



# Annual Report 2007/08

December, 2008

Honourable Chris d'Entremont Minister of Health  
1690 Hollis St. Halifax, NS B3J 2R8

Dear Minister d'Entremont:

It is with great pleasure that we present EHS' eighth annual report to you covering the 2007–2008 fiscal year. This report provides an overview of the EHS system and its successes.

There are too many accomplishments to mention individually; however, some highlights worth special mention include:

- Province-wide implementation of an electronic patient care record (ePCR);
- Adoption of a new pre-hospital cardiac care protocol that results in more timely and effective care for patients suffering a heart attack (RESTORE); and
- Nine new and modernized EHS facilities in communities across the province.

The EHS system continues to learn and evolve. We continue to participate in international, national and regional forums in the spirit of collaboration, research and knowledge sharing.

Nova Scotia's EHS system is recognized for its innovation and leadership with respect to out-of-hospital patient care. This recognition is directly attributable to the commitment and passion of the people who comprise the EHS system. Through our ongoing partnership with EMC, and relationships with other key stakeholders we continue to make progress towards our vision of service excellence.

Sincerely,

Ian Bower  
Executive Director (A)  
EHS and Primary Health Care

Paula English  
Chief of Program Delivery (A),  
Nova Scotia Department of Health

## Communications & Dispatch Services

### 2007/2008 Highlights

In 2007/2008, the EHS Medical Communications Centre received:

- 111,526 requests for ground ambulance service. Of these requests 44,077 were emergency, 16,264 were urgent, and 51,185 were transfers.
- 884 requests for air ambulance service

In addition to the normal operations of a Medical Communications Centre for the province, this has been a very busy year for Communications and Dispatch Services at EHS. The ePCR project was completed province-wide and was a huge success. By the end of December 2007, all ground paramedics were trained and able to document electronically on all patient-care activities provided while in the field. The project has now been officially transitioned into a "program" at the operations level for ongoing maintenance and support.

In addition, VisiNet Mobile went live along with ePCR this year. VisiNet Mobile is a module of

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our computer aided dispatch (CAD) system that links the electronic tablets with the ePCR software on them, with the "time" information from the CAD in the Communications Centre, allowing the paramedics in the field to obtain their "call" information via wireless connectivity directly on their tablets and to return information in the same way, back to the Communications Centre. As well, VisiNet provides the digital map of Nova Scotia at the hands of the field personnel.

Upcoming for next year, is a major upgrade to the ePCR system! As with other technologies, there is a requirement to keep the system as up-to-date as possible and to improve efficiencies within the system itself! Looking forward to this over the upcoming year!

Figure 1 Top Ten Chief Complaints 2007/08

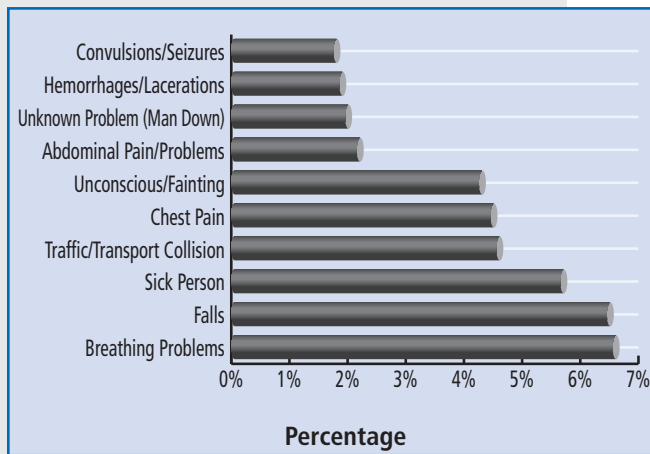
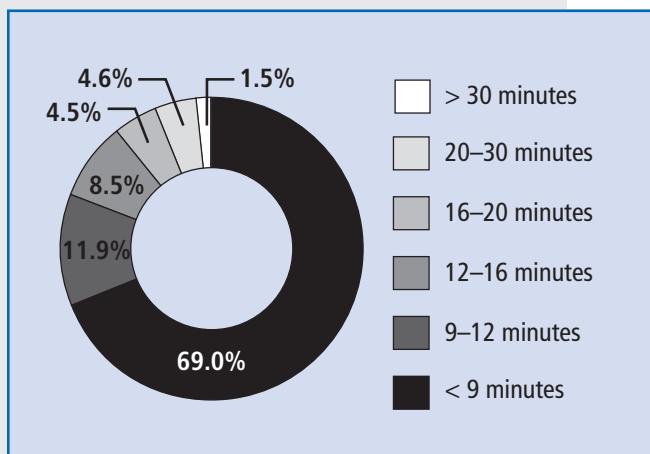


Figure 2 Response Times for Emergency Calls 2007/2008



## Ground Ambulance

The major initiative for 2007–2008 is the preparation for a new contract with the ground ambulance service provider. The contract, scheduled to expire in April 2009, will be replaced with a more mature contract, reflecting the ever-changing requirements of a comprehensive emergency health services system.

Other EHS ground ambulance system highlights include:

- Response to 111,526 requests for ground ambulance service which resulted in 93,528 transports
- Over 10 million kilometers traveled by the EHS fleet
- 1.8 million litres of fuel burned
- Increased kilometers traveled with a decreased loss ratio for collision claims
- 34 ambulances retired and replaced with new type III vehicles
- Addition of Bariatric ambulance to the fleet
- Completed upgrades to defibrillators, all LP12 devices now have 12-lead capability
- Addition of three disaster trailers for response to special events and disaster sites

New facilities built in the following communities

- St Bernard
- Yarmouth
- Woods Harbour
- Long and Brier Island (garage only)
- Neils Harbour
- Eskasoni
- New Waterford
- Glace Bay
- Cole Harbour

New Emergency Generators installed at Paramedic Bases: 15

Total bases with Emergency power: 27

EHS system vehicles (as of March 31st, 2008)

Type I ambulance	4
Type II ambulance	20
Type III ambulance	121
Expedition	8
Fleet Services	4
Medical Command	1
Disaster Trailers	5
Gators	3

## Emergency Preparedness

2007 saw the passing of responsibility of Health Emergency Preparedness to a new Department of Health division. The responsibility for health system emergency preparedness rests with the HEMC, Health Emergency Management Center as of September 2007.

The EHS system provided coordination and response to operation “Heave To”, the response with over 25 other municipal, provincial, federal, and non-governmental organizations to the suspected smuggling of humans into Canada. Even though no humans were found on the suspect ship, the planning, coordination and response by the EHS system and the Health System in Halifax was significant.

In addition, EHS played host to the National Forum on Emergency Preparedness and Response. This annual meeting brings together key leaders in Canadian Federal, Provincial and Territorial governments to discuss common and emerging issues in health emergency management.

# EHS Provincial Programs

EHS Provincial Programs consists of the following four programs:

- EHS LifeFlight
- EHS Atlantic Health Training and Simulation Centre
- EHS Nova Scotia Trauma Program
- EHS Medical First Response Program

## EHS LifeFlight

EHS LifeFlight's mission is to provide critical care to ill and injured patients and immediate access to expert consultative and safe, timely air medical service. All medical, aviation, communication and administrative staff strive to ensure that we fulfill our mission and continue to progress to meet and surpass standards for air medical services and critical care transport of our patients.

In addition to excellent critical care, EHS LifeFlight continues to excel in the areas of professional development, quality and research initiatives in collaboration with our partners and stakeholders. Emergency Medical Care assumed management responsibility for EHS LifeFlight in May of 2008. Safety and patient care remains the cornerstone of EHS LifeFlight operations.

## EHS Atlantic Health Training and Simulation Centre

The staff and faculty of the Atlantic Health Training and Simulation Centre continued to provide high calibre simulated clinical learning opportunities for a variety of stakeholder groups in 2007-08.

Simulation Centre faculty and staff were also successful in 07/08 in the publication of research conducted in the simulation centre, in which a large number of paramedics, respiratory therapists, senior medical students, and residents participated: Kovacs, G, Law, JA, McCrossin, C, Vu, M, LeBlanc, D & Gao, J (2007). *A Comparison of a Fiberoptic Stylet and a Bougie as Adjuncts to Direct Laryngoscopy in a Manikin-Simulated Difficult Airway*. *AnnEmergMed.*, 50(6).

## Simulation and Training Statistics

Participant Type	Participant Contacts	Contact Hours
Physicians	381	202
Critical Care Residents	193	
Advanced Trauma Life Support	96	
Anesthesia Residents	54	
Emergency Med. Residents	38	
<b>Nursing</b>	<b>97</b>	<b>91</b>
RN Prof. Dev. Centre Students	86	
Nursing CME	9	
International Grad. Assessment	2	
<b>Paramedics</b>	<b>94</b>	<b>80</b>
Paramedic Students	36	
Paramedic CME	30	
Paramedic Mega Code	16	
Paramedic OSCE	8	
Paramedic Assessment	4	
<b>Multi-disciplinary Teams</b>	<b>50</b>	<b>24</b>
LifeFlight	24	
Mobile Trauma Education	18	
OR Team	8	
<b>Medical Students</b>	<b>42</b>	<b>21</b>
<b>Respiratory Therapy Students</b>	<b>24</b>	<b>32</b>
<b>TOTALS</b>	<b>688</b>	<b>450</b>

## EHS LifeFlight Statistics

Figure 3 Air Medical Transports by Mission Type (497 air medical transports in 2007/08)

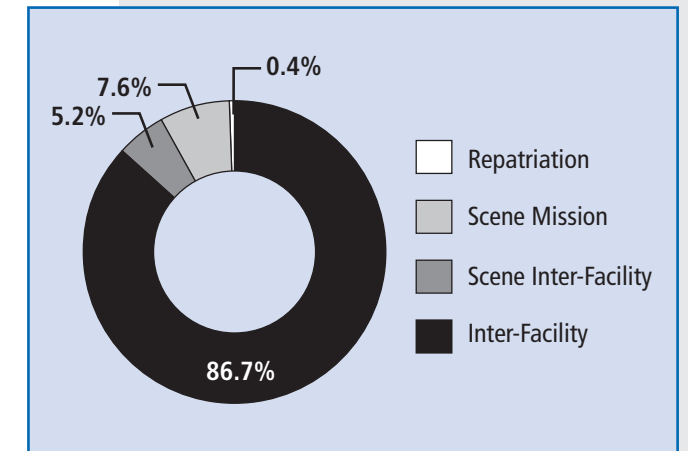
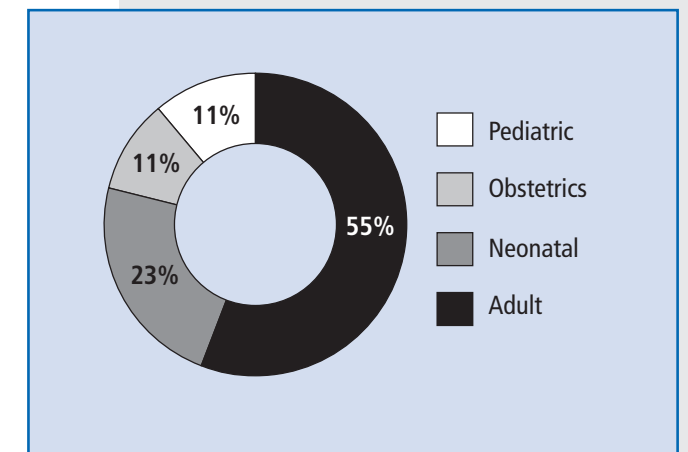


Figure 4 Air Medical Transports by Patient Category (497 air medical transports in 2007/08)



## EHS Nova Scotia Trauma Program

The dedicated staff of the Trauma Program continues to facilitate the provision of optimal trauma care in Nova Scotia through leadership in the following areas:

### Research

The Nova Scotia Trauma Program is involved in a number of trauma research projects using both registry data and external data sources. Current research collaborations include the projects with the Division of EMS - Dalhousie University, Department of Neurosurgery – CDHA, as well as other provincial and national organizations. The following research projects have been completed during this year:

- Head-Injured Patients with Surgery for Acute SDH and/or EDH: A Population-Based Study
- Influence of a Province-Wide Trauma System on Motor Vehicle Crash Mortality and Trauma Care: A Ten Year Follow-Up Evaluation
- Rapid Sequence Intubation by Non-Physician Air Medical Crews: An Eight Year Province Wide Evaluation.

### Education

The NS Trauma Program continued to fulfill its education mandate through the provision of monthly tele-health and multi-disciplinary trauma rounds, as well as the provision of mobile trauma education sessions in conjunction with the Atlantic Health Training and Simulation Centre, and the coordination of the Advanced Trauma Life Support course.

If you require any further information about any of the Trauma Program's educational initiatives, please contact Kathy Hartlen, Education Coordinator, at (904) 473-3778, or [kathy.hartlen@cdha.nshealth.ca](mailto:kathy.hartlen@cdha.nshealth.ca)

### Trauma Registry

The provincial trauma registry is the most comprehensive database on major injury in Nova Scotia, and continues to be utilized for a number of research projects, presentations, and publications.

A number of process enhancements were implemented in 2007/08, including the importation of data directly from the Discharge Abstract Database at the QEII Health Sciences Centre, and training of the registry staff in the AIS 2005 injury coding system.

Requests for registry data may be made by using the NS Trauma Registry Data Request form, available on the EHS website: [http://www.gov.ns.ca/ehs/trauma/pubs/release\\_of\\_information.pdf](http://www.gov.ns.ca/ehs/trauma/pubs/release_of_information.pdf)

## EHS Medical First Response Program

### Vision

A provincial network of volunteer, community support, medical first response teams adequately resourced and competently staffed.

### Mission

Enhance a community's ability to provide safe, effective, reliable first aid through participation in the provincial medical first responders program.

As of March 31st, 2008, there are 184 EHS Sponsored MFR Agencies in Nova Scotia with 2,219 active medical first responders registered in our new database. An interesting statistic, our medical first responders range in age from 20 to 74 years, with the average age being 41 years young. We also have 66 paramedics registered in our database as medical first responders.



EHS MFR Services has been busy with many new initiatives. All medical first responders were offered the opportunity to receive the MMR vaccination at no cost. Nearly 3000 letters were prepared and mailed to the medical first responders, however at this time only 16.3% of the medical first responders have received the vaccine. EHS has provided funding to purchase 65 biphasic LifePac 500s. There will be an application and evaluation process and we envision once the LifePacs are allocated to EHS MFR Agencies, all 184 sponsored MFR Agencies will have either a monophasic or biphasic AED (automated external defibrillator). EHS has also provided funding to purchase 2 reflective safety vests for all MFR Agencies. These vests will be ordered and distributed. We have received nearly 300,000 hits on our website [www.ehsmfr.ca](http://www.ehsmfr.ca)! The website is being revised and shall be even more user friendly in the near future.

This past fiscal year has certainly been busy with respect to refresher training sessions. There were 160 sessions attended by first responders throughout Nova Scotia. We have 35 dedicated paramedics that volunteer their time to facilitate these sessions. We acknowledge and truly appreciate our paramedics and all the first responders that work together to improve the skills of the medical first responders while at the same time definitely enhancing the relationships between medical first responders and our paramedics.



## Medical Oversight

During 2007–2008, the Office of the EHS Provincial Medical Director continued to be involved in the optimizing of patient outcomes through the various EHS programs: Ground Ambulance, Medical Communications Centre, Medical Oversight, and Medical First Response. This has been centered on the improvement of care for all patients with a specific focus on cardiovascular, neurovascular, and respiratory disease.

Novel programs included the implementation of the **RESTORE** (PRovincial PrEhospital STEMI Reperfusion StratEgy) program in DHA 8 (Cape Breton). This initiative allows paramedics to receive training to administer a special clot-busting drug called Tenectopase (TNK). This drug can be highly beneficial to heart attack patients. Typically TNK is only given to patients in a hospital setting. By allowing paramedics to administer TNK it ensures that patients in need will receive the drug quicker which reduces the chance of permanent heart damage and improves patient outcomes. The Office of the PMD has also continued to be involved in the novel Yarmouth Prehospital Stroke Program which prioritizes patients to be transferred to the closest stroke centre based on both symptom duration and anticipated time to arrival at the Stroke centre being less than 2.5 hours. The success of these programs as models for deployment of similar initiatives across the province and elsewhere and are excellent examples of knowledge translation.

EHS has also continued the collaborative Community Paramedicine Program in Long and Brier Island and is currently evaluating the opportunity for other unique models of utilizing paramedics in chronic disease management and primary care.

Lastly, the foundation of our prehospital care is the Evidence-Based pre-hospital protocols (<http://www.gov.ns.ca/ehs/> or <http://emergency.medicine.dal.ca/ehsprotocols/protocols/toc.cfm>) which continues to grow with stakeholder involvement at National and International Levels. At present the Prehospital Protocols are currently undergoing formal Clinical Practice Guideline Evaluation utilizing the commonly accepted AGREE Instrument (Appraisal of Guidelines ResEarch and Evaluation, <http://www.agreecollaboration.org>).

Figure 5 Service Inquiries by Year

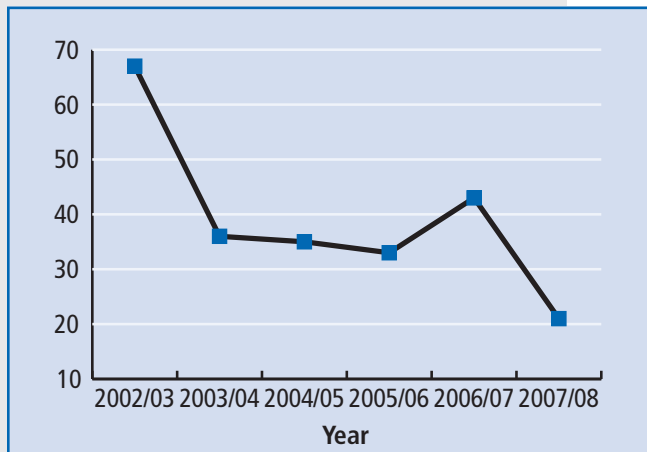
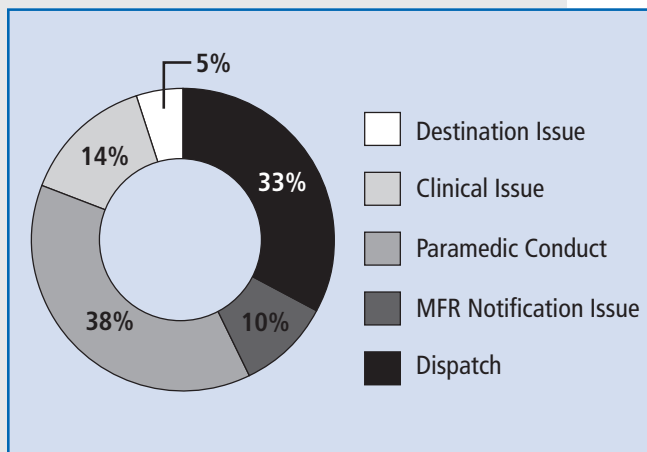


Figure 6 Service Inquiries by Nature 2007/08



## EHS System Inquiry Process

EHS uses the system inquiry process to establish trends in customer satisfaction. Due to the small number of formal inquiries received on an annual basis, it will require several years of data collection to reach definitive conclusions regarding particular trends or concerns. Figure 5 shows the number of inquiries per year from 2002/03–2007/08.

In 2007/08, EHS received a total of 21 formal inquiries. There are a variety of reasons for making a system inquiry. These include: questions/comments regarding medical procedures and protocols, paramedic performance, patient transfer questions or response times. Figure 6 demonstrates the breakdown of inquiries by the nature of the inquiry.

The system inquiry process is open to all citizens of Nova Scotia. For more information on the process and the form to fill out, visit the EHS website at [www.gov.ns.ca/ehs](http://www.gov.ns.ca/ehs).



## Financial

The Nova Scotia Department of Health provides EHS with the resources to run emergency health services in the province. Figure 7 shows the actual expenditures for the last ten fiscal years.

The Department of Health's budget for 2007/08 was \$2.95 billion, of which the EHS budget was 3.21%. The EHS budget for 2007/08 was estimated to be \$95.0 million, with actual expenditures of \$92.5 million, for a variance rate of 3.75%.

Approximately 80% of the dollars spent are for paramedic, nurse, physician and other health professionals' salaries. The remaining 20% cover operational costs.

### Ground Ambulance Service Fees

The cost of ambulance services is not and has never been an insured service. Each province determines the amount and the circumstances under which it will subsidize its services.

For Nova Scotia residents, that is, individuals with a valid Nova Scotia Health Card, the government covers all costs associated with the care given by paramedics during an ambulance transport between approved facilities, i.e., between hospitals.

For medically essential transports, with a valid Nova Scotia Health Card, from place of residence to an approved health facility or scene to an approved health facility a service fee of \$130.60 is charged.

In those instances where an individual does not have a valid Nova Scotia Health Card; is eligible for third-party payment (insurance); or the ambulance trip is not medically essential, an unsubsidized rate is charged. The following fee schedule outlines the service categories and corresponding fees.

The revenue collected for service fees during the fiscal year 2007/2008 was approximately \$8.0 million.

EHS Ground Ambulance Service Fees (As of April 1st, 2008)	
Category	Ground Ambulance Service Fee
Between two approved facilities with a valid NS health card *	\$0.00
Scene to hospital with valid NS health card *	\$130.60
Hospital to place of residence with physician approval *	\$130.60
Home to doctor's office if mobility challenged	\$163.24
Non-Nova Scotian; Canadian citizen	\$652.98
Third party insured, e.g., motor vehicle collision, work related injury	\$652.98
Non-Canadian	\$979.46

\* If Non-Canadian, the cost is \$979.46;  
If third party insured, the cost is \$652.98

Source: Ambulance Fee Regulations

# EHS Organizational Profile

Emergency Health Services (EHS) is a branch of the Department of Health. EHS continually develops, implements, monitors and evaluates out of hospital emergency health services in the province.

**Vision:**

Centre of excellence in emergency health services.

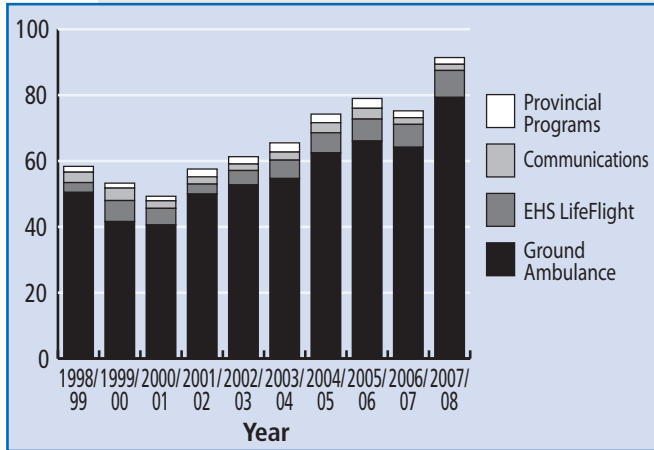
**Mission:**

EHS assures best practices in out of hospital emergency services to the communities we serve through regulation, prevention, education and research.

**Strategic Directions:**

- EHS provides evidence-based, high quality, safe patient care.
- EHS provides innovative programs and services in an integrated health care system.
- EHS promotes excellence in sustainable programs and services through leadership, regulation and contract management

Figure 7 Financial Summary by Program (Millions of Dollars) 2007/08



# Contacts at EHS

## General Inquiries

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