



# NB Trauma Program

## Programme de traumatologie du NB

Horizon Health Network  
Réseau de santé Horizon

Vitalité Health Network  
Réseau de santé Vitalité

Ambulance NB

New Brunswick Department of Health  
Ministère de la santé du Nouveau-Brunswick

# Strategic Plan

## 2015-2020

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Contact for questions:  
Ian Watson, Administrative Director  
648-8042/ian.watson@HorizonNB.ca

## Exec Summary

Created in 2010, the NB Trauma Program was created to help address the significant burden of injury in the province, and to address the demonstrated need for improved access to emergency medical care for those with serious and critical injuries. We have made significant progress, beginning with the establishment of an inclusive organizational structure that prevents duplication of effort, ensures provincially implemented best practices and optimizes use of the resources we have to improve patient outcomes. Our voluntary participation in Accreditation Canada's pilot program for Trauma Distinction affirmed that the course we had set was strong. We have also made significant and sustained progress to improve access to trauma services provincially and have concurrently enhanced education, research and injury prevention initiatives.

That said, our work is not done – the burden of injury in New Brunswick is high. In 2010 – the most current, nationally validated dataset for injury and coincidentally, the year of inception of the NB Trauma Program - over 400 New Brunswickers lost their lives due to injury and over 6,000 required hospitalization. The financial costs to NB taxpayers for direct healthcare delivery alone was \$400 Million. Clearly, sustained activity to enhance access, improve quality and reduce the burden of injury in the province is required.

For the 2015-2020 planning period, our intent is to shift effort to consolidate the work we have done to date, under five major priorities:

1. Enhanced clinical education in major injury care
2. Provincial implementation of best practices in emergency trauma care
3. Effective delivery of evidence-based primary prevention programs
4. Enhanced capacity for trauma research
5. Support for more components of inpatient and rehabilitation care for trauma patients

We also recognize that there are keys to our success in these areas. Specifically, we will continue to actively collaborate with others to achieve our goals. We will also continue to use data from the newly-implemented provincial trauma registry to guide decision-making and to further our already robust performance improvement and patient safety program. With ongoing communications support to help ensure that the NB Trauma Program is seen as a trusted source of information related to the prevention of injuries and to injury care, we are confident that the next five years of the NB Trauma Program can lead to fewer serious and critical injuries in the province – and when they do happen, that patients get the right care, in the right place, at the right time.

## Introduction

The NB Trauma Program (NBTP) was created in 2010 to provide leadership and coordination of clinical care, education, research and injury prevention related to serious and critical injuries, wherever in the province they occur. A true collaboration between the Department of Health, Ambulance New Brunswick and both Horizon and Vitalite Health Networks, the NBTP brings together healthcare professionals and community stakeholders to help reduce the burden of injury in New Brunswick.

This burden is significant. Based on 2010 data, injury is the leading cause of death among those aged 1-44 and accounts for more than 6,000 hospitalizations in NB every year (Parachute, 2015). Although the biggest cost is clearly borne by patients and their families, the financial burden of injury in the province is major – over \$400 Million in direct healthcare costs alone, every year. The challenge of managing this burden in a largely rural province is significant, since individual hospitals or healthcare providers see relatively few trauma patient presentations per year, making the retention of confidence and skill in trauma care more difficult. Our widely dispersed population also poses challenges in injury prevention and our aging population have special needs for both injury prevention and care.

The province requires all programs, across all sectors, to reduce duplication and demonstrate value for taxpayers. Since 2010, the NB Trauma Program has been steadily enhancing the clinical care offered to trauma patients through trauma education for clinicians. We have also made significant and sustained improvements in access to trauma services, regardless of where or when a major injury occurs. We have worked hard to capitalize on our structure to reduce or eliminate duplication within the province – administering this clinical program as a single, unified one, regardless of location or regional health authority boundaries. We note that a 5% reduction in the rate of major injuries in New Brunswick will save the healthcare system more than \$18 Million annually.

With our foundational years behind us, now is the time to plan for the years ahead to be sure that the NB Trauma Program builds on its successes and capitalizes on its investments and infrastructure. This plan defines the priorities for the NBTP for the 2015-2020 planning period. The plan was developed following discussion with many stakeholders in major injury care, including local Trauma Advisory Committee members in several NB Trauma Centres as well as members of our Research, Education, Injury Prevention, Clinical Standards and Communications Subcommittees. The initial draft was validated by the NB Trauma Program Advisory Committee in March of 2015, after which the revised draft was shared with local Trauma Advisory Committees and NB Trauma Program Subcommittee members for review and comment, before a final recommendation to approve was made by the NB Trauma Program Advisory Committee to our governance committee in July, 2015.

## **Our Structure**

Unlike most other clinical programs within the NB health system, the NB Trauma Program is a formalized partnership of both Regional Health Authorities, Ambulance New Brunswick and the NB Department of Health. Together with our deliberate inclusion of all hospitals with emergency department coverage and our scope that includes not only clinical care but also education, research and injury prevention, our program is unique. The inclusive nature of our system design eliminates duplication, allows a provincial approach to optimal services across the continuum of care, and recognizes that acute care, emergency services and our funder/regulator all deserve to be at the table for strategic decisions. We are confident in our structure, as the international literature in trauma system performance demonstrates that inclusive systems like ours perform better at our primary goal – reducing mortality among those with serious and critical injuries.

Central to our structure is the NB Trauma Program Advisory Committee, where the Administrative and Medical Directors bring forward issues of strategic importance and areas for consultation and decision. Recommendations from all of the program subcommittees are brought forward to this team. Where governance level support is required, the NB Trauma Program Governance Committee is available to the program. On the operational side, we look to our relationship with local Trauma Advisory Committees and Medical Advisory Committees, with support from our Trauma Nurses and Coordinators in Level I, II and III Trauma Centres, to support implementation of new initiatives and monitoring of existing processes. (See appendix A for organizational structure)

## **Our Mission, Vision and Values**

Throughout this process, the program has been mindful of the mission, vision and values of the program, which remain unchanged for the 2015-2020 planning period. First approved by our governance structure in 2012, we feel confident that the existing mission, vision and values of the program continue to reflect an accurate “compass” for the program, knowing that we need to continue to refer to them in all of our work – including the creation of this plan.

### **Our Mission**

**Excellence in Trauma Care, Injury Prevention, Education and Research**

### **Our Vision**

**National leadership in trauma system performance**

### **Our Values**

#### **Excellence**

We support the highest quality of care for injured patients and work to diminish the burden of injury.

#### **Collaboration**

We work together with physicians, nurses, paramedics, other members of the health-care team and our communities.

#### **Integrity**

We align our work with the Provincial Health Plan. We make decisions based on evidence and we act on our decisions.

#### **Innovation**

We apply and promote research and innovation.

#### **Responsibility**

We are responsible and accountable for our work and actions.

#### **Linguistic duality**

We offer competent services in both official languages.

## **Strategic Priority #1:**

**Through collaboration with NB stakeholders in clinical education, we will develop, implement and evaluate an integrated, comprehensive program of trauma education for healthcare professionals.**

### Rationale

Trauma is a complex patient presentation for any healthcare professional to manage. Unlike most other clinical presentations, patients with major injuries can have several simultaneous needs, ranging from airway control to control of bleeding and management of pain. In addition, our dispersed population means that major trauma patients often present to smaller trauma centres before being transferred to a larger trauma centre. For physicians and other members of the emergency healthcare team, the resulting need to provide educational support is significant. Teams of healthcare providers in our major centres have unique educational needs as well – including the effective management of complex patients in large team settings, where multiple clinical priorities require both confident leadership and teamwork to succeed.

Few of these critical success factors are embedded within the initial education of healthcare professionals. Most continuing learning opportunities occur as elective, standalone events, with the assumption that any competencies gleaned at the individual level will automatically be embedded into team performance. As a result, we see the opportunity to provide a comprehensive educational program in trauma care, linking educational events over a longer period of time to address areas of particular need, across multidisciplinary teams and across multiple sites. This will include continued delivery of existing foundational programs, but will also consider broader themes that the NB Trauma Registry data confirms are associated with improved outcomes, allowing us to provide tailored, on-site education where appropriate.

### What have we done so far?

To date, the NB Trauma Program has made significant investment in clinical education for healthcare providers. We have assumed responsibility for the provincial coordination of the Trauma Nursing Core Course™ (TNCC™), an internationally recognized 2.5 day certification course for nurses involved in the care of trauma patients. In assuming this coordination function, we have reduced the cost for nurses to participate in TNCC™ while also increasing the number of sites in the province where TNCC™ is offered. We have also reduced duplication in the administration of TNCC™ through a centralized registration process.

We have also continued to support the delivery of the Advanced Trauma Life Support® (ATLS®) course for physicians, including a trial of the course in French in the Bathurst area. ATLS® is a 2.5 day course that is considered an essential foundation for emergency department physicians in many jurisdictions. The NB Trauma Program currently offers two courses in Saint John per year (training up to 16 physicians per course). We have welcomed collaboration with the medical school at Université de Moncton to support at least one course in French per year.

The NB Trauma Program has also trained faculty in the Rural Trauma Team Development Course<sup>®</sup> (RTTDC<sup>®</sup>) and has delivered RTTDC<sup>®</sup> to all 18 of our small (Level V) and medium (Level III) sized trauma centres in the province. Aimed at multidisciplinary teams, this one day course, developed by the American College of Surgeons aims to improve team performance in major trauma care. Although the feedback from participants has been overwhelmingly positive, faculty have commented that changes are likely required to maximize the impact of RTTDC<sup>®</sup>.

Finally, we have continued to offer provincial Trauma Rounds on a regular basis, hosted by either the Saint John Regional Hospital or The Moncton Hospital. Trauma Rounds are aimed at providing general trauma-related clinical education to healthcare professionals. It is currently offered in lecture format, with remote sites participating by teleconference and shared desktop technology. Trauma Rounds are also recorded and made available upon request in DVD format to healthcare professionals.

#### What will this look like?

- Instead of only continuing to offer individual courses to clinicians, we need to take a longer term, more integrated view to trauma education for healthcare professionals.
  
- This will include:
  - Describing the assembly of educational opportunities as a single educational program, containing both essential and optional components.
  - Ensuring that the essentials of trauma care are well entrenched among nurses and physicians in all of our emergency departments, through TNCC<sup>™</sup> for nurses and ATLS<sup>®</sup> for physicians working in emergency department settings.
  - Development and implementation of a trauma orientation program for ED Physicians and nursing staff.
  - Contributing to the enhancement of ATLS<sup>®</sup> through a formalized collaboration with the Centre de formation médicale du Nouveau-Brunswick to increase the delivery of the course in French.
  - Increasing ATLS<sup>®</sup> certification from the present rate of approximately 50%.
  - Continuing to offer RTTDC<sup>®</sup> as a means of encouraging increased collaboration among healthcare professionals involved in the emergency care of major trauma patients.
  - Contributing to the enhancement of RTTDC<sup>®</sup> by offering guidance to the American College of Surgeons on the New Brunswick experience with the course.
  - Formalize partnerships in clinical education (e.g. Clinical inter-professional elective opportunities for medical students)
  - Seeking accreditation status by the Royal College of Physicians and Surgeons of Canada and/or the College of Family Physicians for the educational program overall.
  
- To further enhance trauma education for healthcare professionals in New Brunswick, we will:
  - Develop (or adopt existing), pilot and evaluate an optional simulation-based ongoing provincial education program for physicians, nurses and paramedics involved in the emergency care of major trauma patients.

- Organize and deliver at least one major, provincial or Maritime educational event in trauma care during the planning period, at no additional cost to taxpayers
- Evaluate the effectiveness of Trauma Rounds, making adjustments as required to help provide healthcare professionals from around the province with timely, salient information on how to best care for major trauma patients.
- Complete a needs assessment and cost/benefit analysis for the implementation of a virtual learning environment for healthcare professionals.

## **Strategic Priority #2:**

### **We will develop and support the provincial implementation of best practices in emergency trauma care**

#### Rationale:

Although there are numerous trauma related resources available to clinicians – both in print and online, the quality of evidence to support those resources is variable, and the references that lead to specific recommendations are not always clear. Further, many clinical guidelines are well suited for health care professionals working in urban centres, but are less applicable to healthcare professionals working in smaller facilities.

New Brunswick healthcare professionals who deliver emergency trauma care deserve easy access to reliable, consistent and evidence-based advice on the optimal management of trauma patients that are clearly linked to improved outcomes. They also deserve to know that the advice offered by the NB Trauma Program is considered best practice, is reviewed regularly, and is sensitive to the nature of our trauma system – one that recognizes the important contribution that all NB trauma centres and multidisciplinary teams make in improving patient outcomes.

#### What have we done so far?

To date, the NB Trauma Program has reviewed the evidence, worked with physicians and other healthcare professionals within New Brunswick and has developed position statements for a limited number of trauma-specific topics. However, there remains significant variability in the approach to urgent trauma patient management between trauma centres, and even between healthcare providers within a single centre. Further, we have begun using Trauma Registry data to guide quality improvement. This is done through the work of our Trauma Nurses at all level I, II and III trauma centres and includes comprehensive review of those most seriously injured. However, we have not yet formally linked the data in the NB Trauma Registry to help us focus on those clinical interventions that are most closely correlated to patient outcomes, and that are noted for their higher than expected variability.

With the NB Trauma Registry and with growing international evidence behind a number of emergency interventions in trauma care, there is an opportunity to enhance clinical standardization, especially in

settings where the frequency of major trauma patient presentations is relatively low and the impact of clinical trauma care is high.

#### What will this look like?

- Physicians and nurses in all New Brunswick emergency departments will have ready access to provincially standardized clinical guidance for the most important trauma presentations. This will be accomplished by:
  - Application of the evidence available from the NB Trauma Registry to ensure that clinical practice guidelines are linked to the clinical interventions most highly correlated with decreased mortality, morbidity or length of stay.
  - Regular and planned development, validation, release and education of best practices in emergency trauma care – for physicians, nurses, paramedics and other healthcare professionals.
  - Ensuring that best practice information for trauma clinical care is consistent in appearance and content, and is immediately available in all NB emergency departments.
  - Expanded use of NB Trauma Registry data to evaluate of the effectiveness of these best practices in the New Brunswick setting.
  - Integration with clinical quality mechanisms and Regional Chiefs of staff of both RHAs.

#### **Strategic Priority #3:**

#### **We will reduce the burden of injury in the province through effective delivery of evidence-based primary prevention programs**

##### Rationale:

Perhaps the most fundamental work that the NB Trauma Program can undertake is in injury prevention. An accreditation requirement for Canadian trauma systems, injury prevention on the surface seems a lot simpler than it is – there are numerous stakeholders, all contributing at differing levels of the continuum of injury prevention opportunities. Specifically, we applaud the work of the Office of the Chief Medical Officer of Health, and the work of the Atlantic Collaborative on Injury Prevention – both organizations with whom the NB Trauma Program has partnered – in helping to better understand and address the social determinants of health. Although some would argue that addressing social isolation, food security and other social factors is not injury prevention, the evidence is clear that addressing these issues is essential in reducing the rate of both intentional and unintentional injuries. Within the injury prevention work directly supported by the NB Trauma Program, we see our focus on primary prevention programs – those that are best rooted in evidence, and linked to the most frequent causes of major injury. This approach is consistent with the Framework for the Reduction of Unintentional Injury in New Brunswick, a document that together, the NB Trauma Program and the Office of the Chief Medical Officer of Health released in 2013.

### What have we done so far?

To date, our Injury Prevention Subcommittee has reviewed published reports and data from within New Brunswick to confirm the top three priorities for primary injury prevention efforts in the province. These priorities – falls among children, falls among seniors and risk-related behavior among youth – represent a significant proportion of the total burden of injury on individual New Brunswickers, their families and on the NB healthcare system.

We have worked to enhance the coverage of the primary prevention program for youth with the best available evidence supporting its effectiveness. The Prevent Alcohol and Risk related Trauma in Youth (P.A.R.T.Y.) program is an internationally recognized program that has been delivered in New Brunswick for many years, in both community-based and classroom-based format. To date, we have relied on volunteer facilitators, and on requests from specific classes/schools to participate, versus active recruitment of either facilitators or schools. We have developed a strong partnership with those responsible for the Community-based version and have strengthened the consistency of documents and processes to support both versions of the program as a single, integrated one.

We have also worked to better address falls among seniors in the community, knowing that significant effort has already been undertaken – and been effective – in the acute care setting. Most recently, we have focused our efforts on the identification of an exercise-based balance training program for seniors, after having confirmed this as one of the best ways of preventing falls from occurring. We have also begun work to support better pharmaceutical review among seniors in the community.

Falls among children require additional attention. To supplement our existing programs and support for children's safety, we see the opportunity to partner with organizations such as Parachute and/or Child Safety Link to develop and help increase the capacity for injury prevention. In the meantime, we continue to support the longstanding delivery of the Winter Safety Program for grade two children in the Saint John area.

To support our work in this area, and in accordance with a recommendation within the NB Trauma System Final Report, the program has hired a full time Provincial Injury Prevention Coordinator. This position is essential to providing the leadership and coordination of the diverse groups involved in injury prevention, and to meet our mission of excellence in this dimension of the program.

Despite this activity, it remains our observation that primary injury prevention programs continue to be delivered by various organizations, in various ways, and over various times of the year. This represents a lost opportunity for organizations to come together – to agree on priorities, timelines and respective efforts in program delivery and to develop a much more integrated approach to primary injury prevention.

### What will this look like?

- Identify or re-confirm the key stakeholder(s) for the delivery of primary prevention programs in each of our three priority areas.
- Continue to be mindful of the importance of not duplicating the work of others – contributing instead by bringing groups together to align efforts; delivering programs directly only when a gap is confirmed to exist that cannot be addressed through existing organizations.
- Reduce fragmentation/duplication in primary injury prevention programming through the development of shared, concurrent prevention efforts with key stakeholders
- Enhance the delivery of the P.A.R.T.Y. program by at least 10% per year, and better support and monitor the volunteer facilitators of the program. Aim to reduce the rate of risk-related injury in youth by at least 20% over the planning period, resulting in significant human and financial cost avoidance.
- In partnership with key stakeholders, ensure the development, implementation and evaluation of a comprehensive primary prevention program for the reduction of falls among seniors in the community setting.

### **Strategic Priority #4: We will enhance our capacity for trauma research in New Brunswick**

#### Rationale:

Research is essential to ensuring that we implement best practices – those rooted in evidence, and specific to the New Brunswick context. Research forms one arm of the approved mission of the program – that is, to deliver excellence in trauma research. We also note that current accreditation standards for Canadian trauma systems expect this level of engagement in trauma research:

The trauma system supports trauma-related research activities. Support includes funding and infrastructure, participation in research activities and publications, and integrating surveillance with research initiatives. This may be achieved in partnership with university research programs.

(Accreditation Canada, 2015)

We are sensitive to the notion that any resources allocated to trauma research needs to be balanced against the needs for resources to support the acute healthcare needs of the province. As a result, our approach to enhancing capacity in trauma research is aimed at formalizing our relationships with both Dalhousie University and the Centre de formation médicale du NB, as well as with funding agencies such as the New Brunswick Health Research Foundation.

#### What have we done so far?

The Program established and maintains a Research Subcommittee to guide the research activity of the program. We have established a modest annual financial allocation for trauma research, aimed at generating interest in basic research, and/or in assisting researchers with larger grant proposals. The

program has also been awarded both poster and oral presentations at the Trauma Association of Canada Annual Scientific Conference. We have also recently partnered with the Research in Medicine arm at Dalhousie University to complete trauma epidemiology and mortality analyses in New Brunswick. Perhaps most significantly, we have implemented a comprehensive provincial trauma registry, making NB-based research in trauma processes and outcomes possible.

The NB Trauma Registry represents a fundamental enhancement in our capacity for NB-based trauma research. With data collected from Level I, II and III trauma centres, broad inclusion criteria and data linkages with both Ambulance New Brunswick and the Office of the Chief Coroner of New Brunswick, the Registry provides a wealth of trauma-related data. The inclusion of quality improvement data within the registry further expands this capacity, allowing us to link specific patient presentations to those most likely to require additional support at the local, regional or provincial levels.

#### What will this look like?

Interested stakeholders in trauma-specific research met in May of 2015 to help define the path forward. The results of their discussion are found as Appendix to this plan. In broad terms, we commit to:

- Enhancing and formalizing collaboration between interested parties to create a Trauma Research Network, with leadership from the Research Subcommittee to the NB Trauma Program
- Capitalize on the Trauma Research Network structure to secure new, sustainable funding to support the completion of research projects
- Focus the efforts of the Trauma Research Network to maximize benefit to NB trauma patients and the NB healthcare system

#### **Strategic Priority #5:**

##### **We will support more components of inpatient and rehabilitation care for trauma patients**

#### Rationale

Although addressing the emergency care needs of major trauma patients is of critical importance, the inpatient and rehabilitation needs of trauma patients are also significant. Indeed, current medical evidence points to the need to ensure early and appropriate critical care as well as early and appropriate rehabilitation. One recommendation within the NB Trauma System Final Report included the creation of an “Expert Panel on Rehabilitation”, which was not created since no other part of the continuum was singled out in the creation of subcommittees.

Accreditation Canada also expects formalized trauma systems to ensure that these components of the overall continuum of care are in place, are effective and are evaluated regularly. This need was identified in the pilot accreditation report for the NB Trauma Program, although the gap was noted to apply particularly to the long term care of young chronic patients, which is more closely linked to Alternate Level of Care initiatives than to trauma specifically.

### What have we done so far?

To date, we have dedicated significant effort to improving access, enhancing prehospital processes for major trauma patients, and supporting enhanced emergency department care for those with major injuries. We have also supported nursing units and local trauma advisory committees in our Level I and II trauma centres with data related to trauma admissions. We have also supported the development of a limited number of clinical practice guidelines that pertain to the emergency care of major trauma patients. However, we have not yet invested dedicated time and effort to the support of the inpatient care being offered to major trauma patients, nor have we formally determined the need or feasibility of cohorting trauma patients within the same physical area of our major trauma centres.

### What will this look like?

- Develop a formalized relationship with the Stan Cassidy Centre for Rehabilitation in recognition of their provincial mandate for the rehabilitation needs of complex trauma patients.
- In partnership with inpatient rehabilitation stakeholders, and in recognition that the majority of inpatient rehabilitation for trauma patients occurs within acute care hospitals, we will complete a gap analysis (including rehabilitation needs for northern patients) and determine priority areas for our support.
- Complete a feasibility analysis for the cohorting of trauma patients with significant (but non-ICU) injuries at each of our Level I and II trauma centres.

## Keys to Success

### 1. Collaboration

Although many organizations claim to “collaborate”, the degree of partnership and the amount of shared effort to reduce duplication and maximize effectiveness varies. In our view, collaboration means developing shared goals and objectives and capitalizing on the expertise of many to develop solutions that are meaningful and sustainable. Although essential in all dimensions of our program, collaboration is particularly important in the planning and delivery of injury prevention programs, where there are many committed community stakeholders and a wide range of programming options to choose from. We see our role as one of leadership and coordination – bringing these stakeholders together to reach agreement on which primary prevention programs should be undertaken, when, how, and by whom – all under an evaluation framework that can help us see the outcomes of our efforts, and not just record the activities that are undertaken. To further our collaborative efforts, we will continue to integrate project management software, accessible to all of our partners, into our planning and operations. We will also increase our use of short-term task forces to address particular issues from a broad perspective, instead of relying solely on program staff or an individual subcommittee to develop materials for validation by a broader range of stakeholders. Finally, we will continue to formalize our relationship with Prince Edward Island, initially through work required to share use of the NB Trauma Registry and later, through exploration of clinical support, trauma education and injury prevention opportunities.

### 2. Use of the NB Trauma Registry and other means of Surveillance

With the implementation of a single, integrated and comprehensive provincial trauma registry in 2014, the program is uniquely positioned to help identify areas that are performing particularly well, and those where improvement is still needed. Although many trauma systems report only on volumes and other injury demographics, we intend to use the Registry to its full potential – for example using injury location data to help guide enforcement, engineering and education efforts in injury prevention. Full realization of the potential within the Trauma Registry will also allow us to share overall performance at the facility, regional and provincial levels, while also identifying the specific factors most associated with lower trauma mortality rates in the province, allowing us to support those factors in all areas of the province. We also look forward to further data integration, allowing us to import more pre-existing electronic data into the registry, further reducing workload and duplication for our staff.

With interest from the Office of the Chief Medical Officer of Health, we see the value in contributing to a larger injury surveillance effort, and will work to contribute data from the NB Trauma Registry to that effort. Finally, we remain committed to contributing New Brunswick trauma registry data to a national or international trauma registry, furthering our ability in to draw meaningful comparisons between jurisdictions that can help us further improve outcomes.

### 3. Evaluation

As noted above, the program has adopted a very data-driven approach – a methodology that allows evidence-based decision making that is relevant to the New Brunswick context. However, having access to rich data is only one part of the equation – the other essential component is a commitment to apply that data in a way that guides further enhancement in performance improvement and patient safety (PIPS). With growing availability of policy-driven data collection and release from the trauma registry and a continued commitment to use that data through the Clinical Standards and other subcommittees of the program, we are well positioned to define, measure and act on meaningful performance indicators for the program. At the strategic level, this includes identification of an absolute reduction in trauma mortality and morbidity as key outcomes of the system of care. To evaluate the effectiveness of our work in injury prevention, we are committed to an absolute reduction in both hospital admissions and ED visits due to trauma. These are important, fundamental indicators that few trauma systems have articulated clearly. Our next steps include confirmation of which operational indicators are most closely linked to these outcomes, and sharing results of all indicators with individual facilities and with our program partners. Coupled with our support to guide improvement where indicated, our performance improvement and patient safety (PIPS) system is a key component of our program.

### 4. Communications

Central to our efforts is our need to communicate our work in a way that builds public and stakeholder credibility. In short, New Brunswickers and New Brunswick healthcare professionals deserve to know what they are getting for their investment in the NB Trauma Program. They also deserve the opportunity to contribute their opinions and expertise and to receive reliable, credible information that is timely and delivered in the way that is most likely to support their practice. This is particularly true in two areas: Injury prevention efforts for targeted segments of the population, and in communication of new initiatives or clinical practices in trauma care for clinicians across the province. As a provincial program, and consistent with our values, we are committed to making sure that both members of the public and of our healthcare community are able to access information and services in both official languages. Accreditation Canada requirements for trauma systems require reporting of our progress with our stakeholders – both health care professionals and the citizens of New Brunswick.

To date, the program has created a logo and associated brand standards, and has ensured that media releases and other external communications are done under the NB Trauma Program banner, and through all program partners. We have also developed and gained provincial approval for a Communications Plan that will further enhance the reliability and access to information available from the program. This plan covers the 2015-2018 planning period, and includes specific tactical objectives to enhance the communications of our program, both within our partners (for Injury Prevention, in particular) and with the general public.

Over the next five years, we will demonstrate our leadership and strengthen trust with our stakeholders by engaging more directly and more frequently with them – actively seeking their opinions as a precursor to action on our part. These initiatives are included in our Communications Plan and include an updated website as well as selective application of social media.

Regular, trustworthy communication is key to our success, and we will continue to invest in the development of tools and methods to ensure that the public and the healthcare community know and trust the NB Trauma Program.

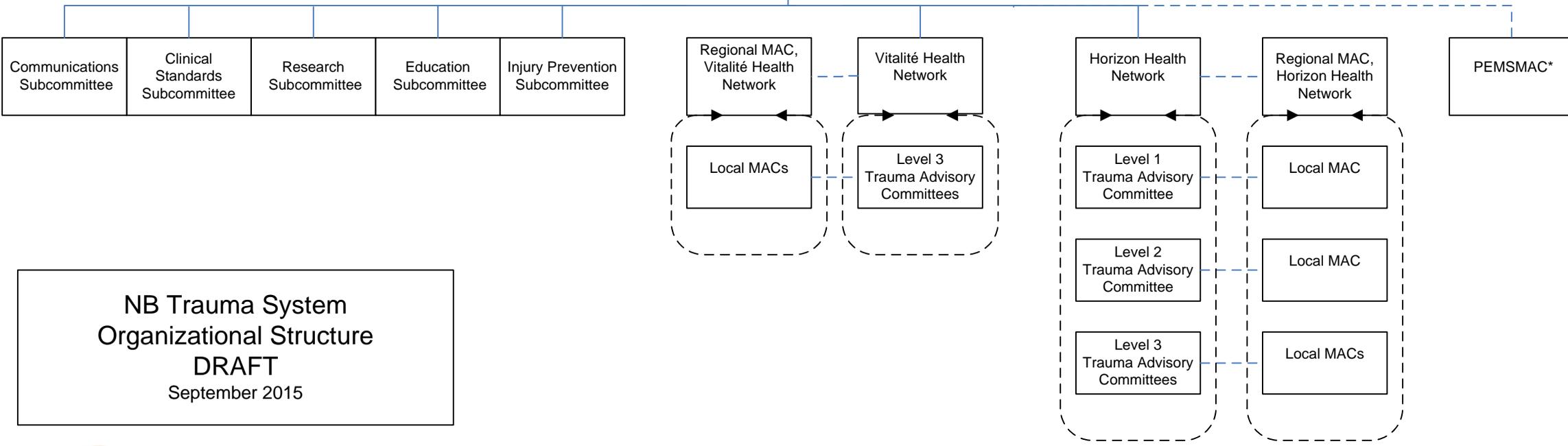
### Conclusion

Building on our work of the first five years as a provincial program, we look forward to the 2015-2020 planning period to use evidence to guide further enhancements in trauma care, injury prevention, education and research. Guided by our mission, vision and values, we will fulfill the objectives within this plan and will report our progress against them. We will also use this document to guide the development, implementation and monitoring of annual operating plans.

Appendix A (Org Chart)

**NB Trauma System Governance Committee (TSGC)**  
 Deputy Minister (Department of Health), President and CEO (Vitalité Health Network), President and CEO (Horizon Health Network)  
 Director, Hospital Services and Operations (ex-officio), Medical Director (ex-officio)

**NB Trauma Program Advisory Committee (TPAC)**  
 Director - Hospital Services and Operations (DH), Clinical Consultant – Hospital Services and Operations (DH), Director - Emergency Health Services (DH), Regional Medical Lead – Trauma (Vitalité), Regional Administrative Lead – Trauma (Vitalité), VP - Medical, Academic and Research Affairs (Horizon), VP - Clinical Services (Horizon), President and CEO (Ambulance NB), Provincial Medical Director (Ambulance NB), Program Medical Director, Administrative Director, Data Manager/Analyst



**NB Trauma System  
 Organizational Structure  
 DRAFT  
 September 2015**



———— Indicates direct relationship  
 - - - Indicates advisory relationship

\*Provincial Emergency Medical Services Medical Advisory Committee

Appendix B



Horizon Health Network  
Réseau de santé Horizon

Vitalité Health Network  
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Ambulance NB

New Brunswick Department of Health  
Ministère de la santé du Nouveau-Brunswick

**Report on NB Trauma Research Sub-Committee  
Strategic Planning Session (May 26<sup>th</sup>, 2015)**

## I. Overview

Established in 2010, the NB Trauma Program is a collaboration between the Government of New Brunswick's Department of Health, Ambulance New Brunswick and both Horizon and Vitalité Health Networks. Its mission is to provide excellence in trauma care, injury prevention, education and research, and aims to be a national leader in trauma system performance.

An important support for the program's governance is its Trauma Research Sub-Committee, which has the mandate for advancing the interests of provincial trauma research across New Brunswick, through planning and oversight of research activity, and in alignment with objectives of the NB Trauma Program. To provide guidance for its activities, the Trauma Research Committee established a strategic framework for its operations in 2011.

Mission	Vision	Values
Supports the NB Trauma Program by providing leadership for strategic research activities that advance the objectives of the Program. We do this through planning, encouraging and supporting trauma research activities throughout New Brunswick in collaboration with others with-in and beyond the NB Trauma Program.	Our vision is a seamless integration of outcomes evaluation, trauma research, clinical practice, public policy and personal behaviours that minimizes the burden of trauma for the citizens of New Brunswick.	<b>Safe environments for the citizens of New Brunswick</b> <b>Assessment of our efforts</b> <b>Forging of strong partnerships</b> <b>Effective research that impacts clinical practice, public policy and personal behaviour</b>

The NB Trauma Program has had a number of research successes to date, many of which were directly supported through the planning and oversight of the Trauma Research Subcommittee:

- Creation of an annual financial allocation for trauma research;
- Poster and oral presentations at the Trauma Association of Canada Annual Scientific Conference and at the annual scientific meeting of the Canadian Association of Emergency Physicians (CAEP);
- Partnership with the Research in Medicine program at Dalhousie Medicine New Brunswick, including contribution to the top medical student research award at CAEP 2014;
- The implementation of a comprehensive provincial trauma registry, with data collected from Level I, II and III trauma centres, and data linkages with both Ambulance New Brunswick and the Office of the Chief Coroner of New Brunswick;
- Two major trauma-specific conferences, including the Maritime Trauma and Emergency Medicine Conference 2014 in Moncton.

## II. Trauma Research Committee Strategic Planning Session

In January 2015, the Trauma Research Sub-Committee identified the need to engage its stakeholders in strategic planning and review the current framework. This aligned well with the overall program's development of a 5-year strategic plan, in which it highlighted trauma research as a priority:

*Strategic Priority #4: We will enhance our capacity for trauma research in New Brunswick*

As such, on May 26<sup>th</sup>, 2015, a strategic planning session was held in Rothesay, NB, with the intent of engaging trauma research stakeholders in the province and establishing a strategic research framework for 2015 – 2020.

### III. Stakeholder Participation

A total of 21 participants from 11 stakeholder organizations participated in the meeting, representative of research, clinical, education and prevention perspectives, from the pre-hospital care, acute care, administration and academic sectors.

- Ian Watson, *Administrative Director, NB Trauma Program*
- Ann Hogan, *Trauma Coordinator (SJRH)*
- Sue Benjamin\*, *Trauma Nurse (SJRH)*
- Allison Chisholm, *Trauma Registry Manager/Data Analyst, NB Trauma Program*
- Richard Louis, *Injury Prevention Coordinator, NB Trauma Program*
- Emily Gallant, *Administrative Assistant, NB Trauma Program*
- Barry Strack\*, *Regional Director of Research Services, Horizon*
- Brigitte Sonier Ferguson\*, *Director of Research Services, Réseau de Santé Vitalité*
- Denise Leblanc-Duchin, *Regional Lead, Applied Health Research Unit, Horizon*
- Dr. Tushar Pishe, *Provincial Medical Director, Emergency Health Services, Acute Care Department of Health*
- Edgar Goulette, *Director of Support Services, Quality and Training, Ambulance NB*
- Heather Gorman, *Manager (Public Safety), Government of New Brunswick*
- Dr. Bruno Battistini, *Chief Executive Officer, NB Health Research Foundation*
- Dr. Paul Atkinson\*, *Site Director for Research, SJRH Emergency Medicine*
- Dr. James French\*, *Co-Director of Simulation Program, SJRH Emergency Medicine*
- Jackie Fraser, *Research Coordinator, SJRH Emergency Medicine*
- Dr. John Steeves\*, *Interim Associate Dean (UGME), Dalhousie University*
- John Annear, *Instructor, NBCC*
- Joan Creighton, *Managing Director, Health and Life Sciences NB*
- Bryn Robinson\*, *Clinical Research Manager, Maritime SPOR SUPPORT Unit*
- Sarah Campbell McNamara, *Clinical Research Assistant, Maritime SPOR SUPPORT Unit*

\*Member of NB Trauma Program Research Subcommittee



#### **IV. Strategic Themes**

For the session, participants engaged in a series of facilitated discussions using the following set of questions.

##### **Strategic Planning Questions Presented to Participants**

- What should be the goal(s) for future trauma research in New Brunswick, and why?
- Using the goal(s) established in Session #1, what strategies will move research forward?
- Given the goals and strategies, what research questions should be the focus for the next 1 – 2 years?
- How will we measure our success and progress for the next year?

Overall, the nature of the conversations focused on the need to enhance research capacity in the province, through a focus on *people*, *priorities* and *publicity*, as well as the establishment of a *formal trauma research network*.

#### **A. People**

Essential to enhanced research capacity for a program are the partnerships built between researchers and with other collaborators. Participants engaged in significant discussion over existing and potential new partnerships that would further support the program's ability to conduct trauma research in New Brunswick. Specifically, participants advised the Trauma Research Committee to:

- Reaffirm its existing collaborations within and between the *four partner organizations of NB Trauma Program* (Horizon Health, Vitalité, Ambulance NB, and the Government of New Brunswick);
- Identify and engage with researchers at *academic institutions* (University of New Brunswick, Université de Moncton, New Brunswick Community College, Dalhousie Medicine New Brunswick, and Centre de formation médicale du NB) that may have complementary research interests;
- Engage the *New Brunswick Health Research Foundation* as a potential funding partner;
- Seek out collaboration with representatives from the *rehabilitation medicine* disciplines (e.g., Stan Cassidy Centre for Rehabilitation or WorkSafeNB, and/or individual physiotherapists and other rehabilitation professionals);
- Engage with the *Maritime SPOR SUPPORT Unit*, with respect to its ability to support linkages between administrative health datasets and the NB Trauma Registry, as well as promote interprovincial collaboration with its counterparts in Nova Scotia and PEI;
- Understand how *Health and Life Sciences NB*, as an organization that connects collaborators, can assist the sub-committee in improving research capacity;

- Seek engagement from *privacy* representatives and *patients* at its meetings; and
- Facilitate researchers' *self-identification as a trauma researcher*, demonstrating the links between trauma and their respective disciplines.

## **B. Priorities**

Trauma research has implications in a variety of clinical and educational settings – from prevention and pre-hospital care to acute care, to supportive care and rehabilitation once back in the community. As such, participants recognized that any recommendations regarding research priorities needed to retain some flexibility in order to support all facets of the trauma program, while still providing structure and guidance for the potential researcher.

Broadly speaking, participants felt that the nature of NB Trauma research should be *applied*, *transformative* and *patient-oriented*. When discussing potential research areas, discussion was still broad but touched on a number of areas for the committee's consideration:

- Projects that establish *measurable change of trauma programs* through the use of existing datasets as well as prospective demonstration projects. One frequently cited example was in injury prevention, in which there is opportunity to develop and test programs relating to youth trauma (e.g., P.A.R.T.Y.), and falls in seniors and in children;
- *Descriptive epidemiological* studies to describe injury patterns in the province and associated risk factors (e.g., the "who, how and where" of trauma), as well as mortality and injury rates;
- *Health economics* studies, which are not only important in analyzing associated costs of injuries and potential savings to be had, but also to establish rationale in seeking funding from potential sponsors;
- *Interprovincial comparisons of trauma*, including access and utilization patterns of services, making use of administrative health data, registries and support available through the MSSU, and linkages to the NB Trauma Registry. (Participants noted a particular barrier needing resolution, in establishing interprovincial data sharing agreements for patient-level data);
- Studies of the use of *simulation in continuing education and training*, including the potential for virtual learning; and
- *Outcomes research* that evaluates potential differences in outcomes based on predictors such as the level of care received or the trauma centre providing treatment.

On a related note, participants also believed that it is important to more actively engage government in establishing trauma as one of its health research priorities for the province, in order to increase their commitment to and support of trauma research.

## **C. Publicity**

Over the past 4 years, there has been a significant amount of research and evaluation conducted under the banner of NB Trauma. However, participants believe that the Trauma Research Committee should

increase efforts to promote awareness of this research and its associated publications, as well as showcasing awards that researchers are receiving.

#### **D. The Trauma Research Network**

Central to the themes of people, priorities and publicity is the idea that a formal trauma research network will best support trauma research activity in New Brunswick – by linking people, encouraging collaboration on different priorities, and improving publicity of researchers' activity. Participants noted some specific, measurable actions that could be taken within the next 12 months to start the establishment of this network:

- Review terms of reference for the existing committee in order to draft a new, complementary TOR document for the proposed network;
- Submit a funding application for a research network (including dedicated human resources for trauma research) to the New Brunswick Health Research Foundation;
- While seeking funding, establish interim support for the network with Horizon Health, Vitalité, Ambulance NB and the MSSU (e.g., 0.3 FTE to help organize the network);
- Establish profiles of available support and expertise with partner organizations (including those present at the planning session);
- Establish individual researcher expertise (e.g., CV, list of skills), with the goal of securing 3 departments representative of prevention, acute care and rehabilitation; similarly, work with academic institutions to establish commitments to a network; and
- Ensure engagement of researchers in both official languages.

Participants noted that a longer-term goal for the proposed network would be to have 1 major project in progress within the next 5 years.

#### **V. Next Steps**

Dr. James French is the recently appointed Interim Chair of the Research Subcommittee (with deep appreciation to Dr. Paul Atkinson for his leadership of the team through its formative years). As a result, Dr. French will meet with Sue Benjamin (the NB Trauma Program Staff Advisor to the Subcommittee), Bryn Robinson (Clinical Research Manager, Maritime SPOR Support Unit), Ian Watson (Administrative Director of the NB Trauma Program) and Dr. Tracey Chesser-Murphy (Interim Medical Director of the NB Trauma Program) to solidify the proposed Research Network structure and to complete the associated NBHRF application. This work is being scheduled for late June 2015. The entire participant team will continue to inform and engage participants in the planning session on progress through email or other electronic means.