

## 8.

### HEALTH - EMERGENCY HEALTH SERVICES

#### BACKGROUND

**8.1** Emergency Health Services Nova Scotia (EHSNS) is a branch of the Department of Health. The mission of EHSNS is to develop, implement, monitor and evaluate pre-hospital emergency health services for Nova Scotians.

**8.2** EHSNS is not a direct service provider of emergency health services. The day-to-day operation of emergency health services programs is delivered by contractors. Exhibit 8.1 summarizes the major programs administered by EHSNS and the associated contractors.

**8.3** Emergency health service in Nova Scotia has undergone a significant transformation since the Department issued a major report on this sector of the health system in April 1994. At that time, the emergency health program consisted of ground ambulance services provided by private sector operators in 54 geographic areas who were subsidized by the Department of Health. The report found that service and training standards, and equipment maintenance were not adequate in some areas of the Province and that the Department lacked adequate information and processes to adequately regulate this industry.

**8.4** In 1995, the Emergency Health Services Branch of the Department of Health was created. One of the first initiatives of the Branch was to replace the ambulance fleet over a three-year period at a cost of approximately \$9.5 million.

**8.5** EHSNS decided that it was necessary to consolidate the number of ground ambulance operators in the Province by purchasing existing private ambulance operators. The cost of acquiring private ambulance operators was \$14.3 million. In January 1999, the Department signed a contract with a single operator, Emergency Medical Care Inc. (EMC), a subsidiary of Maritime Medical Care Inc. (MMC), which is now responsible for approximately 90% of the ambulance call volume in the province. Five other small ambulance operators remain in the Province. Operational statistics related to the ground ambulance operation are presented in Exhibit 8.4.

**8.6** In 1996, EHSNS created a single, Province-wide communications and dispatch centre in Bedford and introduced an air medical transport program. The costs of these operations during the 1999-2000 fiscal year were \$3.7 million and \$5.4 million respectively. From 1996 to the present, several other programs and initiatives were introduced, including a paramedic training and certification program, a medical control initiative, a trauma program and a first responder program. The Branch maintains a well designed web site which contains useful information about the Branch at [www.gov.ns.ca/health/ehs/](http://www.gov.ns.ca/health/ehs/).

**8.7** The expansion of emergency health services has resulted in corresponding cost increases. The cost of emergency health services to the Province for the 1994-95 fiscal year was \$13.6 million. Emergency health services costs in 1999-2000 were \$53.3 million, net of user fees, and the budgeted net cost for 2000-01 is \$49.2 million. Exhibit 8.2 summarizes EHSNS costs over a seven-year period.

**8.8** The principal cost drivers of emergency health services are the medical standards, policies, protocols and procedures adopted by the Branch. For example, better qualified paramedics have resulted in increased salary costs. Decisions with respect to medical standards are based on investigations by the Medical Director of practices in other jurisdictions and reviews of clinical research. Final decisions on changes to medical standards are made by the Executive Director of the Branch with approval of Department senior management.

**8.9** This was our first audit of emergency health services. This audit was conducted under Section 8 of the Auditor General Act.

## RESULTS IN BRIEF

**8.10** The following are the principal observations from our review.

- There is no legislation for the provision of emergency health services. It is important that EHSNS have explicit legislative authority to impose user fees, training, licencing, medical standards and other matters. In 1994, legislation was assented to but not proclaimed. We have recommended that legislation and regulations governing the activities of EHSNS, containing appropriate accountability provisions, be developed and enacted as soon as possible.
- EHSNS developed a strategic and operating plan in 1996 which includes the vision, mission, values, strategic goals, operating plans and specific initiatives planned for the next five years. The current operating plan covers the five-year period ending March 31, 2003. We found the strategic and operational planning to be thoughtful and comprehensive. The plan was last revised in February 1999 and should be updated in the near future. We have recommended that EHSNS report performance in accomplishing planned objectives to the House annually.
- The Branch has a formal, written contract evaluation process in place for the air medical transport program. We note that similar contract evaluation processes are not in place for the ground ambulance and communications and dispatch centre contracts. We have recommended that plans for periodic written contractor evaluations for the ground ambulance and communications and dispatch centre be developed as soon as possible.
- The ambulance lease agreement requires ambulances to undergo regular preventive minor and major maintenance. We examined the maintenance records for 10 ambulances consisting of 148 minor and 19 major maintenance reports. We found that minor and major preventive maintenance was not always being performed within the kilometre limits specified in the lease agreement. Failure to perform preventive maintenance when required may lead to a reduction in rebates at the end of the lease term. At the time of our audit, there were outstanding disagreements with the contractor over the condition of 47 of 90 returned ambulances which eventually resulted in the loss of \$562,000 in rebates. The Department and EMC had not established which entity would be responsible for the lost rebates. Department management has informed us that controls have been established to prevent the loss of rebates in the future.
- EMC was selected as the preferred contractor for ground ambulance services on a sole-sourced basis. We were informed by Department staff that a public request for proposals was not issued because the Department lacked financial and operational

data upon which to base a request. The reason for accepting EMC as the preferred operator was strongly influenced by Executive Council's preference for a Nova Scotia based operator. There does not appear to be a written evaluation of EMC as a suitable candidate for a Province-wide ground ambulance operator against predetermined evaluation criteria notwithstanding that EMC was a new company and neither EMC nor the parent company (MMC) had any previous experience in the ambulance business. There also does not appear to have been an analysis of the costs and benefits associated with alternative service delivery by a non-profit or government agency.

- Contractor compliance with the terms of the ground ambulance contract is controlled through a system of performance requirements, incentives and penalties. The most significant of these are ambulance response times and paramedic qualifications. The reporting of monthly performance indicators by EMC to measure contractor compliance with response time performance was under development at the time of our audit. The ground ambulance contract also calls for penalties, commencing in the 2000-01 fiscal year, for certain performance failures. A system for capturing and reporting performance failures had not been fully developed at the time of our audit.
- Prior to 1995, ambulance services were provided by private sector operators in approximately 54 geographic regions in Nova Scotia. To facilitate the transfer to a single operator, 34 existing ambulance operations were purchased at a cost of \$14.3 million. Our review of this transaction revealed significant deficiencies in documentation and accountability. As a result, we were not able to reach a conclusion on whether these transactions were carried out with due regard for economy.
- We found a lack of clear direction from EHSNS to EMC identifying situations where EMC is required to comply with Provincial procurement policy and we have recommended that such direction be documented.
- User fees are charged for ground ambulance and air medical transports. There is no legislative authority governing the levy of these user fees. We found the process for establishing ground ambulance and inter-provincial billing rates for air medical transport to be well researched and documented. Although rates charged are not always based on the full cost of services provided to users of the system, there is a documented rationale for the rates used.

## AUDIT SCOPE

**8.11** The objectives of this assignment were to determine:

- the adequacy of the accountability and financial management framework of the Branch and its contractors to the Minister, Deputy Minister and the Legislature;
- whether the administration, management and evaluation of service contracts, administered by the Branch, are conducted with due regard for economy and efficiency;
- the adequacy of the administration, management, accounting and control systems over the ambulance fleet and other equipment administered by the Branch or its contractors;

- whether procurement systems, policies, procedures and controls provide due regard for economy and efficiency, and compliance with government procurement policies;
- whether the acquisition of private ambulance operators was administered with due regard for economy and efficiency; and
- the services subject to user fees, the basis upon which fees are established and whether the Province is assessing and collecting all the revenues and user fees to which it is entitled.

**8.12** Audit criteria developed for this assignment were discussed with senior management of the Branch at the outset of the audit and are presented in Exhibit 8.3. Our audit approach included interviews with staff of the Branch and Emergency Medical Care Inc., and detailed examination of contracts, files, reports and other documentation.

**8.13** The Audit and Consulting Section of the Department of Health conducted a review of selected areas of the EHSNS Branch in 1998. At the time of our audit, Audit and Consulting was conducting a follow-up review of their 1998 report and auditing certain aspects of Emergency Medical Care Inc. We reviewed the reports and working papers of the Audit and Consulting Section as part of this audit and collaborated on certain aspects of fieldwork completion. Audit and Consulting had not released a final report on the recent audit work at Emergency Medical Care Inc. at the time of our audit.

## PRINCIPAL FINDINGS

### *Accountability and Financial Management*

**8.14** *Background* - The Executive Director of EHSNS is a member of the senior management team of the Department. Accountability reporting by EHSNS to the Minister and Deputy Minister is the same for all branches of the Department.

**8.15** Program delivery of emergency health services is provided through contractors. Contractual arrangements dictate contractor accountabilities. Contracts for ground ambulance services, communications and dispatch, ambulance acquisitions and air medical transport constitute the major contracts of the EHSNS Branch.

**8.16** *Legislation* - The Minister of Health administers approximately 40 Provincial acts giving the Minister broad powers over various aspects of the health care system. Currently, there is no legislation for the provision of emergency health services. It is important that EHSNS have explicit legislative authority to impose user fees and training, licencing and medical standards. We have recommended that legislation and regulations governing the activities of EHSNS, and an appropriate accountability framework for the program, be developed and enacted as soon as possible.

**8.17** In 1994, emergency health legislation (Bill 96), which called for services to be administered through an independent agency, was assented to by the House. This Act was never proclaimed. In our 1996 Annual Report, we indicated that the Act was being redrafted to address deficiencies in the area of accountability. Changes to the Act were not subsequently introduced to the House.

**8.18** *Planning processes* - EHSNS first developed a strategic and operating plan in 1996. The plan includes statements of EHSNS vision, mission, values, and strategic goals and an operating plan that outlines specific initiatives planned for the next five years. The plan has been revised four times since 1996. The current operating plan covers the five-year period ending March 31, 2003.

**8.19** We found EHSNS strategic and operational planning to be thoughtful and comprehensive. EHSNS reviews the plan on a regular basis. Completed initiatives are removed from the plan. Emerging initiatives are added to an updated plan. Thus the plan is a “living” document which retains its relevance over time.

**8.20** The strategic and operating plan was last revised in February 1999. We have recommended that the plan be updated in the near future.

**8.21** The 1994 study of emergency health services recognized that paramedics spend a significant percentage of their time on stand-by rather than responding to an actual emergency. The study recommended the expansion of paramedic health care activities. For example, expanded services might include the delivery of health prevention programs. These initiatives had not been developed beyond the conceptual stages by EHSNS. Because of potential savings to the health sector as a whole, we have recommended that the costs and benefits of these initiatives be investigated in more depth and implemented if appropriate.

**8.22** EHSNS does not prepare a document that periodically summarizes whether planned initiatives were accomplished as intended. Rather, the strategic and operating plan is simply updated as circumstances and plans change. A document that summarizes Branch accomplishments against planned performance would enhance accountability for EHSNS. We have recommended that such a document be prepared annually.

**8.23** *Financial management and budgeting* - Senior management of the Department of Health reviews and challenges budget submissions from all sections of the Department including EHSNS. There is no formal documentation of this review and challenge process.

**8.24** Financial reporting and forecasting by the Branch to Department senior management follows a standardized monthly process common for all branches of the Department and across government. In addition, there is regular financial reporting by contractors to EHSNS pursuant to the terms of the applicable contracts.

**8.25** We examined a financial report for the EHSNS Branch for the month of March 2000 which indicated actual expenditures were significantly over budget. We found explanations for budget variances were highly summarized in this report. We had expected a greater level of detail in the analysis of budget variances and the remedial action planned. We were informed that because of the wide distribution of the monthly financial reports across the Department (distributed to 40 to 50 people), budget variances were dealt with verbally in more depth at meetings of senior management.

### ***Performance Reporting and Benchmarking***

**8.26** Although there are clear accountability reporting requirements by contractors to EHSNS, there is no requirement for written outcome or operational reporting by EHSNS to senior management of the Department. Likewise, the Department does not table an annual report with the House of Assembly containing EHSNS performance information. We recommended that the Department prepare an annual report, including EHSNS activities, for submission to the Minister and the House.

**8.27** EHSNS is a member of the National Association of Public Utility Models (NAPUM), an association of emergency medical service organizations headquartered in the United States. EHSNS has recently submitted operational data for the Nova Scotia ground ambulance program to NAPUM for the purpose of benchmarking cost and performance data against other members of the organization. This benchmarking initiative had not been concluded at the time of our audit. This initiative has the potential to provide evidence concerning the economy, efficiency and effectiveness of emergency health services in Nova Scotia.

### ***Contract Administration***

**8.28** *Background* - As indicated above, all major EHSNS programs are delivered under contract by third party providers. EHSNS is responsible for regulating the delivery of emergency health services and monitoring compliance with the various service delivery contracts. We focused our attention on the ground ambulance, communication and dispatch, and air medical transport contracts. The ground ambulance contract accounted for approximately \$40 million of the \$53 million in total EHSNS expenditures for the 1999-2000 fiscal year.

**8.29** All programs have detailed signed contracts which define the significant rights and responsibilities of the contracting parties including performance requirements, term of contract and renewal provisions, personnel qualifications, financial arrangements, contract termination and dispute resolution mechanisms. Exhibit 8.5 summarizes the major provisions of the ground ambulance contract with EMC.

### ***Ground Ambulance and Communication and Dispatch Contract***

**8.30** *Award of contracts* - EMC was selected as the preferred contractor for ground ambulance services on a sole-sourced basis. In 1997, the Department approached Maritime Medical Care Inc. for an expression of interest in acquiring and operating the entire Provincial ground ambulance operation. An out-of-Province company also expressed interest in the Provincial ground ambulance operation. We were informed by Department staff that a public request for proposals was not issued because the Department lacked financial and operational data upon which to base a request.

**8.31** Maritime Medical Care Inc. was selected as the preferred ground ambulance operator based on an "expression of interest" letter dated April 16, 1997. Department staff informed us that MMC's letter was approved by Executive Council and executed by the Minister of Health sometime in 1997 but we were not able to locate a signed approval. EMC managed the ground ambulance operation under the terms of the letter of intent until a more formal contract was finalized in January 1999 with Emergency Medical Care Inc., a subsidiary of MMC.

**8.32** The reason for accepting MMC as the preferred operator was strongly influenced by Executive Council's preference for a Nova Scotia based operator. There does not appear to be a written evaluation of EMC as a suitable candidate for a Province-wide ground ambulance operator against predetermined evaluation criteria, notwithstanding that EMC was a new company and neither EMC nor its parent company (MMC) had any previous experience in the ambulance business. There was also no analysis of the costs and benefits associated with alternative service delivery by a non-profit or government agency.

**8.33** A Province-wide communication and dispatch operation was created and operated by another company under a contract dated February 1997. Section 11.12 of the EMC contract permitted EMC to negotiate assumption of dispatch operations from the contractor which EMC completed in April 1999. Contractual arrangements with EMC for the operation of the communication and dispatch operation were documented in an amendment to the original January 1999 ground ambulance contract.

**8.34** *Contract payments* - Contract payments to EMC are made in accordance with a base budget that is fixed for the term of the contract based on defined service levels. However, the contract permits payment adjustments for price increases in certain costs including wages, fuel and facility rentals and for service volume increases above threshold levels stipulated in the contract.

**8.35** *Contractor performance and monitoring* - There is a high degree of involvement in the monitoring of ground ambulance and communication and dispatch contracts by EHSNS staff. Many

EHSNS staff work from an office located in the same building and on the same floor as EMC offices. Contact between EHSNS and EMC staff is on a daily basis with multiple contact points in the organizational hierarchy of both organizations.

**8.36** A Contract Monitoring Committee has been created with membership from both EHSNS and EMC. At the time of our audit this group was developing a standard reporting framework for contractor performance monitoring.

**8.37** Contractor compliance with the terms of the contract is controlled through a system of performance requirements, incentives and penalties. The most significant of these are ambulance response times and paramedic qualifications. Although the contractor had been reporting data on response times for several years, the reporting of monthly performance indicators by EMC to measure contractor compliance with response time performance was under development at the time of our audit. The ground ambulance contract also calls for penalties, commencing in the 2000-01 fiscal year, for certain performance failures. A system for capturing and reporting performance failures had not been fully developed at the time of our audit.

**8.38** *Contract evaluation* - There is no formal contract evaluation process for the ground ambulance and communication and dispatch contracts. We have recommended that a contract evaluation process be implemented as soon as feasible.

**8.39** *HST status* - In the past, EMC paid Health Services Taxes (HST) on taxable purchases and collected HST on billings to EHSNS. In April 2000, EMC made a voluntary disclosure to the Canada Customs and Revenue Agency to have its HST status changed retroactive to April 1997. The disclosure was due to a change in interpretation of the company's tax status established at the time of incorporation. EMC now charges HST on sales to EHSNS and is eligible for refunds of HST on taxable purchases. Government is able to recover HST paid from the Federal government through the normal HST rebate process. This change in tax status has led to the recovery of \$2.9 million in HST paid from April 1997 to March 2000 and is expected to save an estimated \$1.0 million per year in the future. The question of who should receive the benefit of these savings, EHSNS or EMC, had not been resolved at the time of our audit. The \$2.9 million in savings for the April 1997 to March 2000 period has been placed in an interest-bearing trust account pending final resolution of this matter.

### ***Air Medical Transport Contract***

**8.40** *Award of contracts* - The award of the air medical transport contract was included in our 1996 Annual Report as part of a government-wide audit of Provincial procurement transactions. A request for proposals (RFP) was issued in January 1996 but none of the four supplier proposals submitted met RFP requirements. The Department negotiated with the top two vendors and eventually contracts with both vendors were approved by Executive Council as sole-sourced procurements.

**8.41** *Contract payments* - A contract, providing a helicopter and flight crew, was signed on May 1, 1996 for a five-year term with earned extensions. The contract calls for payments starting in 1996 of \$38,000 per month plus \$1,670 per hour of flight time. The contract provides for annual increases in the base fee. EHSNS is responsible for operating costs including fuel and facilities. EHSNS also has a contract which provides a backup aircraft in the event that the contracted helicopter is unavailable.

**8.42** A second contract was also signed on May 1, 1996 and is for a five-year term with earned extensions. This contract provides program management and the air medical crew. The contract calls for payments of \$9,000 per month plus an annual payment of \$40,000.

**8.43** *Contractor performance and evaluation* - EHSNS meets with both contractors on a regular basis to monitor operational activities. Annually, a formal written evaluation of contractor performance is undertaken based on performance criteria and accountabilities set out in the contracts. The primary performance criteria are response times stipulated in the contracts. Results of the evaluation are reviewed with the contractors who develop action plans to address any deficiencies noted. We examined two contract evaluation documents which appeared to be thorough and timely. The Branch should be commended for having formal, written contract evaluation processes in place.

**8.44** There is regular performance reporting by the air medical transport contractors to EHSNS.

### ***Fleet and Equipment Control***

**8.45** *Background* - The focus of our audit on fleet and equipment was directed at leased ambulances and equipment owned by EHSNS for the ground ambulance and communications and dispatch programs.

**8.46** All major fleet and equipment acquisitions for the ground ambulance and communications and dispatch programs are leased or purchased by EHSNS. The ground ambulance contractor, EMC, is responsible for procuring disposable supplies required for the ground ambulance program.

**8.47** EHSNS has leased ambulances from a contractor since 1995. The latest lease agreement, signed in December 1997, calls for the lease of 150 ambulances at a cost of \$63,000 each, over a three-year term. Ambulance chassis are purchased from a manufacturer, modified by the lessor and delivered to EHSNS. EHSNS is also entitled to 50% of the eventual sales proceeds of returned ambulances. The lessor sells returned ambulances overseas because of prohibitions on the sale of used ambulances in Canada. Department management informed us that the Department has received approximately \$350,000 in proceeds from the resale of ambulances. There were approximately 130 ambulances and 9 administrative support vehicles in service at the time of our audit.

**8.48** EHSNS is entitled to a rebate from the lessor of up to \$9,450 per ambulance at the end of the lease term if mileage is below 200,000 kilometres and if contract maintenance standards have been maintained. Under the ground ambulance contract, EMC is responsible for mileage and management of ambulance maintenance. Subject to certain limitations in the contract, EMC is required to reimburse EHSNS for any loss of rebate caused by a failure to meet mileage and maintenance standards.

**8.49** *Ambulance maintenance* - Under the ground ambulance contract, EMC is responsible for fleet and equipment maintenance. The lease contract contains detailed maintenance requirements. Failure to maintain the ambulance fleet in accordance with the lease requirements may result in the loss of rebates on returned ambulances. EMC follows a fleet manual developed by EHSNS as a guide for maintenance activities. Accidents and damage to ambulances are documented in incident reports and are submitted to EHSNS.

**8.50** *Preventive maintenance* - Ambulances require preventive minor maintenance every 90 days or 6,000 kms and major maintenance annually or every 40,000 kms. Maintenance work is documented on maintenance reports. We examined all maintenance records for 10 ambulances consisting of 148 minor and 19 major maintenance reports. We found that minor preventive maintenance was not being performed within the 6,000 km limit in 50% of the cases examined. We found that major preventive maintenance was not being performed within the 40,000 km limit in 37% of the cases examined. We have recommended that EHSNS establish a more rigorous monitoring of EMC compliance with maintenance standards.

**8.51** *Ambulance disposals at end of lease term* - At the end of the lease term, ambulances are returned to the lessor by EMC. The lessor is responsible for submitting an inspection report to EHSNS within 90 days of return. The status of returned ambulances and the related rebate is audited periodically by EHSNS.

**8.52** At the time of our audit, there were outstanding disagreements with the lessor over the condition of 47 of 90 ambulances returned since the inception of the lease agreement. Resolution of the disagreements eventually resulted in the loss of \$562,000 in rebates. Department management informed us that EMC started to assume control of these ambulances from previous operators in May 1997. Department management also informed us that more recent ambulance returns, for vehicles that were under the control of EMC for the entire lease term, have been well maintained with no loss of rebates. The Department and EMC had not established which entity would be responsible for the lost rebates.

**8.53** EMC has commented that the current system provides for conflict as EHSNS is motivated to seek a high rebate and the lessor is motivated to keep the rebate low. We recommended that a dispute resolution mechanism be established with the lessor to avoid delays in settling rebates in the future. We understand that the Department has taken steps to improve controls in this area.

**8.54** The lessor reports to EHSNS sales of returned ambulances on a periodic basis. These reports are reviewed and verified by EHSNS and profit sharing amounts settled.

#### ***Purchase of Private Ambulance Operators***

**8.55** *Background* - Prior to 1995 there were approximately 54 geographic ambulance regions in Nova Scotia. Ambulance services were provided by private sector operators pursuant to a contract with the Ambulance Operators Association of Nova Scotia (AOANS). The Department of Health subsidized ambulance services on a per trip basis amounting to approximately \$13 million annually.

**8.56** Pursuant to recommendations of a 1994 study on emergency health services, the Department moved to consolidate ambulance operations to a smaller number of operators. The motives for consolidation were concerns about coordination between operators, a lack of continuity in the event that an operator ceased operations, uneven management and service quality between operators and the fragmentation that resulted from regulating a large number of operators. In addition, the Department wanted to increase the efficiency, medical effectiveness and operational capacity of ambulance operations in the Province to a “high performance” system modelled after similar systems in the United States.

**8.57** Initially the Department explored a voluntary consolidation of ambulance operations by the existing ambulance operators. Under this approach, ambulance operators who wished to stay in the industry would purchase other operators who wished to leave.

**8.58** Eventually, Maritime Medical Care Inc. was selected as the primary operator of the ground ambulance system in the Province based on an April 1997 letter of intent. Emergency Medical Care Inc., a subsidiary company of MMC, operated the ground ambulance system, based on the letter of intent, until a final contract was signed in January 1999.

**8.59** While negotiations for a formal ground ambulance contract were underway, a solicitor acting for EHSNS negotiated, verbally, the purchase price and other terms and conditions of sale with each of the AOANS operators. The solicitor then instructed EMC to finalize the sale with each operator and execute the necessary legal and contractual documents based on the verbal agreements. Instructions to EMC, concerning price and other terms and conditions to be included in the written agreements, were verbally given to EMC by the EHSNS solicitor.

**8.60** Final contractual arrangements for the individual acquisitions were documented in formal legal agreements and other supporting documents prepared by EMC solicitors. There were also reviews carried out by an accounting firm in certain cases. The reviews consisted of inventory procedures for fixed assets, equipment and supplies; enquires to detect liens and unrecorded obligations and contingencies; and an examination of labour contracts and lease agreements.

**8.61** EMC was involved in the purchase process because, under the terms of the April 1997 intent letter, the acquisition cost was to be recorded as an investment by EMC and amortized over eight years. The transaction would therefore be recorded as an expenditure of the Department over the eight-year amortization period. The acquisition process was essentially complete by December 1997, but a contract had not yet been finalized.

**8.62** In the fall of 1998, the Department decided to reimburse EMC the cost of acquiring the private ambulance operators. We were informed by Department staff that the reason for the Department's decision to pay the acquisition cost to EMC was that this arrangement had become a major barrier in finalizing a ground ambulance contract acceptable to both parties. The purchase cost, including interest, amounted to \$14.3 million, consisting of 34 individual acquisitions.

**8.63** We examined three individual purchase transactions totalling \$3.5 million. The sample was based on large dollar value transactions. Two of the acquisitions were asset purchases and one was a purchase of shares. We examined the purchase and sale agreements and files of EMC and EHSNS related to the transactions.

**8.64** *Lack of documentation* - Our review revealed significant deficiencies in EHSNS documentation leading up to the final purchase agreements. As a result of these deficiencies, we were not able to reach a conclusion on whether these transactions received appropriate approval by senior staff of the Department or whether the transactions were carried out with due regard to economy.

**8.65** The solicitor acting for EHSNS formulated a purchase price for an individual operation using a base price per ambulance times the number of ambulances in the operation. The price per ambulance was based on a few open market purchase and sale transactions that took place in early 1997. The base amount was then adjusted for a variety of matters such as condition of facilities and equipment, the profitability of the operation, goodwill, quality of management, whether management and staff would be rehired by EMC and staff experience and training. The Department also decided to reimburse legal and professional fees incurred by the private ambulance operators and EMC resulting from the acquisition activity. In some cases the formulation of a purchase price was complicated because the ambulance operation was part of a larger funeral business.

**8.66** There was no documentation in EHSNS or EMC files for the three purchase transactions we examined which explained how these principles were applied to justify an estimated purchase price for an individual acquisition. We expected to find calculations of estimated purchase price based on the acquisition principles described above with explanations of differences between calculated amounts and the final purchase price. We also expected to find an analysis of historical operating results and cash flows of the operation, with comparisons to the purchase price eventually agreed upon.

**8.67** Department files also lacked key written approvals by Department senior management including the general principles to be applied in estimating purchase amounts, the approval of the verbal agreement between the operator and the solicitor acting for EHSNS, the final purchase and sale agreements and the decision to reimburse legal and professional fees to EMC and the private ambulance operators.

**8.68** Approval of the \$14.3 million payment by the Department to EMC in January 1999 was not explicitly authorized by Order in Council. The transaction was included in a Department additional appropriation request for the 1998-99 fiscal year, together with several other over-expenditure items totalling \$53.3 million. The request was made in May 1999. Management of the Department has indicated that Executive Council was verbally informed of the reasons surrounding the \$14.3 million payment to EMC at the time the January 19, 1999 ground ambulance contract was authorized, and that Executive Council approval of the acquisition costs, although not formally documented, was implied in the approval of the ground ambulance contract.

### ***Procurement***

**8.69** *Background* - EHSNS expenditures for the year ended March 31, 2000 were \$59.1 million, consisting of \$0.7 million for salaries, \$13.8 million for operating costs and \$44.6 million in contract payments.

**8.70** Major acquisitions of fleet and equipment are transacted by EHSNS in consultation with the Purchasing Agency. EMC is responsible for operating expenses associated with the ground ambulance and communication and dispatch operations.

**8.71** The Audit and Consulting Section of the Department examined the procurement practices of EHSNS during their 1998 audit and had completed interim work on EMC procurement practices during the 1999-2000 fiscal year. We reviewed the 1998 working papers of the Audit and Consulting section on procurement and an interim report on the 1999-2000 audit of EMC procurements. There were no major findings reported.

**8.72** We tested a sample of EHSNS expenditures for the 1999-2000 fiscal year. We also interviewed EMC staff to assess the economy of their purchasing policies and practices.

**8.73** *Provincial Procurement Policy* - Contractors are not normally required to comply with the Policy on Government Procurement. Accordingly, there are no provisions in the major contracts administered by EHSNS that require this. Staff of the Procurement Branch of the Department of Finance informed us that if a contractor purchases goods and services where title to goods rests with the Province, then the contractor is deemed to be acting as a purchasing agent of the Crown and is therefore subject to Provincial procurement policy. This policy interpretation is designed to prevent departments from using contractors to circumvent Provincial procurement policies.

**8.74** Ambulances, medical and mobile communication equipment and equipment for the communications and dispatch centre are owned or leased by EHSNS. The contractor, EMC, has a licence to use these assets over the term of the contract. Likewise, EMC and EHSNS are joint beneficiaries under major lease agreements, maintenance agreements and insurance policies.

**8.75** Major equipment is procured directly by EHSNS in accordance with Provincial procurement policies. However, contract provisions with EMC are silent on the issue of compliance with Provincial procurement policy for the goods and services procured by the contractor, especially in cases where EMC and the Province receive joint entitlements. There are no directives from EHSNS to EMC providing guidance on this matter and EMC did not have written procurement policies at the time of our audit. EMC management has indicated that the company now has written procurement policies. We have recommended that EHSNS provide express direction to EMC on the types of procurement and circumstances that would require EMC compliance with Provincial procurement policies.

**8.76** *Expenditure testing* - Our expenditure testing illustrates the need for policy direction on contractor compliance with Provincial procurement policies. We examined six EHSNS expenditure

categories during the 1999-2000 fiscal year that totaled \$41.8 million. These expenditures were primarily large contract payments for ground ambulance, communication and dispatch and air medical transport, as well as ambulance and equipment purchases. We found one procurement transaction where there was joint entitlement to services by EMC and EHSNS and where a competitive procurement process was not followed. This sample item comprised procurements made by EMC and later reimbursed by EHSNS for “flow thru” payments under the communication and dispatch contract. The purchases consisted of equipment, professional fees, lease expenses for facilities and equipment, maintenance agreements on equipment and other goods and services which totalled approximately \$0.5 million for the year. The Audit and Consulting Section of the Department was also auditing similar transactions under the ambulance contract with EMC at the time of our audit.

### *User Fees*

**8.77** *Background* - User fees are charged for ground ambulance and air medical transports. Ambulance responses which result in treatment but no transport of patients (“treat and release” encounters) are not subject to a fee. Air medical transports for residents of other Canadian provinces are billed, at a negotiated rate, to the residents home province based on contracts with the Department. Exhibit 8.6 summarizes the fee rate structure and explains the basis for the fee charged.

**8.78** *Authority to impose user fees* - There are no regulations governing the imposition of user fees by EHSNS. The current user fee rate structure was developed by EHSNS and approved by Executive Council as part of the budget process. We have recommended that regulations, under appropriate legislation, for the billing and collection of user fees be developed.

**8.79** *Establishing user fee rates* - We found the process for establishing user fee rates to be well researched and documented. The fee for ground ambulance services to Nova Scotia residents of \$85 is based on 20% of the estimated annual operating cost of the service. The Canada Health Act prohibits the charging of user fees for medically necessary health services. Therefore, Nova Scotia residents are only charged a user fee for the transportation component of operating costs which is deemed to be 20% of total operating costs. However, an analysis has not been prepared which substantiates this percentage. Billing practices in other provinces and historical practices are also considered in determining the percentage of total costs to be billed.

**8.80** Rates charged to New Brunswick and Prince Edward Island residents for air medical transport services are based on the estimated cost of air transports by the two provinces. The billing rates, pursuant to the latest signed contract, are \$8,500 and \$10,850 per transport respectively.

**8.81** *Billing and collection practices* - Except for billings to the provinces of New Brunswick and Prince Edward Island, the collection of user fees is the responsibility of EMC pursuant to the terms of the ground ambulance contract. Policy governing rate structures and billing practices is established by the Department.

**8.82** EMC is expected to remit to EHSNS all user fees collected up to 75% of fees billed. If collections fall below 75% of amounts billed, then EHSNS bears the cost of the uncollected user fees and has the right to terminate the collection arrangement. Collections by EMC in excess of the 75% billed are shared equally by the contractor and EHSNS. The value of user fees remitted to EHSNS by EMC for the 1999-2000 fiscal year was approximately \$4.4 million and is estimated to increase to \$5.9 million in 2000-01 because of rate changes implemented in April 2000.

**8.83** *Air medical transport interprovincial contracts* - Residents of the provinces of New Brunswick and Prince Edward Island sometimes use the air medical transport services of EHSNS. Fees are billed to the resident’s home province based on contracts negotiated with these two

provinces. The billing and collection of air medical transport services are administered directly by EHSNS. Inter-provincial collections by EHSNS for the 1999-2000 fiscal year were approximately \$400,000.

**8.84** Formal contracts for the billing of air medical transport costs to these provinces expired on March 31, 1999. New contractual arrangements were being negotiated at the time of our audit. We have recommended that contractual arrangements with New Brunswick and Prince Edward Island for the provision of air medical transport services be concluded as quickly as possible.

**8.85** *Billing and collection practices* - We reviewed the billing and collection practices of EMC and suggested improvements to ensure completeness of billings. Billing input documents should be reconciled with data from the computerized dispatch system.

**8.86** EMC has no written collection policies. Overdue ground ambulance billings are followed up monthly by letter. Accounts over 160 days are forwarded to a collection agency.

**8.87** EHSNS bills air medical transport fees monthly to New Brunswick and Prince Edward Island. Overdue air ambulance billings are followed up by EHSNS through phone calls and correspondence.

**8.88** The ground ambulance contract contains audit provisions permitting the Department to examine billing procedures and controls. A review of EMC billing and collection practices by the Audit and Consulting Section of the Department was underway but not finalized at the time of our audit.

## CONCLUDING REMARKS

**8.89** There has been a significant transformation of emergency health service delivery in Nova Scotia since 1994. Emergency health service delivery has evolved from an uncoordinated, fragmented system with uneven service and medical quality to a state-of-the-art, high performance system. The use of performance-based contracts with the private sector, with penalty and incentive provisions, is a service delivery method unique within the Department of Health.

**8.90** The increase in system capability and quality has been accompanied by significant cost increases. Emergency health services costs to the Provincial government increased from \$13.6 million in 1994-95 to \$53.3 million in 1999-2000, almost a four-fold increase. These cost increases occur at a time when the Province struggles to maintain basic core services in all areas of operation including the health care sector. It is difficult to assess the overall impact of these cost increases without an evaluation of how additional expenditures on emergency health care impact on costs and health care outcomes in other areas of the health care system. For example, the 1994 emergency health care study estimated a 2% reduction in acute care patient days as a direct result of implementing a comprehensive emergency health care system. We do not know if a reduction in acute care patient days resulted from increased expenditures in emergency health or the magnitude of any cost savings. We also note that EHSNS has not actively pursued development of additional revenue sources contemplated in the 1994 study which could have reduced the impact of the above noted cost increases.

**8.91** The Department plans to complete a value-for-money audit of the ground ambulance contract with the objective of assessing cost and clinical outcomes. The Audit and Consulting Section of the Department will be conducting the evaluation of cost outcomes. Executive Council approved a contract in December 2000 for an emergency medical consultant to provide an independent clinical evaluation of the contract. Department management informed us that the value-for-money audit has

been designed to review and address specific issues related to the effective, efficient and economic delivery of ground ambulance services in the Province. When completed, the review is expected to include recommendations on both improvements and opportunities.

**8.92** EHSNS is a significant portion of the health care budget, both in terms of dollar value and operational impact on the broader health care system. It is important for emergency health services to be governed by appropriate legislative and regulatory provisions with a strong accountability framework. We urge that legislation, regulations and outcome and performance reporting processes be established as soon as possible. In the absence of regular performance reporting, and a defined accountability framework, it is difficult for the House and the general public to determine whether the Province has received value for money from this significant expenditure.

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*Exhibit 8.1*

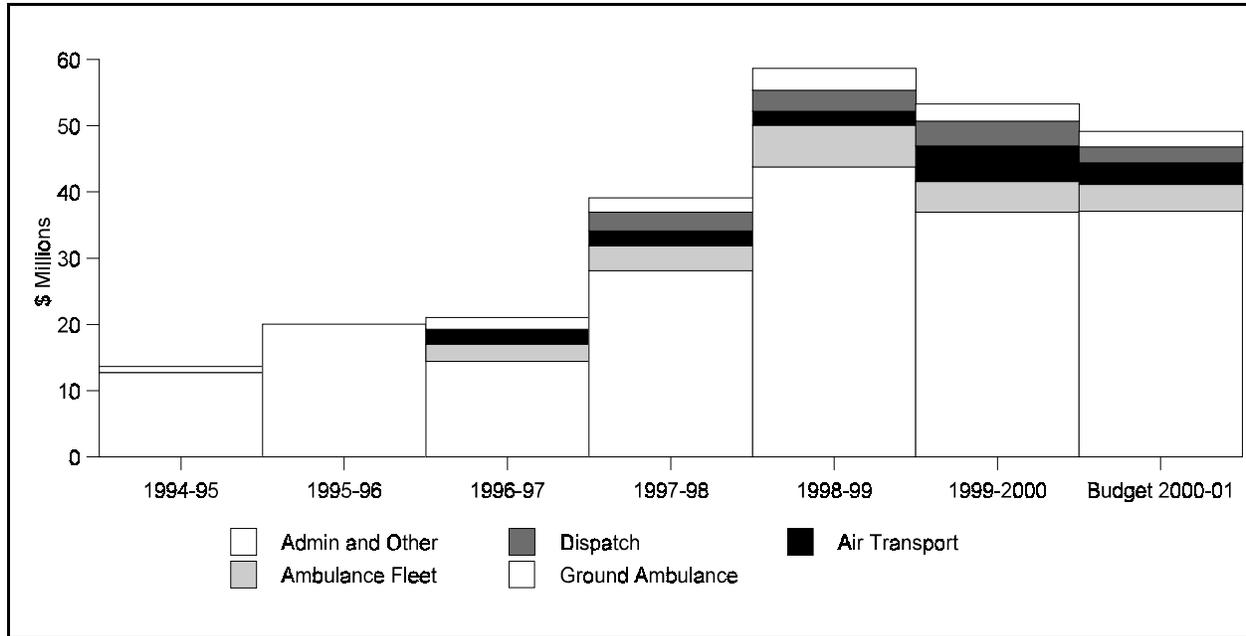
**EMERGENCY HEALTH SERVICES  
MAJOR PROGRAMS AND CONTRACTORS**

<b>Program</b>	<b>Contractor</b>	<b>Estimates 2000-01 <sup>(1)</sup></b>
Ground Ambulance	Emergency Medical Care Inc.	\$37,136,400
Communications and Dispatch	Emergency Medical Care Inc.	\$2,394,700
Technical Operations (ambulance and fleet)	Tri-Star Industries Ltd.	\$4,012,100
Air Medical Transport	Nova Scotia Shock Trauma Air Rescue Society (STARS) Canadian Helicopters Ltd.	\$3,276,100
Medical Quality Control	Personal service contracts with physicians	\$875,900
Other Programs - Provincial Trauma program, Medical First Responder programs, Training programs, Administration	Various contractors and partners including QEII Health Sciences Centre, volunteer fire departments and others.	\$1,468,800

*(1) Estimates 2000-01 - Emergency Health Services - Grouped by major program.*

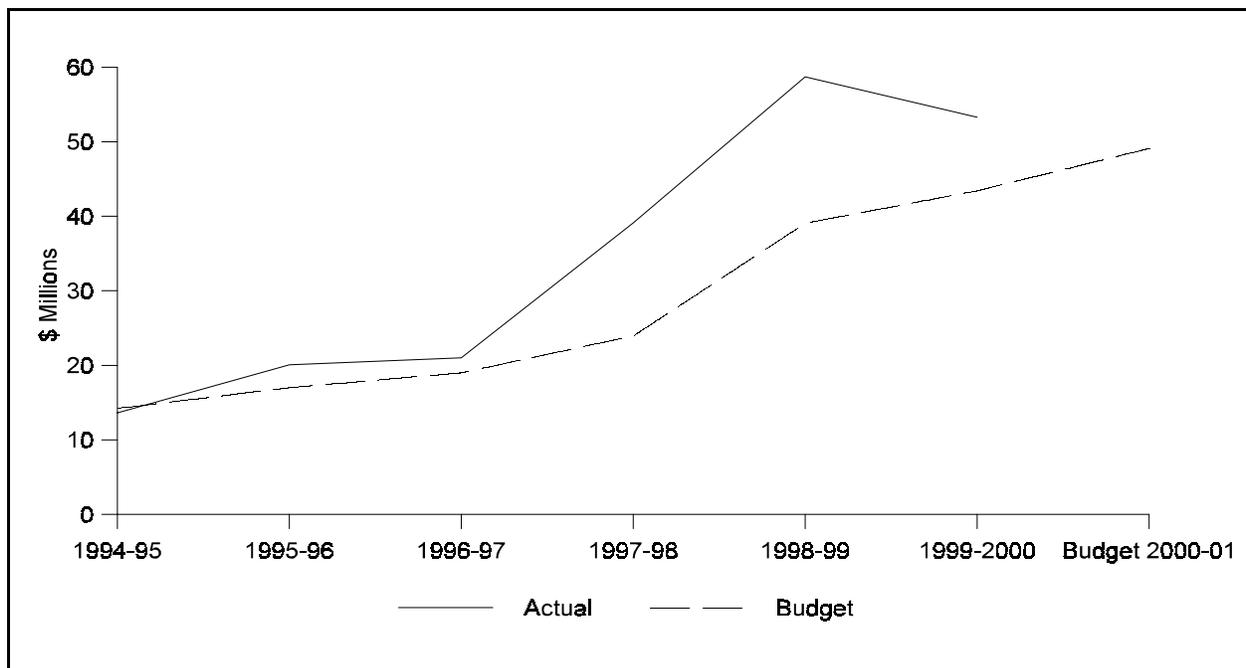
*Exhibit 8.2*

**EMERGENCY HEALTH SERVICES  
FINANCIAL SUMMARY - BY PROGRAM  
SEVEN YEARS ENDED MARCH 31, 2001**



*Note: A breakdown of costs by program was not available for the 1995-96 fiscal year.*

**COMPARISON OF ACTUAL AND BUDGETED EXPENDITURES  
SEVEN YEARS ENDED MARCH 31, 2001**



*Exhibit 8.3***AUDIT CRITERIA****Branch Accountability and Financial Management**

- There should be an appropriate legislative framework for Branch activities.
- The roles and responsibilities of the parties in the Branch accountability and financial management relationship should be well understood and agreed upon.
- Branch objectives being pursued, the accomplishments expected and the constraints to be respected should be explicit, understood and agreed upon.
- Credible and timely operational and financial information should be reported to demonstrate the performance achieved and what has been learned.
- Informed review and feedback on the operational and financial performance achieved should be carried out by the accountable parties, where achievements and difficulties are recognized and necessary corrections made.
- There should be adequate financial management systems and reporting that support the needs of internal management and provide control over general revenues and expenditures of the Branch.

**Contract Administration**

- Contracts should be awarded in accordance with the Government Procurement Policy.
- Contracts should be properly approved prior to implementation of the contract.
- Responsibility for monitoring each service contract should be clearly defined and communicated.
- Formal, signed contracts should include information on key contractual provisions.
- Contract performance should be evaluated in writing on a periodic basis against the performance requirements identified in the contract.
- Timely remedial action should be performed to ensure appropriate change occurs when performance does not meet established performance requirements.

**Fleet and Equipment Control**

- Responsibility for monitoring and controlling physical assets should be clearly assigned and communicated.
- There should be processes for ensuring that fleet and equipment comply with the applicable technical standards.
- There should be clearly defined and documented policies and procedures which outline:
  - procurement, distribution and replacement of fleet and equipment;
  - preventative maintenance practices including scheduling of routine maintenance, calibration and testing of equipment;
  - regular inspections; and
  - investigating malfunctions and implementing strategies to avoid a recurrence.
- Appropriate physical safeguards and other security features, including insurance, should be established to protect equipment and minimize losses.
- There should be adequate accounting records for fleet and equipment including adequate records to meet any contractual provisions and Department of Finance requirements for Tangible Capital Asset accounting.

*Exhibit 8.3 cont'd*

- Periodic inventory counts should be performed and reconciled to accounting records.
- Users of specialized equipment should be trained.

**Procurement**

- Procurements should adhere to the Government Procurement Policy.
- Procurements should ensure due regard for economy and efficiency through tendering, bulk purchasing and other measures.

**Acquisition of Private Ambulance Operators**

- The acquisition process should be adequately documented by the Branch.
- There should be a well defined methodology for assessing the acquisition value of private ambulance operations.
- The acquisition value should be assessed based on reliable financial information.
- Acquisition transactions should be subject to an appropriate review process with the Branch and the Department.
- Acquisitions should have received appropriate approvals by the Branch, the Department and Executive Council.

**Revenues and User Fees**

- Services for which revenues and user fees are to be charged should be clearly defined and authorized.
- There should be a rationale for the setting of fees.
- Roles and responsibilities for the assessment and collection of revenues and user fees should be clearly defined.
- There should be adequate controls and accounting systems for the assessment and collection of revenues and user fees.
- Revenues and user fees should be promptly collected and write-offs should be properly approved.

*Exhibit 8.4***EMERGENCY HEALTH SERVICES  
OPERATIONAL STATISTICS - GROUND AMBULANCE OPERATIONS  
YEAR ENDED MARCH 31, 1999****Service Area (In kms)**

Geographic Area	52,840
Population	925,000

**Number of Responses**

Emergency responses	43,798
Non-emergency responses	<u>48,565</u>
Total	<u>92,363</u>

**Number of Transports**

Emergency transports	44,919
Non-emergency transports	17,396
Inter-facility transports	<u>19,677</u>
Total	<u>81,992</u>

**Ambulance Fleet Size**

Patient-transporting vehicles	128
Supervisor vehicles	<u>9</u>
Total	<u>137</u>

*Exhibit 8.5*

**SUMMARY OF PRINCIPAL TERMS AND CONDITIONS  
GROUND AMBULANCE CONTRACT - EMERGENCY MEDICAL CARE INC.  
JANUARY 1999**

Term, Condition, Deliverable	Comments
Contractor	Emergency Medical Care Inc.
Contract Term	8 years ending March 31, 2007
Contract Termination	Either EHSNS or EMC can terminate contract with 90 day advance notice. If EHSNS terminates contract a termination fee is payable to EMC.
Base Budget	\$42.4 million for the year ended March 31, 2001 paid monthly. Increased annually by percentage increase in CPI.
Budget Increases	Budget may be increased for cost of: <ul style="list-style-type: none"> <li>- service increases for various reasons</li> <li>- excess maintenance costs over km maximum</li> <li>- fuel increases</li> <li>- insurance increases</li> <li>- paramedic labour costs increases</li> <li>- base lease cost increases</li> <li>- WCB increases</li> </ul>
Response Times and Paramedic Qualifications	Response times and paramedic qualifications are principal performance indicators.
Penalties	Commencing in the 2000-2001 fiscal year <ul style="list-style-type: none"> <li>- failure to meet response times.</li> <li>- failure to make certain reports available to EHSNS.</li> <li>- fines for non-compliance with EHSNS policy.</li> <li>- penalties for failing to maintain ambulances or keep mileage under 200,000 kms.</li> </ul>
Incentives	<ul style="list-style-type: none"> <li>- EMC is entitled to retain a percentage of any amount that actual expenditures are under budget.</li> <li>- 50% sharing of user fee collections above 75% of amounts billed.</li> <li>- Preventive maintenance incentives.</li> </ul>
Default	<p>EHSNS entitled to emergency takeover of operations in the event of an unresolved major breach of the contract. There are numerous major breach conditions.</p> <p>EHSNS is in default of contract after 30 days upon failure to pay required monthly payment.</p>

*Exhibit 8.5 cont'd*

Term, Condition, Deliverable	Comments
Clinical Performance	EMC must comply with the clinical requirements established by the Medical Director. EMC responsible for internal quality improvement practices, in-service training, certification monitoring and registration.
Equipment and Facilities	EHSNS owns all ambulances and equipment. These items are licenced to EMC for their use. EMC is responsible for replacing supplies, uniforms and safety equipment.
Other EMC Responsibilities	<ul style="list-style-type: none"> <li>- Obtain necessary licences and permits.</li> <li>- Maintain insurance.</li> </ul>
Other Considerations	<ul style="list-style-type: none"> <li>- EMC has exclusive market rights in the contract service area.</li> <li>- EMC can market and provide outside for-profit work subject to various conditions.</li> </ul>

*Exhibit 8.6*

**SUMMARY OF GROUND AMBULANCE AND  
AIR MEDICAL TRANSPORT USER FEES  
EFFECTIVE MAY 1, 2000**

<b>Medically Essential Transports - Excluding Inter-facility Transports</b>		
<b>Patient Category</b>	<b>Fee Charged</b>	<b>Basis of Fee</b>
Resident of Nova Scotia	\$85	20% of estimated cost of transport. Includes operating costs only.
Resident of another Canadian province	\$500	100% of estimated cost of transport. Includes operating costs only.
Canadians with stipulated third party insurance coverage (RCMP, Canadian armed forces, motor vehicle accidents, WCB)	\$500	100% of estimated cost of transport. Includes operating costs only.
Non-Canadian residents	\$750	150% of estimated operating cost of transport. Includes a provision for capital and interest costs.
Air Medical Transport - resident of Nova Scotia	\$85	No extra differential fee for Air Medical Transport.
Air Medical Transport - residents of NB and PEI	NB - \$8,500 PEI - \$10,850	100% of estimated cost of air medical transport.

<b>Medically Essential Transports Between Approved Facilities</b>		
<b>Patient Category</b>	<b>Fee Charged</b>	<b>Basis of Fee</b>
Resident of Nova Scotia	No Fee	
Resident of another Canadian province	No Fee	
Canadians with stipulated third party insurance coverage (RCMP, Canadian armed forces, motor vehicle accidents, WCB)	\$500	100% of estimated cost of transport. Includes operating costs only.
Non-Canadian residents	\$750	150% of estimated operating cost of transport. Includes a provision for capital and interest costs.