

The Future of EMS in Canada



Defining the New Road Ahead

September 18, 2006

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We would like to thank the following sponsors for making this paper possible:



Foreword

Message from the Chair and President

On behalf of our steering Committee, we are pleased to present the *Future of EMS in Canada: Defining the New Road Ahead*. This plan presents the strategic policy framework to provide Canadians with excellence in-patient care today and into the future.

The overarching pressure on the health care system will continue to increase with no end in sight. Long transfer of care delays in the emergency room are unfortunately now the norm, not the exception. This is a symptom of much greater challenges to our health care system. Given this reality, the current or traditional model of providing pre-hospital emergency care in Canada will need to be renewed and redefined.

Over the short, medium and long term, we will need to consider and apply new alternatives. This will include new systems, leveraging new technology, and growing new competencies for clinical providers and leaders. The status quo is clearly no longer a viable option. This foundational paper is not a detailed road map. It is intended as a strategic framework and a basis for thought-provoking discussion and ultimately action by Canadian EMS leaders and policy makers.

The release of this document coincides with the release of a comprehensive report by the *National Academies* in the United States: *EMS Emergency Medical Services: At the Crossroads*. In the United Kingdom, *Peter Bradley's report Taking Healthcare to the Patient* was released October 2005. These reports were completed independently, however, they each speak to similar themes that call for the need for redefining how we provide out-of-hospital care.

The future will be filled with growth, change, and exciting opportunities. Emergency Medical Services is well positioned to engage the future and to provide Canadians with the highest quality of care and service possible.

I would sincerely like to thank Don Cummings and Howard Yeung from TKMC, the white paper steering committee (**Michael Nolan, Michael Sanderson, Tom Sampson**), and the **EMSCC board** for their commitment to completing this work as we continue to move towards our vision of advancing and aligning EMS in Canada.

Steve Rapanos
Chair White Paper
Steering Committee



Bruce Farr
President
EMSCC



Executive Summary

Current Status

EMS currently provides a valuable service to remote, rural and urban Canadians. Traditionally, EMS has focused on emergency transport and inter-facility transfers for both emergency and non-urgent situations. However increasing trends such as an aging population and a shortage of health care professionals have caused an expansion of EMS roles in the overall health care system. These expanded roles have brought both challenges and opportunities.

- There is a great variety in EMS governance and delivery methods across jurisdictions. Geography and levels of service provided also vary. These differences make sharing resources and information difficult. Additional areas of improvement include the use of technology and health promotion activities.
- EMS is usually not funded as an essential health service, resulting in uncertain funding and difficulty in long term planning.
- EMS does not currently possess the research base and data collection capability required to systematically improve overall levels of care.
- As a profession, EMS has human resources challenges in the areas of staffing and career development.
- Training for EMS leadership is limited.
- EMS has previously suffered from the lack of a comprehensive vision of its future. Long term planning across jurisdictions has not been done, resulting in lost opportunities and increased cost and resource inefficiencies.

The Vision

In response to these challenges, the EMS Chiefs of Canada (EMSCC) has developed a vision of EMS as a mobile health care service. The future of EMS in Canada is at the centre of the community, providing primary health care in a mobile setting. The Star of Life diagram illustrates this vision:



Strategy

This is not a simple vision. It requires a comprehensive, nation-wide strategy to achieve. There are six key strategic directions that will enable positive and controlled movement toward this vision.

1. **Clear Core Identity:** Define and embrace a clear core identity.
2. **Stable Funding:** Ensure the financial foundations for quality EMS.
3. **Systematic Improvement:** Ensure accountability and embrace systematic improvement to keep pace with an ever-changing, complex environment.
4. **Personnel Development:** Ensure that training and education will be robust to enable the “paramedic of the future”.
5. **Leadership Support:** Ensure the development of EMS leadership capacity.
6. **Mobilized Health Care:** Ensure that EMS prepares for the complexities of tomorrow.

Recommendations

This document provides a framework for discussion of the vision and these strategic directions. It also provides eleven key policy points that can be enacted by EMS leaders and public policy makers.

Clear Core Identity

1. A systems approach will allow scarce public resources to be used more effectively and efficiently. A new public policy direction to ensure EMS is part of a “system” of health and public safety is required.
2. Evolving the role of EMS in health care will require the inclusion of EMS leaders in the governance of health care systems.
3. EMS leaders must become far more innovative in pursuing strategic partnerships with other bodies.

Stable Funding

4. Funding methods should:
 - Enable paramedics to effectively meet the current and future clinical needs of patients and their communities.
 - Reflect the actual cost of service delivery.
 - Recognize the costs to EMS systems of “being prepared,” allowing EMS to proactively respond to a community’s needs.
 - Recognize the population density and geography of each community served by an EMS system.
 - Be stable, predictable, and sustainable to allow for optimized planning and enhanced innovation.
 - Require EMS systems to publicly account for their use of public funds.

Systematic Improvement

5. A new systems approach is required to achieve the future state of EMS. This new approach will support continual, systematic improvement. Required for systematic improvement are:
 - The development of comprehensive performance measures for EMS.
 - Enhanced data collection and research capabilities.

- Paramedicine research and evaluation.
 - Continual improvement and development of emergency care protocols and clinical pathways.
6. EMS systems should demonstrate high accountability and transparency for quality EMS through:
- Public reporting.
 - The development of a Canadian accreditation system.

Personnel Development

7. The training of the “paramedic of the future”:
- Training and education to give paramedics the competencies required to meet “community-defined” scopes of practice.
 - A layered system of education that promotes transferability of EMS credentials. Previously completed EMS training and credentials should be recognized by related technical and degree programs.
8. All provinces and territories should endorse and adopt the Paramedic Association of Canada National Occupational Competency Profile, enabling consistency in training and education approaches, a higher standard of training and education, and national credential portability.

Leadership Support

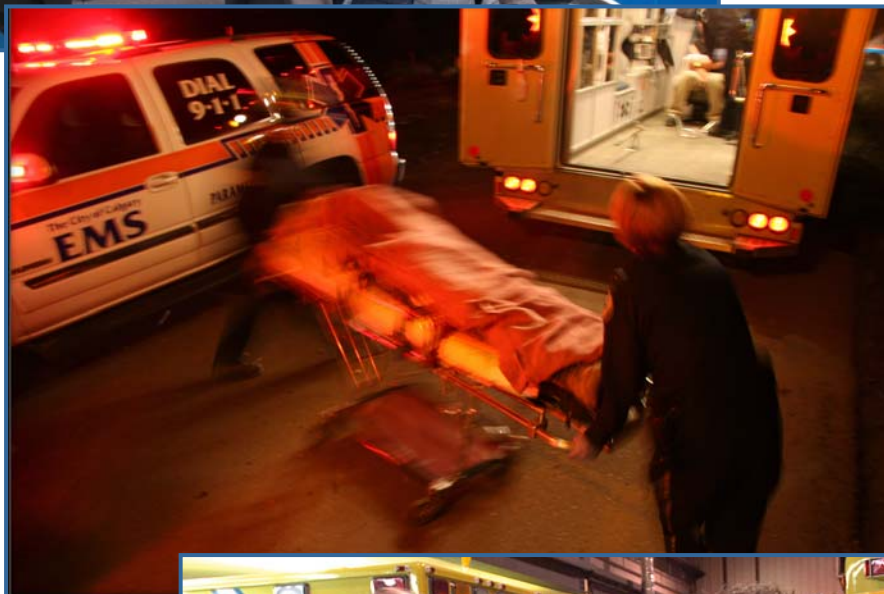
9. EMS leadership capacity needs to be supported.
- Flexible career pathways must be created to ensure the continued development of leadership capacity in EMS.
 - Investment in leadership development will be key to building the capacity to lead the strategic evolution of EMS.

Mobilized Health Care

10. While maintaining core service excellence, EMS must pursue innovation and new models of service delivery to meet community-defined needs. Collaboration of EMS and community organizations such as primary health care providers, social service agencies, and public safety groups will enable innovative initiatives that have the potential to improve the level of health care within a community.
11. EMS leaders should pursue opportunities to provide enhanced types and levels of health care including public health and safety education, emergency response preparedness, disaster management, and pandemic response capability in order to respond to community-defined scopes of practice.

Taking Action Together

Achieving the future vision of EMS will require collaboration between EMS leaders and public policy makers. The final sections of this report list potential actions EMS leaders and public policy makers can take for each of the key recommendations. The EMSCC invites EMS leaders and public policy makers to explore these suggested actions as we seek to create an enhanced, community-based EMS.



Introduction

1.0 Introduction

1.1 Context

EMS integrates aspects of both health care and public safety services. EMS reaches into medical direction, clinical care, public education, prevention programs, and research/evaluation. In Canada, EMS treats over two million patients annually.ⁱ To put this statistic in context, more than five percent of Canada's population will use EMS on an annual basis. Compound and exponential growth in the number of annual EMS patients, combined with enhanced roles in disaster management, pandemic response and other such special operations, requires that EMS re-examine its current state, outline future objectives, and devise an approach for achieving the redefined vision.

EMS in Canada is at a crucial point in its evolution. Demographic and health care trends point to the increasing importance of EMS and emergency medicine to Canadians. EMS has the potential to increase the level of care it provides through greater training and enhanced technology. In addition, EMS has significant resources and knowledge that should contribute more to health care reform by easing staffing and emergency department space shortages. Expanding EMS' scope of practice, using its reserve capacities, and increasing the amount of mobile health services such as augmenting home care and other primary care areas are part of this contribution. Finally, EMS should play a critical role in health promotion through educational initiatives in injury prevention, health promotion, public safety, and response training.

In short, EMS is increasingly an essential health service in Canada and must continue to evolve with other health care professions. Creating a national policy framework for this continued evolution is the core purpose of this document.

1.2 Objective and Process

The intent of this paper is two-fold:

1. To advance the mission and purpose of the Emergency Medical Services Chiefs of Canada (EMSCC) by aligning EMS leadership in pursuing a common strategic picture of EMS of the future, and
2. To provide policy-makers with an understanding of how all orders of government may enable this strategic picture.

Seminal papers, published in the United States and the United Kingdom in recent years, have sought to offer prescriptions on improving EMS in those jurisdictions. Readers of this paper will notice that while this document is rich in description, there are comparatively few individual system-focused recommendations.

In the pages that follow is a general description of EMS today, and where EMS should be tomorrow. Each province and territory, and indeed every community within each jurisdiction, has a unique context and specific method for delivering EMS. This paper articulates the nationally-focused, strategic public policies that need to be implemented, changed, or enhanced in order to change the way Canadians think about EMS. This paper seeks to influence *public policies that will enable EMS to reach its full potential in serving the health care and public safety needs of Canadians*. It attempts to describe the actions both EMS leaders and public policy makers can take to achieve that vision for EMS.

The EMSCC invites EMS leaders and policy-makers to explore these issues in pursuit of connecting with our communities in a new strategic context.

1.3 Acknowledgements

The EMSCC wishes to thank the many individuals, both inside and outside of the field of EMS, who provided valuable insights and perspectives in the preparation of this report. They include the:

- EMSCC Steering Committee (Steve Rapanos, Michael Sanderson, Michael Nolan, and Tom Sampson).
- 18 leaders in EMS and in government who were interviewed as part of this project (please refer to Appendix A).
- 65 leaders in EMS, health care professional groups, government and public administration, and other areas who responded to the EMSCC's online survey in Spring 2006 (please refer to Appendix B).



Current State Overview

2.0 Serving the Needs of Canadians: A Current State Overview of EMS in Canada

This section describes the current state of EMS in Canada and points to opportunities for improvement. Note that it is a general description only. Specific points may not be applicable to all jurisdictions or EMS systems in Canada.

2.1 Operations

Governance

EMS governance structures evolved independently in each province and territory. These structures continue to differ between provinces and even within the provinces. Generally, the provincial or territorial health care ministry oversees EMS governance. The ministry sets policy and standards in the areas of training, certification, and backbone services such as a communications and dispatch networks.

EMS is delivered through a variety of channels such as provincial regional health authorities, municipalities, and private contractors. In the past twenty years, there has been a general shift towards more systematic governance of EMS. Accountability for EMS has often transitioned from municipalities or private companies to regional health authorities or provincial governments.

Most EMS systems are administered collaboratively through the system's Chief, civil service representatives from the designated level of government with accountability for EMS, and a physician acting as the Medical Director who provides medical direction or advice. EMS practitioners usually work directly under the licence of an emergency medicine physician who is ultimately responsible for the care provided under EMS. The authority and duties that accompany the position of Medical Director vary considerably across jurisdictions. Sometimes the Medical Director is merely acting in an advisory capacity. At other times, he or she has direct, hands-on oversight over EMS operations.

Varying governance and delivery structures often result in an inefficient use of resources. Opportunities exist to make new linkages to maximize available resources within EMS and across the health care systems in Canada.

Core Services

The traditional role of EMS has focused on emergency transport and inter-facility transfers for both emergency and non-urgent situations. Paramedics at all levels of certification and EMS physicians have typically focussed on providing life support to stabilise the patient's condition for rapid transport to the hospital. Demographic trends, including an aging population, will increase demands for conventional EMS.

EMS operations vary widely across Canada. They include sophisticated operations with a large staff of highly trained professionals, small single or multi-station operations, and groups of on-call volunteers with First Aid, CPR, and defibrillator training. Every province, however, is challenged by rural or remote areas where EMS is less accessible and/or less developed.

Geographic Considerations

Geographic considerations are a major determinant of the level and standard of care provided by EMS. According to the Canadian Association of Emergency Physicians, “Seventy percent of trauma deaths in Canada occur in rural areas, even though only 30% of Canadians live there.”ⁱⁱⁱ Aside from the vast distances and sparse population in rural and remote Canada, these areas often lack health care services, including high-performance EMS that urban Canadians take for granted. In rural and remote locations, EMS is clearly positioned to play a larger role in augmenting health care, especially in areas such as paramedicine and primary health care.

EMS and Health Care

Numerous trends are increasing the importance of EMS to the health of Canadians. EMSCC listed some of them in a previous position paper: “...concentrating expensive surgical/trauma and other specialty procedures in large urban or regional hospitals, the ‘aging’ of Canada’s population, the shortage of rural physicians, and the reality that few family physicians provide evening and weekend medical care for their patients...”ⁱⁱⁱ

In health care systems where the respective accountability for emergency departments and EMS reside in two different areas, the burden of triage wait times has predominantly shifted to EMS. Paramedics must stay with their patients while they wait to be admitted for care. This overloads EMS, leading to ‘red alerts’ (the term used to describe situations where no ambulances are available). It also increases the costs of EMS through the need for a surplus of ambulances and staff to compensate for the extra time spent waiting in the emergency departments.

Public Education and Health Promotion

Across Canada, EMS is widely known and recognized for its primary role in emergency medical transport in the case of emergencies and for inter-hospital transfers. 9-1-1 is the standard number to access emergency care across Canada. The vast majority of Canadians are covered under, and are aware of, the number. However, the public’s image of EMS is predominantly shaped by the media including television programs designed for entertainment, not education.^{iv}

More importantly, planned and evaluated EMS public education initiatives that proactively target injury prevention and public safety remain sporadic. EMS’ enormous potential is not being leveraged in this area. In small and medium sized communities, paramedics have a tremendous opportunity to operate injury prevention programs while standing by for emergencies.

Technology

While improved technology exists, it is costly and rarely available to most EMS systems. An investment in updated technology could increase the effectiveness of EMS and the standard of care it provides. In the post 9-11 era, this investment would also allow for interoperability at a provincial or national level.

In some cases, outdated technology can limit the ability of EMS to offer assistance in nearby jurisdictions, since radio and dispatch systems are often not compatible. Investment in new technology could enhance communication systems. New technology can augment the amount and level of home care and health care monitoring provided by EMS. In addition, new technology is capable of providing paramedics with a patient's health history on scene. This technology can also offer a detailed outline of treatment and assessment steps, thereby improving the emergency care received by the patient.

Developing Identity

EMS occupies a unique role in the range of community-based emergency services (i.e. fire and police) and other health care professions (i.e. physicians, nurses, etc). Comparatively speaking, EMS is a very young profession and is still developing its own identity in response to the public's constantly changing needs. EMS now offers much more than emergency and inter-facility transport. The training, skill sets, and responsibilities of EMS personnel have evolved and expanded to occupy a larger role in health care. This growth in service capacity and scope has been in large part due to paramedics being classified as physician extenders vs. physician competitors.

EMS personnel often go beyond their traditional role to provide an alternative-staffing source in emergency departments and nursing homes. These additional roles are based on the public's increased reliance on EMS combined with a shortage of health care professionals.^v Perhaps the best examples of this expansion beyond traditional EMS roles are the health care system support initiatives on Long and Brier Islands in Nova Scotia. The islands lack immediate access to doctors and nurses. In this case, EMS has assumed non-traditional roles in the realm of primary health care, such as administering flu vaccinations on the islands. The Community Paramedic Program is on the verge of expanding its EMS role in support of the overarching health care system in isolated areas like Long and Brier Islands.^{vi}

EMS personnel are currently striving to leverage their capacity in the design and range of services in the health care system. To do this, they are furthering their training and scope of practice, working on matching their skills with the appropriate responsibilities, and working towards achieving full recognition of their capabilities among policy makers and other health care professions.

However, EMS is frequently excluded from health care planning committees or not considered when important health care governance and operational decisions are made. This is largely the result of a lack of awareness about EMS. It is exacerbated by the fact that EMS is often municipally or privately run instead of being governed as an integral part of the health care system.

2.2 Funding

With few exceptions, EMS is not funded as an essential health service. Instead, EMS is funded through municipal tax levies, provincial subsidies, user charges, third party insurance, and/or a combination of funding sources.^{vii}

User Fees

User fees are established in various ways. They include a standardized low fee after reimbursement for residents of the province, rates calculated based on a flat fee plus a mileage charge, and fees determined by the company that is contracted to provide EMS.^{viii} Some provinces have programs in place to assist selected groups of individuals with the cost of ground and air ambulance trips (for example, seniors and residents with low incomes).^{ix} Generally, user fees mean that EMS is funded per person transported to the emergency department. This gives EMS a financial incentive to bring all patients to the emergency department. However, it may actually be clinically appropriate and beneficial to the health care system to assess, treat, and release the patient or transfer the patient to another health care agency such as a social service facility, mental health organization, or walk-in clinic.

Many Canadians are unaware that some services provided by EMS are not covered, or are only partially covered, by provincial health insurance. They are surprised to find out there is usually an additional user fee. Many EMS leaders feel that patient billing may cause some segments of the population to avoid calling EMS in times of genuine medical emergencies out of a desire to avoid the fee. User fees may impede access to EMS for many Canadians.^x

Consistent Funding

The unique funding arrangements for EMS are a challenge since inconsistent funding impedes proactive long-term strategic planning efforts. Stated another way, there is an opportunity to pursue more predictable funding formulae that will enable more consistent service delivery, long-term planning, and an enhanced research and innovation capacity. More consistent and predictable funding will enable longer term initiatives that have the potential to significantly reduce overall health care costs.

2.3 Research and Quality Standards

EMS does not currently possess the research base and data collection capability required to systematically evaluate and provide guidance for the improvement of overall levels of care. EMS research continues to be under-funded and neglected.^{xi} It is constrained by funding considerations, lack of a central data repository, and underdeveloped technology infrastructure.

Research is hampered by the absence of a federal EMS agency to pursue grants, collect data, conduct research, and coordinate national errors reporting. The result is that data collection is uneven and varies depending on the individual service or jurisdiction. This

inconsistency often creates an insufficient base for research. Inconsistent data collection also makes the development of a common definition of the role of EMS in emergency medicine innovation difficult. The lack of research restricts EMS' ability to link itself to patient outcomes and prove its value in the health care system.

An improved research and data collection capability would allow for national errors reporting and information sharing. In turn, this enhanced data collection and analysis could lead to the development of national standards, benchmarks, and protocols for areas such as chest pain, shortness of breath, trauma, time on scene, and inter-facility transfers. Objective standards and protocols in these and other similar areas is a critical success factor in the provision of higher quality care. Improving EMS research is an important issue that will have an impact on the continued development of the Canadian health care system.

Response Time Guidelines

While there are mixed opinions about the linkage between response time and quality of care, establishing universal guidelines for response time may have the potential to enhance the level of EMS delivery. Currently, EMS jurisdictions utilize a wide range of response time measures including time from the original call to the time official help first reaches the patient, time from original call to time of the first care delivered, or time of original call to time EMS personnel are first deployed.^{xii} Inconsistent response time measures between jurisdictions lead to difficulties in benchmarking response time, setting truly national standards, or meaningfully quantifying response time improvement.

Accreditation

Canada does not have its own accreditation system. Hospital based EMS systems may be evaluated or accredited as part of the hospital accreditation program. Otherwise, there is currently only one EMS system in Canada with quality accreditation (Nova Scotia). The province received its accreditation through an American agency.

2.4 EMS as a Profession

Levels of Care

The level of care offered by EMS depends on the qualification of the paramedics. These paramedics range from basic ambulance attendants to knowledgeable, multi-skilled emergency medicine providers.^{xiii} Across Canada, four different practitioner levels generally exist:

1. Emergency Medical Responder (EMR).
2. Primary Care Paramedic (PCP).
3. Advanced Care Paramedic (ACP).
4. Critical Care Paramedic (CCP).^{xiv}

Basic levels of care include CPR and first aid (also known as emergency medical response, typically provided by volunteers). Advanced skills include the interpretation of patient laboratory and radiology data and implementing invasive and pharmacological treatments (CCP).^{xv} EMS high-level care can minimize time spent in the Intensive Care Unit, avoid additional complications, and reduce the probability of ongoing long-term social and economic pressures on the health care system.^{xvi}

Staffing and Career Development

As a profession, EMS has human resources challenges in the areas of staffing and career development. EMS systems across the country face an aging workforce and high retirement rates.^{xvii} Some EMS jurisdictions also face relatively high staff turnover due to:

- Occupational risks including post-traumatic stress disorder, risk of assaults, motor vehicle crashes, back injuries, and falls.^{xviii}
- Lack of full recognition as members of the health care delivery team.^{xix}

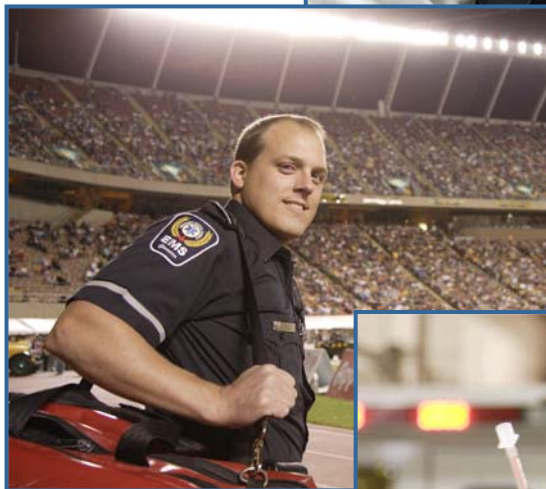
Credential Portability

EMS personnel are limited in their ability to move between provinces because training and certification for paramedics are provincially administered. The lack of a national registry hinders credential portability which is important for career mobility and career development. In addition, while most provinces have the same titles for different practitioner levels, the actual length of training varies considerably between provinces. For example, training for PCP levels can vary from thirteen weeks to two years. Training variability makes credential portability difficult to achieve.^{xx}

The Paramedic Association of Canada (PAC) has introduced the National Occupational Competency Profile (NOCP) to standardize professional responsibilities and essential skills in communication, health and safety, assessment and diagnostics, therapeutics, integration, and transportation.^{xxi} However, the NOCP has yet to be nationally recognized and adopted by each province and territory.

Leadership

Most EMS jurisdictions do not dedicate adequate time and resources to leadership or career development efforts designed for the next generation of EMS leaders. This may limit the career development and progression of EMS professionals and contribute to potential retention issues. This leadership gap also limits the ability of the profession to advance itself in concert with other health care professions. Recognizing that this leadership gap exists may allow EMS to look at creating formalized leadership programs. These programs can develop talented managers capable of advancing the EMS profession while concurrently improving service delivery.



The Future of EMS

3.0 The Future of EMS in Canada

The Vision: a Community-based Mobile Health Care Service

The complex nature of EMS means that the EMSCC's vision for EMS in the future is not a simple one. The pages that follow present a comprehensive description of the strategic direction of where EMSCC and the Medical Direction community believe EMS should be headed.

The value of EMS in the future is linked to the provision of primary health care at the point where citizens need it, providing services according to the scope of practice determined and required by each community. EMS is now, and needs to continue to demonstrate that it is increasingly, a critical part of the core fabric of the communities it serves. Indeed, the mobile infrastructure and ability to link traditional institutional health services with community care is at the heart of EMS. In this manner, EMS of the future will focus on prevention and wellness, will be care oriented, and will earn and enhance the confidence of the communities it serves. EMS will be there at the right place, at the right time, with the right service.

In short, EMSCC believes that **the future of EMS in Canada is at the centre of the community, providing primary health care in a mobile setting**. The following "Star of Life" diagram illustrates this vision:



Strategic Directions

There are six key strategic directions that will enable positive and controlled movement toward this future vision. These strategic directions are summarized below and explained throughout this section.

- 1. Clear Core Identity: Define and embrace a clear core identity.** A clear core identity will enable EMS to offer coordinated, mobile, and community-defined health, safety, emergency, and disaster management services. EMS will pursue technological and mission-related linkages with other health care providers and community groups, while assuming an expanded role in the primary health care arena.
- 2. Stable Funding: Ensure the financial foundations for quality EMS.** Adhering to key funding principles – funding best practices; preparedness-based funding; equitable and adequate funding; and stable, predictable, and sustainable funding – will provide a framework for ensuring that appropriate funding arrangements are developed and maintained by EMS in Canada.
- 3. Systematic Improvement: Ensure accountability and embrace systematic improvement to keep pace with an ever-changing, complex environment.** Improving data collection and analysis capabilities within the health care and EMS systems will enable EMS to better identify and pursue systematic development of rigorous, evidence based, and proven EMS protocols and clinical pathways. Technological collaboration and enhanced partnership within the health care system will enable this vision.
- 4. Personnel Development: Ensure that training and education will be robust to enable the “paramedic of the future”.** Aligning training programs with a uniformly accepted National Occupational Competency Profile will enable credential and benefit portability. This will enhance standardization of quality EMS provision.
- 5. Leadership Support: Ensure the development of EMS leadership capacity.** Graduate-level programs specific to health care administration, management development programs, credential portability and flexible career pathways, and focussed secondment opportunities will be essential tools in helping EMS manage human resource issues spawning from an aging workforce.
- 6. Mobilized Health Care: Ensure that EMS prepares for the complexities of tomorrow.** A more comprehensive and inclusive approach, focussed on mobilized health care in addition to traditional emergency services, is required.

Articulating and outlining the strategic direction of EMS is an important step in the evolution of EMS in Canada. It provides a framework for guiding EMS leadership and influencing public policy.

EMS is currently an essential health and public safety service, but steps need to be taken in the coming months and years to position EMS to meet the increasingly complex needs of the communities it serves. The pages that follow describe how these six strategic directions can be enacted to achieve the EMSCC’s vision for EMS in the future.

3.1 Clear Core Identity

EMS is a relatively new field with a much shorter history than other areas such as policing, fire, and medicine. These other fields – emergency systems, public safety systems, fire systems, hospital systems – have often defined the identity of EMS. Over the past few decades, however, a distinct body of knowledge and skill set for EMS has emerged. Given these developments, it is important now for EMS to establish and embrace its own clear core identity. This core identity is best described as mobile infrastructure that has the ability to link traditional institutional health services with community care.



EMS is a unique and highly specialized profession that does not fit fully into any system. Forging a national EMS identity and providing leadership should be one of the primary goals of the EMSCC.

EMSCC Online Survey Respondent, Spring 2006

This core identity involves the following three areas:

- Governance.
- Linkages to health care.
- Partnership with other bodies.

Governance

Various governance models exist across the country, and every jurisdiction has a unique perspective on the governance aspect of EMS. What is clear, however, is that while EMS is adaptable to the needs of the local communities it serves, a greater “systems approach” emphasis is needed. This will ensure that EMS provides the most effective service at the desired levels within the resources of any given community.

EMS as “Glue”

In essence, public policy makers should move away from the traditional approach of treating EMS as a “silo.” Instead, they should view EMS both as part of a larger system comprised of a community’s primary health care and as a single system that meets public safety needs. Indeed, EMS is the “glue” that links components of the health and public safety systems together. With a systems approach, far more effective methods for delivering a community’s desired suite of health care and public safety services within a given level of resources can be attained.

Shared Accountability

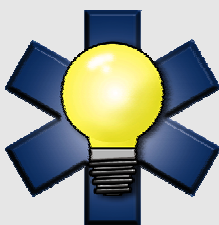
A systems approach can assist in applying public funds in a way that encourages shared ownership of emergent and urgent care across the health care system. For this to happen, there need to be mechanisms for shared accountability by hospital and EMS systems for efficient transfer of care for patients in emergency departments. Although this will not prevent an overflow of patients in the emergency department, it will deter scarce EMS resources from being delayed unnecessarily.

Medical Partnering

A systems approach may also enhance the role that EMS can play in providing health care services to Canadians. This is particularly true for those in primary health care. All EMS systems have some form of medical oversight by virtue of a Medical Director or Medical Advisor. Partnering more closely with the medical community will help identify opportunities to enhance EMS' role in the provision of health services.

Assurance of Safety

Finally, a systems approach will assure Canadians that in the event of a mass casualty incident (i.e. natural disasters, terrorist incidents, etc.), EMS will take the lead in ensuring their safety. This approach, based on appropriate governance and legislative foundations, will support greater coordination between EMS and other emergency services organizations.



On April 20, 2006, the New Brunswick government announced that it would move to a single-operator system for all ambulance services in the province. The plan will consolidate services currently provided by a range of organizations including private companies, health regions, municipalities, non-profit groups, and First Nations.

<http://www.gnb.ca/cnb/news/he/2006e0448he.htm>



Key Public Policy Point 1: A systems approach will allow scarce public resources to be used more effectively and efficiently. A new public policy direction to ensure EMS is part of a “system” of health and public safety is required.

Linkages to Health Care

Canadian EMS is the first part of a continuum of service delivery for urgent and primary health care needs. However, EMS does not occur in a vacuum. EMS is affected by a community's health care needs, demographics, and trends from the outside environment. Moreover, EMS connects with the community's overall health care system and particularly their emergency department to provide seamless delivery of patient care. Inter-dependencies between the health care services have created a need for EMS to foster strong linkages with other stakeholders, including other health care professionals, health care regions, and emergency departments. Expressed another way, it is imperative for EMS to develop linkages with other health care providers. It is equally important that other health care agencies acknowledge and accept EMS as a critical partner in the provision of health care services within the health region. Strong working relationships with health care service providers will enhance the effectiveness of both EMS and the other components of health care delivery.

Strengthening Ties

In many EMS jurisdictions, strong working relationships will require strengthening ties between governance models. EMS is often municipally run, whereas all other health care services are delivered through the health care region. EMS should also participate in health care decision-making on par with other health care professionals. This includes playing a full and active part in emergency care networks and charring networks where appropriate. As well, EMS should work with other health care professionals to develop integrated teams with unique skill sets based on the community's needs.

Integration beyond the Emergency Department

EMS systems also need to become increasingly integrated with other health care providers and networks including, but also beyond, the emergency department. The entire spectrum of emergency response organizations and health care providers, including EMS, should cooperate to develop an integrated, seamless, and coordinated ground and air response system. The integrated approach should be designed to create a single point of contact (call and dispatch centre) for all emergent medical needs and crisis or disaster management situations. Enhanced linkages and interoperability of systems between and among police departments, fire departments, family physicians, pharmacists, nurses, EMS responders, after-care, rehabilitation services, social services, community services, and emergency departments on a local, regional, provincial, national, and international level will ensure that both ground and air emergency response capabilities are used to effectively. This will provide coordinated, timely, and appropriate treatment.

Technology

Technology will enable, but not create, this vision of integrated emergency response. Once again, policy makers will be called upon to champion technological improvement because of the need for coordinating investment and functionality requirements among many health care organizations. While technology can enable the integrated response

system, unwavering commitment and effort from the relevant health organizations will lead to the realization of the vision for such a system.

The potential benefits of a common technological framework for data sharing, interoperability of systems, and enhanced communication within the health care and emergency response network are undeniably substantial. A single point of entry for patients would provide a linkage between the first responder, regardless of which emergency organization (fire, police, health care) they represent, and the appropriate health care organization. The ability to convey appropriate instructions or direct the patient to the most appropriate care provider would result in more effective and efficient EMS provision.

Enhanced technology can also aid in maximizing EMS effectiveness in expanded roles in health care and/or public safety. For example, important technologies that should be adopted include new digital radio systems and electronic patient records. Digital radio systems will enable interoperability between EMS jurisdictions, especially in times of severe emergencies and pandemics. Electronic patient records will provide paramedics with “on the spot” medical information about a patient and lead to more targeted and effective clinical care.



We should have our own identity but we should foster and maintain partnership with other health care agencies. We all have our own niches but together we can move mountains.

EMSCC Online Survey Respondent, Spring 2006



Key Public Policy Point 2: Evolving the role of EMS in health care will require the inclusion of EMS leaders in the governance of health care systems.

Partnerships with Other Bodies

One component of advancing EMS will be the development of strategic partnerships and linkages with other organizations on a regional, provincial, national, and international stage. These partnerships and linkages may assist in strengthening the professional development and growth of EMS. EMSCC in particular intends to pursue strategic partnerships with a number of other relevant organizations.

Paramedic Organizations

The EMSCC will pursue strategic partnerships with other bodies such as the Paramedic Association of Canada (PAC), which represent the majority of paramedics across Canada, and has a similar mandate to advance the EMS profession. Areas for collaboration include:

- Transferring knowledge and sharing of best practices.
- Working towards consistency in training for paramedics across Canada and enable national credential portability.
- Advancing the science behind EMS through data collection, research, and increased collaboration.
- Rediscovering relationships with physicians and linkages with National Association of EMS Physicians.
- Developing leaders in EMS.
- Raising the public profile of EMS.



EMS is a unique and highly specialized profession that does not fit fully into any system. Forging a national EMS identity and providing leadership will be one of the primary goals of the EMSCC. I would also encourage the EMSCC to work in partnership with the Paramedic Association of Canada in developing a national vision for EMS.

EMSCC Online Survey Respondent, Spring 2006

Other Health Care Professional Organizations

EMSCC will develop its linkages with other health care professional organizations such as the Canadian Medical Association, the Canadian Association of Emergency Physicians, the Canadian College of Health Service Executives, the National Emergency Nursing Association, and the National Nursing Association. These linkages will contribute to:

- Sharing governance and leadership in health care systems.
- Developing flexible career pathways between EMS and similar health care professions.
- Building innovative, multi-disciplinary health care teams with skill sets that best respond to a community's needs.

- Developing standards for clinical care outcomes by linking EMS data and research with the hospital's data repositories and research.
- Providing linkages to the most appropriate care provider including clinics, the emergency department, social service agencies, etc.

Public Safety Professions

EMSCC will also develop its linkages with other public safety professions such as Public Safety and Emergency Preparedness Canada, the Canadian Forces, the Canadian Association of Chiefs of Police, the Canadian Association of Fire Chiefs, etc. Nationwide cross-jurisdictional partnerships between major public safety units will enable the formation of an integrated emergency management planning and response unit. This unit will be capable of effectively responding to pandemics, terrorist incidents, natural disasters, and other emergency situations.

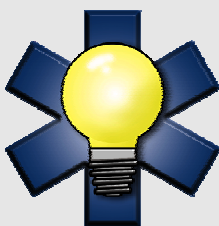
Community Organizations

EMSCC will develop strategic partnerships to develop and promote education and injury prevention initiatives with organizations such as the ACT Foundation, the Canadian Patient Safety Institute, the Trauma Association of Canada, etc. These partnerships will contribute to greater citizen and community engagement through programs such as CPR training initiatives.

Research Organizations

EMSCC will develop strategic partnerships to develop and promote EMS research and education with organizations such as the Public Health Agency of Canada and the Canadian Emergency Health Services Research Consortium. These linkages will contribute to:

- Greater levels and quality of EMS research.
- The ability to access data and research databases maintained by stakeholders.
- Collaboration in development of an "EMS research agenda."



In April 2005, the British Columbia Ambulance Service and Ambulance Paramedics of British Columbia contributed \$270,000 to launch a CPR training program. The program, delivered in partnership with the Advanced Coronary Treatment Foundation, has resulted in 5,900 students in Grade 10 learning CPR skills.

http://www.municipalsuppliers.com/news_detail.asp?ID=47261



Key Public Policy Point 3: EMS leaders must become far more innovative in pursuing strategic partnerships with other bodies.

3.2 Stable Funding

Canadian EMS is currently funded through a combination of municipal tax levies, provincial subsidies, user charges, and third party insurance. In order to maintain and build upon the existing strengths of EMS systems across the country, EMS leaders and funding sources such as municipal and provincial governments need to engage in a dialogue about funding principles that should be applied in the future. This dialogue should include the following funding principles:

- Funding Incentives and Best EMS Practices Should Be Aligned.
- Funding Should Be Based on Requirements for Preparedness.
- Funding Should Be Equitable Across Communities.
- Funding Should Be Adequate to Cover Costs.
- Funding Should Be Stable, Predictable and Sustainable.

Funding Incentives and Best EMS Practices Should Be Aligned

In the current funding model, used in most Canadian jurisdictions, a portion of funding is dependent on a patient user fee for emergency transport to the hospital. This provides a financial incentive for EMS to bring all patients to the emergency department in order to collect payment regardless of whether this is the effective or clinically appropriate means of delivering care. In order to prevent unnecessary pressure on already overworked emergency departments, financial incentives should focus on rewarding appropriate treatment and care, not trips to the emergency department.

Research conducted in the United Kingdom supports this idea. That research reports that only 10% of patients calling 999 (the equivalent of 911) actually have life threatening emergencies. Many of these callers actually had an urgent primary health care or social services need that could have been dealt with through channels outside of the emergency department.^{xxii}

Treatment vs. Transport

New funding mechanisms need to be implemented to compensate EMS for making choices that are clinically appropriate and based on local protocols and best practice. This may involve transporting patients to a greater range of appropriate facilities such as walk-in clinics, social service organizations, mental health organizations, and other primary care providers. In addition, in cases where non-transport is clinically appropriate, EMS units should be rewarded, not penalized, for pursuing on-site treatment and appropriate disposition and follow-up. This change would enable the patient to be seen by the most appropriate clinician.

A broader spectrum of acceptable transport and treatment options would allow EMS to provide patients with primary, social, or emergency care tailored to their unique situation. Furthermore, EMS could alleviate some pressures on the health care system by taking a proactive role in initiating the appropriate follow-up care for patients in non-emergency situations. This would also minimize the flow of traffic to the emergency department.^{xxiii}

Supporting Best Practices

EMS should receive compensation for assessing, treating and diagnosing patients if their conditions fall under EMS' scope of practice. This will allow some patients to be cared for in their homes while others can receive mobile primary and secondary care at the hands of EMS. If follow-up treatment is required, EMS can schedule the necessary appointments with the patient's family physician or bring the patient to the appropriate facility. EMS can also take advantage of this direct patient interaction by providing appropriate advice on future injury prevention and health care education as required.^{xxiv} Aligning the funding model to support best practices has the practical advantage of minimizing increases in overall health care costs and spending.



Funding should not be contingent on the decision to transport or not to transport to a specific location. A paramedic should only be considering a patient's medical needs, not what would maximize the services financial position.

EMSCC Online Survey Respondent, Spring 2006

Funding Should Be Based on Requirements for Preparedness

The overall cost of EMS for a particular geographic area is multi-faceted. It includes the costs of all the infrastructure and activities required to provide service. For example, communication systems, vehicle/equipment acquisition and maintenance, personnel training and continuing education, first response and ambulance operations, medical direction, and licensing and regulation activities all contribute to EMS costs.^{xxv} Therefore,

funding for EMS should, in part, be preparedness-based (i.e. the costs of maintaining a suitable state of readiness). In turn, this will allow EMS to provide a comprehensive model of care. This model can be proactive, rather than reactive, in responding to a community's current and future needs.

Funding Should Be Equitable Across Communities

Community differences regarding the service area size and population-based need for EMS should be recognized and funded accordingly. EMS funding should also depend on the service area complexity, utilisation, and quality standards (i.e. level of care and response times). It may cost more to provide EMS in rural communities where EMS is the main health care provider. In these communities, the role for EMS is more complex and services are more frequently utilized. Moreover, the cost of EMS will vary depending on if it is offered in rural, remote, or large urban areas. Funding should be also adjusted for geographic disparities. The funding formula should ensure that cost differentials between urban and rural areas are taken into account.

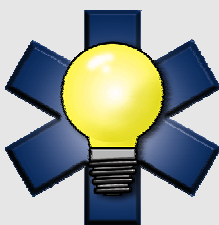


Canada is a geographically diverse country with both high density urban areas and vast low density rural and remote areas. Recognizing that it is financially impractical to place an ambulance station every 8 minutes apart, resource and funding allocation needs to balance high volume areas with geographical distances. Basing funding solely on volume is dangerous and a disservice to those who live in remote / rural Canada.

EMSCC Online Survey Respondent, Spring 2006

Funding Should Be Adequate to Cover Costs

EMS funding should reflect the actual costs of providing the services. Funding should be indexed to inflation and growth to account for demographic factors. The adequacy of funding should be based on a more comprehensive model of EMS. It should include necessary investments like research and management training. Public funding should also contribute its share to funding EMS regardless of the organization responsible for service delivery. This will help ensure that user fees are reasonable. It will make certain that the quality of service delivered does not significantly vary depending on the financial resources of the community being served.



On February 21, 2006, the Ontario government announced it would more equitably distribute the cost burden of ground ambulance funding, with an additional \$300 million in expense accruing to the province instead of the municipalities over the upcoming three years. The shift is aimed at achieving a 50-50 sharing of the cost of municipal ground ambulance services.

<http://www.premier.gov.on.ca/news/Product.asp?ProductID=578>

Funding Should Be Stable, Predictable and Sustainable

Additionally, funding for EMS must be stable, predictable, and sustainable. Current funding is based on an annual budget that limits future planning. Instead, EMS should receive core and multi-year funding so that EMS can plan health care initiatives, invest in technology, build on training, etc. As well, EMS should receive innovation funding for collaborative initiatives that align with policy priorities.



Key Public Policy Point 4: Funding methods should:

- Enable paramedics to effectively meet the current and future clinical needs of patients and their communities.
- Reflect the actual cost of service delivery.
- Recognize the costs to EMS systems of “being prepared,” allowing EMS to proactively respond to a community’s needs.
- Recognize the population density and geography of each community served by an EMS system.
- Be stable, predictable, and sustainable to allow for optimized planning and enhanced innovation.
- Require EMS systems to publicly account for their use of public funds.

3.3 Systematic Improvement

To enable systematic improvement, EMS needs to develop consistent methods for measuring the quality of care that EMS systems provide. EMS needs to establish national benchmarks to uphold and improve on that quality of care. As always, keeping in mind the diverse nature of EMS jurisdictions, any standards developed should adequately reflect the differences between remote, rural, and urban Canada.

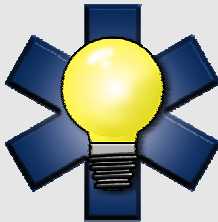
Appropriate Standards

Developing comprehensive and meaningful measures of the care EMS provides means going well beyond merely tracking response times. Response times are only one aspect used to determine the quality of care EMS provides. It is particularly inappropriate to judge EMS’ response to non-life threatening emergencies based on response time.^{xxvi} Instead, EMS needs to develop appropriate clinical standards and patient outcome evaluators that will consistently capture every aspect of the quality of care that EMS provides. This will lead EMS to strive to provide better care, not just more expedient care.^{xxvii}

Data Collection

The value of EMS and its contribution to public health depends on data collection, followed by research. The data includes EMS' effect on the length of patients' hospital stays, ability to decrease the number of emergency room visits, role in providing better patient care, and the effectiveness of injury prevention programming.

Data collection requires a national consensus from EMS leaders and Medical Directors about what data must be collected. Data collection also requires consistent collection methods. Moreover, the data should be shared in a national data repository. This will enable consistent data collection, facilitate analysis, and reduce the administrative costs of data collection. Finally, EMS data must also link to and integrate with hospital and other data sets. EMS must develop collaborative relationships for EMS research with other EMS systems, medical schools, other academic institutions, etc.



The Ontario Municipal Benchmarking Initiative is a service excellence program for municipal governments in that province. Among many other activities is an initiative to study measures for EMS.

<http://www.ombi.ca/index.asp>

Technological linkages and integrated data sharing between EMS and other health organizations will require large-scale investment in supporting technology. The scale of investment and need to coordinate multiple organizations means that policymakers within the government will be required to lead and sponsor research and data collection initiatives. The appropriate systems will enable enhanced data collection, data-sharing, best practices research, and patient outcome reporting.

Minimizing Research Barriers

In addition to assessing the technological requirements, barriers to potential research should be minimized. Legislation such as *Alberta's Freedom of Information and Protection of Privacy Act* is designed to protect an individual's personal information and right to privacy.^{xxviii} Privacy legislation may limit the amount and type of data that can be collected by EMS research initiatives. Therefore, data systems must be designed to be capable of protecting personal data and aggregating data in a way that is in accordance with legislation. Negotiating access to information will in large part be dependent upon the ability of EMS to provide evidence of its ability to protect private information. For example in Alberta, the *Health Information Act* allows for the sharing of aggregate-level health data that enables research and evaluation of health care practices and protocols including EMS.

Research Agenda

When system architecture is in place and sufficient data is available, EMS should develop a national research agenda. This agenda should identify and pursue priorities for EMS research based on the goal of developing clinical standards and patient outcome evaluators. Critical to the success of fulfilling the research agenda is sufficient funding to conduct the research. This has two requirements:

- Policy makers must support and facilitate EMS research.
- An EMS representative body should pursue existing research grants for EMS research.

As well, the success of the research will depend on either EMS' capacity to conduct the research or its success in collaborating with experienced professional health care researchers to lead the research on its behalf. To begin with, EMS may need to consult with outside expertise in order to facilitate its research agenda. However a parallel development to the data collection should develop EMS educational curricula to include research principles, methodology, and the importance of conducting EMS-related systems research. EMS' education systems need to create an atmosphere where all EMS personnel appreciate the necessity of EMS research to create a scientific basis for EMS patient care. Moreover, all individuals responsible for EMS' organization should be to some extent involved with EMS research.

Once developed, clinical and outcome indicators will be used to evaluate and report on the total care provided by EMS. This will provide external accountability, stimulate internal quality improvement, and can provide the basis for the development of national standards and/or benchmarking. As well, this research will help EMS evaluate and prove the efficacy, effectiveness, and cost-effectiveness of EMS and specific interventions and treatments.



The right service to the right patient at the right time approach is key to the delivery of healthcare services in an efficient, cost effective and timely manner. It is only through research and innovation that EMS will be able to realize its professional responsibility to the patient.

EMSCC Online Survey Respondent, Spring 2006



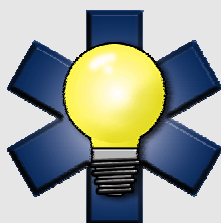
Key Public Policy Point 5: A new systems approach is required to achieve the future state of EMS. This new approach will support continual, systematic improvement. Required for systematic improvement are:

- The development of comprehensive performance measures for EMS.
- Enhanced data collection and research capabilities.
- Paramedicine research and evaluation.
- Continual improvement and development of emergency care protocols and clinical pathways.

EMS Evaluation and Accreditation

An American accreditation organization already exists through which Nova Scotia has been granted accreditation. However, no similar Canadian accreditation system currently exists. EMS needs to develop a Canadian system of accreditation that recognizes excellence in EMS. The system should allow for different contexts including remote, rural, or urban systems. The CCHSA Canadian Council of Health Services Accreditation is such a system.

A Canadian accreditation system could be specifically developed to suit domestic EMS systems. In addition, Canadian accreditation would also foster EMS excellence by encouraging EMS systems, both publicly and privately operated, to pursue accreditation.



The Commission on Accreditation of Ambulance Services (CAAS) has certified only one EMS provider in Canada: EMC Medical Inc. of Nova Scotia. As CAAS states on its website, "Accreditation assures your patients that the service has met the Commission's high standard for quality patient care and that the service stands ready to care for their families if needed." No Canadian accreditation system has yet been developed.

<http://www.caas.org>



Key Public Policy Point 6: EMS systems should demonstrate high accountability and transparency for quality EMS through:

- Public reporting.
- The development of a Canadian accreditation system.

3.4 Personnel Development

Training Demand

The health care environment surrounding EMS is characterized by increased public demand, building pressures on the medical community and system, and an internal drive to expand the role of EMS in the health care system. These environmental considerations support education, learning, and development initiatives aimed at matching the EMS skill set to new and growing areas of responsibility. EMS competencies must be on par with the professional standards expected by the community, particularly as a “community-defined” scope of practice is embraced.

Increased Competencies

EMS personnel should be trained in a greater range of competencies that enable them to assess, treat, and refer or discharge an increasing number of patients while maintaining quality requirements for emergent or urgent care.^{xxix} This will require expansion of the NOCP framework and corresponding updates to the training curriculum and scope of education for paramedics. Traditional paramedic and technician training are still heavily focused on resuscitation and trauma management while a large part of EMS’ current role consists of providing primary and secondary patient care.^{xxx} Education programs should be designed to provide paramedics with the skills required to appropriately handle both traditional and non-traditional cases and situations.^{xxxi} This redesign will require collaboration between EMS personnel and educational institutions to ensure training is compatible with the expanded role of EMS.

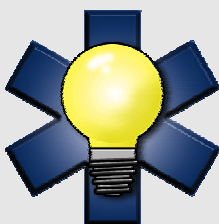
In addition, a multi-disciplinary approach to training would be valuable. Leveraging cross-training opportunities between health care support and service providers would result in training synergies. This would increase the knowledge base of many health care providers including EMS staff, and ultimately enhance the overall quality of health care service provision.

Enhanced Training

As EMS care continues to evolve and become more sophisticated, the training of EMS personnel needs to be enhanced. This means:

- EMS personnel should work to increase their personal certification.
- EMS systems need to invest more in training and development.
- EMS educational programs and standards should be established and expanded upon.

Standardized education and credentials, similar to that of nurses and physicians, will be a necessary first step toward fostering the professionalism and legitimacy of EMS within the spectrum of health service providers. Furthermore, enhanced professionalism and standardized education are precursors of a migration toward self-regulation, medical accountability, and standards of conduct for EMS personnel. While self-regulation is a “stretch” or long-term goal, EMS must strive to take its position alongside physicians, nurses, respiratory therapists, and pharmacists as essential, professional, front-line health care practitioners. In the interim, individual communities should decide what level of medical advice will be sought from EMS personnel.



Education and degree programs for paramedics deliver training aligned with the National Occupational Competency Profiles for Paramedics designed by the Paramedic Association of Canada. These programs give practitioners specific skills as well as the ability to work with other health care professionals in a multidisciplinary environment.

EMS Skill Levels

At the same time, different levels for EMS practitioners should continue to exist in recognition of the variety in EMS systems and the broad nature of EMS' responsibilities. These levels would still encompass a wide variance in skill development. For instance, much of remote Canada depends on volunteers for their EMS systems. It is realistic to expect that most of these volunteers will not have extensive training.

On the other hand, rural Canada typically depends heavily on EMS for a wider variety of care due to a lack of rural physicians and nurses and a longer distance to the hospital. Thus rural Canada will probably have the greatest need for skilled EMS practitioners who can provide mobile primary health care.

In urban centres, teams of EMS personnel should be composed with a variety of skills. These teams can respond as needed depending on the urgency and complexity of the call and/or responsibility. Inter-facility transfers, in particular, are a traditional

responsibility of EMS, but are an inefficient use of highly skilled paramedics. Therefore, if no other complications exist, this duty should be delegated to paramedics with basic training in order to best utilize all resources.

In summary, training, education, and career advancement opportunities must be designed to support the needs of the community and the longer-term goal of standardized training and education.



Key Public Policy Point 7: The training of the “paramedic of the future”:

- Training and education to give paramedics the competencies required to meet “community-defined” scopes of practice.
- A layered system of education that promotes transferability of EMS credentials. Previously completed EMS training and credentials should be recognized by related technical and degree programs.

Consistency and Credential Portability

Canadian EMS needs to work on improving the consistency of EMS education across the provinces to enable national credential portability. Currently, while most provinces have the same titles for different practitioner levels, the actual length of training varies considerably. For example, PCP training varies from thirteen weeks to two years.^{xxxii}. These differences lead to a wide disparity in skill set and ability between paramedics who, on paper, have the same title.

Though the place and manner of education for EMS personnel will continue to vary between provinces, there should be increased coordination between EMS educational programs to develop a robust, recognized national curriculum. This will standardize training in accordance with certification levels across the provinces.

Additionally, EMS should develop equivalent provincial certification exams in each province, coordinated by a national registry for EMS professionals. This will ensure a paramedic has met national standards that are consistent with those of his or her colleagues at the same level. Only then will Canadians have the assurance of relatively comparable service level and quality consistency across the country.

NOCP

A key step in the development of EMS as a profession is national credential portability. Although PAC has developed the NOCP, this has yet to be adopted by each province and territory. A lack of national credentials hinders the mobility of EMS professionals and discourages them from investing in further training.

The NOCP is currently being updated and reviewed with the help of the Canadian Medical Association. Once the update is complete, the necessary enabling provincial legislation and/or regulations can be enacted to establish a national standard. This key development will put EMS on par with other health care professionals such as physicians, nurses, dieticians, etc. It will give EMS personnel full recognition as professionals in the health care delivery system.

In a practical sense, credential portability will minimize administrative issues associated with transferring human resources between jurisdictions. Fewer administrative issues will contribute to enabling coordinated and timely mass response capabilities for situations created by natural disasters, terrorist attacks, and pandemics.



Standards should be adopted by all. Government should endorse the NOCP and make it mandatory.

EMSCC Online Survey Respondent, Spring 2006



The ideal approach would be to create a national credential for paramedics through a national certification / examination process similar to that followed by medicine, nursing and other health professions. Such a national system of credentialing would facilitate common standards in education and portability for practitioners.

EMSCC Online Survey Respondent, Spring 2006



Key Public Policy Point 8: All provinces and territories should endorse and adopt the Paramedic Association of Canada National Occupational Competency Profile, enabling consistency in training and education approaches, a higher standard of training and education, and national credential portability.

3.5 Leadership Support

Seniority and Benefit Portability

Demographic trends in Canada suggest that an aging workforce will give rise to human resource shortages in fields like EMS in the near future. EMS needs to enable flexible career pathways within EMS and across health care in order to prepare for these emerging human resource challenges.

EMS organizations are regionally based, somewhat fragmented, and characterized by only a small degree of coordination between regions. This fragmentation between regions has limited, impeded, and discouraged seniority and benefit portability. The inability to transfer seniority, vacation entitlement, and pension benefits between regions discourages employees from exploring career progression alternatives within other EMS regions. This situation undermines the ability of EMS to train, develop, and retain its employees and future managers. This limitation could eventually restrict future growth and expansion of the quality and range of EMS offered. Seniority and benefit portability across EMS regions is an essential step toward enabling the desired future state of EMS in Canada.

Career Tracks

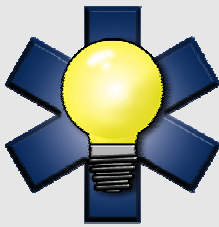
Interdisciplinary and bridging programs should provide avenues for EMS providers to enhance their credentials or transition to other health care roles. These programs should also allow other health care professionals to acquire EMS field provider credentials.^{xxxiii} EMS should develop a career ladder with connections to parallel fields that allow EMS personnel to use accumulated knowledge and skills in a variety of EMS-related positions. This will involve recognition of transferable skills to other health care professions and vice versa for other health care professionals who wish to move to EMS.

EMS must define and enhance career tracks. This includes EMS clinicians being able to practice in a wide variety of settings as part of their career.^{xxxiv} This type of job rotation or flexibility will give EMS professionals a broader skill and knowledge set, increase their job satisfaction, and facilitate options for more experienced EMS professionals. This is important since EMS is a physically demanding profession that also includes occupational risks such as post-traumatic stress disorder, assaults, motor vehicle crashes, back injuries, and falls.^{xxxv}

Leadership Education

EMS must reinforce and develop both administrative and clinical leadership to create well-managed EMS organizations.^{xxxvi} EMS leaders need to know how to effectively manage a large and complex service and be familiar with all components of EMS. In addition, EMS leaders need to know the scientific basis of EMS practice including the basic principles of clinical research and the importance of ongoing EMS research. EMS leaders need to be developed through higher-level EMS education programs that

incorporate learning objectives regarding research, quality improvement, and management. To create effective leadership, EMS will require investment in human resources. EMS must provide graduate-level opportunities to study the field of health promotion, leadership, and organizational systems. EMS needs to develop higher-level EMS education programs with affiliated academic institutions. EMS should invest in, and receive funding for, adequate training for its leaders. Academic research and expertise regarding best practices in health care management and administration will also help advance operational efficiency within EMS.



The development of graduate-level education programs specialized in the field of health care will assist in the development of future EMS leadership. Collaborative efforts of organizations such as the Provincial Government, Regional Health Authorities, and the Canadian Forces Health Services allow these specialized programs to provide first-rate training for managers in the EMS field.

Management Training

EMS should also develop management training programs that identify and groom the future generation of EMS leaders. Increasing the opportunities that exist within EMS will contribute to continued success and growth in the EMS field. This will also aid and encourage EMS clinicians in their professional development. Moreover, EMS leaders need a forum for knowledge transfer and shared best practices that connect EMS jurisdictions from across the country. One such forum already exists in the EMSCC. This needs to be continued and built on.

Lastly, it is important to recognize that an EMS background is not always necessary for a management role in EMS. Other professionals with strong health care and management backgrounds, and who are able to face and welcome a steep learning curve, should be considered suitable for EMS management positions.



Key Public Policy Point 9: EMS leadership capacity needs to be supported.

- **Flexible career pathways must be created to ensure the continued development of leadership capacity in EMS.**
- **Investment in leadership development will be key to building the capacity to lead the strategic evolution of EMS.**

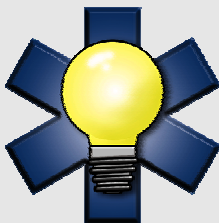
3.6 Mobilized Health Care

While EMS will always continue to maintain core service excellence, once EMS is properly strengthened and prepared, EMS can play a much larger role in filling some of the community's existing health care needs. By making the necessary changes and investing in the future of EMS today, EMS will continue to be an asset capable of offering a wide scope of practice and training that is moulded to the needs of a particular jurisdiction. EMS can continue its development through new innovations and ideas.

Core Service Excellence

Although EMS will seek to expand its role in providing health care, it will remain equally committed to its traditional responsibilities in the areas of pre-hospital care. EMS must prioritize and continue to improve on its role in emergency response. This includes providing triage, treatment and transportation to patients to the emergency department. As well, EMS will retain other traditional responsibilities such as inter-facility transfers. These tasks are important and necessary community services that will continue to help define the identity and role of EMS.

The role of EMS will not be expanded to the detriment of its responsibilities in public safety. This will likely mean that some EMS jurisdictions will have more reserve capacity to expand beyond their traditional role than others, depending on their call volume and the population and size of the area they serve.



Toronto EMS is the largest municipal paramedical ambulance service in the country, serving 3.5 million people over a 650 square kilometre service area. The service prides itself on being "one of the most comprehensive pre-hospital emergency care systems in the world."

<http://www.toronto.ca/ems/overview/overview.htm>

Innovation in Core Services: Inter-facility Transfer

All EMS jurisdictions should continue to improve the quality of their traditional services. This includes the speed and quality of call handling, EMS response times, and the ability of EMS personnel to stabilize patients with immediately life-threatening conditions. As a part of improving the delivery of traditional services, EMS jurisdictions should review how they provide traditional services. They should make any necessary adjustments needed to maximize cost-effectiveness and human resource efficacy.

For example, EMS may need to make adjustments in how it performs inter-facility transfers. These adjustments have two considerations:

- The skill level of transport teams should match the needs of the patients involved.
- Transport of individuals not requiring sophisticated equipment or supervision should not consume resources which are more urgently required elsewhere.

Adjustments should focus on achieving the most efficient use of resources while remaining conscious of the importance of high quality service provision.

Innovative programs such as the British Columbia Infant Transport Team (ITT) can become useful models for developing more efficient and specialized transport programs.^{xxxvii} ITT is a joint initiative supported by various health care organizations within British Columbia. The initiative seeks to provide efficient, coordinated, and advanced transport services in complicated neonatal, paediatric, and maternal stabilization and transport cases.^{xxxviii} The collaboration of appropriate health care providers leads to efficient high-quality transport service provision.

Similarly, a groundbreaking pilot program in the Kootenay Boundary Region of British Columbia allows members of the Critical Care Transport Team to use idle time. They assist in the emergency department, intensive care unit, or operating room when there are no medical transport emergencies.^{xxxix} This dual role as primary health care provider and medical emergency transport responder increases EMS efficiency. This approach enables regions with smaller populations to justify specialized programs such as the Critical Care Transport Team. This type of innovation and coordination between health care providers can not only improve transport services, but also facilitate specialized and enhanced health services within the community.



EMS should be responsive to the needs of the legitimate patients who require its services whether in a first response role or inter-facility transfers. A failure to do so will lead to the role of EMS being diminished and will lead to the creation of parallel services to replace EMS, with additional cost to the consumer and the taxpayer.

EMSCC Online Survey Respondent, Spring 2006



Key Public Policy Point 10: While maintaining core service excellence, EMS must pursue innovation and new models of service delivery to meet community-defined needs. Collaboration of EMS and community organizations such as primary health care providers, social service agencies, and public safety groups will enable innovative initiatives that have the potential to improve the level of health care within a community.

Community-Defined Scopes of Practice

One of EMS' greatest assets is its ability to adapt to a particular community's need. With smart decisions and necessary investments in training, technology and development of the profession, EMS has great potential to play an expanded role in health care and public safety. This expanded role will require collaboration between EMS and other health care and community organizations. The provinces and territories will also need to adopt "community-defined" scopes of practice that enable EMS to respond to the needs of local communities.



EMS is a very adaptable component of the health care system and expanding its mandate should be the first priority. We have so many skilled providers who want to do as much as they can for Canadians. It is also important that the other areas of health care realize exactly what we do and that may be accomplished by proving that EMS is an integral part of the "health care team".

EMSCC Online Survey Respondent, Spring 2006

Reserve Capacity

EMS can play an enhanced role in health care by leveraging reserve capacity. EMS can help ease rural staffing and facility shortages and decrease emergency department wait times. EMS' reserve capacity comes from the training of EMS personnel and from taking on additional responsibilities in between emergency calls. The ability to take on additional responsibilities will vary largely on the volume of calls in a jurisdiction. For this reason, EMS systems in remote or rural areas of Canada will have greater potential for reserve capacity due to a low call volume. Alternatively, some busy EMS systems serving densely populated communities may be completely occupied just responding to emergency calls.



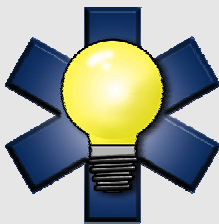
Paramedics are a very valuable and often underutilized health resource. The need for community and primary health resources continues to increase, and paramedics are very capable of assuming larger roles in these areas. There needs to be more emphasis on the ability for paramedics to assess, treat and make sound clinical decisions about transports about that could reduce the burden placed on emergency departments. Paramedics need strong ties with the health care system in order to maintain medical competence.

EMSCC Online Survey Respondent, Spring 2006

Additional Community-Based Services

Many EMS personnel are highly trained and similar in capabilities to a registered nurse or respiratory therapist. In fact, paramedic professionals are also licensed as registered nurses or respiratory therapists. Continued development of paramedicine degree granting programs will ensure a high level of EMS training and provide an additional three years of education and skill development.^{xi} These types of initiatives will be aided by future improvements in EMS training including enhanced and more consistent training. This will further EMS' ability to take on additional roles and responsibilities in a community's health care system in many different capacities.

For example, EMS has the potential to provide an increasing range of community-based primary and secondary health care services using its mobile infrastructure. By providing an increasing range of assessment, treatment and diagnostic services, EMS will be able to care for some patients on the spot, with no transportation required. Another option is for EMS to give the patient initial treatment and to schedule the patient with his or her own general practitioner later in the week. These developments would allow EMS to become "primary health care on wheels." More people could receive treatment outside of the emergency department. Some patients could avoid entering the health care system for further treatment altogether. EMS' ability to become "primary health care on wheels" is particularly valuable in rural areas. Patients in rural areas may have greater difficulty accessing traditional secondary care services due to a lack of, or the distance to, hospitals or clinics.



A small community in Nova Scotia, Long and Brier Islands, looked to EMS to help in resolving their health care needs. Located two hours away from a hospital, the community established a 24 hours per day, 7 days per week ambulance base at an abandoned clinic. In 2003, there was a decrease of 23% in the number of Island residents needing to attend the emergency department compared to 2002 levels.

http://www.gov.ns.ca/heal/ehs/Medical_Director/Community%20Paramedicine%20Article.pdf

As well, EMS can become involved in community health monitoring and in providing care closer to home through home care visits and treatments. EMS is well-placed to undertake many types of home visits on behalf of general practitioners or community health nurses.

Health Promotion and Education

Additionally, EMS should assume expanded responsibility for proactive health promotion. Paramedics should seize opportunities to work in conjunction with other primary care providers. They can provide advice on self-care, injury prevention, and social services for frequent users of EMS, such as asthmatics and diabetics.^{xlii} Where

appropriate, EMS can contribute to public education and injury prevention initiatives in partnership with fire and police, and organizations like ACT.

For example, an important public education emergency medical initiative is CPR training for the public. When a bystander, who is often the first on the scene of a cardiac arrest, performs CPR, the victim's chance of surviving a sudden cardiac arrest is significantly enhanced.^{xlii} Currently, the Advanced Coronary Treatment (ACT) Foundation of Canada is working to establish CPR training programs in high schools.^{xliii} Education initiatives by EMS personnel could empower regular Canadians to save lives and increase the effectiveness of EMS.

Seniors are EMS' most high-risk and frequently served demographic. Ambulance use after the age of 65 dramatically increases and much of it could be prevented.^{xliv} However, initiatives that teach seniors how to accident-proof their homes are infrequently utilized. This puts EMS in the position of being reactive instead of proactive in preventing injuries through health and safety promotion. Promotion to seniors will become increasingly important as Canada's population ages and the baby boomers dramatically increase the number of seniors using EMS.

Opportunities for EMS to change and adapt to Canada's changing demographic profile should be pursued so EMS can have the strategic tools and pathways necessary to prepare its service and services providers for the demands of this new tomorrow.

Emergency Preparedness

EMS has the potential to take on expanded roles and responsibilities in emergency preparedness. EMS can assist governments tasked with emergency management in preparation and planning. EMS is a ready and mobile task force in the case of a natural disaster such as a hurricane or an emergency such as an epidemic or terrorist attack. EMS, among the first responders to any public emergency, can also leverage that position to facilitate trend reporting to recognize phenomena such as pandemics, faulty equipment/vehicles, upswings in illness prevalence, etc.



Our status within the public safety role is something that continues to grow every year. Although we need to continue to grow and push the limits as healthcare practitioners, our role on the front lines with things such as man made/natural disasters, rescues, terrorism, emergency calls, etc. requires that we enhance our public safety role as well.

EMSCC Online Survey Respondent, Spring 2006



Key Public Policy Point 11: EMS leaders should pursue opportunities to provide enhanced types and levels of health care including public health and safety education, emergency response preparedness, disaster management, and pandemic response capability in order to respond to community-defined scopes of practice.



Actions for EMS Leaders

4.0 A Call to Leadership: Actions for EMS Leaders

The following outlines the key public policy recommendations described in this report and the actions EMS leadership can take in response to those recommendations. The EMSCC invites EMS leaders to explore these recommendations and suggested actions as we seek to connect with our communities in our new strategic context.

For a summary of Key Points against actions for both EMS leaders and public policy makers, see Appendix D.

4.1 Clear Core Identity

Key Public Policy Point 1: A systems approach will allow scarce public resources to be used more effectively and efficiently. A new public policy direction to ensure EMS is part of a “system” of health and public safety is required.

EMS Leadership Actions

- Collaborate with health care system stakeholders to develop a coordinated response for health emergency management and leadership.
- Move toward a mobile health care model built on the delivery of proactive public health and safety initiatives, emergency health management, and emergency response coordination as needed within the community.

Key Public Policy Point 2: Evolving the role of EMS in health care will require the inclusion of EMS leaders in the governance of health care systems.

EMS Leadership Actions

- Pursue opportunities to work collaboratively with other medical and health care professions, other emergency agencies (fire, police departments), public safety organizations, and regulatory bodies.

Key Public Policy Point 3: EMS leaders must become far more innovative in pursuing strategic partnerships with other bodies.

EMS Leadership Actions

- Explore opportunities to develop and strengthen strategic partnerships with health agencies, social agencies, emergency response organizations, and other important community organizations and businesses.
- Take actions to raise the public profile of EMS.

4.2 Stable Funding

Key Public Policy Point 4: Funding methods should:

- Enable paramedics to effectively meet the current and future clinical needs of patients and their communities.
- Reflect the actual cost of service delivery.
- Recognize the costs to EMS systems of “being prepared,” allowing EMS to proactively respond to a community’s needs.
- Recognize the population density and geography of each community served by an EMS system.
- Be stable, predictable, and sustainable to allow for optimized planning and enhanced innovation.
- Require EMS systems to publicly account for their use of public funds.

EMS Leadership Actions

- Work with policy makers to help devise new ways of funding EMS based on care provided by EMS personnel.
- Coordinate with policy makers to determine each EMS’ service delivery area’s needs.
- Prepare accountable and transparent budgets and bills for service provided.

4.3 Systematic Improvement

Key Public Policy Point 5: A new systems approach is required to achieve the future state of EMS. This new approach will support continual, systematic improvement. Required for systematic improvement are:

- The development of comprehensive performance measures for EMS.
- Enhanced data collection and research capabilities.
- Paramedicine research and evaluation.
- Continual improvement and development of emergency care protocols and clinical pathways.

EMS Leadership Actions

- Agree on a national consensus from EMS leaders and Medical Directors about comprehensive and inclusive performance measures.
- Establish comprehensive best-practice protocols, standard operating procedures, and benchmarks for patient care delivery and new realities (homeland security, pandemic response, etc.).
- Standardize reporting mechanisms and establish national benchmarks that differentiate between remote, rural, and urban.
- Drive and influence policy with regard to national EMS research coordination.
- Discuss and agree on a national process for rigorous data collection, including the identification of key data areas.
- Design, manage, and formalize the tasks and roles of a national EMS Institute.
- Actively pursue collaborative research partnerships.
- From a clinical and operational perspective, improve sharing of research and best practices to foster knowledge transfer between EMS units.
- Conduct EMS research on clinical patient outcomes in conjunction with EMS medical leadership and academic and community health science facilities.
- Conduct research that evaluates EMS and its role in public health, safety and prevention, emergency response, etc.
- Begin trend reporting based on the role of the first on the scene responder.

Key Public Policy Point 6: EMS systems should demonstrate high accountability and transparency for quality EMS through:

- Public reporting.
- The development of a Canadian accreditation system.

EMS Leadership Actions

- Provide reporting based on established standards and benchmarks.
- Develop an accreditation system for EMS providers.

4.4 Personnel Development

Key Public Policy Point 7: The training of the “paramedic of the future”:

- Training and education to give paramedics the competencies required to meet “community-defined” scopes of practice.
- A layered system of education that promotes transferability of EMS credentials. Previously completed EMS training and credentials should be recognized by related technical and degree programs.

EMS Leadership Actions

- Work with education programs to ensure appropriate and practical curricula are maintained to support EMS practitioners and future health care management.

Key Public Policy Point 8: All provinces and territories should endorse and adopt the Paramedic Association of Canada National Occupational Competency Profile, enabling consistency in training and education approaches, a higher standard of training and education, and national credential portability.

EMS Leadership Actions

- Devise and implement a standard national certification exam.
- Standardize education programs and credentialing requirements across the country.
- Establish a national registry for EMS personnel.

4.5 Leadership Support

Key Public Policy Point 9: EMS leadership capacity needs to be supported.

- Flexible career pathways must be created to ensure the continued development of leadership capacity in EMS.
- Investment in leadership development will be key to building the capacity to lead the strategic evolution of EMS.

EMS Leadership Actions

- Provide a supportive environment for EMS personnel by ensuring compensation, benefits, health and safety, and employment standards are met or exceeded.
- Adapt human resource planning initiatives (recruitment, retention, career counseling, and career development) to meet corresponding community-defined needs.
- Enhance and expand internal training programs and secondment/exchange opportunities to maximize growth and learning.
- Develop an EMS management training program.
- Collaborate with educational institutes to develop a greater breadth and depth of graduate programs in EMS leadership and management
- Develop our leadership capacity, develop effective relationships with policy makers, and promote the EMS identity.

4.6 Mobilized Health Care

Key Public Policy Point 10: While maintaining core service excellence, EMS must pursue innovation and new models of service delivery to meet community-defined needs. Collaboration of EMS and community organizations such as primary health care providers, social service agencies, and public safety groups will enable innovative initiatives that have the potential to improve the level of health care within a community.

EMS Leadership Actions

- Pursue innovation and new models of service delivery.
- Collaborate with other community and health care organizations on innovative initiatives.

Key Public Policy Point 11: EMS leaders should pursue opportunities to provide enhanced types and levels of health care including public health and safety education, emergency response preparedness, disaster management, and pandemic response capability in order to respond to community-defined scopes of practice.

EMS Leadership Actions

- Actively pursue collaborative relationships with stakeholders in areas such as public safety, emergency management, pandemic response, social services, and mental health services.
- Increase EMS' role and capacity in emergency management.



Actions for Policy Makers

5.0 Supporting the Vision: Actions for Public Policy Makers

In order to achieve the redefined and expanded role within the Canadian health care system, EMS will require public policy support. The following provides a summary of the policy framework necessary for supporting and enabling the continued progress and development of EMS in Canada. Against each key point are the actions public policy makers can take.

For a summary of Key Points against actions for both EMS leaders and public policy makers, see Appendix D.

5.1 Clear Core Identity

Key Public Policy Point 1: A systems approach will allow scarce public resources to be used more effectively and efficiently. A new public policy direction to ensure EMS is part of a “system” of health and public safety is required.

Public Policy Maker Actions

- Consult, include, and involve EMS in all health care initiatives to allow EMS to become recognized as a key partner in overall health care management.
- Support joint leadership between Medical Directors and EMS.

Key Public Policy Point 2: Evolving the role of EMS in health care will require the inclusion of EMS leaders in the governance of health care systems.

Public Policy Maker Actions

- Pursue initiatives that encourage collaboration between medical and health care professions, first responder agencies, emergency agencies, public safety organizations, regulatory bodies, and the EMS leadership.

Key Public Policy Point 3: EMS leaders must become far more innovative in pursuing strategic partnerships with other bodies.

Public Policy Maker Actions

- Financially support strategic partnerships between EMS leaders and other bodies.

5.2 Stable Funding

Key Public Policy Point 4: Funding methods should:

- Enable paramedics to effectively meet the current and future clinical needs of patients and their communities.
- Reflect the actual cost of service delivery.
- Recognize the costs to EMS systems of “being prepared,” allowing EMS to proactively respond to a community’s needs.
- Recognize the population density and geography of each community served by an EMS system.
- Be stable, predictable, and sustainable to allow for optimized planning and enhanced innovation.
- Require EMS systems to publicly account for their use of public funds.

Public Policy Maker Actions

- Develop a new preparedness model for funding EMS based on the dependent variables such as population density, geography, utilisation, and quality standards.
- Innovate new ways of funding EMS based on care provided by EMS personnel. Create a funding system with positive incentives for the health care system that offers a range of transport and treatment options.
- Mitigate increases to overall health care costs by investing in proactive value-added EMS health care management initiatives.

5.3 Systematic Improvement

Key Public Policy Point 5: A new systems approach is required to achieve the future state of EMS. This new approach will support continual, systematic improvement. Required for systematic improvement are:

- The development of comprehensive performance measures for EMS.
- Enhanced data collection and research capabilities.
- Paramedicine research and evaluation.
- Continual improvement and development of emergency care protocols and clinical pathways.

Public Policy Maker Actions

- Enable national data-sharing capability between EMS providers and between EMS providers and other health care organizations.
- Support widespread technological improvement and innovation.
- Support, encourage, and fund the development of a national EMS institute to:
 - Coordinate EMS data collection and research.
 - Operate a national data repository.
 - Provide benchmarks and national standards.
 - Coordinate errors reporting and trend reporting.
 - Develop a Canadian accreditation model.

Key Public Policy Point 6: EMS systems should demonstrate high accountability and transparency for quality EMS through:

- Public reporting.
- The development of a Canadian accreditation system.

Public Policy Maker Actions

- Support the development of a Canadian system of accreditation that recognizes and promotes excellence in EMS.
- Enforce existing legislation and develop performance standards in private sector contracts.

5.4 Personnel Development

Key Public Policy Point 7: The training of the “paramedic of the future”:

- Training and education to give paramedics the competencies required to meet “community-defined” scopes of practice.
- A layered system of education that promotes transferability of EMS credentials. Previously completed EMS training and credentials should be recognized by related technical and degree programs.

Public Policy Maker Actions

- Support development of EMS medical specialization/expertise as a discipline within Emergency Medicine.

Key Public Policy Point 8: All provinces and territories should endorse and adopt the Paramedic Association of Canada National Occupational Competency Profile, enabling consistency in training and education approaches, a higher standard of training and education, and national credential portability.

Public Policy Maker Actions

- Recognize the NOCP.
- Recognize NOCP equivalencies in legislation to minimize practice entry barriers.
- Support the periodic cyclical review of the NOCP guidelines to ensure currency and relevancy.
- Standardize education programs and credentials across the country.

5.5 Leadership Support

Key Public Policy Point 9: EMS leadership capacity needs to be supported.

- Flexible career pathways must be created to ensure the continued development of leadership capacity in EMS.
- Investment in leadership development will be key to building the capacity to lead the strategic evolution of EMS.

Public Policy Maker Actions

- Create portability and employee exchange or secondment opportunities across systems.
- Support focused secondment opportunities for development, growth, and learning.

5.6 Mobilized Health Care

Key Public Policy Point 10: While maintaining core service excellence, EMS must pursue innovation and new models of service delivery to meet community-defined needs. Collaboration of EMS and community organizations such as primary health care providers, social service agencies, and public safety groups will enable innovative initiatives that have the potential to improve the level of health care within a community.

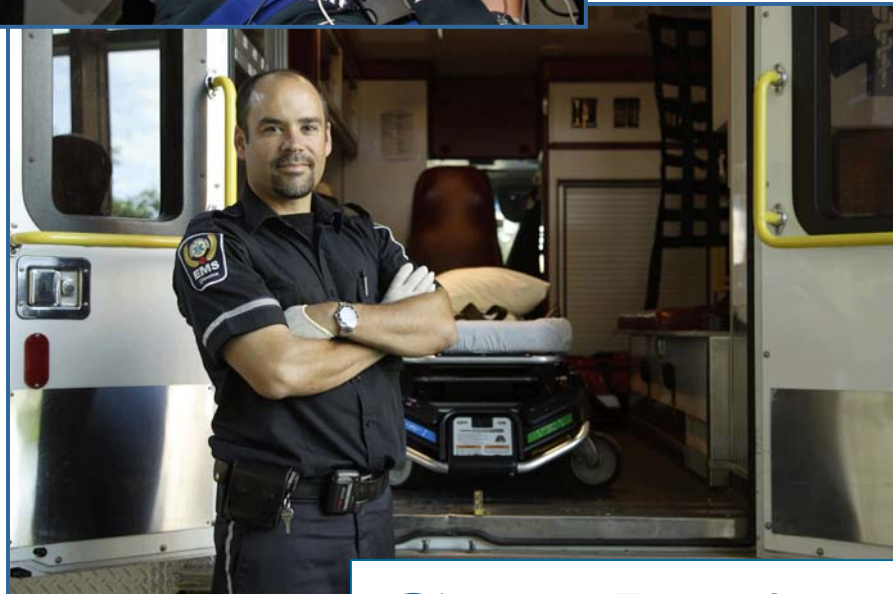
Public Policy Maker Actions

- Support efforts to optimize EMS' contribution to both health care and public safety.

Key Public Policy Point 11: EMS leaders should pursue opportunities to provide enhanced types and levels of health care including public health safety and education, emergency response preparedness, disaster management, and pandemic response capability in order to respond to community-defined scopes of practice.

Public Policy Maker Actions

- Support communities as they define EMS' scope of practice through legislative change.
- Encourage development of an open and receptive health care system where all partners, including EMS, contribute to and shape the future of health care in Canada.



Conclusion

6.0 Conclusion



EMS systems are bending—and in some cases breaking—under the strain of rising costs, reduced subsidies and increasing service expectations. The quest to improve performance while achieving savings usually involves complex financial, political, and medical issues, and the scientific evidence to help guide the process is often scant.

*Jay Fitch, Ph.D
IQ Report, Volume 37, Number 5*

This quotation captures the essence of the complex operating environment and strategic challenges facing EMS in Canada. This strategy document simplifies, outlines, and brings clarity to the future goals and strategic direction of EMS. The EMSCC hopes this document can be used as the basis for devising an action plan to achieve the future vision of EMS.

“EMSCC believes that the future of EMS in Canada is at the centre of community, providing health care in a mobile setting.” These words summarize that complex but critically important vision that EMS leaders across the country believe in. In areas such as emergency medical response, community health, emergency preparedness, injury prevention and control, training and research, and public education, EMS can serve the needs of its local communities. The magnitude of the journey ahead will require tremendous leadership, from both public policy makers and from EMS leaders. Together, we can help EMS become a mobile health care delivery service, fully integrated with and recognized by other health care organizations, and driven by the specific needs of the communities in which EMS operates.



Appendix A: EMS Leadership Interviews

Selected leaders in the EMS field were interviewed in the development of the future state vision outlined in this document:

Name	Title and Organization
Steve Rapanos	Past President, EMSCC / DSMUC and Chief, City of Edmonton Emergency Medical Services
Tom Sampson	President, EMSCC / DSMUC and Chief, City of Calgary EMS
Ken Luciak	Treasurer, EMSCC / DSMUC and Director, Emergency Medical Services, Regina Qu'Appelle Health Region
Fred Plateel	Director, EMSCC / DSMUC and Chief Executive Officer, BC Ambulance Service
Dave Dutchak	Director, EMSCC / DSMUC and President and Chief Executive Officer, M.D. Ambulance Care Ltd., Saskatoon
Anthony DiMonte	Director, EMSCC / DSMUC and Chief, Ottawa Paramedic Service
Bruce Farr	Director, EMSCC / DSMUC and Chief, Toronto Emergency Medical Services
Don Hunt	Director, EMSCC / DSMUC and Director, Regional Ground Ambulance, Emergency Services and Ambulatory Care, Peace Country Health
Michael McKeage	Director, EMSCC / DSMUC and Director of Operations, Emergency Medical Care Inc., Nova Scotia
Wes Shoemaker	Director, EMSCC / DSMUC and Chief, Fire and Paramedic, City of Winnipeg
Howard Snodgrass	Director, EMSCC / DSMUC and Regional Manager, Emergency Medical Services, Palliser Health Region
Brad Meekin	Director, EMSCC / DSMUC and General Manager, York Region Emergency Medical Services
Richard Armstrong	Director, EMSCC / DSMUC and Director, Durham Region Emergency Medical Services
Michael Nolan	Director, EMSCC / DSMUC and Chief, Paramedic Service / Director, Emergency Services, County of Renfrew
Michael Sanderson	Regional Director, BC Ambulance Service
Darlene Bouwsema	No organizational affiliation currently
Marilyn Pike	Senior Director, Emergency Health Services, Government of Nova Scotia
Rosalind Smith	Special Advisor to the Assistant Deputy Minister, Acute Care, Government of Ontario
Dr. Joseph J. Fitch, PhD	President, Fitch and Associates

The responses received from these EMS leaders may not necessarily reflect those of their home organizations.

The following interview protocol was used to interview selected leaders in the EMS field in the development of the future state vision outlined in this document.

Current Role

- What is your history with EMS? What is your current role?

Vision for EMS

- What is your vision of EMS in the year 2020? What is required to achieve this vision?
- What is the gap between the current state of EMS and your future vision for EMS?
- Given the future state vision for EMS, what should the future 'star of life' look like?

Demographics

- In light of the aging of Canada's population, what differences or changes do you envision for EMS in 2020? What challenges will exist for EMS?
- What key changes in EMS, EMS' role in health care, and health care overall will be necessary to prepare for this increase in demand?

Public Policy and Funding

- Given your vision for EMS in 2020, what future public policy framework should exist to support Canadian EMS? Funding model?
- In order to achieve this vision, what two to three key changes about existing ambulance policy and funding structures need to be made?

Medical Oversight and Integration with Health Care

- What is the role of medical oversight and direction in your vision for EMS?
- What role would you like to see EMS play in health care emergency medicine in 2020? Public safety?
- Given this vision, what two to three key changes will make this role possible?

Quality, Standards, and Accreditation

- What, if any, national standards for levels of care do you think EMS systems should adopt by 2020? How should EMS jurisdictions be held accountable to that standard of care?
- In 2020, how should the quality of EMS care be evaluated?
- Given your vision concerning the level of care provided by Canadian EMS, what two to three changes would make this possible?

EMS as a Profession

- From your vantage point, what should the vision for EMS as a profession be by 2020? What does this mean for EMS personnel in terms of training, compensation, professional challenges and risks, organizational structure, etc.?
- In your vision for EMS in 2020, what level of public awareness should EMS have and how is this awareness achieved? What education does the public have about EMS and emergency prevention and preparedness?
- How can these be achieved? What key changes will make this possible?

Closing

- Do you have any further thoughts, observations, or suggestions you would like to share with us today?

Appendix B: Online Survey Respondents

Selected EMS leaders and stakeholders were invited to respond to an online survey in the development of the future state vision outlined in this document:

Name	Title and Organization
Joe Acker	Deputy Chief, Edmonton EMS
Dr. Andrew Affleck	Base Hospital Medical Director, Region 6 Ontario
Donna Allain	SERHA Ambulance
John Ash	Manager, City of Ottawa Emergency Management
Dale Backlin	Chair, Saskatchewan College of Paramedics
Corey Banks	EMS, Division Manager, Eastern Health, St. John's, Newfoundland
Dennis Brown	Senior Manager, Emergency Health Services Branch, Ontario Ministry of Health and Long-Term Care
Jim Brown	President, Paramedic Association of New Brunswick
Ed Cain	EHS Nova Scotia
Hal Canham	Medical Director Palliser Health Region
Brian Cole	Director, St. John Ambulance Community Services
Carmen D'Angelo	Manager of Emergency Services, County of Oxford
Dr. Kristian Davis	Renfrew Victoria Hospital
Dennis Desjardins	EMT-1 Grand Falls Ambulance Service
Steve Donaldson	Deputy Chief, Calgary EMS
Margaret Dukes	Associate Director, Accreditation, Canadian Medical Association
Peter F. Dundas	Director, Ambulance and Emergency Programs, Peel Regional Paramedic Services
Andrew Easton	Paramedic, Victoria Health Centre, Fredericton, New Brunswick
Mike Eddy	President, Canadian Association of Fire Chiefs
Brian Feist	Superintendent, Edmonton EMS
Eric Glass	Chairman, Paramedic Association of Manitoba
Yves Goudreau	Director of EMS
Barb Goulet	Superintendent, Edmonton EMS
Edgar Goulette	Mobile Health Services Quality Agency (MHSQA)
Steve Hanley	Manager, Air and Dispatch Services, Province of New Brunswick

Name	Title and Organization
Chris Harris	President, Paramedic Association of Newfoundland and Labrador
Richard Hildebrand	Lethbridge Fire and Emergency Services
Chris Hood	Executive Director, Paramedic Association of New Brunswick
Tom Jahelka	President, Alberta College of Paramedics
Brian Johnson AEMCA ACP EMT-P	Director, Ontario Paramedic Association
Jim Kashman	Deputy Fire Chief, City of St. Albert Fire Service
Joe Kowal	Manager Communications, Winnipeg Fire Paramedic Service
Bryon Longeway	President, Paramedic Association of Canada
Maureen MacDonald	Manager of Health, Safety and Emergency Programs, NAIT
Bruce McAlear	Operations Superintendent, Edmonton EMS
Ian McClelland	Duty Officer, Toronto EMS
Justin Maloney	Medical Director, Ottawa Base Hospital Program
Libby Maskos	Quality, Development and Research Supervisor, Atlantic Health Sciences Corporation, Emergency Medical Services
Trevor Maslyk	Superintendent, Edmonton EMS
Brad Mason	Director, Taber Emergency Services
David Morhart	Deputy Minister of Public Safety, Province of British Columbia
Paul Morneau	Paramedic Association of Canada
Ernie Mothus	Ambulance Paramedics of B.C.
Joe Nicholls	EMS Chief, Greater Sudbury EMS
Jim Nicholson	Deputy Chief, Calgary EMS
Craig O'Callaghan	Superintendent, Edmonton EMS
Kevin O'Keefe	Superintendent, Edmonton EMS
Robert Patrick	Retired Paramedic
Pierre Poirier	Executive Director, Paramedic Association of Canada
John Prno	Director, Region of Waterloo EMS
Thomas Raithby	Consultant, Mobile Health Services Quality Agency (MHSQA)
Grant Ross	ACP Paramedic, British Columbia Ambulance Service (BCAS)
Brian Schwartz	Director, Sunnybrook Osler Centre for Prehospital Care
Rick Stanger	Deputy Chief, Calgary EMS
Darren Sandbeck	Executive Director, Foothills Regional EMS
Rob Sharman	Operations Superintendent, City of Edmonton - EMS

Name	Title and Organization
Rick Trombley	Ontario Paramedic Association
Diane Verreault	Paramedic Association of Quebec
J. Albert Walker	Chair, Canadian EHS Research Consortium
Karen Wanger	Regional Medical Director, BC Ambulance Service
Ian Watson	Region Manager, Atlantic Health Sciences Corporation Regional EMS
Tara Watson	Manager, Northern Carleton Ambulance, NB. Secretary-Treasurer, PAC
Dr. Michelle Welsford	Medical Director, Hamilton Health Sciences Base Hospital Program
Stu Williams	Superintendent, Edmonton EMS
Government of Canada	Public Safety and Emergency Preparedness Canada





Appendix C: Spring 2006 EMSCC Online Survey

The following questions were posed in the online survey prepared by EMSCC for selected leaders in EMS, government, and professional bodies in Spring 2006:

4. The Nature of EMS in the Future

1. 1) In Canada, EMS has traditionally played a service delivery role in both public safety and health care. Some believe that EMS should continue to be a part of both areas. Recognizing that there are varying degrees of integration with health care across the country, there may be a general opportunity across Canada for EMS to play an enhanced role in health care.

EMS should enhance its linkage with the health care system.

		Response Percent	Response Total
Strongly Agree		77.8%	49
Somewhat Agree		19%	12
Neutral		1.6%	1
Somewhat Disagree		1.6%	1
Strongly Disagree		0%	0
Total Respondents			63
(skipped this question)			2






2. Comments: (optional)

View Total Respondents	20
(skipped this question)	45

5. The Nature of EMS in the Future

1. 2) The identity of EMS is often defined by others, such as emergency systems, public safety systems, fire systems, and hospital systems. In the future, EMS should define its own identity.

EMS should define and embrace a clear core identity.

		Response Percent	Response Total
Strongly Agree		71.4%	45
Somewhat Agree		19%	12
Neutral		4.8%	3
Somewhat Disagree		3.2%	2
Strongly Disagree		1.6%	1
Total Respondents			63
(skipped this question)			2





2. Comments: (optional)

View Total Respondents	25
(skipped this question)	40

6. The Nature of EMS in the Future

1. 3) Rising health care costs is a major concern of Canadians, elected officials, and health care administrators. There is an opportunity for the EMS of the future to make a significant contribution to a) mitigate health care cost increases and b) enhancing health services to Canadians.

EMS should play an enhanced role in improving health services in Canada.

		Response Percent	Response Total
Strongly Agree		76.2%	48
Somewhat Agree		19%	12
Neutral		3.2%	2
Somewhat Disagree		0%	0
Strongly Disagree		1.6%	1
Total Respondents			63
(skipped this question)			2






2. Comments: (optional)

View Total Respondents	23
(skipped this question)	42

7. Scope of Practice

1. 4) Traditional EMS services include pre-hospital care, inter-facility transfers, and response to public safety emergencies. The current scope of practice enables systems to provide these traditional services.

EMS should continue to provide these traditional services.

		Response Percent	Response Total
Strongly Agree		47.6%	30
Somewhat Agree		36.5%	23
Neutral		3.2%	2
Somewhat Disagree		9.5%	6
Strongly Disagree		3.2%	2
Total Respondents			63
(skipped this question)			2





2. Comments: (optional)

View	Total Respondents	24
(skipped this question)		41

8. Scope of Practice

1. 5) There is an opportunity for the EMS of the future to offer mobile health services in the area of primary health care. Examples include home care, public health, immunization programs, and injury prevention services. EMS will also act in an enhanced triage capacity, directing patients to the appropriate points of entry into the health care system, not just the Emergency Department. These primary health care services will require an expanded scope of practice in order to meet the need.

EMSCC should actively support an expanded scope of practice in order for EMS to offer new health services as part of primary health care.

		Response Percent	Response Total
Strongly Agree		82.3%	51
Somewhat Agree		9.7%	6
Neutral		3.2%	2
Somewhat Disagree		4.8%	3
Strongly Disagree		0%	0
Total Respondents			62
(skipped this question)			3





2. Comments: (optional)

View	Total Respondents	29
(skipped this question)		36

9. Education and Training

1. 6) Significant work has been completed by the Paramedics Association of Canada in developing the National Occupancy Competencies Profiles. EMS training and education programs, however, still vary widely across Canada in terms of entrance standards, length and curriculum focus areas. There may be an opportunity in the future for EMS training and education programs to be consistent in their approach and to enable the expanded scope of practice discussed in the previous question.

Training and education should be enhanced and consistent on a national basis.

		Response Percent	Response Total
Strongly Agree		75.8%	47
Somewhat Agree		19.4%	12
Neutral		3.2%	2
Somewhat Disagree		1.6%	1
Strongly Disagree		0%	0
Total Respondents			62
(skipped this question)			3




2. Comments: (optional)

View Total Respondents	24
(skipped this question)	41

10. Education and Training

1. 7) Recognition of credentials and processes for licensing vary widely across the provinces, and even within provinces. In the future, a national registry for credentials should be created and maintained, in order to allow paramedics to move across jurisdictions, and to give EMS systems the legal ability to receive assistance from paramedics from neighbouring jurisdictions in times of large scale emergencies.

There should be national credential portability.

		Response Percent	Response Total
Strongly Agree		80.6%	50
Somewhat Agree		17.7%	11
Neutral		1.6%	1
Somewhat Disagree		0%	0
Strongly Disagree		0%	0
Total Respondents			62
(skipped this question)			3






2. Comments: (optional)

View	Total Respondents	15
(skipped this question)		50

11. Strengthening EMS Operations

1. 8) While a variety of funding models exist across the country, funding mechanisms currently reward EMS systems for service volumes. For example, some EMS systems have a financial incentive to transport patients to acute facilities, when treating and referring the patient on scene would have been clinically sufficient. There is an opportunity in the future for EMS to be funded in a manner which ensures that "EMS provides the right service to the right patient at the right time."

Funding mechanisms should be modified to ensure that EMS has the financial incentive to "provide the right service to the right patient at the right time."




		Response Percent	Response Total
Strongly Agree		83.9%	52
Somewhat Agree		9.7%	6
Neutral		3.2%	2
Somewhat Disagree		1.6%	1
Strongly Disagree		1.6%	1
Total Respondents			62
(skipped this question)			3

2. Comments: (optional)




View	Total Respondents	16
(skipped this question)		49




12. Demonstrating Accountability for High Quality EMS Services





1. a) *Comparative benchmarking and reporting mechanisms.* Examples include common terminology and methods for data capture.

		Response Percent	Response Total
Strongly Agree		80.6%	50
Somewhat Agree		17.7%	11
Neutral		1.6%	1
Somewhat Disagree		0%	0
Strongly Disagree		0%	0
Total Respondents			62
(skipped this question)			3

2. b) *Enhanced para-medicine research and evaluation.* Examples include national data collection, emergency medicine research and errors reporting/prevention.

		Response Percent	Response Total
Strongly Agree		82.3%	51
Somewhat Agree		14.5%	9
Neutral		3.2%	2
Somewhat Disagree		0%	0
Strongly Disagree		0%	0
Total Respondents			62
(skipped this question)			3




3. c) A Canadian accreditation regime for EMS systems.			
		Response Percent	Response Total
Strongly Agree		80.6%	50
Somewhat Agree		17.7%	11
Neutral		1.6%	1
Somewhat Disagree		0%	0
Strongly Disagree		0%	0
Total Respondents			62
(skipped this question)			3

13. Promoting and Advancing EMS as a Profession			
1. 10a) One component of advancing EMS will be the development of strategic partnerships and linkages with other professional bodies. These partnerships and linkages may assist in strengthening the professional development and growth of EMS.			
<i>EMSCC / DMSUC should pursue the development of effective partnerships and linkages with other professional bodies.</i>			
		Response Percent	Response Total
Strongly Agree		64.4%	38
Somewhat Agree		20.3%	12
Neutral		11.9%	7
Somewhat Disagree		3.4%	2
Strongly Disagree		0%	0
Total Respondents			59
(skipped this question)			6

14. Enhancing EMS Leadership Capacity

1. 11) In recent years, EMS leadership and management programs have been initiated in pursuit of building EMS leadership capacity. There is an opportunity in the future to expand the accessibility of these programs nation-wide.

Credentialed EMS leadership and management programs should be developed and available across the country.

		Response Percent	Response Total
Strongly Agree		70.5%	43
Somewhat Agree		26.2%	16
Neutral		3.3%	2
Somewhat Disagree		0%	0
Strongly Disagree		0%	0
Total Respondents			61
(skipped this question)			4

Appendix D: Summary of Key Points and Actions

Clear Core Identity

Key Public Policy Points	EMS Leadership Actions	Public Policy Maker Actions
1. A systems approach will allow scarce public resources to be used more effectively and efficiently. A new public policy direction to ensure EMS is part of a “system” of health and public safety is required.	<ul style="list-style-type: none"> Collaborate with health care system stakeholders to develop a coordinated response for health emergency management and leadership. Move toward a mobile health care model built on the delivery of proactive public health and safety initiatives, emergency health management, and emergency response coordination as needed within the community. 	<ul style="list-style-type: none"> Consult, include, and involve EMS in all health care initiatives to allow EMS to become recognized as a key partner in overall health care management. Support joint leadership between Medical Directors and EMS.
2. Evolving the role of EMS in health care will require the inclusion of EMS leaders in the governance of health care systems.	Pursue opportunities to work collaboratively with other medical and health care professions, other emergency agencies (fire, police departments), public safety organizations, and regulatory bodies.	Pursue initiatives that encourage collaboration between medical and health care professions, first responder agencies, emergency agencies, public safety organizations, regulatory bodies, and the EMS leadership.
3. EMS leaders must become far more innovative in pursuing strategic partnerships with other bodies.	<ul style="list-style-type: none"> Explore opportunities to develop and strengthen strategic partnerships with health agencies, social agencies, emergency response organizations, and other important community organizations and businesses. Take actions to raise the public profile of EMS. 	<ul style="list-style-type: none"> Financially support strategic partnerships between EMS leaders and other bodies.

Stable Funding

Key Public Policy Points	EMS Leadership Actions	Public Policy Maker Actions
<p>4. Funding methods should:</p> <ul style="list-style-type: none"> ■ Enable paramedics to effectively meet the current and future clinical needs of patients and their communities. ■ Reflect the actual cost of service delivery. ■ Recognize the costs to EMS systems of “being prepared,” allowing EMS to proactively respond to a community’s needs. ■ Recognize the population density and geography of each community served by an EMS system. ■ Be stable, predictable, and sustainable to allow for optimized planning and enhanced innovation. ■ Require EMS systems to publicly account for their use of public funds. 	<ul style="list-style-type: none"> ■ Work with policy makers to help devise new ways of funding EMS based on care provided by EMS personnel. ■ Coordinate with policy makers to determine each EMS’ service delivery area’s needs. ■ Prepare accountable and transparent budgets and bills for service provided. 	<ul style="list-style-type: none"> ■ Develop a new preparedness model for funding EMS based on the dependent variables such as population density, geography, utilisation, and quality standards. ■ Innovate new ways of funding EMS based on care provided by EMS personnel. Create a funding system with positive incentives for the health care system that offers a range of transport and treatment options. ■ Mitigate increases to overall health care costs by investing in proactive value-added EMS health care management initiatives.

Systematic Improvement

Key Public Policy Points	EMS Leadership Actions	Public Policy Maker Actions
<p>5. A new systems approach is required to achieve the future state of EMS. This new approach will support continual, systematic improvement. Required for systematic improvement are:</p> <ul style="list-style-type: none"> ■ The development of comprehensive performance measures for EMS. ■ Enhanced data collection and research capabilities. ■ Paramedicine research and evaluation. ■ Continual improvement and development of emergency care protocols and clinical pathways. 	<ul style="list-style-type: none"> ■ Agree on a national consensus from EMS leaders and Medical Directors about comprehensive and inclusive performance measures. ■ Establish comprehensive best-practice protocols, standard operating procedures, and benchmarks for patient care delivery and new realities (homeland security, pandemic response, etc.). ■ Standardize reporting mechanisms and establish national benchmarks that differentiate between remote, rural, and urban. ■ Drive and influence policy with regard to national EMS research coordination. ■ Discuss and agree on a national process for rigorous data collection, including the identification of key data areas. ■ Design, manage, and formalize the tasks and roles of a national EMS Institute. ■ Actively pursue collaborative research partnerships. ■ From a clinical and operational perspective, improve sharing of research and best practices to foster knowledge transfer between EMS units. 	<ul style="list-style-type: none"> ■ Enable national data-sharing capability between EMS providers and between EMS providers and other health care organizations. ■ Support widespread technological improvement and innovation. ■ Support, encourage, and fund the development of a national EMS institute to: <ul style="list-style-type: none"> ■ Coordinate EMS data collection and research. ■ Operate a national data repository. ■ Provide benchmarks and national standards. ■ Coordinate errors reporting and trend reporting. ■ Develop a Canadian accreditation model.

Systematic Improvement (continued)

Key Public Policy Points	EMS Leadership Actions	Public Policy Maker Actions
	<ul style="list-style-type: none"> ■ Conduct EMS research on clinical patient outcomes in conjunction with EMS medical leadership and academic and community health science facilities. ■ Conduct research that evaluates EMS and its role in public health, safety and prevention, emergency response, etc. ■ Begin trend reporting based on the role of the first on the scene responder. 	
<p>6. EMS systems should demonstrate high accountability and transparency for quality EMS through:</p> <ul style="list-style-type: none"> ■ Public reporting. ■ The development of a Canadian accreditation system. 	<ul style="list-style-type: none"> ■ Provide reporting based on established standards and benchmarks. ■ Develop an accreditation system for EMS providers. 	<ul style="list-style-type: none"> ■ Support the development of a Canadian system of accreditation that recognizes and promotes excellence in EMS. ■ Enforce existing legislation and develop performance standards in private sector contracts.

Personnel Development

Key Public Policy Points	EMS Leadership Actions	Public Policy Maker Actions
<p>7. The training of the “paramedic of the future”:</p> <ul style="list-style-type: none"> ■ Training and education to give paramedics the competencies required to meet “community-defined” scopes of practice. ■ A layered system of education that promotes transferability of EMS credentials. Previously completed EMS training and credentials should be recognized by related technical and degree programs. 	<ul style="list-style-type: none"> ■ Work with education programs to ensure appropriate and practical curricula are maintained to support EMS practitioners and future health care management. 	<ul style="list-style-type: none"> ■ Support development of EMS medical specialization/expertise as a discipline within Emergency Medicine.
<p>8. All provinces and territories should endorse and adopt the Paramedic Association of Canada National Occupational Competency Profile, enabling consistency in training and education approaches, a higher standard of training and education, and national credential portability.</p>	<ul style="list-style-type: none"> ■ Devise and implement a standard national certification exam. ■ Standardize education programs and credentialing requirements across the country. ■ Establish a national registry for EMS personnel. 	<ul style="list-style-type: none"> ■ Recognize the NOCP. ■ Recognize NOCP equivalencies in legislation to minimize practice entry barriers. ■ Support the periodic cyclical review of the NOCP guidelines to ensure currency and relevancy. ■ Standardize education programs and credentials across the country.

Leadership Support

Key Public Policy Points	EMS Leadership Actions	Public Policy Maker Actions
<p>9. EMS leadership capacity needs to be supported</p> <ul style="list-style-type: none"> Flexible career pathways must be created to ensure the continued development of leadership capacity in EMS. Investment in leadership development will be key to building the capacity to lead the strategic evolution of EMS. 	<ul style="list-style-type: none"> Provide a supportive environment for EMS personnel by ensuring compensation, benefits, health and safety, and employment standards are met or exceeded. Adapt human resource planning initiatives (recruitment, retention, career counseling, and career development) to meet corresponding community-defined needs. Enhance and expand internal training programs and secondment/exchange opportunities to maximize growth and learning. Develop an EMS management training program. Collaborate with educational institutes to develop a greater breadth and depth of graduate programs in EMS leadership and management Develop our leadership capacity, develop effective relationships with policy makers, and promote the EMS identity. 	<ul style="list-style-type: none"> Create portability and employee exchange or secondment opportunities across systems. Support focused secondment opportunities for development, growth, and learning.

Mobilized Health Care

Key Public Policy Recommendations	EMS Leadership Actions	Public Policy Maker Actions
10. While maintaining core service excellence, EMS must pursue innovation and new models of service delivery to meet community-defined needs. Collaboration of EMS and community organizations such as primary health care providers, social service agencies, and public safety groups will enable innovative initiatives that have the potential to improve the level of health care within a community.	<ul style="list-style-type: none"> ■ Pursue innovation and new models of service delivery. ■ Collaborate with other community and health care organizations on innovative initiatives. 	<ul style="list-style-type: none"> ■ Support efforts to optimize EMS' contribution to both health care and public safety.
11. EMS leaders should pursue opportunities to provide enhanced types and levels of health care including public health and safety education, emergency response preparedness, disaster management, and pandemic response capability in order to respond to community-defined scopes of practice.	<ul style="list-style-type: none"> ■ Actively pursue collaborative relationships with stakeholders in areas such as public safety, emergency management, pandemic response, social services, and mental health services. ■ Increase EMS' role and capacity in emergency management. 	<ul style="list-style-type: none"> ■ Support communities as they define EMS' scope of practice through legislative change. ■ Encourage development of an open and receptive health care system where all partners, including EMS, contribute to and shape the future of health care in Canada.

Appendix E: End Notes

All referenced websites were accessed in August, 2006.

ⁱ Creating a Blueprint for the Future of Emergency Medical Services in Canada: A Submission to the Commission on the Future of Health Care in Canada. Emergency Medical Services Chiefs of Canada. June 2002, p.9

ⁱⁱ Rural Emergency Care: Submission to the Commission on the Future of Health Care of Canada. Canadian Association of Emergency Physicians. November 15, 2001 (revised December 13, 2001).

ⁱⁱⁱ Creating a Blueprint for the Future of Emergency Medical Services in Canada: A Submission to the Commission on the Future of Health Care in Canada. Emergency Medical Services Chiefs of Canada. June 2002, p.2

^{iv} Emergency Medical Services: Agenda for the Future. Message from the National Highway Traffic Safety Administration. 1996, p.33

^v Creating a Blueprint for the Future of Emergency Medical Services in Canada: A Submission to the Commission on the Future of Health Care in Canada. Emergency Medical Services Chiefs of Canada. June 2002, p.2

^{vi} <http://www.gov.ns.ca/health/downloads/speech.pdf>

^{vii} Commission on the Future of Health Care in Canada (Romanow Report), <http://www.hc-sc.gc.ca/english/care/romanow/index1.html>, p.9

^{viii} http://www.health.gov.sk.ca/ph_br_ae_emer_transp.html

http://www.health.gov.on.ca/english/public/program/ehs/ehs_mn.html

^{ix} http://www.health.gov.sk.ca/ph_br_ae_emer_transp.html

^x TkMC Independent Research

^{xi} Creating a Blueprint for the Future of Emergency Medical Services in Canada: A Submission to the Commission on the Future of Health Care in Canada. Emergency Medical Services Chiefs of Canada. June 2002, p.8

^{xii} TkMC Independent Research and Interviews

^{xiii} TkMC Independent Research

^{xiv} TkMC Independent Research

^{xv} TkMC Independent Research

^{xvi} Creating a Blueprint for the Future of Emergency Medical Services in Canada: A Submission to the Commission on the Future of Health Care in Canada. Emergency Medical Services Chiefs of Canada. June 2002, p.14-15

^{xvii} Creating a Blueprint for the Future of Emergency Medical Services in Canada: A Submission to the Commission on the Future of Health Care in Canada. Emergency Medical Services Chiefs of Canada. June 2002, p.20

^{xviii} Emergency Medical Services: Agenda for the Future. Message from the National Highway Traffic Safety Administration. 1996

^{xix} Creating a Blueprint for the Future of Emergency Medical Services in Canada: A Submission to the Commission on the Future of Health Care in Canada. Emergency Medical Services Chiefs of Canada. June 2002, p.1

^{xx} TkMC Independent Research and Interviews

^{xxi} <http://www.paramedic.ca/nocp>

^{xxii} Taking Health Care to the Patient: Transforming NHS Ambulance Services. Department of Health, United Kingdom, p.8

^{xxiii} Taking Health Care to the Patient: Transforming NHS Ambulance Services. Department of Health, United Kingdom, p.18

^{xxiv} Taking Health Care to the Patient: Transforming NHS Ambulance Services. Department of Health, United Kingdom, p.22

^{xxv} TkMC Independent Research and Interviews

^{xxvi} Taking Health Care to the Patient: Transforming NHS Ambulance Services. Department of Health, United Kingdom, p.33

^{xxvii} Taking Health Care to the Patient: Transforming NHS Ambulance Services. Department of Health, United Kingdom, p.33

^{xxviii} <http://foip.gov.ab.ca>

^{xxix} Taking Health Care to the Patient: Transforming NHS Ambulance Services. Department of Health, United Kingdom, p.13

^{xxx} Taking Health Care to the Patient: Transforming NHS Ambulance Services. Department of Health, United Kingdom, p. 8

^{xxxi} Taking Health Care to the Patient: Transforming NHS Ambulance Services. Department of Health, United Kingdom, p.43

^{xxxii} TkMC Independent Research and Interviews

^{xxxiii} Taking Health Care to the Patient: Transforming NHS Ambulance Services. Department of Health, United Kingdom, p.44

^{xxxiv} Taking Health Care to the Patient: Transforming NHS Ambulance Services. Department of Health, United Kingdom, p.46

^{xxxv} Creating a Blueprint for the Future of Emergency Medical Services in Canada: A Submission to the Commission on the Future of Health Care in Canada. Emergency Medical Services Chiefs of Canada. June 2002

^{xxxvi} Taking Health Care to the Patient: Transforming NHS Ambulance Services. Department of Health, United Kingdom, p.29

^{xxxvii} http://www.jibc.bc.ca/paramedic/programs/para_programs/itt.htm

^{xxxviii} http://www.jibc.bc.ca/paramedic/programs/para_programs/itt.htm

^{xxxix} <http://www2.news.gov.bc.ca/archive/2001-2005/2005HSER0029-000305.htm>

^{xl}

http://www.mhc.ab.ca/calendar/courses/default.html?pk_course_type=98&program_type=2

^{xli} Taking Health Care to the Patient: Transforming NHS Ambulance Services. Department of Health, United Kingdom, p.22

^{xlii} <http://www.usatoday.com/news/nation/ems-day1-cover.htm>

^{xliii} <http://www.actfoundation.ca/>

^{xliv} Planning for EMS in 2010, p.2