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## **Eagle Ridge Hospital Service Review**

### **STATUS UPDATE OF RECOMMENDATIONS**

**Prepared by  
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Executive Director, Eagle Ridge Hospital**

**February 2011**

## Service Review Status Update

In 2009, Fraser Health completed a review of clinical services (medicine, surgery, emergency, ambulatory and critical/monitored care) at Eagle Ridge Hospital (ERH). This Service Review was conducted under the auspices of the Quality Performance Committee of the Fraser Health Board of Directors. The Review identified current opportunities for improving service efficiencies and effectiveness, as well as opportunities for shaping service delivery at ERH to meet future health care needs as a part of the Fraser Health acute care network.

The Service Review included:

- consultation with key individuals working in the service areas
- analysis of current clinical services and future service needs/opportunities
- current and future (to 2020) population/demographic data
- and took into account, acute directional planning.

As a result of the Service Review, 27 recommendations were presented for consideration by Fraser Health and ERH Leadership to be implemented over a six month to four year period.

**To date, 24/27 (88%) of the recommendations have been completed or are in progress.**

- A. ERH role and mandate (Recommendation # 1)
- B. Medical governance and physician coverage (Recommendations # 2, 3, 4)
- C. Core Services for Community Hospital
  - Emergency Department (Recommendation # 5, 6)
  - Medicine (Recommendations # 7, 8, 9)
  - Surgery (Recommendations # 10, 11, 12)
  - Monitored Care Unit (Recommendations # 13, 14, 15, 16, 17)
- D. Hospitalist Service (Recommendation # 18, 19)
- E. Ambulatory Care (Recommendation # 20, 21)
- F. Specialty services which could be offered at ERH (beyond a general hospital type community mandate)
  - Mental Health (Recommendations # 22, 23)
  - IV Therapy (Recommendation # 24)
  - Neurology (Recommendation # 25)
  - Gastroenterology (Recommendation # 26)
  - Other Services (Recommendation # 27).

The following is a summary status report of the work Fraser Health and Eagle Ridge Hospital has done in relation to the recommendations.

A. Role and Mandate

<b>Recommendation # 1:</b>	In accordance with the Acute Directional Plan and work being conducted on Hospital Typology, Fraser Health Executive, working with administrators, physicians and staff at ERH, should ensure that a clear and compelling role and mandate for ERH as a community hospital and as part of the Fraser Health Acute Network; and that as integrated health care system is developed, this is widely communicated.
<p><b>Status: COMPLETE</b>  <i>ERH has been given a clear mandate as a community hospital within the Fraser Health network of services and this has been communicated widely.</i></p>	

B. ERH Medical Governance and Physician Coverage

<b>Recommendation #2</b>	<ul style="list-style-type: none"> <li>• ERH Department Heads in Surgery, Emergency Medicine, Medicine, Anaesthesia, Rehabilitation Medicine, Hospitalist Medicine, Laboratory Medicine and Diagnostic Imaging should be appointed in accordance with the future program management and medical governance model.</li> <li>• Similarly, Medical Director positions should be established for the Monitored Care Unit (MCU) and Ambulatory Care, again in accordance with the future program management and medical governance model.</li> <li>• A specific Role Description should exist for each position; agreement should be achieved on the amount of time required to fulfill each role; the accountability framework for each position should be explicit.</li> <li>• The recommendation should begin with Surgery, Anaesthesia, Emergency Medicine and Hospitalist Medicine, followed by Internal Medicine.</li> </ul>
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**Status: COMPLETE**  
*With the new medical governance structure introduced in Fraser Health in early 2010, ERH transitioned from having a mixture of Chiefs and Department Heads to having Department Heads for all services. These Department Heads report regionally and have clear role descriptions.*

<b>Recommendation #3</b>	At the appropriate time, an ERH LMAC be developed, along with appropriate LMAC subcommittees; in accordance with the Health Authority By-Laws, for the appointment of physicians and oversight of quality of care and practice.
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**Status: COMPLETE**  
*Local Medial Advisory Committees no longer exist, but in the new organizational structure, we have an ERH-specific Leadership Committee (similar to all sites) and a new position of Medical Coordinator.*

<b>Recommendation # 4</b>	There is an urgent requirement for establishment of 24/7 General Internal Medicine and General Surgery coverage
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**Status: COMPLETE/IN PROGRESS**

*Complete – Internal Medicine: As of Jan 2011, we have 24/7 internal medicine coverage at ERH.*

*In Progress – General Surgery: We have expanded to 5 days/week general surgery coverage including both elective and urgent/emergent services and have after hours support from the region.*

C. Core Services for ERH as a Community Hospital

**Emergency Department**

<b>Recommendation # 5</b>	The Emergency Department has increased access to Home and Community Care Services 7 days/week and at the right time of day.
<b>Status: COMPLETE</b> <i>Home Health has added resources to the community.</i>	

<b>Recommendation # 6</b>	The Emergency Department be provided enhanced support in diagnostic ultrasound, in nighttime radiography and in performance of EKGs.
<b>Status: NO ACTION REQUIRED (Considered complete)</b> <i>Services are available. ERH has EKG access 24/7. It also has access to onsite ultrasound and radiography days/evenings and access to these services through on-call services during the night as required.</i>	

**Medicine**

<b>Recommendation # 7</b>	An Internist be recruited to the defined role of Department Head, ERH Department of Medicine. This position could possibly be combined with the notional leadership positions of Medical Director, Monitored Care Unit (MCU) and Medical Director, Ambulatory Care Department.
<b>Status: IN PROGRESS</b> <i>Department Heads are in place for the MCU and Ambulatory Care. Two internists were recruited Jan 2011 and with their arrival, the Department of Medicine and leadership of the department will now be developed.</i>	

<b>Recommendation # 8</b>	ERH has 7 day/wk access to Home and Community Services, facilitating 7 day/week discharge of patients.
<b>Status: Repeat of #5 - COMPLETE</b>	

<b>Recommendation # 9</b>	ERH has an appropriate level of support services in areas such as pharmacy and IV therapy provided to the Medicine Unit.
<b>Status: NO FURTHER ACTION REQUIRED (CONSIDERED COMPLETE)</b> <i>ERH now has the level of support from Pharmacy that is appropriate for a community hospital. As with other community hospitals, IV Therapy is provided by trained nursing staff.</i>	

**Surgery**

<b>Recommendation # 10</b>	ERH Departments of Surgery and Anaesthesia be created and Department Heads appointed, with well-defined Role Descriptions.
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**Status: COMPLETE**  
*There are now Department Heads with well defined roles (before 2010 there were Chiefs).*

<b>Recommendation # 11</b>	The menu of surgical procedures performed at ERH be reduced and that ERH focus on serving the needs of its community.
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**Status: IN PROGRESS**  
*The reviewer confirmed the intent of this recommendation was that ERH streamline types of surgeries in order to focus on enhancing access to General Surgery. General surgery time has increased and is now available 5 days/week with both urgent and emergency cases as well as elective cases. There is a goal is to further increase access in the future.*

<b>Recommendation # 12</b>	ERH develop advanced nursing care capacity in wound care.
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**Status: COMPLETE**  
*We now have a certified Wound Care Specialist on staff.*

**Monitored Care Unit**

<b>Recommendation # 13</b>	Fraser Health develop a closed model Monitored Care Unit (MCU) with a clear mandate and performance metrics.
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**Status: NO ACTION TAKEN TO DATE**  
*Internists who work in the Monitored Care Unit were hired in Jan 2011 and they, along with the program, will do the future planning/work related to mandate/metrics.*

<b>Recommendation # 14</b>	The Role Description for Head of Internal Medicine could potentially include the role of Medical Director for the Monitored Care Unit (MCU) (and for Ambulatory Care Department) (see Medicine above; see Implementation Plan below). If another MCU medical leadership model is identified, the Administration of ERH should ensure that the Head of Internal Medicine has had input into and is comfortable with this decision, as the organization and functioning of the MCU and Ambulatory Care will be of great importance to the Department of Medicine, and impact its recruitment efforts.
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**Status: NO ACTION TAKEN TO DATE**  
*ERH currently has Medical Leaders for MCU and Ambulatory Care. In Jan 2011, we filled Internal Medicine positions and roles/job descriptions will follow.*

<b>Recommendation # 15</b>	The Head of Internal Medicine and Medical Director for the Monitored Care Unit (MCU) (may or may not be same individual) will ensure that: <ul style="list-style-type: none"> <li>• There is a rotation of appropriately skilled physicians to provide care in a closed MCU;</li> <li>• Admission and discharge protocols for the MCU are in place;</li> <li>• Appropriate Clinical Quality and Patient Safety protocols are in place in the MCU;</li> <li>• Utilization management data related to the MCU are collected and utilized to improve efficiency.</li> </ul>
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**Status: IN PROGRESS**  
*Physician rotations have been developed. As well, there is a Quality Committee that oversees the services of MCU. Work on the mandate/role/criteria will evolve with the new role of internal medicine.*

<b>Recommendation # 16</b>	Capability/capacity to provide care to patients requiring ventilation be developed in the Monitored Care Unit (MCU).
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**Status: NO ACTION TAKEN TO DATE**  
*Currently ERH is well served by the region for its ventilation needs. The Critical Care Program is reviewing the services across the region. This recommendation is for future consideration.*

<b>Recommendation # 17</b>	The Monitored Care Unit (MCU) no longer be used as the site for evening/weekend care of patients requiring follow-up for outpatient IV antibiotic therapy.
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**Status: IN PROGRESS**  
*Alternative areas for this outpatient therapy were explored but due to MCU staff expertise and concerns for staff/patient safety if isolated, the location has not changed at this time. However, recent increases in volumes have made this more of an issue now. A joint team of medicine, home health and MCU representatives are exploring solutions.*

D. Hospitalist Program

<b>Recommendation # 18</b>	Administration develops a Role Description for the role of Head, Department of Hospitalist Medicine and recruits into this position.
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**Status: COMPLETE**  
*The Department Head position was vacant temporarily but was filled in Sept 2010.*

<b>Recommendation # 19</b>	<p>The Head, Department of Hospitalist Medicine work with Administration and other medical leaders to ensure:</p> <ul style="list-style-type: none"> <li>• 24/7 coverage in General Internal Medicine and other designated services at ERH;</li> <li>• Appropriate access to non-elective endoscopy services for ERH patients;</li> <li>• Appropriate access to subspecialty consultations in medicine for ERH patients;</li> <li>• Appropriate case load for hospitalists;</li> <li>• Development and implementation of Patient Safety and Clinical Quality protocols for patients cared for by Hospitalists;</li> <li>• Development and utilization of utilization management data to improve efficiency;</li> <li>• Utilization of a Hospitalist Workload Measurement Tool.</li> </ul>
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**Status: COMPLETE**  
*As of Jan 2011, ERH has 24/7 general internal medicine. ERH added scope time for elective/non-elective cases as of Sept 2010. ERH has access to subspecialty consultations through the Rapid Access Clinic that was set up over a year ago and the Hospitalists are satisfied with the workload they have. A number of clinical protocols are in place.*

E. Ambulatory Care

<b>Recommendation # 20</b>	<p>That the administrator and medical lead for the Ambulatory Care Unit ensure that:</p> <ul style="list-style-type: none"> <li>• A range of ambulatory care services is provided that is in keeping with the role and mandate of ERH as a community</li> </ul>
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	<p>hospital and member of the Fraser Health Network;</p> <ul style="list-style-type: none"> <li>• Rapid access clinics are developed, as appropriate;</li> <li>• ERH has appropriate access to non-elective endoscopy; Policies are in place to ensure that physicians utilizing ambulatory care facilities at ERH provide, as appropriate, clinical call and other services to ERH;</li> <li>• Infrastructure needs are understood and a plan exists to address them over time that include: <ul style="list-style-type: none"> <li>○ Space;</li> <li>○ A scheduling system;</li> <li>○ A system to collect data re: ambulatory care utilization;</li> <li>○ Data collection and utilization re: clinical quality and patient satisfaction.</li> </ul> </li> </ul>
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**Status: COMPLETE with the exception of scheduling system/data collection**  
*COMPLETE: ERH has implemented a Rapid Access Clinic with a range of services to meet identified needs. As well, access to non-elective endoscopy has been addressed. Renovations have been done in Ambulatory Care Department to address a space issue and there has been an allocation of more ambulatory time to gastroenterology to meet the community's needs.*  
*IN PROGRESS A scheduling system is going to be implemented in 2011.*

<b>Recommendation # 21</b>	Consideration be given to including the role of Medical Director for the Ambulatory Care Unit into the Role Description for Head of Internal Medicine.
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**Status: IN PROGRESS**  
*The Ambulatory Care Unit has been assigned a medical lead The role description for Head of Internal Medicine has yet to be developed.*

F. Potential Role of ERH to Provide Specialized Services

**Mental Health**

<b>Recommendation # 22</b>	Fraser Health Executive should determine whether ERH be a designated site under the Mental Health Act.
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**Status: COMPLETE**  
*This recommendation was reviewed and a decision made to not designate ERH. Fraser Health's Mental Health Program has developed an efficient bed access process so patients requiring inpatient psychiatric care move quickly to an appropriate unit. We also have a Psychiatric Liaison Nurse in the ER who links with community and hospital services for the right care.*

<b>Recommendation # 23</b>	If ERH is not defined as a designated site, then a policy should be negotiated with BC Ambulance so that patients with overt major psychiatric illnesses are not brought to ERH.
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**Status: IN PROGRESS**  
*A Lower Mainland and Provincial Group is working on ambulance protocols.*

**Intravenous Therapy**

<b>Recommendation # 24</b>	Fraser Health develop an intravenous therapy service for the network, ideally linked to the availability of Infectious Disease consultants.
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**Status: COMPLETE**  
*There is a Regional IV Service currently linked to infectious diseases. Infectious Disease*

*Consultants are also part of the Rapid Access Clinic.*

### Neurology

<b>Recommendation # 25</b>	Fraser Health develop an approach to provision of consultation services in neurology for ERH and the network.
<b>Status: COMPLETE:</b> <i>Neurology is part of the Rapid Access Clinic and sees a high volume of patients weekly.</i>	

### Gastroenterology

<b>Recommendation # 26</b>	Fraser Health establish an approach to the management of gastrointestinal bleeds for ERH and the network.
<b>Status: COMPLETE</b> <i>Since the review we have added some capacity for gastrointestinal bleeds at ERH and have established clear and effective processes for access to regional resources after hours.</i>	

### Other Services

<b>Recommendation # 27</b>	In addition to the above, Fraser Health explore other options for ERH to contribute to the Fraser Health network, for examples: <ul style="list-style-type: none"><li>• Outpatient IV antibiotic therapy;</li><li>• Endoscopic/surgical management of acute GI bleeding;</li><li>• Pacemakers;</li><li>• Rehabilitation Medicine;</li><li>• Geriatrics;</li><li>• Paediatric Child and Youth Care.</li></ul>
<b>Status: IN PROGRESS</b> <i>Currently ERH provides regional rehabilitation and pacemaker services. As Fraser Health Clinical Care Programs develop their plans they will explore options regarding future development of services at Fraser Health hospital sites.</i>	



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## **Service Review of Eagle Ridge Hospital**

### **FINAL REPORT TO THE SERVICE REVIEW STEERING COMMITTEE**

**Robert Bear, MD  
Fresnel Management Ltd**

**October 2008 – May 2009**

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## Section 1

### Executive Summary

Fraser Health has an acute care network of twelve hospitals serving a current population of 1.6 million people. Four hospitals are located in Fraser North including Burnaby Hospital, Royal Columbian Hospital, Eagle Ridge Hospital and Ridge Meadows Hospital.

This Service Review focuses on the Eagle Ridge Hospital (ERH) which is located in the Coquitlam Local Health Area (LHA), a community characterized by a population which is experiencing strong growth. At the present, ERH does not serve as a fully-functioning community hospital and its role as a contributor to the Fraser Health network of hospitals is unclear. Accordingly, the Executive of Fraser Health determined it was important to conduct a Service Review of this facility; this review was initiated in mid-November of 2008 and completed in June of 2009.

The current role of ERH has been determined historically. Since its inception, ERH has, in part, served as a community extension of the Royal Columbian Hospital (RCH), particularly with regard to surgical services.

Accordingly, ERH does not have a clearly articulated role and mandate. There is no dedicated ERH Medical Staff (with the exception of the Hospitalists), and all ERH physicians have their primary appointments at the RCH. There is a busy Emergency Department at ERH, but the patient care activities of this facility are hampered by the lack of availability of 24/7 General Surgery and Internal Medicine consultants. The majority of surgery is elective day surgery; the range of surgical procedures is extensive, as is the large number of visiting surgeons. There are inpatient beds in Surgery and Medicine, but in Medicine the majority of these beds are governed by Hospitalists. There is a Monitored Care Unit, but it is an open unit without a clear clinical mandate and without ventilator capacity. Resources are devoted to ambulatory care, but there is no ambulatory care strategy, no dedicated ambulatory care leadership and little ambulatory care infrastructure support.

It is essential that Fraser Health clarify for ERH its role and mandate, and communicate this widely. It is also essential that ERH develop a more focused approach to the types of clinical services provide and begin a process to incrementally build a dedicated Medical Staff. Dedicated ERH medical leadership will provide assistance to administration in accomplishing the essential task of redefining and reorganizing the array of services, inpatient and ambulatory, that the hospital offers its community. Once community needs have been met, attention can be paid to the role of ERH as a key contributor to the Fraser Health network of acute care facilities as an integrated health care system.

## Section 2

### Introduction

Fraser Health has commissioned Service Reviews as a tactic employed at the strategic level to support the transformation journey. Service Reviews are a change management instrument in which a standardized approach is used to review a clinical site, program or activity; and will present Fraser Health with a range of opportunities. Implementation of accepted recommendations will lead to enhanced dimensions of quality (accessibility, acceptability, safety, efficiency, effectiveness, and affordability), align with strategic and financial directions, and inform clinical integration initiatives at Fraser Health.

The goals of a Service Review are to:

- Perform a *current state* assessment of a clinical site, program, service or activity. This will be based upon: an understanding of contextual factors (e.g. Fraser Health Vision and Strategic Imperatives, Directional and Clinical Service Plans, hospital typology, etc), an understanding of the population profile, the clinical profile of the site, program, service or activity, a description of the care delivery model and the model-of-care and a summary of current challenges to optimum service delivery.
- Describe a *desired state*;
- Provide a gap analysis between the *current* and *desired* state;
- Develop a set of recommendations that, if enacted, will not only permit the Health Authority to begin to address the opportunities that exists between the current and the desired state, but also facilitate change management processes and contribute to desired changes in organizational culture.

#### Service Review of Eagle Ridge Hospital

In the Fall of 2008, the Fraser Health Executive decided to initiate a number of Service Reviews and to begin with Eagle Ridge Hospital (ERH). Fraser Health contracted with the Consultant to lead this review, commencing in mid-November 2008.

The Executive Sponsors for this project are: Dr. Patricia Petryshen, VP Quality and Health Service Performance, Ms. Arden Krystal, VP Acute Network and Dr. Roy Morton, Interim Executive Medical Director and Medical Director of Royal Columbian Hospital (RCH).

The Project Sponsors are: Ms. Valerie Spurrell, Executive Director Acute, ERH and Dr. Anton Grunfeld, Medical Director, ERH.

The Information Analysis Team was constituted of individuals from several Fraser Health Departments: Decision Support, Finance, Systems Analysis and Performance Improvement, ERH Acute Care Services Management, Project Resource Office, and Health Planning and Systems Development.

## Review Methodology

The Consultant visited Fraser Health in mid-November 2008 and, through meetings with the Executive Sponsors, Project Sponsors and members of the Project Core Team, discussed project goals and was provided background information. He toured both ERH and RCH. Following this visit, the Consultant requested additional data regarding ERH, and these data were developed, provided to the Consultant and reviewed.

Follow-up visits to Fraser Health took place November 17-18, 2008 and May 4, 2009, permitting meetings with physicians, physician groups and selected management staff. Based upon the information developed through these visits and through review of the data and information that was provided, the Consultant developed this Final Report.

## Specific Deliverables

In keeping with the defined goals of a Fraser Health Service Review, the Consultant and ERH Service Review Planning and Advisory Committee were asked to perform a current state assessment, describe a desired state, describe the gap between the current and desired states and provide recommendations that not only will assist the organization in addressing this gap, but also support Fraser Health's broad change management initiative and its need to develop and embrace a different organizational culture.

The specific approach taken to accomplish the above was to:

- Review and summarize contextual factors important to the Service Review, including the Fraser Health Vision, Purpose and Strategic Imperatives; the population profile of the ERH community; the role of ERH and its relationship to RCH; information from the Fraser Health Directional Plan for Acute Services to 2020 and relevant ERH high level performance indicators;
- Develop a clear understanding of the current role and organizational structure of ERH;
- Review current services provided at ERH, describing their strengths and weaknesses and their service relationships with RCH;
- Define options and present recommendations regarding administrative matters, the services that should exist within ERH as a community hospital within the Fraser Health Network and a preferred state for each of these services;
- Develop recommendations regarding a medical staff model for RCH and ERH;
- Determine the impact of any proposed changes upon RCH;
- Describe, to the extent possible, the operating and capital costs associated with proposed changes;
- Recommend an implementation roadmap that articulates a logical sequence and associated costs for service changes within a 2-4 year time horizon.

## Section 3

### Community Profile and Acute Care Directional Plan

#### Fraser Health Vision, Purpose and Strategic Imperatives

Service Reviews will be guided by and framed within the context of the Fraser Health vision, purpose, values, and strategic imperatives. Within a vision of *Better Health, Best in Health Care*, along with its purpose to *improve the health of the population and the quality of life of the people we serve*, Fraser Health is positioned to achieve a well-integrated sustainable health care system from a clinical, people, and financial perspective, and promote excellence in quality and patient safety.

Service Reviews will support achievement of the Fraser Health strategic imperatives:

- *Great Workplaces* - Create workplaces where people want to come and contribute.
- *Quality and Safety* - Deliver exceptional service as an organization that pursues quality.
- *Capacity* - Create capacity across our networks.
- *Integration* - Create an integrated and sustainable health care system.
- *Research and Academic Development* - Develop as an innovative academic health care organization.
- *Progressive Partnerships* - Advance strategic alliances and progressive partnerships.

It is essential that the results of the Service Review of ERH are aligned with these, most notably the Strategic Imperative of achieving a higher level of system integration.

#### **Background about the Eagle Ridge Hospital**

The hospital was built 25 years ago to accommodate 200 beds. The Coquitlam LHA is home to ERH, now a 127 bed facility.

Coquitlam, one of thirteen Local Health Areas (LHAs) in Fraser Health, is a collection of five communities: Anmore, Belcarra, Coquitlam, Port Coquitlam and Port Moody. This community is mainly serviced by RCH and ERH.

#### Eagle Ridge Hospital Population Profile

##### **Population Growth**

The Coquitlam LHA has over 215,000 people, making it the third largest LHA in Fraser Health (13.8% Fraser Health total; 4.8% B.C. total). Coquitlam LHA has experienced higher than provincial population growth and this is expected to continue with an annual growth of 2% and by 2020 the population will reach 290,000.

- The population of the Coquitlam LHA is the fifth youngest in Fraser Health, with an average age of 38 years.
- One of ten Coquitlam LHA residents is 65 years or older and by 2026, one in five residents will be in this age group.
- Between now and 2026, the highest percentage of population growth in the Coquitlam LHA will be in the 65 and above age group.

- Relative to BC, the Coquitlam LHA population has a higher proportion of immigrants and visible minorities, higher education levels and higher median income.

**Coquitlam LHA- Population Projection by Age Group**  
**Current 2008 and Projected 2010-2020**

		2008	2010	2015	2020	2008-2020 % Growth
Coquitlam LHA	0-16	41,862	41,844	45,371	51,808	24%
	17-64	147,961	156,398	179,424	197,210	33%
	65+	21,643	23,768	31,323	41,172	90%
	<b>total</b>	<b>211,466</b>	<b>222,010</b>	<b>256,118</b>	<b>290,190</b>	<b>37%</b>
Fraser Health	0-16	310,871	313,952	332,528	362,895	17%
	17-64	1,038,033	1,084,452	1,184,981	1,271,533	22%
	65+	192,575	207,280	257,261	316,609	64%
	<b>Total</b>	<b>1,541,479</b>	<b>1,605,684</b>	<b>1,774,770</b>	<b>1,951,037</b>	<b>27%</b>

Source PEOPLE 33 Revised

### Patient Origin

In 2007-08:

- 72% of patients admitted to ERH resided in the Coquitlam LHA;
- 95% of patients admitted to ERH were Fraser Health residents.

### Health Status Profile

Key data on the *health status* of residents of Coquitlam LHA reveal that the fertility rate in Coquitlam is similar to the provincial rate, and is falling. In 2005, there were 1990 live births in Coquitlam. The incidence of infants with low birth rates is similar to BC and Fraser Health, while the infant mortality rate is 3.6/1000 live births (BC is 4.2/1000 live births; 2004-06). Coquitlam's total life expectancy of 81.7 years is the third highest in Fraser Health and higher than the BC average. Death rates are lower than provincial and Fraser Health averages, malignant neoplasms being the commonest cause of death, followed by cardiovascular disease. Of the Coquitlam LHA's population, 60.4% characterizes their health status as 'very good' or 'excellent'. The hospitalization rate for Ambulatory Care Sensitive Conditions (chronic diseases) is 19.5/1000 (BC 34.8/1000; 2004-06).

Based on the *Overall Regional Socio-Economic Index*, the Coquitlam LHA is the ninth best-off LHA in the province (out of 77) and the second best-off LHA of the 13 in Fraser Health.

### Community Services Profile

Regarding *community services*, the Coquitlam LHA has a relatively low ratio of both GPs and specialists/1000 population compared with similar Fraser Health communities. Home health services provided to adults include case management, nursing, rehabilitation and home support; utilization of these services in the Coquitlam LHA appears low compared to other Fraser Health LHAs, utilizing crude data. The Carelink program staff provides in-hospital assessment of

patients who will require home health services upon discharge and assessment of patients for residential care.

### Fraser Health Directional Plans for Acute Services to 2020

In December 2006, Fraser Health released a confidential Final Draft Report: *Directional Plan for Acute Services to 2020 - Transforming Healthcare in Fraser Health*. The Consultant reviewed this Acute Care Capacity Initiative (ACCI) Report.

The report emphasized that Fraser Health is the most populated health region in British Columbia, and that by 2020, the population served by Fraser Health will total 1.89 million, or 40% of the British Columbia population. Accordingly, if there were no changes in current utilization patterns, Fraser Health would need an additional 2,209 beds over its current bed base of 2102. If Fraser Health were able to successfully employ a number of mitigation strategies, the number of required additional beds would be reduced to 1,348. Because of the exceptional population growth in F, a disproportionate number of these new beds are required.

The *Directional Plan* identified the following principles for service planning:

- There is an urgent requirement to address inadequate bed capacity;
- A shift in philosophy is required to move away from 12 semi-autonomous hospital sites to an integrated network of acute care;
- There will be a requirement to increase community sector capacity;
- It will be essential to focus on the needs of the geriatric population;
- The planning and delivery of services must embed quality and leading practice principles;
- Fraser Health will be required to implement models of care that are innovative, and optimize use of acute care resources;
- Technology must be leveraged;
- Human resource requirements must be proactively addressed.

The ERH access and referral patterns are primarily within the Coquitlam LHA (i.e., Coquitlam, Port Moody and Port Coquitlam, Anmore, Belcarra), New Westminster, Burnaby and Ridge Meadows, sometimes collectively referred to as Fraser North (FN).

Some of the assumptions and recommendations in the ACCI Report were as follows:

- In Emergency Medicine, 36% of all Emergency Department visits for Fraser Health residents in 2004-05 took place in FN; this trend is expected to be maintained to 2020. It is anticipated that the ERH Emergency Department will remain a Level C facility (a high volume Emergency Department with 30,000 - 50,000 visits/year) and that about 15% of these visits will result in hospital admissions.
- In Medicine, which includes Gastroenterology, General Medicine, Respiriology, and Renal, it is anticipated that 42% of all Fraser Health patient separations in 2020 will take place in FN. For 2007-08, it is 41% (compared to 38% for Fraser South hospitals Surrey Memorial, Langley Memorial, Peace Arch, and Delta). An ACCI planning recommendation is that ERH requires a full General Internal Medicine service to meet the secondary care needs of its growing population and to support the Emergency Department and a critical care/step down unit. By 2020, there will be a requirement for a 64% increase in medicine beds within Fraser Health and a substantial proportion of these will be required at ERH.

- In Surgery, an ACCI planning recommendation is that ERH requires a full General Surgery service to meet the secondary care needs of its population and to support the Emergency Department and a critical care/step down unit. Several surgery service delivery options defining the manner in which specific surgical services might be deployed to various Fraser Health hospitals were explored through the surgical planning component of the ACCI initiative.
- In Mental Health, Fraser Health currently has 12 beds/100,000 population. In other health authorities, the bed ratio ranges from 15 - 27 beds/100,000 population. ERH is currently not a designated facility under the Mental Health Act and does not formally provide inpatient psychiatric care. However the Emergency Department does provide assessment and triage despite the fact that there are no designated spaces for staff and psychiatrists to conduct interviews or secure areas to hold at risk patients prior to transfer. ACCI explored the option of placing some psychiatry inpatient beds at each FN hospital.
- In Perinatal, Child and Youth Health, ACCI emphasized that special attention be paid to the Coquitlam community, as this community has the largest child and youth population and is the fastest growing community for these age groups. Yet adequate Perinatal, Child and Youth Services are not provided at ERH. For example, while Coquitlam residents account for 36% of the total number of Fraser North's births in 2008, there are no Neonatal Level 1 services provided at ERH. Furthermore, the birth numbers for Coquitlam are projected to grow by 26% by 2020, along with Maple Ridge, the fastest growth rate in the region.

## Section 4

### Current State Assessment

#### ERH Current Role and Mandate, and its Relationship with the Royal Columbian Hospital

ERH does not currently function as a typical community hospital. Its current role is defined by its unique, historically-based relationship to the RCH. ERH was opened in 1984 as a community extension of RCH. Almost all of the medical staff of ERH are also members of the medical staff at RCH. Indeed, all medical departments at ERH are headed by the Department Head at RCH, with the exception of Hospitalists. Accordingly, any change in the role of ERH will potentially have a dual affect on the practices of physicians, at both ERH and RCH, a fact that makes any change management process involving ERH more challenging.

The last significant change in the role of ERH occurred in 2004, with the closure of St. Mary's Hospital. This resulted in an increase in the number of operating theatres at ERH, opening of a Monitored Care Unit, and an increase in the number of inpatient surgery beds and expanded ambulatory care.

The role and mandate of ERH has not been defined as there is no clarity about its role within the integrated network of acute services. The nature of the majority of the clinical work performed at ERH is determined by physicians at RCH, and patients coming in through the Emergency Department and for surgery. Staff and physicians at ERH operate in an environment of ambiguity and uncertainty regarding the future role of the hospital.

#### Organizational Structure

ERH operates within a hybrid organizational structure, as it has its own well-defined management positions but lacks a medical organizational structure separate from RCH. There is a Fraser Health Vice President of Acute Network, an Acute Executive Director who is responsible for both ERH and Ridge Meadows Hospital; and a full-time Acute Director for ERH. The Acute Executive Director reports to the Vice President Acute Network, and works closely with other Acute and Community Executive Directors.

The Medical Director at ERH is a 0.5 FTE position; the incumbent also works clinically at ERH and RCH. There are no separate Department Heads at ERH, except for Hospitalists; the Department Heads at RCH fulfill this function. There are site Chief positions at ERH, but each of these report to RCH Department Heads and are not directly accountable to ERH administrators. The Medical Director is also accountable for the Monitored Care Unit and Ambulatory Care. There is no ERH Local Medical Advisory Committee (LMAC) as the RCH LMAC is responsible; and there are no ERH medical staff committees or medical staff organization.

#### Funded Beds

Beds	2007/08	2008/09	Jan 2009
Acute Medical Unit	30	25	35
General Surgical Unit	25	25	25 <sup>2</sup>
Monitored Care Unit	8	8	8
Rehabilitation	10	19	19
Subacute	15	15	15
Transitional Care Unit <sup>1</sup>	25	25	25
Total	113	117	127

*Notes:*

1. *Transitional care is not in the acute care sector, and the 25 beds will be considered as part of the home and community sector starting 2009-2010.*
2. *The number of General Surgical beds decreases from 25 to 13 on weekends.*

Stretchers	2007/08	2008/09	Jan 2009
Emergency Stretchers	12	12	12

## **Section 5**

### **Review of Services Provided at Eagle Ridge Hospital**

The services reviewed at ERH include:

- Emergency Department
- Medicine
- Surgery
- Monitored Care Unit
- Other Services
- Ambulatory Care
- Hospitalists Program
- Overall Hospital Performance

The review format is as follows:

- General Background
- Key Performance Indicators  
(clinical efficiencies; operational efficiencies)
- Issues/Gap Analysis

## **Emergency**

### **General:**

The ERH Emergency Department with over 37,000 visits per year is a *Level C* facility Emergency Department. According to the Acute Care Capacity Initiative (*Emergency Services Plan, 2006*), four levels of Emergency Services in Fraser Health were discussed by the Emergency Services Team, generally paralleling the CIHI (Canadian Institute for Health Information) Classification 2005:

- Level A (less than 15,000 visits are low volume Emergency Department)
- Level B (15,000 - 30,000 visits are medium volume Emergency Departments)
- Level C (30,000 - 50,000 visits are high volume Emergency Departments)
- Level D (greater than 50,000 visits are very high volume Emergency Departments)

As such, in addition to the expected access to ambulance services and BC Bedline, Emergency Departments of this size should have access to: an electronic patient tracking system; diversion protocols and an over capacity management system; service coordination between the Emergency Department and General Medicine; an array of outpatient services (e.g. Rapid Access Clinics, Outpatient IV Therapy, Medical Day Care, Internal Medicine Clinics, Chest Pain Clinics); Acute Geriatrics, Psychiatry and Neurological services. Not all of these services are readily available to the patients in the ERH Emergency Department (see below).

### **Key Performance Indicators:**

- I. Clinical Efficiency Indicators
- II. Operational Efficiency Indicators

#### **I. Clinical Efficiency Indicators**

##### **Volumes (Visits)**

Visits to the ERH Emergency Department continue to rise, increasing from 34,066 (2006-07) to 36,911 (2007-08).

In addition, there are 8,390 IV therapy visits (2008-09) in the Emergency Department as they require a physician order for the first dose. For follow-up visits, approximately 20% occur in Ambulatory Care and 15% in the Monitored Care Unit; the remainder are included in the Emergency Department visit count).

##### **Admission Rate and LOS**

The hospital admission rate in 2006-07 and 2007-08 remained stable at 9%.

##### **Levels of Intensity**

ERH has the highest proportion Level 3 CTAS patients (66%) in FH. In addition, ERH has 10% CTAS Level 2 patients.

##### **Wait Times**

CTAS scores are remaining relatively stable, the vast proportion of visits being at the CTAS Level 3. The percent of emergency non-admit patients seen in less than five hours is 86 – 90%; this is within the Ministry of Health Services (MoHS) target of 90%. Only 28.9% of patient admitted from the Emergency Department to the inpatient units are completed in 10 hours or less; this is 51.1% below the MoHS target of 90%. The average waiting time from order to admission is approximately 18 hours. The number of patients leaving without being seen is above the MoHS benchmark range of 2.4 to 3.1%. It is

noteworthy that there is no regional intravenous antibiotic therapy program. Further, 87% of visits and 89% of admissions are from Coquitlam LHA.

<b>Indicators</b>	<b>2008/09 Results</b>	<b>Benchmark</b>
% of Emergency Non-Admits Seen in Less than 5 Hours	86 -90%	MoHS Target 90%
Wait time from Triage to Physician assessment based on national guidelines for: CTAS 2 - 15 min CTAS 3 - 30 min CTAS 4 - 60 min CTAS 5 - 120 min	CTAS 2 (8 - 15%) CTAS 3 (11 - 18%) CTAS 4 (37 - 52%) CTAS 5 (45 - 68%)	MoHS Target Meeting guideline 90% of the time
% of Patients Admitted From Emergency Department to an Inpatient Bed Within 10 Hours of Decision to Admit	23% - 42%	MoHS Target 80%

## II. Operational Efficiency Indicators

### **Physical Capacity**

The ERH Emergency Department has 12 stretchers, 6 having cardiac monitoring capacity. In addition, there is a Trauma Room, two isolation rooms, a Cast Room, an ENT chair, an Eye Examination room, a Gynecology room and a private room for families in distress.

### **Staffing**

Emergency Department staffing consists of a shared manager position, a Patient Care Coordinator 10 hours/day, 6 RNs during the day and 5 at night, a Clinical Nurse Educator 7.5 hours, 4 days/week and a nursing assistant 7.5 hours, 7 days/week. A Respiratory Therapist is available during the day and otherwise on call; an EKG Technician is available 7.5 hours/day. There is availability of shared Physiotherapy, Social Work and Psychiatry Liaison. There is a shared Program Clerk and a part-time Unit Clerk.

### **Direct Hours of Care per Visit (2008 – 2009)**

The ERH Emergency Department has the lowest RN direct care hours/Emergency Department visit, and the lowest utilization of LPNs/Emergency Department visit of its peer hospitals.

METRIC	FH COMMUNITY HOSPITALS				
	ERH	LMH	RMH	PAH	CGH
Staffing level					
Hours of Care per Visit					
• Total RCA Direct hrs	0.13	0.15	0.39	0.07	0.15
• Total LPN Direct hrs	0.06	0.24	0.17	0.17	0.24
• Total RN Direct hrs	1.14	1.39	1.81	1.14	1.54

*Notes:*

*RCA – Registered Care Aid; LPN – Licensed Practical Nurse; RN – Registered Nurse;*

*LMH – Langley Memorial Hospital; RMH – Ridge Meadows Hospital*

*PAH – Peace Arch Hospital; CGH – Chilliwack General Hospital*

**Physician coverage**

Physician coverage is through the Emergency Medicine physician group at RCH. This group is paid through an alternative payment plan. All physicians in the group spend some clinical time at ERH.

**Issues/Gap Analysis:**

Through interviews and review of background information, a number of issues pertaining to the Emergency Department were identified, including:

- At ERH, there is no General Internal Medicine coverage, and no sub-specialty coverage aside from Cardiology.
- At ERH, there is no 24/7 General Surgery coverage and little capacity to perform even routine emergency surgery during the day.
- There is no coverage for relatively common emergencies such as GI bleeding.
- Ambulances bring patients with psychiatric disorders and patients with overdoses to the ERH Emergency Department, and while there is a Psychiatry Liaison Nurse, there is no physical capacity (seclusion rooms) to care for such patients and it is difficult to transfer psychiatric patients in a timely way to other institutions, even if they have been certified. Accordingly, certified patients may remain in the Emergency Department for extended periods of time.
- There is very little capacity in Neurology in FN. There are two Neurologists at RCH, but they are generally overwhelmed and it is difficult to find specialist care for patients with acute neurological disorders.
- Relative to accepted standards, the Emergency Department is not suitably supported by the Ambulatory Care Department. Until recently, there has been no rapid access clinic, as an example; such a clinic has recently been initiated on a trial basis.
- Regarding diagnostic services, ultrasound is available during weekdays only, from 9 am to 5 pm; CT technologists are available at night on a call-back basis, as are X-ray technologists; laboratory service is described as excellent. After hours, nurses perform EKGs in the Emergency Department.
- Pharmacy services are available only until 4 pm on weekends.
- Once patients are admitted, they are transferred to the care of a Hospitalist. As can be inferred from the above, Hospitalists are expected to care for patients without acceptable levels of specialist support in Medicine or Surgery, a situation that has become increasingly problematic.

- The number of medicine beds at ERH does not appear sufficient to permit timely admission of patients from the Emergency Department; typically, eight admitted medicine patients are in the Emergency Department.
- The nursing staff in the Emergency Department is constantly pressured. They are required to care for admitted medicine patients, as well as Emergency Department patients.
- There is a frequent requirement for accompanied patient transfers, leaving the Emergency Department understaffed.
- The physical plant in the Emergency Department requires renovation and upgrading. Not surprisingly, staff turnover in the Emergency Department is high and there is a high vacancy rate.

## **Medicine**

### **General:**

The Service Delivery Plan developed by the Medicine Team for the ACCI Directional Plan recommended that all Fraser Health acute care hospitals should have a General Medicine Unit, some critical care capacity, some post-acute capacity and supportive ambulatory care. At present, there is no discreet Medicine Service at ERH. 72% of all admitted patients are from the Coquitlam LHA. Patients requiring admission to Medicine are cared for by Hospitalists. An initiative is currently underway to encourage 'visiting' Internists at ERH.

### **Key Performance Indicators:**

- I. Clinical Efficiency Indicators
- II. Operational Efficiency Indicators

#### **I. Clinical Efficiency Indicators**

##### **Volumes (Cases and Patient Days)**

In 2007-08, the number of cases admitted to the Medicine Unit was 1,896 which utilized 17,689 hospital days, or 44% of all ERH hospital days.

##### **Resource Utilization (Resource Intensity Weights by Major Clinical Categories)**

In 2007-08, ERH had a total of 3,235 medical cases (2,088 typical and 1,147 atypical). This is the equivalent of 4,928 weighted medical cases (1,950 typical weighted cases and 2,978 atypical weighted cases, with RIWs of 0.9 and 2.6 respectively).

*Definition: Major Clinical Categories (CIHI)*

*MCC identifies a body system (e.g. Respiratory System) or specific type of clinical problems, i.e. Diseases or Disorders (e.g. Mental Disorders or Burns); Almost always based on most responsible diagnosis.*

*Typical cases exclude long stay outliers, deaths, transfers from/to and sign-outs.*

*Atypical cases are defined as "cases that do not receive the normal or predicted course of treatment associated with inpatients in a specific CMG, because they arrived at, or left, the facility in circumstances that made their length of stay or costs unpredictable. Cases include Unusual CMG, Invalid length of stay, Death, Transfer to and/or from other acute care institution, Sign-Out."*

The top ten Medical Typical weighted cases by MCC at ERH in 2007-08 were as follows (Fraser Health data in parentheses):

• Circulatory system	19.2%	(16.6%)
• Respiratory system	16.5%	(17.8%)
• Digestive system	11.9%	(11.0%)
• Other reasons	9.9%	(9.1%)
• Nervous system	6.6%	(8.5%)
• Trauma/Injury/Poisoning	6.0%	(7.2%)
• Musculoskeletal	5.6%	(3.7%)
• Kidney/Urinary Tract	5.0%	(5.1%)
• Mental disease	4.9%	(5.1%)
• Endocrine/Metabolism	3.7%	(3.0%)
• All other	10.8%	(12.9%)

The top ten Medical Atypical weighted cases by MCC at ERH in 2007-08 were as follows (Fraser Health data in parentheses):

• Circulatory system	9.0%	(12.0%)
• Respiratory system	11.1%	(16.9%)
• Digestive system	6.7%	(5.3%)
• Other reasons	37.0%	(21.4%)
• Nervous system	13.4%	(13.3%)
• Trauma/Injury/Poisoning	4.6%	(5.9%)
• Musculoskeletal	2.7%	(3.2%)
• Kidney/Urinary Tract	2.4%	(4.7%)
• Mental disease	6.3%	(3.9%)
• Endocrine/Metabolism	1.2%	(2.0%)
• All other	5.6%	(11.4%)

#### **ALOS and ALC (Average Length of Stay and Alternate Level of Care)**

Overall hospital ALOS is 7.9 days, but ALOS falls to 5.7 days if ALC days are removed; this is similar to ALOS at peer hospitals. ALC days comprised 28% of total hospital days, compared to 20.8% for Community 2 hospital average (based on CIHI/Haygroup benchmarking).

#### **Transfers**

15% of all admitted patients (this includes medicine and surgery) are transferred to another acute care institution (56% to RCH, 25% to Burnaby Hospital, and 19% to other hospitals). The transfer percentage for peer hospitals is 4%. Patients who are transferred from ERH to RCH have an average 5 day increase in LOS.

## II. Operational Efficiency Indicators

**Funded Beds and Additional Capacity**

There are 35 Medicine beds at ERH, 10 beds of which were recently added (January 2009). There is physical space for an additional two 25 bed units, space which is currently occupied for non-patient activity.

**Staffing**

For the 25-bed unit, there is a Patient Care Coordinator (7.5 hours 5 days/week), a mix of RNs, LPNs and RCAs. The other 25-bed mixed unit has the same staff mix, with a shared a Clinical Nurse Educator 3 days/week between both units. There is a Program Clerk, shared with other services and a Unit Clerk (11 hours, 5 days/week). Other clinical staff are shared with other services.

**Direct Care Hours per Patient Day**

Compared to its peer hospitals for 2008-09, the total RN direct hours are high as compared to an average of its peer hospitals (3.44 compared to 2.56 average); total direct LPN hours are low (0.54 compared to 1.25).

METRIC	FH COMMUNITY HOSPITALS				
	ERH	LMH	RMH	PAH	CGH
Staffing level for medical beds					
Hours of care/pt day					
• Total RN Direct hrs	3.44*	2.08	3.09	2.84	2.63
• Total LPN Direct hrs	0.54	1.40	0.69	0.98	1.56

\* includes site leader

Overtime hours as a percentage of worked hours is the same as the peer hospital average.

**Physician coverage**

There is no Internal Medicine service at ERH, and it is allegedly difficult to find Internists at RCH or other hospitals that are prepared to provide telephone consultative services. Physician coverage is provided by Hospitalists and a few Family Physicians. An initiative has been undertaken recently to increase the availability of Internal Medicine specialists and some sub-specialists to ERH.

**Issues/Gap Analysis:**

A number of issues confront the medicine service at ERH, including:

- There is no Internal Medicine coverage at ERH. Patients on the Medical Unit are cared for by Hospitalists, who are family physicians by training.
- Internists at RCH are increasingly refusing to provide even telephone consultations to the ERH hospitalists. In the last six months the higher level of care policy and the increased availability in internal medicine and in some subspecialties have begun to address this situation that puts the ERH Hospitalists (and, more importantly, their patients) in an untenable state. Specifically, physicians primarily trained in family medicine are required to care for patients newly admitted from the Emergency Department and on the Medicine Unit with complex illnesses and multiple co-morbidities and with virtually no Internal Medicine support, aside from Cardiology. Furthermore, there are no established processes facilitating access to Internal Medicine sub-specialists.
- In the absence of a locally-led Department of Internal Medicine, there is inadequate focus upon quality and patient safety. For example, there are no Clinical Practice Guidelines in

- place, no Morbidity and Mortality Rounds, and no significant Continuing Professional Education.
- The lack of a General Internal Medicine Department compromises efforts to advance specialist care; there is little staff education undertaken by physicians.
  - The organization of the Ambulatory Care Department at ERH does not sufficiently support the Emergency Department or the Hospitalists. Specifically, there has only recently been a Rapid Access Clinic (pilot) and there is only a limited menu of Internal Medicine subspecialty outpatient clinics.
  - Regarding ancillary services, there is no IV Team, no pharmacy services on the weekend and little support from Community Health on the weekend.
  - The LOS of patients on the Medicine Unit is unfavorably influenced by a number of factors, including:
    - Patients waiting to be reviewed by consultants (e.g. Geriatric Psychiatry);
    - Absence, until recently, of ambulatory care rapid access clinics, that would facilitate early hospital discharge;
    - Lack of availability of wound care expertise at ERH, requiring waits for consultant visits;
    - Lack of availability of expertise at ERH in insertion of PICC (Peripherally Inserted Central Catheter) lines; patients may wait weeks for this procedure to be done;
    - The nature of patients transferred from RCH in exchange for patients transferred there; the ALOS of such patients is currently approximately 40 days, indicating that chronically ill patients with multisystem disease are being preferentially transferred from RCH;
    - Palliative care patients;
    - Lengthy wait times for transfer to the Transitional Care Unit and other alternative level of care facilities;
    - The nature of the patient transfer processes associated with the new Higher Level of Care Transfer Policy is problematic for ERH. When a medical patient is transferred to RCH or Burnaby Hospital, another patient is transferred from these hospitals to ERH. However, when the original ERH patient's problems have been resolved, they are repatriated to ERH for further care and recuperation. Accordingly, ERH receives at times one to two patients in return for each patient transferred, and the patients they receive often require lengthy hospital stays.

## **Surgery**

### **General:**

The Surgery Program at ERH is organized into Peri-Operative Services and the Inpatient Surgery Unit. Peri-operative services include the Pre-Admission clinic, the pre-surgery waiting area, six operating rooms and the recovery room (PACU). In the pre-surgery area, outpatients have their procedures explained to them, have intravenous lines inserted and their pre-operative medications administered. Most surgery is booked through ERH, although surgeons may transfer patients from their RCH waiting lists to their ERH list. Pacemaker insertion bookings are arranged through RCH, as the regional pacemaker clinic resides at RCH.

### **Key Performance Indicators:**

- I. Clinical Efficiency Indicators
- II. Operational Efficiency Indicators

#### **I. Clinical Efficiency Indicators**

##### **Volumes (Cases)**

For 2008-2009 (2007-08 is similar), the number of urgent/emergent and elective cases:

- 1,380 (82%) as Elective (scheduled);
- 300 (18%) as Urgent/Emergent (non-scheduled).

There is a large number of surgical sub-specialties engaging in surgery at the ERH, including: General Surgery, Neurosurgery, Vascular Surgery, Otolaryngology, Ophthalmology, Gynecology, Plastic Surgery, Urology, Orthopaedic Surgery, and Oral and Maxillofacial Surgery. Not surprisingly, a vast array of surgical procedures is performed, requiring an inordinate number of unique nursing skills (raising concerns regarding adequacy of surgical nursing competencies) and a large number of unique surgical sets.

##### **Resource Utilization (Resource Intensity Weights by Major Clinical Categories)**

For the purpose of identifying hospital/service typology for all the 12 acute sites, Fraser Health is embarking on some analysis to review the “Case Mix Groupings” (CMGs) for comparing the actual types of cases at a site to an appropriate allocation based on hospital type.

Some preliminary work for ERH, based on fiscal year 2007- 08 Discharge Abstract Data shows there were 1,816 discharges for surgical CMG cases (as defined by Haygroup benchmarking method). Of these:

- 76% (1,380 cases) belonged to 27 CMGs;
- 24% (435 cases) belonged to 116 different CMGs.

The low volume CMGs included a wide range of procedures (such as CMG 007: Thoracic/Major Intervention on Spine/Spinal Canal/Vertebra; CMG 222: Open Large Intestine/Rectum Resection without Colostomy, Unplanned; CMG 347: Craniofacial Bone Intervention with Musculoskeletal Diagnosis, etc).

This reflects the fact that the primary orientation of ERH surgery is to provide additional operating room capacity to surgeons from RCH and suggests that by reducing the very low volume surgical CMG cases, the array of surgical instruments and clinical care protocols can be streamlined.

In 2007-08, there were a total of 1,816 inpatient surgical cases (1,719 typical cases and 97 atypical cases) at ERH. This is the equivalent of 2,364 weighted surgical cases (1,830

typical weighted cases and 535 atypical weighted cases, with Resource Intensity Weights (RIWs) of 1.1 and 5.5 respectively).

*Definition: Major Clinical Categories (CCHI)*

*MCC identifies a body system (e.g. Respiratory System) or specific type of clinical problems, i.e. Diseases or Disorders (e.g. Mental Disorders or Burns); Almost always based on most responsible diagnosis.*

*Typical cases exclude long stay outliers, deaths, transfers from/to and sign-outs.*

*Atypical cases are defined as "cases that do not receive the normal or predicted course of treatment associated with inpatients in a specific CMG, because they arrived at, or left, the facility in circumstances that made their length of stay or costs unpredictable. Cases include Unusual CMG, Invalid length of stay, Death, Transfer to and/or from other acute care institution, Sign-Out."*

The top ten Surgical Typical weighted cases by MCC at ERH in 2007-08 were as follows (Fraser Health data in parentheses):

• Musculoskeletal	37.8%	(15.0%)
• Female reproductive system	11.7%	(5.5%)
• Skin subcutaneous/breast	10.7%	(3.2%)
• Circulatory system	10.4%	(19.0%)
• Digestive system	7.1%	(18.4%)
• Trauma/Injury/Poisoning	5.7%	(14.8%)
• Ear nose mouth & throat	3.8%	(1.2%)
• Hepatobiliary system	3.6%	(3.6%)
• Kidney/Urinary Tract	2.9%	(5.6%)
• Endocrine/metabolism	1.5%	(0.8%)
• All other	4.9%	(12.9%)

The top ten Surgical Atypical weighted cases by MCC at ERH in 2007-08 were as follows (Fraser Health data in parentheses):

• Musculoskeletal	5.7%	(6.3%)
• Female reproductive system	2.8%	(1.1%)
• Skin subcutaneous/breast	2.4%	(2.3%)
• Circulatory system	12.0%	(23.1%)
• Digestive system	7.2%	(10.5%)
• Trauma/Injury/Poisoning	19.7%	(23.0%)
• Ear nose mouth & throat	0.5%	(1.0%)
• Hepatobiliary system	2.5%	(2.4%)
• Kidney/Urinary Tract	7.4%	(4.0%)
• Endocrine/metabolism	0.2%	(1.2%)
• All other	39.6%	(25.1%)

### **Wait Times**

The MoHS long term wait time target for elective hips and knees replacement is no greater than 26 weeks. Based on 2008-09 snapshot data, wait times under 26 weeks at ERH for hip and knee replacement ranges from 18 - 42%, and 17 - 30% respectively.

## II. Operational Efficiency Indicators

### Funded and Additional Capacity

There is a Pre-Admission Clinic and patient preparation area, 6 Operating Rooms, an 11 bed Post Anesthetic Care Unit (with 1 isolation bed) and a 25 bed Surgery Unit which provides inpatient care for surgery patients requiring admissions in Orthopedics, General Surgery, Plastic Surgery, ENT, Urology, Neurosurgery and Gynecology. In-patient surgery beds are reduced in number on weekends to 13 beds. In 2007/08, 49.9% of the hospital's days on the surgical unit were occupied by off-service patient days, 38% of which were medical patient days.

### Staffing

Pre-Admission Clinic is staffed by two RNs 5 days/week. There are 2.5 RNs/OR plus an equipment RN. There are 6.08 total direct and support hours/case provided by ERH Operating Room staff, a number that exceeds that reported by peer hospitals. 78% of those hours are provided by RNs, roughly equal to the percentage provided in peer hospitals. Overtime hours in the Operating Room are significantly less than in peer hospitals (as expected, given current role of Operating Room at ERH).

### Direct Care Hours per Patient Day for Surgical Units (2008 – 2009)

On the Surgery Unit, the total RN direct hours/patient day are in the mid-range for peer hospitals and total LPN direct hours are less than peer hospitals with the exception of one site. Overtime hours on the Surgery Unit are 4.4% of worked hours, less than peer hospitals (7.3%).

METRIC	FH COMMUNITY HOSPITALS				
	ERH	LMH	RMH	PAH	CGH
Staffing level					
Hours of care/pt day					
• Total RN Direct hrs	3.92	3.27	4.46	4.60	3.64
• Total LPN Direct hrs	1.14	2.37	0.60	1.34	2.42

### Direct Care Hours per Case for Operating Rooms (2008 – 2009)

For the Operating Rooms, ERH is mid-range on the RN hours, however overall is higher than peer hospitals for direct and support hours of care per case.

METRIC	FH COMMUNITY HOSPITALS				
	ERH	LMH	RMH	PAH	CGH
Staffing level					
Hours of care per case					
• Total RN Direct & Support	6.08	6.08	4.42	5.69	3.63
• Total RN Direct	4.72	5.11	3.45	4.61	2.72

### Physician Coverage

There are 37 Anaesthetists who rotate from RCH to provide coverage at ERH. Anaesthetists conduct approximately 8-9 pre-operative consultations each weekday.

While there are 54 surgeons who operate at ERH, there is no 24/7 coverage in surgery. If patients from the Emergency Department require surgical care, they may be added on to the operative list at the end of the day or transferred to another institution.

Surgeons/surgical groups provide coverage to operative patients who have been admitted. Hospitalists assist in the management of patients with multiple co-morbidities. If a post-operative patient develops a complication, an on-call team of nurses exists to provide care if such patients need to be returned to the operating room; in reality, this service is rarely used; patients who develop post-operative complications are usually transferred to RCH.

### **Issues/Gap Analysis:**

Review of data and information and discussions with stakeholders led to identification of a number of issues confronting surgery. These include:

- The absence of a dedicated ERH Head of a Department of Surgery. There is an Associate Department Head, but the Department Head is for RCH/ERH.
- There is a requirement for 24/7 general surgery coverage at ERH.
- The range of surgical services provided at ERH is too broad. It is difficult for the nursing staff to maintain skills sets appropriate to such a broad array of services. Furthermore, provision of such a wide variety of surgical services requires availability of a very large number of surgical equipment 'sets'; on a daily basis, specific equipment sets frequently need to be transferred by taxi from RCH to ERH.
- ERH does not fully control the nature of surgical procedures performed in its operating theatres.
- The pacemaker insertion program at ERH functions only 2 half-days weekly; greater efficiency and reduced patient wait-times would result from increasing the number of operating days and/or the operating room time available to this service; ideally, pacemaker insertion could be performed in a dedicated procedure room.
- The current booking grid at ERH is based largely upon historical precedents. The blank grid is established by the 'Associate Department Head' at ERH and then sent to surgeons at RCH who fill it in according to their preferences, using operating room time that is assigned on historical grounds.
- Surgeons also have the ability to determine the mix of elective vs. emergency cases performed. Accordingly, surgeons tend to protect their elective operating room time. If an emergency case that could be managed at ERH presents to the ERH Emergency Department (e.g. bone fracture, appendicitis, cholecystitis), surgeons often refuse to cancel elective surgery in support of the emergency case; the emergency case may then require transfer to another hospital (whose surgeons will be required to cancel their surgery to accommodate it) or be scheduled as an 'add on' after completion of the surgeon's elective slate. A large number of patients transferred from the ERH Emergency Department are patients who could have had their surgery at ERH.
- There are concerns about the advisability of performing paediatric tonsil and adenoid (T&A) removal at ERH. Furthermore, there is evidence of lack of standardization of clinical approach, the decision to admit patients post-T&A appearing quite arbitrary. Further, surgical practice at ERH is that all pediatric patients under five years of age are admitted overnight for observation.
- Anaesthetists who practice at ERH rotate from RCH; there is the perspective that the ERH rotation is less labour-intensive.

- There are a large number of medical patients on the Surgery Unit. On average, 60% of the patients on the Surgical Unit are medical. On the weekends, un-utilized surgery beds are generally used to admit medical patients. It is often impossible to repatriate these patients to medicine beds on Monday.

## **Monitored Care Unit**

### **General:**

The Monitored Care Unit (MCU) is an 8 bed unit designed to care for adult patients who require monitoring of the cardiovascular (e.g. patients awaiting urgent cardiac catheterization; patients recovering from primary cardiac catheterization after myocardial infarction) or respiratory systems, patients who require monitoring for a drug overdose; patients requiring acute diabetes/insulin management, post-operative patients following pacemaker insertion (4-6 hours of monitoring) or who require monitoring for 24 - 48 hours after major surgery; and medical patients with a high level of disease acuity. The Medical lead of the MCU is one of the Cardiologists; this role is a minor part-time one.

### **Key Performance Indicators:**

- I. Clinical Efficiency Indicators
- II. Operational Efficiency Indicators

#### **I. Clinical Efficiency Indicators**

##### **Volume Distribution (Patient population by CMG clusters)**

- Interventional Cardiology 25%
- Non-interventional Cardiology 21%
- Respiriology 8%
- General Medicine 8%
- Otolaryngology 7%
- General Surgery 6%
- Orthopaedic Surgery 5%

##### **ALOS**

ALOS in the MCU is 64.3 hours. The MCU is also where IV antibiotic therapy is administered during the evening (Monday to Friday) and weekends; there is an average of ten IV antibiotic therapy patients per shift.

#### **II. Operational Efficiency Indicators**

##### **Funded and Additional Capacity**

There are 10 MCU beds, 8 of which are currently funded. There is no capacity to provide ventilation of patients.

##### **Staffing**

The MCU is staffed by RNs with a 2-3:1 patient: nurse ratio. There is limited availability to a Clinical Nurse Educator. There is a Program Clerk (shared position) and a Unit Clerk 6 hours/day, 5 days/week. Other clinical staff are shared across the site.

##### **Physician Coverage**

Physician coverage in the MCU is provided by anesthesiologists, surgeons, cardiologists and hospitalists. Nighttime coverage is problematic.

**Issues/Gap Analysis:**

Issues identified in the MCU include:

- There is no clear role/mandate for this unit.
- There is no effective medical leadership model for this unit.
- There are no patient safety and clinical quality protocols in place.
- There are opportunities to improve utilization.
- There is no capacity to care for patients requiring ventilation.
- There is limited Respiratory Therapist (RT) support.
- It is not appropriate for the off-hours management of IV therapy patients to be provided in the MCU.

## **Other Services**

### **Critical Care**

Critical Care service is not available at ERH. However, based on 2007-08 data for Coquitlam LHA, residents utilized at other hospitals 1,899 critical care days, or 5.2 bed equivalents (at 100% occupancy). Of the 1,899 inpatient days, approximately 1,305 were ventilator days or an equivalent of 3.7 beds.

### **Obstetrics**

Coquitlam LHA is a young and growing community. In 2007/08, a total of 1,847 deliveries (12.3% of Fraser Health total) were from residents of Coquitlam; 70% of took place at RCH.

### **Psychiatry**

ERH is not designated a Mental Health Facility. While there is a Psychiatry Liaison Nurse, there is little physical capacity or staff to care for these patients in the Emergency Department. Admitted patients may wait days before being transferred. Geriatric Mental Health services to admitted patients are lacking (competency assessments, medication assessments, etc.). Psychiatry was out of scope for this service review.

### **Additional Services**

At ERH, there are 10 Hospice beds (offsite), 25 Transitional Care beds and 75 Residential Care beds. The services requiring these beds, as well as the Rehabilitation beds, were not the subject of this review.

## **Ambulatory Care**

Ambulatory care refers to planned outpatient services that are provided in designated locations of the hospital, with designated resources and defined hours of operations, usually during Monday to Friday. As such, ambulatory care services ranges from consultation/treatment clinics to minor surgical procedures outside of the main operating rooms.

### **General:**

There is no over-arching role/mandate associated with the Ambulatory Care Program at ERH and/or a broader Fraser Health ambulatory care vision/model, but rather a collection of ambulatory care activities that have been put in place over time. There is no concrete administrative structure and there is no physician leadership. Accurate costs are difficult to determine. There is no information system to support scheduling, patient flow or accurate determination of clinical activity.

In general, most of the ambulatory services are provided in the three minor Operating Rooms that support the activities in Plastic Surgery, ENT, General Surgery (including endoscopy time), Orthopaedics, Gynecology and Urology. Medical Day Care space is utilized for patients requiring blood transfusions, bladder irrigations or other out-patient treatments/procedures. Limited out-patient clinic activity exists, related to patients with diabetes and lung disease. A Rapid Access Clinic has recently been initiated on a trial basis.

### **Key Performance Indicators:**

- I. Clinical Efficiency Indicators
- II. Operational Efficiency Indicators

#### **I. Clinical Efficiency Indicators**

##### **Volumes (Cases)**

Ambulatory care service data is reported based on information collected by during patient registration. Given the degree of inconsistency in the definitions and criteria by which services are categorized, it is not possible to report with any accuracy on the exact number of ambulatory care visits. However, based on 2008/09 ambulatory care data, a total of 44,226 visits had been registered (excluding 15,709 medical imaging and laboratory visits) that include minor surgeries, diabetic education, IV therapies, etc.

#### **II. Operational Efficiency Indicators**

##### **Physical Capacity**

There are three minor operating/procedure rooms and a recovery space for patients who have received conscious sedation. These are used for cystoscopy, minor surgery and endoscopy. There are medical day care spaces suitable for four patients per day. There is a limited number of consultation/examining rooms.

##### **Staffing**

There is an average of 4 RNs/day. There is a Unit Clerk, 5 hours/day, 5 days/week.

##### **Physician Coverage**

Physicians attend the Ambulatory Care Department to use their allotted ambulatory care resources.

**Issues/Gap Analysis:**

The following issues associated with ambulatory care have been identified:

- There is no role/mandate/Fraser Health model for ambulatory care services.
- There is no medical leadership in ambulatory care.
- The range of services provided is based on history and not strategy.
- Until recently, no urgent services (e.g. rapid access clinics) have been provided.
- The booking system is inefficient; physicians fax appointment requests which are then transferred to a paper record; there are often multiple 'add-ons'.
- There are no processes to reassess and realign time.
- Available ambulatory care space is inadequate.
- Physicians may utilize ambulatory care resources, yet provide no call to ERH.
- The utilization of endoscopy capacity requires review (Burnaby Hospital currently provides coverage for non-elective endoscopy).
- There is limited capacity to collect data related to ambulatory care activity.

## **Hospitalist Program**

### **General:**

Hospitalists currently accept responsibility for caring for patients on medicine (up to 52 patients), in the Emergency Department (up to 17 admitted medicine patients), rehabilitation (up to 19 patients), subacute care (15 patients) and convalescent care (25 patients).

### **Key Performance Indicators:**

- I. Clinical Efficiency Indicators
- II. Operational Efficiency Indicators

#### **I. Clinical Efficiency Indicators**

##### **Case Load**

For 2007-08, Hospitalists were involved in care of 2,754 cases (54%) at ERH. Hospitalists are no longer responsible for patients on Surgery or in the MCU, but they can be asked to consult on and provide supportive care to patients in these areas who have complex medical problems. Hospitalists admit an average of nine patients per day and discharge a similar number of patients.

##### **Case Distribution**

Of all the patients seen in each CMG cluster, the percent of patients that Hospitalists cared for is as follows:

- |                                 |     |
|---------------------------------|-----|
| • General Medicine              | 86% |
| • Gastroenterology              | 82% |
| • Respiriology                  | 91% |
| • Non-interventional cardiology | 62% |
| • Interventional cardiology     | 41% |
| • General surgery               | 41% |
| • Orthopaedic surgery           | 46% |
| • Urology                       | 61% |
| • Psychiatry                    | 88% |
| • Rehabilitation                | 82% |
| • Transitional Care             | 84% |

#### **II. Operational Efficiency Indicators**

##### **Physician Coverage**

Hospitalists are organized as follows:

- Four 8-hour daytime shifts.
- One evening shift for rounds on convalescent care patients and to admit new patients from the Emergency Department.
- One overnight shift for overnight admissions.
- The evening and overnight hospitalists take all hospital ward calls from 4 pm to 7 am.
- Team 7, which covers the Emergency Department during the day and is responsible for the Emergency Department admissions and care for admitted patients there. (Currently, this team functions only 5 days/week).
- Currently, some limited support is provided to Hospitalists in Internal Medicine, Neurology, Respiriology, Cardiology, Infectious Diseases and Psychiatry.

##### **Revenues and Expenses for the Hospitalist Program (2008-09)**

(Data source: Office of Dr Darryl Samoil, FH Hospitalist Chief)

- Number of Hospitalists 33
- Hospitalist FTE 10.88 (based on 1680 hours per year)
- Total annual hours 18,278.20
  
- Revenues: \$914,278
  - \$914,160 from MSP billings
  - \$118 from Federal government
  
- Expenses: \$2,359,934
  - \$2,347,863 for physician sessions/hospitalist fees (\$2,327,163), clinical chief's stipend (\$18,000) and miscellaneous medical professional fees (\$2,700);
  - \$12,071 (service bureau charges)
  
- Excess of Expenses over Revenues: \$1,445,656.

**Issues/Gap Analysis:**

The following issues associated with the Hospitalist Program have been identified:

- The patient load and acuity are high, particularly given the relative lack of specialty support.
- The most critical deficiencies in specialist coverage are in General Internal Medicine (current initiatives have led to some improvement in Internal Medicine coverage), General Surgery and Gastroenterology (for endoscopic management of GI bleeds).
- Urgent requests for specialist help, even through provision of advice by phone, often go unheeded.
- There is a requirement to transfer high numbers of patients to other institutions for a higher level of care; this has led to deterioration in the working relationships with physicians at the receiving hospitals.
- There is increasing difficulty in recruiting and retaining Hospitalists at ERH.

## Overall ERH Key Performance Indicators

- I. Clinical Efficiency Indicators
- II. Operational Efficiency Indicators

### I. Clinical Efficiency Indicators

#### 2007-2008 Data

Service Cluster	Cases		Days		ALOS	ALC Days
General Medicine	586	11%	5,981	15%	10.2	2,334
Gastroenterology	328	6%	1,688	4%	5.1	289
Respirology	455	9%	4,283	11%	9.4	593
Neurology	227	4%	3,300	8%	14.5	1,394
Non-interventional Cardiology	390	8%	2,437	6%	6.2	584
Interventional Cardiology	209	4%	1,040	3%	5.0	-
General Surgery	742	14%	4,340	11%	5.8	1,110
Orthopaedic Surgery	414	8%	3,241	8%	7.8	896
Gynaecology	272	5%	694	2%	2.6	-
Urology	236	5%	1,375	3%	5.8	289
Plastic Surgery	201	4%	492	1%	2.4	1
Otolaryngology	116	2%	148	0%	1.3	-
Neurosurgery	407	8%	1,147	3%	2.8	161
Psychiatry	57	1%	278	1%	4.9	100
Other Mental Health	86	2%	2,174	5%	25.3	1,285
Paediatrics	109	2%	126	0%	1.2	-
Rehabilitation	96	2%	5,005	12%	52.1	974
Convalescent Care	56	1%	2,216	5%	39.6	1,325
Other	153	3%	704	2%	4.6	132
<b>Total</b>	<b>5,140</b>	<b>100%</b>	<b>40,669</b>	<b>100%</b>	<b>7.9</b>	<b>11,467</b>

#### Key Findings (2003-04 to 2007-08):

##### **Inpatient Volumes**

Increased from 4,714 cases to 5,140 cases.

##### **Patient days**

The number of patient days increased from 30,552 patient days to 40,669 patient days. Over 39% of total patient days are specialty services (these include gastroenterology, respirology, orthopedics, urology, neurosurgery, plastics, otolaryngology, and interventional cardiology)

##### **ALOS**

The ALOS increased from 6.5 to 7.9 days with the ALC days ranging from 24-28%. However, this high number reflects the inclusion of TCU beds which are not acute care beds. It is estimated that adjusting for the TCU days would reduce the ALC rate from 24-28% to 15%-20% (compared to the CIHI/ Haygroup benchmark of Community 2 hospital average of 20.8%).

##### **ALOS: ELOS Ratio**

Based on third quarter data for 2008-09, the ratio of ALOS to ELOS for adult medical and surgical patients is 1.04.

#### **Occupancy Rates by Service (2007-2008)**

- ERH Overall 95.4%
- Medicine Unit 86.0%
- Surgery Unit 75.0% (Mon-Fri; not adjusted for Sat-Sun reduction)
- Monitored Care Unit 80.5%
- Rehabilitation Unit 100.0%
- Subacute Unit 98.2%

#### **Transfers**

The data for patient transfers comes from two different sources:

- DAD (Discharge Abstract Database) – this data is collected by Fraser Health;
- BC Bedline – this data is not collected by Fraser Health but by BC Bedline.

As such, the data from these two different sources is not additive. Instead the two data sources provide two different perspectives on ERH related patient transfers.

#### Inpatient Transfers

In 2007-08, there were 766 inpatients transferred to another acute care institution in Fraser Health, representing 15% of the admissions at ERH. Of the 766 transfers, 56% (425) were transferred to RCH. Inpatients requiring transfer to another acute care institution were most commonly from medicine, general surgery, orthopaedic surgery and paediatrics with the following distribution:

Inpatient transfer rates by service from ERH:

- General Medicine 15%
- Gastroenterology 17%
- Respiriology 12%
- Neurology 20%
- General Surgery 21%
- Orthopaedic Surgery 21%
- Paediatrics 63%

Detailed analysis of a sample showed that the combined LOS for ERH to RCH transfer cases was 5 days (36%) longer compared to the same CMG typical cases at RCH.

As well, there were 418 transfers for day procedures.

#### From BC Bedline Data:

**LLTO** - In 2007-08, there were 91 Life, Limb and Threatened Organ transfers from ERH, 80 of which were transferred to RCH. In 2006-07, there were 71 such transfers. 5.5% of attempted transfers were refused, a decrease of 12% from the previous year. Nonetheless, ERH transferred more LLTO patients in this time frame than did other Fraser Health hospitals.

**No Refusal** - In 2007-08 there were 169 “no refusal” attempted transfers from ERH, 26 of which were refused. Since these data were compiled, a new Higher Level of Care/LLTO Policy has been developed and implemented.

There were 260 (91 LLTO and 169 No Refusal) cases transferred via BC Bedline for higher level of care.

**Policy Change (from October 14, 2008)** - The Higher Level of Care and/or Life, Limb & Threatened Organ Policy is as follows: *“Patients aged 17 years and older requiring Higher Level of Care and/or Life, Limb & Threatened Organ care, will be guaranteed access without exception to an acute care facility that has the programs and services necessary to care for the patient.”*

## II. Operational Efficiency Indicators

### **Cost-Per-Weighted Case (2006-2007)**

According to the *Benchmarking Data for Canadian Hospitals 2006/07 Report*:

- The cost-per-weighted case (CPWC) at ERH was \$2,280, compared to a mean for Community 2 hospitals of \$3,004 and a median of \$2,589.
- Acute inpatient therapies worked hours per weighted case was 3.68 for ERH compared to Community 2 hospitals mean of 4.32.
- Emergency total worked hours per visits was 1.48 at ERH compared to the mean of 1.03 for Community 2 hospitals.
- Inpatient nursing hours per medical/surgical patient day was 7.24 compared to the mean of 6.23 for Community 2 hospitals.

## Operating Budget (2008-2009)

Unit/Service	Actual (\$)	Budget Variance (\$)	Metric	Volume Variance (\$)	Rate Variance (\$)	Other Variance (\$)
Medicine	5,178,070	(511,000)	Patient Days	(399,000)	(112,000)	
Surgery	2,494,127	(259,000)	Patient Days	(91,000)	(168,000)	
Emergency	4,388,636	(681,000)	Visits	(715,000)	34,000	
OR & PACU	7,181,604	(715,000)	Surgical Cases	(113,000)	(602,000)	
Sub acute	2,779,622	103,000	Patient Days	(19,000)	122,000	
Ambulatory	1,742,240	(27,000)	N/A			(27,000)
Other	3,526,938	367,000	N/A			367,000
<b>Total</b>	<b>27,291,237</b>	<b>(1,723,000)</b>		<b>(1,337,000)</b>	<b>(726,000)</b>	<b>340,000</b>

Summary:

1. 2008-2009 the Hospital had a negative variance of \$ 1,700,000.
2. Services that can be reviewed with metrics (days, visits, cases) accounted for \$ 2,100,000 (\$1,337,000 and \$726,000) of the Total Variance.
3. Using the metrics above (days, visits, cases etc) shows:
  - 78% of the Total variance (\$1,337,000) can be attributed to Volume (i.e. increased services days, visits, cases etc)
  - 22% of the Total variance(\$726,000) can be attributed to Rate (increased cost per case or per day)
4. Other departments reduced the overall variance by \$300,000

Notes:

1. Purchased Services is included in Compensation within in each Service.
2. Physician Compensation including Hospitalist Program is included in Other Departments under other Expenses.

**Operating Budget Increases (From 2005-06 to 2008-09)**

<b>Area</b>	<b>Amount</b>	<b>Detail</b>
Emergency	\$369,430	<u>2006-07:</u> \$245K added for ER Triage RN \$100K added for Unit Clerk & Care Aide
Medicine: Medical Res/ Hospitalists	\$822,787	<u>2008-09:</u> Increase in hours; rate increase; and for funding of 10 medical beds and 9 rehab beds (IMPACT)
Subacute	\$1,325,241	<u>2005-06:</u> Opened mid-2005-06
Operating Rooms	\$704,664	<u>2006-07:</u> \$125K added for Plastics \$200K added for Hips/Knees/Med/Surgical Support
Monitored Care Unit	\$228,005	<u>2006-07:</u> \$100K added for Pacemakers

### Medical On-Call Costs (2008-09)

Specialty	Level	Total
Anesthesia (general)	1	\$151,797
Cardiology	1	\$223,098
Orthopedic Surgery	1	\$160,358
Radiology	2	\$11,605
Urology	2	\$145,567
Call Back		\$5,500

#### Notes

1. Numbers are actual dollar amounts at ERH which are all a bit lower than the allowable limit for each group. For example, at full levels, Level 1 is funded at \$225,000 per year, and Level 2 at \$165,000 per year. These amounts are typically site-based, but ERH is somewhat of an exception.

2. Levels (1, 2, and 3) refer to categories of call availability and response time. Each category is funded differently. Specialist groups are assigned levels based on the anticipated clinical need for their members to answer a call and physically report to the paging hospital to see a patient if necessary. For example, Level 1 is the highest level of availability and response (i.e. shortest period of time to answer a call and come back to the hospital) and is, therefore, paid more than the Level 2.

3. There are 2 other categories that do apply for ERH groups. These are "On-Site/On-Call" (where the doctors remain in the hospital) and "Call-Back" where doctors are not paid to be available, but may be called when away from the hospital, and if they are called, and come back to the hospital to see a patient, they are paid a fee.

4. The Urology group also covers Burnaby Hospital and RCH as well so the amount is not reflective of what would be spent to cover ERH specifically. The total value of the MOCAP contracts for that Urology group is \$231K per year (1/3 could be attributed to ERH as a generous estimate).

### Nursing On-Call Costs (2008/09)

On-call for OR nurses is \$80,000. However call-back is not being used as the set up is only for return to surgery patients.

#### **Issues/Gap Analysis:**

Through interviews and review of data and information, the following issues regarding patient transfers were identified:

- 15% of ERH in-patients require transfer to another acute care institution.
- A significant number of patients require transfer from the Emergency Department at ERH because of lack of availability of appropriate 24/7 coverage at ERH in orthopaedic surgery, general surgery, paediatrics, psychiatry, critical care and general internal medicine.
- Emergency Department nurses accompany patients being transferred; this results in nurses being pulled from the Emergency Department on average for a period 4-6 hours at a time to accompany the transfer and/or remain at another site until a transfer of care is completed or a test/treatment is completed.

## Section 6

### Future Directions and Recommendations

The Consultant provides the following list of Recommendations, with associated Outcome Measures, with the understanding that Fraser Health Executive will prioritize Recommendations that are accepted and that an incremental approach to implementation of accepted Recommendations will be required. In this regard, a proposed Implementation Plan is presented for consideration (see below).

There are 27 proposed Recommendations for ERH which are organized as follows:

- G. ERH role and mandate (Recommendation # 1);
- H. Medical governance and physician coverage (Recommendations # 2, 3, 4);
- I. Core Services for Community Hospital
  - Emergency Department (Recommendation # 5, 6);
  - Medicine (Recommendations # 7, 8, 9);
  - Surgery (Recommendations # 10, 11, 12)
  - Monitored Care Unit (Recommendations # 13, 14, 15, 16, 17);
- J. Hospitalist Service (Recommendation # 18, 19);
- K. Ambulatory Care (Recommendation # 20, 21);
- L. Specialty services which could be offered at ERH (beyond a general hospital type community mandate)
  - Mental Health (Recommendations # 22, 23);
  - IV Therapy (Recommendation # 24);
  - Neurology (Recommendation # 25);
  - Gastroenterology (Recommendation # 26);
  - Other Services (Recommendation # 27).

For each Recommendation described below, there are also related outcome criteria.

A. Role and Mandate

<b>Recommendation # 1:</b>	In accordance with the Acute Directional Plan and work being conducted on Hospital Typology, Fraser Health Executive, working with administrators, physicians and staff at ERH, should ensure that a clear and compelling role and mandate for ERH as a community hospital and as part of the Fraser Health Acute Network; and that as integrated health care system is developed, this is widely communicated.
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**Outcome Measure:**

- *The role and mandate of ERH for the Coquitlam community and Fraser Health network has been clarified and effectively communicated.*

B. ERH Medical Governance and Physician Coverage

<b>Recommendation #2</b>	<ul style="list-style-type: none"> <li>• ERH Department Heads in Surgery, Emergency Medicine, Medicine, Anaesthesia, Rehabilitation Medicine, Hospitalist Medicine, Laboratory Medicine and Diagnostic Imaging should be appointed in accordance with the future program management and medical governance model.</li> <li>• Similarly, Medical Director positions should be established for the Monitored Care Unit (MCU) and Ambulatory Care, again in accordance with the future program management and medical governance model.</li> <li>• A specific Role Description should exist for each position; agreement should be achieved on the amount of time required to fulfill each role; the accountability framework for each position should be explicit.</li> <li>• The recommendation should begin with Surgery, Anaesthesia, Emergency Medicine and Hospitalist Medicine, followed by Internal Medicine (see Implementation Plan below).</li> </ul>
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**Outcome Measures:**

*As the Fraser Health Governance Model is developed, the following are required for ERH:*

- *Role Descriptions for ERH medical leadership positions developed;*
- *Accountability framework for ERH Medical Organizational Structure developed;*
- *Compensation requirements for ERH medical leadership positions identified and funds developed;*
- *Appointment of ERH medical leadership positions completed;*
- *Through the ERH medical leadership, the following has been accomplished:*
  - *Development of medical human resource plans for each department;*
  - *Successful recruitment of physicians;*
  - *Evidence of development and implementation of Clinical Quality and Patient Safety programs in each department;*
  - *Utilization initiatives;*
  - *Evidence of more effective medical problem solving and fewer urgent issues requiring the attention of the Medical Director.*

<b>Recommendation #3</b>	At the appropriate time, an ERH LMAC be developed, along with
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	appropriate LMAC subcommittees; in accordance with the Health Authority By-Laws, for the appointment of physicians and oversight of quality of care and practice.
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<b>Outcome Measures:</b>	
<ul style="list-style-type: none"> <li>• <i>The creation and effective functioning of an ERH LMAC and LMAC subcommittees;</i></li> <li>• <i>Improvements in medical decision making and resolution of medical issues and demonstrated lessening of issues requiring urgent attention at the Medical Director level.</i></li> </ul>	

<b>Recommendation # 4</b>	There is an urgent requirement for establishment of 24/7 General Internal Medicine and General Surgery coverage (see Medicine, Surgery below; see Implementation Plan below).
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<b>Outcome Measures:</b>	
<ul style="list-style-type: none"> <li>• <i>The types of appropriate CMGs and services for General Internal Medicine will be provided; those CMGs not appropriate will be provided at a more appropriate acute site.</i></li> <li>• <i>The types of appropriate CMGs and services for General Surgery will be provided; those CMGs not appropriate will be provided at a more appropriate acute site.</i></li> </ul>	

C. Core Services for ERH as a Community Hospital

**Emergency Department**

<b>Recommendation # 5</b>	The Emergency Department has increased access to Home and Community Care Services 7 days/week and at the right time of day.
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<b>Outcome Measure:</b>	
<ul style="list-style-type: none"> <li>• <i>Decreased medical admissions through the Emergency Department.</i></li> </ul>	

<b>Recommendation # 6</b>	The Emergency Department be provided enhanced support in diagnostic ultrasound, in nighttime radiography and in performance of EKGs.
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<b>Outcome Measures:</b>	
<ul style="list-style-type: none"> <li>• <i>Improved turnaround times in ERH Emergency Department;</i></li> <li>• <i>Improved clinical outcomes;</i></li> <li>• <i>Improved staff and physician satisfaction.</i></li> </ul>	

## Medicine

<b>Recommendation # 7</b>	An Internist be recruited to the defined role of Department Head, ERH Department of Medicine. This position could possibly be combined with the notional leadership positions of Medical Director, Monitored Care Unit (MCU) and Medical Director, Ambulatory Care Department (see Implementation Plan below).
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<p><b>Outcome Measures:</b></p> <ul style="list-style-type: none"><li>• <i>Appointment of Department Head, ERH Department of Medicine who conceivably could provide medical leadership to the MCU and the Ambulatory Care Unit;</i></li><li>• <i>24/7 Internal Medicine coverage provided at ERH through negotiated arrangements with RCH Department of Medicine;</i></li><li>• <i>ERH physician resource plan in Internal Medicine developed and activated;</i></li><li>• <i>Clinical Quality and Patient Safety initiatives developed and implemented in the Department of Internal Medicine;</i></li><li>• <i>Utilization management initiatives commenced;</i></li><li>• <i>Through the Department of Internal Medicine, leadership potentially provided to the MCU and the Ambulatory Care Unit (see above; see Implementation Plan below).</i></li><li>• <i>Through the ERH Department of Internal Medicine, specific consultation and support arrangements in place with each sub-specialty service in Medicine at RCH.</i></li></ul>
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<b>Recommendation # 8</b>	ERH have 7 day/wk access to Home and Community Services, facilitating 7 day/week discharge of patients.
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<p><b>Outcome Measure:</b></p> <ul style="list-style-type: none"><li>• <i>Increased weekend discharge of medicine patients, with resultant decrease in ALOS.</i></li></ul>
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<b>Recommendation # 9</b>	ERH have an appropriate level of support services in areas such as pharmacy and IV therapy provided to the Medicine Unit.
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<p><b>Outcome Measures:</b></p> <ul style="list-style-type: none"><li>• <i>Reduced medication errors;</i></li><li>• <i>Increased nursing satisfaction.</i></li></ul>
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## Surgery

<b>Recommendation # 10</b>	ERH Departments of Surgery and Anaesthesia be created and Department Heads appointed, with well-defined Role Descriptions.
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<b>Outcome Measures:</b> <ul style="list-style-type: none"><li>• <i>Functional ERH Departments of Surgery and Anaesthesia;</i></li><li>• <i>24/7 coverage at ERH in Surgery and Anaesthesia;</i></li><li>• <i>Evidence that, through the Department Head, Surgery, ERH is in full control of the operating theatres booking slates;</i></li><li>• <i>Evidence that, through the Department Head, Surgery, suitable time for urgent and emergency surgery is maintained on the daily operating suites booking schedule;</i></li><li>• <i>Decreased number of surgery patient transfers from the ERH Emergency Department;</i></li><li>• <i>Evidence of local problem solving of medical issues in Surgery and Anaesthesia, for example related to off-service patients in surgery beds and related to work patterns of anaesthetists.</i></li><li>• <i>Introduction of Clinical Quality and Patient Safety Programs in Surgery and Anaesthesia at ERH (aligned with Fraser Health initiatives in these areas). One focus of such programs would be upon standardization of care, as exemplified by:</i><ul style="list-style-type: none"><li>○ <i>Development and implementation of admission criteria, clinical practice guidelines and care maps in surgical subspecialties.</i></li><li>○ <i>Utilization management initiatives underway.</i></li></ul></li></ul>	
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<b>Recommendation # 11</b>	The menu of surgical procedures performed at ERH be reduced and that ERH focus upon serving the needs of its community.
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<b>Outcome Measures:</b> <ul style="list-style-type: none"><li>• <i>Reduction in menu of ERH surgical procedures;</i></li><li>• <i>Enhanced operating theatre nursing competency;</i></li><li>• <i>Reduction in number of different operating room equipment sets required at ERH.</i></li></ul>	
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<b>Recommendation # 12</b>	ERH develop advanced nursing care capacity in wound care.
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<b>Outcome Measures:</b> <ul style="list-style-type: none"><li>• <i>Improved clinical outcomes in patients with wound care requirements;</i></li><li>• <i>Reduction in patient transfers;</i></li><li>• <i>Reduced ALOS.</i></li></ul>	
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## **Monitored Care Unit**

<b>Recommendation # 13</b>	Fraser Health develop a closed model Monitored Care Unit (MCU) with a clear mandate and performance metrics.
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<b>Outcome Measures:</b> <ul style="list-style-type: none"><li>• <i>Closed unit;</i></li><li>• <i>Clarity regarding the purpose, goals and outcome measures associated with the MCU.</i></li></ul>
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<b>Recommendation # 14</b>	The Role Description for Head of Internal Medicine could potentially include the role of Medical Director for the Monitored Care Unit (MCU) (and for Ambulatory Care Department) (see Medicine above; see Implementation Plan below). If another MCU medical leadership model is identified, the Administration of ERH should ensure that the Head of Internal Medicine has had input into and is comfortable with this decision, as the organization and functioning of the MCU and Ambulatory Care will be of great importance to the Department of Medicine, and impact its recruitment efforts.
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<b>Outcome Measure:</b> <ul style="list-style-type: none"><li>• <i>Identification of medical leadership for the MCU.</i></li></ul>
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<b>Recommendation # 15</b>	The Head of Internal Medicine and Medical Director for the Monitored Care Unit (MCU) (may or may not be same individual) will ensure that: <ul style="list-style-type: none"><li>• There is a rotation of appropriately skilled physicians to provide care in a closed MCU;</li><li>• Admission and discharge protocols for the MCU are in place;</li><li>• Appropriate Clinical Quality and Patient Safety protocols are in place in the MCU;</li><li>• Utilization management data related to the MCU are collected and utilized to improve efficiency.</li></ul>
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<b>Outcome Measures:</b> <ul style="list-style-type: none"><li>• <i>A closed unit, staffed by expert physicians;</i></li><li>• <i>Operative Clinical Quality and Patient Safety protocols in the MCU, resulting in improved clinical outcomes;</i></li><li>• <i>Decreased inappropriate MCU admissions;</i></li><li>• <i>Decreased MCU length of stay.</i></li></ul>
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<b>Recommendation # 16</b>	The capability/capacity to provide care to patients requiring ventilation be developed in the Monitored Care Unit (MCU) (see Implementation Plan below).
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<b>Outcome Measures:</b> <ul style="list-style-type: none"><li>• <i>Two ventilation beds in MCU;</i></li><li>• <i>Enhanced RT support at ERH;</i></li><li>• <i>Decreased patient transfers from ERH.</i></li></ul>
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<b>Recommendation # 17</b>	The Monitored Care Unit (MCU) no longer be used as the site for
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	evening/weekend care of patients requiring follow-up for outpatient IV antibiotic therapy.
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<p><b>Outcome Measures:</b></p> <ul style="list-style-type: none"> <li>• <i>Re-location of outpatient IV antibiotic therapy program;</i></li> <li>• <i>Improved clinical outcomes for such patients;</i></li> <li>• <i>Improved patient satisfaction;</i></li> <li>• <i>Improved staff satisfaction in MCU.</i></li> </ul>	
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D. Hospitalist Program

<b>Recommendation # 18</b>	Administration develops a Role Description for the role of Head, Department of Hospitalist Medicine and recruits into this position.
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<p><b>Outcome Measures:</b></p> <ul style="list-style-type: none"> <li>• <i>Role description for Head, Department of Hospitalist;</i></li> <li>• <i>Medicine developed;</i></li> <li>• <i>Individual recruited to this position.</i></li> </ul>	
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<b>Recommendation # 19</b>	<p>The Head, Department of Hospitalist Medicine work with Administration and other medical leaders to ensure:</p> <ul style="list-style-type: none"> <li>• 24/7 coverage in General Internal Medicine and other designated services at ERH;</li> <li>• Appropriate access to non-elective endoscopy services for ERH patients;</li> <li>• Appropriate access to subspecialty consultations in medicine for ERH patients;</li> <li>• Appropriate case load for hospitalists;</li> <li>• Development and implementation of Patient Safety and Clinical Quality protocols for patients cared for by Hospitalists;</li> <li>• Development and utilization of utilization management data to improve efficiency;</li> <li>• Utilization of a Hospitalist Workload Measurement Tool.</li> </ul>
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<p><b>Outcome Measures:</b></p> <ul style="list-style-type: none"> <li>• <i>Improved clinical outcomes;</i></li> <li>• <i>Reduction in number of patient transfers from ERH;</i></li> <li>• <i>Reduction in ALOS;</i></li> <li>• <i>Enhanced recruitment and retention of Hospitalists.</i></li> </ul>	
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E. Ambulatory Care

<p><b>Recommendation # 20</b></p>	<p>That the administrator and medical lead for the Ambulatory Care Unit ensure that:</p> <ul style="list-style-type: none"> <li>• A range of ambulatory care services is provided that is in keeping with the role and mandate of ERH as a community hospital and member of the Fraser Health Network;</li> <li>• Rapid access clinics are developed, as appropriate;</li> <li>• ERH has appropriate access to non-elective endoscopy; Policies are in place to ensure that physicians utilizing ambulatory care facilities at ERH provide, as appropriate, clinical call and other services to ERH;</li> <li>• Infrastructure needs are understood and a plan exists to address them over time that include:             <ul style="list-style-type: none"> <li>○ Space;</li> <li>○ A scheduling system;</li> <li>○ A system to collect data re: ambulatory care utilization;</li> <li>○ Data collection and utilization re: clinical quality and patient satisfaction.</li> </ul> </li> </ul>
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<p><b>Outcome Measures:</b></p> <p><i>That the Medical Director of the Ambulatory Care Unit, working with others, ensures that:</i></p> <ul style="list-style-type: none"> <li>• <i>A range of ambulatory care services is provided that is in keeping with the role and mandate of ERH as a community hospital and member of the Fraser Health Network;</i></li> <li>• <i>Rapid access clinics are developed, as appropriate;</i></li> <li>• <i>ERH has appropriate access to non-elective endoscopy;</i></li> <li>• <i>Policies are in place to ensure that physicians utilizing ambulatory care facilities at ERH provide, as appropriate, clinical call and other services to ERH;</i></li> <li>• <i>A policy is developed and implemented that facilitates periodic review and re-assignment of ambulatory care space, as appropriate;</i></li> <li>• <i>Rapid access clinics that would:</i> <ul style="list-style-type: none"> <li>○ <i>Enhance clinical quality;</i></li> <li>○ <i>Reduce ALOS;</i></li> <li>○ <i>Increase Emergency Department efficiency and effectiveness;</i></li> <li>○ <i>Enhance physician accountability;</i></li> </ul> </li> <li>• <i>Improve clinic efficiency through enhanced scheduling processes and capacity to review clinic utilization data.</i></li> </ul>	
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<p><b>Recommendation # 21</b></p>	<p>Consideration be given to including the role of Medical Director for the Ambulatory Care Unit into the Role Description for Head of Internal Medicine.</p>
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<p><b>Outcome Measures:</b></p> <ul style="list-style-type: none"> <li>• <i>Role Description for Medical Director of Ambulatory Care Department developed as part of role of Head of Internal Medicine;</i></li> <li>• <i>Individual recruited into this position.</i></li> </ul>	
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F. Potential Role of ERH to Provide Specialized Services

## Mental Health

<b>Recommendation # 22</b>	Fraser Health Executive should determine whether ERH be a designated site under the Mental Health Act.
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<b>Outcome Measures:</b> <ul style="list-style-type: none"><li>• <i>Improved service to patients with mental health disorders;</i></li><li>• <i>Decreased numbers of certified patients held in an undesignated facility;</i></li><li>• <i>Fewer patient transfers;</i></li><li>• <i>Less ERH Emergency Department congestion, with resultant improvements in effectiveness and efficiency;</i></li><li>• <i>Increased Emergency Department staff and physician safety;</i></li><li>• <i>Increased Emergency Department staff and physician satisfaction.</i></li></ul>
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<b>Recommendation # 23</b>	If ERH is not defined as a designated site, then a policy should be negotiated with BC Ambulance so that patients with overt major psychiatric illnesses are not brought to ERH.
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<b>Outcome Measure:</b> <ul style="list-style-type: none"><li>• <i>Ambulance destination protocols for psychiatric patient triage to appropriate acute site.</i></li></ul>
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## Intravenous Therapy

<b>Recommendation # 24</b>	Fraser Health develop an intravenous therapy service for the network, ideally linked to the availability of Infectious Disease consultants.
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<b>Outcome Measures:</b> <p><i>Presence of a FN Regional Intravenous Antibiotic Therapy Program resulting in:</i></p> <ul style="list-style-type: none"><li>• <i>Improved clinical outcomes;</i></li><li>• <i>Reduced ERH Emergency Department follow-up visits related to the above with resultant enhanced ERH Emergency Department efficiency and effectiveness;</i></li><li>• <i>Absence of visits to the ERH Monitored Care Unit on weekends and evenings for the above, with attendant reduction in costs;</i></li><li>• <i>Improved patient satisfaction.</i></li></ul>
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## Neurology

<b>Recommendation # 25</b>	Fraser Health develop an approach to provision of consultation services in neurology for ERH and the network.
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<p><b>Outcome Measures:</b> <i>Development of a FN integrated Neurology Consultation Service that would ensure:</i></p> <ul style="list-style-type: none"><li>• <i>Increased involvement of Neurologists in hospital work;</i></li><li>• <i>Improved referral times;</i></li><li>• <i>Less ERH Emergency Department congestion, with resultant improved efficiency and effectiveness;</i></li><li>• <i>Improved clinical outcomes for patients with acute neurological disorders;</i></li><li>• <i>Improved physician and patient satisfaction.</i></li></ul>
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## Gastroenterology

<b>Recommendation # 26</b>	Fraser Health establish an approach to the management of gastrointestinal bleeds for ERH and the network.
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<p><b>Outcome Measures:</b></p> <ul style="list-style-type: none"><li>• <i>Improved co-ordination of investigation and management of GI bleeds.</i></li><li>• <i>Improved quality of patient care;</i></li><li>• <i>Improved patient satisfaction;</i></li><li>• <i>Less difficulty transferring patients for investigation and therapy;</i></li><li>• <i>Improved physician satisfaction;</i></li><li>• <i>Improved resource utilization in this area.</i></li></ul>
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## Other Services

<b>Recommendation # 27</b>	<p>In addition to the above, Fraser Health explore other options for ERH to contribute to the Fraser Health network, for examples:</p> <ul style="list-style-type: none"><li>• Outpatient IV antibiotic therapy;</li><li>• Endoscopic/surgical management of acute GI bleeding;</li><li>• Pacemakers;</li><li>• Rehabilitation Medicine;</li><li>• Geriatrics;</li><li>• Paediatric Child and Youth Care.</li></ul>
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<p><b>Outcome Measure:</b></p> <ul style="list-style-type: none"><li>• <i>ERH have a defined role for the network.</i></li></ul>
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## Section 7

### **Impact Analysis and Proposed Implementation Plan**

#### Impact upon the RCH

The predominant impact upon the RCH, and to a lesser extent other Fraser Health Network hospitals, will relate to the adjustment in the menu of surgical services offered at ERH.

A substantial number of types of surgical procedures will no longer be offered at ERH; this surgery will require relocation to the RCH or another Fraser Health acute care network hospital. On the other hand, the commitment of ERH to ensuring availability of surgeons capable of performing the type of surgery required of a community hospital (e.g. General Surgery, Urology and Orthopaedic Surgery) will create opportunities for additional surgery in those areas to be performed at ERH. Further, additional surgical procedures could be moved to the ERH as it assumes designated Fraser Health Network roles (e.g. enhanced pacemaker insertion).

An incremental approach will be required to accomplish the above. Surgeons from the RCH and from ERH, as they engage in the requisite discussions, will appreciate that for the next 7 to 10 years (until completion of RCH redevelopment) a high degree of cooperation between the two sites will be required, as RCH will require some access to ERH Operating Rooms, while ERH will require the support of some RCH surgeons.

#### Proposed Sequential Implementation Plan

The Consultant recommends an incremental approach to implementation of accepted recommendations. Proposed implementation steps are as follows:

1. As a priority matter, initiate a process to develop a clear role and mandate for ERH and its role as a community hospital and participant in the Fraser Health Network.
2. Ensure the role and mandate, once established, is widely communicated to all stakeholder groups.
3. Communicate an intent to progressively develop an ERH Medical Organizational Structure, comprised of Department Heads, an LMAC and, ultimately, a Medical Staff Organization.
4. Develop role descriptions and accountabilities for the positions of Head, ERH Department of Surgery and Head, ERH Department of Anaesthesia. Explicit in these role descriptions would be responsibility for management, along with ERH management staff, of all ERH resources devoted to Surgery.
5. Develop role descriptions and accountabilities for the positions of Head, ERH Department of Emergency Medicine and Head, ERH Hospitalist Service.
6. Identify the time requirements for these roles and the required compensation; proceed with recruitment of these individuals.
7. Have the administration of ERH work with the Department Heads in Surgery and Anaesthesia to develop 24/7 coverage in General Surgery. It is anticipated this would require recruitment of individuals prepared to work full-time at ERH and also recruitment

- of RCH General Surgeons and Anaesthetists who would work at ERH on a part-time basis.
8. As part of the above, have the ERH administration work with the Department Heads to begin a review of the menu of surgical services delivered at ERH and the manner in which this menu of services will be altered, over time, to ensure that ERH can meet both its community service goals and Fraser Health Network goals. This will require development of a Work Plan identifying how adjustments in the manner in which surgical services are provided, not only at ERH, but also at RCH and other network hospitals will be made, over time.
  9. Charge the Department Heads in Surgery and Anaesthesia, working with ERH administrators, with the responsibility of moving forward on other accepted Report Recommendations related to their Department.
  10. Charge the Head of the Emergency Department and the Head of the Hospitalist Service, working with ERH administrators, with the responsibility of moving forward on accepted Recommendations from the Report related to their Department.
  11. Redefine the mandate, organization and administration of the Monitored Care Unit, ensuring it is aligned with the mandate and role of ERH and its commitment to its community and the Fraser Health Network.
  12. Similarly, redefine the mandate, organization and administration of the Ambulatory Care Unit.
  13. Develop a Business Plan for the creation of an ERH 20 to 25 bed General Internal Medicine Unit, medically managed by General Internal Medicine specialists.
  14. Following completion of Implementation Steps 10 to 12, develop a role description, a set of accountabilities, an understanding of time requirements of the position and funding for the position of Head, Department of Medicine which could potentially include a leadership role for the Monitored Care Unit and the Ambulatory Care Department. Recruit an individual to this position.
  15. Charge the Head, ERH Department of Medicine, with the development of 24/7 coverage at ERH in General Internal Medicine; this would require dedicated ERH recruitment and also recruitment of some part-time staff from other FN Network hospitals. Such recruitment would be facilitated by a well-defined and close working relationship between the Department of Medicine and the Monitored Care Unit and the Ambulatory Care Department
  16. Charge the Department Head, ERH Department of Medicine, with the responsibility of working with ERH administrative staff to move forward on other accepted Report Recommendations related to the Department.
  17. At an Executive level, determine the roles ERH will play in the Fraser Health Network; put processes in place to ensure business plans are developed and activated regarding these Network roles.

#### Financial Implications - Capital and Operating Costs

A determination of Capital and Operating costs associated with the Report will need to be identified. However those cost determinations are beyond the scope of this project. Depending on the Recommendations accepted, such costs would include:

- Compensation costs related to medical leadership positions;
- Capital and operating costs related to opening of two ventilated beds in the Monitored Care Unit;
- Capital and operating costs associated with development of a Regional IV Therapy Program;
- Capital and operating costs related to redevelopment of the Ambulatory Care Department;
- Expanding OR time to accommodate 24/7 Surgery call.

Some major changes should be cost-neutral. Examples would include:

- Development of a General Internal Medicine Unit;
- Adjustment in the range of surgical services provided at ERH;
- Development of a closed Monitored Care Unit.

## **Section 8**

### **Summary and Conclusions**

Currently, the ERH fulfills neither the role of a community hospital nor the role of a major contributor to the Fraser Health Acute Care Network. Changes must occur so that ERH can fulfill each of these roles.

The requisite changes must commence with the development and clear communication of the role and mandate for ERH as a community hospital and a contributor to the Fraser Health Network and with a commitment to the development of a dedicated ERH Medical Staff. Having accomplished these steps, ERH will then be positioned to proceed in an incremental fashion toward accomplishment of its goals.

There will be challenges, however the change management initiative envisioned for ERH will yield great benefits, including ensuring that an appropriate level of service is provided to its growing community while providing visible support to the concept of a Fraser Health Network, through assumption of one or more regional roles.

More broadly, implementation of the Report Recommendations will provide Fraser Health with additional capacity in managing change, will assist Fraser Health in achieving its Strategic Imperatives, and will contribute to desired culture change within the organization.