

7.**HEALTH -
CAPE BRETON HEALTHCARE COMPLEX****BACKGROUND**

7.1 The Cape Breton Healthcare Complex (CBHC) was established in 1996 through an agreement to amalgamate the Cape Breton Regional Hospital, the Northside General facility, the Glace Bay Healthcare facility, the Harbour View facility and the New Waterford Consolidated. Subsequently, two new facilities were constructed: Taigh Na Mara, a 67 bed long-term care facility; and Taigh Gradhach, a training centre facility for six children.

7.2 The Complex provides acute care, mental health and long-term care services, a comprehensive cancer centre, a rehabilitation centre and various clinical services to a population of 150,000.

7.3 CBHC has approximately 2,155 full-time equivalent staff. In addition, there are approximately 200 physicians, consisting of both general practitioners and specialists. The combined seven facilities provide 627 beds in approximately 1 million square feet of interior space. Exhibits 7.1, 7.2 and 7.3 provide details on the patient days by site and type of service provided, and staffing.

7.4 Appendix 7.1 is a summary of CBHC's accomplishments since the 1996 amalgamation and was extracted from a more detailed list prepared by CBHC management. We did not audit the information provided by management for the Appendix.

7.5 The Canadian Council on Health Services Accreditation (CCHSA) issued a three-year accreditation to the Complex following a review in the fall of 1998. The accreditation report identified certain conditions requiring improvement. Management and the Board acted upon the report's recommendations as required.

7.6 The Health Authorities Act was given Royal Assent on June 8, 2000. Section 74(1) provides for the CBHC Board to be dissolved and for the Complex to become part of District Health Authority (DHA) 8. This change is targeted for January 2001. Along with the change in governance, the new legislation introduces significant changes to the accountability relationship between the DHAs and the Province.

7.7 This was our first audit of the Cape Breton Healthcare Complex. We completed our audit under Section 15 of the Auditor General Act. We conducted our field work during the first quarter of 2000.

RESULTS IN BRIEF

7.8 The following are the principal observations from the audit.

- The CBHC Board members performed their governance function well. The Board approved deficit budgets but this was a systemic problem, due largely to the Department of Health's (DOH's) directives to maintain services and not reduce staff. The Department of Health subsequently funded these deficits. The new Health

Authorities Act limits the ability of the District Health Authorities to approve deficit budgets.

- The Complex prepares an annual report. We recommended improvements in content including more detail on objectives and related achievement, and inclusion of the audited financial statements. The new Health Authorities Act includes provisions which, if implemented, will meet our recommendations.
- CBHC has been a leader in soliciting performance information from other facilities, and using that information to measure its own performance. CBHC established a benchmarking process in collaboration with a number of hospitals throughout Canada. We commend CBHC's efforts in benchmarking and believe this is a useful tool that the Department of Health and the District Health Authorities should use to measure and improve performance in many important areas.
- Many in the Canadian health sector have commented that good information systems are the key to solving the fiscal and other problems in health care. The CBHC, and a number of other partners in health, submitted a proposal to DOH for a new Health Information System more than two years ago, as part of a strategic information technology plan. To date, no response has been received from DOH. More timely collaboration between the Department and its partners in information technology strategic planning is required.
- CBHC monitors inappropriate bed use and reports results to the Board. These reports routinely show that more than 25% of patients occupying acute care beds at CBHC could be more appropriately treated in another setting. This data is consistent with Province-wide figures reported by the Department of Health. Inappropriate bed use is a significant problem, but it cannot be remedied by CBHC acting alone. DOH, CBHC, and other long-term and acute care providers will need to work together to achieve a solution, and implementation of the recommendations in the Department of Health's recently released *Transitions in Care - Nova Scotia Department of Health Facilities Review* is a first step in that process.
- The financial monitoring process in place at CBHC is appropriate, although there is a need to improve the forecasting process. Management identified the need for better forecasting and we concur.
- CBHC has recently established a Clinical Financial Advisory Committee to identify opportunities for improvement in the economy and efficiency of all clinical activities. The Committee has established a list of potential areas to be reviewed and has selected its first topic. Recommendations are forthcoming. We support this endeavour and recommend that the initiative be monitored by establishing annual targets and reporting on its performance.
- The procurement function is well managed and complies with Provincial procurement policies and the Atlantic Procurement Policy. CBHC has established relationships with a number of buying groups in an effort to reduce costs through volume discounts. We support involvement in initiatives such as these, and recommend that CBHC monitor and report savings achieved.
- Rates charged by CBHC to uninsured patients are not based on cost of the actual services provided to the patient, but rather on an average per diem cost, so the rates may not reflect the actual cost incurred. We recommend that the Hospital and DOH

work towards developing an approach which results in recovery of full costs from all services for which the Hospital is able to charge fees.

AUDIT SCOPE

7.9 The objectives of this assignment were to:

- review and assess the performance of the governance and planning function at Cape Breton Healthcare Complex with an emphasis on planning, policy setting, and monitoring;
- review and assess CBHC’s accountability relationships:
 - the external accountability relationship between CBHC and the Department of Health; and
 - the internal relationships between the Board, its senior management and individual facilities/programs;
- review and assess performance reporting, particularly with respect to indicators of economy and efficiency;
- determine whether systems and practices in the following areas at CBHC provide for adequate controls, and due regard for economy and efficiency:
 - financial management;
 - information technology;
 - procurement;
 - human resources; and
 - revenues and fees;
- determine whether there is compliance with legislation and certain government policies;
- determine the major changes that have occurred since CBHC assumed responsibility for the facilities in 1996; and
- review and assess the nursing human resource management function, with an emphasis on workload measurement and due regard for economy and efficiency.

7.10 The audit criteria were taken from recognized sources including the Canadian Council on Health Services Accreditation’s *Standards for Comprehensive Health Services*; the Canadian Institute of Chartered Accountants Criteria of Control Board’s *Guidance on Control and Guidance for Directors - Governance Process for Control* and CCAF-FCVI Inc.’s *Six Principles of Effective Governance*; the Organization of Economic and Cultural Development’s *Best Practice for Charging for Government Services*, along with the Government of Nova Scotia’s Procurement Policy.

7.11 The following general criteria were utilized in this assignment.

- Accountabilities and responsibilities should be clearly defined.
- The Board members should clearly understand the objectives and strategies of the organization.
- The Board members should understand what constitutes reasonable information for good governance and obtain it.
- Once informed, the Board members should be prepared to act to ensure that the organization's objectives are met and that performance is satisfactory.
- The Board should fulfill its accountability obligations to stakeholders by reporting on performance.
- Strategic directions should be defined through a process of strategic planning.
- Performance should be monitored against the targets and indicators identified in the organization's objectives and plans.
- CBHC should have processes to allocate human, financial and physical resources, and to monitor financial performance.

PRINCIPAL FINDINGS

Governance

7.12 CBHC was formed through an amalgamation agreement in April 1996. The voluntary Board, consisting of 13 members, was appointed through the Executive Council by Order in Council. Members are reimbursed for necessary expenses to attend Board meetings. There were two vacancies on the Board which existed for some time as there were delays in appointing Board members. The new Board for the District Health Authority will assume responsibility in early 2001 according to current DOH plans.

7.13 The Board met monthly, except for the summer months, and the meetings were reasonably well attended with an attendance rate of approximately 70%. There had not been an annual meeting since amalgamation in 1996 and, as a result, some of the bylaws specifying certain annual requirements were not complied with.

7.14 The Board, in early 1998, identified a self-assessment process, using acceptable external criteria, and by May 1998 had completed its first self-assessment of performance. The process was planned to be completed bi-annually, however a second self-assessment was postponed due to the restructuring announced by DOH. The Board provided an orientation package to newly appointed members and required a confidentiality statement to be completed. As well the bylaws include conflict of interest guidelines and a code of conduct for the directors.

7.15 As part of our work in the governance and planning area, we solicited the views of Board members, through a written questionnaire, on certain issues impacting the role and effectiveness of the Board. The response rate was 55%. The responses indicated general satisfaction with the Board's operations. The respondents were generally in agreement with the Board's size, composition, development opportunities provided to members, and level of cooperation among members. They indicated that they had a clear understanding of the responsibilities and

accountabilities of the Board; and believed that the Board received appropriate information to plan, safeguard, monitor and manage the assets, operations and risks of CBHC.

Relationship between Board and Senior Management

7.16 Senior management of CBHC consists of the CEO and four other positions. Senior management are employed on five-year contracts with severance clauses ranging from 6 to 18 months.

7.17 The CEO assembled a series of objectives, linked to the strategic directions of CBHC, which were presented to and discussed with the Board. The Board and CEO agreed on annual objectives or expectations which were targeted to be completed within a two-year period. Annually, the CEO reports on accomplishments and achievement of objectives.

7.18 The Board followed a documented process, recommended by external consultants, to evaluate the CEO annually. The CEO was evaluated once, in early 1998, by the Executive Committee. We recommend that the Board evaluate the CEO's performance annually as recommended by the external consultants.

7.19 The job descriptions of the other senior managers include the requirement to collaborate in strategic plans, goals and objectives. This was achieved through the CEO's sharing of goals and objectives with the senior management team. The CEO monitors the performance of senior management annually.

Monitoring of Operations

7.20 The Board has mechanisms to monitor various aspects of its operations. For example, the CBHC has a quality management function which completes reports on risk assessment and submits them to the Board. The Audit Committee and senior management discuss and follow up on external audit recommendations. The Board monitors follow up on recommendations resulting from CCHSA accreditation reviews. Each of the senior management job descriptions requires the individual to ensure compliance with regulatory legislation.

7.21 The Vice President of Corporate Services reports to the Board monthly and provides a report to facilitate monitoring of financial results. The report includes appropriate comparison of actual to budget, and variance analysis. With respect to forecasting of financial results to year end, the reporting has been informal and inconsistent. Management recognizes that this process should be improved.

Planning

7.22 Subsequent to the 1996 amalgamation of the various facilities, the Board, using a facilitator, developed statements of mission and values. The mission statement clearly defines the purpose of the organization and is clearly linked to the community served. A vision statement was approved by the Board in late 1997. The Board also engaged a facilitator to assist the Board and senior management in developing strategic directions. This resulted in eight broad statements of strategic directions. The Board and senior management reviewed these in early 1998.

7.23 Financial planning at CBHC is impacted by the Department of Health's funding decisions. In recent years DOH funding announcements have occurred too late in the fiscal cycle. The CBHC Board must be aware of available financial resources before the fiscal year commences to facilitate proper planning. The role of the Department of Health in the financial aspects of the health sector, including approval of funding and business plans, was discussed in more detail in Chapter 7 of our

1999 Annual Report (page 106) which reported the results of our audit of the Northern Regional Health Board.

7.24 CBHC Board minutes reflect discussions and approval of resource requirements. The Executive Committee reviews expenditures, and makes recommendations to the Board. The Board approves the expenditure level, but has been unable to approve a balanced budget.

7.25 This Board, similar to others in the Province, was directed by the Department of Health in recent years to maintain the current service delivery and at the same time to balance the budget. These competing directives caused difficulties in financial planning and management. The Complex attributes the deficits incurred to a “revenue shortfall” based on the Department of Health budget.

7.26 The deficits were a systemic problem throughout the health sector in the Province; each of the Regional Health Boards and Non-designated Organizations had accumulated a deficit by March 31, 1999. The Department of Health has since funded these accumulated deficits.

7.27 The new Health Authorities Act includes provisions limiting the ability of District Health Authorities to approve deficit budgets. Those provisions are reproduced below.

“31(1) A district health authority shall not plan for or, in any fiscal year, incur or make expenditures that will result in the total of operating expenditures and capital expenditures from revenue exceeding the total of its revenues from all sources in that fiscal year.

(2) Notwithstanding subsection (1), an amount in excess of revenue may be expended in a fiscal year for operating expenditures and capital expenditures if the district health authority has entered into an agreement with the Minister providing that the amount will be replaced during the following fiscal year.

(3) Where operating expenditures, including capital expenditures, from revenue for a fiscal year exceed total revenue from all sources for that year, the resulting deficit as shown on the annual financial statements of the district health authority for that fiscal year shall be recovered, no later than the end of the fiscal year following the fiscal year in which the deficit occurred, by a reduction in expenditures or an increase in revenue, or both.

32 Where a district health authority realizes a budget surplus at the end of a fiscal year, the Minister may authorize the authority to retain all or a part of the surplus on such terms and conditions as the Minister considers appropriate.”

7.28 Sections 56 to 58 of the Health Authorities Act set out the responsibilities of the DHAs, DOH and the Governor in Council in a revised health-services business planning process. We hope that implementation of these provisions will lead to timely approval of business plans and remedy existing problems in the financial planning area.

Accountability

7.29 The Board prepares an annual report to the public. The report does not include any financial information or comparison of actual results to budget. There is limited reporting on the level of achievement of objectives, goals or plans. The report could be improved by including the financial statements and more detail on objectives and related achievement.

7.30 Section 21 of the Health Authorities Act indicates that District Health Authorities will be required to prepare annual reports including financial statements and reporting on achievement of performance objectives. DHAs will be required to submit these reports to the Minister of Health.

The Act also provides for the Minister of Health to table these reports in the House of Assembly. These provisions, if implemented appropriately, should improve accountability in the health sector.

7.31 CBHC produces a semi-monthly newsletter which is available to staff and the public. Board meetings have occurred in the various facilities but are not open to the public.

Physician Issues

7.32 The Complex has a physician manpower plan detailing the required number of physicians with various specialties. The Board grants hospital privileges to physicians on an annual basis. Before approving new physician positions, CBHC prepares an impact analysis which includes review of additional costs associated with the new position.

7.33 CBHC has been experiencing physician shortages. One approach taken by CBHC to deal with this shortage is the introduction of a family medicine program through Dalhousie University, which allows trained individuals to practice under the supervision of a licensed physician during the last six months of the program. There is also a recruitment plan in place which includes use of personal contacts, advertisements, website, and recruitment agencies in various parts of Canada.

7.34 CBHC has contractual arrangements with approximately 23 physicians, both general practitioners and specialists, to supplement fee-for-service arrangements and provide for services ranging from family medicine to anaesthesiology. The arrangements call for a guaranteed minimum annual income with any differential between that figure and insurable fee-for-service billings paid by CBHC.

7.35 The Complex made loans totalling approximately \$25,000 to two physicians. CBHC was attempting to deal with physician shortages at that time, and the funds were advanced as a result of a request for relief of hardship by the relocating physicians. Appropriate supporting documents such as promissory notes and repayment agreements were not completed. The amounts have not been collected and will likely be written off in the near future. Management indicated that similar loans will not be made in the future.

Performance Measurement and Reporting

7.36 The need for improvements in performance reporting and related issues in the health care field have been well documented by others. For example, both the Department of Health's *Transitions in Care - Nova Scotia Department of Health Facilities Review* (March 2000) and the Atlantic Institute for Market Studies' *Operating in the Dark: The Gathering Crisis in Canada's Public Health Care System* (Brian Lee Crowley, David Zitner, Nancy Faraday-Smith; November 1999) discuss the deficiencies in the current system and recommend significant change in this area. The following quote from *Operating in the Dark* illustrates the severity of the problems.

“Health care is the largest public spending programme in government. Yet we do not possess the information, or even the ability to gather that information, that would allow us to assess the performance of the current system, let alone evaluate the realistic alternatives.”
(p. 1)

7.37 CBHC has been actively measuring its performance in certain areas and reporting the results to the Board. Exhibit 7.7 is an example of a report which the CEO presents to the Board quarterly. The report is divided into four sections and includes the following performance indicators:

- Quality indicators - commonly used measures of quality performance in Canadian hospitals;

- Utilization indicators - commonly reported performance indicators of utilization and delivery of services;
- Waiting time and turnaround indicators - the waiting time for various services provided and the length of time it takes to receive the service; and
- General indicators - a variety of mainly financial performance indicators.

7.38 This report provides Board members with a good summary of activity during the previous quarters. It could be expanded to include objectives and targets for these areas and measurement against the targets. Also, as noted in paragraph 7.29 above, the annual report does not include the results of this monitoring and we recommend that it be included.

7.39 CBHC has been a leader in soliciting performance information from other facilities, and using that information to measure its own performance. CBHC established a benchmarking process in collaboration with a number of hospitals throughout Canada. This activity commenced in 1996 and the function is completed at CBHC for participating members by one staff person with only minimal resources - a personal computer and an office.

7.40 CEOs of the participating hospitals select an area to be studied to identify the best practices. The Balanced Scorecard methodology is used to complete the comparison. The comparison is from four perspectives: financial; customer satisfaction; internal business process; and innovation and learning. Results of the comparisons are used by the participants to improve practices in their respective hospitals.

7.41 To date, CBHC has completed benchmarking surveys for cataract surgery, hip and knee surgery, housekeeping, food services, diagnostic imaging and cardiac surgery. Benchmarking activities had recently commenced in nuclear medicine and finance but were incomplete at the time of the audit. The CEO of CBHC made a presentation to DOH on the topic of benchmarking in January 2000.

7.42 CBHC has benefited from the benchmarking process. Examples of the benefits include the following:

- gathering new ideas from various sources;
- setting goals, targets and linking strategies for improvement;
- allocating resources;
- encouraging feedback and learning;
- reducing the cost of product;
- examining the benefits of amalgamated services;
- examining outsourcing;
- increasing education of staff;
- aiding in budget submission; and
- recognizing good work performance.

7.43 We commend CBHC's efforts in benchmarking and believe this is a useful tool that the Department of Health and the District Health Authorities should use to measure and improve performance in many important areas.

Patient Satisfaction Survey

7.44 Patient satisfaction is one important indicator of performance. CBHC participated on three separate occasions with the *Measuring Up* survey completed by the Conference Board of Canada. The purpose of the survey is to enable CBHC to assess the level of patient satisfaction with the institution, and to identify areas which, from the patient's perspective, may require improvement. The participating facilities may also compare results among themselves. Initially, the CBHC survey identified areas for improvement which were acted upon and, more recently, CBHC has scored well in all areas.

7.45 The Complex submits performance information to the Canadian Institute of Health Information (CIHI). CIHI processes information on discharged patients and forwards comparative reports to the hospital and DOH by site. One of the measures used is Resource Intensity Weights (RIW) which facilitate comparisons of mix and volume of patients between programs, hospitals and provinces. RIW information is used as an overall measure of productivity. Facilities using this measure can determine which facilities have similar RIWs and then make comparisons of clinical and resource utilization. This type of information has recently been reported to the CBHC Board.

Utilization of Beds

7.46 In March 2000, the Department of Health released *Transitions in Care - Nova Scotia Department of Health Facilities Review*. The study resulted from "significant concerns about the apparently high numbers of patients in the province occupying acute care beds but requiring a different level of care." (Summary, p. 1)

7.47 *Transitions in Care* reported that "on average, approximately 25% of hospital patient days across the province, at the time of the survey, were for reasons other than active 'acute' care...The single largest barrier to timely and appropriate discharge lay in patients' access to Long Term Care beds." (Summary, p. 3-4) Exhibits 7.9 and 7.10 of this chapter are graphs of how acute care beds are used which have been reproduced from *Transitions in Care*. Results are shown on a Province-wide and regional basis.

7.48 The following are examples of problems caused by inappropriate use of acute care beds.

- The occupants of the acute care beds may not be getting the most appropriate care for their needs.
- Those who need access to acute care beds may be subject to increased waiting times.
- Unnecessary costs are incurred by the Province as expensive hospital beds replace less expensive long-term care beds. Also, long-term care beds are not fully insured so the Province loses revenue by providing access to hospital beds rather than long-term care beds.

7.49 CBHC monitors inappropriate bed use and reports results to the Board. These reports routinely show that more than 25% of patients occupying acute care beds at CBHC could be more appropriately treated in another setting. As noted above, this figure is consistent with the Province-wide results.

7.50 Inappropriate bed use is a significant problem, but it cannot be remedied by CBHC acting alone. DOH, CBHC, and other long-term and acute care providers will need to work together to achieve a solution, and implementation of the recommendations in *Transitions in Care* is a first step in that process.

Financial Management

7.51 By March 31, 1999, CBHC had accumulated a total operating deficit of \$64.9 million. The major components of the deficit were as follows:

Surplus as at March 31, 1996	\$ (7) million
Less: Write off, in 1998, of amounts recorded as receivable from DOH prior to March 31, 1996	<u>32 million</u>
Total operating deficit related to period prior to amalgamation	25 million
Plus: Operating deficit incurred during 1997 to 1999	29 million
Plus: Shortfall in capital funding in comparison to depreciation charged to operations	<u>10 million</u>
Total operating deficit, March 31, 1999	<u>\$ 64 million</u>

7.52 DOH provided funding for the Complex's deficit of approximately \$84 million in December 1999. This amount included all but \$10 million of the operating deficit, plus an amount equal to the Complex's recorded deficit on capital spending of approximately \$30 million.

7.53 The CBHC Board decided, during 1999-2000, to restate the audited financial statements of prior years to reflect the impact of the additional revenue from the Department of Health in the years to which it related. This had the impact of reducing prior years' reported deficits. We concur with the Board's decision to restate the financial statements.

7.54 CBHC had revenues of \$130.7 million for the 1999-2000 fiscal year and expenditures amounting to \$131.9 million resulting in a deficit of \$1.2 million. The Board had originally approved a deficit of \$19.7 million, but subsequently received additional funding from the Department of Health which reduced the approved deficit.

7.55 Exhibit 7.4 provides a summary of the revenue, expenses and annual deficit for the period since amalgamation (as originally reported, before the impact of the additional funding described in paragraphs 7.51 and 7.52 above). Exhibit 7.5 shows the growth of the accumulated operating deficit.

7.56 The 1996 merger of the hospitals created the need to amalgamate the predecessor finance departments. All finance-related matters are now dealt with through one finance department located at the Cape Breton Regional Hospital. Of the 26 full-time equivalent positions in the Finance department, 4 management positions are staffed by individuals holding professional accounting designations.

7.57 *Budgeting process* - CBHC has an established budget process. The process commences in the fall each year with meetings involving senior management, department of finance personnel and program directors. Senior management communicates guidelines such as estimated cost increases and productivity factors and the finance department also provides a budget preparation package. Senior management expects to have a completed budget before the commencement of each fiscal year. All program funding requests must be supported, and are reviewed by department management before the department's budget is approved. New or expanded program requests are submitted to and reviewed by senior management.

7.58 Following senior management challenge and review, the budget is reviewed by the Executive Committee, which includes the Treasurer, a professional accountant.

7.59 The Board reviews and approves the expenditure budget and generally, very close to commencement of the fiscal year, the departments are made aware of the approved expenditure limits.

7.60 Each department prepares a prioritized list of equipment needs for the next three years. The lists are submitted to a committee which compiles all the lists and provides an overall picture of prioritized equipment needs. In addition, the Foundations represent another source of capital funding which is available to all departments.

7.61 *Monitoring and reporting* - The financial monitoring process in place at CBHC is appropriate, although there is a need to improve the forecasting process. Management identified the need for better forecasting and we concur.

7.62 Monthly financial reports and variance reports are prepared and sent to each department. As well, a separate variance summary is presented to the Board. The monthly financial reports are detailed and allow individual managers to look closely within the department to determine where and why a variance is occurring, and to make necessary preparations to ensure they are within budget at the end of the year. Each department is required to prepare a variance analysis quarterly, explaining the year-to-date variances in compensation and other expenses.

7.63 Recently, senior management has requested each department to provide an estimate of the expenditures to year end. These estimates are the only form of forecasting that is being done at this time. Management recognizes that there is a need to improve and formalize forecasting and have plans to do so. The annual audited balance sheet is the only report on financial position the Board receives and we recommend that the Board receive a report of financial position more frequently.

7.64 *Economy and efficiency* - CBHC has recently established a Clinical Financial Advisory Committee to identify opportunities for improvement in the economy and efficiency of all clinical activities. The committee has established a list of potential areas to be reviewed and has selected its first topic. Recommendations are forthcoming. We support this endeavour and recommend that the initiative be monitored by establishing annual targets and reporting on its performance.

7.65 The operations of the CBHC Finance Department were recently reviewed by an external consultant. This report provided numerous recommendations for performance improvement. Although not all recommendations have been implemented, CBHC has implemented most of those feasible in today's environment.

Human Resource Management - Nursing

7.66 *Workload measurement* - The Canadian Council on Health Services Accreditation states that hospitals should have a process for allocating human resources and that protection and control of resources should be achieved, in part, by measuring workload. Workload measurement systems facilitate tracking of the staffing requirement, and allocation of staff to programs and functions. Such systems provide for a staffing level that is appropriate given the mix of patients in the hospital, and the required standard of care.

7.67 CBHC has no formal workload measurement system for its nursing staff. GRASP (a common nursing workload measurement system) was used prior to amalgamation at certain of the facilities, but the output was found to be unreliable and was not used. CBHC nursing management completed a study of comparable hospitals to determine the required number and type of staffing for the various patient service areas. The study, although not extensive, provided direction for the

staffing levels required in each area. As a result of the study, staffing levels were adjusted where management deemed necessary. This approach, however, does not adequately consider daily changes in volume, case mix and acuity and CBHC should have a more formal system.

7.68 *Overtime and absenteeism* - The amalgamation of the facilities brought approximately 857 nursing staff together under one organizational structure (see Exhibit 7.3). The Complex, similar to other hospitals in the Province, is experiencing nursing shortages.

7.69 Overtime and absenteeism impact the costs of operating a hospital. Exhibit 7.6 provides a comparison of CBHC's overtime and absenteeism costs, in the nursing area, for the past two years. Appropriate monitoring and reporting are necessary to effectively control these costs. CBHC management monitor overtime and absenteeism on a monthly basis. The Board does not receive regular reports on overtime. Recently, the Board has started to receive information on absenteeism and we suggest that overtime costs be added to this report.

7.70 Nursing overtime costs are affected by the availability of casual nurses. There are 126 casual nurses, of which 83 are in temporary positions and unable to provide services on a casual basis. The remaining 43 are considered to be the available casuals. The small number of available casual nursing staff is a major contributor to the overtime requirements.

7.71 Recently, the Complex has been selected to participate in two pilot projects related to developing methodologies to reduce absenteeism. The Complex records absenteeism information on a daily basis in the information systems, whereas most other health institutions record the information bi-monthly as a single total. Daily recording provides better information for analysis of trends and related causes, and this information should prove useful in the pilot projects. Management indicate that within two months following implementation of the absenteeism management program, month-over-month costs decreased by \$120,000 or 30%.

Information Technology (IT)

7.72 The IT department has 8 staff and an operating budget of approximately \$700,000. IT-related equipment expenditures for the past three years have totalled \$561,875, excluding Y2K expenditures.

7.73 *Proposal for Health Information System* - Information systems are a key factor in solving the problems in health care as discussed in paragraph 7.36 above. CBHC and its counterparts across the Province collaborated in preparing a proposal for a new Province-wide Health Information System (HIS). Subsequently, DOH requested the participants to submit a business case and the group shared the \$100,000 cost of consultants to assist with this task. The one-time project costs for the Health Information System were estimated in the fall of 1999 to be \$35.0 million. This includes required hardware, 18 modules of software, training, project management and licenses. Annual ongoing support costs were estimated at \$2.5 million. The cost of a Provincial data warehouse was estimated at an additional \$11.0 million. The estimated cost savings associated with joint acquisition by the five participating organizations rather than individual acquisitions was \$3.2 million. The project implementation was expected to take 22 months.

7.74 The HIS business case identified the following benefits.

- *"A common electronic clinical record will allow physicians access to information about all services provided to the patient regardless of the facility in which the service was provided and across all programs;*

- *Financial management systems can be integrated providing access to data and information that will allow managers to have the opportunity to manage resources in a manner previously unavailable;*
- *Integration between [the supplier] modules and diagnostic equipment such as that found in laboratories is available eliminating the need to enter data more than once or at all;*
- *Patient information will be available at all facilities in Nova Scotia with an appropriate level of technology. This will allow patient history to be available no matter what region the patient is seeking treatment from; and*
- *The Province will have access to information, previously unavailable, to assist in meeting the Federal Government requirements for health sector funding.” (Page ii, Section I)*

7.75 The business case also identified the following disadvantages, among others, with the current situation:

- *“the current technology software is outdated and has limited functionality;*
- *there is no standard hardware or operating system for the software;*
- *there is no accurate and timely means to collect and report information regionally or provincially;*
- *patients are required to provide demographic and clinical history information at every facility, and in some cases at every department within a facility, visited for health care;*
- *there is insufficient time and inadequate information to manage the physician credential process according to existing policies.” (Pages 7-10, Section 2)*

7.76 The HIS proposal was provided to DOH almost two years ago. To date, the Department has not formally responded to the proposal. More timely collaboration on strategic planning in the IT area between DOH and the various facilities providing services is required.

7.77 *Management of the IT department* - The IT department prepares annual goals and objectives which serve as a plan for the current year. These plans are tied closely to the goals and objectives of the entire Complex.

7.78 The IT manual sets out standards for the organization outlining policies in such areas as confidentiality and security.

7.79 CBHC has a prioritization process in place for capital and operating information technology requests. A multi-disciplinary selection team is used to identify user needs throughout the Complex. Low cost service or information requests are handled by two programmers/analysts. All requests are tracked in a database and status is monitored. Any requests having a more significant cost impact are reviewed by the IT director and, if warranted, result in a proposal to the VP of Corporate Services.

7.80 Management has not fully developed performance indicators with respect to information technology management. Performance indicators should be developed and reported to management on a regular basis.

Procurement

7.81 The procurement division consists of seven full-time equivalent positions.

7.82 CBHC has established relationships with several buying groups in an effort to reduce costs, and is a shareholder of a national medical surgical supplies buying group, a shareholder of a food buying group and a member of the Provincial Drug Distribution Program (PDDP). CBHC was instrumental in re-establishing the food buying group when the Nova Scotia Association of Health Organizations ceased providing the purchasing service.

7.83 The process followed by these buying groups ensures CBHC complies with Provincial Procurement Guidelines as these groups solicit tenders. The two buying groups where CBHC is a shareholder provide volume rebates. There are some items which are still purchased outside these groups, either to fulfill existing contracts or for items not otherwise available through the groups. The Complex has plans in place to prepare reports outlining savings achieved through participation in these buying groups. We support management's involvement in initiatives such as these, and recommend that CBHC monitor and report savings achieved.

7.84 The Provincial Drug Distribution Program agreement requires that the parties purchase all their drug requirements through the program. Drugs which are not available through PDDP are permitted to be purchased from outside sources. Our review of drug purchases indicated that CBHC meets this requirement.

7.85 CBHC has recently introduced a purchasing credit card system to attempt to reduce costs involved in purchasing lower volume miscellaneous supplies and goods. Each department sets guidelines for the total amount that can be purchased using the credit cards.

7.86 There is an inventory management system in place and reports are prepared for senior management. Current levels of inventory are slightly higher than management would consider acceptable due to the required increases to prepare for potential Y2K related problems. Management has been making a concerted effort to reduce the total dollar value of inventory.

Revenue/Fees

7.87 The Cape Breton Healthcare Complex had revenue from operations of \$130.7 million for the 1999-2000 fiscal year. Of this amount, \$112.4 million was revenue received from the Department of Health for hospital operations. The balance of \$18.3 million was received from non-Provincial sources for various services. Exhibit 7.8 shows the revenues by source.

7.88 Until April 1, 1995, the Department of Health costed and established rates for various non-insured services performed by hospitals and health care facilities. This is now the responsibility of the individual hospitals.

7.89 The Department does, however, continue to establish rates for Interprovincial Reciprocal Billings. These are the amounts billed by the Department of Health to other provinces/territories to cover the provision of in-patient and out-patient services to entitled residents of these jurisdictions by Nova Scotia hospitals. The Department of Health establishes one ward per diem rate for each hospital based on its annual budget divided by the number of patient days. The rates have not changed from April 1, 1998 as there has been a national moratorium on changing per diems. These Interprovincial Reciprocal Billings and collections are the responsibility of the Department, and do not affect revenue of the hospitals.

7.90 CBHC's management information systems are not able to determine costs of most services provided. CBHC therefore uses the Department's Interprovincial Reciprocal Billing rate for the

Complex's own billings to non-insured patients (e.g., patients from other countries receiving services from the hospital). For patients whom the hospital is able to bill, the hospital keeps the revenue. For some services, CBHC continues to use rates established several years ago when the Department of Health provided costing information for non-insured services.

7.91 Since rates charged by CBHC are not based on cost of the actual services provided to the patient, but rather an average per diem cost, the rates may not reflect the actual cost incurred. We recommend that the Hospital work towards developing an approach which results in recovery of full costs for all services for which the Hospital is able to charge fees.

7.92 CBHC has the authority to establish rates for non-insured services which include dietary operations, laundry operations, orthotic shoe sales and medical records. It does not have a policy document setting out how each fee is to be determined, the frequency of setting/changing the rate and the approvals required, etc. CBHC has determined the basis on which these fees are to be set (i.e., dietary and laundry rates are set for cost recovery and orthotic shoe sale prices are set at market). CBHC is currently reviewing the rates based on cost recovery as labour costs have increased recently. We recommend that the hospital prepare a policy to provide all CBHC staff with guidance on how the fee is to be determined, the frequency of setting/changing the rate and the approvals required, etc.

7.93 *Long-term care* - Veterans Affairs Canada (VAC) contracts with the Cape Breton Healthcare Complex for the priority use of 16 long-term care beds at Taigh Na Mara in Glace Bay and 35 long-term care beds at Northside Harbourview Hospital in Sydney Mines. VAC makes payments to CBHC based on a daily per diem rate determined by VAC based on the budget submitted by CBHC.

7.94 The residents of remaining long-term care beds at those facilities, as well as long-term care beds at the New Waterford Hospital, are charged per diems at a rate set by the Department of Health. The per diem may be paid by the resident and/or the Province depending on whether the individual is eligible for financial assistance.

7.95 CBHC receives revenues of over \$7.8 million from its long-term care beds. CBHC staff indicated to us that the per diems received adequately cover the expenses of the long-term care beds.

7.96 *Preferred accommodations* - Nova Scotia residents are insured for ward accommodations at hospitals. Like most hospitals in the Province, CBHC has upgraded accommodations available for which patients are charged a preferred accommodation rate (\$114 for a private room or \$96 for a semi-private room at the regional site). Many patients will request preferred accommodations if they have a private insurer to cover the cost, thereby providing additional revenue to the hospital.

7.97 CBHC had revenues of \$992,314 in 1998-99 from preferred accommodations. CBHC promoted accommodations with the value-added services of a pre-paid long distance calling card and daily television and newspaper. The process of registering and paying for preferred accommodations was also changed, and the rate was adjusted to be comparable with other hospitals in the Province. As a result, revenue increased to \$1,289,461 in 1999-2000.

7.98 *Rental of space* - CBHC leases space in various buildings to physicians at what is considered to be the market rate for the area. As of March 31, 2000, there were 25 physicians, as well as the Department of Health, renting a total of 10,400 square feet of space. Annual rental revenue amounts to approximately \$300,000. Annual rental charges range from \$11 to \$34 per square foot. The higher rates result from the cost of leasehold improvements which are included in the rental charge.

7.99 *Collections* - The various departments providing uninsured services submit billing information to the Finance department usually on a monthly basis. All billings are done in the Finance department of CBHC. Accounts Receivable staff are responsible for reviewing outstanding

accounts and are under the supervision of the Accounting Manager. Staff periodically follow up on overdue accounts with telephone calls and second notices.

7.100 CBHC has established a policy of requiring a three-day deposit from non-insured patients requesting preferred accommodations. Many laboratory tests are performed on a cash only basis. These practices have reduced the amount and volume of receivables.

7.101 Much of CBHC's \$18.3 million in revenues mentioned above is from Veterans Affairs Canada and from the Department of Health for long-term care. These payments are usually received within two to six weeks from the date of invoice. CBHC should explore opportunities of collecting these receivables on a more timely basis.

CONCLUDING REMARKS

7.102 The Board and management of the Cape Breton Healthcare Complex have taken their governance and management responsibilities very seriously and worked diligently to meet those responsibilities. However, as noted in our prior audit of the Northern Regional Health Board (Chapter 7 of our 1999 Annual Report), deficiencies in planning at the Department of Health and delays in approval of plans and requests led to problems for the Complex. The most significant problem was the incurrence of large deficits which were ultimately funded by the Department of Health.

7.103 The Health Authorities Act will introduce significant changes to the relationship between the Department of Health and health sector boards. Those changes respond to many of the recommendations in this and our previous reports in the health sector such as more timely approval of funding and business plans, and improvements in performance reporting to the House of Assembly. However, legislation is only the first step in making those changes. Implementation of the legislation in a meaningful way remains a significant challenge.

7.104 The challenges faced by the Board and management of the Complex are not unique, and are faced by each of the other health care providers in the Province. One of these challenges is to ensure that high-cost acute care patient days are used appropriately. There is evidence that many acute care patient days, at the Complex and Province-wide, are being provided to patients who could be treated effectively in an alternate facility. Another challenge, well-documented in the health sector, is the need for state-of-the-art information systems which will require significant capital investment. Resolution of these and similar challenges will require a concerted effort by all who have responsibility for decision-making in the health sector.

7.105 The Cape Breton Healthcare Complex has assumed a leadership role in benchmarking and performance measurement initiatives. These efforts are commendable, and the Department of Health and the Complex should monitor and report these results to determine whether savings and/or better management have resulted. If so, these initiatives should be implemented in other Boards and the Department itself.

Appendix 7.1

**CAPE BRETON HEALTHCARE COMPLEX
SUMMARY OF ACCOMPLISHMENTS
(INFORMATION PROVIDED BY MANAGEMENT - UNAUDITED)**

- The Board of the Cape Breton Healthcare Complex faced the issues of amalgamation and created a Vision and Mission statement for the organization
- Specific Goals and Objectives for management and clinical staff were developed.
- Centralized management structure developed.
- Savings, following amalgamation, resulting from reductions in administrative and support areas of approximately \$5 million.
- The Glace Bay Health Care Centre is fully operational and staffed by 6 physicians.
- Construction commenced on the Cancer Treatment Center with completion scheduled for late Summer 1998.
- Construction commenced on a new 67 bed long term care facility for Veterans and level II residents in Glace Bay with completion scheduled for Summer 1998.
- Consolidation of the Finance Department to the Regional Hospital site.
- Construction of a new home for 6 children located at the Children's Training Centre commenced, with opening scheduled for early 1998.
- Benchmarking initiative commenced with initial surveys in Human Resources, Housekeeping, Cataract Surgery, Orthopedic Surgery and Food Services initiated.
- The first Retinal Clinic outside of Halifax opened in Glace Bay. Initial workload identified 85 percent of the cases being seen would previously have had to receive treatment in Halifax.
- A new 67 bed nursing home in Glace Bay, Taigh Na Mara, accepted its first residents.
- The Cape Breton Healthcare Complex undertook the first complex-wide accreditation survey, received three year accreditation status. Extensive involvement of staff throughout the Complex on the teams resulted in both a positive accreditation and a better understanding of all aspects of service delivery within the organization.

Appendix 7.1 (Cont'd)

- A 21 bed long term care unit was established in New Waterford.
- The Cape Breton Healthcare Complex participated in a pilot project of the Conference Board of Canada outpatient satisfaction survey.
- Quality site benchmarking initiatives were completed in Food Services, Housekeeping, CT services, and Cardiac Surgery.
- External reviews were completed in Palliative Care and Hematology, and long range plans were developed for Cardiology and Neurology Services.
- The Complex joined a national purchasing group.
- A Clinical Financial Advisory Committee, comprised of eight representatives of medical staff and senior management, was initiated. The utilization of drugs was reviewed and action initiated to control escalating expenditures.

Exhibit 7.1

**CAPE BRETON HEALTHCARE COMPLEX
PATIENT DAYS BY SITE AND TYPE
FOR THE YEAR ENDED MARCH 31, 2000**

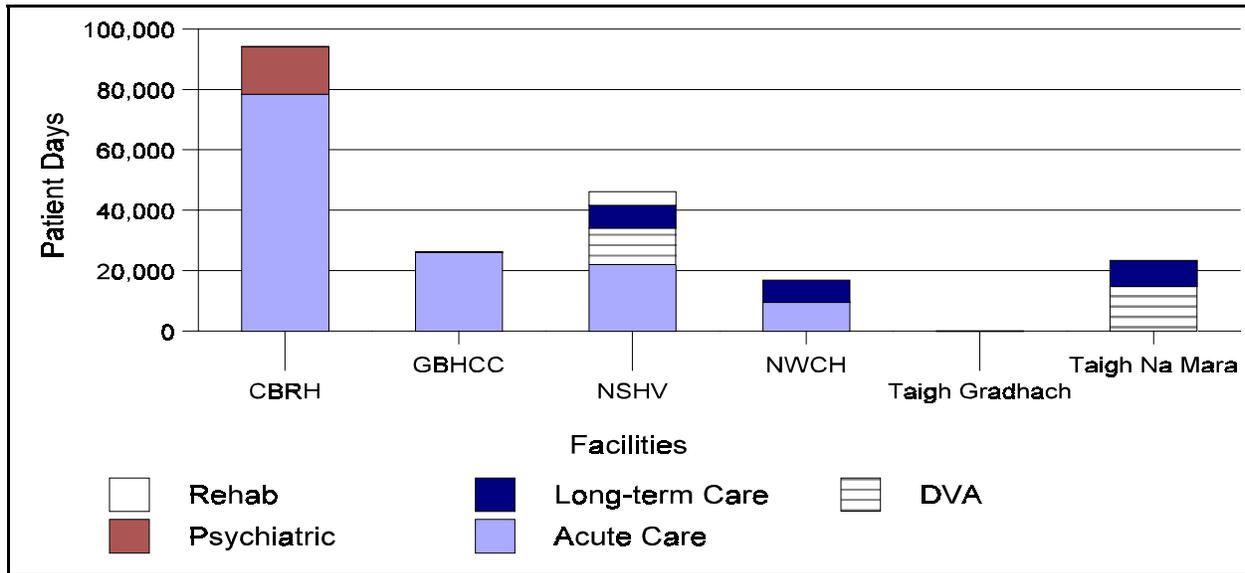


Exhibit 7.2

**CAPE BRETON HEALTHCARE COMPLEX
TOTAL PATIENT DAYS BY TYPE OF SERVICE
1999 - 2000**

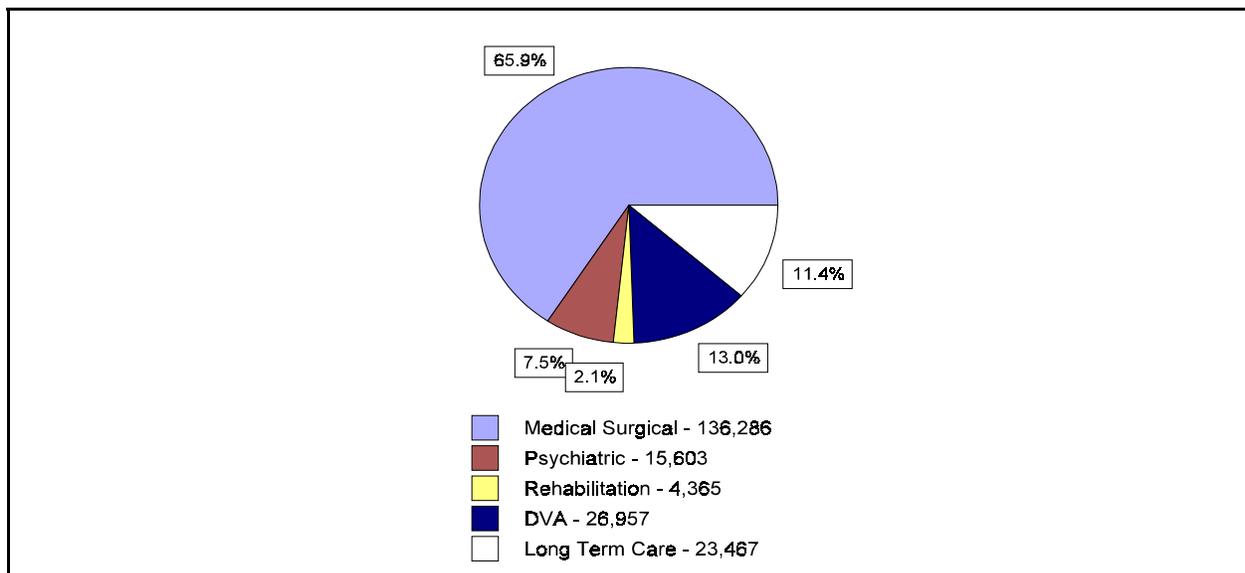
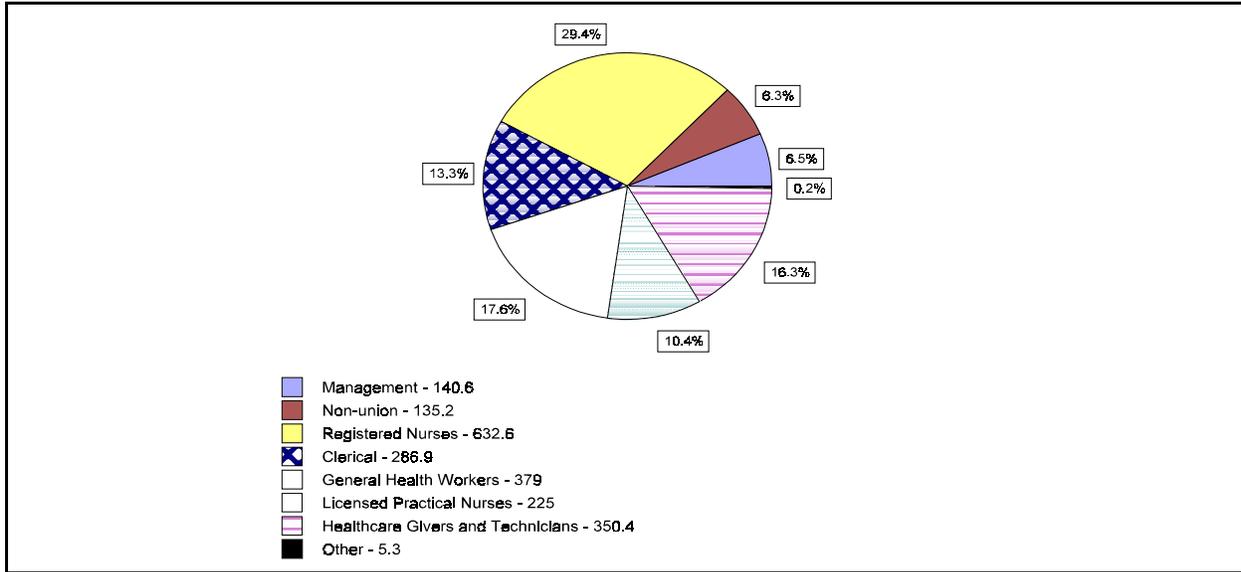


Exhibit 7.3

**CAPE BRETON HEALTHCARE COMPLEX
STAFFING - FULL TIME EQUIVALENTS**



MARCH 31, 2000

Exhibit 7.4

**CAPE BRETON HEALTHCARE COMPLEX
REVENUES, EXPENDITURES AND ANNUAL DEFICIT**

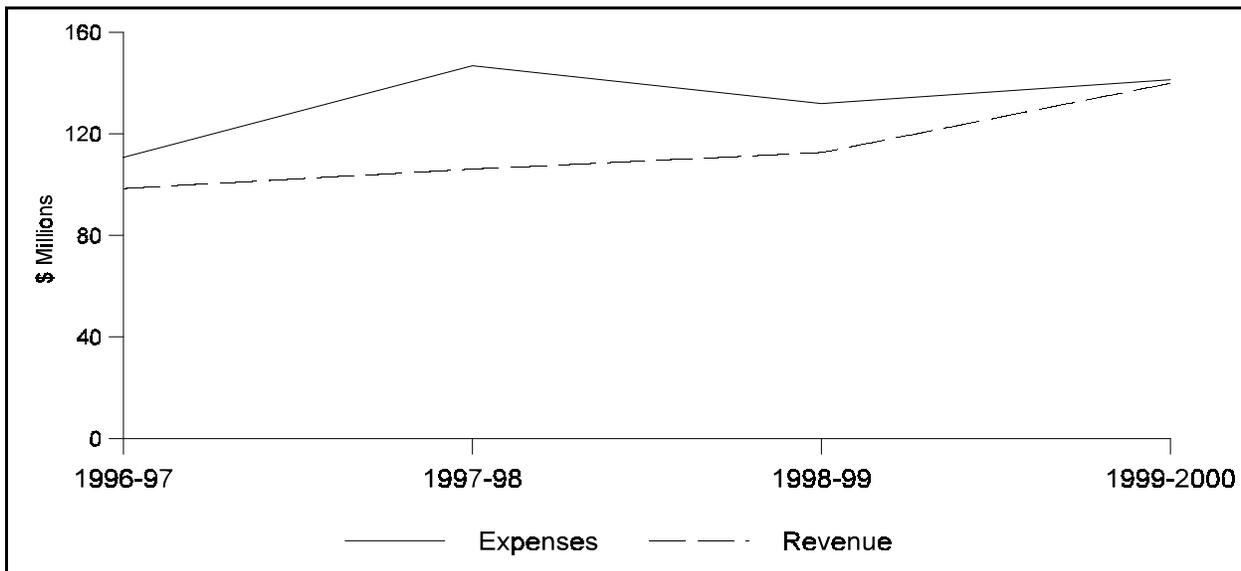
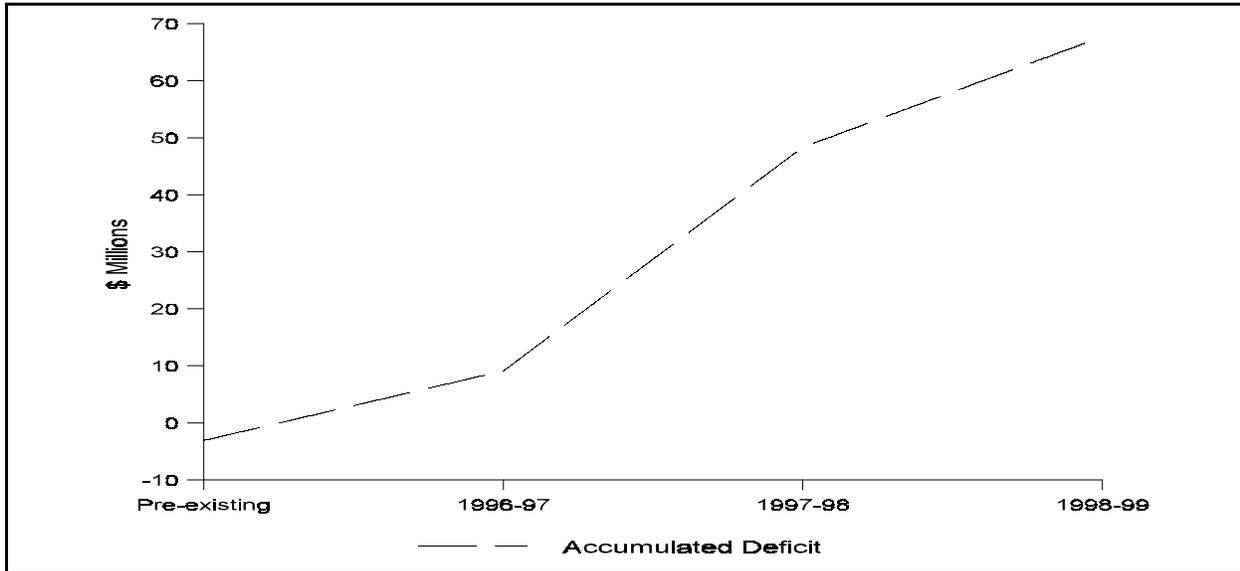


Exhibit 7.5

**CAPE BRETON HEALTHCARE COMPLEX
ACCUMULATED OPERATING DEFICIT**



(IN \$ MILLIONS)

Exhibit 7.6

**CAPE BRETON HEALTHCARE COMPLEX
COSTS OF NURSING OVERTIME AND ABSENTEEISM**

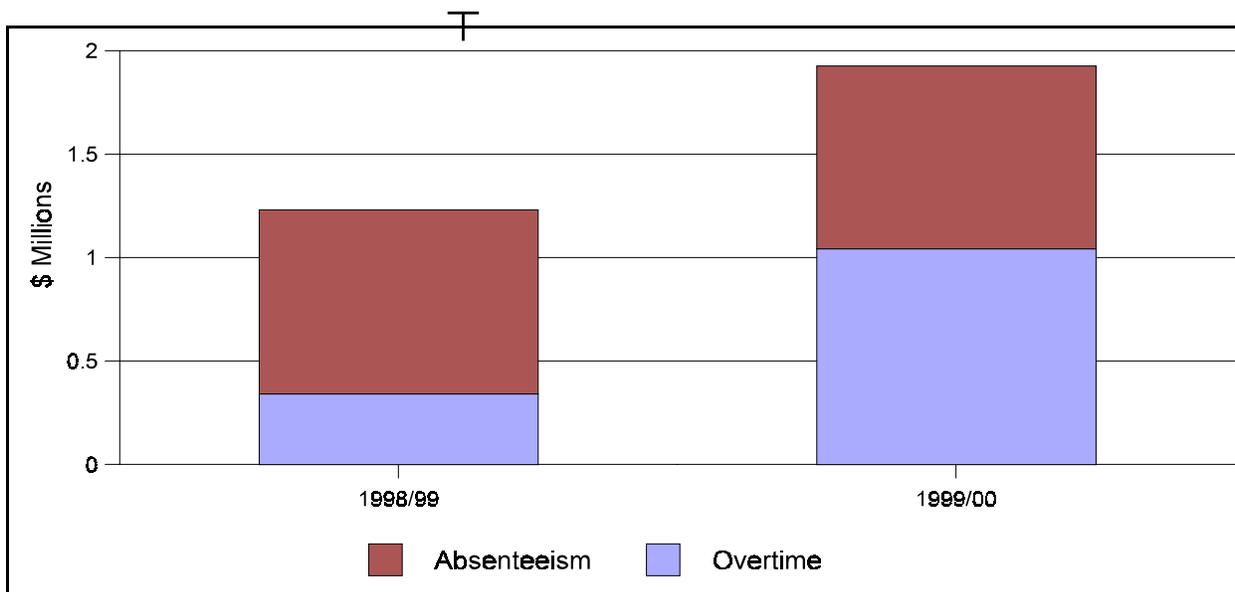


Exhibit 7.7

**CAPE BRETON HEALTHCARE COMPLEX
EXTRACT FROM MONITORING REPORT - 2nd QUARTER - 1999-2000
(PREPARED BY CAPE BRETON HEALTHCARE COMPLEX)**

1999/2000	1999-2000 YTD	1998-99 YTD
WAITING TIMES (in weeks unless otherwise noted):		
Cardio-Pulmonary Services		
EEG	6.8	4
Cardiac Ultrasound	14.9	18
Vascular Labs	5.1	6
Pulmonary Function	7.6	7
CT		
Avg. # Requisitions on hand	807	863
UTILIZATION		
% Same Day Surgery		
CBR	92	90
GBH	98	92
NWC	100	100
NSHV	95	91
% Day Surgery		
CBR	60	56
GBH	87	83
NWC	93	96
NSHV	85	82
% Total or Cases Emergency (after hours)		
CBR	9.8	10.3
GBH	0	0.1
NWC	0	0
NSHV	0	0
Average # Patients with LOS > 30 Days		
CBR	36	51
GBH	25	17
NWC	11	12
NSHV	16	19

Exhibit 7.8

**CAPE BRETON HEALTHCARE COMPLEX
REVENUE FROM OPERATIONS 1999-2000**

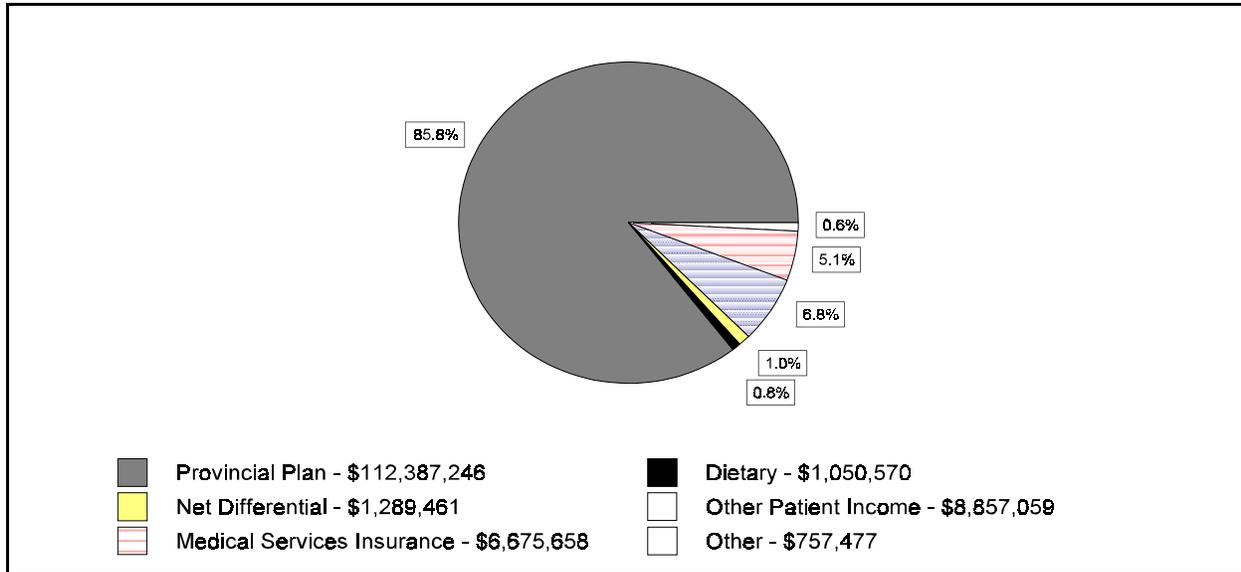


Exhibit 7.9

**PROVINCIAL PATIENT DAYS DISTRIBUTION
FROM "TRANSITIONS IN CARE - NOVA SCOTIA DEPARTMENT
OF HEALTH FACILITIES REVIEW" (Volume 1, Annex 3, Page 17)**

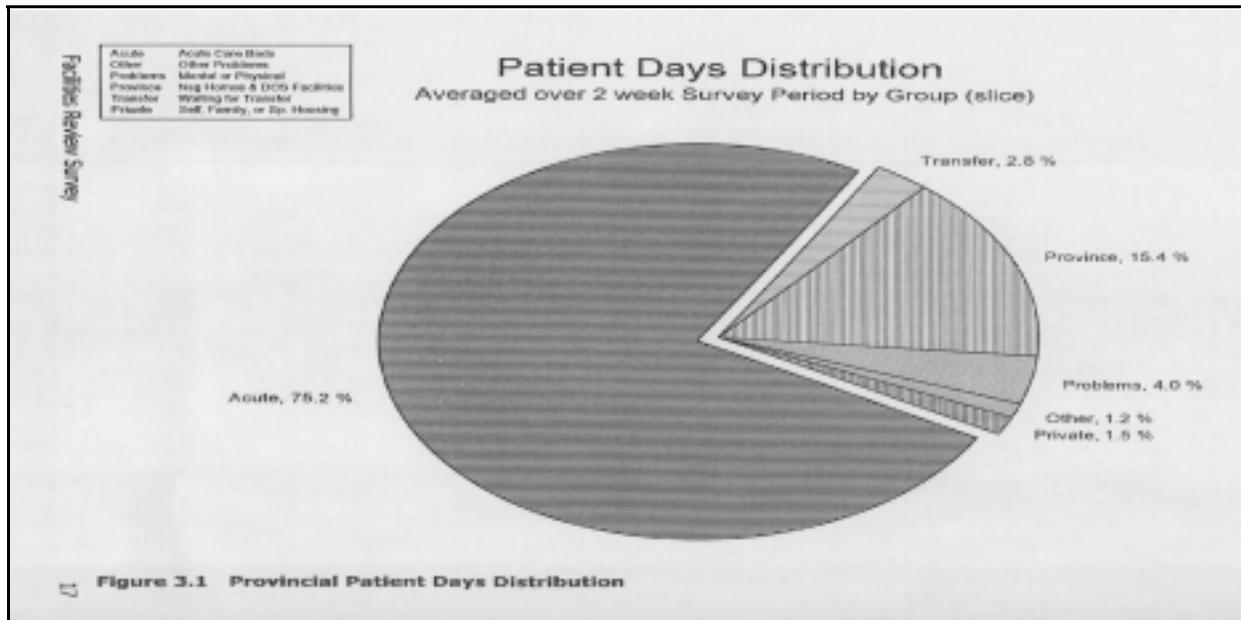


Exhibit 7.10

**REGIONAL PATIENT DAYS DISTRIBUTION
FROM "TRANSITIONS IN CARE - NOVA SCOTIA DEPARTMENT
OF HEALTH FACILITIES REVIEW"
(Volume 1, Annex 3, Page 18)**

