |
|---|---|
| Scope of Services What services and resources are required for each individual service or program in detail? | |
| Service-level design | <p>Detailed Service Delivery Processes</p> <p><u>Standardized referral process</u></p> <ul style="list-style-type: none"> • A standardized referral form will streamline the intake process to expedite patients to receive appropriate services (see Appendix 8 Draft South West LHIN Hip and Knee Replacement Program-Referral Form). <p><u>Central Registry</u></p> <ul style="list-style-type: none"> • A central registry will be the single point of entry into the system and will allow for the use of a single wait list to help ensure wait times are distributed appropriately across LHIN. <p><u>Assessment and Education Centres (or Initial Assessment with Surgeon)</u></p> <ul style="list-style-type: none"> • Three Assessment and Education Centres will be established within existing orthopedic clinics at three of the seven existing surgical sites. Sites would be located centrally within the three planning areas of the South West LHIN (North, Central, and South). • At the Assessment and Education Centres an initial assessment will be performed by multi-disciplinary assessment teams with musculoskeletal expertise. An orthopedic surgeon would only be consulted for emergent cases that require immediate surgeon assessment and booking for surgery. • Key activities of the Assessment and Education Centres: <ul style="list-style-type: none"> ○ Determine whether or not patient is a surgical candidate through use of standardized assessment form (see Appendix 9 Draft South West LHIN Hip and Knee Replacement Program – Assessment Summary); ○ Educate surgical and non-surgical patients as required and provide with Patient Education Binder (see Appendix 10 Draft South West LHIN Hip and Knee Replacement Program – Table of Contents for Patient Education Binder); ○ Assess surgical and non-surgical patients for need for secondary prevention, provide patient with options and aid in arranging appropriate resources; ○ Assess surgical patients’ need for post-acute care, provide patient with options and aid in arranging post-acute care; and ○ Update Teaching Checklist for Providers for activities completed at this point in the continuum. The Checklist will stay with the patient and provide a means by which the patient, family and other providers can tell what education the patient has already received. Teaching Checklists are currently used in the Grey Bruce Health Network and may serve as an example for developing similar documents for application across the entire LHIN (see Appendix 13 |

| Building Blocks | Detailed Design Application of the Best Available Evidence |
|-----------------|---|
| | <p data-bbox="800 180 1688 212">Grey Bruce Health Network Total Hip Replacement – Teaching Checklist).</p> <ul style="list-style-type: none"> <li data-bbox="659 217 1871 448"> <p>• Initial physician feedback on this portion of the integrated model of care indicated a preference to have the flexibility to continue with the current process of direct referral from physician to surgeon.</p> <ul style="list-style-type: none"> <li data-bbox="753 285 1793 347">○ Referral forms will have a space to indicate whether or not patient has opted to go to Assessment and Education Centre. <li data-bbox="753 352 1906 448">○ Surgeons will be able to request that all of their referrals go to the Assessment and Education Centres or that all of their referrals go through their office for determination of which referrals go through the Assessment and Education Centre. <p data-bbox="611 485 1877 548">The proposed workflow for Referral, Central Registry, and Assessment and Education Centres is detailed in Diagram 3.</p> |

Diagram 3 - Proposed South West LHIN Hips and Knees PAT Workflow for Referral, Central Registry, and Assessment and Education Centres



Service-level design

Secondary Prevention

- Secondary prevention is beneficial to patients and an important component of the overall model of care.
- Secondary prevention refers to a wide variety of support available through specific community programs, providers, select outpatient departments and other resources.
- Secondary prevention improves patient's knowledge, empowers the patient, addresses safety issues, improves level of fitness and function, enables patient to remain at work and/or at home longer, and improves overall quality of life and outcomes.
- The assessment team will utilize common assessment criteria to determine patient need and suitable resources will be identified to the patient to choose from.
- Providers of secondary prevention programs will follow common guidelines.
- Surgical candidates will be referred to start a secondary prevention program to optimize their mental and physical readiness for surgery.
- Non-surgical candidates will be referred to secondary prevention programs in the community to reduce their risk factors and/or to better manage their risk factors where surgery is not the best option with overall aim of optimizing their condition.

Pre-Admit / In-Hospital Care

- Streamlined pre-admit clinic will rely on increased utilization of Assessment and Education Centres to have made proper initial assessment, taken a complete history, provided patient with education and secondary prevention resources, and to have assessed and arranged post-acute care requirements.
- Use of a common clinical care pathway and the Teaching Checklist will ensure patient treatment across the South West LHIN is equitable and in accordance with best practices.
- Adherence to the pathway in combination with the successful implementation of the roles of the Assessment and Education Centre and Secondary Prevention should result in a reduction in the average length of stay.
- Utilization of the Teaching Checklist for Providers ensures patient receives all key teachings at the appropriate point in the continuum, reduces redundancy, and enables communication between providers.
- Reference to the Patient Education Binder supports teaching efforts and helps ensure consistency in messaging throughout the continuum.
- Pathway will include guidelines for each day in hospital from pre-admit clinic to discharge and cover topics such as diagnostics, treatments and assessments, medications, teaching, exercise and discharge planning (see Appendix 11 Draft South West LHIN Hip and Knee Replacement Program – Common Collaborative Care Path).

Post-Acute Care

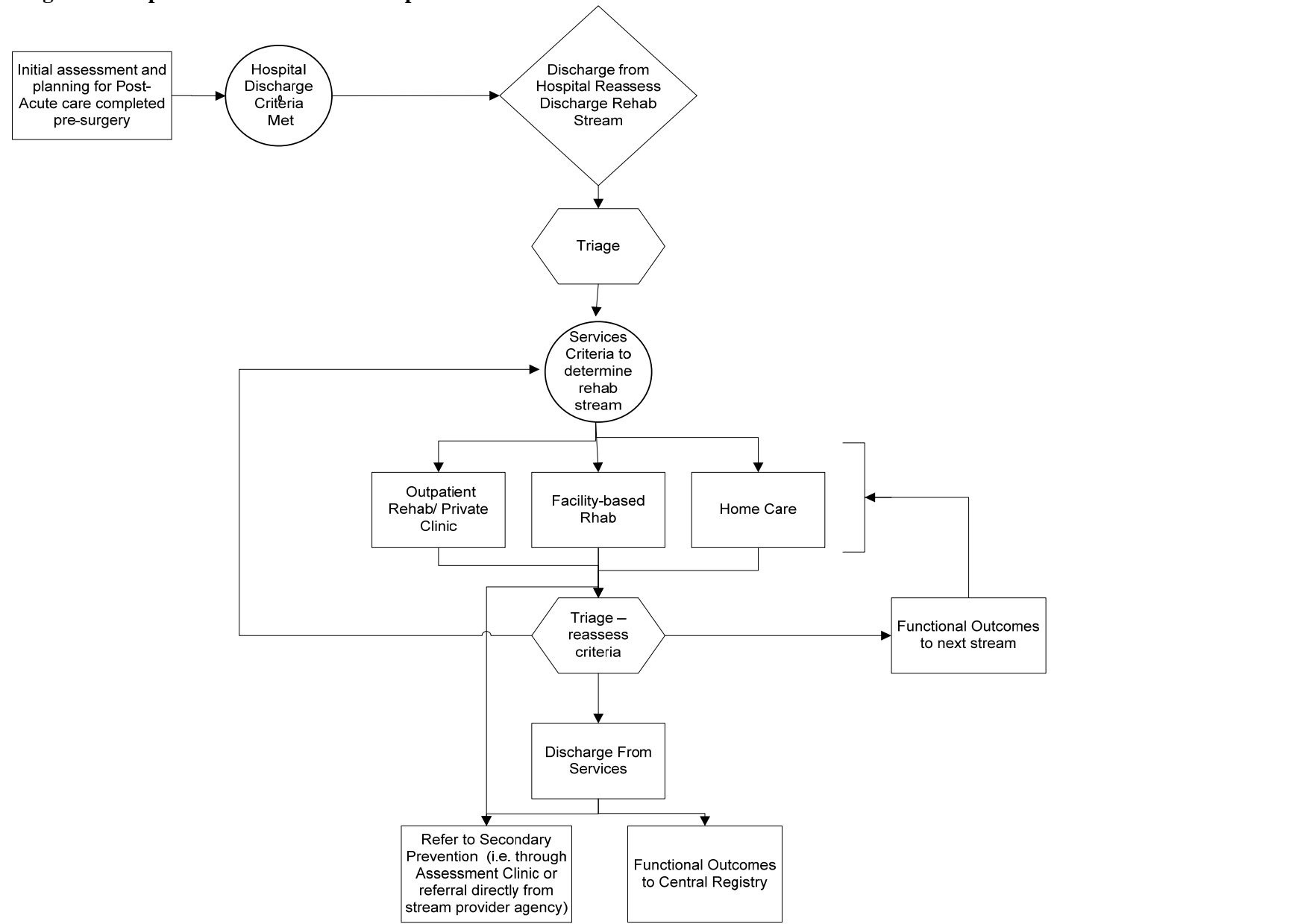
- Post-acute care providers will be grouped into streams that patients and other health service providers in the continuum of care will be aware of. The streams that have been identified are:
 - Outpatient Rehabilitation Clinic or Private Clinic;
 - Facility-based Rehabilitation; and

○ Home Care.

- Post-acute planning will begin with initial assessment at an Assessment and Education Centre, or, if the patient does not go to an Assessment and Education Centre, this would take place at surgeon's office or pre-admit. This initial assessment will be confirmed while the patient is in-hospital.
- Standardization of the assessment of post-acute care needs will be aided through the introduction of guidelines which would provide criteria for the determination of which post-acute stream the patient is best suited for (see Appendix 12 Draft South West LHIN Hip and Knee Replacement Program – Post-Acute Stream Algorithm – Guidelines and Milestones).
- Communication between hospital and post-acute care is important and will be facilitated in part by the existence of a Teaching Checklist for Providers as it provides a means by which post-acute care providers can tell what education the patient has already received.
- Consideration will also be given to other means by which the communication between in-hospital teams and post-acute care providers can be improved.
- Post-acute care provided by a variety of organizations and the introduction of guidelines is recommended to help ensure that all patients receive the same evidence-based quality of care (see Appendix 12 Draft South West LHIN Hip and Knee Replacement Program – Post-Acute Stream Algorithm – Guidelines and Milestones).

The proposed model of care for post-acute care is detailed in Diagram 4.

Diagram 4 Proposed South West LHIN Hips and Knees PAT Post-Acute Model of Care



Service-level design

Resources Required

- The previous sections reviewed the detailed service delivery process in terms of activities. The tables below provide additional detail in regard to the resources required.
 - Table 5 identifies resources required throughout the integrated model of care and discusses the associated resources required.
 - Table 6 identifies the additional resources required by each component of the integrated model of care and highlights who provides the service, where it is delivered, and a discussion of resources required.
- The varying level of detail in the analysis of resource requirements reflects the fact that the Hips and Knees Task Teams were tasked with different levels of detail. The In-Hospital Care and Post-Acute Care Task Teams were focused on high-level design, whereas the other Task Teams were focused on an additional level of detail.
- The implementation plans are not considered final and as such, resource requirements and costs would be subject to changes in the plan. The costs reflect best estimates based on information readily available and assumptions about patient volumes and other variable factors. These costs do not represent firm amounts.
- In addition to the unknown costs identified, there may be additional resource requirements that have not been identified.
- The costs reflected in Table 5 and Table 6 should by no means be taken to represent a budget. Once the recommendations receive approval and collaboration of organizational representatives with the authority to make contribution decisions begins more refined estimates can be created and collaboration to find ways to leverage existing resources in the system and utilize cost-sharing can begin. The Hips and Knees PAT does not have the authority to commit organizations to funding or in-kind contributions.

Impact of Resource Requirements on System as a whole

- Costs per patient may decrease if the acute average length of stay decreases and there is a reduction in complications after surgery. A decrease in the acute average length of stay and complications after surgery may be possible in the long-term given:
 - Introduction of patient education and secondary prevention as early as possible to optimize patient's mental and physical readiness for surgery;
 - Adherence to best practices as reflected in guidelines, tools, and processes throughout the continuum of care; and
 - Improved access to post-acute care options such that the patient has the appropriate follow-up care in place at the end of the required hospital stay. While improved pre-planning of post-acute care may result in some benefit there is also a need for increased resources in the community.
- This potential decrease in the length of stay combined with an increase in surgeon's time available for surgery (due to the introduction of the Assessment and Education Centre) may allow for some additional capacity in the system in the long-term. This will be dependent on the status of overall system-wide capacity issues such as the availability of health human resources, acute care beds, and other facilities to

move patients into at the end of their hospital stay.

- The goal of creating the increased capacity is to be able to reduce current wait times and address the growing need for surgeries. The higher volumes at lower costs per patient may result in an increase in the overall costs to the system but will result in a much more efficient utilization of resources.
- Should wait times be reduced significantly, the cost requirements in areas such as secondary prevention may decrease. It is difficult to determine if this will be possible to realize given the projected increase in demand.

Table 5 Resources required throughout the integrated model of Care

| | Component | Resource Requirements |
|--|---|--|
| <p>Strong project management to support further development and implementation of overall program</p> | <p>Dedicated Project Manager to carry on the work the Task Teams started through to implementation and beyond.</p> <p>Administrative, clerical, communications, change management, and performance management support.</p> <p>Resources required to support work of Hips and Knees Accountability Council, Implementation Steering Committee and Implementation Task Teams (meeting room, teleconference and video conferencing, meeting facilitation, scribe, transportation, catering).</p> | <p><u>Start-up</u> \$120,000 approximate annual salary and benefits for the project manager from pre-implementation to some point in time post-implementation (salary may vary dependent on skill set and experience of successful candidate).</p> <p>Unknown - Required support and resources (may be available at no significant incremental costs if the South West LHIN has capacity).</p> <p><u>Ongoing</u> Project Manager role will become redundant once implementation has been completed, monitored and refined for a short post-implementation period, or until structures have been established and responsibilities have been transferred to other.</p> |
| <p>Common clinical guidelines, outcomes, indicators, education tools and care pathways.</p> | <ul style="list-style-type: none"> • Standardized Referral Form • Assessment Form • Brochure • Patient Education Binder • Teaching Checklist for Providers • Website for Patients and Providers • In-Hospital Clinical pathway • Post Acute Clinical pathway | <p><u>Startup</u></p> <p>\$4,000 Graphic design of each document approximately \$500 * 8</p> <p>\$3,000 Create a smart electronic version of the Standardized Referral form such that data feeds directly into database (probably after initial launch of form)</p> <p>\$10,000 Potential costs to engage users in design and development of forms (meetings, focus groups, testing)</p> <p>\$1,000 Website design (based on 10-15 hours of work to design static html pages from template of myjointreplacement.ca)</p> |

| | Component | Resource Requirements |
|---|--|--|
| | | <p>Unknown - Initial printing and distribution costs, dependent on quantities required (number of copies to be provided and number of stakeholders) and on whether or not costs can be absorbed by current source of funds for similar documentation existing in organizations.</p> <p><u>Ongoing- Unknown</u> Maintenance and hosting cost associated with website, if not covered by host site.</p> <p>Relatively insignificant costs of changing documents as required.</p> <p>All forms will be accessible through website and users would be expected to print their own forms on a go forward basis.</p> <p>Cost of patient educational materials already exists in the current system, changes in content and addition of binder, tabs and checklist will introduce some additional but relatively minimal costs.</p> |
| <p>Information technology to enable the tasks of the Central Registry, sharing of information throughout the continuum of care, and tracking performance.</p> | <ul style="list-style-type: none"> • Central Registry database • Information sharing between facilities within the South West LHIN • Performance tracking | <p><u>Start-up and Ongoing</u> High-level requirements have been provided to the LHIN and preliminary discussions have occurred with the E-Health Steering Committee, but no estimates are available at this time.</p> <p>Potential has been identified to leverage the work being done by the E-Health Steering Committee to enable North-South connectivity throughout the South West LHIN and in association with the Wait Time Information System, possibly resulting in reduced costs to Hips and Knees.</p> |

| | | |
|---|--|---|
| <p>Communication Plan, Change Management Plan, and Performance Management Plan</p> | <ul style="list-style-type: none"> • Communications Plan and associated activities • Change Management analysis, plan and associated activities • Performance Management • <p>For more details on the communication and change management plans see the associated headings under Section 4.4 Action Planning for Successful Execution. Additional details on performance management are discussed towards the end of this section under the heading “Performance Management.”</p> | <p><u>Start-up</u> Communications and Change Management costs to be determined once confirm extent of work to be performed by Project Manager and detailed communication plan and change management plan are finalized.</p> <p>Performance Management costs to be determined. Project Manager may facilitate setup of high-level measures, and some ongoing support and tracking may be available from the performance management teams of the South West LHIN.</p> <p><u>Ongoing</u> Responsibility for ongoing tracking will be within the LHIN and other provider organizations within the integrated model of care.</p> |
|---|--|---|

Table 6 Resources required by each specific component of the integrated model of care

| | Who should deliver the services? | Where is the service delivered? | What are the additional resources required? |
|---|--|--|---|
| Standardized Referral Process | Family physician, nurse practitioners and other physicians | Throughout South West LHIN Family medicine practices, family health teams, walk-in clinics, long-term care facilities, urgent care clinics, or emergency departments. | No significant incremental costs. |
| Central Registry | Clerical support | One registry serving the entire South West LHIN | <u>Start up</u> \$3,500 for office setup (desk, phone, computer, fax, printer) Unknown for training Unknown for other telecommunications start up cost <u>Ongoing</u> \$73,125 clerical 1.5 FTE \$14,625 managerial 0.15 FTE \$ 0 to use of existing space Unknown for telecommunications costs |
| Assessment and Education Centre* | Multi-disciplinary clinical assessment team** which would ideally include Advanced Practice Therapists (APT) and Advanced Practice Nurses (APN) Available upon consultation: diagnostic imaging, laboratory, orthopedic surgeon, rehabilitation, dietary, social work and CCAC / The Arthritis Society. | Propose to be centralized in three locations, one in each of the planning areas of the South West LHIN (North, Central, and South). Housed within three of the seven existing surgical sites. | <u>Start up</u> Unknown for initial training <u>Ongoing</u> \$188,000 APT 1.88 FTE*** \$188,000 APN 1.88 FTE*** \$ 20,963 Clerical 0.43 FTE*** \$ 14,625 Managerial 0.4 FTE*** Unknown for ongoing training \$ 0 to use existing space |
| Initial Assessment with Surgeon | Orthopedic surgeon | Surgeons' offices associated with the seven surgical sites. | No significant incremental costs |

| | Who should deliver the services? | Where is the service delivered? | What are the additional resources required? |
|---|---|--|---|
| Secondary Prevention* | Support through a variety of community providers, community resources, and select outpatient departments. | Throughout South West LHIN, would require expansion of existing programs to ensure equitable access. | <u>Ongoing - Unknown</u> In order to make secondary prevention available to surgical and non-surgical patients throughout the LHIN the existing programs would need to be expanded. As this service requires outside contracting with community agencies, costs would be determined through RFP process, and driven by volumes. |
| Pre-Admit clinic* and In-Hospital Care* | <p><u>Pre-Admit</u> Multi-disciplinary clinical assessment team** which would ideally include Advanced Practice Therapists, and Advanced Practice Nurses.</p> <p><u>In-Hospital</u> Multi-disciplinary team of Orthopedic Surgeons, Anesthesiologists, Nurses, Nurse Practitioners, Advanced Practice Nurses, Physiotherapists, and Occupational Therapists</p> <p>Available upon consultation: diagnostic imaging, laboratory, pharmacy, social work, other allied health professionals and CCAC / The Arthritis Society</p> | Throughout South West LHIN at the existing seven surgical sites. | <p><u>Ongoing - Unknown</u> Incremental costs would vary dependent on variance between hospitals current practice and new guidelines as per common clinical pathway.</p> <p>At the Pre-Admit stage, some hospitals would need to introduce Pharmacist role, possibly utilize additional physiotherapy services and increase the amount of blood work and other diagnostic testing done, thus increasing demand on their lab.</p> <p>Throughout the In-Hospital Care experience, further additional costs may be incurred as hospitals adapt new guidelines for physiotherapy practices, medication and medical management.</p> <p>Additional Health Human resources concerns may drive additional costs. High level</p> |

| | Who should deliver the services? | Where is the service delivered? | What are the additional resources required? |
|---|--|--|--|
| | | | <p>recommendations are:</p> <ul style="list-style-type: none"> • Increase funding to hospitals for Allied Health and Nursing professionals to assist and support patients through the continuum of care; • Provide funding to attract contract, employ and train; • Support decision process for development of legislation around educational criteria/ guidelines for the Advanced Practice Physiotherapy profession. |
| Post -Acute Care | <ul style="list-style-type: none"> • Physiotherapists • Occupational Therapists • Other support roles as required | <p>Throughout South West LHIN, would require expansion of existing programs:</p> <ul style="list-style-type: none"> • Outpatient Rehabilitation Clinic or Private Clinic • Facility-based Rehabilitation Facility • Home Care | <p><u>Ongoing - Unknown</u> Cost to ensure access to all streams is equitable across South West LHIN (geographically disbursed and publicly funded).</p> |
| <p>* All of these components of the model of care are working towards the objective of best preparing the patient for their surgery. The overall success in minimizing the patients overall wait for surgery will impact the resources required within any given component. For example if the wait times were significantly minimized the role of secondary prevention would also be reduced.</p> | | | |
| <p>** Consideration should be given to introducing the Physician Assistant role within Assessment and Education Centres and Pre-Admit Clinics. The MOHLTC has a pilot underway to explore the potential for this role and are providing funding to organizations to implement the Physician Assistant role. The timely introduction of the Physician Assistant may enable the integrated model of care as the role may include some associated funding.</p> | | | |
| <p>*** For further detail on the underlying volume and other assumptions and calculations supporting these FTE requirements (see Appendix 14 – Draft South West LHIN Hip and Knee Replacement Program – Overview of Assessment and Education Centres).</p> | | | |

| Building Blocks | Detailed Design Application of the Best Available Evidence |
|---|--|
| Flow of clients and Information through the system How do clients and client information move through the integrated service delivery model? | |
| Entry and Access | <p>High-Level Recommendation based on Best Available Evidence</p> <ul style="list-style-type: none"> • Need for streamlining access to pre-surgical points of entry. • Move from disconnected points of entry to a coordinated system which ensures ease of access to enter the system and seamless patient flow once in the system. • Better coordination of referrals from referring physicians increases efficiency. <p>How providers and patients will learn that the program exists and how they will access the program</p> <ul style="list-style-type: none"> • As part of the overall communication plan, key stakeholders and the community as a whole are made aware of the integrated model of care through the general media, community engagement sessions, and information on health care websites. • Training sessions will be held and training materials provided to health service providers throughout the continuum of care. • To ensure referring physicians and potential patients are aware of the overall model of care and its entry points, brochures will be made widely available and include reference to websites with more detailed information. <ul style="list-style-type: none"> ○ Brochures will be distributed to potential initiators of referrals in family practices, family health teams, urgent care clinics, and emergency departments for their own knowledge. ○ Brochures will be available to physicians to provide to patients who are considering or have decided to have surgery. ○ Brochures will be located in the community at the offices of various community agencies to increase awareness among the general public. • The referral may come from a physician or nurse practitioner (family medicine practice, family health team, walk-in clinic, long-term care facility, urgent care clinics or emergency department). Emphasis will be placed on creating awareness of the integrated model of care among potential originators of referrals, so they and their patients can be informed. • The standardized referral form will be introduced across the LHIN that is easy for physicians to use and, ensures that all necessary information is collected and communicated (see Appendix 8, Draft South West LHIN Hip and Knee Replacement Program – Referral Form). <ul style="list-style-type: none"> ○ The design of the form is an outcome of research of existing practices in the South West LHIN and other regions and consultation with local surgeons and physicians to ensure that due consideration is given to local needs. ○ The design goal of the form is to gather all the necessary information without making the task onerous for the referring physician. It is anticipated that this will decrease the likelihood that the form will need to be sent back for corrections of errors or omissions. |

| Building Blocks | Detailed Design Application of the Best Available Evidence |
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| | <ul style="list-style-type: none"> ○ The form will allow for the patient and referring physician to choose what their next step is and indicate their request for a specific doctor, specific location, shortest wait list, or Assessment and Education Centre. ● All referral forms will be sent to one Central Registry (one number, one location). This single point of entry will be effective for managing the wait lists. ● The Central Registry provides an opportunity to combine the many wait lists into one wait list for all surgeons, which ensures wait times are distributed appropriately across the LHIN. Central Registry will forward information to the appropriate surgeon and/or Assessment and Education Centre (turnaround not to exceed 48 hours). The surgeon’s office or Assessment and Education Centre will contact patient to book appointment. |
| Approach to Assessment | <p>High-Level Recommendation based on Best Available Evidence</p> <ul style="list-style-type: none"> ● Single, evidence-based method used by all providers across the LHIN for determining appropriate level of care required for the patient. ● Only appropriate patients will be placed on the wait list and non-surgical patients will be directed to appropriate care and providers. <p>Flow from Central Registry to Assessment</p> <ul style="list-style-type: none"> ● Based on criteria indicated on referral form, patient is assessed at either of: <ul style="list-style-type: none"> ○ Surgeon’s office (current practice continues to be allowed for in model in response to request from surgeons), or ○ Assessment and Education Centres. <p>Key activities of Assessment and Education Centres:</p> <ul style="list-style-type: none"> ● Determine whether or not patient is a surgical candidate; ● If patient requires surgery, determine their priority level and book appointment; ● Educate surgical and non-surgical patients as required and provide with Patient Education Binder; ● Assess surgical and non-surgical patients’ need for secondary prevention and provide patients with direction/information to link with appropriate resources; ● Assess surgical patients’ needs for post-acute care and link to appropriate resources; and, ● Update Teaching Checklist for Providers for activities completed at this point in the continuum. <p>The benefits of the Assessment and Education Centre are:</p> <ul style="list-style-type: none"> ● Maximizes use of skills available in health care setting as a whole by utilizing a multi-disciplinary assessment team with musculoskeletal expertise. The team would include advanced practice therapists, and advanced practice nurses. ● Maximizes use of surgeons’ time for surgery, as avoids initial surgeon assessments of surgical and non- |

| Building Blocks | Detailed Design Application of the Best Available Evidence |
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| | <p>surgical patients.</p> <ul style="list-style-type: none"> • Reduces amount of work required in terms of imaging and diagnostic tests and obtaining medical history at pre-admit clinic, as work is completed at Assessment and Education Centre. • Reduces time required to educate and reassure patient as education is addressed at the Assessment and Education Centre. • More time available to ensure all patients (surgical and non-surgical) receive: <ul style="list-style-type: none"> ○ Education materials and any immediate questions are answered, ○ Assessment of need for secondary prevention programs and link to appropriate resources, and ○ Assessment of need for post-acute care needs and link to services as required. <p>Introduction of tools to aid in standardized approach to assessment</p> <p>A standardized total joint replacement assessment form will be introduced across the LHIN (see Appendix 9 Draft South West LHIN Hip and Knee Replacement Program – Assessment Summary).</p> <ul style="list-style-type: none"> • The design of the form is an outcome of research of existing practices in the South West LHIN and other regions of the province and Canada with consideration given to local needs. • The design goal of the form is to aid in determining surgical priority levels and ensure testing, medical history, and other required information are documented and communicated. The quality of the information on the form will reduce the workload of the pre-admit clinics. <p>Further consideration is to be given to the introduction of a standardized approach to determining what post-acute care stream a patient may require (see Appendix 12, Draft South West LHIN Hip and Knee Replacement Program – Post-Acute Stream Algorithm – Guidelines and Milestones). The guidelines, as currently drafted incorporate use of the Risk Assessment Prediction Tool as part of the criteria.</p> |
| Care Coordination | <p>High-Level Recommendation based on Best Available Evidence</p> <ul style="list-style-type: none"> • Research and best practices show that quality patient education can improve patient outcomes, anxiety, and discharge planning, resulting in lower healthcare costs and improved functional outcomes for the patient. • Patient education should be introduced as early as possible to best prepare patients both physically and mentally for surgery. • Multidisciplinary teams of health care professionals who are coordinated along the patients’ entire care path improve the process and outcomes of care. • Different types of patients require different care pathways and these can be identified at the assessment phase of the process. • Effective coordination across the continuum of care from primary care physicians, to hospitals, CCACs, and other service providers results in process improvements and better care outcomes. |

| Building Blocks | Detailed Design Application of the Best Available Evidence |
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| | <p>How services will be coordinated and involve patients and their families</p> <ul style="list-style-type: none"> • Upon initial referral, patients and their families will have their choice of surgeon, hospital or shortest wait list. Information about specific wait times will be available to patients and their families before they are required to make a final decision in this regard. • Prior to entry to the system, patients and their families have information available as disclosed in the brochure distributed by the referring physician and/or from a website. • Once the patient enters the system, they are provided with the Patient Education Binder: <ul style="list-style-type: none"> ○ Materials are customizable dependent on surgical status, type of surgery, and hospital; ○ Materials are standardized to provide for an equitable experience across the LHIN; and minimize or eliminate conflicting messages; ○ Materials are introduced as early as possible in the continuum to maximize effectiveness; and ○ Materials stay with the patient such that they can better understand what to expect and how to maximize their current state. Materials can be easily referenced by patient, family members, other support and other health service providers. Materials are also accessible through a website. • Key components of the materials provided in the Patient Education Binder are reinforced through demonstration and discussion at appropriate points in the continuum of care as documented on the Teaching Checklist. This enables the patient to review what they have been told and should limit redundancy. • Patients and their families are additionally supported throughout the process by incorporating linkages into other areas of the continuum of care during initial assessment. • Pre-operative condition is maximized through early assessment of secondary prevention needs, linking patient to resources, and patient participation in secondary prevention program of choice. • Post-acute care needs are reassessed in the continuum, providing sufficient time to book required resources. Needs are reassessed as the patient flows through the continuum of care. • Patients and their families will be aware of the clinical indicators used to determine the most appropriate post-acute rehabilitation stream, and they will be involved in the decision process. <p>How services are coordinated to ensure smooth interfaces and transitions for client/families</p> <ul style="list-style-type: none"> • Additional detail on communication linkages between service providers is provided below under the heading “Linkages to and Fit within the Continuum.” |
| <p>Information Flow and Requirements</p> | <p>High-Level Recommendation based on Best Available Evidence</p> <ul style="list-style-type: none"> • Health information is coordinated and communicated along the care continuum to ensure that key information flows between care providers in a timely fashion as the patient moves through the model. • Data sets are established to support patient flow, evidence of outcomes for the patient, and facilitate management of performance indicators. |

| Building Blocks | Detailed Design Application of the Best Available Evidence |
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| | <p>Details of Requirements</p> <ul style="list-style-type: none"> • For this integrated model of care to work across the entire LHIN, provincial E-Health initiatives and LHIN-wide mandates need to continue to move toward a system that all hospitals can access. Upon implementation, it would be highly beneficial if the Central Registry, Assessment and Education Centres and all seven hospitals performing hip and knee replacement surgery had access to the same information. Over time, consideration also needs to be given to common access to other hospitals, family physicians, and health service providers in the community. This is necessary to ensure that key patient information is available to providers throughout the entire continuum of care. • Although the Standardized Referral can be a paper form upon initial introduction, it would be desirable to automate the form as IT resources become available. Efficiencies could be gained through automation as it would: <ul style="list-style-type: none"> ○ Make it easy for the referring family physician/emergency physician to submit the referral; ○ Ensure completeness of referral form data; ○ Reduce the need for redundant data entry further down stream in the process; and ○ Ensure data can be extracted to calculate performance indicators (e.g. time referral received to time referral sent to Assessment and Education Centre or surgeon). • In order for the Central Registry to function as designed, a database needs to be developed that links to: <ul style="list-style-type: none"> ○ All South West LHIN hospital sites; ○ Wait Time Information System; ○ Enterprise Management Patient Information; and ○ Ontario Health Insurance Program. • Management of performance indicators needs to be facilitated. This would best be done in an information technology setting and consideration should be given to incorporating that capability into the overall design of the Central Registry information technology function. |
| <p>Linkages to and fit within the Continuum</p> | <p>High-Level Recommendation based on Best Available Evidence</p> <ul style="list-style-type: none"> • Ensure proper communication linkages exist between service providers throughout this continuum of care, especially at key transition points. • Ensure that development of this continuum of care takes into consideration other changes in the health care system. <p>Throughout the Continuum of Care</p> <ul style="list-style-type: none"> • Introduction of the Teaching Checklist for Providers located in Patient Education Binder will enable communication between providers from one hospital shift to the next and from one point in the continuum to the next. This will reduce redundancy and conflicting messages and ensure key teachings are delivered at the appropriate point in the continuum of care. • The presence of the Patient Education Binder throughout the continuum of care aids providers as it is a good resource for teaching and also helps ensure consistency in messaging. |

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| | <ul style="list-style-type: none"> • Overall communication plan allows for all stakeholders to be informed, provide feedback, receive required training and communicate need for additional change (see additional discussion under heading “Communication Plan” in section 4.4 Action Planning for Successful Execution). <p>Throughout each component of the Continuum of Care</p> <p><u>Central Registry</u></p> <ul style="list-style-type: none"> • Communicate with the referring physician regarding patient appointment with the Assessment and Education Centre (if patient is going direct to orthopedic surgeon communication to come from surgeon’s office). <p><u>Assessment and Education Centres (or surgeon)</u></p> <ul style="list-style-type: none"> • Involve surgeon immediately in cases which urgent patient need has been identified. • Coordinate with surgeon’s office following assessment to book surgery. • Update the referring physician regarding outcome of assessment, surgical status, secondary prevention, post-acute care recommendation and direction given to patient to link with appropriate resources, and details of any upcoming appointments. • Communicate key outcomes of assessment of surgical candidates to pre-admit clinic and surgeon through information on assessment form and thorough documented history, as will be found in patient file. • Maintain ongoing dialogue with surgeons and pre-admit clinic to ensure work of assessment teams is meeting their needs. • Update Teaching Checklist for Providers for activities completed at this point in the continuum enabling communication between providers. <p><u>Secondary Prevention</u></p> <ul style="list-style-type: none"> • Consider information requirements of secondary prevention from surgeon’s office or Assessment and Education Centres. • Consider communication feedback loop to Central Registry, Assessment and Education Centre or surgeon’s office. <p><u>Pre-admit / In-Hospital Care</u></p> <ul style="list-style-type: none"> • Consider communication requirements following assessment or reassessment of need for post-acute care in Pre-Admit clinic. • Consider additional communication concerning confirmation of post-acute stream and services as appropriate while patient is in-hospital. • Use of a standard common clinical care pathway provides a method of communication between in- |

| Building Blocks | Detailed Design Application of the Best Available Evidence |
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| | <p>hospital staff from Pre-Admit through to discharge (see Appendix 11 Draft South West LHIN Hip and Knee Replacement Program – Common Collaborative Care Path.</p> <ul style="list-style-type: none"> • Update Teaching Checklist for Providers for activities completed at this point in the continuum enabling communication between providers. <p><u>Post-Acute Care</u></p> <ul style="list-style-type: none"> • The Teaching Checklist for Providers located in the Patient Education Binder will provide some communication between in-hospital care and post-acute care. • Consider other communication requirements as patients transfer from hospital into post-acute care stream. <p><u>Implementation and Further Development of Hips and Knees Model of Care</u></p> <ul style="list-style-type: none"> • As the detailed design of recommendations, guidelines, outcomes, indicators and action plans moves forward into implementation, it will be important for key aspects of this work to remain aligned with the work of: <ul style="list-style-type: none"> ○ Primary Care PAT; ○ Chronic Disease Prevention and Management PAT; ○ Seniors and Adults with Complex Needs PAT; and ○ Rehabilitation PAT. • Patients and services naturally flow across the geographic boundaries of the South West LHIN. In the South West LHIN, as many as 17% of surgeries are performed on patients residing in other LHINs. In comparison, a good proportion of South West LHIN residents are having surgery completed in another LHIN but require rehabilitation close to home. It will be important to consider communications and linkages outside of our boundaries as appropriate. |

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| Oversight of the System What does the integrated service delivery model achieve and who is accountable for performance and achievement of the outcomes? | |
| Joint Oversight/ Accountability | <p>Joint Oversight and Accountability</p> <ul style="list-style-type: none"> An important component of the Pre-Implementation phase is ensuring that the proper governance and accountability structures are put in place. Details concerning the finalization of endorsements, negotiation of memorandums of understanding and development and implementation of a new governance structure are discussed further under the heading “Immediate Next Steps” in Section 4.4 Action Planning for Successful Execution. <p>Hips and Knees Accountability Agreements</p> <ul style="list-style-type: none"> In order to increase accountability and support the development of a more integrated model of care for hip and knee total joint replacement surgery, expectations associated with the delivery of the model would be part of the Memorandum of Understanding between the South West LHIN, hospitals and other health service providers. The Memorandum of Understanding would serve to establish the accountabilities and responsibilities of the involved parties. Development and negotiation of this legal document would be one of the first tasks of the new governance structure as discussed further under the heading “Immediate Next Steps” in Section 4.4 Action Planning for Successful Execution. In the long term, the South West LHIN may consider utilizing their service accountability agreements to further address the roles that health service providers play in hip and knee replacement prevention and therapy, and their associated responsibilities and accountabilities. <p>Other considerations</p> <ul style="list-style-type: none"> The Hips and Knees PAT received feedback at several community engagement sessions indicating that stakeholders would be in favour of a funding system in which the dollars followed the patient throughout the continuum of care. This would be difficult to implement within the current funding models but should be considered as changes to provincial and LHIN funding arrangements occur in the future. |
| Performance Management | <p>Overall Performance Management</p> <ul style="list-style-type: none"> As progress is made toward the implementation of an integrated model of care for hip and knee total joint replacement services, it is necessary to finalize the high-level performance management indicators and begin tracking and analyzing results. Because what gets measured gets managed, it is important to choose the right indicators to drive the desired behavior. |

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| | <p>Proposed High-Level Performance Indicators</p> <ul style="list-style-type: none"> • In alignment with the Mission Statement and Vision of the Hips and Knees PAT high-level performance indicators for hip and knee total joint replacement continuum of care are proposed as indicated below. These indicators and the associated reporting requirements will need to be vetted and confirmed with health service providers prior to full implementation. <ul style="list-style-type: none"> ○ Reduce patient time in system <ul style="list-style-type: none"> ▪ Average wait time from referral to appointment with surgeon (Wait 1) by site ▪ Average wait time from decision to operate to surgery (Wait 2) by site ▪ Acute care length of stay by site ▪ Post-acute care length of stay by region ○ Increase utilization of system / ensure equitable access <ul style="list-style-type: none"> ▪ % patients referred through Central Registry by region ▪ % patients attending Assessment and Education Centre by region ▪ % patients receiving secondary prevention prior to surgery by region ▪ % completion of planned surgical volumes by site ▪ % patients receiving post-acute rehabilitation by region ○ Increase patient satisfaction <ul style="list-style-type: none"> ▪ Patient satisfaction with overall care by site ○ Ensure quality of care <ul style="list-style-type: none"> ▪ Post-operative infection rate (within 3 months) by site ▪ Post-operative infection rate (within 1 year) by site • It will be beneficial to track most of these measures not only on average for the South West LHIN as a whole but by specific hospital site and by planning area (North, Central, and South) as appropriate. This will provide a view to the equity in the system, and over time the expectation would be that performance would be relatively aligned across the entire South West LHIN. • In addition to these system-level performance indicators, the Task Teams have identified preliminary measures at the service level design. The availability and analysis of information at the service level will be beneficial in refining each of the specific components of the model (see Appendix 15 Draft South West LHIN Hip and Knee Replacement Program – Proposed Performance Indicators). <p>Availability of Baseline and Transitional results</p> <ul style="list-style-type: none"> • Most of these indicators are currently tracked by hospitals and baseline results should be currently available or available in the relative near term. <ul style="list-style-type: none"> ○ Average wait time from decision to operate to surgery (Wait 2) and percentage completion of planned surgical volumes are already being tracked. The Wait Time Information System has the capability to track Wait 1 and some hospitals are already using that capability, and others could be encouraged to adopt. |

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| | <ul style="list-style-type: none"> ○ Other indicators such as acute length of stay, patient satisfaction, and post-operative infection rate are currently tracked by most hospitals at a higher level (either hospital-wide or for all surgeries). A coordinated effort would need to be made with the hospitals to ensure that they can pull out the data specific to hip and knee total joint replacement surgery for these indicators, and that calculations of this data are relatively consistent. It is recommended that a patient satisfaction measure be developed and implemented that captures patient feedback on the entire continuum of care rather than just the hospital stay component. ● The indicators that would be measured by region are not currently available <ul style="list-style-type: none"> ○ The data for the measures that would be measured by region cannot be accurately captured until implementation occurs. The inventory work that the Task Teams have already completed gives some indication of the gap in these areas which will direct the implementation work. Once the Central Registry database is up and running it could be leveraged to track these remaining measures by region. <p>Considerations for finalizing indicators</p> <ul style="list-style-type: none"> ● <u>Provincial mandate regarding Wait Time Strategy</u> – While the current data reported to the public only captures Wait 2 (from decision to operate to surgery) for Priority 4 - non-emergent patients, the hospitals would also provide data reflecting Wait 2 for all four priority levels. The benchmark for Wait 2 Priority 4 is 182 days with a target of achieving 90% of benchmark by March 2009. The province has also established benchmarks for the other priority levels as follows: Priority 1 – Immediate, Priority 2 – 6 weeks, Priority 3 – 12 weeks. There is also movement towards measuring Wait 1 (wait from initial referral until appointment with surgeon) and some hospitals are already capturing this information in the Wait Time Information System. While the high-level performance indicators only capture Wait 1 and Wait 2 for priority level 4, the additional data is or soon should be available for additional analysis as required. ● <u>Alignment with the Hips and Knees PAT Mission Statement and Vision</u> – Over the coming years the aim of the implementation of the integrated model of care is to result in positive clinical and functional outcomes, ensure equitable and timely access to services across the South West LHIN, reduce surgical wait times, make the patient and their support system an active participant in their care and self management and deliver quality evidence-based care. <ul style="list-style-type: none"> ○ The proposed high-level performance indicators attempt to address each of these in some manner while maintaining a system level focus. ○ Additional measures of patient satisfaction, clinical and functional outcomes, process adherence and other measures will be tracked at the next level down, the service level design (see Appendix 15 Draft South West LHIN Hip and Knee Replacement Program – Proposed Performance Indicators). |

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| | <ul style="list-style-type: none"> • Balanced Approach – One key component to designing a performance management program is that the indicators chosen not only look at a system from different perspectives but help ensure that changes designed to improve one part of the system are not causing new problems in other parts of the system. <ul style="list-style-type: none"> ○ Decreasing Wait 2 at the expense of increasing Wait 1 and the overall wait time for the surgery as a whole is not a desirable outcome. Thus, both measures have been identified as high-level performance indicators. ○ Increasing surgical volumes and reducing the length of stay is a great accomplishment as long as it does not contribute to increased readmission rates from complications arising from the surgery and associated care. To address this measure, post-operative infection rates has been identified as a high-level performance indicator. <p>Determining when to measure</p> <ul style="list-style-type: none"> • Pre-implementation – capture baseline results as early as possible to benchmark current achievements, allowing refinement of details of implementation and establish reasonable targets for future performance. Consider utilizing a survey to capture results for indicators that are not yet tracked within the system, as appropriate. • Partial or Full Implementation – after allowing enough time for the model (or component of the model) to be up and running long enough such that it is operating as designed (3 to 6 months), results should be captured to ensure that process is occurring and that the activity is having the anticipated impact and to ensure that there are no unexpected negative outcomes. • Ongoing Maintenance - indicators should be captured on a regular basis, reviewed and findings applied to any future change as required. Frequency of reporting for the overall program will depend on the degree of automation in tracking and reporting tools. Results should be reviewed more frequently by those parties involved in day to day activities and between one to four times a year for the program as a whole. <p>Determining how indicators will be tracked and reported</p> <ul style="list-style-type: none"> • The tracking of indicators will vary depending on the source of information and resources available. Consideration should be given to the assessment of cost (e.g. manual vs. automated) versus benefit (e.g. quality of data). For measures not currently tracked within the hospital system, consideration should be given in the design of the Central Registry database for incorporation of the ability to track these measures. • During the pre-implementation period and the implementation period, the Project Manager would be responsible for facilitating the implementation and overall structure for review and analysis of the metrics at the individual sites and at the South West LHIN. Periodic reports would be reviewed to assess the impact of the implementation and determine if any changes to the integrated model of care are required. • In terms of the ongoing maintenance of reporting, consideration will need to be given to periodic audits |

| Building Blocks | Detailed Design Application of the Best Available Evidence |
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| | <p>of calculations and opportunities to streamline the process. Accountability agreements may require that certain stakeholders report specific metrics to the LHIN.</p> <p>Future Considerations</p> <ul style="list-style-type: none"> • The Hips and Knees PAT advocates that consideration should be given to incorporating public health data into the data set being tracked in conjunction with this project. This would not only allow for us to see impact of changes to the model on the population but may enable insight into additional changes required in response to changing requirements of the population. |
| Financial Accountability | <ul style="list-style-type: none"> • The implementation of the integrated model of care will require start-up and ongoing funding. During the implementation period, the Project Manager and Implementation Steering Committee would be responsible for ensuring that the budget is developed and adhered to with oversight from the Hips and Knees Accountability Council and the South West LHIN. • Hips and Knees Accountability Council will need to agree upon any funding or cost-sharing arrangements. |

4.4 Action Planning for Successful Execution

Barriers to Change, Mitigation Strategies and Implications

In order to achieve success, it is important to think ahead to what could go wrong and identify strategies to mitigate these risks. The table below highlights key barriers to change and mitigation strategies. This analysis is followed by a discussion of the associated implications on the tactical plan.

Table 7 Barriers to Change and Mitigation Strategies

| Barriers to Change What could go wrong? | Mitigation Strategies How can we remove or lessen the impact of the barrier? |
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| Unable to obtain timely commitment to secure required resources / funding. | <ul style="list-style-type: none"> • Ensure that membership of the Accountability Council consists of key decision makers throughout continuum of care. • Obtain Memorandum of Understanding with involved parties to establish accountabilities and responsibilities. • Engage in discussions and analysis to further clarify required resources. • Establish possible sources of required resources through the provision of direct funding, in-kind contributions, cost-sharing and other arrangements. Consideration should be given to resources of MOHLTC, South West LHIN, hospitals and other health service providers. • Identify process by which to secure required resources and estimate the associated time required to finalize commitments. • If significant delays in securing the majority of the resources are anticipated: <ul style="list-style-type: none"> ○ Review recommendations for all activities with minimal associated costs; and ○ Reprioritize these activities within Phase One and Phase Two implementation and within detailed project plan. |
| Difficult to obtain input and buy-in from stakeholders. | <ul style="list-style-type: none"> • Articulate and demonstrate the benefits to each stakeholder group. • Representation within Hips and Knees Accountability Council. . • Identify and engage with champions. • Ensure leadership is visible, communicative, committed and effective. • Utilize various methods of gathering feedback and be flexible. • Emphasize that common tools and processes are flexible to provider-specific requirements. • Emphasize best practices and lessons learned. • Minimize unnecessary change. |

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| <p>Difficult to obtain desired level of involvement from key stakeholders and membership of Hips and Knees governance structure.</p> | <ul style="list-style-type: none"> • Make participation as easy and time-effective as possible: <ul style="list-style-type: none"> ○ Allow for virtual participation via teleconference, video conference and Live Meeting; ○ Utilize meeting facilitators to ensure time is used effectively; and ○ Utilize meeting scribes to deal with documentation (including responsibilities) and distribution requirements. • Provide teams with directions and tools that are straight forward and easy to understand. • Provide dedicated project management to aid in overall planning of participants’ work, general communications, coordinate efforts across multiple players, provide performance management role, and engage in day to day activities required to move through final design and implementation. • Be respectful of their day to day roles and positions outside of their involvement with the work associated with implementation of integrated model of care. |
| <p>Key stakeholders are not:</p> <ul style="list-style-type: none"> • aware of certain tools or processes, or • willing to adopt certain tools or processes | <ul style="list-style-type: none"> • Ensure all stakeholders have been identified and specific change management and communication strategies are implemented. • Communication that clearly demonstrates the benefits to stakeholders (i.e. what’s in it for me). • Communicate frequently with key stakeholders leading up to implementation: <ul style="list-style-type: none"> ○ General communications providing opportunity for awareness and feedback; ○ Specific communications regarding their role, training and providing actual tools; and ○ High-level communications outlining how entire model of care functions (e.g. brochure). • Advocate project through voice of South West LHIN, committees, teams, and champions • Task Champions with ensuring removal of old / introduction of new and site support during initial phase. • Utilize various methods of gathering feedback and be flexible. • Emphasize that common tools and processes are flexible to provider-specific requirements. • Emphasis on best practices and lessons learned. • Minimize unnecessary change. |
| <p>Concern that once initial standard tools are finalized it will be difficult to change</p> | <ul style="list-style-type: none"> • Communicate existence of ongoing process for project team to monitor, evaluate and refine the integrated model of care and how stakeholders can provide feedback. • Ensure resources are in place to ensure that changes to tools can be made quickly and easily and updated to provider website and other points of central distribution. • Communicate change on a timely basis to impacted stakeholders and direct to appropriate source for updated materials, the provider website and other points of central distribution. • Involve Champions on ongoing basis to ensure changes are communicated throughout. |

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| Materials difficult for providers to access and update | <ul style="list-style-type: none"> • Communicate to providers where the materials are located and how to access, and ensure that they understand how changes will be made and communicated. • Centralize points of distribution where possible. • Ensure all tools are available on website. |
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- It is evident from the above review of barriers and mitigation strategies that the strength of the overall project management plan, change management plan, and communication plan will be critical to successful implementation. These plans must incorporate:
 - A strong value proposition such that each stakeholder understands why this change is important in terms that are meaningful to them;
 - Additional stakeholder engagement opportunities as required to build further awareness, understanding and positive perception;
 - Adequate support for active participants in the finalization of design and implementation, such that the benefits of their efforts are maximized;
 - Change management processes that allow for appropriate consultation, due deliberation and timeliness in decision making; and
 - Frequent communications ensuring appropriate coverage of key messages and other important information.
- If components of the tactical plan are not successful at mitigating the barriers to implementation, contingency plans may need to be developed. This may impact the overall model of care or components of the model of care by:
 - Modifying tools and processes;
 - Delaying Phase One and/or Phase Two implementation;
 - Developing revised strategies for gathering feedback and participation in implementation;
 - Moving forward with minimal feedback, increasing reliance on knowledge of best practices and lessons learned; or
 - Deciding not to implement.

Key Findings from the Resource Analysis

The detailed Resource Analysis is reflected in Table 5 Resources Required throughout the integrated model of care and Table 6 Resources Required for each component of the integrated model of care.

Transitional Performance Indicators, defining, tracking and reporting

The proposed high-level performance indicators and accompanying discussion of definitions, tracking and reporting are included under the heading “Performance Management” in Section 4.3 Proof of Concept Recommendation and Application.

In addition, the Task Teams identified preliminary measures (see Appendix 15 Draft South West LHIN Hip and Knee Replacement Program – Proposed Performance Indicators). The availability and analysis of information at the service level will be beneficial in refining each of the specific components of the model.

Goals for Execution

Goals provide direction to the overall Execution Strategy by:

- focusing the implementation team on what needs to be accomplished; and
- communicating to stakeholders about what the project is about.

Some high-level goals for execution include:

- Patients have equitable access to services and have a common experience throughout the South West LHIN;
- Tools and processes are based on best practices and lessons learned;
- Service delivery efficiency is improved resulting in decreased average acute length of stay for the South West LHIN;
- Hospitals are able to increase the volume of surgeries that they perform and manage wait times to the provincial benchmark;
- The quality of patient care is improved, including improved system navigation, better education, decreased length of stay in hospital;
- better assessment of Secondary Prevention and Post-Acute Care needs, and access to the associated resources; and
- Providers are satisfied with and adopt the new processes and see the positive impact this has on the patient and the model of care.

Some critical success factors include:

- Tools, processes and communications are aligned across the continuum of care;
- Tools and processes are refined as required in response to ongoing monitoring and evaluation;
- Patients and families are satisfied with their overall experience and end patient outcome;
- Providers are satisfied with and adopt the new processes and see the positive impact this has on the patient and the model of care; and
- Process ensures that the originators of initial referrals are aware of the process and have required supports, and that patients are aware of these entry points.

Execution Strategy and Next Steps

The execution strategy and next steps are to proceed with the overall recommendations as follows:

Pre-Implementation period (estimated to be 3 months, depending on timing of endorsements and funding)

- Finalize endorsements from Strategic Advisory Group, South West LHIN Board of Directors and certain health service providers;
- Finalize governance and accountability structure;
- Implement governance structure;
- Finalize Memorandums of Understanding with South West LHIN and health service providers;
- Confirm anticipated costs and funding sources; and
- Establish project management.

See heading “Immediate Next Steps” for more details.

Implementation period (the following 24 months)

- Throughout the Implementation Period
 - Manage project through activities of Governance and Accountability, Performance Management, Financial Accountability, Change Management and Communications. This would include ongoing stakeholder engagement, communication and training at appropriate intervals.
 - Certain components of Phase One and Phase Two may occur in parallel, with consideration given to key points of interdependency.
 - Monitoring, evaluating and refining Standardized Referral, Central Registry and Education Tools.
- Phase One
 - Confirm tools and processes associated with Standardized Referral, Central Registry and Education Tools and move forward with LHIN-wide implementation within six months from start of implementation period.
 - Specific components of the model will have a staged introduction, with initial introduction at a specific location and refinements made before moving forward with LHIN-wide implementation.
- Phase Two
 - Confirm detailed design of tools and processes associated with Assessment and Education Centres, Secondary Prevention, In-Hospital Care and Post-Acute Care within 12 months from start of implementation period.
 - Modify tools and processes associated with Phase One implementation as necessary to incorporate feedback and align with new processes to be implemented as part of Phase Two.
 - Confirm tools and processes and launch all components of the integrated model of care within 24 months from the start of implementation period.
 - Specific components of the model will have a staged introduction, with initial introduction at a specific location and refinements made before moving forward with LHIN-wide implementation.

Post-Implementation period (the following 12 months)

- Monitoring, Evaluating and Refining
- Transition to future sustainability model of project

Rationale for Execution Strategy and Next Steps

The rationale for this approach is based on the analysis of the demands for implementation.

- Pre- and Post-Implementation periods are noted separately because these time frames have important but distinctly different activities than the Implementation period. The fact that the timeline for the Pre-Implementation period is unknown creates a key risk for the project as a whole, as the implementation period does not start until the activities identified in the pre-implementation period are complete. If any of these pre-implementation period activities take an undue amount of time to complete, the entire project may lose momentum.
- Phased implementation is beneficial because it:
 - Gains visibility for the project as a whole and shows that the project is progressing;
 - Helps engage stakeholders, as they realize this project is really happening and become more interested in providing feedback and support; and

- Uses a staged introduction of individual components to work out issues or problems that may arise before rolling out to all sites.
- These specific components of the overall model of care were chosen for Phase One implementation because the associated:
 - Resource requirements are relatively low;
 - Magnitude of change is relatively low; and
 - Detailed design and guidelines have been completed.

Change Management Plan

The overall goal of a change management plan is to support stakeholders by facilitating their preparation and commitment to the proposed changes. Managing stakeholders effectively will ensure that the expected benefits of the integrated model of care are delivered, all of the risk and issues are managed, and the best possible solution is realized.

The success of the introduction of this integrated model of care requires a clear and comprehensive vision of the future state. In this circumstance, the Hips and Knees PAT should clearly communicate its vision as previously stated under Section 3.3 Context for Change.

The following seven concepts will assist in coordinating the approach to these activities:

- Awareness – Stakeholders develop knowledge of the change;
- Understanding – Stakeholders understand the nature and intent of the change;
- Positive Perception – Strategies are implemented to engage stakeholders;
- Phased Implementation – The change becomes operational on a step by step basis;
- Implementation – The change is fully operational;
- Adoption – The change has been operational for one year and evaluation of the process could extend to other continuum of care with wait time challenges; and
- Institutionalization – The changes become the routine operational process for managing wait times and integrating models of care across the South West LHIN.

The overall change management plan should build on the work done to date, including the existing community engagement plan, relationships built throughout the continuum of care by the Hips and Knees PAT and Task Team members, and analysis of the situation and requirements as documented by the Task Teams in the building blocks and workbook templates. Consideration should be given to incorporating the following components in the change management plan:

- Stakeholder management – Stakeholder management is a series of activities associated with aligning stakeholder interests to ensure the success of a project. Initial stakeholder alignment is facilitated and established through stakeholder participation. To ensure that the stakeholder is both engaged and supportive of the project, stakeholders must be assured that they will be better off as a result of the project's success. Stakeholders for the integrated model of care have already been identified and engaged to varying degrees throughout the work of the South West LHIN, Steering Committee, Hips and Knees PAT and Task Teams. Ongoing project leadership should continue to build on established relationships and create new ones, continuously assess readiness for change and respond with strategies for involvement, and ensure communication and relevant information for each group is delivered in a timely, efficient and effective manner.

- Leadership action plan – Change Leadership involves setting direction and influencing others to give support and commitment to the integrated model of care. Change leadership is one of the components critical to overall success. The model of care can be successfully implemented if leadership is visible, committed and effective and hospitals and community agencies “own” their component of the overall model. The key objective of a leadership action plan is to leverage individual leaders’ assets at appropriate times so that opportunities to build stakeholder awareness, understanding and commitment are not missed. In addition, the leadership action plan creates consistency in content, timing and extent of leadership support across the region. The leadership action plan can build on the work the Task Teams have already completed in terms of identifying leadership requirements.
- Project champions – Champions will advocate for feedback, support and adoption of the guidelines within their sphere of influence. Key characteristics of a champion are that they are well respected among their peers and are strong supporters of the initiative. Consideration should be given to engaging champions from senior administration of hospitals and community agencies, orthopedic surgeons performing hip and knee joint replacement surgery, and health service providers at hospitals and community sites. Strong project champions will contribute to the success of many of the other change management strategies.
- Communication plan – The efforts of change management can succeed or fail based on the communication provided. See additional detail under heading “Communication Plan”.
- Training strategy – Training is essential to stakeholder adoption of the integrated model of care. Training will be coordinated by the Project Manager with the assistance of site champions. Multiple training sessions will be held to deal with specific components of the model throughout the staged implementation. Sessions will include multi-disciplinary teams of hospital and non-hospital health service providers as appropriate for the given component of the model. All sessions will incorporate an overview of the entire integrated model of care and detailed teaching in relation to the use of the new process, guidelines and tools. Training materials will be available to help reinforce the learnings and to be shared with individuals that are not available for training or come into their roles following the training. The site champions will also play a role in reinforcing the training following the formal training sessions.
- Monitoring, evaluating and refining – Successful project management and change management must incorporate a process to deal with ongoing change. Consideration should be given to who will have the responsibility for gathering feedback from stakeholders, reviewing results, assessing new information concerning evidence-based clinical pathways and practices, and determining if change is required and imitating that change. This role would need to exist throughout implementation as well as following implementation.

Communication Plan

Communication Strategy

Strong communication is essential to the successful change management. Experience teaches that it is impossible to over communicate when leading a change. In times of change, people have to be allowed time to become aware of change, provide feedback, express concerns, develop support for the change and really internalize and engage in the change. During any change program, the affected stakeholder groups want relevant and timely information. A strategy of cascading communications can achieve the required coverage.

The core message for any successful change management communication efforts should contain a clear, brief statement of the purpose of the change and why such a change is in the interest of the stakeholders. Clear identification of this value proposition will aid in ‘selling’ the improvement ideas to the stakeholders and ensuring consistent messaging throughout the communication plan.

The overall value proposition for this change is:

In response to the current and evolving needs of this specific patient population, the Hips and Knees PAT is recommending this integrated model of care to improve service delivery efficiency and effectiveness, resulting in decreased wait times, enhanced quality of care for the patient and increased access. A fundamental goal is to ensure consistency in the delivery of hip and knee care throughout the South West LHIN, by incorporating a combination of best practices and lessons learned from a review of comparable existing models and associated research.

Value propositions also need to be asserted for each stakeholder group, building on the value propositions identified by each Task Team in their workbooks.

Communication Plan

The communication plan should incorporate a strategy of cascading communication to ensure appropriate coverage of key messages and other important information.

- Communications should reach stakeholders through a variety of different communication channels on multiple occasions.
 - Communications should consist of face-to-face channels such as open forum, town halls, round tables, focus groups, one-on-one conversations, and training sessions. The face-to-face channels should provide opportunities for stakeholders to engage in discussion, provide feedback and ask questions.
 - Print and electronic channels will be used for everything from general communications such as press releases and other media coverage, brochure, websites, newsletters, frequently asked questions documents to more directed letters and emails relating to specific information as the project approaches various stages of implementation.
- The communications should be designed to incorporate a mix of general communications to all stakeholders and specific communications tailored to the needs of each stakeholder group. Communications targeted to individual stakeholder groups can better address the benefit to each and the importance of their role in achieving the overall goals of the project. Champions within each stakeholder group could be leveraged to help ensure that communications are rolled out as planned and monitor their success.
- It would also be beneficial if the voice of these communications is not limited to that of the South West LHIN and Hips and Knees governance structure but includes some communications written in the voice of project champions, other stakeholders and possibly even patients and their families.
- It is important that the communications build appropriate expectations with stakeholders in regard to the timing and type of project activities. The detailed communication plan should be closely aligned with the detailed project plan and appropriately modified for any changes in timing and/or nature of activities. The detailed plan should identify each stakeholder group, the objective of communicating with them, the type of message, the specific communication methodology and persons or team responsible for communications. The plan can build on some of the information documented in the Hips and Knees PAT Community Engagement Plan and Critical Path (see Appendix 6) such as the goals and guiding principles, objectives and stakeholders.

Immediate Next Steps

The immediate next steps will consist of the following three components of the Pre-Implementation period:

- 1) Finalize endorsements from Strategic Advisory Group, South West LHIN Board of Directors and certain health service providers;
- 2) Finalize governance and accountability structure;
- 3) Implement governance structure;
- 4) Finalize Memorandum of Understanding with South West LHIN and health service providers;
- 5) Confirm anticipated costs and funding sources; and
- 6) Establish project management.

Some of the activities within these steps may happen concurrently. Additional details regarding each component are provided below. An estimate of the activities and timelines associated with Pre-Implementation and Overall Project Management is also detailed in Appendix 16 Draft Hips and Knees Priority Action Team – Quick Win Detailed Project Plan for Step 5 - Executing for Success. Note: The timelines in the project plan are largely dependent on the timing of prior steps.

The duration of the Pre-Implementation Period is estimated to be three months but may take longer given the time involved to finalize endorsements, funding and Memorandums of Understanding and the potential for slow down of activities during the summer months.

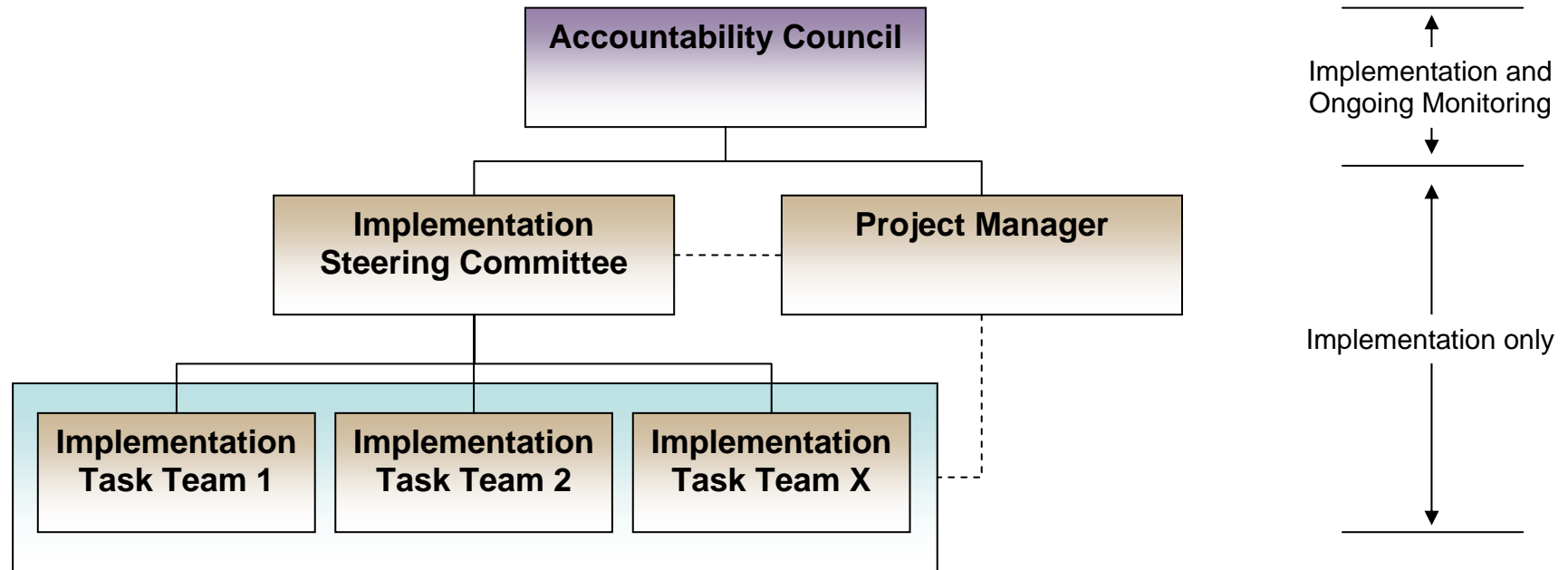
1) Finalize Endorsements from Strategic Advisory Group, South West LHIN Board of Directors and certain health service providers

- Review with Strategic Advisory Group and receive endorsement.
- Review with South West LHIN Board of Directors and receive endorsement.
- Follow-up or make decisions required by the Hips and Knees PAT as a result of feedback from above reviews.
- Obtain agreement in principle from health service providers including the seven surgical sites and the South West CCAC.

2) Finalize Governance and Accountability Structure

- The governance structure is responsible for overseeing the implementation of the initiative and for providing ongoing oversight of the integrated model of care to ensure optimal performance and achievement of the expected outcomes.
- The recommended governance structure is illustrated in the organizational chart below.

Diagram 5 Hips and Knees Governance Structure



- The recommended approach for the formation of the new governance structure would include multiple components.
 - The Hips and Knees PAT would disband.
 - A **Hips and Knees Accountability Council** (“Accountability Council”) would be created to serve an oversight function throughout implementation and beyond. The Accountability Council would have the combined accountability of the South West LHIN and key health care service providers. Membership would have the influence and authority to affect change in their organizations. The membership would consist of the following:
 - Representation from the South West LHIN, at the Senior Director level or above and a representative from the Board of Directors;
 - Champions from each of the seven surgical sites, preferably a surgeon and a Vice-President or CEO;
 - Champions from key community health service organizations that have the authority to influence their organizations;
 - Representation from the Hips and Knees PAT for continuity; and
 - Co-chairs would be chosen from the representatives from the hospitals with the highest volumes of surgeries.
 - A full-time dedicated Project Manager would be chosen by the Accountability Council to manage the full scope of the project on a day to day basis. The role of the Project Manager will be to provide focused effort in terms of coordinating and facilitating all project activities related to the implementation of the integrated model of care. A well-developed skill level, experience in project management and previous health care exposure are critical criteria for this role.

- A **Hips and Knees Implementation Steering Committee** would be formed to support and direct the Implementation process. Membership would include: individuals with an operational role from each surgical site and from key community organizations covering the entire continuum of care, and some members from the Hips and Knees PAT.
- **Implementation Task Teams** would be established as needed to focus on specific tasks for a limited time and in a facilitated environment. These teams would work towards the final conceptualization and design of specific components of the model of care. In order for these teams to utilize their time effectively to achieve this goal the Project Manger would need to ensure that resources were available to aid the teams in planning their work flow, facilitating meetings, documenting ideas and action items from meetings, coordinating communications among key stakeholders, and providing general overall support. Upon final conceptualization of the specific component that was the area of the team's focus, the day to day activities required to move forward into implementation would fall to the Project Manager with the team providing advisory support and participating in the role of advocates.
- Expertise at the South West LHIN would provide support to the Project Manager in the areas of performance measurement, communications, and community engagement. The South West LHIN should clarify these requirements early on in implementation planning and determine how these needs can be met.

3) Implement New Structure

- Disband Hips and Knees PAT.
- Create Accountability Council and Implementation Steering Committee and hold first meetings.
 - Establish terms of reference with Accountability Council and Implementation Steering Committee to establish overall purpose and structure. These terms of reference will also address objectives, responsibilities, leadership (chair), accountability, reporting relationships, membership and length of term and meeting frequency. As Implementation Task Teams are established, terms of reference will be determined for them as well.
 - Membership to get up to speed on current status of project and associated priorities.
 - Finalize Project Manager description.

4) Finalize Memorandum of Understanding with South West LHIN and Health Service Providers

- Once the principle of this initiative has received endorsement from all the stakeholders and the new governance structure is in place the next step is to establish a Memorandum of Understanding between the South West LHIN, hospital and community health service providers.
- The Memorandum of Understanding is a legal document that will be used to define the nature of the relationship and specific agreements between multiple organizations.
 - For this initiative, the Memorandum of Understanding should outline the objectives and goals of the initiative, include the names of the organizations that will sign the document and outline the conditions for participation.

- The conditions for participation should include:
 - Responsibilities and activities for each organization;
 - Decision-making processes;
 - Scope of the initiative; and
 - Any contributions required from the involved parties, such as funding, people, information, and information technology and other resources.

5) Confirm anticipated costs and funding sources

- The presence of the Accountability Council and signed Memorandum of Understanding will help guide discussions concerning securing required funding and other resources.
- While components of the overall recommendation do have associated costs the Hips and Knees PAT did not have the authority or the mandate to negotiate funding. This would need to be addressed prior to moving forward with most of the Implementation.
- Engage in discussions and analysis to further clarify required resources.
- Establish possible sources of required resources through the provision of direct funding, in-kind contributions, costs sharing and other arrangements. Consideration should be given to resources of the MOHLTC, South West LHIN, hospitals and other health service providers.
- Identify process by which to secure required resources and estimate the associated time required to finalize commitments.
- If significant delays in securing the majority of the resources are anticipated:
 - Review recommendations for all activities with minimal associated costs; and
 - Reprioritize these activities within Phase One and Phase Two implementation and within detailed project plan.

6) Establish project management

- Hire Project Manager (as soon as funding for this role is identified).
- Familiarize Project Manager with the requirements of their role and the work completed to date.
- Revise detailed project plan to reflect additional information that has become available during the Pre-Implementation Period.
- Begin Implementation Period.
- Create additional Implementation Tasks Teams as required.

Detailed Project Plan

Details of the project plan have been estimated and are presented in Appendix 16 Draft Hips and Knees Priority Action Team – Quick Win Detailed Project Plan for Step 5 - Executing for Success. This includes estimated activities and timelines for Pre-Implementation, overall project management (for Pre-Implementation and beyond) and Implementation timelines for each of the major components. As the time required for Pre-Implementation is subject to several factors outside of the control of the Hips and Knees PAT the timelines for each of the major components are set to begin the first month after the formation of the associated Implementation Task Team.

The Hips and Knees PAT does not have the authority to make decisions and allocate resources required to move forward the integrated model of care. As such, the activities and timelines in the detailed project plan can not be more than best estimates as there are too many unknowns at this point to consider committing to any timelines. The purpose of these estimates is to provide a high-level overview of the scope of work and a starting ground for the next stage of work.

Once the Project Manager is in place they would revise the project plan for implementation to reflect the impact of any delays during Pre-Implementation and any potential additional impacts arising from the finalization of the memorandum of understanding, funding arrangements and other factors that have evolved since March 31, 2008. The project plan would continue to evolve as new factors and information come to light as a result of the work of the Implementation Task Teams or other activities.

5. Recommendation

5.1 Summary of the Recommendations for Successful Execution

Rationale

Currently, wait times in the South West LHIN for hip replacement surgery and for knee replacement surgery are above the provincial benchmark of 182 days. With the demand for hip and knee total joint replacement expected to grow significantly in the coming years, and continued constraints on hospital resources such as available beds, operating room time, and staff, this presents a challenge that demands change.

Recommendation

In response to the current and evolving needs of this specific patient population, the Hips and Knees PAT is recommending this integrated model of care to improve service delivery efficiency and effectiveness, resulting in decreased wait times, enhanced quality of care for the patient and increased access. A fundamental goal is to ensure consistency in the delivery of hip and knee care throughout the South West LHIN, by incorporating a combination of best practices and lessons learned from a review of comparable existing models and associated research.

Execution Strategy and Next Steps

Detail for this section is located under the heading “Execution Strategy and Next Steps” in Section 4.4 Action Planning for Successful Execution.

5.2 Highlights of the Critical Barriers that must be Managed Proactively

The Critical Barriers that must be managed proactively and the strategies to mitigate these risks are all identified under the heading “Barriers to Change, Mitigation Strategies and Implications” in Section 4.4 Action Planning for Successful Execution.

The Hips and Knees PAT has identified two barriers that are perceived to present the most risk and must be managed proactively to mitigate them:

- **Funding** – In other jurisdictions such as Toronto Central and Hamilton Niagara Haldimand Brant, the requested funds from the MOHLTC have still not been made available to the LHINs. If the Pre-Implementation period takes undue time, momentum for the initiative may be lost and there is a risk of losing the interest of the membership of the Hips and Knees governance structure and other stakeholders if work to date does not continue to move forward. This may require a review of the recommendations for activities with minimal associated costs and a reprioritization of activities within the detailed project plan.

- Obtaining desired level of stakeholder engagement - Stakeholders have many demands on their time but are willing to share their thoughts and expertise. However, most do not have the time available to engage in detailed documentation and other time-intensive activities required to support final design and implementation. This may be mitigated by dedicated project management to aid in overall planning of participants' work, making participation as easy and time-effective as possible and providing teams with directions and tools that are straight forward and easy to understand.

6. Appendix

- Appendix 1 Hips and Knees Quality, Utilization and Access Steering Committee – Current State Report - July 2006
- Appendix 2 Hips and Knees Quality, Utilization and Access Steering Committee – Working Together - Future State Report – January 2007
- Appendix 3 South West LHIN Proposal to MOHLTC - Leveraging Best Practices-An Integrated Approach for Developing Capacity to Reduce Wait Time for Total Joint Replacement Procedures in the South West LHIN – July 2006
- Appendix 4 Hips and Knees Priority Action Team Current State Data Refresh, September 5, 2007
- Appendix 5 Hips and Knees Priority Action Team Current State Data Refresh – Update, October 17, 2007
- Appendix 6 Hips and Knees Priority Action Team Community Engagement Plan and Critical Path
- Appendix 7 Hips and Knees Priority Action Team Summary of Stakeholder Feedback
- Appendix 8 Draft South West LHIN Hip and Knee Replacement Program – Referral Form
- Appendix 9 Draft South West LHIN Hip and Knee Replacement Program – Assessment Summary
- Appendix 10 Draft South West LHIN Hip and Knee Replacement Program – Table of Contents for Patient Education Binder
- Appendix 11 Draft South West LHIN Hip and Knee Replacement Program – Common Collaborative Care Path
- Appendix 12 Draft South West LHIN Hip and Knee Replacement Program – Post-Acute Stream Algorithm – Guidelines and Milestones
- Appendix 13 Grey Bruce Health Network Total Hip Replacement – Teaching Checklist
- Appendix 14 Draft South West LHIN Hip and Knee Replacement Program – Overview of Assessment and Education Centres
- Appendix 15 Draft South West LHIN Hip and Knee Replacement Program – Proposed Performance Indicators
- Appendix 16 Draft Hips and Knees Priority Action Team – Quick Win Detailed Project Plan for Step 5 - Executing for Success