



# SASKATCHEWAN EMERGENCY MEDICAL SERVICES (EMS) REVIEW

**Final Report**
**October 2009**

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August 28, 2009

Honourable Don McMorris
Room 302, Legislative Building
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Minister McMorris:

**Re:  EMS Review Committee Report**

Undertaking a strategic review of a provincial system, especially one as complex as emergency medical services, requires a dedicated team of professionals with specific knowledge of the system and with the resolve to question the underlying assumptions and structures of that system.  I have been very pleased to Chair the Committee reviewing EMS in Saskatchewan and can unequivocally state the review committee members have exceeded their responsibilities in strategic thinking by uncovering and challenging the history and current state of EMS in Saskatchewan.  They have responded to stakeholders concerns and in this report, provide the Minister of Health with a high level blueprint for the creation of a provincially governed and locally operated system that respects the current strengths of EMS stakeholders while providing a vision that clearly requires a movement away from the status quo.

Change is never easy; it requires us all to set aside self-interest and easy solutions in order to deliver new processes and methods to serve our primary stakeholder – the patient. Our committee has drafted a compelling vision for change in the current approach to EMS in Saskatchewan.  It is a vision that guides our recommendations and hopefully will rally all system stakeholders to recognize that the future system must be different than the current model if we are to respond to, indeed stay in front of, the changing expectations of our communities and to take advantage of leading practices in mobile health services that have been, or are currently being, implemented throughout Canada and internationally.

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I would ask the general reader and EMS system stakeholders to be equally willing to challenge their current assumptions and views as we look to the future of mobile health in Saskatchewan.

Respectfully submitted on behalf of the EMS Review Committee,

Donald Cummings  MBA, FCMC

# Table of Contents

# Executive Summary

## Background to the EMS Review

### Context

In May of 2008, Health Minister Don McMorris announced a review of pre-hospital and inter-hospital EMS in Saskatchewan. The purpose was to create a strategic vision for EMS and provide prioritized recommendations for a five-year plan to achieve the strategic vision. The review and recommendations were to focus on changes to the EMS system that would ensure the provision of service to patients would be timely, of consistent quality, of acceptable and reasonable cost to patients and sustainable into the future.

### Objective and Process

The intent of the EMS Review was to examine how emergency medical health services are delivered in Saskatchewan. The types of services involved include road ambulance, EMS dispatch and First Responder services. The review was to focus on issues and challenges in the EMS system from the perspective of patients, EMS providers, and health system stakeholders. Recommendations from the EMS Review will help to form a long-term plan for improving Mobile Health Services and ensuring they are as effective, accessible and fair as possible.

In November 2008, the Minister of Health named Mr. Don Cummings as Chair of the EMS Review Committee. In addition to the Chair, the Review Committee consisted of 6 members: two senior leaders from regional health authorities, two members appointed by the Saskatchewan Emergency Medical Services Association (SEMSA), and two senior managers from the Ministry of Health. Saskatchewan Health provided research and analytical support for the project.

The work of the Committee included meetings and interviews conducted with a wide range of health system stakeholders. Key issues were defined and suggestions gathered for ways the EMS system could improve the patient experience in Saskatchewan. Aided by discussions with health regions and members of SEMSA, the Committee gathered vital input through written submissions from Saskatchewan stakeholders of EMS.

## Current Issues in EMS

During the EMS Review, Committee members deliberated on what issues appear to prevent the EMS system from delivering optimum patient care. Greater detail on the issues the group considered is presented in section 3 of this report. While seeking to overcome these barriers to more optimal patient care, the Committee sought broad strategic recommendations that addressed the issues raised in the Review. As a result, this document is not intended to offer narrow solutions to specific operational issues.

## Vision and Recommendations for the Future

In the course of this review, the Committee developed a vision for the future of EMS. The Committee also developed 19 high level recommendations that, when implemented, will see the planned development of the EMS system in Saskatchewan into a high-performance health service that will serve a broad range of patient care needs. The Committee also recommended that priority be given to 8 recommendations that would provide impetus for change within the existing system and enable a future system to develop.

The Committee's recommendations are grouped into three sections:

» Enabling design of a new system;

» Building infrastructure for the future system; and,

» Facilitating operational change supporting the future system.

A summary of the strategic vision for EMS and the recommendations are included as Appendix E attached to this report. The EMS Review Committee is pleased to present this report to the Minister and looks forward to the future of EMS in Saskatchewan.

# 1.0 Vision

## 1.1 Introduction to the Vision

When many people talk about emergency medical services (EMS) they tend to rely on popular culture portrayals of this medical service. These portrayals tend to emphasize the "emergency" aspect of the care. This often leads the public to associate EMS with the emergency response system and not the healthcare system. Unfortunately, this emphasis on emergency services tends to hide the valuable routine medical care that the men and women in EMS provide to the people of Saskatchewan.

Traditional definitions of EMS have focused on the provision of ground and air ambulance services. Though EMS is a willing partner to fire, police and other emergency service providers, the work involves the provision of medical services to patients within the health care system. The reality is that for the last number of years, the emergency aspect of EMS has not represented the majority of the care that these professionals have provided.

***"For the last number of years, the emergency aspect of EMS has not represented the majority of care that these professionals have provided."***

As we have reviewed the issues and opportunities in Saskatchewan, a new definition is now needed to better describe how EMS serves the public and patients in Saskatchewan, as well as to define a future state for this area of our provincial health system. An improved and visionary definition will help all partners in EMS know where we are going in Saskatchewan. This new definition will also require new terminology.

The term "Mobile Health Services" is a definition that seeks to create a new vision for EMS in Saskatchewan. Mobile Health Services or MHS can be defined to include emergency and community health care provision, the transfer of patients within the health system, emergency preparedness, and care provider training. MHS may involve care providers working within the shared mandate of interdisciplinary health care teams, and providing a seamless transition for patients within the continuum of health care. Care provision may include: emergency response, critical care transfers, transfer of admitted patients between facilities to access specialty services, and primary care provision in the community including within the patient's home. MHS may also involve "treat and refer processes" in the future, in contrast to the historical practice of transporting all patients to hospitals. The hallmarks of the MHS system should include easy and seamless patient access, consistent standards, quality services, accountability and sustainability.

The move from Emergency Medical Services to Mobile Health Services is based on the need to improve patient services and make these services more accessible. It also constitutes a transition to a new identity for both service and care providers. This transition seeks to better reflect the broad array of services that MHS professionals can provide patients. Given the history of EMS as an

"emergency service", this evolution will likely require a significant "re-branding" of services so as to create a better understanding among the public and patients of the services that can be expected from MHS.

### Stakeholders and a New Identity for EMS

During the verbal and written stakeholder consultations, there was a general consensus that the development of the EMS system to a broader patient focused health delivery system is desirable. Many stakeholders identified a desire to see interdisciplinary cooperation in the delivery of a wider set of patient services through the EMS system.

A number of EMS services in Canada and the United Kingdom are considering or have already begun a transition to redevelop EMS into a broader health service. In Saskatchewan, some of the larger services have already begun the transition to this new identity. Examples of this are the introduction of EMS staff into acute care settings, the use of EMS staff to conduct Home Care tasks and the Health Bus in Saskatoon that utilizes EMS staff with Nurse Practitioners to deliver primary health care services to residents.

## 1.2 The Vision - Mobile Health Services

In beginning our work, the committee developed a vision statement to help provide a common frame of reference for the review. This vision statement described what committee members believe EMS should become.

### Vision Statement

> *Over the next five years, Emergency Medical Services (EMS) in Saskatchewan will develop into a Mobile Health Services system. This part of the healthcare system will provide patients with a seamless transition within the continuum of care. MHS will continue to provide strong emergency care services while providing opportunities for augmented, high quality patient care. The MHS system will be fully integrated within Saskatchewan's provincial health system.*

Health regions will continue to be responsible for operational oversight in the future. The Saskatchewan Ministry of Health will provide governance and policy leadership in support of a shared, future vision of mobile health services throughout the province that will include consistent standards, measures and monitoring of the system.

The Saskatchewan Patient First Review and other examinations of the healthcare system have indicated that lapses in the quality of care of a patient seem to be most evident during transitions of care. As an example, when a patient is transferred from an EMS provider to an emergency room, there have been situations where the transition of care has been difficult for a patient or involved

difficulties with the flow of information. The EMS Review Committee and other stakeholders have expressed a desire to see better integration of EMS into the healthcare system so as to create seamless care to patients as they receive services.

This new vision has been created with patients as the central focus, so that Mobile Health Services is part of a future system that provides patients with seamless care where quality and accessible service is assured.

## 1.3 Strategic Directions

A comprehensive strategy is required to achieve this vision. The desired attributes of the future EMS system for the province of Saskatchewan are described below, forming six strategic directions that will facilitate movement toward this vision.

***Accessibility*** - Accessible patient care is made available to all residents of Saskatchewan in an effective and timely manner; further barriers to accessibility such as cost do not prevent patients accessing the care they need. Response time standards will be established to ensure patient access.

***High Quality, Seamless Patient Care*** – As EMS currently exists; the care patients receive from EMS may not be effectively transitioned to the treating facility on transfer. Further, there is a great deal of variability in the services that patients receive. It is our vision that EMS will develop to become an integrated part of the healthcare system. As an integrated part of the system, EMS will provide seamless, consistent, high-quality care for patients transferred to or from care.

***Consistent standards*** – A consistent set of standards for mobile health services will be developed based on a clearly articulated provincial policy framework. This policy framework will be developed to articulate a minimum standard and quality of emergency response service that is achieved province wide. The provincial policy framework will align the mandates of the Ministry, health regions and health care organizations in EMS (i.e. non health region ambulance services) and include accountability standards monitored by the Ministry.

***Quality*** - We envision that EMS services will be delivered by well-trained providers, with appropriate medical supervision, well-maintained vehicles and equipment, and relevant technological supports in the areas of communications and dispatch. Quality indicators will be developed and used to promote quality improvement. We define quality as delivering the right service to the right patient at the right time, leading to the best possible outcome.
***Accountability*** - The Ministry, health regions and contracted agencies providing EMS must achieve specific quality and consistent standards and each stakeholder group will be held accountable if these standards are not met. Accountability will pertain to structures and processes within EMS that ensure quality and consistency is achieved. The Ministry will provide system leadership by building governance structures and reporting processes in pursuit of accountability. Ministry

leadership will ensure that relationships, roles and responsibility of its partners in EMS are widely understood within the governance structures. As well, operational, administrative and financial reporting processes will be developed so that achievement of quality and consistent standards can be measured.

***Sustainability*** - Adequate resources, both human and financial, must be made available to EMS to provide accessible, high-quality, standardized patient care. Stewards of the EMS system must engage in a process that will ensure EMS is adequately and predictably resourced in the years to come. Sustainability will be ensured through links between system standards and financial requirements, and efforts to promote efficient service provision. (This includes efforts to limit public demand for service, such as alternatives to transporting all patients to hospitals each time that is requested). Sustainability may also be supported through Ministry-led efforts to revisit the methodology through which annual public funding is determined for EMS service providers.

Further, this plan must pay particular attention to the EMS human resource needs of the province both now and in the future.

These six strategic directions have informed the deliberations and discussions of the Review Committee. These goals and vision statement form the basis of our recommendations for the future of Mobile Health Services in Saskatchewan.

# 2.0 Introduction

## *2.1 Context for the Review*

In May of 2008, Health Minister Don McMorris announced a review of pre-hospital and inter-hospital EMS in Saskatchewan. The purpose was to create a strategic vision for EMS and provide prioritized recommendations for a five-year plan to achieve the strategic vision. The review and recommendations were to focus on changes to the EMS system that would ensure the provision of service to patients would be timely, of consistent quality, of acceptable and reasonable cost to patients and sustainable into the future.

Trends such as an aging population, a shortage of health care professionals, urbanization, and crowded emergency rooms have put pressure on the EMS system and have resulted in changing roles for many EMS professionals. These factors have resulted in pressures, challenges and opportunities for EMS. Currently, in Saskatchewan, EMS has not been fully integrated into the health care system. Further, there is tremendous variability in the types and timeliness of services that patients receive. This, along with the lack of a comprehensive vision of the future of EMS in the province, has hampered efforts to effectively respond to these challenges and opportunities.

Several jurisdictions across Canada are working hard to review and re-think the potential of mobile

care services in the context of community-based services aimed at the health and well being of citizens. Many stakeholders in EMS systems – patients, communities, EMS practitioners or other health providers – recognize the enormous potential of EMS in both traditional and non-traditional areas of mobile care. Direct EMS providers recognize that enhancing collaboration and integration with other providers is the most effective means of ensuring patients and communities receive the optimal level of care and service.

## 2.2 Objective and Process

### Objective

The intent of the EMS Review was to examine how emergency medical health services are delivered in Saskatchewan. The review focused on issues and challenges in the EMS system from the perspective of patients, EMS providers, and health system stakeholders. Recommendations from the EMS review will help to form a long-term plan for improving Mobile Health Services and ensuring they are as effective, accessible and fair as possible.

### Methodology

In November 2008, the Minister of Health named Mr. Don Cummings as Chair of the EMS Review Committee. In addition to the Chair, the Review Committee consisted of 6 members: two senior leaders from regional health authorities, two members appointed by the Saskatchewan Emergency Medical Services Association (SEMSA), and two senior managers from the Ministry of Health. Saskatchewan Health provided research and analytical support for the project. Meetings and interviews were conducted with a wide range of health system stakeholders representing various agencies. Key issues were defined and suggestions gathered for ways the EMS system could improve the patient experience in Saskatchewan.

Aided by discussions with health regions and members of SEMSA, the Committee gathered vital input through written submissions from Saskatchewan stakeholders of EMS. Those invited to make written submissions are included in Appendix F.

In addition to the written submissions, verbal submissions and consultations occurred with key stakeholders. These stakeholders included:

- The EMS Working Group (health region administrators for the EMS system);
- SEMSA (industry group for both health region and contracted EMS providers) – represented were SEMSA leadership and 77 individuals representing 89 member ambulance services;
- Leadership Council, (CEOs of Health Regions, Saskatchewan Cancer Agency and the Deputy Minister's Office)
- Peter Fenwick of Ornge, (consultants conducting the concurrent Air Medical Services Review); and,
- Tony Dagnone, Commissioner of the Patient First Review.

Finally, members of the public were encouraged to provide feedback through a public invitation for submissions posted on the Saskatchewan Health website.

In the final stages of the EMS Review, the Committee summed up the proposed solutions and asked for feedback from health system stakeholders. The report was presented to the Honourable Don McMorris, Saskatchewan's Minister of Health.

The terms of reference for the EMS Review Committee can be found in Appendix A of this report. The consultation document used to gather input from stakeholders can be found in Appendix B of this report. Appendix C contains a brief summary of written stakeholder submissions.

## 2.3 Acknowledgements

The EMS Review Committee Chair wishes to thank the many people who provided assistance and insight in the preparation of this report. They include:

» EMS Review Committee members:
  - ***Health Region Representatives*** – Mike Redenbach (Vice President of Primary Health Care, Regina Qu'Appelle Health Region) and Rod MacKenzie (Manager, Pre-Hospital Emergency Medical Services, Saskatoon Health Region);
  - ***Ministry of Health Representatives*** – Duncan Fisher (Special Advisor to the Deputy Minister) and Patrick O'Byrne (Director, Community Hospitals and Emergency Services, Acute and Emergency Services Branch); and
  - ***SEMSA Representatives*** – Ron Dufresne (President, from Moose Jaw) and Trevor Dutchak (Vice-President, from Prince Albert).
» Leaders from health system stakeholder groups
» Ministry staff

# 3.0 Overview of EMS and Current Issues

## 3.1 History and Development

Historical accounts of ambulance service development in Saskatchewan generally focus on the post-World War II era beginning in the 1940s. Those returning from military service included soldiers with "field medic" experience. This knowledge of how treatment and transport of the sick and injured might be undertaken presented itself at a time when there was a general desire in society for more local health and social services. As a result, emergency medical response systems were established in varied and sporadic ways by local entrepreneurs.

During its infancy, entrepreneurs providing EMS in Saskatchewan operated in a competitive and unregulated environment. In this environment, it was not uncommon for an established service to suddenly find themselves in competition with another new firm. Occasionally, hospitals would become involved in the provision of EMS services, however their services were not a primary business line and often were of a lower quality than the private firms.

Early EMS pioneers in Saskatchewan began by identifying an unmet need in their community. Initially they provided little more than transport service. Later, many searched for some form of training such as standard First Aid, on their own initiative. Transport often involved using a funeral hearse or other vehicle already equipped for a stretcher, and a dash-mounted red flashing light. Eventually, community support for specialized vehicles, equipment and additional volunteers was solicited and received.

Many early ambulance services began as an additional service provided by funeral home operators. These operators eventually recognized that the provision of ambulance service was becoming a professional and distinct public service. At that juncture, many funeral home operators began to sell the ambulance service portion of their businesses to interested private entrepreneurs.

Many commentators agree that popular awareness of EMS advanced during the 1970s through American television programs that displayed paramedic professionals at work in pre-hospital venues. By the late 1970s there was a move to introduce standards and licensing requirements for ambulance services in Saskatchewan. Responsibility in this area was placed in the branch of provincial government overseeing municipal affairs. Soon it was recognized that ambulance services were really a part of the continuum of care within the health care system, and this responsibility was moved to the Ministry of Health. Eventually, the Ministry of Health established legislation regarding standardization of vehicles, training, and licensing of EMS practitioners and ambulance service operators. The current regulatory environment for EMS involves *The Ambulance Act (1986)* and *The Ambulance Regulations (1989)*, as well as *The Regional Health Services Act (2002)*. The most recent changes to the system include the development of self-regulation for EMS professionals within the Saskatchewan College of Paramedics through *The Paramedics Act (2008)*.

During the evolution of EMS into its current form, the role of EMS in the healthcare system has changed. This role has developed from one external to the healthcare system to one that is medically focused and more engaged as a healthcare service. Early EMS providers were required to have little or no training while today's EMS providers are graduates of specialized programs, subject to on-going continuing medical education requirements and are often integrated within their local health care team. Many of these EMS providers have roles outside of traditional emergency response including routine work within intensive and emergency areas of acute care facilities where they provide services to patients requiring the highest levels of care.

Under the direction of the Ministry of Health, and in conjunction with the Saskatchewan College of

Physicians and Surgeons, there have been many advances in the standards of education, training and care provided by EMS professionals. Both health region and contracted EMS providers have also provided real leadership in the development of EMS in Saskatchewan. Individual services as well as the Saskatchewan Ambulance Association and later the Saskatchewan Emergency Medical Services Association have helped to guide the development of EMS policy in the province.

Until the late 1970s, most pre-hospital care providers only had basic first aid training. As ambulance services began to evolve into professional services, specialized training was developed for the evolving services. The Saskatchewan Ambulance Association (SAA, a precursor to SEMSA) helped to facilitate a new program that would identify graduates as Emergency Medical Assistants Level 1. SIAST (then known as the Wascana Institute of Applied Arts and Sciences) began to provide EMT training programs in the early 1980s.

***"There is a desire among stakeholders to move from an ad hoc evolution to a standards-driven, planned developmental model for EMS"***

This led to the regulations in the Ambulance Act requiring minimum qualifications for EMS providers as well as stipulating a minimum set of staff qualifications for responses to EMS calls.

Today's EMS professionals at the most advanced levels can provide critical assessments and treatments once provided only at hospital emergency departments. In addition, EMS practitioners work in primary heath care and acute care settings within health facilities in many health regions of the province. This evolution of practitioner education and roles in the workplace has served to increase the quality of care received by patients receiving EMS, and firmly establish EMS providers as an integral part of the health care system.

Saskatchewan's EMS system, like many in North America, has evolved and changed at a steady pace since its inception. Given the environment, this evolution tended to be largely ad hoc and not consistent across the province. This evolution has been locally and regionally variable. Given the essential nature of EMS and complexity of the large service system, there has grown a desire among stakeholders to move from an ad hoc evolution to a standards-driven, planned developmental model for EMS.

This need for system wide change is not isolated to EMS. To this end the Minister has also commissioned a Patient First Review to examine patient experiences throughout the health care system. It is expected that the Patient First Review will provide findings and recommendations that will assist government in determining immediate priorities as well as developing a long-term plan to guide future decisions and priority investments in health care.

The Patient First Review and the EMS Review are providing a foundation for the development of healthcare in Saskatchewan. As a result of these two reports, the province is now poised to create a

vision of an EMS system that is more integrated, planned and patient-centred.

In conducting the review, the Committee drew on many different documents to guide and inform our deliberations. One of these documents is *The Future of EMS in Canada: Defining the Road Ahead*, released by the EMS Chiefs of Canada in 2006. Several EMS leaders from Saskatchewan provided input for the document's development. The paper touches on some common issues for EMS across the country, and recommends a focus on: developing a clear identity for EMS and improving mechanisms that govern the system; revisiting methods by which EMS is funded to ensure stability and resources to improve services; data gathering and evaluation to support enhanced quality and service improvement; developing training, competency and leadership in EMS; and exploring the benefits of providing new types of services that benefit patients and health care systems.

The review also consulted publications such as the United Kingdom's National Health Service document *Taking Healthcare to the Patient: Transforming NHS Ambulance Services* (2005) and Alberta Health and Wellness's *Provincial Service Optimization Review: Final Report* (2008).

First Responders in Saskatchewan have their own history, distinct from the development of ambulance services. First Responders are community volunteers with very basic medical training who are organized to respond to emergency medical calls and provide care until EMS staff can respond. First Responders are not authorized to transport patients.

These groups initially formed in communities that did not have an ambulance service, or where ambulance service was some distance away. In almost all cases, these groups formed in smaller communities that did not have a hospital or other health care facility. Thus, their existence was based on the desire for an immediate local response for emergent medical care.

Initially, there were a limited number of groups operating in Saskatchewan and they were doing so without any type of standardized training or equipment. In the early 1990s, stakeholders identified the need for a provincial framework for standardized First Responder training and registration by the Ministry, along with organization and continuing education support from health districts / health regions. During the early 1990s some funding and policy development was done by the Ministry of Health to register First Responders and provide Health Districts with funding to establish First Responder programs in their area. Since this time, there has been no further provincially directed development of the First Responder Program.

## 3.2 EMS Organization

### Legislation and Policy Framework

EMS in Saskatchewan is regulated by the Minister of Health through *The Ambulance Act* and associated regulations. This legislative framework was drafted in the mid-1980s and contains a number of outdated provisions. In addition, elements of the Act represent a barrier to change,

particularly with regard to existing contracts between ambulance operators and health regions, and opportunities to promote innovative service standards.

The Ministry and health regions have had issues with sections of The Ambulance Act that make renegotiation and administration of historic ambulance contracts difficult. Contracted operators, meanwhile, have advocated a modernization of contractual relationships in order to enhance service standards in a fair manner, a view shared by many health regions.

Under this legislation and the Regional Health Services Act and associated regulations, the Ministry of Health and the Minister are responsible for the regulation and licensing of ambulance services and individual ambulance units. Health regions are responsible for the delivery of health services such as EMS, including the administration of ambulance contracts and relationships with contracted operators.

The Committee is aware that there is a documentation gap in reference to Ministry policy, Ministry policy guidance to regions, region policy for ambulance services, and ambulance service policy for employees. There are gaps in consistency within the knowledge and application of historical EMS policy, and much of the existing documentation is outdated and some current policies are unwritten. Clinical care or a patient's general experience with the system can be compromised by inconsistent administration and policy. Consistent administration and policy supports seamless, quality experience for patients served by the system.

The policy framework for the provision of services is in need of attention. The Committee heard concerns from EMS stakeholders about the evolution of the system. With the introduction of health districts, the Ministry of Health's role of ensuring consistency of road ambulance administration had been transferred to 32 health districts, and subsequently consolidated in 12 health regions. Over time, historical documents were not updated; health districts and regions went in different directions and efforts by industry organizations such as SEMSA to fill in some of the gaps were not enough to prevent gaps in administrative leadership.

The Committee supports the closing of these gaps and consistent administration in the future Mobile Health Services system. The Committee also supports changes to The Ambulance Act and associated regulations that will facilitate and compliment the move to the future system.

### Dispatch Services

The movement of ambulance units providing patient care in Saskatchewan is coordinated by EMS dispatch agencies. (Many also provide dispatch services to a significant number of fire departments and police agencies.) There are currently five wide area dispatch agencies serving EMS in the province of Saskatchewan, all linked to agencies that also provide ambulance services. They are as follows:

| Location of Dispatch Provider | Operated by |
|---|---|
| Saskatoon | MD Ambulance |
| Regina | Regina Qu'Appelle Health Region |
| Prince Albert | Parkland Ambulance |
| Moose Jaw | Moose Jaw and District EMS |
| Yorkton | Crestvue Ambulance |

There is some variability among these services. All but one have Automatic Vehicle Location (AVL) technology. Three of the five also have Computer Assisted Dispatch (CAD). When an emergency ambulance call is initiated, it most often originated via the "Sask 911" Public Safety Answering Points or PSAPs. The five dispatch centres are connected to the Saskatchewan 911 system through the PSAPs. These PSAPs relay calls where medical help is needed to one of the five EMS dispatch centres. There are now four Public Safety Answering Points serving the majority of the province. One in Saskatoon deals only with urban calls from the city of Saskatoon, one in Regina also manages 911 calls from the city of Regina, one in Lloydminster handles calls within the city limits and one in Prince Albert handles all other 911 calls received outside of Saskatoon, Regina or Lloydminster.

The Ministry of Corrections, Public Safety and Policing (CPSP) manages the Sask911 system and the PSAPs. Historically, there have been challenges in the relationship between CPSP and EMS stakeholders given that public safety and health sectors have been governed separately.
Most often, an emergency EMS call begins with a caller dialing "9-1-1". This call is answered by the PSAP and the staff ask for basic information to determine how to route the call. Sask911 staff also determine which agency is to be the lead on the call.

Should the PSAP determine the call is primarily an EMS call, they will route the call to one of the EMS dispatch centres, which then takes full responsibility for the coordination and dispatching of services. EMS dispatch personnel complete the gathering of information from the caller then alert First Responders, road ambulance personnel and other services providers as needed (e.g. fire and police). In addition, EMS dispatchers track the status of road ambulance crews, coordinate with receiving health facilities and provide other key services to ground-based EMS.

### Emergency First Response from Professional Fire Fighters

In many urban centres, personnel from municipal fire departments provide emergency medical "first response" at the patient's side prior to the arrival of road ambulance personnel. Often as a requirement of initial employment with a fire department, many professional fire fighters have EMS education and register with the Saskatchewan College of Paramedics. As of January 2009, there were more than 300 fire fighters registered as EMT's with the College. Others are registered with the Ministry of Health if their training is consistent with the classification of First Responder. The roles that fire personnel play in emergency first response include initial assessment, basic life support measures (e.g. maintaining airways, administering oxygen, managing bleeding), CPR and Automated

External Defibrillation, extrication from vehicles and dwellings, and supporting accident scene safety. In the community, professional fire fighters also aid in the provision of health and safety services including sharps/needles pickup in some locations, lifting bariatric patients, hazardous materials handling and decontamination, rescue response and other services.

### First Responders

In the early 1990s, stakeholders identified the need for a provincial framework for standardized First Responder training and registration by the Ministry, along with organization and continuing education support from health districts / health regions. The Ministry of Health responded to this need with one-time funding and organization. Since this time, the Ministry of Health has not dedicated any significant resources to the maintenance or development of First Responders.

In Saskatchewan, First Responder training is typically organized and provided by health regions so these community volunteers can be available to assist local patients. As noted earlier, these providers are not authorized to transport patients.

Given Saskatchewan's population distribution and geography, First Responders are an important lifeline to many people living in rural and remote areas of the province. It is important that this service be maintained to provide for the immediate emergency health care needs of this population.

Health regions have expressed concerns about the increasingly limited number of people volunteering to take this training. First Responders themselves voice concerns that the time and energy involved in work and training will mean continued gaps in the supply of new First Responders. Certainly, consideration of how First Responder needs could be better supported should also take into account their training needs.

In order to effectively respond to the needs of rural patients, the existing First Responder programs must be standardized, better resourced and integrated more effectively into the health care system.

### Road Ambulance Services

The Ministry of Health is responsible for the licensing and regulation of ambulance services in the province as per the *The Ambulance Act*. However, the day-to-day administration and provision of EMS services is the responsibility of the Regional Health Authorities. There are 12 Regional Health Authorities (RHAs) that provide EMS services through a blend of health region-owned and operated services, and services provided under contract with the health regions. Contracted providers include privately owned, First Nation, and community non-profit operators. Contracts between health regions and these ambulance operators include a description of services to be provided and define the amount of subsidy these operators receive to offset the costs of ambulance services to provincial residents.

Saskatchewan has 109 licensed ambulance services, one of which is an industrial site. In the remainder of this document, the industrial service will not be referenced, as it does not provide care

to the public. The following tables summarize the remaining 108 services and the related number of ambulance calls to which they responded between April 1, 2007 and March 31, 2008 (government fiscal year).

| Site Ownership | Services | Calls (07-08) |
|---|---|---|
| Publicly Owned and Operated | 56 | 35,167 |
| Privately Owned | 39 | 62,958 |
| Not for Profit and Volunteer | 11 | 1,387 |
| First Nations | 2 | 1,488 |
| Industrial | 1 | |
| Out of Province Calls | | 1,128 |
| **Total Sites** | **109** | **102,128** |

Source: service information from Ministry of Health ambulance registration files; call volumes from Provincial Ambulance Information System.

## 3.3 EMS Service Issues

**Variability of Road Ambulance Services**

It would be logical to assume that there is some similarity between similar sized services (based on annual call volume, for example). This is not the case, as similar sized services often have very different service models. In carefully looking at the data on EMS service providers, it becomes apparent that there is no "typical" service; even when services are grouped into similar sized entities, it is difficult to compare them due to this variability.

As an example, the current 108 licensed ambulance services provide services in communities ranging in size from towns of several hundred people to large cities with service areas including approximately 250,000 people. These services may respond to as few as several dozen patients per year, or as many as 60 per day or even more. The range of staffing available to services is highly variable as well. Many smaller services are supported by casual staff who have sought out EMS training as a way to serve their community, and work "on-call" while involved in other activities or employment in the community. Other services have mostly full-time staff able to focus on EMS and their own professional development.

The following table illustrates the variable service demands on these services in the province.

| Number of Calls per day | Services |
|---|---|
| Less than one call per day | 69 |
| 1 to 3 Calls per day | 28 |
| More than 3 per day, Less than 20 | 9 |
| More than 20, less than 60 | 0 |
| More than 60 per day | 2 |
| **Total** | **108** |

Source: Provincial Ambulance Information System, 2007-08.

Even when looking at the 69 smallest services, the variability in demand for services is noteworthy. Among these smallest services, 22 responded to fewer than 100 calls per year.

| Number of Calls per Year | Services |
|---|---|
| Less than 100 per year | 22 |
| 101 to 200 per year | 23 |
| 201 to 360 per year | 24 |
| **Total** | **69** |

Source: Provincial Ambulance Information System, 2007-08.

It is the view of the Committee that the variability in annual call volumes, staffing models and other aspects of ambulance services should be considered opportunities for change. That is, the number of services with small call volumes and limited staffing represent an opportunity for the EMS system to develop into a broader based health service integrated into the existing health care system. The Committee also observed that better linkages of services that may allow them to work together rather than in isolation, could support a potentially less variable level of service provided to patients.

The reduction of service variability was considered an important topic for further work in the province. The Committee supports the view that services with similar call volumes and other service demands should be enabled to provide a very similar standard of service within a future EMS system.

### Current Location and Need for EMS Services

The current locations of the province's 108 services were not designed strategically. (For a table of ambulance services listed by the community and health region in which they are based, see Appendix D.)

The locations of these services occurred through an historical evolution and often through strong community development efforts of volunteers and community entrepreneurs. The placement of these services is often a factor in the timeliness of responses, especially in rural communities.

Ambulance services currently serve defined geographic areas that can be very large. In some cases, ambulance services have communities or groups of patients who are harder to serve. These patients may be located at a significant distance from an ambulance base, or live in a part of a community where specific illnesses or injuries are more common.

The Committee felt that the location of ambulance services presented the EMS system with a challenge to better match the needs of patients with the capacity of EMS services. This challenge could be met with new approaches to providing service (e.g. linking neighbouring services together better), and designing how the system will respond to patient and community needs (e.g. EMS developing into a broader based health service). A related issue of ensuring that staff at various EMS locations are fully utilized is discussed in section 3.7 dealing with human resource issues below.

### Response Time Standards

Consistently, patients are most concerned with the immediacy of ambulance responses to their need. There is a consensus among health care providers and administrators that timeliness of EMS services is of critical importance in patient outcome. The amount of time that it takes to initiate the appropriate level of care for a patient can have a profound impact on patient outcome for certain emergent health conditions. As a result, the timeliness of care is an important issue in EMS. This issue is of such importance that, in many jurisdictions, response time standards form the basis of a comprehensive performance measurement system.

There are general response time standards in many jurisdictions throughout Europe, the United States of America and Canada. A review of published literature conducted by the Canadian Agency for Drugs and Technology in Health (CADTH) at the request of the Ministry, as well as online literature, showed a great deal of variability in how these time standards were set and administered from jurisdiction to jurisdiction. Typically, these response time standards vary from seven to eleven minutes in urban areas, and 15 to 45 minutes in rural and remote areas.

Within many urban jurisdictions there is a general consensus that the most emergent medical calls require a response in less than nine minutes. This is commonly referred to as the 8 minute 59 second response standard (the "8 – 59 standard") achieved 90 percent of the time. The review of literature by CADTH confirmed a view articulated in many EMS reports – that there is no hard empirical evidence that drives the "8 – 59 standard". However, it is generally accepted as the industry standard across many jurisdictions in North America. Similarly, within rural areas, there is also a general acceptance of a 30-minute standard for most emergent calls.

The geography and population distribution in Saskatchewan creates a situation where timeliness of response is a real challenge. A review of the Saskatchewan EMS information for both fiscal 2006-07

and 2007-08 shows consistent trends in Saskatchewan response times for Saskatchewan's 10 largest communities. This report contains two tables with response times rather than just one due to the lack of a consistent method by which emergency calls are tracked. Some contend that the key data field in the Provincial Ambulance Information System for emergency calls is one that deals with direction from EMS dispatch providers and whether the EMS practitioners responded with "lights and sirens" (ie. "Code 4" calls). Others argue that the alternative method would be to focus on information regarding a patient's condition entered in the system by practitioners. Though the data from both sources is quite consistent, some services have policies that reduce the number of calls which are responded to as "Code 4". This and other operational differences mean that one table depicting urban response times would have told an incomplete story within this report.

The tables on the following page illustrate these response trends in response to specific emergency calls within 9 minutes.

**Response Times for "Code 4" Emergency Calls in 9 Urban Centres, 2006-07 and 2007-08**

| Ambulance Service | Fiscal 2006-07 | | Fiscal 2007-08 | |
|---|---|---|---|---|
| | "Code 4" Emergency Response Calls | Response Within 9 Minutes (%) | "Code 4" Emergency Response Calls | Response Within 9 Minutes (%) |
| Crestvue Ambulance Service, Yorkton | 653 | 89.1 | 790 | 86.7 |
| Emergency Medical Services, Regina | 4,540 | 90.0 | 4,508 | 90.2 |
| Lloydminster Emergency Care | 253 | 92.9 | 259 | 90.3 |
| M.D. Ambulance Care, Saskatoon | 10,457 | 84.3 | 11,150 | 84.5 |
| Melfort Ambulance Care | 209 | 96.2 | 242 | 95.0 |
| Moose Jaw & District EMS | 1,320 | 99.5 | 1,566 | 99.3 |
| Parkland Ambulance Care, Prince Albert | 2,573 | 94.1 | 3,147 | 94.3 |
| Swift Current & District Ambulance Service | 298 | 93.0 | 330 | 89.1 |
| WPD Ambulance Care, North Battleford | 1,445 | 91.1 | 1,427 | 87.9 |
| **Provincial Total** | **21,748** | **88.3 %** | **23,419** | **88.3 %** |

Notes: Data for the service based in Estevan was excluded because a significant difference in data entry resulted in a data set that was not useful for comparisons within this table. Data in this table is based on information recorded on patient care report forms (PCRs) and transmitted into the Provincial Ambulance Information System (PAIS). Only calls where Code 4 "to the scene" was entered in the response field of PCRs are included. Response times were calculated based on time elapsed between "time of call" to "time arrived at scene".

**Response Times for Emergency Calls by Medical Type in 10 Urban Centres, 2006-07 and 2007-08**

| Ambulance Service | Fiscal 2006-07 | | Fiscal 2007-08 | |
|---|---|---|---|---|
| | Total Injury/ Trauma and Acute Illness Calls | Response Within 9 Minutes (%) | Total Injury/ Trauma and Acute Illness Calls | Response Within 9 Minutes (%) |
| Crestvue Ambulance Service, Yorkton | 828 | 97.6 | 1,043 | 96.7 |
| Emergency Medical Services, Regina | 11,097 | 83.4 | 11,656 | 83.5 |
| Lloydminster Emergency Care | 267 | 97.8 | 266 | 96.6 |
| M.D. Ambulance Care, Saskatoon | 11,456 | 87.4 | 11,788 | 86.2 |
| Melfort Ambulance Care | 265 | 99.6 | 279 | 97.8 |
| Moose Jaw & District EMS | 2,007 | 98.4 | 2,131 | 98.4 |
| Parkland Ambulance Care, Prince Albert | 3,151 | 96.0 | 3,727 | 97.4 |
| S.E. Associated Ambulance, Estevan | 236 | 96.2 | 211 | 95.3 |
| Swift Current & District Ambulance Service | 570 | 96.7 | 690 | 96.8 |
| WPD Ambulance Care, North Battleford | 1,303 | 92.6 | 1,245 | 93.5 |
| **Provincial Total** | **31,180** | **88.5 %** | **33,036** | **88.4 %** |

Data in this table is based on information recorded on patient care report forms (PCRs) and transmitted into the Provincial Ambulance Information System (PAIS). Only calls where Code 02 “acute illness” or 01 “injury/trauma” was entered were included as the two most important medical categories of emergency calls.

The response time issue has been actively discussed in Saskatchewan since the early 1990s. In 2000, there was a recommendation to establish emergency ambulance response time targets. The recommendation suggested that Saskatchewan’s 10 largest cities should have a response target of 90 percent of all calls responded to within the eight minute 59 second standard (8-59). It was also recommended that for all rural areas, 90 percent of all calls should be responded to within 30 minutes. There were no recommendations for remote areas.

The Committee discussed a need for a range of response time standards that take into account the type of area in which the patient resides. In other jurisdictions, there are different response time standards for urban, rural and remote service areas. Given the large geography, the relatively low population densities and the lack of road infrastructure in some parts of the province, the use of the urban, rural and remote standards model seems to be a good fit for Saskatchewan.

## Response Times and Services in Rural Areas

The definition of what constitutes a rural or urban service is open for debate. In this report, a broad classification was made that grouped Saskatchewan’s ten largest cities into the “urban” areas classification. Every ambulance call outside of these 10 communities has been classified as “rural.” Using this methodology, under 35 percent of all ambulance calls in the province occur outside of these 10 urban centres.

The following table aggregates all rural and remote services and presents response times for these services.

**Analysis of Rural and Remote Code 4 Calls**

| | Fiscal 2006-07 | | | Fiscal 2007-08 | | |
|---|---|---|---|---|---|---|
| **Minutes** | **Calls** | **Percentage** | **Cumulative %** | **Calls** | **Percentage** | **Cumulative %** |
| 10 | 7,703 | 47.6 | 47.6 | 7,304 | 45.0 | 45.0 |
| 20 | 3,489 | 21.6 | 69.2 | 3,625 | 22.3 | 67.3 |
| 30 | 2,584 | 16.0 | 85.2 | 2,843 | 17.5 | 84.8 |
| 40 | 1,223 | 7.6 | 92.8 | 1,284 | 7.9 | 92.7 |
| 60 | 876 | 5.4 | 98.2 | 829 | 5.1 | 97.8 |
| 100 | 228 | 1.4 | 99.6 | 277 | 1.7 | 99.6 |
| | 66 | 0.4 | 100.0 | 73 | 0.4 | 100.0 |
| **Identified Calls** | **16,169** | | | **16,235** | | |

Notes:
[1] Approximately 8 per cent of calls were removed from analysis as they had a zero response time.
[2] The analysis only includes calls that were dispatched as a code 4 (lights and sirens).

This table suggests that about 15 percent of rural and remote calls have wait times in excess of 30 minutes. A cursory examination of the cases that waited in excess of thirty minutes suggest that they are largely clustered in locations in the north or more remote rural areas.

The vast distances between rural communities in Saskatchewan, in conjunction with the relatively low population density, leads to challenges in providing a high-quality EMS service in a timely manner. Given the need to respond in a timely fashion, it is ideal to have a cadre of highly trained staff organized in a pattern throughout the province to provide a timely response by skilled professionals.

Over the last 20 years, the healthcare system in Saskatchewan has evolved and further centralization of specialized acute care services has occurred. This means that in many smaller communities, patients are often not able to receive the acute care they require in medical facilities in their community, and they must travel to a larger hospital to receive the services they require. Further, the demographics of the Saskatchewan population has led to the healthcare system having real challenges in maintaining the necessary staff complement to support the network of healthcare facilities defined in *The Facility Designation Regulations*.

There are 69 small services that typically complete fewer than 360 calls per year (one call a day). These smaller services are challenged to maintain a highly qualified staff-mix for their services. In the course of the review, stakeholders have questioned whether rural patients have access to high-quality EMS services when the training and currency of some of the rural "on-call" staff may be inadequate to provide patients with the care they need in emergency situations where complex care is required. Particularly, stakeholders have expressed a concern that the patients who have the longest travel times to the highest levels of acute care or "tertiary care" often have EMS providers who have

the lowest level of training. It is important to note, that stakeholders did not question the value of services or quality of patient care that EMRs and EMTs bring to EMS in the province. Considering that they make up about 71% of the total EMS workforce combined (based on January 31, 2009 figures from the Saskatchewan College of Paramedics), it is fair to say they are the backbone of the current EMS system.

The qualifications of the staff responding to ambulance calls has some impact on the type of care patients can receive. For example, EMT-A and EMT-P staff are considered "advanced care providers" in EMS. EMT-A staff are able to provide patients with advanced airway management, pain control and have the ability to start I.V.s. Meanwhile, EMT-Ps have the most extensive knowledge and skill-base in advanced care life support that includes specific cardiac treatments, advanced airway management, and pediatric and neonatal care. There are several urban services in the province that have EMT-Paramedics providing patient care on most ambulance calls. Some rural services do employ EMT-Paramedics, but EMT-As are currently the most common advanced care EMS provider in rural Saskatchewan.

With reference to the distance between some patients and tertiary care, consultations have pointed out that there is a contradiction between the need and supply of EMT-Paramedics". Rural and northern patients are generally located the greatest distance from acute care, and will therefore spend the greatest time in the pre-hospital environment. Yet, "paramedics" who have the broadest scope of practice – or greatest ability to help patients in complex, emergency situations - are mostly located in major urban centres.
Many stakeholders of EMS also argue that an EMS practitioner's level of competence and commitment to keeping current in their clinical skills is affected by employment status. On-call staff may find it difficult to maintain their commitment when only a small portion of their income is earned from EMS.

Various EMS stakeholders agreed that the casual and part-time staffing model has been increasingly unsustainable. Each year, several services reach a state where they must close for several days, necessitating coverage from neighbouring ambulance services. These gaps in service are driven by the limited full-time staffing, inability of part-time and casual staff to be available when needed, and seasonal trends such as staff with children needing time off, or staff who farm needing to sustain their main livelihood. Demographic trends in rural Saskatchewan suggest even greater challenges to the supply of casual and part-time EMS staff as the population ages and declines in many communities.

At this time, patients in rural and remote areas usually wait longer for First Responders or road ambulance providers to arrive. Concerns about longer response times in some areas (e.g. rural versus urban), as well as the lack of a provincial standard in response times were noted within many submissions. Submissions from SEMSA, health regions, the Saskatchewan College of Paramedics and several individuals referenced the need for the development of service standards to address issues like timeliness of health care access provided by EMS.

## 3.4 EMS Financial Resources

Under the Canada Health Act, ambulance services are not an insured benefit. As a result, the coverage for ambulance services varies province to province. In Saskatchewan the Ministry of Health supports a large portion of ambulance costs through direct subsidies to operators. The Ministry of Health also further offsets or absorbs the costs of some ambulance services through specific programs. A summary of these programs is as follows:

***Senior Citizens' Ambulance Assistance Program (SCAAP)*** - Seniors are the segment of our population that have most need and comprise the highest percentage of those using ambulance services. The SCAAP provides cost protection to Saskatchewan seniors (65 years of age and over) by limiting the cost of a road ambulance trip/call within the province to $250. All ambulance services are aware of the SCAAP so they bill the patient for the amount of the bill up to $250; any amount in excess of $250 is billed directly to SCAAP by the ambulance service.

***Supplementary Health Program*** - Residents with very low incomes (those receiving **Saskatchewan Assistance Plan (SAP)** benefits and nominated by Social Services for supplementary health benefits) have the entire cost of an ambulance trip covered by Saskatchewan Health's Supplementary Health Program. As Social Services determines eligibility, inquiries about eligibility are handled through its area offices.

***Children's Benefit Program*** - Through the Children's Benefit Program, children (people up to and including 17 years of age) of eligible, low income families will have the cost of emergency ambulance services fully covered through the Family Health Benefits Program. Eligibility inquiries should be directed to area offices of Social Services.

Regardless of these programs, in Saskatchewan, patients are responsible for a significant portion of ambulance costs. At this time, subsidies from the Ministry of Health account for just over half of the resources to the EMS system. Based on audited financial statements for 2007-08, health regions spent $49.2 million on "emergency response services" which includes road ambulance, First Responder and related services. As described in detail below, ambulance services billed another $36.7 million in patient fees. The size and model of each service strongly impacts how patient fees contribute to the overall operation of a service.

While *The Ambulance Act* provides RHAs with the authority to set ambulance fees for "Provincial Residents", RHAs (and the former health districts) have complied with the voluntary fee guidelines since implementation in 2000. The fee guidelines were last revised effective July 2006 and provide the following "ceiling" on ambulance fees:

Ambulance services based in Saskatoon, Regina, Moose Jaw, Prince Albert, North Battleford, Nipawin and Spiritwood may use a maximum basic pick-up charge of $300 per call and maximum kilometre charge of $2.20 per km. Effective August 2007, other road ambulance

services may be eligible to access this basic pick-up charge, based on established criteria (i.e. providing continuous, 24/7 EMT-Paramedic coverage on ambulance calls) and the RHA's priorities for enhancements to emergency medical services.

All other areas of the province may use a maximum basic call pick-up charge of $220 per call, with a maximum kilometre charge of $2.20 per km.

This fee structure was designed to allow services that provide a higher level of service (EMT-P or paramedic level of service, the most highly trained EMS staff) to charge a higher rate than those using a basic or intermediate EMT (EMT or EMT-A) , so as to offset the additional costs of providing this service.

At this time there is no routine method of indexing or re-evaluating patient fees. Typically the Ministry of Health adjusts patient fees on an ad hoc basis. This often creates long periods of time without an increase followed by sudden large increases. The Committee felt that patient fees should be routinely increased with a transparent methodology that is fair to patients, the public and EMS services. This was considered an idea worthy of future investigation.

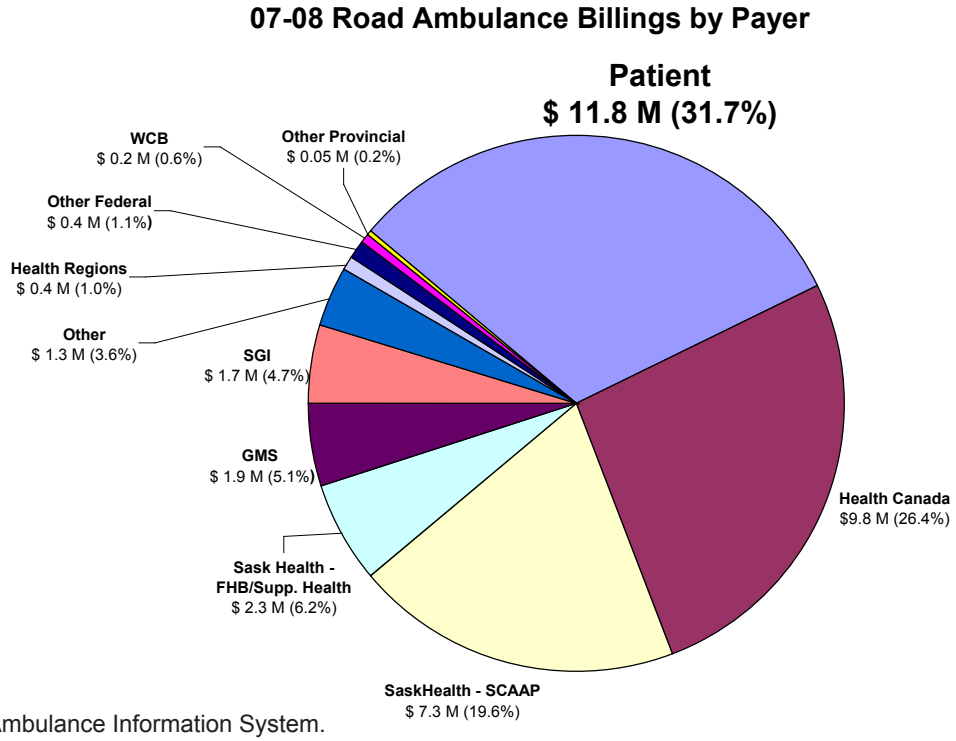
The road ambulance system in Saskatchewan provided more than 101,000 calls to over 50,000 patients in fiscal 2007-08. The following table breaks down those calls into three general types: specific "emergency calls" (acute illness and injury or trauma calls), "transfer calls" and "other".

**Total Road Ambulance Calls in Saskatchewan by Call Type**

| | Fiscal 2006-07 | | Fiscal 2007-08 | |
|---|---|---|---|---|
| **Type of Call** | **Number** | **Per cent** | **Number** | **Per cent** |
| Acute Illness/Injury Trauma | 50,908 | 52.4 | 53,360 | 52.2 |
| Transfer | 28,340 | 29.2 | 20,008 | 29.4 |
| Other | 17,679 | 18.2 | 18,760 | 18.4 |
| **TOTAL** | **96,927** | | **102,128** | |

Note: Data in this table is based on information recorded on patient care report forms (PCRs) and transmitted into the Provincial Ambulance Information System (PAIS). The first category of calls in the table were calls where 02 - "acute illness" or 01 "injury/trauma" was entered. These are the two most important medical categories of emergency calls. All subcategories of transfer calls recorded in the "call type" field were summed to equal total transfer calls. All other calls were summed for a total of "other" calls.

Approximately $ 36.7 million in patient fee billings to **Saskatchewan patients was** associated with the 101,000 calls in the province in 2007-08 (excluding 1,128 calls provided to Alberta patients by one Saskatchewan ambulance service). Approximately 30 percent of these billings ($11.8 million) were invoiced directly to individuals. A further $1.9 million was billed to GMS directly as patient insurance. Thus, patients - directly or through their insurance companies - accounted for nearly $14 million in billing in 2007-08. The remainder of billings were directed to government programs, and other agencies as illustrated in the chart on the following page.




Source: Provincial Ambulance Information System.

In Saskatchewan, financial support for EMS consists of a subsidy paid to operators by health regions from, Ministry of Health funding, as well as a large patient fee component. The share of each service's funding that relies on subsidy varies greatly. Larger services tend to more heavily rely on patient fees, while smaller services depend more on health region grants for financial support.

## Patient Fees

As noted earlier, ambulance services are not an insured benefit. Many patients unfamiliar with the health care system are unaware of this and are surprised to receive a bill for ambulance services. Though the Province maintains a number of programs to offset or absorb ambulance costs for patients (detailed earlier) patients are still responsible for a significant portion of the resources that operate the EMS system in Saskatchewan. In 2007-08, patient fees provided almost $14 million in funding to EMS.

The patient responsibility for ambulance costs is consistently the most common concern reported to the Ministry of Health and the health regions regarding EMS. The results of the EMS Review consultation were also consistent with this history.

Given the portion of the fees that depend on distance charges per kilometre, this tends to be a great disadvantage for people living in smaller communities and rural areas. They most often have to travel a long distance to receive any specialized care or diagnostics. The distance charge is applied both to and from the hospital (even when the ambulance returns empty). Finally when patients are

transported from one facility to another, whether for acute, specialty, or diagnostic services, they may not always be aware that they will be charged for this transfer.

As a result, a patient who is transferred between two hospitals approximately 100 kilometres apart is faced with a minimum bill of approximately $660.00 ($220.00 basic pick-up, plus 100 km to the destination and 100 km return at $2.20 per kilometre). If this trip was made by a paramedic service, the charge would be approximately $740.00 ($300.00 basic pick-up, plus 100 km to the destination and 100 km return at $2.20 per kilometre).

It is the Committee's view that patients will continue to pay fees for the use of road ambulance services. However, it is the Committee's view that the amount of fees or the way in which fees are administered should not be a barrier to patients accessing the health care system.

### Waiting Fees

In addition to a basic call pickup fee of $220 to $300 and distance charges of $2.20 per kilometre, patients may also be charged when the ambulance services must wait with a patient. Waiting time fees are levied when the ambulance crew must continue providing patient care within a hospital until the patient has their care transferred to a physician in that facility.

In fiscal 2007-08, 7,000 of the 100,000 ambulance trips (7 percent) had an associated billing for a wait time. The average wait time was just under 2 hours resulting in a billing of approximately $1.3 million.

The reasons for these waiting times vary. Some EMS stakeholders argue that these waiting times are influenced by off-load delays in emergency room departments. There is a view within the EMS community that some of these delays are also a result of physician practice. As an example, in some cases patients may wait for several hours for specialists to see a patient when this physician next becomes available. Very long delays may also be a result of patients being transferred for a lengthy diagnostic procedure.

Stakeholders of EMS including health regions and SEMSA have expressed concerns with waiting time billings, as well as systemic causes for waiting times.

### Inter-hospital Transfers (IHTs) by Road Ambulance

Given the distributed hospital system in Saskatchewan and the wide distribution of the population over a large geographic area, patients often have to be transferred between hospitals to meet their healthcare needs. Most commonly, patients are admitted to a smaller hospital and have to be transferred into a large tertiary care centre for specialized care. Over the last few years, these Inter-Hospital Transfers (IHT's) have accounted for more than 20 percent of provincial road ambulance call volumes, and approximately 30 percent of all billings to patients.

Conceptually, there is a view in many jurisdictions (e.g. Alberta and Manitoba) that once a patient presents to an acute care facility, the transfer from one hospital to another should be a health system

responsibility, as all the provincial hospitals constitute a provincial acute care system. In the large urban centres of Saskatoon and Regina, the Ministry of Health and the RHA fully cover the cost of ambulance trips between facilities within the respective cities. However, this coverage is not extended to patients admitted to hospitals outside of these two cities. Both Manitoba and Alberta have instituted programs to fully cover inter-hospital transfers, so patients are only responsible for their "first" ambulance ride to their nearest hospital.

Consistently, the cost of IHTs is one of the biggest issues that patients have with EMS service in Saskatchewan. Patients and other EMS stakeholders contend that patients who utilize the road ambulance system in Saskatchewan currently bear significant personal costs resulting from the organization and geographic distribution of hospital services. Thus, the fee system creates a barrier to access for these patients.

***"The cost of inter-hospital transfers is one of the biggest issues that patients have with EMS service."***

Often patients require a specialized diagnosis or treatment that is not available at their local hospital. In these cases the patient pays for the road ambulance trip to and from the Regional or Provincial hospital. Many private insurance programs only cover emergency road ambulance calls and these road ambulance trips are often deemed to be "non-emergent." Thus the cost burden for these trips falls almost exclusively on Saskatchewan residents in rural or remote areas. While inter-hospital transfers in the large urban centres are currently provided at no cost to patients, many patients receive significant bills for IHTs.

Many respondents to the Patient First Review identified the cost of EMS services, especially inter-hospital transfers, as a concern. Other stakeholders including SEMSA, health regions and individuals (mostly EMS practitioners) responding to the EMS Review Consultation Guide also identified cost for inter-hospital transfers as a barrier to access. This issue has also been repeatedly raised with the Ministry by other stakeholders such as the Saskatchewan Association of Rural Municipalities and the Saskatchewan Association of Health-Care Organizations.

The Committee felt that reducing the costs of inter-hospital transfers deserved serious consideration. Additionally, issues like wait times illustrate difficulties patients and ambulance personnel face in the absence of a coordinated patient transfer system. It was the Committee's view that technology and policy innovation represent possibilities for creating a system that transfers patients in more coordinated fashion.

### Service Subsidies

In the 1980s a regulatory environment for EMS was developed involving oversight by ambulance boards and the provincial government. This led to a mechanism by which existing ambulance services received provincial funding. Until fiscal 1994-95, base grant funding for most ambulance

services was calculated through a funding formula that accommodated historic call volumes (excluding services to First Nations peoples) and other factors.

With the development of health districts in the mid-1990s, ambulance boards and the funding formula for road ambulance services were discontinued. Since fiscal 1995-96, "base grant" funding for ambulance services have continued to flow from health districts and health regions (since they were formed in 2002) based on historic levels. EMS including First Responders, road ambulance and related services have been resourced out of "global funding" made available to health regions.

Many members of the public do not understand the concept of "global funding" as it relates to healthcare. With the establishment of health districts(then health regions), the day to day responsibility for the operation of the healthcare system was delegated from the Ministry to these entities. As a part of this delegation, the health regions became responsible for how they chose to fund various aspects of the healthcare system. As a result, the health regions receive one "envelope" of funding, which the regions allocate as they see fit. At this time, the vast majority of all healthcare programs are delivered from within this global funding envelope.

As a result, any adjustments to historic funding levels by health regions have been negotiated between the service and the RHA without a provincial strategy or funding mechanism. First Responder groups, like many other healthcare services, receive funding based on historic levels developed by health districts without system-wide, targeted enhancements. Consequently, the financial and other supports received by these groups are inconsistent between and across the boundaries of the former health districts.

The absence of a planned, consistent approach to EMS funding has resulted in some agencies facing similar service obligations and costs without consistent funding. In some cases, services that are seen as under-funded relative to another service, find that situation gets worse as annual increases are passed on to both without the historic funding level being reassessed. An analysis of funding conducted by the Ministry in 2008 indicated that there was a great deal of variability in the calculation of funding to be transferred to operators from one region to the next.

This inconsistency is exacerbated by the schism between contracted and health region operated services. It is the view of many contracted operators that additional funding routinely flows to health region operated services, while contracted services are further under-funded. Some stakeholders believe EMS funding has often been "cannibalized" by the needs of the larger acute care system in the global funding environment of health regions. Many stakeholders also support greater accountability for EMS services and funding within the existing Regional Health Authority structures.

There are two exceptions to the ad-hoc, unplanned approach to funding EMS. One is collective bargaining funding involving the flow of funding from the Ministry to health regions since 2001. This funding for staffing flows to all operators with attention paid to the staffing utilization of each ambulance service. The second exception involves patient fees, which follow the relatively consistent pattern described previously.

### Capital Funding – Ambulance Units and Equipment

To provide high-quality, timely service to patients, it is necessary to maintain standards for ambulance units. Modern units in good mechanical condition are needed to minimize patient risk and facilitate the delivery of care. The development of these standards is a process that will need to include stakeholders from the RHAs, service providers and the Ministry of Health.

Over the past number of years, a significant portion of the provincial ambulance fleet has included ambulance units that are more than five years of age, some with odometer readings in excess of 300,000 kilometres. Combined, these two measures for a recommended benchmark for ambulance unit replacement).

Based on information from the Ministry of Health, as of August 2008 the current fleet of licensed road ambulance services included a total of 280 units. Of these, 98 units (over one third) have greater than 300,000 kilometers. Of these 98 units, 51 are more than five years old while 47 are over ten years old.

Road ambulance operators argue that Ministry of Health funding to health regions has been inadequate to support the replacement of ambulance units when these units reach five years of age and have an odometer reading of 300,000 kilometres.

It is likely that the issue of capital equipment replacement cannot be taken out of the broader context of funding. Though this issue might be partially addressed through a one-time infusion of resources, a longer-term solution would ideally involve the incorporation of capital funding requirements into a systematic, informed funding process for EMS operations.

The Committee supported a system-wide approach to ensuring adequate financial resources for EMS. This approach could support the development of a standardized model for health region funding to EMS. The Committee felt that some specific funding principles were worthy of further consideration. These principles included: sustainability, shared financial responsibility, transparency, accountability, and incentives supporting the best use of financial resources.

## 3.5 Information and Technology Infrastructure for EMS

SEMSA, health regions and other respondents to the EMS Review consultation brought a range of issues forward to the Committee that relate to how information is provided for operational decision making within EMS. Operational information includes data regarding patients gathered by EMS dispatch systems for use by road ambulance, First Responders and health facilities. It also deals with data concerning services provided by all of these agencies to patients. Beyond operational data (information that "tells me what I should be doing right now"), concerns were shared about the lack of capacity to gather and analyse data for the purposes of system planning and change over the longer term.

Some stakeholders dwelt on the lack of a technological platform that facilitates provincial tracking of EMS unit locations, or processes that allow for the sharing of other "live" EMS data across the province. Currently, all ambulance services are dispatched by five separate EMS dispatch agencies. These agencies provide excellent, timely service but are not linked through a live database.

Most ambulance units are also not equipped with global position system (GPS) equipment that enables automatic vehicle location (AVL) information to be relayed to dispatch. Further, the electronic mapping tools used by most dispatch agencies lack rural location information including rural roads, farm residence and home address information in smaller towns and cities. In the absence of a shared techonological platform for this mostly public information, dispatch agencies and some ambulance services instead have to purchase unique mapping systems separately from private vendors.

The Provincial Ambulance Information System, the current provincial platform for all road ambulance data, is outdated. It is one of several "legacy" systems, and is now on the list of systems to be replaced by the Ministry. Road ambulance operators and health regions want an accessible system that interacts with information tools currently in use. There is a desire to have a system that can generate live reports. The current system involves transmission of data with the use of modems. Transmissions have a significant failure rate and data is stored for several months past the end of a fiscal year before services and health regions can access the data for analysis.
Currently, all road ambulance services must provide the Ministry with a complete record of the services they provide to patients. The ministry shares this information with applicable health regions on a regular basis. For First Responders, the gathering of detailed statistics through paper forms is recommended, but not monitored or collected provincially. While the five EMS dispatch agencies do retain statistics regarding the services they provide, and share that data with applicable health regions, this data is not standardized, collected or monitored provincially.
A common theme in many stakeholder submissions to the EMS Review was a desire for the development of provincial standards in EMS driven by provincial data. Thus, gaps in road ambulance, First Responder and EMS dispatch data would be concerns to be addressed before considering future mechanisms for data-based decision making in EMS. Many stakeholders also contend that this data should be tied to a potential research agenda for EMS, echoing the EMS Chiefs of Canada white paper "The Road Ahead" (2006).

## 3.6 First Nations Services

When examining EMS issues, the needs of First Nations people are very similar to that of other people of the province. First Nations peoples require access to consistent, high-quality EMS services. As with other rural and remote communities, response times of EMS are an issue for many First Nations communities.

As with many other health and social services, the funding of EMS services for First Nations peoples

are also issues. Historically, the fees related to EMS utilization for First Nations have been a non-insured benefit covered by the federal government through Health Canada's, Non-Insured Health Benefits Program. As a result, the federal government has been a key partner in the administration of EMS in Saskatchewan. The Government of Canada has parallel processes to manage the funding of EMS services for First Nations, so funding for these services has been external to the funding processes for other "provincial residents."

In the 1980's the provincial government began to subsidize the costs of EMS via a grant payment to operators, thus reducing the fees paid by patients. When a funding formula existed for ambulance boards, the funding formula that determined this subsidy focused on "provincial residents" (ie. non-First Nations) and excluded First Nations peoples utilization of the system. At this time, a higher fee was negotiated and paid by the federal government for EMS services received by First Nations. This higher fee was designed to offset the subsidy portion of ambulance expenses that was paid by the provincial government.

This historical artifact remains alive in the EMS system today. Rates for EMS services utilized by First Nations are negotiated separately between SEMSA and the Federal Government. Because First Nations have had enhanced coverage through the Government of Canada, First Nations have been excluded as provincial programs were developed to offset the costs of EMS for patients.

As an example, in the late 1980's the province developed the Senior Citizen's Ambulance Assistance Program (SCAAP). This program was designed to cap a senior citizen's EMS bill at $250, with the provincial government offsetting the remainder of these costs. As First Nations patients already had their EMS expenses covered for ambulance services, when this program was initiated, it was designed to only apply to "provincial residents" and excluded "Registered Indians." Thus, First Nations senior citizens do not have any form of coverage for this small set of ambulance services.

In March of 2003, the federal government unilaterally decided to withdraw funding for a number of services for First Nations. As a result, a small subset of the total EMS services provided to First Nations, known as "return transfers", were no longer covered by the federal government. This has led to a situation where there is no payer for a number of high cost EMS services. The lack of funding for these services has been an issue in the provision of EMS services in the province.

In April of 2008, the Government of Canada, the Federation of Saskatchewan Indian Nations and the Government of Saskatchewan signed a tripartite agreement on the provision of health services to First Nations. It is hoped that this agreement will lead to a forum for the three levels of government to deal with specific funding needs to provide for the EMS needs of First Nations peoples.

Regardless, the Ministry of Health and other partners in the Provincial Government must work hard with Emergency Medical Services to meet the needs of First Nations. This work should be done in concert with efforts to better integrate the EMS system with the broader health system serving both First Nations and non-First Nations people.

## 3.7 Human Resources Issues in EMS

In Saskatchewan there are four levels of staff qualification as set out in the *The Paramedics Act (2008)*. These four groups are registered with the Saskatchewan College of Paramedics (SCoP). The defined qualifications do not exactly align with standards used in other provinces in Canada. With the introduction of the Agreement on Internal Trade, there has been considerable work done by the provinces to create some standardization across provinces.

The Paramedic Association of Canada has developed a set of National Occupational Competency Profiles (NOCP) that are being used as the standard for the development of equivalency in qualifications across Canada. The following table illustrates Saskatchewan staff qualifications and their alignment with the NOCP.

| Qualification Level | Typical Weeks of Training | General Alignment With NOCP |
|---|---|---|
| Emergency Medical Responder (EMR) | 2 weeks of training | Emergency Medical Responder (EMR) |
| Emergency Medical Technician (EMT) | 26 weeks of training plus clinical placement | Primary Care Paramedic (PCP) |
| Emergency Medical Technician – Advanced(EMT-A) | An additional 10 weeks of training plus clinical placement | Does Not Align to NOCP |
| Emergency Medical Technician – Paramedic(EMT-P) | Typically delivered during a two-year program that includes clinical segments. | Advanced Care Paramedic (ACP) |

As different terms are used by the Canadian Medical Association in accrediting EMS education programs compared with the legislated titles in Saskatchewan, there is some room for confusion. As an example, students who have completed the "Primary Care Paramedic" program are not allowed to be called a paramedic when working in Saskatchewan until they have the "Advanced Care Paramedic" qualification. Instead, they are registered and referred to as an "EMT".

*The Ambulance Regulations* stipulate that in urban areas, each call must have a minimum of an Emergency Medical Technician and an Emergency Medical Responder responding to every call. In rural areas, the minimum standard is at least two Emergency Medical Responders though each service must have at least one EMT on staff (Sections 48 and Part VIII of the Regulations).

### Training for Emergency Medical Technicians, Basic, Advanced and Paramedic

The training for EMT, EMT-A and EMT-P staff is quite complex. To become eligible for registration in Saskatchewan, prospective staff can obtain training at any Canadian Medical Association accredited college completing either a Primary Care Paramedic (PCP) or Advanced Care Paramedic (ACP) course. Students completing a PCP course are considered eligible for registration as an EMT while those completing the ACP course are eligible for registration as an EMT-P. Though many professionals providing patient care in Saskatchewan trained in colleges outside of the province,

the majority of EMS workers are trained by the Saskatchewan Instituted of Applied Sciences and Technology (SIAST).

To be registered as an EMT-Advanced, a student must complete an "Intermediate Care Paramedic" course. This is a unique EMS course offered by SIAST. Typically, EMT's who have some experience upgrade to the EMT-A qualification by completing a bridge course to bring them up to the EMT-A standard.

In Saskatchewan, SIAST is the main training institution offering Primary Care Paramedic, Intermediate Care Paramedic and Advanced Care Paramedic that facilitate registration at the EMT, EMT-A and EMT-P levels respectively. While these programs have generally provided an adequate supply of EMS professionals in the past, many service providers are reporting real difficulties in obtaining adequate staff.

***"A longer term human resource plan needs to be developed to predict the future human resource needs for EMS."***

SIAST has surveyed EMS employers regarding their future needs. This information indicates that there is a real need to increase the number of training seats for the Advanced Care Paramedic (EMT-P). In a submission to the Committee, a SIAST representative stated that "the labour market demands for the ACP trained practitioner will exceed the supply that SIAST can graduate for the next five years. Data collected supported the need to increase ACP training opportunities and in fact recommended that the current ACP training capacity be doubled from 16 to 32 seats." In light of this information, it is likely that a longer-term human resource plan needs to be developed to predict the future human resource needs for EMS and identify potential barriers to providing an adequate supply of well-trained EMS professionals to the province.

In the course of our consultations, many stakeholders of EMS have expressed concerns regarding the training of EMS professionals. They note that there is a shortage of staff in many services and also that there are a high number of applicants for SIAST's PCP and ACP education programs.

As noted in the Nova Scotia document P*aramedic Shortage: A Call for Action*, there is a critical shortage of trained EMS staff across Canada and a real need to develop a plan to address this concern both on a provincial and national level.

### First Responders and Emergency Medical Responders

In addition to the providers described above, a key part of the EMS system is a group of volunteer "First Responders" who have basic medical training. In many rural communities, First Responders are a key part of the EMS system, providing an immediate response to patient care needs while waiting for an ambulance to arrive. Typically, EMRs and First Responders are trained by the health

regions or their contracted agents through approved training programs.

In the past, the training requirements for EMR's and First Responders were very similar and EMS providers made the training for these two groups available "in-house." Typically, the training for an EMR consisted of between 20 and 30 hours of classroom training and the attainment of a "Class 4" driver's license. As of January 1, 2009 the Saskatchewan College of Paramedics increased the minimum standard of training for EMRs to a minimum of 80 hours of classroom training in addition to any other training that is required. This change was made to ensure the EMR course was consistent with the National Occupational Competency Profiles and Canadian Medical Association guidelines. The increase in requirements for Emergency Medical Responders has led to some difficulties for ambulance services in rural and remote areas.

### Staffing Challenges

A readily identifiable theme in the earlier sections is the ongoing shortage of available human resources to provide consistent, high-quality patient services. As the Committee members examined these issues they found that there were many reasons for these ongoing shortages.

Generally throughout the province there is a shortage of trained staff. This shortage of the most highly trained staff is not unique to Saskatchewan. Nationally there is not enough training capacity to provide for an adequate number of ACP trained employees. This issue also extends to PCP trained staff for many Saskatchewan services.

In the two large urban EMS services (Regina and Saskatoon), there is the view that funding provided for services has been inadequate to provide a level of staffing that ensures timely service to the communities. As presented in the consultations, it is their position that the resources for staffing have not kept pace with the rapid urban population growth.

In the smaller services, there are limited full-time employment opportunities, with much of the staffing provided by casual and on-call staff positions. Where there is full-time staffing, recruitment and retention difficulties face employers. For example, new graduates may not always prefer to work in small communities or in ambulance services with smaller call volumes – particularly if EMS practitioners are not able to work to their full, current scope of practice. As well, many stakeholders argue that local practitioners find it difficult to gain additional training in order to take on full-time employment opportunities (e.g. a registered EMR training to become the full-time EMT within a rural service).

In the smallest of the ambulance services in the province, there remain issues in training volunteer and casual staff as a result of the increased training requirements for Emergency Medical Responders identified earlier in this report. Finally, in the two northern health regions(Keewatin Yatthé and Mamawetan Churchill River) the challenges of finding and training EMS staff for remote communities are immense.

In consideration of these issues, the Committee found that a range of staffing pressures facing rural, remote and urban services were worthy of further consideration. It was the Committee's view that the various staffing issues discussed within the consultations present themselves as opportunities for the EMS system to revisit how ambulance services work together and how service is provided in various communities, as well as how EMS is integrated within the broader health system.

### First Responder Programs

As discussed earlier, First Responders are an important component of the EMS system especially in rural Saskatchewan.

Health regions have expressed concerns about the increasingly limited number of people volunteering to take this training, while First Responders themselves voice concerns that the time and energy involved in work and training will mean continued gaps in the supply of new First Responders. Certainly, consideration of how First Responder needs could be better supported should also take into account their training needs.

### Continuing Medical Education

In the past, supplying access to Continuing Medical Education (CME) was the responsibility of employers. With the implementation of the Paramedics Act, actual responsibility for CME now rests with the individual. The Saskatchewan College of Paramedics has assumed responsibility for the setting of CME standards and monitoring achievement of these standards as a part of the registration process.

Individuals working with ambulance services and some individual subcontractors provide most continuing education with oversight from physicians. Health region representatives, individual EMS practitioners and others have expressed concern with the variability in continuing education. Again, long-term work recently launched by the College of Paramedics appears to be aimed at addressing this variability. The Committee gave consideration to mechanisms that would formalize opportunities to share training resources between EMS employers regionally or provincially to improve access and consistency in EMS continuing education. As with training for entry to practice, health region and SEMSA representatives have expressed support for flexible, online or mobile training opportunities as well.

### Staff Models and Staff Qualifications

There is a great deal of variability in the staffing models and the qualifications of staff providing service to patients. As noted earlier, many rural and smaller ambulance services rely on part-time staff scheduled to be at the ambulance base fewer than 8 hours per day, augmented by casual staff responding to ambulance calls on an "on-call" basis. There are between 20 and 25 smaller services with on-call staffing only. Also, the qualifications of the staff responding to calls are also highly variable.

*The Ambulance Regulations* stipulate that in urban areas, each call must have at minimum an

Emergency Medical Technician and an Emergency Medical Responder responding to every call. In rural areas, the minimum standard is at least two Emergency Medical Responders. This standard is the current floor of staff qualifications. However, no base level of services has been described in regards to staff availability or staffing model.

Over the last several years many stakeholders including physician groups, the Saskatchewan College of Paramedics and some EMS services have expressed support for a provincial standards of a minimum of one EMT attending every EMS call. As discussed earlier small volunteer services rely on casual EMRs assisting casual, part-time and full-time EMTs. In fiscal 2007-08, there were only 477 calls in which two EMRs responded to a call (less than one half of one percent of the total calls provincially). Thus, it appears that the standard for qualifications is naturally evolving to a higher standard than the minimum set in *The Ambulance Regulations*.

It would be logical to assume that there is some similarity between similar sized services and the type of staffing model used to provide services. This is not the case, as similar sized services often use entirely different staffing models and qualifications of staff. In carefully looking at the data on EMS providers, it soon becomes apparent that there is no "typical" service: even when services are grouped into similar sized entities, it is difficult to compare them to one another due to this variability.

There is no "typical" rural service in the province. Many small rural operators have shown a great deal of creativity to deliver high quality, cost effective services to their patients. As an example, in one community a small provider has developed a service and staffing model with paramedics on call via rover vehicles. This small rural service ensures a paramedic responds to over 60 percent of calls. A similar sized service, in another community may provide these same services using dedicated volunteers with very limited training and EMR qualifications augmented by a small cadre of Emergency Medical Technicians.

The Committee felt that the staffing and training needs for a future MHS system is an area requiring further work.

### Matching Provider Qualifications to Patient Need

The EMS Review Committee and those who provided submissions seem to agree that the registration level of practitioners providing patient care could be better matched to patient needs. Currently, some larger services actively match practitioners to patients, using EMT staff for transfers, while EMT-Ps are directed toward emergency or transfer calls involving the most critical patients. However, as many services have limited full-time staffing and often have one or two EMTs working with a larger group of EMRs, or one or two EMT-As working with a larger group of EMTs, often a mismatch occurs between the needs of the patient and the care that a practitioner is able to provide. Some stakeholders have suggested that our current EMS system model ensures that this mis-matching will continue to occur. The argue that critical patients located at the greatest distance from the hospital care they need (such as residents of rural and northern Saskatchewan) have the greatest

need for the services of paramedics. However, most paramedics (EMT-P) are employed by five major urban services in Saskatchewan, and the rest work in small groups or as individuals in smaller ambulance services.

Two current barriers to employing EMT-Paramedics in rural and northern areas are the lack of employment opportunities and the modest supply in the province. The employment opportunities in rural and remote locations are typically less than full-time, often have poorer career opportunities and may not allow the paramedic an opportunity to practice the full range of their skills. Smaller services often employ a few full time personnel augmented with several casual staff to serve a very limited EMS call volume. Urban services have a much bigger, largely full-time staffing compliment and much larger call volumes.

There are also real challenges to the supply of paramedics. In Saskatchewan, SIAST is the major supplier of training for registration at the EMT, EMT-A and EMT-Paramedic levels. At this time, this college has the capacity to graduate 128 from its Primary Care Paramedic program annually (enabling EMT registration), and another 16 from its Advanced Care Paramedic program (enabling EMT-P registration). There is a good deal of competition for candidates from the PCP program as many fire and protective services require new staff to have completed their PCP before being considered for employment.

### Barriers to Career Pathways

Historically, work in the EMS industry has been considered a short-term career opportunity. Many practitioners exited the occupation after the shift and on-call work, and the physically demanding environment took their toll. Because a core set of the work is outside of the predictable, controlled setting of health care facilities, EMS jobs are among the most stressful in the system. Benefit plans and remuneration have also been an issue for many EMS workers. As training levels, professional supports, benefit plans and remuneration levels have improved, EMS workers have extended their careers.

EMS practitioners are medical staff with medical skills. Many stakeholders of EMS agree that the Saskatchewan health system faces tangible lost opportunities as many of its more experienced staff exit the profession. In EMS, what is lost is the opportunity to find productive work that benefits patients outside of the ambulance sector that matches the skills and abilities of EMS practitioners nearing the end of their careers working in an ambulance setting. Where data is available, the potential for long-term gaps in health human resources for other practitioners is well documented.

In part due to the lack of integration between EMS and the broader health system, EMS practitioners lack career pathways as health care practitioners beyond ambulance services. Committee members unanimously agree that evolution of the EMS system into a Mobile Health Services system will allow EMS practitioners to evolve and develop their careers thus maintaining and fully utilizing these valuable healthcare professionals.

### Barriers to Fully Utilizing Practitioner Skills

Pressures on emergency departments often leave patients who are accompanied by EMS practitioners waiting hours for assessments and admission. This has led EMS stakeholders to ask questions about what they can do to both help the broader health system and become a more integrated part of the healthcare delivery system.

EMS stakeholders argue that many of the patients they transport do not require hospital-based care. However, current protocols demand that all these patients be transported to a hospital for assessment and care. As a part of the service optimization process in Alberta, Alberta Health and Wellness is planning on implementing "treat and refer" protocols for EMS. These protocols are very similar to those being employed in the United Kingdom.

EMS stakeholders have reflected on this pattern and wonder whether the current mix and knowledge base of EMS practitioners is suited to the overall clinical needs of patients. They also note that the current model of service in EMS, is that if an ambulance service picks up a patient in the community, they have no alternative but to transport that patient to the nearest health centre or hospital in direct consultation with facility staff. While exceptions are made for specific patients (e.g. protocols allowing bypass of a local facility to go to the highest level of care for suspected stroke patients), the model demands that EMS flow all patients into hospitals.

Leaders in various jurisdictions have proposed treat and refer concepts where EMS practitioners assess whether some patients could wait to be further assessed by clinicians in the community. For example, some have suggested that if EMS has been called during the night because physician medical clinics or health region offices for mental health are closed, EMS practitioners in the future could make that determination and provide an appropriate referral to the patient. Referrals could be made to alternatives to emergency departments for immediate care and assessment as well (e.g. an all hours clinic not attached to a hospital). This "treat and refer" practice has been implemented in the U.K and Nova Scotia, and has been recommended in Alberta.

Many of the same EMS stakeholders are engaging in discussion that goes beyond treat and refer. They state that if EMS has a contingent of well-trained and experienced health care workers that are mobile in the community, and if many communities have unmet or underserved health care needs that do not require hospitalisation, then EMS workers should be allowed to provide assistance to those patients within the community. EMS practitioners most frequently treat underserved, disadvantaged populations (e.g., urban poor, rural elderly) and could transfer those people skills to new roles. Community-based health care teams currently have limited interaction with EMS practitioners, but the potential exists for further interaction.

EMS practitioners are medical staff with medical skills, as are all other members of the health care team within the health care system. The best future use of their abilities will involve greater integration with the health care system and other practitioners in the health care team. The possibility of integrating EMS practitioners into health care teams in some way represents an

historical missed opportunity for the health care system to have additional resources providing patient care. Integration would need to include opportunities for EMS practitioners to be treated as all practitioners, able to work to their full scope of practice.

## 3.8 Current Issues Summary

Even though Saskatchewan EMS providers have worked very diligently to provide timely, quality care to patients throughout the province, the EMS system is not integrated with common standards and strong governance. At the time this report was completed, EMS in Saskatchewan consists of many individual agents working to some degree toward individual goals and purposes.

The overview provided in the previous section presents a high level overview of the current EMS system in Saskatchewan. In this summary, there are a number of key themes that the EMS Review Committee identified as issues that need to be addressed.
We have grouped these themes into four sections as follows:

- Issues related to the need for system-wide change and renewed direction;
- Immediate issues that act as barriers to designing a collaborative Mobile Health Services system;
- Infrastructure and resource issues relating to the development of a collaborative Mobile Health Services system; and
- Operational changes designed to develop a collaborative Mobile Health Services system.

### 3.8.1 Issues Related To The Need For System-Wide Change and Renewed Direction

There is a need to set a clear vision for the development of EMS in the Province of Saskatchewan. This vision must have patient care as the central theme and must have broad support among EMS stakeholders.

### 3.8.2 Barriers to the Development of A Collaborative Mobile Health Services System

There are a number of barriers to the development of a collaborative mobile healthcare system. Immediate issues are preventing the EMS system from providing optimal patient care. A summary of the issues identified in the previous section correspond with a need to:

- Clarify roles, responsibilities, decision-making and accountability in the administration of EMS as well as improved documentation of administrative and clinical policies;

- Develop, monitor and enforce minimum standards in the provision of EMS;
- Develop strong expert advisory linkages with other parts of the healthcare system;
- Ensure clarity regarding medical leadership (medical directors/advisors) in the EMS system;
- Reduce the cost of inter-hospital transfers for patients;
- Develop a provincial direction for the First Responder Program;
- Continue to work with Health Canada to better meet the needs of First Nations patients;
- Standardize the funding for EMS services; and
- Address and modernize the regulatory and contractual regimen under which EMS operates.

## 3.8.3 Infrastructure Required to Develop A Collaborative Mobile Health Services System

During the review, the Committee identified the necessary infrastructure that is required to provide consistent, high-quality patient care. Without investments in this infrastructure the future vision for EMS will be unattainable.

### Human Resources Needs

Without a cadre of trained EMS professionals, the current system cannot meet the needs of Saskatchewan patients. This review has identified a number of issues that relate to the availability, qualifications and distribution of EMS professionals. A summary of these issues illustrates a need to consider:

- The lack of a long-term human resource strategy;
- Accessibility of educational programming;
- Recruitment and retention pressures; and
- Ways to bring human resources together.

### Equipment Needs

- Road ambulance unit and equipment funding issues;
- Current ambulance unit needs.

### Information and Technology Strategy

- Difficulties with the Emergency Medical Services information system; and,
- Improvements to the Emergency Medical Services dispatch information infrastructure.

### 3.8.4 Operational Changes Designed To Develop A Collaborative Mobile Health Services System

The Committee also identified the need to:

- Initiate pilot projects to support the mobile health services vision; and
- Improve patient transfer coordination.

## 3.9 Rationale for Change

Change in any complex system is inevitable. Conversely fear of change is also pervasive in most complex systems. The current EMS system in Saskatchewan is no exception. The system has evolved to its current state. Though providers have worked cooperatively to ensure the best patient care possible, the current highly variable, unstructured system is not sustainable into the future. In order for this system to effectively meet the future needs of patients in Saskatchewan, the system must change.

A number of issues were identified through the consultation processes of the EMS Review that have highlighted this need for change. These include patient access to services and related costs, and the human resource and infrastructure capacity of the system that serves patients. From the perspective of those providing EMS services, the issues also center on concerns regarding human resources, funding, capital equipment, information and technology supports to EMS, and the system's regulatory environment.

The EMS Review Committee found that the development of a strategic vision for EMS and some prioritized recommendations to make the system better could not simply focus on each issue in isolation. Rather, a concerted effort was made to determine a pathway that will allow leaders in the system to bring EMS together in developing inter-woven, complimentary solutions to historic problems and to make long-term system improvement in the interest of making better patient care truly possible. The next section of this document details the pathway which the Committee agreed will support the improvement of EMS in Saskatchewan.

## 3.10 Preparing the EMS System for Change

An important development within the EMS Review process was a consensus at the Committee-level that some key policy issues needed to be addressed to support developmentof a long-term strategic vision for EMS, instead of focusing on individual and historic issues. It was recognized that there are risks associated with this approach. Clearly, some parties will be unhappy with the report as it may not specifically address an individual issue that they feel is important. However, the work of the

Committee was never intended to produce detailed operational results, but a much more strategic perspective.

The approach of setting a clear vision for the future of EMS and aligning the recommendations to this vision also assumes that the future evolution and planning for the Mobile Health System is a process that seeks to actively engage partners in an organized and strategic fashion. This approach contrasts with an approach where separate players acting from distinct perspectives create a disjointed development of the system. It is unlikely that Saskatchewan can achieve a common vision focused on change that best serves patients, if these individual perspectives are allowed to continue driving the operation of the EMS system.

Before a recommended shared vision and related priorities are further explained, the Committee views on the characteristics of the future EMS system will be defined in more detail.

***"It is unlikely that Saskatchewan can focus on change that best serves patients if individual perspectives continue to drive operation of the EMS system."***

### Patient Focused, Accessible System

The defining characteristic of the future EMS system should be that it is focused on patients. A quality EMS system will operate in a manner where the right service is accessible to the patient at the right time with the best possible outcome. For a future EMS system to be patient-centred, current stakeholders of EMS must clarify that the focus in all of their work is to ensure that patient's come first. A future patient focused EMS system will also be considered more accessible.

### Diversity Among Providers

The future EMS system will continue to include diverse provider agencies. It will include community-led First Responder groups some of whom are attached to local fire departments and others who are not. Road ambulance services will continue to be operated by health regions, as well as by private companies, community non-profit corporations and First Nations agencies. It would be accurate to call this model a system of "blended" ownership. This stands in contrast to EMS systems, where one entity within a jurisdiction owns and operates all of the ambulance services. It is the Committee's view that the diversity of ownership in Saskatchewan represents a positive driving force behind improvement and change in the future.

### Clear Role and Responsibilities Within EMS

The Committee believes that clear governance structures and processes must guide the future EMS system. Historically, road ambulance services and First Responder groups were developed through local initiative and, in many cases, only later brought under a provincial or regional umbrella. While provincial governance began in the 1980s, the move toward local health district or health region control began in the 1990s. Throughout the historical development of EMS, local, regional and provincial leaders within the system have generally worked together in a cooperative manner. One

understanding of the term cooperative is that it entails distinct agents working separately toward a common goal. The Committee supports an alternative way that EMS leadership can relate through structured collaboration. Collaboration involves a more integrated approach, including shared purpose and responsibility for the work all agencies produce in support of the EMS system as a whole.

It is the view of the Committee, and the agencies and individuals consulted within this review, that for the current issues facing EMS to be addressed, the groundwork needs to be laid for collaborative and planned governance of the EMS system. While governance as such was not often referenced in submissions to the review, many called for a move away from the ad-hoc, inconsistent evolution of EMS that has taken place historically. The Committee feels that the current decentralized, cooperative state of EMS is not likely to take the system somewhere new. Rather, a new form of collaborative leadership is required for the system to change in a consistent and planned way.

Governance involves the ability to formulate decisions and make sure they are implemented. Governance is at the heart of whether a system operates effectively, and provides the tools for change to be successful. Current governance structures involved in Saskatchewan EMS include the Saskatchewan Ministry of Health and provincial health regions, as well as standing and ad-hoc committees. Governance processes include policy documents and forums for individuals from stakeholder groups to discuss the formulation and implementation of decisions to change the system. It is the view of the Committee, that to facilitate governance in EMS, the mandate -"what we have the authority to do"- should be written, up-to-date, shared and understood. It should include the mandate of each "agent" (or leader with the power to implement change) within the system (i.e. the Ministry of Health, health regions and other stakeholders).

To ensure the implementation of decisions, each agent of the EMS system must have clearly defined authority so that they can anticipate being held accountable, and can trust that the other agents will likewise be held accountable over their own areas of authority. If one is to be held accountable there must be incentives for doing the right thing and costs associated with doing the wrong thing. An incentive system for EMS could be integrated with forms of benchmarking around the standards at which service is to be provided. Certainly standards and "benchmarking" were common recommendations of EMS stakeholders consulted by the Review.

In short, clear governance in EMS depends on each party involved knowing their role, what they are accountable for, and what will happen if they do not perform their role adequately. The implementation of accountability relies upon the tracking of data regarding how each stakeholder of EMS is performing in its role, with key elements of that data shared in a transparent fashion. While data tracking allows each stakeholder to make decisions internally, the sharing of data between agencies allows them to ensure the others are accountable for their actions. Eventually, the development of a set of benchmarking data for different aspects of the EMS system could be introduced to allow for planned change within the future of EMS.

# 4.0 Recommendations for Systemic Change

The following recommendations are meant to be long-term and broad in their focus as outlined in the Committee's Terms of Reference. The EMS Review was not designed to deliver a set of recommendations aimed at operational matters; rather the focus was on future vision and strategic change to EMS in Saskatchewan. It is the Committee's view that its recommendations must lead to a higher level of systemic collaboration in order to have the benefit of engaging key players in the EMS system who know best how to implement new directions for mobile health services in Saskatchewan.

The recommendations are addressed to the Minister of Health. The Committee anticipates that the Minister will provide these recommendations to the Ministry of Health, which in turn will respond to our recommendations for systemic change. We expect that the future Ministry response will contain clear and integrated actions for EMS that include collaborative work aligned with the recommendations below.

The subsections of the recommendations below are meant to convey advice on how to develop a shared future vision for EMS, how to lead system re-design, and critically, how to address current issues within the system.

## *4.1 Recommended Strategic Vision*

As articulated earlier in this report, there is a clear gap between the "current state" of the EMS system in Saskatchewan and a future vision of an integrated system of mobile health care designed to meet the needs of Saskatchewan residents and patients.

It is the unanimous view of the Committee that firstly, the provincial government must endorse a long-term vision for EMS in the province. This vision is necessary in order to establish the intended outcomes of the recommendations and future policy decisions. As a Committee, we also want this vision to be the "north star" that guides further strategies and business plans for all system agents over the next five years.

***Vision Statement***

> *Over the next five years, Emergency Medical Services (EMS) in Saskatchewan will develop into a Mobile Health Services system. This part of the healthcare system will provide patients with a seamless transition within the continuum of care. MHS will continue to provide strong emergency care services while providing opportunities for augmented, high quality patient care. The MHS system will be fully integrated within Saskatchewan's provincial health system.*

Further, the Committee recommends the Minister of Health adopt the following strategic goals to be pursued by the system in support of care to the residents of Saskatchewan:

***Accessible*** - MHS provides patient care that is available to all residents of Saskatchewan.

***High Quality, Seamless Patient Care*** –MHS will provide seamless transitions for patients during which the patient receives consistent, high-quality care supported by defined standards in all dimensions of quality.

***Consistent standards*** –MHS should be supported by a consistent set of standards for mobile care that is provided to all citizens. Further, these standards will be facilitated by a clearly articulated provincial policy framework.

***Quality*** – In order to support transition to a fully integrated MHS, quality indictors will be developed, measured and the subject of on-going system improvement.

***Accountability*** –MHS will be supported by accountability mechanisms that will pertain to structures and processes within MHS that ensure quality and consistency are achieved.

***Sustainability*** - In order to ensure timely public access to MHS, sustainable access to the necessary human and financial resources must be realized.

Acceptance of this recommendation by the Minister of Health will initiate the many changes needed to achieve a system where stakeholders work in a provincially coordinated network, towards optimal patient care. This is the realization of a commonly held vision for the future.

## 4.2 Designing a Mobile Health Services System

The strategic vision for the future system of a Mobile Health Service cannot be achieved without strategic change through system re-design. As we have articulated earlier, the current EMS system has evolved to a point that is no longer consistent with the development of an integrated plan in response to policy requirements.

Therefore, the re-design of the current system toward a more collaborative Mobile Health Services system should include the following key recommendations below that address: enhanced system leadership, clear governance, collaborative bodies linked to the system of governance, documented and consistent administrative and clinical policy, minimum standards in service provision, standardized funding of road ambulance services, and change to the regulatory environment affecting EMS.

## 4.2.1 Clarifying Roles, Responsibilities, Decision-Making and Accountability

*It is recommended that roles and responsibilities within the current system are clarified to enable the development of a collaborative, mobile health services system in Saskatchewan. Further, it is recommended that this clearer structure of governance be implemented by January 1, 2010 utilizing the following framework for system-wide governance:*

| | |
|---|---|
| Saskatchewan Minister of Health<br>» System-wide Role | System Leadership that includes:<br>▫ engaging the overall system in enhancing performance relative to patient needs and outcomes<br>▫ setting strategic direction for the system<br>▫ establish system-wide policy objectives<br>▫ developing standards for the system that are determinants for what patients can expect<br>▫ developing a strategy for funding the system and allocating funding accordingly to health regions<br>▫ granting specific authorities to health regions<br>▫ providing regulatory oversight (e.g. licensing of ambulance service, ensuring accountability of health regions and service providers to the public) |
| Saskatchewan Health Regions·<br>» Operational Role | Operational leadership that includes:<br>▫ the development of strategies for system deployment to meet provincial and regional service standards<br>▫ operational management of MHS programs in the region·direct management of health region operated MHS<br>▫ oversight of the operators of contracted MHS services (“operators”)<br>▫ granting of specific authorities to operators (e.g. authority for ensuring MHS practitioners deliver upon the deployment strategy and established standards)<br>▫ accountability for effective, efficient, performance-based management of a regional mobile health system |
| RHA and Contracted Ambulance Operators | ▫ responsibility for operation of MHS in keeping with health region’s deployment strategy, provincial and regional service standards and the service agreement with the health region |

The current EMS system is characterized by dedicated professionals operating in an environment of ambiguous policy direction and unclear “rules of the road” when it comes to developing and implementing leading practices in the system of mobile care in Saskatchewan. The Committee compliments those professionals and administrators who have implemented innovative ideas within a system that has lacked an overall vision and strategic framework upon which to make decisions.

Equally key, however, is to achieve a new vision of the future; these ambiguous and ad hoc governance practices must be replaced by a clearer system of strategy and policy based decisions in support of a long-term direction. Roles must be clarified, authorities articulated and accountability mechanisms developed and implemented.

It is the Committee’s view that not only will the system benefit from clarity in governance; but that the patients served by the future MHS system will be the main benefactors of this work. It is also understood by the Committee that the current diverse blend of ownership in the system including

health region, private and community, non-profit services, involves each type of service leading with their own unique strengths. This diversity will lead to a system synergy that will encourage and guide innovation in the system.

### 4.2.2 Develop An Advisory Body in Support of System Governance

It is recommended that a Mobile Health Policy Advisory Council be established, reporting to the Minister of Health, with a mandate to help ensure that quality-based standards become a core component of Saskatchewan's system.

The Advisory Council membership should be competency-based, and should have the following general functions (subject to continuing review of its mandate by the Minister):

- To advise the Minister of Health on policy direction and coordination of the MHS system, including:
  - Defining dimensions of quality and how MHS services are measured against performance standards.
  - Enhancing leading practice knowledge from multiple jurisdictions that have, or are, developing centers of excellence in mobile health care.
  - Ensuring the system performs as an integrated component of the health care system
- To support the development of measurement systems for MHS services against performance-based standards.
- To advise on the reporting of MHS performance expectations and the performance of MHS services against province-wide standards.
- To support learning and knowledge transfer of good and leading practices through the provision of tools, methodologies and peer learning opportunities.

Given the complexity of the overall system of mobile health, the future governance model must be characterized by role clarity, decision-making authority and accountability. However, it must also be characterized by engagement of the multiple stakeholders of differing expertise who lead this complex system towards implementation of new ideas and innovation in patient care.

The current system is characterized by ad hoc and informal mechanisms of policy advisory capacity. The future requires a much more coordinated approach to assembling the knowledge within the system to advise on new ideas to enhance patient care.

### 4.2.3 Clarify Medical Advisor Roles

*It is recommended that physician medical advisor roles within the MHS system of health regions are clarified.* The historical EMS system has not had a consistent pattern of medical leadership within or across health regions. Patient care could be positively impacted if a consistent, documented approach was achieved within the overall system and within health regions. Written documentation on strategies and linkages for physicians and MHS practitioners, provincially and within health regions, will help ensure that these clinical leaders support the future direction of a MHS system.

This clarification of Medical Advisor Roles will also lead to greater consistency in the management of scope of practice issues for practitioners to ensure patients receive consistent high-quality care throughout the province.

### 4.2.4 Document Administrative and Clinical Policy

*It is recommended that a policy framework is developed, with a well-documented set of administrative and patient care policies , and aligned with the clarified roles and responsibilities of within the MHS system.*

The current system is characterized by the lack of a comprehensive policy framework and policy documentation. This deficiency impedes the development of an integrated approach to the system and ultimately detracts from provision of consistent, high-quality patient care. This lack of policy support must be addressed as part of the transition to a MHS system.

### 4.2.5 Ensuring Minimum Standards in Service Provision

*It is recommended that a consistent set of standards are developed for the MHS system that is supported by a clearly articulated provincial policy framework. The type of standards to be considered may include:*

- *Access Standards – regarding standards on patient access to response from MHS personnel, both an emergency response by First Responders and road ambulance providers, and a non-emergency response involving other types of service provision;*
- *Quality of Services – regarding the standards and minimum requirements for services, levels of training for practitioners, minimum registration and scope of practice level of providers available to patients including access to EMT-Paramedic resources;*
- *Quality assurance – including processes and related medical advisor roles and responsibilities;*
- *Licensing of Fleet and Inspections – pertaining to ambulance operators, ambulance units and equipment.*

The Committee recognizes that patients deserve a standard quality of care from Mobile Health Services. With standards developed, the future MHS system has the potential to publicly report measures of how the system serves patients and allow many decisions to be evidence-based. The

current and future MHS system is far too complex to operate without standards against which services to patients can be measured, and without information that can support decisions on how to better serve patients. The Committee further supports standards so that accountability can be enhanced within the governance structures and process of the future system.
The Committee and many stakeholders who responded to this review understand that there is variability between health regions in current standards and practices. There are diverse opinions on how to develop and implement standards in the MHS system. As a result, there needs to be opportunities for stakeholders to be involved in the development and implementation of these standards. The Committee further recognizes that some aggregation (ie. an organized sharing of resources) may need to occur to create the opportunity to establish new service standards. Future discussions would need to take into account call volumes, staffing levels, geography, and possibilities for aggregation.

### 4.2.6 Reducing Inter-Hospital Transfer Costs to Patients

*It is recommended that patient access to the health system is improved by reducing or eliminating inter-hospital transfer fees.*

Patients bear a significant cost associated with accessing the health care system with assistance from road ambulance services. This includes patients already under the care of a physician within the hospital environment. Patients and their advocates have requested enhanced coverage in this area. This issue has also been identified within the Patient First Review. The Committee has examined patient fee standards in various areas and concluded that a change to fees for inter-hospital transfers by road ambulance in Saskatchewan should be recommended.

### 4.2.7 Better Meet Needs of First Nations Patients

*It is recommended that work with Health Canada is undertaken to ensure the two levels of government support improving the consistency and quality of MHS services accessible to First Nations peoples.*

### 4.2.8 Standardize Funding of Road Ambulance Services

*It is recommended that a standardized model is created to guide the funding of RHAs in their implementation of MHS to be delivered by various categories of service providers.*

A Mobile Health Services system that accommodates patient and health system needs requires a funding mechanism that enables planned change. There are specific funding issues that this recommendation is meant to address:

- Encourage a reduction in the variability in funding from health regions to ambulance services;
- Lead to more predictable and consistent funding and;
- Lead to a funding mechanism that is linked to specific standards (ie. funding that supports a specific level of service provided to patients).

In addition, the recommended work on funding should support and be integrated with the other recommendations in this report.

In support of this recommendation, the Committee advocates adoption of the following funding principles:

- ***Sustainability***: Funding from public bodies will be provided on a multi-year basis, to enable a stable funding base and better financial and operational planning.
- ***Shared:*** Funding will be shared between governmental, fee-for-service, and other sources.
- ***Preparedness***: Funding will appropriately compensate MHS systems for "preparedness" costs related to service provision and move from a current system that provides incentive primarily for "transport" related operations.
- ***Transparency and accountability***: All parties will be transparent in reporting on revenues and expenditures.
- ***Incentives for effectiveness and efficiency***: Financial incentives will promote appropriate behaviors with respect to transport and inter-facility transfers, while supporting other funding principles.

### 4.2.9 Enhance Regulatory Environment Affecting Road Ambulance Services

*It is recommended that a more flexible regulatory environment is developed that enables the implementation of a collaborative MHS system described in this report.*

*It is further recommended that the Minister of Health engage key industry stakeholders including a new Mobile Health Policy Advisory Council in the development of changes to statutes impacting service contracts and in the development of a template service agreement that combine to support the development of a collaborative Mobile Health services system. This work will need to address transition issues that operators and health regions may face in the move toward an MHS system.*

The Committee supports review of the provisions of The Ambulance Act that reduce the ability to change historic contracts. It is the view of the Committee and other stakeholders that statutes impacting the system should support the future of system governance, standards, accountability and the desire to facilitate planned change. It is recognized that operators require assurance that transition to a new MHS system will need to be supported by exit strategies for some operators and will be pursued with a principle of fair treatment to existing operators.

## 4.2.10 Develop a Strategy for Saskatchewan First Responders

*It is recommended that a review of the provincial First Responder program is undertaken. This review will address the following issues:*

- *Standards for First Responder registration;*
- *Standards for equipment and support to First Responders;*
- *Registration responsibility of First Responders;*
- *The role of EMS dispatch in providing First Responder services; and,*
- *Guidelines to support the consistent deployment of First Responders within the future collaborative Mobile Health Services system.*

*It is recommended that the review of the First Responder program will consult with stakeholders and the recommended Advisory Council.*

*The Committee further recommends work by the Ministry to support the recruitment and retention of volunteer groups providing service to the First Responder program.*

The Committee recognizes the important role that First Responders play both in the current EMS system and MHS system of the future. It is vital that a vibrant First Responder system exist in the province.

## 4.3 Infrastructure Required to Develop A Collaborative Mobile Health Services System

The Committee has defined a longer-term vision for the future of EMS. As Saskatchewan develops a Mobile Health Services system, the necessary infrastructure, including highly skilled staff, must be in place to achieve this vision of consistent, high-quality patient care. The purpose of these particular recommendations is to describe the infrastructure required to achieve the vision.

## 4.3.1 Preparing Human Resources of the Future MHS System

Consistent, high-quality patient care cannot be achieved without a cadre of trained and committed staff. The men and women currently providing EMS services should be recognized for their dedication and care in the provision of these services. However, in order to develop current services into the future vision we have described, significant development of the human resources infrastructure is required.

In the course of the Review, the Committee heard some consistent messages from EMS stakeholders regarding human resources, particularly the lack of:

- A coherent strategy for recruitment and retention;
- Adequate and consistent staffing levels;
- Matching practitioner's registration level to patient needs;
- The provision of adequate educational resources to prospective staff, and
- Career path opportunities for practitioners.

**Developing a Long-Term Human Resource Strategy**

*It is recommended that a comprehensive human resource strategy is developed to provide the human resource capacity and competency that meets the needs of the future MHS system.*

This recommendation involves addressing staff shortages in some urban centres and developing strategies to support the development of full-time EMS positions in smaller services. This Human Resource strategy will also address the minimum training needs for EMS staff and look to develop innovative strategies to provide consistent, high-quality care to patients throughout the province.

**Increase Accessibility of Educational Programming**

*It is recommended that the Ministry of Health work with the Ministry of Advanced Education, Employment and Labour and other key stakeholders to explore means to increase accessibility to educational programming.*

**Support Recruitment and Retention Initiatives**

*It is recommended that, in addition to other recommendations that will support sustainability of human resources in the longer term, consideration is given to a bursary program for students of EMS education programs that include a return for service commitment.*

## 4.3.2 Providing Equipment for the Future

*It is recommended that a mechanism is developed to address ambulance unit and equipment needs within an MHS funding model for health regions that is linked to provincial service standards.*

In the course of the review, the Committee identified the vehicle and equipment infrastructure necessary to provide consistent, high-quality patient care. Without investments in this infrastructure the future vision for EMS will be unattainable.

## 4.3.3 Pursue an Information and Technology Strategy for MHS

*It is recommended that an information and technology strategy is developed to facilitate MHS, including patient transport and MHS service coordination. Under this general recommendation, two near-term issues must be addressed to develop a functional information technology infrastructure that will allow the system to track the quality of care patients are receiving while optimizing the efficient delivery of services.*

### Emergency Medical Services Information System

*It is recommended that the Ministry redevelop or replace the existing Provincial Ambulance Information System (PAIS) so that the information system is more robust, enables operational (e.g. quarterly) data analysis and reporting, and enables interaction with other data systems (including billing systems, electronic patient care reports, Ministry databases and the Electronic Health Record). Potential jurisdictional partnerships for effective and timely PAIS redevelopment should also be explored.*

The existing Provincial Ambulance Information System infrastructure is near collapse. It is a very old program developed in the early 1990's which was not designed to house the information it currently stores and administers. This system is the backbone for many of the financial transactions between the Ministry, RHAs, ambulance operators and patients. Failure of this system is a real risk.

### Emergency Medical Services Dispatch Information Infrastructure

*It is recommended that a review is undertaken of opportunities to develop a shared dispatch information infrastructure to improve system redundancy and allow for system optimization. Further, this system should include provisions to provide for automated mapping and GPS based Automatic Vehicle Locating as well as Computer Assisted Dispatch services.*

This infrastructure will be required to facilitate the implementation of a province wide coordinated transfer initiative. (See the second recommendation under 4.4 on the following page.)

## 4.4 Operational Changes Designed To Develop A Collaborative Mobile Health Services System

As noted in the body of this report, change can be a challenging process for a complex system such as the province's EMS system. In order to achieve operational changes that will lead to improved patient care, the Ministry will need to show leadership that drives this system change.

### Initiate a Set of Pilot Projects in Support of the Mobile Health Vision

*It is recommended that support be given to pilot projects which will enable the development of a Mobile Health Service system.*

As the Committee reviewed the system-change practices of other Canadian jurisdictions, it was impressed by the effectiveness of utilizing "pilot projects" as a key mechanism in designing, learning

and evaluating new practices in mobile care. Pilot projects will offer a bridge from the history of EMS to the new MHS system.

The Committee also recognizes the enormous complexity of taking the current system, with its multiple and disparate practices into a more integrated and "designed" approach to mobile care. Ministry and health region support for pilot projects will provide incentives for innovation and ensure that it occurs in a planned, consistent fashion. Barriers to mobile health service innovation may include a lack of appropriate staffing in some areas, and a lack of integration with the rest of the health system and health care teams.

### Enable Coordinated Patient Transfers

*It is recommended that system stakeholders are engaged in the development of a patient transfer coordination system.*

*In the short term, the Committee recommends development of a provincial policy enabling joint mechanisms within the industry to break down patient fee barriers to coordinated transfers, and an implementation strategy for health regions and contracted operators.*

The Committee supports exploration of ways to better coordinate the response to patients among the agencies involved in the future MHS system. This coordination can be facilitated using standardized software tools, data collection and data-driven decision making. Networking existing dispatch centres is a proposed solution tied to the Information Technology recommendation above. This technology can lead to the development of a virtual integrated dispatch system designed to deliver coordinated, enhanced service to patients.

The Committee recognizes specific financial and contractual issues that are barriers to dispatch integration and the coordinated transfer of patients. It recommends an inclusive development process of incentives that may consider a readiness-based service model rather than the historical response model so that patients are better served.

The initial longer-term coordinated transfer recommendation is meant to address the potentially inefficient use of ambulance crews based on:

» disincentives to change within the current ambulance fee structure and ambulance contracts;
» unnecessary wait times for patients needing to be transferred; and,
» times associated with crews waiting with patients in hospitals.

It is understood that barriers to progress on enhanced coordination include the historic fee structure that pays very well for long distance transfers, and contracts that provide ambulance services with access to specific patients. Both systems act as barriers to the nearest or most appropriate ambulance crew providing service to patients in many cases. A final assumption is that if the Ministry provides effective leadership, many ambulance services may innovate and work out arrangements to support transfer coordination regarding patients in their service areas.

### Enable Role Change for Practitioners

*It is recommended that work is undertaken to remove barriers for MHS practitioners to best serve patients and more fully utilize their skills through development of:*

- *Supports for integration of MHS practitioners within the health care team, aided by relationship building between provincial stakeholders and role clarity in the work place.*
- *Transport destination options from current requirement of nearest or physician-directed appropriate hospital emergency department, to alternative destinations where appropriate for the patient;*
- *Potential "treat and refer" protocols, training and policies; and,*
- *Role clarification and change to support better integration within the health care team in a range of health facility and community settings.*

As the Ministry of Health and stakeholders in the current EMS system work together to evolve a patient focused MHS system, flexibility in the Ministry and among various stakeholders will be required to innovate and improve patient care. The various labour and regulatory agencies will need to work collaboratively to better utilize the skills of our EMS staff and fully deploy their skills and abilities as an integrated part of the healthcare system.

EMS practitioners are medical staff with medical skills, as are all other members of the health care team within the health care system. The best future use of their abilities will involve greater integration with the health care system and other practitioners in the health care team. Work toward integration will include an opportunity for the EMS practitioner to be treated as all practitioners, able to work to their full scope of practice.

Work to ensure that MHS is fully integrated within Saskatchewan's health system can enable MHS staff to be part of a system that provides patients access to quality health care no matter where they live. By considering ways to more fully utilized MHS staff, health resources can be used as effectively and efficiently as possible.

### Revaluate Ministry Roles and Capacity

*Finally, the Committee further recommends a review of the current mandate, role and capacity of the ministry work unit responsible for ground ambulance services.*

The Committee fully recognizes the dedication of the current administrators in the ministry. However, the Committee feels that the support to the future vision and strategy articulated in this report will require a review of the capacity, structure and processes of the ministry and unit currently responsible for ground ambulance services. It is understood that this development may be led by a range of Ministry staff including individuals outside the ambulance unit, and may not involve additional staffing. It will also involve partnership between the Ministry and stakeholders of MHS. The Committee wants to enable review of the way in which the Ministry supports MHS beyond the clarification of roles and responsibilities referenced in earlier recommendations.

## 5.0 Conclusion

The opportunity presented by Health Minister Don McMorris to review the EMS system and present both a strategic vision and prioritized recommendations for change was viewed by members of the EMS Review Committee as both exciting and historic. Stakeholders who responded to the Committee's consultation process were similarly enthusiastic and sincere in their approach.

During the course of the EMS Review, a general consensus developed among Committee members as to the current state of EMS in Saskatchewan. The consensus centred on the need for a consistent vision and direction so as to improve patient care. Additionally, the vast majority of consultations from those groups directly involved in the delivery of EMS expressed views that were consistent with the consensus achieved by committee members.

The development of EMS in Saskatchewan has been driven by individuals who have shown a commitment to providing for the needs of patients. Each of these individuals and their respective agencies has taken unique approaches to "evolve" services for their patients. Though these pioneers of EMS have shown real leadership in developing much needed services for their communities, the provision of this essential medical service has reached such a level of complexity that there is a real need to develop a more planned and consistent approach to the future development of EMS.

Governance has also contributed to the variability in EMS services in the province. Responsibility for governance of road ambulance services has been housed in many different areas over the last few decades. Health Regions / health districts became responsible for the day-to-day management of EMS services during the 1990s. There has been some variability in the approach to EMS across regions. This, combined with uncertainty as to the role of the Ministry of Health in the provision of EMS, has contributed to a lack of consistency in the delivery of EMS in the province.

Though the work of the Committee, it was agreed that the Ministry of Health has a leadership role in the delivery of EMS. The Ministry has committed to maintaining this leadership role and involving stakeholders in the ongoing development of the EMS system.

To better meet need the needs of patients, EMS in the province needs to develop in a planned and systematic fashion into a broader set of medical services that provides timely, high quality patient service in a consistent manner. To this end the Committee has developed a vision statement that guides the recommendations from the report.

> Over the next five years, Emergency Medical Services (EMS) in Saskatchewan will develop into a Mobile Health Services system. This part of the healthcare system will provide patients with a seamless transition within the continuum of care. MHS will continue to provide strong emergency care services while providing opportunities for augmented, high quality patient care. The MHS system will be fully integrated within Saskatchewan's provincial health system.

This new definition of Mobile Health Services involving a broader range of services will fundamentally change our past definition of EMS. This vision is consistent with the developments in EMS both in Canada and the United Kingdom.

To support this transition, the Committee developed a list of 19 recommendations. These recommendations are not so much specific and direct, as they are more strategic in their nature. The recommendations are designed to provide a road map for the planned development of a Mobile Health Service system in the Saskatchewan. Each of these recommendations is prepositioned on the concept that the Ministry of Health continues to remain engaged with and collaboratively involve stakeholders in the implementation of these recommendations.

Though all of these recommendations are important, conceptually some will need to be prioritized to provide a foundation for the development of a MHS and provide impetus for change within the existing system. The Minister of Health will determine the timing and priority under which all of the recommendations will be addressed. However, the Committee recommends that the following eight (8) recommendations be addressed as a priority and either be completed or substantially commenced within the next six to twelve months after the acceptance of this report. The following recommendations are identified as priorities:

### Clarifying Roles, Responsibilities, Decision-Making and Accountability

*It is recommended that roles and responsibilities within the current system are clarified to enable the development of a collaborative, mobile health services system in Saskatchewan. Further, it is recommended that this clearer structure of governance be implemented by January 1, 2010.*

### Ensuring Minimum Standards in Service Provision

*It is recommended that a consistent set of standards are developed for the MHS system that is supported by a clearly articulated provincial policy framework. The type of standards to be considered may include:*

- ***Access Standards** – regarding standards on patient access to response from MHS personnel, both an emergency response by First Responders and road ambulance providers, and a non-emergency response involving other types of service provision;*
- ***Quality of Services** – regarding the standards and minimum requirements for services, levels of training for practitioners, minimum registration and scope of practice level of providers available to patients including access to EMT-Paramedic resources;*
- ***Quality assurance** – including processes and related medical advisor roles and responsibilities;*
- ***Licensing of Fleet and Inspections** – pertaining to ambulance operators, ambulance units and equipment.*

### Reducing Inter-Hospital Transfer Costs to Patients

*It is recommended that patient access to the health system is improved by reducing or eliminating inter-hospital transfer fees.*

### Standardized Funding of Road Ambulance Services

*It is recommended that a standardized model is created to guide the funding of RHAs in their implementation of MHS to be delivered by various categories of service providers.*

### Initiate a Set of Pilot Projects in Support of the Mobile Health Vision

*It is recommended that support be given to pilot projects which will enable the development of a Mobile Health Service system.*

### Develop a Strategy for Saskatchewan First Responders

*It is recommended that a review of the provincial First Responder program is undertaken. This review will address the following issues:*

- *Standards for First Responder registration;*
- *Standards for equipment and support to First Responders;*
- *Registration responsibility of First Responders;*
- *The role of EMS dispatch in providing First Responder services; and,*
- *Guidelines to support the consistent deployment of First Responders within the future collaborative Mobile Health Services system.*

### Emergency Medical Services Information System

*It is recommended that the Ministry redevelop or replace the existing Provincial Ambulance Information System (PAIS) so that the information system is more robust, enables operational (e.g. quarterly) data analysis and reporting, and enables interaction with other data systems (including billing systems, electronic patient care reports, Ministry databases and the Electronic Health Record). Potential jurisdictional partnerships for effective and timely PAIS redevelopment should also be explored.*

### Develop an Advisory Body in Support of System Governance

*It is recommended that a Mobile Health Policy Advisory Council be established, reporting to the Minister of Health, with a mandate to help ensure that quality-based standards become a core* component of Saskatchewan's system.

The Committee recognizes that these are just eight of the 19 recommendations and that there is a great deal of work involved in responding to all the recommendations. Additionally, the Committee also recognizes the operational pressures that are inherent in the current system. It is the belief of all the committee members that the implementation of recommendations must be done concurrently with the continued operation of the system. Also it is recognized that these operational pressures require the continued attention of health regions and the Ministry, while the planned development of EMS into an MHS system occurs.

The next five years will be critical in building a foundation for a future Mobile Health Services system for Saskatchewan that will meet the needs of all residents by providing consistent, high-quality patient care. It is our view that Saskatchewan has a unique set of advantages that allows it to adopt

leading practices in mobile healthcare. However, in order to make the most of these advantages, it is incumbent on all stakeholders to rally around the vision for MHS that is far broader and more comprehensive than our current state.

Through this common vision, those involved in the delivery of Mobile Health Services can achieve a truly integrated, high-quality patient centred care system that will last into the future. In delivering a high performance MHS system, Saskatchewan can become a best- practice reference point for others both nationally and around the world.

# Appendix A: Terms of Reference

## *Emergency Medical Services (EMS) Review Committee*

## *Terms of Reference*

### Scope

The EMS Review Committee will undertake a review of pre-hospital and interhospital EMS in Saskatchewan and provide recommendations for a strategic vision and 5 year plan for EMS. The review and recommendations will:

- Focus on changes to the EMS system that will ensure the provision of service to patients is timely, of consistent quality, of acceptable and reasonable cost to patients and sustainable into the future; and
- Include all aspects of pre-hospital and inter-hospital EMS (EMS dispatch, First Responder groups, and road ambulance).
- This review will be coordinated with a separate review of air-medical services in the province of Saskatchewan.

The Review Committee will consider patient concerns with EMS and stakeholder views about the tools required to meet the strategic vision, including:

- patient access to service, cost to patients;
- human, capital/infrastructure and financial resources; and
- the regulatory environment for EMS.

### Structure

The Review Committee will consist of 7 members - an external chair appointed by the Minister of Health; two senior leaders from regional health authorities (as discussed with RHAs and agreed upon by the Deputy Minister); two members appointed by SEMSA; and two senior managers from the Ministry of Health.

### Timelines

By March 31, 2009, the EMS Review Committee will recommend a strategic vision for EMS and provide priorized recommendations for a 5 year plan to achieve the strategic vision.

### Administrative Support

Saskatchewan Health, coordinated by Acute and Emergency Services Branch, will provide administrative support to the EMS Review Committee.

## Consultation

To complete its work, the EMS Review Committee may consult patients and/or families, stakeholders such as, but not limited to, the, Saskatchewan Emergency Medical Services Association, Saskatchewan Association of Rural Municipalities, Saskatchewan Urban Municipalities Association, Saskatchewan Association of Health-Care Organizations, Saskatchewan Medical Association, Saskatchewan College of Paramedics, College of Physicians and Surgeons of Saskatchewan, the Saskatchewan Institute of Applied Sciences and Technology.

The Committee will determine the means such consultation will take – focus groups, written submissions, etc. – but in so doing will not duplicate work that is already included in or underway through the Patient First Review.

## Costs

The costs associated with operation of the Committee, including compensation for the external chair and any external research/support services required by the Committee, will be born by the Ministry of Health.

Costs associated with the participation of SEMSA and regional health authority representatives will be born by their respective organizations.

# Appendix B: Consultation Guide

**Consultation Guide**
**EMS Review Committee**
**January 2009**

### Introduction – Request for Input

Health Minister Don McMorris has struck a committee to develop a road map with a clear direction for EMS development over the next 5 years. The "EMS Review Committee" is led by Chair Don Cummings and has members representing health regions, the Saskatchewan Emergency Medical Services Association and the Saskatchewan Ministry of Health.

The EMS Review Committee began meeting late in 2008. By March 31, 2009, the Committee will recommend a strategic vision for (ground-based) EMS and provide prioritized recommendations for a 5 year plan to achieve the strategic vision

The opinion of your organization is important to the Committee's task. You are invited to provide written submissions for this review by [30 days after distributed].

### Suggestions for Written Submissions

The EMS Review Committee is seeking direction on how to best understand challenges in the current EMS system, to describe a future vision for EMS and develop options for changing this vital area of our provincial health system so that a shared future vision is achieved. Our focus is to create a long-term strategic direction to guide near-term business planning and key policy decisions.

The Committee has developed four key questions that may be considered when developing written submissions that will contribute to a future direction for EMS in Saskatchewan. As background to the questions, there are explanatory notes and examples for your consideration when developing your submission. Of course if you have issues not captured by the four key questions, please feel free to provide your views on these as well.

### What is EMS?

Historically, definitions of ground-based EMS have focused on emergency response providers (ie. First Responders and road ambulance services that respond to a medical emergencies) and related services. As EMS has developed, definitions have broadened to include providers of emergency response and emergency patient transportation, the transfer of patients between health facilities, emergency preparedness, and EMS provider training.

In recent years a broader definition has been emerging. One expression of a broader definition is found in the EMS Chief's of Canada document titled "The Future of EMS in Canada: Defining the Road Ahead", released in 2006. The document argues that the future of EMS "is at the centre of the community, providing primary health care in a mobile setting" (Page 3). This broader definition also

includes the provision of injury prevention and control, public education, and training and research services.

**Consultation Question #1: Within the current EMS system, what challenges prevent service from being provided in a manner that best serves the needs of patients and their communities (i.e. where the right service is accessible to the patient at the right time with the best possible outcome)?**

*Background*
When considering where you feel challenges exist and which should receive priority attention in the coming years, you may want to think about the timeliness of access patients have to First Responders and road ambulance services. Also of note may be the type of service these providers are able to offer patients including the qualifications of care providers, the types of vehicles and medical equipment used, and communications and technological supports within their services or as provided by dispatch agencies.

In Saskatchewan, as in most provinces, the road ambulance system is funded provincially as well as through patient fees. Many patients have expressed concern with the amount of these fees, as well as whether there are some services for which there should be no charge. Service providers often question whether their access to human and financial resources is sustainable and predictable. You may want to take this information into account when providing a written submission to the Committee.

**Consultation Question #2: How could the current EMS system change to best meet patient and community needs?**

*Background*
A provincial EMS system that best met the needs of patients and communities would presumably address current challenges, as well as plan to meet future challenges. Challenges may be addressed through partnerships between the ministry, health regions and EMS services providers. These partners may want to set priorities for standards in access and direct care provision, determine approaches for providing adequate human and financial resources for EMS, determining the right mix of services and care providers, and enhance system access to equipment and technological supports.

Structures and processes currently used in EMS may need to change so that patients are better served. Examples may include enhanced coordination of patient transportation within the health system by EMS providers with assistance from EMS dispatch and health region facilities. Many argue that because of advances in EMS provider training and their trusted, mobile presence in the community, EMS providers could be utilized to enhance the provision of health care within the community. As well, support of change from the traditional EMS response to emergency calls by transporting a patient to the nearest hospital or health centre (e.g. transport to an alternative location, treat and refer,

and others). Again, you may want to take this information into account when providing a written submission to the Committee.

### Consultation Question #3: How would you describe an EMS system that is fully integrated into the provincial health system for the benefit of patients?

*Background*
Many argue that existing EMS services and providers need to be better integrated within the broader health system and within interdisciplinary health care teams. Certainly, the public wants all services to be run efficiently, and "efficiently" often means health care providers are most effective when operating as a team. Where the lack of health care providers is a challenge, maximizing the opportunity for various disciplines to contribute may be of great benefit. As well, the lack of coordination and communication between agencies including EMS and others in the health system can affect patients. These are additional perspectives you may want to take into account when providing a written submission to the Committee.

## Final Instructions

Remember, the content of the submissions you develop need not be limited by the consultation questions and background information contained in this document. Rather, these are meant for your reference. Please do send your submissions to Don Cummings, Chair of the EMS Review using the following contact information by [30 days after distributed].

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# Appendix C – Summary of Consultations

Issues and recommendations provided by stakeholder submissions to the committee were reviewed and analyzed. The issues are grouped according to theme(s) presented in the course of stakeholder consultations. We have organized these themes into two main groups consistent with the issues section of the report: patient issues and system issues.

The patient issues predominantly are driven by access to care issues. These issues include cost of services, timeliness, referral patterns, and human resource and training issues. System issues are issues that more directly affect the services and agencies involved in EMS provision, and include financial, capital, infrastructure, and regulatory issues.

While there is some overlap between the two themes, for example, a system issue such as funding may be connected to an access issues such as cost when the lack of funding for a service drives the high cost to the patient. However, for ease of discussion, and to get an overview of the issues that are the most concerning for respondents, these categories will be used for discussion purposes here.

### Patient Issues

Many stakeholders expressed concern with the cost of EMS services to the patient. There are a variety of types of fees (pick-up, waiting time, per-kilometre charges), and some felt that there was a lack of transparency in the way that these fees are administered. In particular, the cost of inter-hospital transfers was repeatedly mentioned by respondents. There was a great deal of support for the review of inter-hospital transfer fees, and the view that these fees should be reduced or eliminated was a common one.

Stakeholders also identified the apparent inequality in the current fee structure in that the cost to people in rural areas ends up being significantly higher due to the per-kilometre charges.

The lack of timeliness of EMS service was another theme in the consultations. Again this issue had the largest impact on those patients from rural areas. Patients mentioned long waits when an ambulance was called, often because the ambulance from the closest town was out of the area, and it took a long time for the next nearest service to respond. Off-load delays and long waits at hospitals which tie up ambulances and their crew in emergency departments were often cited as a reason for lack of timeliness.

Establishing minimum response times and coordinating hospital transfers were ways that were suggested to deal with this issue. Others mentioned staffing patterns as a problem, since on-call staff may be at home and take longer to respond. Recruitment and retention problems of small services may also be due to the use of part-time and on call staffing models, which can create barriers to career pathways, and in turn, impact the timeliness and professional level of the service.

Another common theme in the consultation process were the many issues regarding EMS human

resources. The consultations most frequently spoke to the variability in the level of EMS providers across the province. While some areas (most notably the large urban cities) have continuous paramedic access, others may have an EMT or an EMR as the highest level of service provider in an ambulance. Respondents repeatedly called for equal access to equal care across the province, with many suggesting minimum standards of EMT or paramedic for all ambulance staffing.

Consultations also frequently raised the issue of training of EMS professionals. One theme to these issues was that provider qualifications are not consistent across the province. The College of Paramedics also raised issues with scope of practice of EMRs and EMT which has lagged behind that found in neighbouring provinces.

The small number of EMS professionals trained annually and the ability of SIAST to effectively provide this training were also mentioned as concerns, leading to a possible shortage of EMS professionals in the near future. A second issue often mentioned related to training is limited access for many to professional development and continuing education training (more a problem in rural and small services), and the high cost of this training without financial assistance or incentives from employers or other agencies. At the same time, the two largest urban services offered to support regional initiatives for specialized training.

Many stakeholders suggested that a significant number of the issues faced by EMS in Saskatchewan could be ameliorated by expanding the role of the EMS provider, and allowing them to utilize their full scope of practice. Recommendations to explore different models of care included employing paramedics in community/primary care in rural and northern settings, and in acute care such as in emergency rooms and critical care units. Other recommendations mentioned exploring treat and release/refer protocols, alternate transport locations (such as a clinic), and the concept of mobile heath care services.

Cooperation between unions, professional disciplines, and governance bodies was also suggested to deal with some of the ongoing human resources issues. Many respondents recommended integration of EMS as a partner in the larger health care system.

Several fire services submitted a coordinated response. Submissions from the fire community echoed the feeling that fire and protective services should play a bigger role in providing EMS services. They suggested a model where Fire and EMS agencies are dispatched together, and partner to provide basic life support (and some mentioned First Responder) services to their communities. They also asked for equal access to provincial funding for the provision of patient care, and education and training for their staff.

Non-fire sector First Responder groups suggested a review and a renewed commitment to the First Responder program. Ongoing administrative assistance, access to continued education and the opportunity to interact with other health service providers was recommended to sustain the system. First Responders also asked for communications and GPS equipment, municipal education programs

to help rural people know their land locations, and better dispatch procedures to help them reach their destinations faster.

### System Issues

Consistent with the body of this report, funding issues were the biggest concern for ambulance service providers. Inconsistencies in the allocation of funding and inequities in funding were mentioned most often, along with recommendations for a funding formula that is fair, predictable, and sustainable, has clear deliverables, and timely regular review. The other financial concern most often mentioned can best be explained by this quote: "[health region] funding should be targeted for EMS so it remains in the EMS budget…".

Consistently, there were complaints as to the current global funding methodologies that is further discussed in the body of this report.

Capital costs for vehicles and equipment were a frequently mentioned concern for many respondents. Funding for reasonable fleet and equipment upgrades (purchase or lease) was recommended, along with equipment standardization, a replacement process, and regular inspections of vehicles.

Infrastructure issues were also common. Concerns with the current dispatch system surrounded the speed and quality of call handling, lack of provision of clinical advice to callers, and calling for better triaging to clarify type of service needed so that fewer services (fire, police, ambulance) are dispatched to the same call. A consistent provincial or central dispatch system was recommended, using improved data collection and provincial billing system tools, ePCR, digital mapping and GPS. Access to information in the pharmaceutical information program was also recommended to reduce the risk of medication errors.

There were many calls to change the regulatory environment of EMS. A lack of consistent policy and governance was a common concern, with recommendations to clearly outline the roles, responsibilities, accountabilities and governance of each part of the system, and have any changes to the system based on ongoing evaluations and best evidence. One quote very aptly sums up many responses: "It is recommended that EMS needs to be a policy driven system with consistency and clarity in governance, establishing roles of both Ministry and RHA to ensure a Patient First Model."

# Appendix D: Location of Road Ambulance Services in Saskatchewan

| Regional Health Authority | Communities |
|---|---|
| Cypress (12) | Cabri , Consul, Eastend, Frontier, Gull Lake, Leader, Maple Creek, Ponteix, Richmound, Shaunavon, Swift Current, Val Marie |
| Five Hills (4) | Assiniboia, Central Butte, Gravelbourg, Moose Jaw |
| Heartland (16) | Beechy, Biggar, Davidson, Dinsmore, Dodsland, Elrose, Eston, Kerrobert, Kindersley, Kyle, Luseland, Macklin, Outlook, Rosetown, Unity, Wilkie |
| Keewatin Yatthe (4) | Beauval, Buffalo Narrows, Ile a la Crosse, La Loche |
| Kelsey Trail (9) | Carrot River, Hudson Bay, Kelvington, Melfort, Naicam, Nipawin, Porcupine Plain, Rose Valley, Tisdale |
| Mamawetan - Churchill River (2) | La Ronge, Pelican Narrows |
| Prairie North (8) | Cut Knife, Lloydminster, Maidstone, Meadow Lake, Neilburg, North Battleford, Onion Lake, St. Walburg |
| Prince Albert Parkland (4) | Big River, Blaine Lake, Prince Albert, Spiritwood |
| Regina Qu'Appelle (11) | Balcarres, Cupar, Fort Qu'Appelle, Grenfell, Imperial, Indian Head, Lestock, Milestone, Moosomin, Regina, Whitewood |
| Saskatoon (12) | Cudworth, Humboldt, Lanigan, Leroy, Rosthern, Saskatoon, Strasbourg, Wadena, Wakaw, Watrous, Watson, Wynyard |
| Sun Country (16) | Bengough, Carlyle, Carnduff, Coronach, Estevan, Fillmore, Kipling, Lampman, Maryfield, Oxbow, Pangman, Radville, Redvers, Stoughton, Wawota, Weyburn |
| Sunrise (10) | Canora, Esterhazy, Foam Lake, Ituna, Kamsack, Langenburg, Melville, Norquay, Preeceville, Yorkton |

# Appendix E: Summary of Recommendations

## Recommended Strategic Vision

Over the next five years, Emergency Medical Services (EMS) in Saskatchewan will develop into a Mobile Health Services system. This part of the healthcare system will provide patients with a seamless transition within the continuum of care. MHS will continue to provide strong emergency care services while providing opportunities for augmented, high quality patient care. The MHS system will be fully integrated within Saskatchewan's provincial health system.

## Recommendations

1. Clarifying Roles, Responsibilities, Decision-Making and Accountability

   *It is recommended that roles and responsibilities within the current system are clarified to enable the development of a collaborative, mobile health services system in Saskatchewan. Further, it is recommended that this clearer structure of governance be implemented by January 1, 2010 utilizing the following framework for system-wide governance*

2. Develop an Advisory Body in Support of System Governance

   *It is recommended that a Mobile Health Policy Advisory Council be established, reporting to the Minister of Health, with a mandate to help ensure that quality-based standards become a core component of Saskatchewan's system.*

3. Clarify Medical Advisor Roles

   *It is recommended that physician medical advisor roles within the MHS system of health regions are clarified.*

4. Document Administrative and Clinical Policy

   *It is recommended that a policy framework is developed, with a well-documented set of administrative and patient care policies, and aligned with the clarified roles and responsibilities of within the MHS system.*

5. Ensuring Minimum Standards in Service Provision

   *It is recommended that a consistent set of standards are developed for the MHS system that is supported by a clearly articulated provincial policy framework. The type of standards to be considered may include:*

   - ***Access Standards*** – regarding standards on patient access to response from MHS personnel, both an emergency response by First Responders and road ambulance providers, and a non-emergency response involving other types of service provision;
   - ***Quality of Services*** – regarding the standards and minimum requirements for services, levels of training for practitioners, minimum registration and scope of practice level of providers available to patients including access to EMT-Paramedic resources;

- » ***Quality assurance*** – including processes and related medical advisor roles and responsibilities;
- » ***Licensing of Fleet and Inspections*** – pertaining to ambulance operators, ambulance units and equipment.

6. Reducing Inter-Hospital Transfer Costs to Patients

*It is recommended that patient access to the health system is improved by reducing or eliminating inter-hospital transfer fees.*

7. Better Meet Needs of First Nations Patients

*It is recommended that work with Health Canada is undertaken to ensure the two levels of government support improving the consistency and quality of MHS services accessible to First Nations peoples.*

8. Standardize Funding of Road Ambulance Services

*It is recommended that a standardized model is created to guide the funding of RHAs in their implementation of MHS to be delivered by various categories of service providers.*

9. Enhance Regulatory Environment Affecting Road Ambulance Services

*It is recommended that a more flexible regulatory environment is developed that enables the implementation of a collaborative MHS system described in this report.*

*It is further recommended that the Minister of Health engage key industry stakeholders including a new Mobile Health Policy Advisory Council in the development of changes to statutes impacting service contracts and in the development of a template service agreement that combine to support the development of a collaborative Mobile Health services system. This work will need to address transition issues that operators and health regions may face in the move toward an MHS system.*

10. Develop a Strategy for Saskatchewan First Responders

*It is recommended that a review of the provincial First Responder program is undertaken. This review will address the following issues:*

- » *Standards for First Responder registration;*
- » *Standards for equipment and support to First Responders;*
- » *Registration responsibility of First Responders;*
- » *The role of EMS dispatch in providing First Responder services; and,*
- » *Guidelines to support the consistent deployment of First Responders within the future collaborative Mobile Health Services system.*

*It is recommended that the review of the First Responder program will consult with stakeholders and the recommended Advisory Council.*

*The Committee further recommends work by the Ministry to support the recruitment and retention of volunteer groups providing service to the First Responder program.*

11. Developing a Long-Term Human Resource Strategy

*It is recommended that a comprehensive human resource strategy is developed to provide the human resource capacity and competency that meets the needs of the future MHS system.*

12. Increase Accessibility of Educational Programming

*It is recommended that the Ministry of Health work with the Ministry of Advanced Education, Employment and Labour and other key stakeholders to explore means to increase accessibility to educational programming.*

13. Support Recruitment and Retention Initiatives

*It is recommended that, in addition to other recommendations that will support sustainability of human resources in the longer term, consideration is given to a bursary program for students of EMS education programs that include a return for service commitment.*

14. Providing Equipment for the Future

*It is recommended that a mechanism is developed to address ambulance unit and equipment needs within an MHS funding model for health regions that is linked to provincial service standards.*

15. Pursue an Information and Technology Strategy for MHS

*It is recommended that an information and technology strategy is developed to facilitate MHS, including patient transport and MHS service coordination. Under this general recommendation, two near-term issues must be addressed to develop a functional information technology infrastructure that will allow the system to track the quality of care patients are receiving while optimizing the efficient delivery of services.*

15a) Emergency Medical Services Information System

*It is recommended that the Ministry redevelop or replace the existing Provincial Ambulance Information System (PAIS) so that the information system is more robust, enables operational (e.g. quarterly) data analysis and reporting, and enables interaction with other data systems (including billing systems, electronic patient care reports, Ministry databases and the Electronic Health Record). Potential jurisdictional partnerships for effective and timely PAIS redevelopment should also be explored.*

15b) Emergency Medical Services Dispatch Information Infrastructure

*It is recommended that a review is undertaken of opportunities to develop a shared dispatch information infrastructure to improve system redundancy and allow for system optimization. Further, this system should include provisions to provide for automated mapping and GPS based Automatic Vehicle Locating as well as Computer Assisted Dispatch services.*

16. Initiate a Set of Pilot Projects in Support of the Mobile Health Vision

*It is recommended that support be given to pilot projects which will enable the development of a Mobile Health Service system.*

17. Enable Coordinated Patient Transfers

*It is recommended that system stakeholders are engaged in the development of a patient transfer coordination system.*

*In the short term, the Committee recommends development of a provincial policy enabling joint mechanisms within the industry to break down patient fee barriers to coordinated transfers, and an implementation strategy for health regions and contracted operators.*

18. Enable Role Change for Practitioners

- *It is recommended that work is undertaken to remove barriers for MHS practitioners to best serve patients and more fully utilize their skills through development of:*
- *Supports for integration of MHS practitioners within the health care team, aided by relationship building between provincial stakeholders and role clarity in the work place.*
- *Transport destination options from current requirement of nearest or physician-directed appropriate hospital emergency department, to alternative destinations where appropriate for the patient;*
- *Potential "treat and refer" protocols, training and policies; and,*
- *Role clarification and change to support better integration within the health care team in a range of health facility and community settings.*

19. Revaluate Ministry Roles and Capacity

*Finally, the Committee further recommends a review of the current mandate, role and capacity of the ministry work unit responsible for ground ambulance services.*

# Appendix F: List of Stakeholders Consulted by Committee

The list of stakeholders that were invited to make a submission to the EMS Review Committee in writing included:

Canadian Union of Public Employees (Saskatchewan);
College of Physicians and Surgeons of Saskatchewan;
Commissioner, Patient First Review**
Federation of Saskatchewan Indian Nations;
Health Sciences Association of Saskatchewan;
Registered Psychiatric Nurses Association of Saskatchewan;
Saskatchewan Association of Fire Chiefs*;
Saskatchewan Association of Licensed Practical Nurses;
Saskatchewan Association of Rural Municipalities;
Saskatchewan College of Paramedics*;
Saskatchewan College of Pharmacists*;
Saskatchewan College of Respiratory Therapists;
Saskatchewan Government Employees Union;
Saskatchewan Institute of Applied Sciences and Technology*;
Saskatchewan Medical Association;
Saskatchewan Office of the Fire Commissioner;
Saskatchewan Police Commission;
Saskatchewan Professional Fire Fighters Association*;
Saskatchewan Registered Nurses Association*;
Saskatchewan Urban Municipalities Association; and,
Service Employees International Union*.

*These groups replied in writing to the Committee.

Additional written submissions were received from agencies and individuals including: Advanced Response Vehicles Inc., Mr. Michael Androsoff, Asquith First Responders Group, Atrus Inc., Mr. Dale Backlin, Mr. Bill Cook, Mr. Dave Dutchak, the EMS Working Group (health regions), Mr. Tim Hillier, Mr. Darcy McKay, Medusa Medical Technologies Inc., MD Ambulance and Regina EMS, Moose Jaw Fire Department, Mr. Mel Nickel, Mr. Duane Mohn, North Battleford Fire Department, Physio-Control of Medtronic Inc., Prince Albert Fire Department, Regina Fire Department, Regina Qu'Appelle Respiratory Services, RM of Corman Park, Saskatchewan Emergency Medical Services Association (SEMSA), Saskatoon Fire Department, Spiritwood Ambulance Care Ltd., Swift Current Fire Department, Sun Country Health Region and Town of Warman.

**Excerpts related to EMS from the Focus Groups of the Patient First Review were also provided to the Committee.