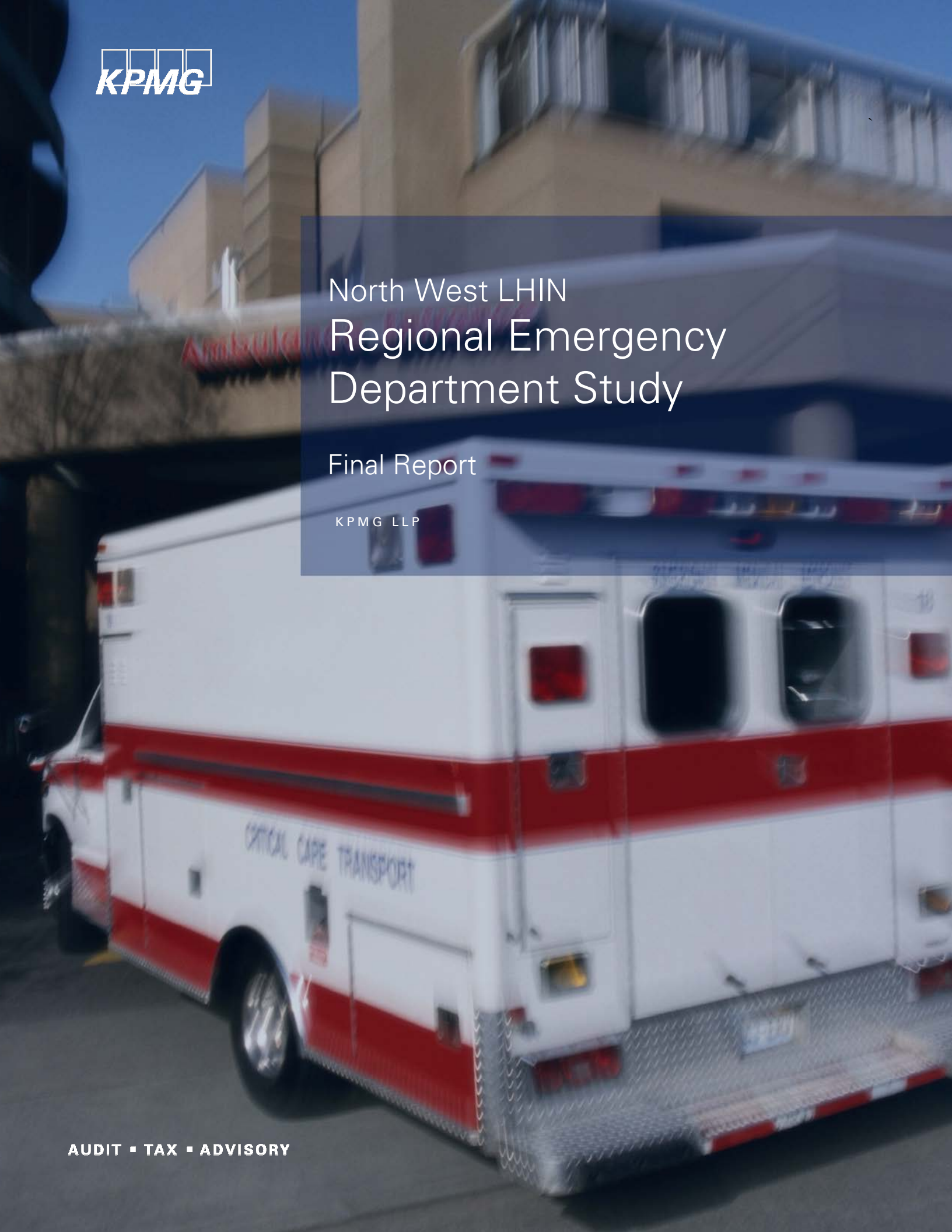

KPMG

North West LHIN

Regional Emergency Department Study

Final Report

KPMG LLP

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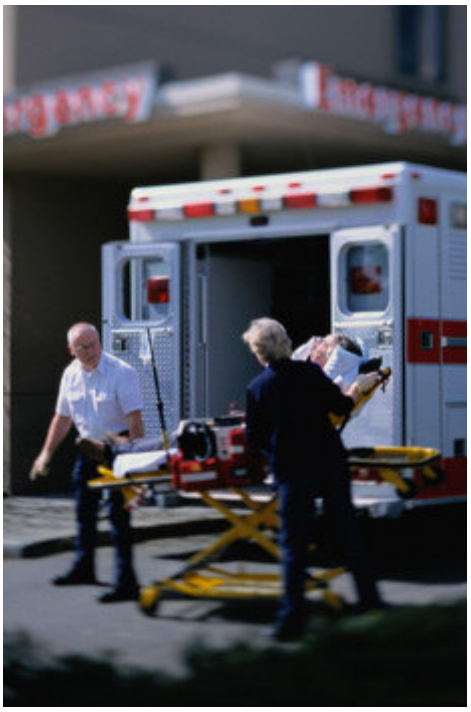

Executive Summary

This report, commissioned by the North West LHIN, takes a close look at the sustainability of emergency care in North Western Ontario. While the Province is focused on Emergency Department issues related to wait times and patient flow, the issues concerning emergency care in North West LHIN are different.

The provision of emergency care in the north requires a complex set of interactions among a network of providers that cross jurisdictional boundaries. Patient flow for most critically ill patients in the LHIN involves stabilization in a rural hospital, and transportation to a regional tertiary centre. Issues of patient flow are on a grander scale across the region.

Emergency care in the LHIN is supported by twelve emergency departments with varying levels of resourcing. These range from Thunder Bay Regional Health Science Centre (TBRHSC), fully staffed 24/7 with emergency specialists, supported by a tertiary level hospital; Lake-of-the-Woods District Hospital in Kenora, staffed by a mix of emergency specialists and emergency-trained family physicians that also provide on-call support at night; and, the remaining hospitals that are staffed by emergency-trained family physicians with on-call staffing at night.

This study examines the sustainability of the emergency department system across the LHIN. Several issues have emerged that threaten to impact the sustainability of the system. These include the following:

- A shortage of health human resources that has threatened the viability of some Emergency Departments;
- Transportation and patient flow issues across the system; and,
- Emergency Department wait times and hospital alternate level of care days that impact the Emergency Department quality of care and efficiency.

Sustainability of the system for the purpose of this study is defined as the ability of providers across the LHIN to provide consistent quality emergency care from end-to-end regardless of where the patient lives in the LHIN.

Within this framework the findings have been grouped into themes and summarized below:

- *Vision:* Within the North West LHIN, there is no agreed-upon Vision regarding the manner in which the LHIN's Emergency Departments and hospitals should work as a network in ensuring that patients with urgent health problems receive

timely, high quality care, delivered in the most appropriate environment.

- *Governance:* At present, each North West LHIN Emergency Department functions semi-autonomously; there is no over-arching governance structure accountable for implementation of a Vision of an integrated emergency services network in Northwestern Ontario.

- *Administration and Accountability:* There is no administrative structure for the 12 Emergency Departments in the North West LHIN, nor do they operate within an explicit Accountability Framework.

- *Regional Flow:* The North West LHIN exists in a large geographic area where many patients live in rural or remote environments. When emergencies arise, patients generally receive high quality initial care. To enhance local care and to determine if higher levels of care are required, better use could be made of existing Telemedicine capacity. If higher levels of care are required, the roles of various hospitals in the North West LHIN (or elsewhere) in providing such services have not been clarified; hospitals do not operate as a true network and it is at times difficult to access higher levels of care for patients in need. Furthermore, when treatment at a higher level of care has been completed, arranging suitable and timely transportation of the patient back to the referring hospital or home is often problematic.

- *Transportation:* In addition to patient repatriation issues (see above), a host of issues conspires to frequently interfere with the efficient, timely transportation of emergency patients to and from TBRHSC, (and to a lesser extent, Winnipeg Regional Health Authority). These transportation issues have been difficult to resolve, since they involve multiple jurisdictions with different mandates for services, some enshrined in legislation. Additionally, there is no system in the North West LHIN to support inter-facility transfer of patients; substantial EMS resources are used to accomplish these, but such transfers are outside the legislated mandate of EMS, are not a priority for EMS and are generally accomplished in a highly inefficient way.

- *Health Human Resources:* While there are evident, significant shortages of physicians, nurses and other health care professionals within the North West LHIN, there is no contemporary health human resource plans. The approach to recruitment and retention of health care professionals is not coordinated, nor is the recruitment, compensation and

deployment of locum physicians centrally organized. There is an unmet need throughout the LHIN Emergency Departments related to continuing professional education and development. There is a need throughout the LHIN to implement alternative models of care provision. The shortage of health human resources in the LHIN is likely the single most important issue affecting the sustainability of the Emergency Department system in the LHIN.

- *Community Supports:* The mandate of CCACs results in a limited range of services being provided in communities. Furthermore, there is wide variability in the LHIN in the availability of community supports (e.g. Family Health Teams, Long Term Care, Community Care Access Centres, Social and Community Support Agencies, assisted living environments) that would lessen demands upon the Emergency Departments.
- *Clinical Quality, Standardization of Patient Care:* There is no Patient Safety and Clinical Quality Framework for emergency services throughout the North West LHIN. There are few shared Medical Directives or other examples of standardized patient care in Emergency Departments throughout the North West LHIN.
- *Information Management:* There is no standardization of information technology systems or data development and utilization regarding emergency services throughout the North West LHIN.

To move the Emergency Department system forward to address issues of sustainability, the system will need to work differently than it does today. At its core, the system requires a common explicit vision for emergency care across the region. To drive system level accountability for the patient experience across the region, there is a need for system level governance shared amongst the organizations that provide care in the region. Flowing out from that is the need for an accountability framework with supporting administrative structures accountable for operating the emergency care system in the LHIN.

These structures can then build on the remaining recommendations (listed below) made in this report to improve the sustainability of the Emergency Department system in the LHIN. The recommendations as described will require a significant involvement of all providers and organizations that touch the patient care journey in the LHIN. Some of these can be implemented locally; the majority will require inter-regional coordination of hospitals and support organizations such as the LHIN or EMS providers; others will require inter-jurisdictional thinking and action to resolve long-standing issues that impact the quality of emergency patient care across the region.

The full set of recommendations is described in more detail in the Recommendations section of this report. The summary list of recommendations is provided below.

Vision

Recommendation # 1 (High Priority): That the North West LHIN and its partner hospitals develop and commit to a clear, unambiguous Vision describing a preferred model of coordinated emergency services delivery for Northwestern Ontario.

The Vision should define how the providers in the system would work together to provide end-to-end care that is patient focused. Key elements of the Vision should include the following:

- Patient and family -centered care;
- A unified network of providers;
- Collaborative use of resources;
- Use of best practices;
- Shared standards; and,
- Use of coordinated decision-support.

Governance

Recommendation # 2 (High Priority): That the LHIN and its partner hospitals commit to the creation of a North West LHIN Emergency Services Governance Committee, and determine the operating parameters of this entity. It is envisioned that this body would have representation from each of the hospitals in the LHIN. This committee would be responsible for representing the needs of their local communities and hospitals. The governance structure would be responsible for development and implementation of high-level strategies (e.g. hospital roles within a network of hospitals), discussions/negotiations with the MOHLTC and Health Canada and issue identification and resolution with other outside agencies (EMS, Ornge). The emergency services administrative structures (see below) would report to and be held accountable by this body.

Administration & Accountability

Recommendation # 3 (High Priority): That a North West LHIN Emergency Services Administrative Committee is created, ideally evolving from the current North West LHIN Emergency Department Advisory Committee. The responsibilities of this committee are outlined in detail in the Recommendations section. The committee will be responsible for ensuring that:

- Access and flow issues related to emergency services are addressed;
- Transportation issues related to emergency services are addressed;
- A synchronized approach is developed to address non-physician health human resource issues and opportunities;
- Community supports designed to lessen pressures on Emergency Departments are optimized;
- A patient safety and clinical quality framework for emergency services in the LHIN is developed;
- Data collection and information management processes related to emergency services are coordinated;
- Urgent issues and problems related to provision of timely, high quality emergency services in the North West LHIN are understood and addressed;
- Communication regarding emergency services amongst partner organizations and stakeholders is optimized.

The administrative structure's membership would consist of the following:

- Administrative leaders from each of the hospitals in the LHIN with an Emergency Department;
- Administrative leadership from the Community Care Access Centre; and,
- North West LHIN Emergency Department Lead;

Recommendation # 4 (High Priority): That a North West LHIN Emergency Services Medical Council be created. The hospitals in the LHIN should reach agreement on the Accountability Framework for this council. The Council would be chaired by the Emergency Department Lead and would develop strategic goals for emergency services from a physician perspective (e.g. consideration of LHIN-wide credentialing and privileging for some physicians; development of education and mentoring programs, etc.), develop a coordinated approach to physician recruitment and retention issues, develop and implement a strategic approach to recruitment and utilization of locums in the North West LHIN, develop a medical quality framework, participate in issue and problem resolution and serve as a communication vehicle to physicians in the North West LHIN who engage in emergency department work. The Council should have representation from each of the emergency departments in the LHIN.

Regional Flow & Access to Higher Levels of Care

Recommendation # 5 (High Priority): That the North West LHIN Emergency Services Governance Committee, working with partner hospitals and the LHIN, define specific emergency service roles for health care facilities in the North West, leading to the creation of a formal network of facilities in the North West (Health Canada remote nursing stations, community hospitals, district hospitals, a tertiary regional referral hospital), each with defined roles and responsibilities relative to the care of emergency patients.

Recommendation # 6 (High Priority): That the North West LHIN takes the lead in redefining and clarifying the role of TBRHSC as *the* regional hospital in Northwestern Ontario. This role should be defined and agreed to in a signed Hospital Service Accountability Agreement defining in explicit terms TBRHSC's responsibility as a regional centre. The LHIN should also play a role in encouraging/assisting/monitoring TBRHSC as it advances the initiatives that will be required to permit it to fill this role.

Recommendation # 7 (Medium Priority): That the North West LHIN Emergency Services Administrative Committee, working with the North West LHIN Emergency Services Medical Council, identify opportunities for expansion of Telemedicine into Emergency Departments, explore funding opportunities with Ontario Telemedicine Network, and, once funding has been gained, develop an Emergency Department Telemedicine Implementation Plan.

Recommendation # 8 (Medium Priority): Building on the experience of other Canadian Centres (e.g. Fraser Health in B.C.), that the North West LHIN Emergency Services Administrative Committee take the lead in developing a set of Transfer Protocols (e.g. 'Tertiary Level of Care'; 'May not Refuse'; 'Life, Limb, Threatened Organ') to ensure timely transfer of patients in need to higher levels of care and that monthly reports of transfer data related to these protocols be developed and widely circulated.

Recommendation # 9 (Medium Priority): That the North West LHIN Emergency Services Administrative Committee take the lead in developing an Escalation Policy defining the chain of individuals with administrative responsibility to be contacted should intractable difficulties or untimely delays be experienced in the transfer of a critically ill patient to TBRHSC; it is expected that such individuals would intercede administratively to resolve issues leading to delays.

Recommendation # 10 (High Priority): That the North West LHIN Emergency Services Administrative Council should take the lead in developing a Repatriation Protocol that defines the manner in which patients from TBRHSC are repatriated in a timely manner to their referral hospital or to their home. Similarly the policy should cover the repatriation of patients from Sioux Lookout Meno Ya Win Health Centre and the Winnipeg Regional Health Authority to their home communities. This policy should be integrated with the initiative to improve inter-facility transfers (see below).

Transportation

Recommendation # 11 (High Priority): The North West LHIN Emergency Services Governance Committee should create an inter-jurisdictional task force on transportation with representation from the MOHLTC, the LHIN, partner hospitals, EMS providers and Ornge; and other stakeholders as required (i.e. Health Canada). This task force would be charged with the shared responsibility of examining options for addressing transportation issues as identified in this report and detailed in the recommendations section.

Recommendation # 12 (Medium Priority)**:** The North West LHIN Emergency Services Administrative Committee will explore options to address the nurse escort challenges in the North West LHIN.

Health Human Resources

Recommendation # 13 (High Priority): The North West LHIN Emergency Services Administrative Committee should oversee the development of a 10-year Regional Non-Physician Health Human Resource Plan for Nurses, Allied Health professionals and other key health care personnel who work in emergency services.

Recommendation # 14 (High Priority): That the North West LHIN Emergency Services Medical Council develop a 10-year integrated Regional Physician Human Resource Needs Assessment. This assessment will identify the current and expected vacancies and gaps in physician human resources related to emergency services.

Recommendation # 15 (High Priority): While endorsing continued community-based physician recruitment, that the North West LHIN Emergency Services Medical Council develops a Strategic Plan for improving regional physician recruitment to the North West LHIN. Elements of this plan are described in detail in the recommendations section.

Recommendation # 16 (High Priority): TBRHSC should ensure that the specialist physician recruitment process at TBRHSC is not primarily

driven by specialist physicians in the same discipline, thus eliminating any potential conflict of interest.

Recommendation # 17 (High Priority): While respecting long-standing relationships and community practices, charge the North West LHIN Emergency Services Medical Council with the task of developing acceptable region-wide approaches to enhance proactive recruitment of and improve deployment of locum physicians, including the development of a LHIN-based pool of locum resources.

Recommendation # 18 (Medium Priority): The North West LHIN Emergency Services Governance Committee should work with the Medical Council to develop a list of government initiatives/programs in the North West LHIN that have the unintended effect of reducing physician commitment to Emergency Department work. This list should then form the basis of a discussion with the MOHLTC related to modification of such initiatives/programs; this will help ensure that each community will be able to continue to provide medical coverage to their Emergency Department.

Community Supports

Recommendation # 19 (Medium Priority): The North West LHIN should work with the CCAC/FHT/Community Health Centre and other providers to develop community ambulatory clinics where appropriate to cluster care and increase levels of care that can be provided in the community (e.g. for patients requiring chronic wound care).

Recommendation # 20 (Medium Priority): The North West LHIN should conduct a needs assessment for supportive housing (assisted living) in its communities.

Recommendation # 21 (Medium Priority): The North West LHIN should continue to support the development of integrated Chronic Disease Management programs across the LHIN to support the needs of individuals in the LHIN with chronic medical conditions.

Patient Safety and Clinical Quality

Recommendation # 22 (High Priority): The North West LHIN Emergency Services Administrative Committee and Medical Council should work together to conduct an environmental scan of current patient safety and clinical quality initiatives in the North West LHIN's Emergency Departments and, building on this, develop and implement a plan for a LHIN-wide Emergency Services Patient Safety and Clinical Quality Initiative. An incremental continuous improvement approach should be taken, building on current strengths.

Recommendation # 23 (High Priority): As a priority, the Emergency Services Administrative Committee in coordination with the Emergency Service Medical Council should develop a menu of medical directives in current use in the LHIN's Emergency Departments and determine which of these can be standardized for use throughout the LHIN.

Recommendation # 24 (High Priority): Of the Emergency Departments in the LHIN, only TBRHSC and Kenora have security for designated Form 1 patients. The North West LHIN Emergency Services Administrative Committee should explore strategies to address safety issues for designated Form 1 patients.

Information Management

Recommendation # 25 (Medium Priority): Coordinated management of emergency services throughout the North West LHIN requires consistent data. The North West LHIN Emergency Services Administrative Committee, working with the Medical Council, should determine the initial data/information needs of an 'Emergency System' in the North West LHIN. This committee should explore additional information needs and ensure systems are in place to collect and collate information efficiently for the ongoing administration of an Emergency Department system in the LHIN.

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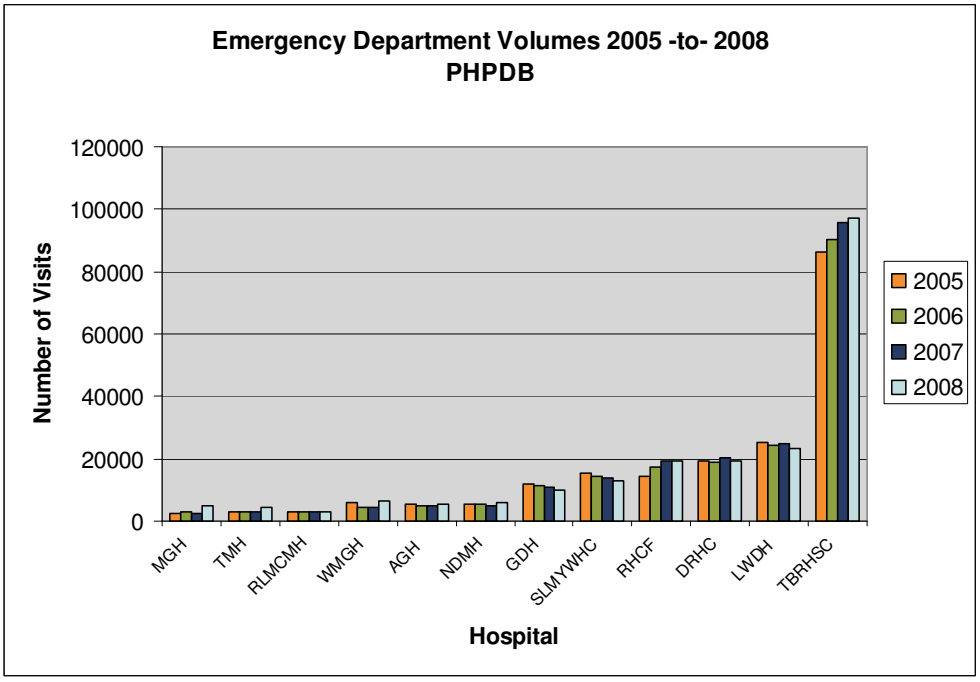
Introduction

Within the Province of Ontario, there is currently a significant focus on emergency care. While these efforts are focused on improving the flow of patients and addressing emergency department wait times, the issues faced in Northwestern Ontario are different. With the exception of Thunder Bay Regional Health Science Centre (TBRHSC), the majority of hospitals in the North West LHIN do not experience long wait times, nor do alternate level of care (ALC) days impact patient flow. The key issue among hospitals in this LHIN is one of regional patient flow that requires a highly complex network of providers working to serve the emergency care needs of patients across great distances.

Emergency care, as experienced by a patient in northern Ontario, is different than the experience in the rest of the province. North West LHIN patients are supported by thirteen hospitals, twelve of which have Emergency Departments. The chart below shows their relative size by annual visit volumes between 2005 and 2007.



Legend (used throughout the report)**:**

Acronym	Hospital
AGH	Atikokan General Hospital
DRHC	Dryden Regional Health Centre
GDH	Geraldton District Hospital
LWDH	Lake-of-the-Woods District Hospital
MGH	Manitouwadge General Hospital
TMH	The McCausland Hospital

Acronym	Hospital
NDMH	Nipigon District Memorial Hospital
RLMCMH	Red Lake Margaret Cochenour Memorial Hospital
RHCF	Riverside Health Care Facilities Inc.
SLMYWHC	Sioux Lookout Meno Ya Win Health Centre
TBRHSC	Thunder Bay Regional Health Science Centre
WMGH	Wilson Memorial General Hospital

Within these sites, there is a range of services provided to respond to the emergency care needs of the residents of the LHIN. These services can be categorized as follows:

- TBRHSC which is staffed entirely by emergency specialists [CCFP(EM) or FRCP(EM)] 24/7, and is part of a tertiary-level centre that provides support to the region;
- Lake-of-the-Woods District Hospital which is staffed by a mix of emergency specialists and emergency-trained family physicians that also provide on-call support. The hospital has a small number of critical care beds and a range of other services that include surgery and a schedule 1 psychiatric facility.
- The remaining hospitals have emergency departments that are staffed by emergency-trained family physicians that provide coverage during the day and on-call support at night. The support service at each site varies with a range of permanent and visiting specialist care.

These sites each support a small community and a surrounding population typically spread out over a significant distance. Patients may be required to travel several hours to access services in the centers where they are located. These realities present challenges for Emergency Medical Services (EMS) providers that do not exist in other parts of the province.

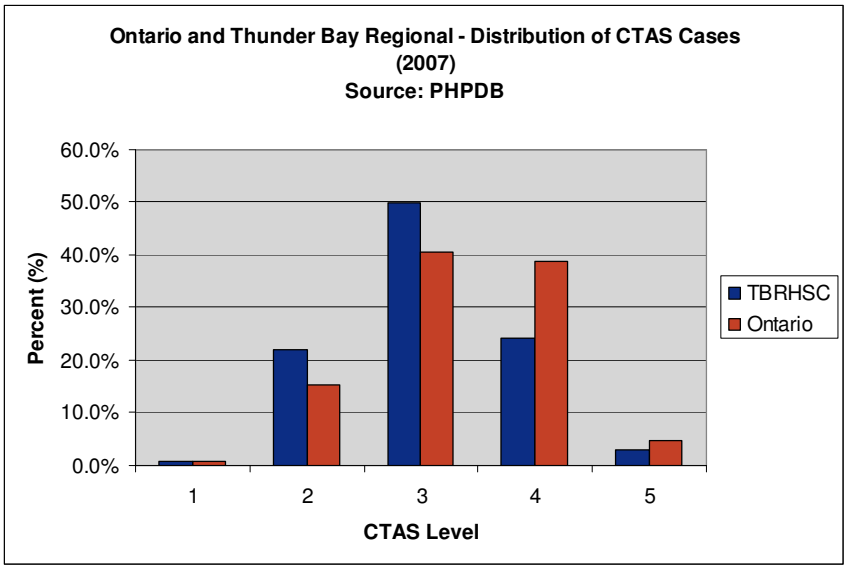
Emergency departments in small sites separated by vast distances are limited in their capacity to treat highly acute cases. These sites, with the exception of Thunder Bay Regional Health Science Centre (TBRHSC) and Lake of the Woods District Hospital (LWDH) in Kenora, are staffed with one primary care physician on duty during the day and only have one physician on-call at night; at times, this physician may be up to an hour away. The fact that this region experiences significant weather and geographic extremes contributes to the requirement for a system that works well under extreme circumstances.

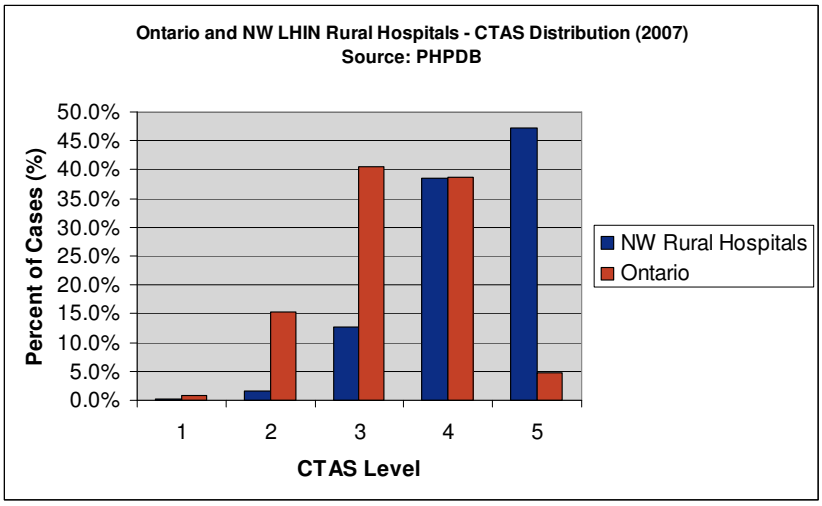
These sites are also highly reliant on locum physician coverage to remain open. Locum physicians are temporary replacement physicians that provide short-term relief. The dependency on locums results in a lack of continuity of care. Locum physicians may not be familiar with

the surrounding community, the linkages with primary care, or the dependency on tertiary centres for critical emergency care.

A typical patient flow across the system for a patient with highly acute medical needs consists of a response by local EMS, transportation to the local hospital, stabilization by physicians and nurses at the hospital, transportation to a regional tertiary centre, typically by air ambulance, and treatment at the regional centre. Not all services are provided at TBRHSC, so some will require transportation to other parts of the province, to Manitoba, or to the United States. Once treated in the tertiary centre, transportation back to the referring hospital or patient's home is often problematic.

The hospitals and emergency departments within them also serve a broader role in the rural communities. They help support the primary care needs of the community, which can be an acceptable use of these resources in environments where there is limited availability of other primary health care options. The majority of these communities are served by a physician group practice that provides coverage in the Emergency Department, so continuity of patient care is achieved irrespective of where the patient is seen. The charts below demonstrate the range of acuity of cases seen in emergency departments in the North West LHIN compared to the rest of the Province. There is a much higher reliance on these emergency departments for primary health care services, as shown in the high rates of Canadian Triage Acuity Scale (CTAS) 4 and 5 cases.





As emergency departments in rural areas help meet the basic medical care needs of the community, it is imperative that each of the emergency departments in the North West LHIN remains open in some shape or form. Many of the communities in North West LHIN are undergoing significant change. Increases in commodities prices are resulting in growth in some communities, while others are in decline due to falling lumber prices or the potential, or actual, closing of mines. Even in those communities where populations are declining, poverty rates are rising and the health status is declining, contributing to higher rates of chronic diseases and higher utilization of health services.

Purpose of the Study

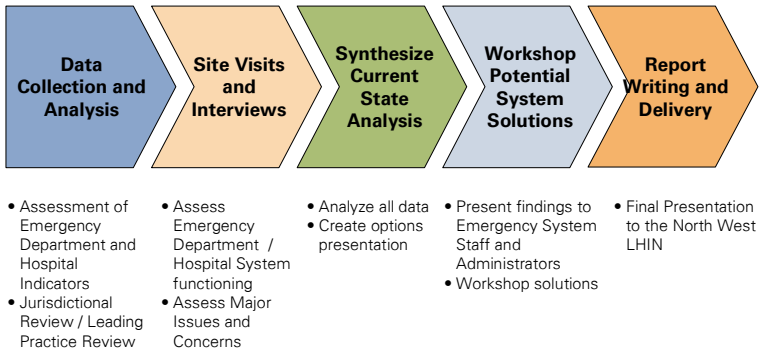
Several primary contributing factors led to the initiation of the study, including:

- A shortage of health human resources that has threatened the viability of some emergency departments;
- Transportation and patient flow issues across the system; and,
- Emergency department wait times and hospital alternate level of care days that impact quality of care and efficiency.

While these primary contributing factors were explored, the broader purpose of this study was to examine all aspects of the system and to develop recommendations to improve quality of patient care and system sustainability. Sustainability of the system for the purpose of this study is defined as ensuring the ability of providers across the region to provide quality emergency care irrespective of patient acuity and regardless of where the patient resides.

Methodology

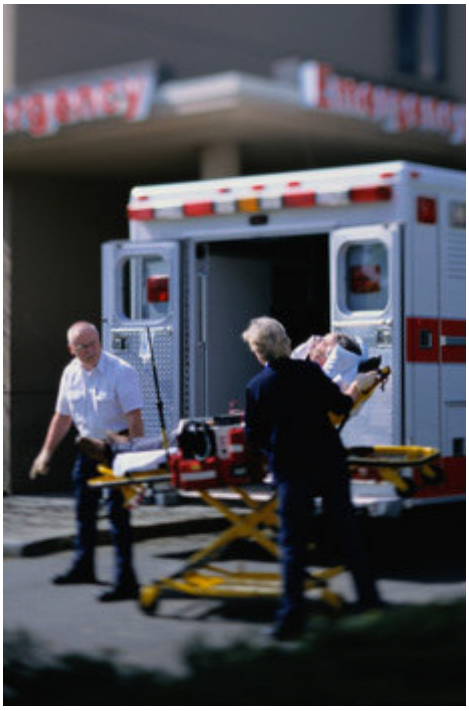
This study was a comprehensive look at the functioning of the Emergency Department system in Northwestern Ontario. The approach taken was both analytical and consultative. Site visits and interviews were held with stakeholders from each hospital site, including administrative staff, clinicians, physicians and a range of other hospital stakeholders such as representatives from EMS, CCAC, OPP, LTC, social services, and others. Interviews with provincial stakeholders and LHIN stakeholders were also conducted to capture the system strengths and issues. Finally, interviews were held with representatives from the MOHLTC, Ornge, Ontario Telemedicine Network (OTN), HealthForceOntario, CritiCall, and others.



To help validate the findings from the interviews, and, to develop a picture of the key strengths and issues in the system, data were collected from administrative databases (e.g. PHPDB) and stakeholder data sources from across the system (e.g. Ornge, CritiCall, EMS and Dispatch); these data were then carefully analyzed. To help capture physician intentions and quantify the physician health human resource issues across the LHIN, a physician survey was completed by each Chief of Staff or Chief of Emergency in each of the twelve hospitals.

An assessment of practices of emergency and rural medicine was conducted on jurisdictions from across Canada, and internationally including British Columbia, Alberta, Alaska, Australia, Sweden, the United Kingdom, New Zealand and others. Areas of the review included an assessment of regional governance models, health human resource issues and practices, approaches to patient transportation and other innovative practices.

Options and potential recommendations to address the key issues identified by the study were developed in a workshop with a representation of stakeholders from across the LHIN. These options and potential recommendations were assessed for feasibility and selected recommendations are presented in this report.



Findings

The complete set of findings can be found in the Interim Report, which has been appended as Appendix A. While the findings focus upon the sustainability of the emergency departments in the North West LHIN, it is also important to reflect on the impact these issues have on safety and quality and on the experience of patients.

The following themes emerged in the assessment of the Emergency Department system in the LHIN:

- *Vision:* Within the North West LHIN, there is no agreed-upon Vision regarding the manner in which the LHIN's Emergency Departments and hospitals should work as a network in ensuring that patients with urgent health problems receive timely, high quality care, delivered in the most appropriate environment.
- *Governance:* At present, each North West LHIN Emergency Department functions semi-autonomously; there is no over-arching governance structure for emergency services.
- *Administration & Accountability:* There is no administrative structure for the 12 Emergency Departments in the North West LHIN, nor do they operate within an explicit Accountability Framework.
- *Regional Flow*: The North West LHIN exists in a large geographic area where many patients live in highly rural or remote environments. When emergencies arise, patients generally receive high quality initial care. To enhance local care and to determine if a higher level of care is required, better use could be made of existing Telemedicine capacity. Telemedicine is currently used throughout the LHIN but it's application in the Emergency Department is limited with the exception of Sioux Lookout Meno Ya Win Health Centre. If higher levels of care are required, the roles of various hospitals in the North West LHIN (or elsewhere) in providing such services have not been clarified; hospitals do not always operate as a true network and it is at times difficult to access higher levels of care for patients in need. Furthermore, when treatment at a higher level of care has been completed, arranging suitable and timely transportation of the patient back to the referring hospital or home is often problematic.
- *Transportation:* In addition to patient repatriation issues (see above), a host of issues conspire to frequently interfere with the efficient, timely transportation of emergency patients to and from TBRHSC, (and to a lesser extent, Winnipeg Regional

Health Authority). These transportation issues have been difficult to resolve, since they involve multiple jurisdictions with different mandates for services, some enshrined in legislation. Additionally, there is no system in the North West LHIN to support inter-facility transfer of patients; substantial EMS resources are used to accomplish these, but such transfers are outside the legislated mandate of EMS, are not a priority for EMS and are generally accomplished in a highly inefficient way.

- *Health Human Resources:* The shortage of health human resources in the LHIN is likely the single most important issue affecting the sustainability of the Emergency Department system in the LHIN. While there are evident, significant shortages of physicians, nurses and other health care professionals within the North West LHIN, there is no contemporary health human resource plans. The approach to recruitment and retention of health care professionals is not coordinated, nor is the recruitment, compensation and deployment of locum physicians. There is an unmet need throughout the LHIN emergency departments related to continuing professional education and development. There is a need throughout the LHIN to implement alternative models of care provision.
- *Community Supports:* The mandate of the CCAC results in a limited range of services being provided in communities. Furthermore, there is wide variability in the LHIN in the availability of community supports (e.g. Family Health Teams, Long Term Care, the North West Community Care Access Centre, Social and Community Support Agencies, assisted living environments) that would lessen demands upon the emergency departments.
- *Clinical Quality, Standardization of Patient Care:* There is no Patient Safety and Clinical Quality Framework for emergency services throughout the North West LHIN. There are few shared Medical Directives or other examples of standardized patient care in emergency departments throughout the North West LHIN.
- *Information Management:* There is no standardization of information technology systems or data development and utilization regarding emergency services throughout the North West LHIN.

The issues that emerge from these themes are connected. Any one issue crosses multiple or all themes. A multi-faceted approach will be required to address them.

A case example has been developed to demonstrate frequent issues affecting patient flow across the region. This case describes a patient in a rural setting, who requires tertiary level care for investigation and treatment. While the issues described in this case are common for a patient requiring transportation from one of the rural hospitals to a tertiary centre, this case does not capture the full spectrum of issues documented in the study. These are described in the sections that follow, organized according to key themes.

As described previously, there are varying levels of hospitals that operate in the LHIN. TBRHSC is the regional centre that provides tertiary-level support to residents in the LHIN. Lake of the Woods District Hospital, in Kenora, is the only other hospital emergency department staffed with CCFP(EM) or FRCP(EM) trained physicians. This hospital also provides a range of services that include Orthopaedic surgery, Psychiatry, and Critical Care. Sioux Lookout Meno Ya Win Health Centre is a regional centre serving Sioux Lookout District: many communities stretched across Northern Ontario, 28 of which have nursing stations that collaborate with the health center for emergency care. The remaining hospitals are rural hospitals with emergency departments typically staffed by one or two emergency-trained Family Physicians in the day with on-call support at night.

The following case describes the flow of a patient from a rural setting to TBRHSC for tertiary-level care. The case highlights some of the key issues found throughout the study; the case is intended to demonstrate the experience of a patient requiring the support of the region for emergency care.

A Story Demonstrating Patient Flow Issues in the North West LHIN

Geoffrey is a 53 year-old male with diabetes living in Longlac. Geoffrey wakes up at 3:30 a.m. with slight chest pains, shortness of breath, and swelling in his hands and feet. He wakes his wife up complaining of his discomfort and says he thinks they should go to the hospital. She looks outside to see blizzard conditions, doesn't think she can make the drive to the hospital in Geraldton and calls 911.

An ambulance arrives twenty minutes later, delayed by the white-out conditions. The drive into Geraltdon District Hospital that would typically take 30 minutes, takes just over an hour. The ambulance is greeted by a nurse who helps the EMS staff off-load Geoffrey. They are told that the doctor, a new locum, has been called in, but may be delayed because of the snow. In the meantime she indicated she would take his vital signs and do what she could for him to make him comfortable. The nurse calls the x-ray technician on-call, asking her to come in to perform a chest x-ray. She then does some blood work and performs a cardiogram.

By the time the physician arrives, Geoffrey is complaining that he's finding it more difficult to breathe. The cardiogram shows an anterior myocardial infarction. Geoffrey calls the cardiologist on-call at TBRHSC to describe the situation and request that he accept the patient. The cardiologist indicates that they do not have the capacity to take another patient and cannot accept the patient.

The patient deteriorates further with a worsening of his shortness of breath and the MD decides to intubate the patient. The doctor asks the nurse to call CritiCall (a provincial service that helps connect emergency physicians with specialists across the province for consultation or transport) to help them find a physician to accept the patient. When the connection with the intensivist on-call at TBRHSC is established, the doctor in Geraldton takes the phone to explain his case again. The specialist at TBRHSC is reluctant to take the patient as there is only 1 ICU bed and it is usually held for patients in the hospital who have a cardiac arrest or who may become critically ill. The doctor in Geraldton convinces him to take the patient because of the weather conditions; if the weather stays the same or gets worse it may be more difficult to get the patient out.

CritiCall connects the nurse in Geraldton with Ornge to make arrangements for transport. They have a fixed-wing vehicle that can be there within the hour, but because of the weather, they don't have an advanced care paramedic and will require a nurse escort. The nurse then starts a round of calls to find a nurse who can escort the patient to TBRHSC. The only nurse that can get there within the hour is the one scheduled to come on in the morning shift.

The nurse then calls her local ambulance centre to see if they have received the dispatch to give them the details of the emergency transfer. Geoffrey and his wife are transported to Thunder Bay and lands at the airport, awaiting ambulance transport to TBRHSC. Due to the number of first response calls in Thunder Bay, there are no ambulances immediately available to transfer the patient to TBRHSC. After 30 minutes on the tarmac, an ambulance arrives to transport Geoffrey and the nurse to TBRHSC. Geoffrey is admitted to the ICU at TBRHSC.

The nurse from Geraldton checks herself into a hotel room and then attempts to arrange transportation for herself back to Geraldton in the morning. Geoffrey's wife also checks herself into a hotel in Thunder Bay. The next day the nurse arranges for Greyhound transportation to Nipigon, and asks her husband to make the two-hour drive to pick her up there. A few days later Geoffrey's condition has improved and arrangements are made for him to be transported back to Geraldton District. An ambulance is arranged the day before because of Geoffrey's low priority. It arrives six hours after the scheduled time because of a requirement to respond to other critical emergencies.

When Geoffrey arrives at the airport, the aircraft that had been waiting has been diverted to another call. Geoffrey and his wife wait another two hours for the aircraft to arrive. Once they land in Geraldton, they wait another hour before the ambulance arrives to take them to the hospital where Geoffrey was admitted and discharged the next day.

This case, describing the emergency care experienced by Geoffrey, highlights some of the key issues providers, administrators and patients experience on a daily basis in the North West LHIN. The case attempts to highlight the following key issues participants in the study described:

- Limited health human resources in rural hospitals;
- Difficulties accessing specialist care at TBRHSC;
- Challenges in accessing beds at TBRHSC;
- Difficulties and delays arranging emergency transportation;
- Challenges related to arranging nursing escorts for transport;
- Difficulties arranging seamless inter-facility transport for non-urgent patients; and,
- A lack of accountability for the patient experience from end-to-end.

As touched upon in the case, because of physician shortages, the region relies significantly on locum physicians to provide Emergency Department coverage. This issue is described in more detail in the Health Human Resource section below. There is also a range of findings that is not presented in this case that may be exclusive to specific hospitals, or organizations, or shared across the region such as acute shortages of health human resources, and a lack of established transfer protocols that makes it difficult for locum physicians to work in different hospitals across the regions. The full range of issues is described in more detail in the sections that follow and in the complete findings in Appendix A.

The following sections describe a summary of the findings across the system as grouped by the common themes.

Vision

The patient care journey for individuals living in North West LHIN with critical emergency care needs requires the support of a complex network of providers. In order to work as an effective network of providers, working towards collective goals based upon a common understanding of the needs of the patient and how they should be met, the emergency service organizations in the North West LHIN require a common Vision.

Currently, there is not an agreed-upon Vision regarding the manner in which the LHIN's Emergency Departments and hospitals should work as a network, ensuring that patients with urgent health problems receive timely, high quality care, delivered in the most appropriate environment.

Governance

The care as described in the case above, from a regional coordination perspective, speaks to a lack of system or regional oversight. While there is a lack of an explicit shared Vision for emergency services in the LHIN, there is also absence of a governance structure to ensure adherence to that Vision.

A model of regional emergency care will require a Vision and supporting structures to enable sustainable, quality emergency patient care. Patient flow should be streamlined and seamless. To manage the complexities that exist among the network of organizations that exist in the system, an overarching governance structure will be required.

Administration and Accountability

Related to the lack of a Vision and a governance structure for emergency services in the North West LHIN, there is also the lack of an accountability framework within which providers and administrators would function. Such a framework requires an administrative structure to support shared accountability and to be accountable to the patient experience from a regional perspective.

It is probable that Geoffrey, the patient in the case study, would resist going to the Emergency Department again, unless he really felt his situation was critical. While each provider along Geoffrey's journey most likely acted in good faith and provided Geoffrey with good care, the connections between the system and the quality of his overall experience was lacking. This can be attributed in part to a lack of overall system accountability for the patient experience from end-to-end across the region.

The current system as it is described by providers has the following characteristics:

- a lack of interfaces among the organizations and providers;
- a lack of common protocols and standardized care across the system;
- three EMS providers and a distinct air ambulance service (Ornge);

- a range of provincial services and supports that includes CritiCall and HealthForceOntario; and
- 12 hospitals with 12 distinct administrative structures and medical advisory committees.

This complex network of organizations works together on a daily basis without an explicit common Vision for regional emergency services, and without an administrative structure to be accountable for the patient journey across the region. The lack of an administrative structure and an accountability framework for emergency care in the region results in discrepancies in the manner in which care is provided for patients across the system. Some of these discrepancies are described in more detail in the sections that follow.

Regional Flow

As described, the flow of emergency patients in the LHIN involves many providers and organizations working across the system to provide care. The key findings related to this journey include the following:

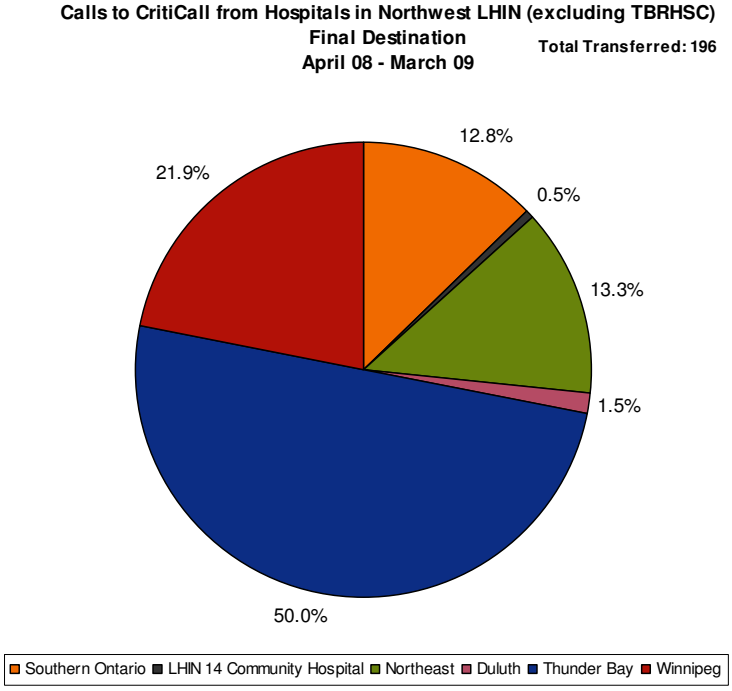
- Approximately half the population resides in rural parts of the LHIN requiring transportation via air and land ambulance for tertiary-level emergency care;
- Tertiary level care is provided by TBRHSC, Winnipeg Regional Health Authority (WRHA) and elsewhere in the province or US as needed;
- The system works well for those patients requiring highly critical care (e.g. for stroke, due to a regional Stroke protocol that has been adopted by all hospitals);
- A lack of transfer protocols across the LHIN delays transfer and care for those patients not in the most critical need;
- Physicians in the region and at TBRHSC have difficulties accessing specialist care;
- Patient flow due to ALC patients amongst other issues is an issue within TBRHSC that impedes regional patient flow; and,
- Patients are not being repatriated back to their home hospital as soon as medically appropriate.

Each of these findings is described in more detail below.

For residents in the rural areas of the LHIN, representing approximately 50% of the population, the response to a critical emergency will involve air ambulance transportation, or a combination of land and air ambulance transportation to a regional center (2,034 patient arrivals involving air ambulance in 2007/08, Source: PHPDB). The rate of arrivals involving air ambulance is much higher than other parts of the

Province. While there are variations on this story depending on where one lives and the services that are available, the story remains fairly consistent.

There were 1,441 emergency department inter-facility transfers in the LHIN in 2007/08: TBRHSC received 365 of those (Source: PHPDB). In addition, TBRHSC received another 379 inpatient transfers (this excludes those sent for a CT scan as they are not admitted). Patients in the western part of the LHIN may be transported to a hospital within the Winnipeg Regional Health Authority. There are also services not available at TBRHSC, resulting in patients requiring transportation to tertiary centres across Ontario, Manitoba or the US. The chart below demonstrates some of this activity.



The chart shows the final destination for those patients where CritiCall was used in the local and district hospitals (outside Thunder Bay). CritiCall is the provincial resource that connects emergency physicians with specialists across the province for consultation or patient referral.

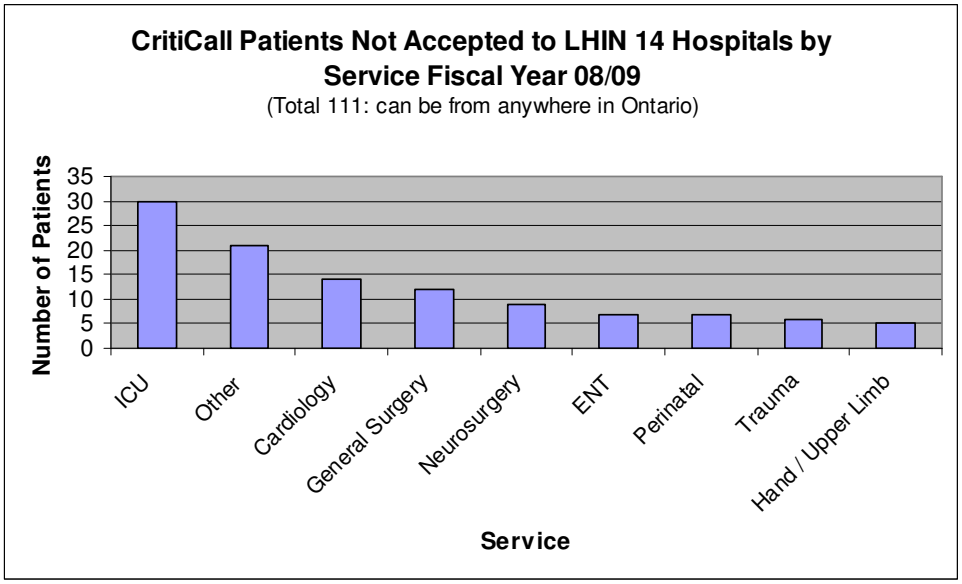
It is important to note that CritiCall supports only 33% of all emergency transfers, with a particular focus upon cases that are considered critical emergencies (i.e. life threatening). CritiCall does not coordinate transfer of patients for psychiatric emergencies. For non life threatening emergencies, physicians in the LHIN indicated a preference for using their personal networks for arranging tertiary emergency care.

One aspect of regional patient flow that functions well is when a patient is in a critical emergency. The responses from all parts of the system are adequate to meet the patient's needs. A good example of this is a patient with suspected stroke. Protocols are in place that

clearly define roles and responsibilities, and define clear accountability for the patient's care from emergency response, stabilization at the local or district hospital, transportation within mandated timelines, smooth admittance and care at the regional centre.

Beyond the stroke protocol, there is a lack of regional care/transfer protocols for patients that require care for other emergencies, urgent or non-urgent care. This tends to impact the patient experience for any service that isn't a critical emergency, causing delays and difficulties for physicians and staff trying to arrange transportation and find a physician who will accept their patient for tertiary care.

Physicians at hospitals in the region and TBRHSC describe difficulties accessing specialist care. The chart below shows non acceptance by LHIN hospitals by speciality. Most non-acceptances are from TBRHSC with some non-acceptance from Kenora. CritiCall only handles 33% of emergency calls, but the chart shows non-acceptance for those cases where there was a critical emergency. The most frequent clinical areas where non-acceptance occurs are Critical Care, Cardiology and General Surgery.

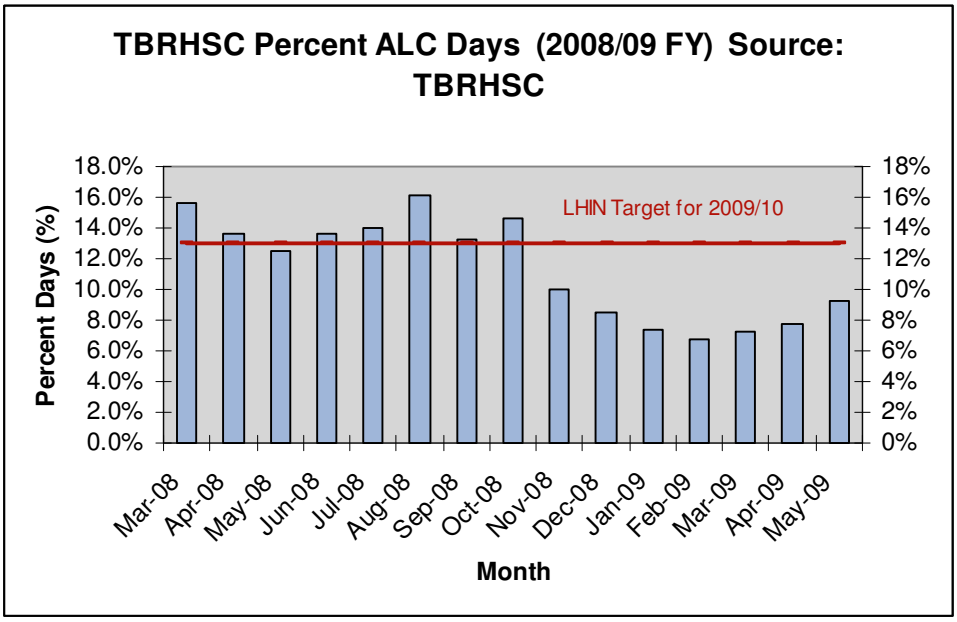


Physicians in the region report difficulties in accessing specialist care, although many indicate they felt access has been improving over the past year. Most identify the following specialties as the most difficult to access: Internal Medicine, Vascular Surgery, Plastic Surgery, Psychiatry and Trauma or Critical Care. Emergency physicians at TBRHSC indicate they also experience difficulties obtaining consultations from Internists.

While work has been undertaken at TBRHSC to try to address some of the regional transfer and bed access issues, these initiatives are not yet meeting the needs of providers in the region. There are good

intentions, but ambiguous accountability frameworks and few mechanisms in place for TBRBSC to effectively assess whether the initiatives are working. Also, communications regarding such initiatives between TBRHSC and the other hospitals in the region they are trying to help are often not effective. As an example, a project was initiated to make it easier for beds to be accessed by the region; however, this initiative did not address the primary bottleneck, acceptance of patients by specialists. Such initiatives will be important in addressing the sustainability of the emergency department system across the region, but require an accountability framework, evaluation and continuous improvement.

Patient flow within TBRHSC is also identified as a key issue. In 2008-09, there were 365 emergency department transfers into TBRHSC from the region, representing 6.5% of admitted patients through the TBRHSC Emergency Department. Ambulance off-load delays at TBRHSC are also intermittently problematic. Prolonged delays typically indicate emergency room over-crowding and effect EMS response rates in the community. Prolonged emergency department wait times are generally a reflection of lack of bed availability due to patient flow issues in inpatient areas. At TBRHSC, occupancy rates in medical units are extremely high (105.0% for Q3 2008/09) and alternate level of care days are usually elevated, although they have improved recently. The chart below demonstrates ALC days for TBRHSC for 2008/09. As can be seen, rates have declined since a high in August 2008. The recent lows should be read with caution, as the hospital did not experience a usual respiratory outbreak in January/February this year, and ALC patients are expected to continue to place strain on the system into the future. More analysis is required, however, to look at the long term effects over time.



Patients at TBRHSC could also be repatriated back to their home hospitals sooner in the region. Physicians at local and district hospitals generally believe many patients could be discharged earlier to recover in their home hospitals while they still need medical supervision. One of the issues TBRHSC has with the repatriation of patients to their home hospital is the time and effort required to coordinate transfer back; there are often delays due to the low priority these patients have for EMS providers.

Transportation

Transportation is described by many providers in the system as problematic across the region. The key issues can be summarized as follows:

- The process to secure a patient referral and transfer for tertiary emergency care is complex;
- Numerous difficulties exist in arranging and coordinating inter-facility transfers between Ornge and EMS;
- The process to send a nursing escort for patients requiring a CT Scan is problematic; and,
- Form 1 (Mental Health) transfers require coordination action from Ornge, EMS and OPP.

As described in Geoffrey's case, arranging transportation to and from the tertiary centre is a primary concern to physicians and staff. Physicians report a preference for arranging transfer first with a phone call to physicians at TBRHSC, followed then by the use of CritiCall if they do not have success in securing patient acceptance. Physicians and staff describe the process of arranging emergency transportation burdensome, especially for an emergency department staffed by one physician and one nurse who are generally responsible for multiple patients.

The current structure of emergency response in the LHIN consists of three Emergency Medical Service agencies (Northwest EMS – Dryden, Rainy River District EMS – District of Rainy River and Superior North EMS – District of Thunder Bay) and Ornge, the provincial air ambulance and medical transport service. The three EMS agencies fall under municipal government authority and receive funding in part from the MOHLTC. The operations of EMS fall under the Ontario Ambulance Act. This act requires EMS to respond to emergency situations when called. Ornge also falls under the Ambulance Act and the Health Systems Improvement Act, 2007 which provides them with the mandate to create an integrated land and air ambulance system for the transport of critically ill patients between hospitals.

While EMS providers are quick to respond to critical emergencies, their legislated mandate does not cover non-emergent inter-facility transfers. The current volume of non-emergent transfers by EMS providers represents approximately 53% of their total transfer volume. The transfer of patients across wide distances represents a large proportion of emergency cases in the region compared to what one would see in the rest of the Province. Once a patient is stable, or simply requires urgent diagnostics in the regional centre, their priority status is reduced, and ambulances are then rerouted to cover more critical cases. While this is expected, the impact on the patient can be similar or worse than that described in Geoffrey's case. This is the case, for example, for patients coming from the region who require a CT scan.

Providers described frequent delays in the coordination of Ornge and EMS services. A patient may wait on the airport tarmac for extended periods of time waiting for EMS pick-up and transport to TBRHSC, sometimes missing scheduled appointments for diagnostic services. This is largely due to the rerouting of EMS to cover more critically ill patients in Thunder Bay.

Nurse escorts are required for several reasons that include the following:

- A patient is critically ill and EMS and/or Ornge are not equipped with advanced care paramedics; or
- A patient is being sent for a CT San at TBRHSC or WRHA and these sites require that patient supervision be provided.

Hospitals are often required to send a nurse escort. This requirement often leads to difficulties arranging shift coverage at rural hospitals with limited staffing. In addition, payment for overtime and additional shift coverage leads to higher costs for these hospitals.

The delays make it difficult for hospitals in the region to assess whether an escort should be sent. Generally, EMS requires that non-emergent transfers are completed before 7 o'clock in the evening. TBRHSC has implemented a nursing position in the Diagnostic Imaging Department to try to alleviate the requirement by hospitals in the region to send a nursing escort for diagnostics. They have also implemented a policy to leave early morning appointments available for patients from the region. Delays and lack of coordination between Ornge and EMS often result in missed appointments. Hospitals also end up sending an escort as a precautionary measure. It can be difficult to assess whether they will return before 7pm, which is the cut-off for pick-up when EMS providers in the communities go off-duty for non-emergent calls. The programs in place at TBRHSC have been more suited to non-urgent or planned care when there are fewer unknowns and schedules can be arranged.

In cases where CritiCall has been engaged, CritiCall will arrange for transportation to repatriate patients; this will only happen for those patients who are brought back to their home hospitals for recovery. Any other patient discharged from the tertiary centre must find their own transportation home. For a patient requiring emergency care who is transferred to WRHA from Sioux Lookout, for example, the journey home can require a plane trip back to their home community, whereas a comparable patient in a city in southern Ontario would likely receive care in the city where they reside, or be capable or relying on public transportation networks to get them home upon discharge. Options for using public transportation in Northwestern Ontario are limited.

The final transportation issue concerns the transfer of patients put on a Form 1. A patient is deemed Form 1, or Psychiatric Assessment, when a physician believes a patient is at harm to themselves or another person. They must remain in a hospital or psychiatric ward for 72 hours for assessment. When a patient is deemed Form 1, the hospital often has to call in OPP to provide security for staff and patients since secure rooms generally are not available. Physicians and staff report finding it difficult to find a Psychiatrist who is willing to accept a patient for transfer. When one is finally found, they report the transfer process is burdensome since the patient is not deemed critical by EMS and the transfer has to take place upon the availability of OPP staff. Two officers are required, one to travel in the ambulance and the other to drive behind to provide the return trip for the officer. The requirement to send OPP officers as escorts results in additional costs for those hospitals. Hospitals are required to pay for the services of the OPP during this trip, which can take up to ten hours.

Health Human Resources

Health human resources are vital to the sustainability of the emergency department system in Northwestern Ontario. The following health human resource issues have been identified that could impact system sustainability:

- A shortage of health human resources across professions, including the following:
    - Physicians and specialists;
    - Nursing staff;
    - Allied health (e.g. Physiotherapists, Social Workers etc);
    - Lab & Diagnostic Imaging technicians.
- Difficulties recruiting and retaining professionals, with each community / hospital administering their own programs;

- Hospitals are highly dependent on locum coverage to cover Emergency Department shifts; and,
- Difficulties organizing training and development without adequate shift coverage.

Physician Resources

There are several models of emergency department physician staffing in the LHIN, as follows:

- TBRHSC: fully staffed, many with CCFP(EM) or FRCP(EM) training.
- Lake-of-the-Woods District Hospital: staffed by emergency specialists and emergency-trained family physicians, relying on family physicians for on-call support; and,
- The remaining hospitals which are staffed by emergency-trained family physicians.

All of these sites are dependent on locum coverage, whose training is variable. The majority of these hospitals struggle with high physician vacancy rates. While not critical in every community, vacancies threaten to close some emergencies due to a lack of adequate physician coverage. This fluctuates and communities go in and out of crisis. As mentioned previously, access to specialist care is an issue raised by physicians in the region and emergency physicians at TBRHSC. Part of the reason for this is the difficulty TBRHSC has had in recruiting and retaining specialist staff. While a shortage of physicians does not threaten the closure of TBRHSC emergency, it impacts physician workload significantly which impacts the ability to retain and recruit physicians.

A survey was distributed to the Chiefs of Staff / Chiefs of Emergency to assess the size and scope of the physician human resource issues. The full details of the analysis can be found in Appendix A. Each community conducts its own recruitment and retention processes including the recruitment and retention of locums, temporary short-term replacement physicians who typically practice permanently in another location. Some of the communities took advantage of HealthForceOntario's Community Partnerships program to help them design incentive packages and market to healthcare professionals. HealthForceOntario is the provincial agency created to help healthcare organizations address health human resource needs through recruitment and retention assistance and the funding the locum positions. Locums are temporary short-term replacement physicians that typically practice permanently in another location. Locums in the LHIN primarily come from across Ontario. Some however come from across Canada.

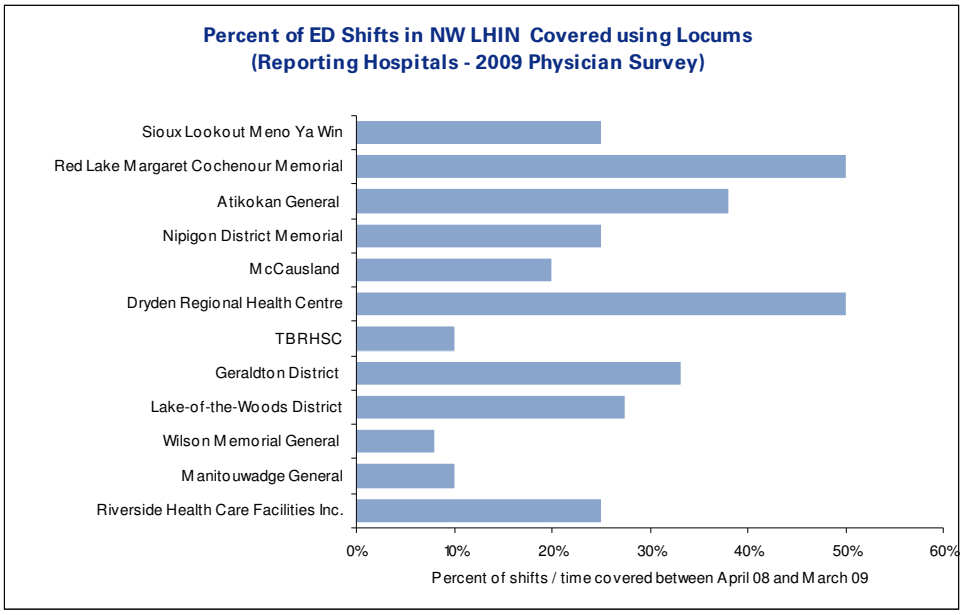
Most hospitals are highly reliant on locum coverage to keep their emergency departments functioning. Those with higher locum dependencies include Red Lake, Kenora, Dryden and Fort Frances, Geraldton and TBRHSC. Other hospitals rely on locums to provide much needed coverage primarily for vacation schedules and professional development. The transiency of locums makes it difficult to schedule firm vacation times and professional development for physicians in the LHIN. A physician who is interested in attending a week long conference outside the LHIN may register for the conference, only to learn that there is no locum coverage and that he/she cannot attend.

In those communities that are dependent on locum coverage, the activities of recruitment and retention and the administration of locums takes a significant amount of time and effort. Slightly more than 50% of respondents in the physician survey reported engaging HealthForceOntario to assist in locum administration, either through the Emergency Department Coverage Demonstration Project (for emergency specialists) or the Rural Family Medicine Locum Program. Additionally 33% of hospitals report topping up incentives to attract locums in a difficult competitive environment.

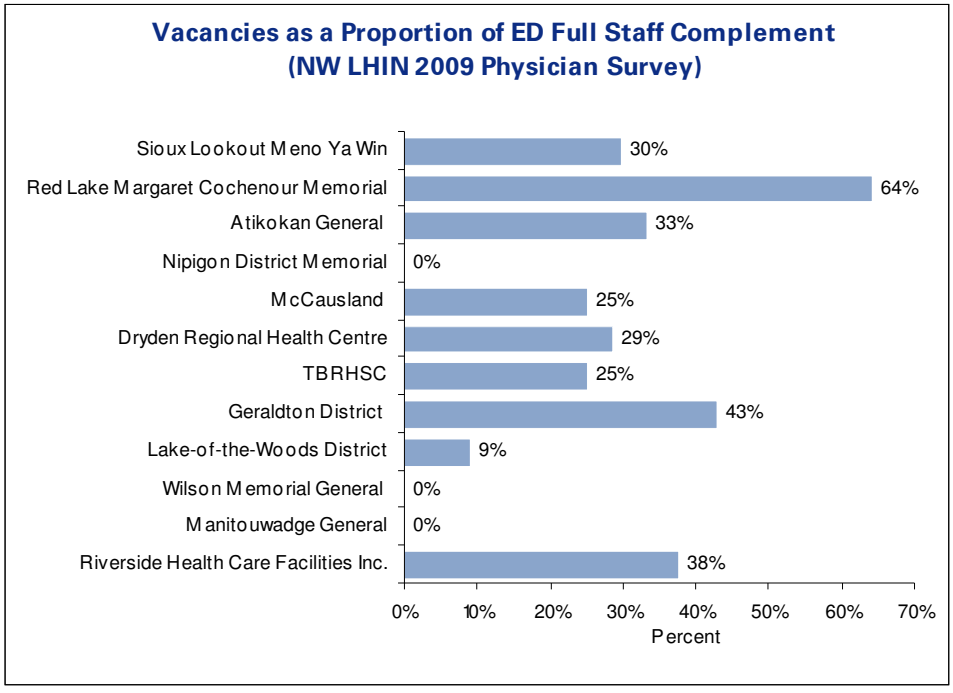
Historically, significant community support for physician recruitment has been provided by local industries; as the economies of communities change, these supports are vanishing. There is also no coordination of recruitment, and in fact, there is competition between communities for physician resources. This permits the available physicians to pick and choose, often choosing the easiest rotations.

Locum coverage, while appreciated by physicians in the LHIN, is not always comparable to the services provided by a permanent physician. Locums may be unfamiliar with resources in the community or with standard protocols or may not be able to provide the same continuity of care a permanent physician can provide. In addition, locums may be less well-trained and can refuse to provide a full scope of service typically required in a rural setting that can include obstetrics, clinic, inpatient and emergency coverage.

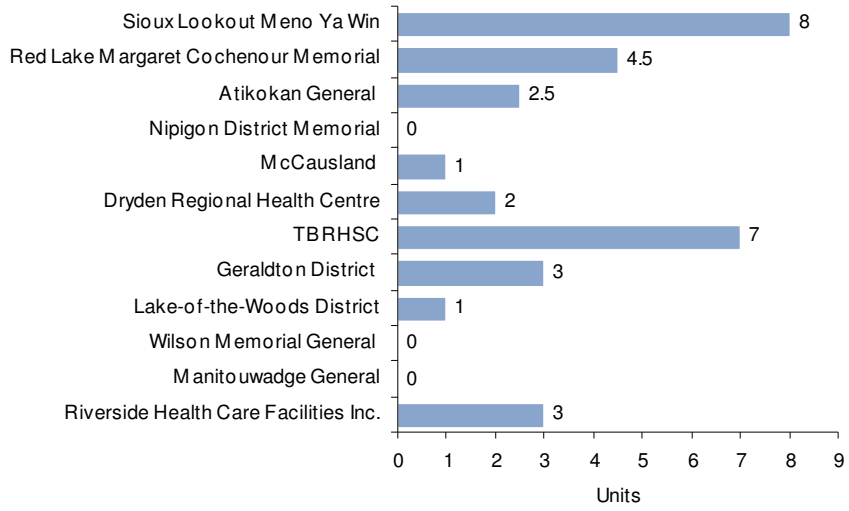
The results of the physician survey demonstrate the extent to which physician resourcing is an issue and the dependency on locums to keep the emergency departments open. The table below demonstrates a significant dependency on locums for the hospitals across the region. Five hospitals, including Red Lake, Atikokan, Dryden, Geraldton and Lake-of-the-Woods all report a dependency that is greater than 25% of all emergency department shifts.



While there are a reported 24 physician vacancies across the LHIN as of May 2009, there is an even greater number of physicians that is required to help take some of the load for covering on-call shifts. The following Tables demonstrate the proportion of positions in the emergency departments across the LHIN that are vacant and the number of physicians this represents.



Number of Current Physician Vacancies in NW LHIN (Reporting Hospitals - 2009 Physician Survey)



The hospitals with the largest proportion of vacancies include Red Lake, Geraldton and Rainy River. At these levels, these hospitals are under continual strain to fill vacant shifts with locums. Moreover, current MOHLTC funding for locums does not cover locum shifts for vacant positions for all hospitals, depending on the contract, placing additional strain on these sites. At small rural hospitals the loss of one physician has a significant impact. Hospitals are left scrambling to cover shifts with existing staff or locums.

In addition there are an estimated 15 physicians with intentions to leave their respective communities over the next 1 to 5 years and an additional 6.5 physicians with plans to retire, placing additional strain on the system. Solutions will be required that will leverage the use of existing resources as demand is not likely to lessen in the coming years, while projections for demand in service show a steady volume to slight increase in emergency department volumes.

The LHIN has seen the growth of provider practice agreements many that include Family Health Teams. There is a range of physician agreements in the LHIN, all of them focused on team-based practices. The agreements in place are signed with the MOHLTC and not all require physicians to provide emergency department coverage in the communities where they live. Some Family Health Team agreements allow for physicians to provide other hospital services (i.e. anaesthesia, obstetrics, medicine etc.) than emergency care. These agreements have also had the unintended consequence of making it more lucrative to do family medicine without providing coverage to the Emergency Department. This has contributed, in a few communities in the LHIN,

to Emergency Department coverage shortages where there otherwise is an adequate supply of physicians. As described by providers, the presence of a full time emergency physician in the Emergency Department in Kenora has also created sentiment by some family physicians in the community that they are no longer required to support the emergency department.

The recruitment and retention of physician specialists is also an issue identified at TBRHSC. Currently, specialist physicians play a major role in the recruitment of other specialists in their area, resulting in a conflict of interest. As a result of this, there continue to be specialist shortages in key areas, resulting in access-to-care issues for patients requiring specialist services.

The uncertainty of emergency physician supply threatens the sustainability of the emergency department system, which is set up to be highly reliant on physicians. Alternative models exist that use non-physician health care professionals to provide some emergency services, thus leveraging physician resources. Unfortunately, some of these alternative providers are also in short supply, as discussed in the next section.

Non-Physician Resources

Hospitals also describe difficulties in the recruitment and retention of nursing and allied heath staff, as do community and home care providers.

Hospitals find it particularly difficult to attract nurses to part time positions. Job sharing across multiple sites is not always easy because of the distances between the hospitals. Typically the recruitment of health care professionals requires employment for that professional's partner. This can be difficult in some of the communities in the LHIN where unemployment is growing due to mill and mine closures.

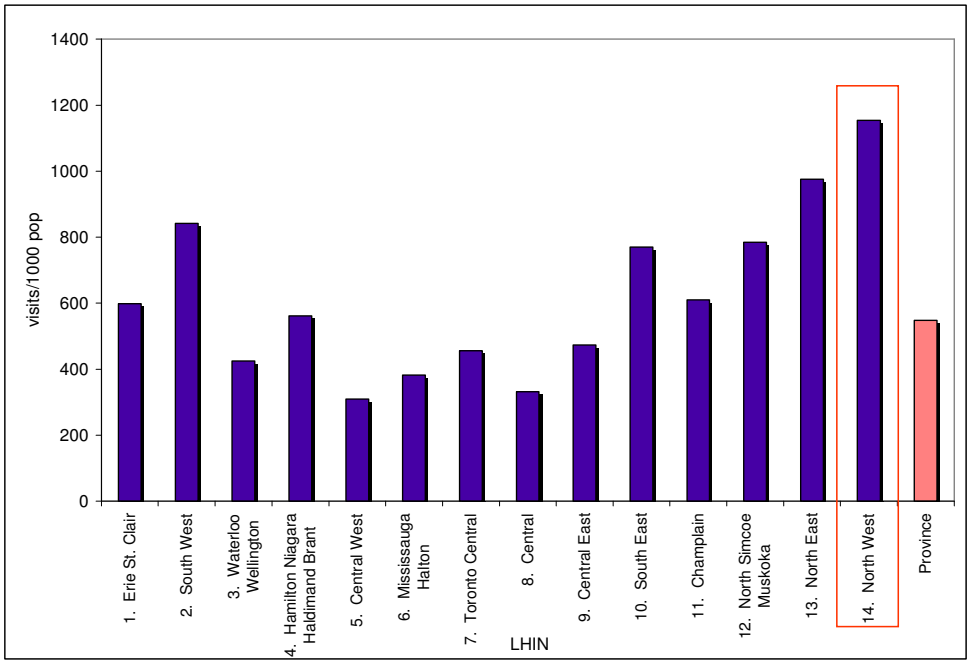
Providers also describe difficulty recruiting nurse practitioners. The growth of Family Health Teams across the LHIN has resulted in an increase in the number of available positions for nurse practitioners. Some of these positions have been filled from nursing resources in the hospitals. Additionally, Ornge is currently experiencing a shortage of advanced care paramedics. As described in the case, this can place added burden on hospitals that are required to send nursing escorts when other personnel are unavailable. Additionally, a shortage of nursing, and allied health professionals limits their usage as alternatives to physician resources.

With short-staffed hospitals, it is difficult to send staff to training and development opportunities. Finding replacement staff for those on training is a difficult task.

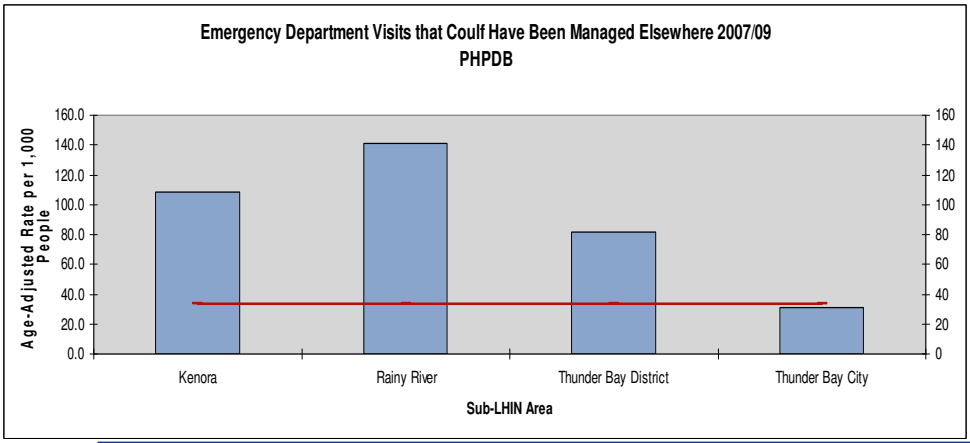
Community Supports and integration

The role of a rural community hospital is different than one in an urban setting. Fewer primary health care resources are available in such communities, and residents are left to rely on the Emergency Department to provide primary health care support. Utilization of the Emergency Department in these communities is higher than the rest of the Province, as shown in the chart below. It should be noted that North West LHIN has a higher proportion of Aboriginal people living in the LHIN than other LHINs. Data on Aboriginals living on reserve are not always collected in the census, and may make the number of visits look disproportionately larger.

Ontario – Emergency Department Cases per 1,000 Population by LHIN FY 2006/2007 (Data Source: PHPDB)



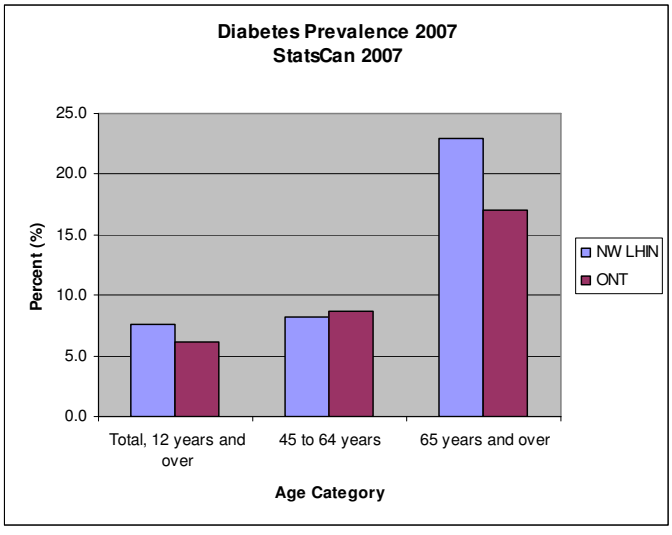
There is greater usage of the Emergency Department in rural settings for primary health care. The chart below demonstrates an indicator termed "Emergency Department Visits that could have been Managed Elsewhere".

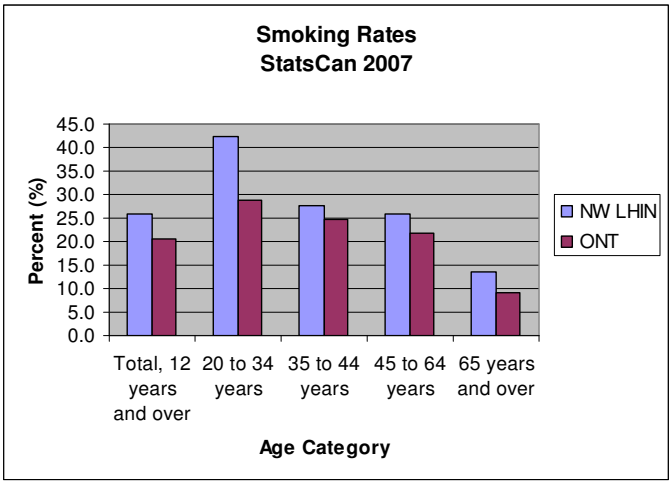


These visits include Canadian Triage Acuity Scale (CTAS) IV and V (low acuity) visits for the following conditions: otitis media, cystitis, conjunctivitis, and upper respiratory infections (e.g. common cold, acute or chronic sinusitis and tonsillitis, acute pharyngitis, laryngitis or tracheitis, and other upper respiratory infections). These exclude any visits for anyone under the age of 1 or older than 74 years of age. This indicator tracks visits that would be best managed in the community if resources are available. As the graph indicates, there is a much higher reliance on the emergency departments in the region, outside Thunder Bay, for these types of visits. In a small community it may be appropriate and effective for a higher degree of primary health care to be centred at the hospital.

The number of Family Health Teams (FHTs) in the LHIN has grown, and 58.4% of the population in the LHIN is now rostered in some form of physician group practice. Some of these teams have urgent care clinics, or reserve time for urgent cases, however most teams are not focused on reducing community reliance on the Emergency Department. In some communities the Family Health Team does not support the Emergency Department; others have hired Nurse Practitioners to divert cases from the Emergency Department.

An aging population with an increasing prevalence of chronic diseases and their risk factors points to a continued growth in demand for emergency services. The following charts show prevalence rates of diabetes that are higher among the total population than the Ontario rates with significantly higher rates among those aged 65 and older. Similarly, rates of smoking in the LHIN are significantly higher than the provincial rate. Smoking is linked to multiple chronic conditions. cancers.





All of the above suggests a need for an integrated community solution to emergency services that includes an assessment of future demand and provision of supports in the community that can serve as alternatives to emergency department visits. A model for sustaining emergency services in the North West LHIN needs to include an understanding of how primary care and chronic disease management should best be delivered within the community.

Clinical Quality, Standardization of Patient Care

Across the system, hospitals and their emergency departments, for the most part, work in isolation in developing quality and safety practices. The lack of shared patient care protocols across the region makes it difficult for locums working in different hospitals. The lack of shared protocols also creates difficulties for organizations such as Ornge and EMS that interact with multiple emergency departments.

There is also a lack of regional medical directives that would provide the opportunity for nurses to work to a broader scope of practice, thus leveraging physician resources. While these are in place in some sites, they are not consistently shared across the region. A model for increased sustainability should take advantage of efficiencies gained by utilization of standardized practices and common medical directives.

Information Management

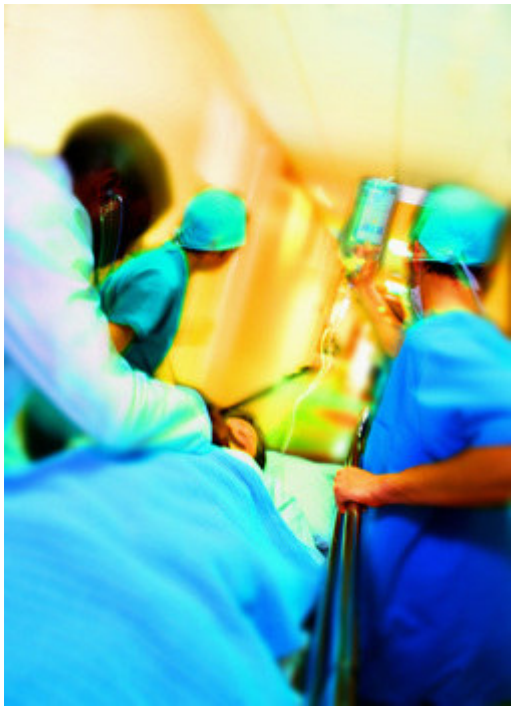
Information management is essential in knowledge-driven environments. Information is required for the accurate diagnosis and evidence-based care of critically ill patients. Currently, not all hospitals in the North West LHIN employ the same information system. This creates difficulties when patients require care on multiple sites, a common occurrence in Northwestern Ontario.

Providers across the system do not collect the same data or collect data inconsistently. This inconsistency makes it difficult to provide one view of the system that describes with accuracy the ongoing issues in

patient care. This lack of data also makes it difficult to manage the system from a regional perspective.

It is essential that a Quality Framework be developed for emergency services in the North West LHIN. Development and utilization of a Quality Framework requires availability of data and information. Data and information are required to create quality reports, to identify quality-related concerns and to provide evidence that corrective actions have resulted in performance improvement.

In summary, a North West LHIN-wide system of data and information management, supported by compatible information technology platforms, is essential for patient care, for system administration and for quality assurance.



Recommendations

The recommendations provided below, if implemented, will address the key issues confronting emergency care throughout the geographic area of the North West LHIN. They are based upon a review of data pertaining to emergency services in the LHIN, upon interviews with providers in each of the LHIN's Emergency Departments and upon comments and suggestions offered in a workshop that involved all key emergency service stakeholders. These recommendations build on the strengths in the current system and are informed by leading emergency services practices in Canada and elsewhere.

The recommendations as outlined below are identified as high or medium priority. This priority ranking is a measure of the recommendation's ability to impact the sustainability of the emergency department system. The recommendations ranked as high have a immediate, significant ability to impact the sustainability of the system. Those ranked medium still impact the sustainability of the system, but to a lesser degree.

In the course of interviewing emergency health care providers and other key stakeholders throughout the North West LHIN, it became apparent that the issues health care providers confront as they attempt to ensure that their patients receive efficient and effective care for emergency medical problems can be grouped according to the following themes:

- *Vision*
- *Governance*
- *Administration & Accountability*
- *Regional Flow and Access to Higher Levels of Care*
- *Transportation*
- *Health Human Resources*
- *Community Supports*
- *Clinical Quality, Standardization of Patient Care*
- *Information Management*

The Recommendations of the Consultants related to the improvement in delivery of emergency services throughout the North West LHIN have been organized according the above-listed themes.

Vision

Summary of Findings: Within the North West LHIN, there is no agreed-upon Vision regarding the manner in which the LHIN's Emergency

Departments and hospitals should work as a network in ensuring that patients with urgent health problems receive timely, high quality care, delivered in the most appropriate environment.

Recommendation # 1 (High Priority): That the North West LHIN and its partner hospitals develop and commit to a clear, unambiguous Vision describing a preferred model of coordinated emergency services delivery for Northwestern Ontario.

The Vision should define how the providers in the system would work together to provide end-to-end care that is patient focused. Key elements of the Vision should include the following:

- Patient and Family-centered care;
- A unified network of providers;
- Collaborative use of resources;
- Use of best practices;
- Shared standards; and,
- Use of coordinated decision-support.

Outcome measure:

1. *Presence of* a *Vision for an emergency service delivery system throughout the North West LHIN*
2. *Commitment to this Vision by all partners.*

Governance

Summary of Findings: At present, each North West LHIN Emergency Department functions semi-autonomously; there is no over-arching governance structure accountable for implementation of a Vision of an integrated emergency services network in Northwestern Ontario.

Recommendation # 2 (High Priority): That the LHIN and its partner hospitals commit to the creation of a North West LHIN Emergency Services Governance Committee, and determine the operating parameters of this entity. It is envisioned that this body would have representation from each of the hospitals in the LHIN. These representatives would be responsible for representing the needs of their local communities and hospitals. The governance structure would be responsible for development and implementation of high-level strategies (e.g. hospital roles within a network of hospitals), discussions/negotiations with the MOHLTC and Health Canada and issue identification and resolution with other outside agencies (EMS, Ornge). The emergency services administrative structures (see below)

would report to and be held accountable by this body. Other recommended functions for this body are found in the Recommendations below.

Outcome Measures:

1. *North West LHIN Emergency Services Governance Committee created;*
2. *Terms of Reference developed and approved;*
3. *Chair and members appointed;*
4. *Administrative structures (see below) created;*
5. *Initial Workplan developed and approved.*

Administration & Accountability

Summary of Findings: There is no administrative structure for the 12 Emergency Departments in the North West LHIN, nor do they operate within an explicit Accountability Framework.

Recommendation # 3 (High Priority): That a North West LHIN Emergency Services Administrative Committee is created, ideally evolving from the current North West LHIN Emergency Department Advisory Committee. This committee will be responsible for ensuring that:

- Access and flow issues related to emergency services are addressed;
- Transportation issues related to emergency services are addressed;
- A synchronized approach is developed to address non-physician health human resource issues and opportunities;
- Community supports designed to lessen pressures on Emergency Departments are optimized;
- A patient safety and clinical quality framework for emergency services in the LHIN is developed;
- Data collection and information management processes related to emergency services are coordinated;
- Urgent issues and problems related to provision of timely, high quality emergency services in the North West LHIN are understood and addressed;
- Communication regarding emergency services amongst partner organizations and stakeholders is optimized.

The administrative structure's membership would consist of the following:

- Administrative leaders from each of the hospitals in the LHIN with an Emergency Department;
- Administrative leadership from the Community Care Access Centre; and,
- North West LHIN Emergency Department Lead;

A small secretariat will be required to support the work of this committee. While widespread communication from the Committee to a broad net of stakeholders will be essential, the primary reporting line of this committee will be to the North West LHIN Emergency Services Governance Committee, to which this committee would be accountable.

Outcome Measures:

1. *Terms of reference developed for an Emergency Services Administrative Committee;*
2. *The reporting line for this committee confirmed;*
3. *The Accountability Framework for this committee confirmed;*
4. *A Role Description for the Committee Chair developed;*
5. *Membership on the committee defined;*
6. *Chair and members appointed;*
7. *Initial Workplan developed and approved.*

Summary of Findings: There is no committee comprised of physician leaders in Emergency Medicine from the North West LHIN.

Recommendation # 4 (High Priority): That a North West LHIN Emergency Services Medical Council be created. The hospitals in the LHIN should reach agreement on the Accountability Framework for this council. The Council would be chaired by the North West LHIN Emergency Department Lead and would develop strategic goals for emergency services from a physician perspective (e.g. consideration of LHIN-wide credentialing and privileging for some physicians; development of education and mentoring programs, etc.), develop a coordinated approach to physician recruitment and retention issues, develop and implement a strategic approach to recruitment and utilization of locums in the North West LHIN, develop a medical quality framework, participate in issue and problem resolution and serve as a communication vehicle to physicians in the North West LHIN who engage in emergency department work. The Council should have representation from each of the emergency departments in the LHIN.

It will be important that the LHIN hospitals develop an unambiguous reporting line and a clear Accountability Framework for the Council. Much thought must be given to these matters, since the LHIN and its hospitals will want to support local physician autonomy, as appropriate, while implementing a structure that supports a regional model of care.

Outcome Measures:

1. *Terms of reference for a Regional Emergency Medical Council developed;*
2. *The reporting line for the Council defined;*
3. *The Accountability Framework for the Council determined;*
4. *A Role Description for the Chair developed;*
5. *Council membership agreed upon;*
6. *Chair and members appointed;*
7. *Initial Workplan developed and approved.*

Regional Flow & Access to Higher Levels of Care

Summary of Findings: The North West LHIN exists in a large geographic area where many patients live in rural or remote environments. When emergencies arise, patients generally receive high quality initial care. To enhance local care and to determine if higher levels of care are required, better use could be made of existing Telemedicine capacity. If higher levels of care are required, the roles of various hospitals in the North West LHIN (or elsewhere) in providing such services have not been clarified; hospitals do not operate as a true network and it is at times difficult to access higher levels of care for patients in need. Furthermore, when treatment at a higher level of care has been completed, arranging suitable and timely transportation of the patient back to the referring hospital or home is often problematic. The following series of recommendations, if accepted and enacted, will improve regional patient flow issues and issues related to access to higher levels of care:

Recommendation # 5 (High Priority): That the North West LHIN Emergency Services Governance Committee, working with partner hospitals and the LHIN, define specific emergency service roles for health care facilities in the North West, leading to the creation of a formal network of facilities in the North West (Health Canada remote nursing stations, community hospitals, district hospitals, a tertiary regional referral hospital), each with defined roles and responsibilities relative to the care of emergency patients.

These defined roles should be accompanied by a service plan that describes the flow of patient care across hospitals in the LHIN for defined services. This may include the development of regional specialty services among a hospital or group of hospitals. The definition of roles will lead to establishment of networks of care and reduce the system's reliance on TBRHSC for emergency care.

Outcome Measures:

1. *Roles and responsibilities of all health care facilities in North West defined, in regard to emergency services;*
2. *Lines of referral between hospitals clarified;*
3. *Over time, personnel and equipment upgraded, as required.*

Recommendation # 6 (High Priority): That the North West LHIN takes the lead in redefining and clarifying the role of TBRHSC as *the* regional hospital in Northwestern Ontario. This role should be defined and agreed to in a signed Hospital Service Accountability Agreement defining in explicit terms TBRHSC's responsibility as a regional centre. The LHIN should also play a role in encouraging/assisting/monitoring TBRHSC as it advances the initiatives that will be required to permit it to fill this role. These will include:

- Embracing the North West LHIN Emergency Transfer Policies (see below);
- Ensuring adequate specialist physician availability; this will require a change in physician recruitment strategy at TBRHSC (see below) and full implementation of TBRHSC's Most Responsible Physician (MRP) policy;
- Improving bed availability through development and implementation of an aggressive bed utilization management strategy;
- Supporting/expanding a current initiative to identify an available bed for patients requiring emergency transfer, potentially permitting direct admission to those beds;
- Ongoing evaluation of its role as a regional centre and performance therein.

Outcome Measures:

1. *Unambiguous acceptance by TBRHSC of a role as the tertiary referral hospital for Northwestern Ontario;*
2. *TBRHSC rarely refuses a transfer from region;*

3. *Altered physician recruitment strategy leading to enhanced recruitment of specialists;*
4. *Increased bed availability through improved patient throughput;*
5. *Increase in 'direct admissions' of emergency patients to pre-assigned beds.*

Recommendation # 7 (Medium Priority): That the North West LHIN Emergency Services Administrative Committee, working with the North West LHIN Emergency Services Medical Council, identify opportunities for expansion of Telemedicine into Emergency Departments , explore funding opportunities with Ontario Telemedicine Network, and, once funding has been gained, develop an Emergency Department Telemedicine Implementation Plan.

Outcome Measures:

1. *Emergency Department Telemedicine opportunities identified;*
2. *Funding opportunities identified with Ontario Telemedicine Network and initial funding gained;*
3. *Implementation plan developed and approved.*

Recommendation # 8 (Medium Priority): Building on the experience of other Canadian Centres (e.g. Fraser Health in B.C.), that the North West LHIN Emergency Services Administrative Committee take the lead in developing a set of Transfer Protocols (e.g. 'Tertiary Level of Care'; 'May not Refuse'; 'Life, Limb, Threatened Organ') to ensure timely transfer of patients in need to higher levels of care and that monthly reports of transfer data related to these protocols be developed and widely circulated.

These transfer protocols should define a set of steps clinicians should follow to transfer patients, including use of CritiCall and steps to follow when services are not readily available. These transfer protocols should also define when to engage the services of TBRHSC, WRHA, hospitals in the US and hospitals elsewhere in Ontario.

Outcome Measures:

1. *Transfer protocols developed and implemented;*
2. *Role of CritiCall clarified;*
3. *Monthly data re: transfers according to these protocols developed and circulated.*

Recommendation # 9 (Medium Priority): That the North West LHIN Emergency Services Administrative Committee take the lead in developing an Escalation Policy defining the chain of individuals with administrative responsibility to be contacted should intractable difficulties or untimely delays be experienced in the transfer of a critically ill patient to TBRHSC; it is expected that such individuals would intercede administratively to resolve issues leading to delays.

The escalation policy would cover the transfer of patients from local and district hospitals to TBRHSC. If for example delays were encountered accessing a bed or specialist care, a chain of command would be initiated with set timelines associated with expected response times and the elapsed time for providers to escalate the next point in the chain.

Outcome Measure:

1. *Escalation Policy developed and implemented.*

Recommendation # 10 (High Priority): That the North West LHIN Emergency Services Administrative Council should take the lead in developing a Repatriation Protocol that defines the manner in which patients from TBRHSC are repatriated in a timely manner to their referral hospital or to their home. Similarly the policy should cover the repatriation of patients from Sioux Lookout Meno Ya Win Health Centre in partnership with Health Canada, and the Winnipeg Regional Health Authority to their home communities. This policy should be integrated with the initiative to improve inter-facility transfers (see below). Note: patients transferred through CritiCall are provided transportation back to their home hospital – another reason to support wider use of CritiCall.

Outcome Measure:

1. *Repatriation Policy developed for patients not covered by CritiCall policy; this policy should be integrated with initiatives to improve inter-facility transfers (see below);*
2. *Repatriation Policy approved and implemented;*
3. *Data on repatriation of patients collected and widely communicated.*

Transportation

Summary of Findings: In addition to patient repatriation issues (see above), a host of issues conspires to frequently interfere with the efficient, timely transportation of emergency patients to and from TBRHSC, (and to a lesser extent, Winnipeg Regional Health Authority). These transportation issues have been difficult to resolve, since they involve multiple jurisdictions with different mandates for services,

some enshrined in legislation. Additionally, there is no system in the North West LHIN to support inter-facility transfer of patients; substantial EMS resources are used to accomplish these, but such transfers are outside the legislated mandate of EMS, are not a priority for EMS and are generally accomplished in a highly inefficient way. The following Recommendations, if accepted and implemented, will facilitate resolution of these issues.

Recommendation # 11 (High Priority): The North West LHIN Emergency Services Governance Committee should establish a process to engage stakeholders to create an inter-jurisdictional task force on transportation with representation from the MOHLTC, the LHIN, partner hospitals, EMS providers and Ornge, and other stakeholders as required (e.g. Health Canada). This task force would be charged with the shared responsibility of the following:

- Developing a comprehensive list of current issues that interfere with smooth, timely, efficient transfer of patients to and from TBRHSC and developing and implementing resolving actions. The list of issues would include, but not be limited to:
    - Coordination of patient 'hand-offs' between EMS and Ornge;
    - Communication processes between Ornge and Emergency Departments, leading to prolonged patient pick-up times;
    - Improved compatibility of resuscitation equipment between Ornge, EMS and Emergency Departments.
- Consider options to address non-urgent inter-facility patient transfer needs.

Outcome Measures:

1. *Issues confronting effective transfer of patients to and from TBRHSC tabulated and addressed;*
2. *An initiative developed to address inter-facility patient transfer needs in the North West LHIN.*

Recommendation #12 (Medium Priority): The North West LHIN Emergency Services Administrative Committee will explore options to address Nurse Escort challenges.

Outcome Measures:

1. *Identification of options to reduce or eliminate need for nurse escorts*
2. *Agreement achieved on ability of nurses to provide nursing care to patients in transit (when necessary).*

Health Human Resources

Summary of Findings: While there are evident, significant shortages of physicians, nurses and other health care professionals within the North West LHIN, there is no contemporary health human resource plans. The approach to recruitment and retention of health care professionals is not coordinated, nor is the recruitment, compensation and deployment of locum physicians centrally organized. There is an unmet need throughout the LHIN Emergency Departments related to continuing professional education and development. There is a need throughout the LHIN to implement alternative models of care provision. The shortage of health human resources in the LHIN is likely the single most important issue affecting the sustainability of the Emergency Department system in the LHIN. The Recommendations listed below, if accepted and implemented, will facilitate resolution of health human resource issues.

Recommendation # 13 (High Priority): The North West LHIN Emergency Services Administrative Committee should oversee the development of a 10-year Regional Non-Physician Health Human Resource Plan for Nurses, Allied Health professionals and other key health care personnel who work in emergency services. This Plan should also include options to leverage existing resources through contemporary utilization of care providers such as Nurse Practitioners, highly trained EMS personnel and physician assistants. These resources have demonstrated benefit in emergency services in rural Australia. Administrators there have employed Nurse Practitioners in emergency departments, linked via telemedicine to emergency physicians and expanded the scope of practice EMS personnel, who provide support both in the emergency departments and the community. The plan should also recognize and make use of the resources available through the Nursing Secretariat and HealthForceOntario that include the Nursing Retention Fund, Grow Your Own Nurse Practitioner Program, Tuition Support and other programs.

Planning and implementation should consider a measured approach, starting with a few pilot projects, to introduce the concept of alternate providers in emergency departments. An iterative approach building on the experiences of each community will help gain acceptance for the effective use of these providers.

Additionally, hospitals in the LHIN should consider a regional approach to implementing the plan and regional coordination of professional development activities. This could be achieved through the establishing a regional committee to oversee and coordinate these activities.

Outcome Measures:

1. *Development of a Regional Non-Physician Health Human Resource Plan;*
2. *Innovative use of Advanced Nurse Practitioners, highly-trained EMS personnel and physician assistants in Emergency Departments;*
3. *Regional coordination of professional development and training.*

Recommendation # 14(High Priority): That the North West LHIN Emergency Services Medical Council develop a 10-year integrated Regional Physician Human Resource Needs Assessment. This assessment will identify the current and expected vacancies and gaps in physician human resources related to emergency services.

Outcome Measures:

1. *10-year North West LHIN Physician Resource Needs Assessment that is coordinated across the LHIN.*

Recommendation # 15 (High Priority): While endorsing continued community-based physician recruitment, that the North West LHIN Emergency Services Medical Council develops a Strategic Plan for improving regional physician recruitment to the North West LHIN. Elements of this plan could include:

- Development of a formal relationship between Emergency Services Medical Council and Training Program Directors at the Northern Ontario Medical School to promote greater exposure of undergraduates and residents to North West LHIN communities;
- Development of specific recruitment efforts devoted to students and residents rotating to North West LHIN hospitals;
- Surveying students, residents and locum physicians regarding their views/concerns related to medical practice in the North West LHIN and act to develop a compendium of issues and plans to address them while also acknowledging workload variation;
- Development of region-wide advertising and promotional material;
- Representation of Northwestern Ontario at job fairs;
- Standardization of incentive packages;
- Creation of professional development and mentorship opportunities within the LHIN;

- Facilitation of region-wide credentialing and privileging processes that would encourage physicians to work at multiple sites.

Outcome Measures:

1. *Coordinated approach to physician recruitment throughout the North West;*
2. *Enhanced relationship between North West LHIN Emergency Services Medical Council and NOSM;*
3. *Focused recruitment efforts toward rotating residents and students;*
4. *Increased understanding of concerns of recent graduates relative to medical practice in the north;*
5. *Enhanced physician professional development;*
6. *Greater mobility of physicians to meet needs throughout LHIN*
7. *Improved physician recruitment and retention.*

Recommendation # 16 (High Priority): TBRHSC should ensure that the specialist physician recruitment process at TBRHSC is not primarily driven by specialist physicians in the same discipline, thus eliminating any potential conflict of interest. While input should be sought from practicing specialists, their input should not be a barrier to the recruitment of new specialists. Specialist recruitment should be based on population need rather than physician preference / interests.

Outcome Measures:

1. *Development of a corporate specialist physician recruitment initiative at TBRHSC;*
2. *Avoidance of physician conflict-of-interest;*
3. *Enhanced specialist physician recruitment.*

Recommendation # 17 (High Priority): While respecting long-standing relationships and community practices, charge the North West LHIN Emergency Services Medical Council with the task of developing acceptable region-wide approaches to enhance proactive recruitment of and improve deployment of locum physicians, including the development of a LHIN-based pool of locum resources.

This should include the development of an information system to track who the locums are, how often they provide service, their relative skill sets, their preference of communities and hospitals, the amount required for travel and their compensation requirements. This information would provide a robust dataset for the coordination and administration of centrally organized locum programs.

Outcome Measures:

1. *Evolution to a more standardized approach to recruitment of and utilization of locum physicians within the North West LHIN.*
2. *Minimization of expensive, short duration locum engagements;*
3. *Ensuring compensation arrangements are aligned with locum work responsibilities;*
4. *Ensuring a unified approach from the North West LHIN to agencies such as HealthForceOntario.*

Recommendation # 18 (Medium Priority): The North West LHIN Emergency Services Governance Committee should work with the Medical Council to develop a list of government initiatives/Programs in the North West LHIN that have the unintended effect of reducing physician commitment to Emergency Department work. This list should then form the basis of discussion with the MOHLTC related to modification of such initiatives/Programs; this will help ensure that each community will be able to continue to provide medical coverage to their Emergency Department.

Outcome Measures:

1. *Development of a list of initiatives/programs that lessen attractiveness of emergency work for physicians;*
2. *Discussion with the MOHLTC to modify such initiatives/programs;*
3. *Increased willingness of physicians to work in Emergency Departments.*

Community Supports

Summary of Findings: The mandate of CCACs results in a limited range of services being provided in communities. Furthermore, there is wide variability in the LHIN in the availability of community supports (e.g. Family Health Teams, Long Term Care, Community Care Access Centres, Social and Community Support Agencies, assisted living environments) that would lessen demands upon the Emergency Departments.

Recommendation # 19 (Medium Priority): The North West LHIN should work with the CCAC/FHT/CHC and other partners to develop community ambulatory clinics where appropriate to cluster care and increase levels of care that can be provided in the community (e.g. for patients requiring chronic wound care).

Outcome Measures:

1. *Expanded community services for patients requiring chronic wound care and others;*

2. *Decreased Emergency Department volumes, particularly in communities such as Kenora and Dryden*

Recommendation # 20 (Medium Priority): The North West LHIN should conduct a needs assessment for supportive housing (assisted living) in its communities.

Outcome Measures:

1. *Fewer visits to the Emergency Department by the elderly population;*
2. *Fewer hospitalizations of elderly patients, which often result in prolonged hospitalization, deconditioning and requirements for ALC.*

Recommendation # 21 (Medium Priority): The North West LHIN should continue to support the development of integrated Chronic Disease Management programs across the LHIN to support the needs of individuals in the LHIN with chronic medical conditions. The North West LHIN Emergency Services Administrative Committee should identify other opportunities for chronic care management in line with the LHIN and provincial strategy on Chronic Disease Management (e.g. diabetes with complications).

Outcome Measures:

1. *Enhanced care of patients with chronic disease;*

2. *Enhanced patient accountability;*

3. *Lessened demands upon Emergency Departments and hospitals.*

Patient Safety and Clinical Quality

Summary of Findings: There is no Patient Safety and Clinical Quality Framework for emergency services throughout the North West LHIN. There are few shared Medical Directives or other examples of standardized patient care in Emergency Departments throughout the North West LHIN.

Recommendation # 22 (High Priority): The North West LHIN Emergency Services Administrative Committee and Medical Council should work together to conduct an environmental scan of current

patient safety and clinical quality initiatives in the North West LHIN's Emergency Departments and, building on this, develop and implement a plan for a LHIN-wide Emergency Services Patient Safety and Clinical Quality Initiative. An incremental continuous improvement approach should be taken, building on current strengths.

A continuous improvement approach should employ leading practice methodologies such as Plan-Do-Study-Act for incremental change. This includes deciding where to focus, implementing the change, studying the impact, and making changes as required to fine-tune performance. This requires the mechanisms to collect data and supporting infrastructure to act on the results of the data.

Outcome Measures:

1. *Completion of a survey of current Patient Safety and Clinical Quality initiatives within the LHIN;*

2. *Development and implementation of an incremental Patient Safety and Clinical Quality Program, building on existing strengths.*

Recommendation # 23 (High Priority): As a priority, the Emergency Services Administrative Committee in coordination with the Emergency Service Medical Council should develop a menu of medical directives in current use in the LHIN's Emergency Departments and determine which of these can be standardized for use throughout the LHIN. Medical directives in place in other sites across the province may also be suitable for adjustment and implementation in the LHIN's hospitals (e.g. Trillium Health Centre is one example) The use of medical directives can help to standardize care across the LHIN's hospitals to help facilitate the movement of physicians and locums across the hospitals. The use of medical directives can also help to leverage the use of nurses in the emergency department, making more effective use of physician resources.

Outcome Measures:

1. *Increased use of medical directives in Emergency Departments;*

2. *Increased standardization of care, resulting in enhanced quality.*

Recommendation # 24 (High Priority): Of the Emergency Departments in the LHIN, only TBRHSC and Kenora have security for designated Form 1 patients. The North West LHIN Emergency Services

Administrative Committee should explore strategies to address safety issues for designated Form 1 patients.

Outcome Measures:

1. *Increased patient and staff safety;*

2. *Reduced reliance for provision of security by OPP.*

Information Management

Summary of Findings: There is no standardization of information technology systems or data development and utilization regarding emergency services throughout the North West LHIN.

Recommendation # 25 (Medium Priority): Coordinated management of emergency services throughout the North West LHIN requires consistent data. The North West LHIN Emergency Services Administrative Committee, working with the Medical Council, should determine the initial data/information needs of an 'Emergency System' in the North West LHIN. This committee should explore additional information needs and ensure systems are in place to collect and collate information efficiently for the ongoing administration of an Emergency Department system in the LHIN.

The data collection and information technology support required should also be determined. Based upon the above information, the Administrative Committee should develop an Information Management Plan, including required resources, for presentation to the Emergency services Governance Committee.

Information requirements will include the following:

- Patient volumes, acuity and demographic characteristics;
- Diagnoses and reasons for system use;
- Flow through the system;
    - Wait times for entry;
    - Wait times for transfer;
    - Wait times on airport tarmac;
    - Wait times for specialist consult;
    - Other wait times and performance data;
- Acceptance rates by specialists;

- Outcomes;
- Patient Experience.

Outcome Measures:

1. *Data/information needs in emergency services determined;*
2. *IT and human resource needs documented;*
3. *Emergency Services Information Management Plan developed and submitted to Governance Committee for consideration and action.*

In Summary

The Recommendations, if accepted and implemented, will result in a true Emergency Services System in Northwestern Ontario. They will also create the organizational structure to govern and lead system change and to ensure accountability for the ongoing improvement and sustainability of the system.

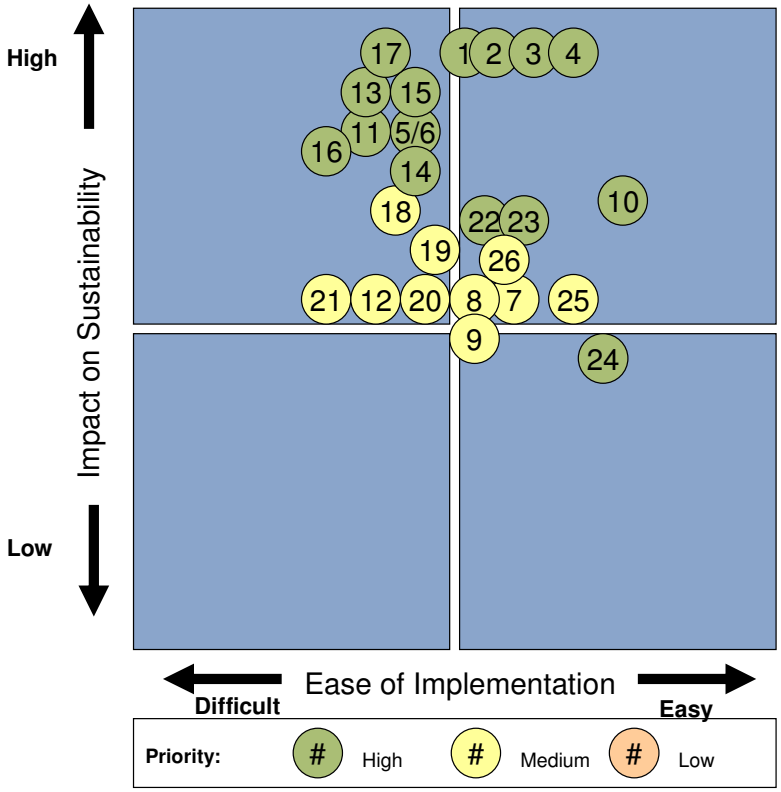
Implementation

Ensuring sustainability of the Emergency Department system in the North West LHIN will require a new approach to regional care, one characterized by the presence of a Vision, by governance and management structures, by measurement and by accountability.

To begin the process of system change, the LHIN should facilitate a discussion amongst system shareholders of the recommendations in this report and begin the work of developing a shared Vision of a true 'emergency network' in Northwestern Ontario. The LHIN will be required to provide initial leadership until the shared structures are in place as shown in the Gantt chart below.

In addition to a shared Vision of coordinated emergency services delivery for Northwestern Ontario, there is a need for structures to support the implementation of this vision. These structures include regional governance and administrative constructs to support the governance model. To create a system that is accountable for emergency patient care across the region, an appropriate accountability framework must be developed.

As identified in the Recommendations section some of the recommendations are considered high priority because of their ability to impact the sustainability of emergency care in the LHIN, or their necessity to provide structure to support further recommendations for ongoing system change. The following diagram highlights the recommendations by priority in colour with high priority in green and medium priority in yellow. They have also been analysed in a matrix against their ease of implementation compared with their impact on improving the sustainability of the system. This matrix will help decision-makers decide on the course of action for prioritizing the implementation of recommendations. Those initiatives that are easy to implement with high impact should be considered first, following with those that are high impact and difficult to implement.



Recommendations for reference:

1. Develop Vision regarding the manner in which the LHIN's Emergency Departments and hospitals should work as a network;
2. Create the North West LHIN Emergency Service Governance Committee;
3. Create the North West LHIN Emergency Service Administrative Committee;
4. Create the North West LHIN Emergency Service Medical Council;
5. Define specific roles for health care facilities in the LHIN;
6. Clarify the role of TBRHSC as the regional hospital in the LHIN;
7. Identify opportunities for expansion of Telemedicine;
8. Develop transfer protocols;
9. Develop an escalation policy;
10. Develop a repatriation policy;
11. Create an inter-jurisdictional task force on transportation;
12. Explore options to address nurse escort challenges;
13. Develop a 10-year non-physician health human resource plan;

14. Develop a 10-year regional integrated physician human resource needs assessment;
15. Develop a strategic plan for physician recruitment;
16. Assess the specialist recruitment process;
17. Enhance recruitment and improve locum deployment;
18. Assess rural physician commitments;
19. Work with the CCAC to develop community clinics;
20. Conduct a needs assessment for supportive housing facilities;
21. Expand integrated chronic disease management programs;
22. Explore regional patient safety and clinical quality initiatives;
23. Develop standardized medical directives;
24. Explore strategies to improve safety of designated Form 1 patients;
25. Determine the data/information needs of the Emergency System in the LHIN and develop an information management plan.

The diagram below has been developed as a potential staging plan to demonstrate what implementation could look like. It takes the information provided in the prioritization matrix and applies the roles and responsibilities of each organization or institution in the application of solutions to improve the sustainability of the Emergency Department System in the LHIN.

As shown across the colour phasing in the diagram below, responsibility for the implementation of system change is spread out among all providers and administrators in the system. This system change will require a commitment by all parties to make this a reality. It will be important in the beginning stages to build the infrastructure that can help to support the implementation of the recommendations to improve the sustainability of the system.

The timing of the tasks as described in the graphic below, are meant to describe primarily the order in which the recommendations should be initiated. The duration of the tasks may extend beyond the timelines set out above, however the starting points should be approximately as noted. Tasks that take precedence should have progressed enough to provide a starting point for the tasks that follow. It will be important to keep momentum moving in the timeline. Extending the timeline more than 3-5 years risks a loss of momentum.

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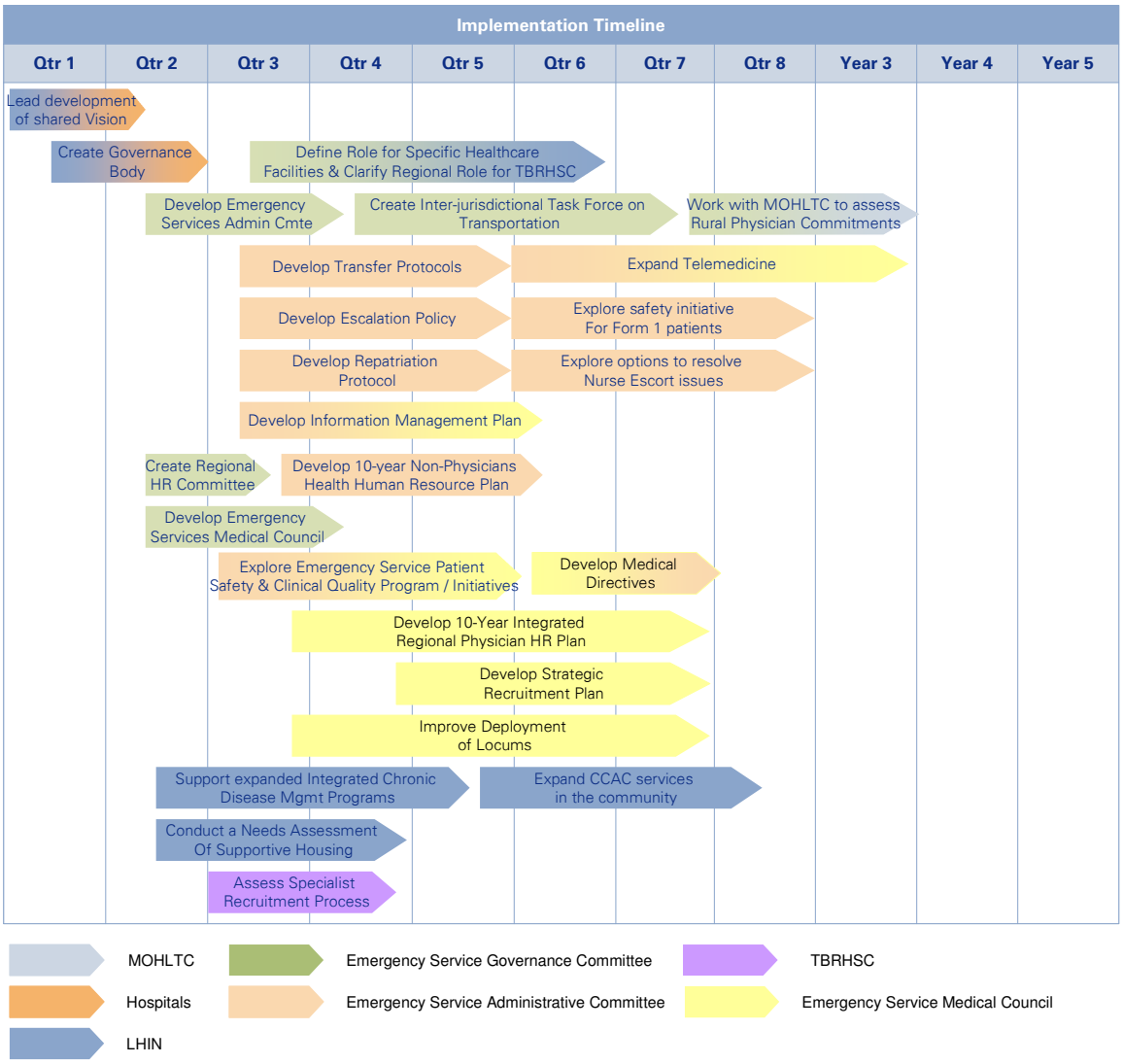

The following table lays out the responsibilities of each party in carrying out the recommendations. This table helps to provide a quick reference guide:

Accountable Body	Recommendation / Task
LHIN	Lead development of shared vision
	Help create governance body
	Participate in inter-jurisdictional task force on transportation
	Conduct supportive housing needs assessment
	Support expansion of Chronic Disease Management programs
	Support emergency services administrative committee in the resolution of nurse escort issues
	Redefine the role for TBRHSC as a regional centre and make explicit in next HSAA

Accountable Body	Recommendation / Task
	Work with CCAC to expand service in the community
All Hospitals	Lead development of shared vision
	Help create governance Committee
	Participate in inter-jurisdictional task force on transportation
TBRHSC	Assess specialist recruitment process
	Redefine / Clarify regional role for TBRHSC
Emergency Services Governance Body	Develop emergency services administrative committee
	Support regional non-physician human resource coordination
	Develop emergency services medical council
	Help define role for specific healthcare facilities
	Help clarify regional role for TBRHSC
	Create inter-jurisdictional taskforce on transportation
	Work with MOHLTC to assess rural physician commitments
	Help to expand CCAC services in the community
Emergency Services Administrative Committee	Develop transfer protocols
	Develop Escalation policy
	Develop repatriation protocols
	Create safety initiative for designated Form 1 patients
	Expand Telemedicine
	Help conduct a needs assessment of supportive housing
	Expand integrated chronic disease management programs
	Develop 10-year non-physician health human resource plan
	Create emergency services patient safety and clinical quality program
	Explore options to resolve Nurse Escort issues
	Develop Medical Directives
Emergency Services Medical Council	Create emergency services patient safety and clinical quality program
	Develop 10-year integrated regional physician HR plan
	Develop strategic recruitment plan
	Improve regional deployment of locums
	Develop medical directives

It is important to consider the need for continuous quality improvement and evaluation. This responsibility should fall on both the LHIN and the proposed Emergency Service Administrative and Medical Committees with oversight for this function falling on the Emergency Service Governance Committee.

Appendix A – Interim Report

Appendix B – Bibliography

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