1 PROGRAM PARAMETERS

INTRODUCTION

The purpose of this section is to describe factors expected to influence future development of facilities at the Fraser Valley Health Centre/Eastern Fraser Valley Cancer Centre (FVHC/EFVCC) site. Factors are organized according to whether they involve programs and services (Functional Parameters), systems and procedures (Operational Parameters), existing physical resources (Physical Parameters), or capital and/or operating funding (Financial Parameters).

Functional and operational parameters are used primarily in the development of master program information. A hospital's intended functional content and major operating systems affecting the manner in which these functions are conducted must be fully understood before they can be sized as discrete blocks of space. RPG refers to these blocks of space as "functional components" and these represent the major building blocks that will be used to construct models of future facilities in the physical planning tasks which occur later.

Physical and financial parameters are used primarily in the physical stages of planning where options regarding retention/reuse of existing facilities, construction of new facilities, and site development options are tested. Planning alternatives must be evaluated not only in terms of their "fit" within the confines of existing and proposed structures, but also within any established capital and/or operating budgets as well.

Collectively, the project parameters assist subsequent planning initiatives by describing proposed upper limits on:

- what services will be provided
- the number of "users" to be provided services
- what opportunities or constraints are imposed by the existing physical resources, including the site (and facilities if existing)
- what opportunities/constraints are imposed by any capital or operating funding objectives

The sections which follow are organized according to the four categories of project parameters which appear in the following order:

- Functional Parameters
- Operational Parameters
- Physical Parameters
- Financial Parameters

Italicized comments appearing in the left-hand margin attempt to summarize key proposals and/or assumptions regarding the provision of services contained in the main body of the report.

FUNCTIONAL PARAMETERS

FUNCTIONAL PARAMETERS

This section of the report describes the future Fraser Valley Health Centre/Eastern Fraser Valley Cancer Centre (FVHC/EFVCC) of the Fraser Valley Health Region/BC Cancer Agency in terms of the nature and extent of inpatient, outpatient, and emergency services as well as the Hospital's/Agency's proposed roles in community outreach, education, and research. This document does not address the role of community-based services except as they may influence the hospital-based services. The presence of non-clinical services and their impact on facility planning are acknowledged, but the scope of these is understood to be driven primarily by referrals from their clinical counterparts. Clinical functions are the initial generators of activity and it is these that will have the most material influence on the nature and extent of all services to be accommodated at the site. Consequently, in this stage of the planning work, attention is focused on clinical services that are typically viewed as major generators of activity within the Centre.

FVHR VISION, MISSION AND STRATEGIC DIRECTIONS

Philosophical positions, such as those conveyed by mission and vision statements represent ideal and ultimate standards adopted by the respective Boards of the two organizations against which all performance will be assessed. They may not, however, be fully sensitive to detailed constraints and opportunities imposed by the sites, existing facilities, and current economic conditions.

The following statements were prepared by the FVHR to illustrate fundamental positions on health and the provision of care to all users of the health system.

Vision: A region of Healthy communities of informed people living healthy lifestyles.

Mission: The FVHR delivers preventive and health care services responsive to the needs of our people.

Strategic Direction #1: Residents of FVHR will have access to health care services within an appropriate period of time.

Strategic Direction #2: FVHR programs will actively engage in opportunities for prevention/health promotion.

Strategic Direction #3: Health services across the region will be provided in a seamless and coordinated fashion.

Strategic Direction #4: FVHR will actively work with other organizations, jurisdictions and ministries to advocate for changes that promote healthy populations.

Strategic Direction #5: Identify priority services for program development or expansion and identify funding opportunities.

Strategic Direction #6: Develop a regional infrastructure that allows for the necessary environment to provide health services to our population.

Strategic Direction #7: FVHR will develop meaningful reporting information for patients/families; health care managers and decision-makers and the Ministry of Health.

BCCA VISION, MISSION AND VALUES

The following statements were prepared by the BCCA to illustrate fundamental positions relative to cancer control and the provision of services to residents of British Columbia.

Vision: A world in which people no longer fear cancer.

Mission: To maintain and enhance an internationally recognized comprehensive cancer control system in British Columbia, which will:

- **Reduce the incidence of cancer**
- **Reduce the mortality of people with cancer**
- **Improve the quality of life of those living with cancer**

Values: The values of the BC Cancer Agency in achieving its mission are:

- *Knowledge*
  We value the search for and application of knowledge.
- *Integrity*
  We strive for the highest ethical standards.
- *Respect*
  We respect all those we serve with whom we work.
- *Equity*
  We believe in fairness and equitable access to our service for all British Columbians.
- *Diversity*
  We embrace the differences among people and value the perspectives and contributions of all.
- *Accountability*
  We are committed to accountability in everything we do.

- *Collaboration*
  We believe that working together with partners will have a greater impact on cancer control than would be possible alone.
- *Excellence*
  We strive for excellence in all that we do.

Provided in cooperation with its many partners, the Agency's programs and services include prevention, early detection, diagnosis and treatment, supportive care, rehabilitation, palliative care, education, research and support for community programs.

Currently services are provided to the residents of BC through four regional cancer centres (Vancouver, Surrey, Victoria and Kelowna) and a Communities Oncology Network which supports the objective of the Cancer Agency to provide all British Columbians with access to a high quality of cancer care as close to their homes as possible.

PLANNING HORIZON

Facilities programming for the project will be based on the status of conditions as estimated to the year 2015. The health centre facility will be programmed to support a total of 300 inpatient acute care beds with only 261 beds to be operationalized on building occupancy and the cancer centre to support up to 2,500 new patients annually.

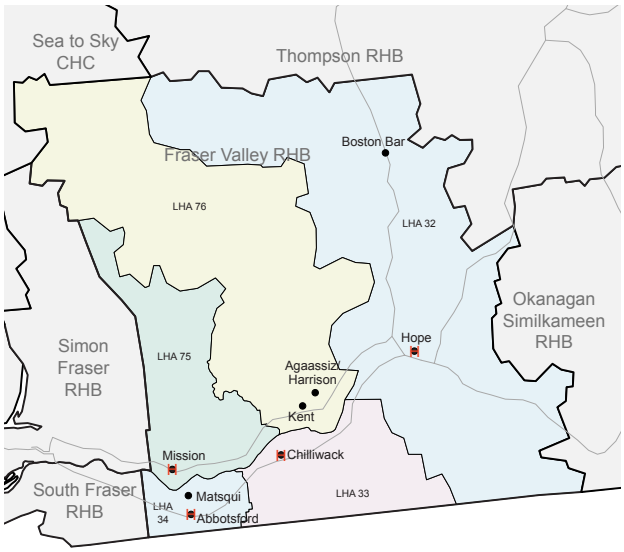
GEOGRAPHY

The Fraser Valley Health Region consists of five local health areas (LHAs); Hope LHA 32, Chilliwack LHA 33, Abbotsford LHA 34, Mission LHA 75 and Agassiz/Harrison LHA 76. The region covers a geographic area of approximately 14,000 square kilometers, stretching from Manning Park on Highway #3 in the east, the U.S. border on the south, Boston Bar on Highway #1 to the north and the Abbotsford/Aldergrove boundary to the west. The region includes the communities of Boston Bar, Hope, Aggasiz, Harrison, Chilliwack, Abbotsford and Mission.

Figure 1 below illustrates the FVHR and surrounding regions as well as the location of principal health facilities.

FIGURE 1: LOWER MAINLAND HEALTH REGIONS

The map on the right illustrates the Local Health Areas (LHA's) which constitute the Fraser Valley Health Region.



There are four acute care hospitals serving the region located in Hope, Chilliwack, Mission and Abbotsford. In total, there are 405 acute care beds and 551 long-term care beds in the region, plus an additional 926 long-term care beds provided on a contracted basis.

POPULATION HIGHLIGHTS

Master planning and programming work for the health centre portion of the project will be based on the following historical population statistics and population projections.

Historical Populations

Figure 2 below illustrates populations for British Columbia, FVHR, and LHA 34 as at the last census year, and as projected from that census year for year 2000.

FIGURE 2: HISTORICAL POPULATIONS
Source: PEOPLE 25 – BC Stats, Ministry of Finance and Corporate Relations

Geographic Area	1996	2000
British Columbia	3,882,043	4,067,179
Fraser Valley Health Region	231,345	243,175
LHA 34 Abbotsford	110,338	116,176

Numbers in Figure 2 show an increase in each area's population between 1996 and 2000.

The detailed analysis of historical demography in Appendix G indicates the following:

- LHA Abbotsford comprises almost 50% of the population of the FVHR
- FVHR has a higher percentage of persons aged 0-14 (21.7%) than BC (18.1%), as does LHA 34 (22%)

Projected Populations

Figure 3 below illustrates populations for British Columbia, FVHR and LHA 34 as at 2000, 2005, 2010 and 2015.

FIGURE 3: CURRENT AND PROJECTED POPULATIONS
Source: PEOPLE 25 – BC Stats, Ministry of Finance and Corporate Relations

	Current			Projected								
	2000			2005			2010			2015		
Geographic Area	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
British Columbia	2,019,236	2,047,943	4,067,179	2,166,578	2,205,630	4,372,208	2,329,185	2,380,244	4,898,030	2,493,744	2,558,818	5,052,562
Fraser Valley Health Region	121,762	121,413	243,175	133,676	134,259	267,935	147,541	148,970	296,511	162,476	164,711	327,187
LHA 34 Abbotsford	57,828	58,348	116,176	63,415	64,203	127,618	69,333	70,268	139,601	75,479	76,540	152,019

Factors of key importance to this project include expectations of significant continued growth for the FVHR and LHA 34. This growth is anticipated as a result of birth rates exceeding mortality rates and to net migration. Over the 15 years from 2000 to 2015 the FVRH is projected to increase 36.2% as compared to 25.6% for BC. LHA 34 is projected to increase by 30.9% over this same time period. FVHR is projected to have a younger population as a whole compared to the Province.

The population base served by the existing cancer centres in Vancouver and Surrey, plus the new EFVCC in Abbotsford will include the Lower Mainland and all of the North.

MAJOR CLINICAL SERVICE ROLES

FVHR planning is based on the view that acute care services will be provided by each of the Region's four acute care hospitals operating in Mission, Hope, Chilliwack and Abbotsford. All sites will be capable of providing secondary care and selected tertiary level care at selected sites, but not all services nor the same level of service will be available at all sites. The evolution of service location will require that all sites accommodate basic, "platform" services capable of providing (at least) primary level care and support for selected secondary and tertiary level care. Site selection for those services offering higher care levels will be governed by availability of personnel and physical resources, and the potential to strengthen service identity and delivery capabilities through consolidation and economic practicality.

The following subsection identifies "platform" and major specialty and subspecialty clinical service roles assumed for the FVHC/EFVCC site. *Italicized comments appearing in the left-hand margin merely highlight services or planning considerations for easy reference.*

Anesthesiology

Anesthetists at FVHC/EFVCC will administer general anaesthetics and nerve blocks in support of procedures conducted in the:

- Surgical Suite
- Maternity Unit
- Medical Imaging Department (interventional procedures)
- Eastern Fraser Valley Cancer Centre (pain and symptom management)
- Psychiatry Unit (electroconvulsive therapy)
- General Day Care Unit (endoscopies)

The day-to-day operation and maintenance of anaesthesia equipment will be performed by anesthetists supplemented by assistance from respiratory therapists, with annual preventive maintenance provided by Biomedical Engineering.

Post-procedure care will include occasional follow-up observation in the PACU, ICU, Surgical Step-Down Unit and the Maternity Unit.

Outpatient services will focus on pre-admission/operative assessments and acute pain management. Anaesthetists will also participate in the delivery of chronic pain management in ambulatory care.

Emergency Medicine

Emergency Medicine services will continue to be offered at all hospital sites, but an increase in workload will occur at the FVHC/EFVCC site as a result of its specializations, particularly from Mission and Hope.

The FVHC/EFVCC acute care site will continue to provide emergency care for residents of the Abbotsford community and the region. The site will be capable of responding to unscheduled patients presenting with a wide range of conditions and illnesses with a continued increase in activity. Walk-in (i.e., all non-ambulance arrivals) traffic, however, is expected to become more selective in their choice of treatment centre as the major clinical foci of each site becomes more widely recognized. For instance, it is anticipated that the majority of pediatric, obstetric/gynecological and oncological emergencies will be handled at the FVHC/EFVCC site, which will necessitate separate handling areas for pediatric patients.

Psychiatric patients will continue to be received in the Emergency Department. The primary objective in treating this group of patients will be rapid evaluation by a psychiatrist and/or other members of a psychiatric emergency response team, followed by either admission to the Psychiatric Inpatient Unit or referral to the appropriate hospital or community-based service(s). Secured holding facilities will be provided for those

requiring short-term holding and assessment.

A Quick Response Program (QRP) will also function from Emergency in order to provide immediate assessment of elderly clients in order to minimize unnecessary admissions.

Emergency will play a role in maximizing appropriate use of inpatient resources. Careful screening of patients in the Emergency Department will ensure that only those in need of inpatient care will be admitted.

Scheduled outpatient care will generally not be accommodated in the Emergency Department since these patients will be more appropriately served in an ambulatory care setting.

A special decontamination area will be provided in support of regional disaster planning.

A clinical decision unit will also be provided for short-term holding, observation and assessment of patients to minimize unnecessary admissions.

The site will accommodate a helipad.

Hospital emergency personnel will provide more field (radio/telephone) support to paramedical personnel at accident sites in the future. Patients will be transported to the site for treatment. As a regional centre, the FVHC/EFVCC site will be served by a helipad.

Family Medicine

Family Practitioners will continue to have a significant role and presence at all acute care sites with admitting privileges to all services.

Family Medicine will continue to offer family-oriented care at all hospital sites. The availability of specialists in the Fraser Valley is expected to remain limited and this trend will continue to promote daily medical inpatient care by family practitioners with referrals to specialists as necessary. It will also promote the involvement of family practitioners in specialty services commensurate with the interests and training of individual practitioners. Specialty services identified as potential for more substantial involvement include low risk obstetrics, palliative care, rehabilitation, and geriatric assessment services.

Outpatient Family Medicine will continue to be in private physicians' offices off-site.

Medicine

The FVHR will continue to develop medical subspecialty expertise to meet the site's selected clinical foci.

Internal Medicine will be represented at all sites.

The Medicine subspecialty division, having a presence at more than one site, is Internal Medicine. Non-invasive cardio-neuro diagnostics, a pulmonary function lab and general endoscopy services will be available at multiple sites, whereas, invasive cardiology with a Cardiac Catheterization Lab will only be provided at the FVHC/FEVCC site. Critical Care Medicine in the form of a coronary care unit and medical intensive care unit

will be available at the FVHC/EFVCC, CGH and MMH sites; however, patient populations at each may be different owing to each site's unique medical and surgical services.

Dermatology, Endocrinology, Nephrology, Neurology, Hematology/Oncology, and Rheumatology will be concentrated on the FVHC/EFVCC site.

Other medical subspecialties based at the FVHC/EFVCC site will include Dermatology, Endocrinology, Nephrology, Neurology, Rheumatology and Hematology/Oncology.

Palliative Care will also be developed within the Medicine Department.

Mental Health/Psychiatry

A full range of Mental Health/Psychiatry services will continue to be provided at the FVHC/EFVCC and CGH sites.

The FVHR will continue to provide psychiatric services to respond to the acute mental health needs of its residents. A full range of services will be available at both the FVHC/EFVCC and CGH sites (which are the only designated hospitals for the region under the Mental Health Act) and will generally be organized under the following categories:

- Hospital Services
- MH Community Services
- Mental Health Centres

The FVHR is developing a regional integrated Mental Health Program that will encompass all mental health services within its mandate, including community, inpatient and outpatient services across all age groups. The program will incorporate strong linkages with other government and community providers including the Ministry for Children and Families (MCF).

Currently, psychiatric care units on the MSA site include a General Psychiatry Inpatient Unit, Psychiatric Outpatient Services and a Psychiatric Day Program. These units/ programs provide services to a mix of ages (age 10 to the very elderly) and a range of diagnoses.

In the future, following the principles of a program management model of care, the FVHC/EFVCC site will act as the focus for the delivery of an integrated, multidisciplinary Mental Health Program for the Region, in collaboration with other community-based services. Subject to further detailed discussions, example programs/ services will include:

<u>Acute Care Services</u>
- Child & Adolescent Care
- Adult Care (including intensive care)
- Psychogeriatric Care
- After Hours Emergency Care
- ECT

<u>Community Services</u>
- ASTAT - Adult Short Term Assessment and Treatment

- ACS - Adult Community Support Services
- ACO - Adult Community Outreach
- CRP - Community Residential Program
- Psychogeriatric Services
- Psychiatric Outpatient Services

Support/Rehabilitation Services

- Rehabilitation (OT, PT, RT, Community Living Support, etc.)
- Social Work
- Family**:** Patient Services (e.g., library, resource centre, etc.)
- Volunteer Services
- Psychology
- Administration

Integrated hospital-based mental health/ psychiatry services will be co-located with a community mental health centre on the FVHC/EFVCC site.

This consolidation suggests a co-location of current and expanded hospital-based inpatient, outpatient and day programs together with a community-based mental health centre.

Admission under any of these service areas will be accepted from professional referrals, and intra-hospital transfers and all will be subject to departmental admission criteria. A large number of admissions will occur through each site's Emergency Department. An emergency assessment service will be continued in anticipation of this workload, which will ensure assessment soon after arrival in the Emergency Department followed, by either referral to the appropriate community-based agency or hospital admission.

Mental health professionals at both sites will provide psychiatric consultations in support of all other programs related to psychiatric service delivery operated outside of the Department of Psychiatry. Objectives of these consultation services will be to develop broadly based understandings of mental health issues and basic treatment skills among many health care providers. They will also provide expert treatment services to patients who may not be formally admitted under a psychiatric program, but still require intervention for mental illness.

In-hospital pediatric psychiatry will generally be accommodated within the pediatric and adolescent care environments when possible. Problems experienced by this population are typically social or behavioural in nature and best treated in the community. Development of a hospital-based pediatric or adolescent psychiatry specialty is, therefore, not anticipated. The most severe forms of psychoses in children and adolescents will be treated within special program areas in the adult psychiatric services or transferred to BC's Children's Hospital.

In-hospital geriatric psychiatry generally will be treated as part of a comprehensive geriatric assessment program. This will involve psychiatric assessments during inpatient phases of care and post-discharge intervention for acute episodes through day programs. Development of a hospital-based geriatric psychiatry specialty is not anticipated.

Hospital-based mental health professionals will work closely with other Region mental health services in coordinating the activities of community nurses, social workers, and psychologists. This coordination will be based on a philosophy of maintaining most outpatient psychiatry in the community and using hospital-based day programs primarily as transition (from hospital) services. Objectives of coordinating on-site and off-site services will be to operationally consolidate different and geographically separate elements of mental health activities and to promote community-based treatment of less severe forms of mental illness.

Psychological testing in support of psychiatric services will be conducted at the FVHC/EFVCC site.

Forensic psychiatry will continue to be provided through the Justice Department with the centralized forensic unit located in Port Coquitlam.

Obstetrics & Gynecology

Development of obstetrical and gynecological services for the FVHR will continue to be provided on all acute care sites, and the FVHC/EFVCC site will continue to serve as the Region's high risk maternal centre.

The FVHR will continue to promote development of obstetrical and gynecological services on all of its acute care sites, although only the FVHC/EFVCC site will (continue to) provide Level II birthing and neonatal services and, as such, will continue to serve as the regional centre for high risk obstetrics. Obstetrical services will be developed in concert with Pediatric services consistent with the regional Maternal Child Program model of care.

Obstetrical services will provide perinatal care through outpatient, inpatient, and outreach services. Inpatient care delivery will be provided in a combined unit including single room maternity care (LDRP's), LDR's and C-section/delivery room facilities, which will be allied with normal and special, care nurseries. Obstetrics will function as a Level II unit and it will be allied with a Level II neonatal intensive care unit (NICU).

FVHC/EFVCC will be capable of responding to high-risk pregnancies with the exception of those at a gestational age of less than 32 weeks. These cases will be referred to BC Women's Hospital or other centres.

Outpatient obstetrical services will evolve around a fetal/pregnancy assessment service which will provide genetic counselling and screening, prenatal classes, fetal monitoring

(including obstetrical ultrasound), training on home blood pressure monitoring, and a comprehensive breast care program as a follow-up to the community-based screening program.

Prenatal classes will be a coordinated service involving hospital and community-based staff and others. Emphasis will be placed on maximizing the community's role in obstetrical care. Routinely scheduled obstetrical outpatient consultative clinics will also be anticipated.

Counselling for pregnant diabetics will be provided through the Department of Medicine's metabolic services under the direction of a specialist in maternal-fetal medicine.

The FVHR midwifery program is anticipated to continue and expand in the future. This program will continue to respond to the needs of low risk, uncomplicated obstetrics. Caregivers attached to this program will continue to have admitting privileges at the FVHC/EFVCC site.

Obstetrical services will participate in the emergency transportation of mothers in labour and of neonates. Dispatch of specially trained nurses and respiratory therapists will be coordinated by hospital-based obstetricians, pediatricians and neonatologists who will be available to provide "hot line" consultations during transportation.

Gynecological services will develop around the concept of a Women's Health Centre. This Centre will offer a comprehensive array of outpatient, multidisciplinary services to respond to the health needs of women including:

- counselling and treatment for menopause and PMS
- colposcopy services and minor procedures including IVF, ovulation induction, therapeutic donor insemination, D & C, and hysteroscopy
- other services added as to needs assessment
- contraception clinic

It is anticipated that planned parenthood counselling services will be provided through community programming.

In the Women's Health Centre, gynecological outpatient procedures will be limited to those requiring sedation and/or local anaesthetics only; procedures requiring general anaesthetics will continue to be performed in the Surgical Suite.

Oncology

The BC Cancer Agency, together with the FVHR, will initiate a new program in Oncology on the FVHC/EFVCC site. The new EFVCC will be the third regional cancer center serving the population between Vancouver to Hope and the northern

regions of the province.

As with other regional cancer centres in the province, the oncology program at FVHC/EFVCC will consist of a network of services including:

- Regional Cancer Centre operated by the BCCA will provide:
  - multidisciplinary patient assessment and review
  - radiation therapy (external beam)
  - chemotherapy (systemic care)
  - patient and family counselling, and other supportive care
  - public, patient and professional education
  - applied research
- At hospitals across the region, patients will receive care from local physicians with advice and input from cancer specialists;
- Hospital-based inpatient oncology beds (5 beds in 2005, 10 beds in 2015) will be provided for medical inpatients for treatment (radiotherapy and chemotherapy) who are unable to manage on an ambulatory basis; investigative admissions will occur in other appropriate services; palliative care will occur in the palliative care unit; surgical oncology patients will be placed on surgical units, pediatric oncology patients on pediatric units – surgical and pediatric oncology beds are excluded from the above totals; and
- Surgical intervention will continue to be provided in all hospitals in the region that currently have surgical programs; consultations from FVCC specialists will be available to surgeons in the region.

The EFVCC will not have any specialty cancer treatment services such as HDR (high dosage radiotherapy). EFVCC will share the resources within the Wellness Centre for many of the Population Based Activities.

EFVCC will operate and staff a special pharmacy to dispense anti-neoplastic drugs and prepare IV bags for chemotherapy patients. The Centre's IT and communications systems will be linked to those of the hospital and be integrated into the Provincial Cancer Network. BCCA also retains its own Human Resources and Finance personnel managed through the Agency's Provincial Systems. The EFVCC will include facilities for the Cancer Foundation and the Centre’s volunteers.

The Centre will be operated under the auspices of the British Columbia Cancer Agency (BCCA); the Administrator will report to the CEO of the BCCA. The Centre will operate independent of the Hospital, but issues of concern to both the Centre and the Hospital will be dealt with through joint committees of the two institutions.

The following major common operating policies for the Centre and Hospital are assumed for planning:

- The two institutions will be administratively and fiscally separate and distinct, but their respective operations will be closely related in areas of shared/purchased service.
- As far as possible, the Centre will not duplicate services available in the hospital and will rely on those services, which can be provided or purchased from the Hospital.
- Written contracts will be drawn up for each service purchased by the Centre from the Hospital.
- The Hospital will be responsible for a full inpatient program of service for cancer patients, excluding radiotherapy treatment, and the Centre will be responsible for a full outpatient program of service for cancer patients.
- The Hospital will grant full medical privileges to the Centre's physicians.
- A liaison group (Committee) comprising representatives of the Centre and Hospital will be constituted early in the Centre's development to oversee the coordinated integration of the Centre's and the Hospital's related operations and planning activities.

More specifically, there are certain programs and services which will be provided to the Centre by the Hospital or which will be purchased from the community. These are as follows:

FVHC will contract to provide clinical services to the Centre in the areas of:

- diagnostic services (diagnostic imaging, laboratory and nuclear medicine)
- inpatient beds
- operating rooms (surgical procedures and anaesthetists)
- emergency services
- medical day care
- surgical day care
- respiratory services (including RT, PF, etc.)

- rehabilitation (physiotherapy, occupational therapy, speech pathology, recreational services)

FVHC will also contract to provide support services to the Centre in the areas of:

- food services (including catering, vending and cafeteria services)
- materiel management * (including CPD, standard stock items, escort)
- environmental services (housekeeping, laundry, plant maintenance, security services)
- pastoral care
- biomedical engineering

There will be space available in the Centre for Hospital - provided services, including:

- dietary services (vending)
- housekeeping and maintenance

Surgical oncology will be conducted at all acute care sites in the region, depending on the surgical subspecialty involved and the extent of support received from oncologists and other support groups.

Pediatrics

Pediatric services for the FVHR will continue to be provided at the FVHC/EFVCC, CGH and MMH sites, but due to its size, FVHC/EFVCC will serve as a regional centre.

The FVHR will continue to provide specialized services for the provision of care to the children of the region at the CGH, MMH and FVHC/EFVCC sites, but will likely concentrate heaviest at the CGH and FVHC/EFVCC sites due to an acute shortage of pediatricians.

Consolidated inpatient pediatric services will be comprised of neonatal care (including a Level II NICU providing intermediate and convalescent care), general medical/surgical pediatric care, and adolescent care (for children aged 12 - 19). Pediatric intensive care is to be supported through a special critical care environment in Pediatrics, prior to transfer to Children's Hospital. Services will be sensitive to age differences and will attempt to segregate inpatients based on chronological or, if more appropriate, mental age, including infants, toddlers, youths and adolescents. "Care-by-parent" will be strongly promoted encouraging parents to take an active role in the in-hospital and post-discharge phases of care.

General pediatric surgery will continue to be available at the FVHC/EFVCC site, but children requiring specialist surgery will continue to be referred to Vancouver or other centres for the in-hospital portion of their care. Emergency evacuation of patients will continue to be supported by the Infant Transport Team from BCCH.

Pediatric burn care will be provided on the Pediatric Unit if the child's care needs can adequately and appropriately be met outside the B.C. Children's Hospital Burn Unit environment.

Pediatric psychiatry tends to involve mostly older children (youth and adolescents) with emotional, non-life-threatening problems. If hospitalization is considered necessary, these cases will be admitted under adolescent services. More severe problems will be referred to adult psychiatric services.

Care of terminally ill children will be accommodated under pediatric services with special palliative care skills being brought in as needed.

Outpatient pediatric care will evolve around the concept of a consolidated Child Health Centre concept. Specialized services will be accommodated to provide primary and follow-up care and will, in some cases, provide alternatives to in-hospital care. Services anticipated for development on the FVHC/EFVCC site will include:

- Allergy and Immunology (including Asthma)
- Suspected Child Abuse/Neglect
- Cystic Fibrosis
- Developmental Assessment
- Eating Disorders
- Failure to Thrive
- Dietetic Counselling
- Surgical Follow-Up
- Visiting Pediatrician Consultations (including Cardiology, Diabetes, Genetics, Neurology, and Rheumatology)
- Home IV and Monitoring

The pediatric adolescent service will support 12-19 year old patients for medical, surgical and psychiatric services.

Ongoing oncology and ophthalmology pediatric outpatient care will also be provided at the FVHC/EFVCC site.

Outpatient pediatric rehabilitation medicine will continue to be provided by the Child Development Centre or Sunny Hill Health Centre for Children. Inpatient pediatric rehabilitation will be consolidated at CGH, and respite care is being considered as a community-based service.

Pediatric services as a whole will be developed in concert with Obstetrical services consistent with a program model of care known as a Maternal Child Program.

Surgery

The FVHC/EFVCC Surgical Program will continue to consist of General Surgery, Gynecology, Ophthalmology, Orthopedics, Otolaryngology, Plastics, Dentistry, Urology, and new programs in Vascular Surgery and Surgical Oncology will be added as will Thoracic Surgery over time.

The FVHR will continue to provide a full range of Surgical services to meet its community service roles on the FVHC/EFVCC, CGH and MMH sites. The FVHR will also continue to develop subspecialty expertise to meet each site's selected foci. Surgical procedures will continue to be performed on both an inpatient and outpatient basis; however, all sites will promote trends towards more outpatient surgery.

Subspecialty surgical divisions having a presence at more that one site include General Surgery, Gynecology, Ophthalmology, Orthopedics, Otolaryngology, Plastic Surgery and Urology.

Surgical subspecialties concentrated only at the FVHC/EFVCC site will include Vascular Surgery, Surgical Oncology and perhaps Thoracic Surgery.

Patients requiring close and constant observation in a high nurse to patient ratio environment will be accommodated in the expanded intensive care unit supporting patients requiring ventilator assistance, hemodynamic monitoring, infusion pumps, dialysis, etc.

Some post-surgical patients who may require monitoring and close observation, but do not require full ICU care (e.g., vascular patients, some orthopedic trauma and some elderly patients) will be accommodated in a surgical step down unit located in close proximity to the ICU/CCU and other telemetered beds.

Nursing & Patient Care Services

Patient care in the future will continue to focus on the individual needs of patients or residents and their families. Treatment programs will promote the patient's involvement in their own care; patients will play an active role in choosing treatment options and they will be encouraged to view themselves as being largely responsible for the outcome of the treatment they have chosen. Participation by the family in providing in-hospital and post-discharge care will also be promoted.

Planning will assume decentralization of care workers to care program sites to the extent practical.

To the greatest extent possible and without diminishing the focus described above, patient care will be organized according to a program structure. Under this model, representatives from different disciplines will combine their skills into a coordinated program designed to address the therapeutic and preventive needs of discrete patient populations. This will foster the development of specialization among nursing and allied health workers, but it will not preclude the generalist's role. Since program organization implies a physical consolidation of resources, planning will anticipate a trend towards decentralization of care workers in close proximity to the site of patient care as opposed to centralization in a "host" department.

The program model of health care will not be limited to programs conducted within acute care facilities only. It will be equally relevant to inpatient and outpatient services, and it will also provide support beyond a facility's walls either in the form of

follow-up care by staff based at an acute care site or through liaison with community-based workers.

Model of Care Beliefs/Values

The following are selected model of care beliefs and values of the FVHR Health Program Directors, which could have a facility planning impact:

- patient/resident/client centred
- family/significant other involvement
- care delivered in most appropriate setting by care teams
- care delivered within a program management structure
- care delivered in holistic manner

KEY CLINICAL SUPPORT SERVICE ROLES

The FVHR acute care hospitals will accommodate an array of physician-staffed services, which will be available to support the clinical service roles described above. The same clinical support disciplines will be maintained at all four hospitals, however, specialized services will be developed in response to the unique medical and surgical services based at each site.

Laboratory Medicine

A Regional Laboratory service will be provided from the FVHC/EFVCC site with rapid response laboratories serving the other three hospital sites. Services at the CGH, MMH and FCH sites will include a urgent, Category I clinical laboratory, including chemistry, hematology, blood bank, and immunology, whereas, microbiology services and anatomic pathology, including surgical pathology, cytology, histology will only be provided at FVHC/EFVCC.

The success of this consolidation will be ensured by the seamless LIMS (Laboratory Information Management System) currently in use.

Regional Laboratory services supporting the full range of the FVHR's health care programs and services will be provided in an integrated, competitive and customer-friendly fashion.

Within this context, the FVHC/EFVCC site will function as the regional laboratory for the FVHR with only Rapid Response Laboratories provided at the other three hospital sites. Selected volumes of testing currently being referred to the Provincial Laboratory or other labs (incl. Royal Columbian Hospital) will be repatriated to the FVHC/EFVCC lab and all processing of lab tests, including most oncology tests, on the FVHC/EFVCC site will be undertaken by the FVHC/EFVCC Laboratory Medicine Department. Some subspecialty testing for EFVCC will be sent off-site. It is envisioned that existing hospital-based specialties will be distributed as follows:

FVHC/EFVCC Site		**Other Hospital Sites**	
Clinical Pathology includes:		Rapid Response includes:	
Chemistry	Immunology	Chemistry	Immunology
Hematology	Microbiology	Hematology	Blood Bank
Blood Bank			
Anatomical Pathology includes:			
Surgical Pathology	Histology		
Cytology	Autopsy		

Outpatient and pre-admit specimen collection will be provided as part of those services, but administered by Laboratory Medicine.

Hospital-based laboratory services will continue to benefit from new technology which is creating smaller, faster machines and

robotics capable of performing more functions with fewer staff. In the longer term, it is assumed these features will promote decentralization of specimen processing closer to the sites of specimen procurement (point-of-care service). This tendency, however, will be governed by considerations for quality control and cost effectiveness. Specimen processing in the critical care areas, the Emergency Department, and in the vicinity of ambulatory clinics will not be anticipated at this time. Quick sections will continue to be provided at all sites in Surgical Suites.

FVHC/EFVCC Infection Control will be administered by Microbiology.

Full morgue and autopsy facilities will be maintained at CGH as well as FVHC/EFVCC.

Full morgue and autopsy facilities will be maintained at CGH but not at Mission or Hope. The FVHC/EFVCC facility will continue to perform forensic autopsies, which represent 60% of the workload.

Medical Imaging

Medical Imaging services will continue to be provided at all acute care sites, although the FVHC/EFVCC site will be the only site to offer echocardiography, magnetic resonance imaging (MRI) and nuclear medicine services. As a regional centre, it will also provide basic radiography, ultrasonography, computed tomography (CT) as well as angiography and interventional vascular studies.

Radiology services in the FVHR will continue to be provided at all acute care sites with less complex modalities also being offered through privately operated facilities (Valley Medical Imaging – VMI). Diagnostic and interventional procedures will continue to become more reliant on cross-sectional modalities, such as computed tomography (CT), and magnetic resonance imaging (MRI). Since these tend to be more costly technology, their development outside of an acute care hospital is not anticipated.

Planning assumes that general radiography, ultrasound, mammography and CT will be developed at CGH. At Mission, there will be no mammography or CT; and at Hope, there will only be general radiography. Development of MRI, nuclear medicine, echocardiography services, however, will be confined to the FVHC/EFVCC site.

Teleradiography services will be provided at all sites eventually.

Selected workload will be transferred from CGH (angiography) and from VMI (fluoroscopy). Mammography screening currently off-site will be provided on-site (SMBP preference) but not in Medical Imaging (e.g., in a “Wellness Centre”).

Cancer workload may require expansion of the CT program; expanded vascular program will require expansion of ultrasound and echocardiography.

The FVHC/EFVCC acute care site will be the only site to provide a full range of diagnostic and therapeutic nuclear medicine services.

Routine in-vitro procedures will also be performed at all sites but in-vitro radioimmunoassay procedures will only be provided by the FVHC/EFVCC Department of Nuclear Medicine.

A digital (filmless) medical imaging system utilizing a Picture Archiving Communication System (PACS) will be developed in the new facility. Future needs for a darkroom, a dry laser processor and for film storage will not be entirely eliminated, but processed film libraries will be substantially reduced over time, although planned for at this time.

Imaging outside of the Medical Imaging component will include the provision of fixed equipment in the Surgical Suite (urology O.R.) and possibly in the Emergency Trauma room, with mobile imaging elsewhere (i.e., medical day care).

It is assumed that pre- and post-procedure patient care/observation will continue to be provided in-component for all CT and angiography procedures.

Pharmacy

A Regional Pharmacy Service will promote and support safe drug therapy and will assume responsibility for achieving optimum drug treatment outcomes for patients and residents.

Within this regional context, pharmacy services will focus on enhancing care activities and expanding hospital and community-based clinical programs. The computerized drug distribution service will operate from the basis of a regional formulary. The Pharmacy Service will work in close liaison with BCCA in providing all pharmaceutical support to oncology inpatients, while the BCCA-managed pharmacy in the EFVCC will serve the needs of all cancer outpatients and will prepare all antineoplastics (oval and IV) for both inpatients, outpatients and some community patients.

It is assumed that selected workload will be transferred to FVHC/EFVCC from other centres including Central Intravenous Additive Program (CIVA) from CGH, the centralization of all re-packing, currently decentralized, and centralized purchasing.

Increased automation, which will facilitate the unit dose system, and expansion of CIVA services (e.g., to pediatrics and NICU) is also planned. Options for the provision of a retail pharmacy in conjunction with outpatient pharmacy satellite is also under consideration.

EDUCATION SERVICE ROLES

The FVHC/EFVCC will respond to the varied educational needs of residents, students and all health care workers. The FVHR works in partnership with physicians and medical training programs to facilitate ongoing learning through grand rounds, library resources, residency programs, and other learning opportunities. Clinical education for caregivers and health-related professionals will be coordinated primarily through Patient Care Services whereas non-clinical and other education needs, related to the overall functioning of the facility, will be coordinated primarily through Education Services.

Health care professionals are committed to maintaining a level of competence to meet the challenges of continual health care advancement and to provide quality client-centred care. Decentralized educators within Patient Care Services, in cooperation with the staff and management, ensure the clinical educational needs are met through orientation, skill development, skill certification, and ongoing continuing education.

Educational practicums are also coordinated for patient care students to allow the essential practical experience required to become competent skilled professionals.

All health care professionals have a responsibility in the provision of client education to focus on the needs as identified by the client and their families. This obligation will be supported by a wide range of programs and services accessible within the FVHR.

Educational functions will be supported by ancillary services in the preparation of course content and materials, advertising course offerings, coordinating registration and course locations, and evaluation courses. Support services will include:

- health sciences library
- audio-visual equipment loan, repair, and maintenance
- centralized room booking

Opportunities to consolidate educational services within the Region will be investigated, however, planning assumes that each of the functions described above will be present at all acute care sites.

RESEARCH SERVICE ROLES

The health-related professions provide a wealth of opportunity for clinical research. Strong beliefs in the advancement of knowledge, aspirations to continually improve care practices, outcomes and overall health standards, and ready access to patients and comprehensive data bases promote support for the following types of research projects:

- epidemioloigical/statistical studies analyzing the incidence of health problems and patient population characteristics

- program/outcome evaluation
- clinical trials testing new procedures or innovative programs

The Region's four acute care sites will continue to support research of the types described above. Protocols developed and conducted by staff will be accommodated on-site as will collaborative, multi-centre studies. Coordinating centres for the latter will typically not be based at any acute care site. It is envisioned that hospital-based clinical research will generally be accommodated within the clinical service area normally provided in support of patient care. Additional dedicated research space is generally not anticipated.

A role in applied basic or wet bench research is also not anticipated.

SCOPE OF CLINICAL SERVICES

Ambulatory & Day Care Services

The description below outlines the scope of ambulatory care activity envisioned at the FVHC/EFVCC site. For more detail on this subject, please refer to Appendix E - Ambulatory Care Services Profile.

The evolution of ambulatory care at the FVHC/EFVCC site will generally follow principles of:

- providing an environment that insures patient safety superior to that achievable in a private practice office or community-based location
- providing special resources (facilities, equipment/supplies, or staff) not realistically available in private practice offices or in community health services
- providing direct patient care support to inpatient care programs at either hospital site
- providing services more economically than is achievable in a community-based location

The FVHR will greatly expand its role in ambulatory care by offering a comprehensive array of outpatient, community and social services corresponding to care programs and to the specific clinical foci of each acute care site as described below:

- Wellness Centre

  The FVHR will initiate a multidisciplinary, integrated Wellness Centre that includes, among other services, a Risk Reduction Program (RRP) for the assessment and treatment of individuals who are at risk of developing or currently have clinical manifestations of cardiovascular disease, or other chronic disorders such as pulmonary

and metabolic disorders, cancers, arthritis, and those at risk for osteoporosis, and who would benefit from behaviour alteration. The EFVCC may participate in this Centre through a range of programs, including Quality of Life Program, Patient/Family Counselling, Nutrition Counselling, Complimentary Therapies, Hereditary Program, Community-Based Epidemiology, Education on Prevention and other education programs.

This program will also facilitate the coordination of all health promotion/disease prevention programs offered by the FVHR and will include existing programs offered by the Region, such as the Stroke Prevention Program which has an education and research component, but which currently lacks the exercise component.

This program will conduct research in preventive medicine utilizing the risk reduction model, integrating this research with community programs. It will also include a financially self-sustaining employee wellness program that will serve as a model for other employers in the Region and the Province.

In order to provide RRP services to both outpatients and inpatients, the program will be physically located at the FVHC/EFVCC site.

- Surgical Day Care/Same Day Admit

  The FVHC/EFVCC will continue to provide surgical services to outpatients undergoing selected surgical procedures and to administer a same day of surgery admission program. Surgical Day Care will apply to procedures requiring general and selected local anesthetics. In order to provide for surgical day patient preparation and pre-operative and post-operative holding, it is estimated that the total scope of on-site activity will require 24-26 day bed or recliner chair positions at the FVHC/EFVCC site accommodating 9,100 cases per year. In addition, it is estimated the Same Day Admit program will require access to 16-20 chairs/recliner chair positions for pre-op holding.

  The projected scope of outpatient surgery is exclusive of endoscopic procedures and other minor surgical procedures as these are assumed to evolve as part of a medical day care program described below.

- General Day Care

  The General Day Care activities which currently occur at the hospital will be expanded to provide services to

ambulatory patients undergoing medical or selected minor surgical diagnostic or treatment procedures and requiring the use of a day bed or recliner chair before, during or after such procedures, but not requiring use of an operating room in the Surgical Suite or general anesthetic. Cancer outpatient requirements (e.g., insertion of lines, bronchoscopies) will also be served here. Examples of procedures which will utilize the resources of this program include:

- transfusions and IV therapy (antibiotic and drug)
- endoscopies (including bronchoscopies, gastroscopies, sigmoidoscopies, colonoscopies)
- cystoscopies
- needle biopsies
- endocrine studies, etc.
- anesthetic blocks
- ERCPs
- ophthalmological procedures

The scope of this program is estimated as requiring 6-10 day bed or recliner chair positions at the FVHC/EFVCC site.

Minor surgical procedures will not require general anesthetics, but may involve local anesthetics or sedation and will include such procedures as biopsies, vasectomies, excision of tumours, repair of lacerations or lesions, etc.

- Psychiatric Outpatient/Day Hospital Service

  The FVHR will further develop its psychiatric outpatient/day hospital service in order to promote better continuity of care between in-hospital programs and community or home care programs at the FVHC/EFVCC and CGH sites. In the future, it is envisioned that psychiatric services at both acute care sites will continue to be staffed by community-based psychiatrists. These psychiatrists will spend a considerable portion of their time in ambulatory-related activities.

  Outpatient psychiatric services will include:

  - psychotherapy service
  - special problem-oriented clinics (e.g., affective disorders, sexual dysfunction, etc.)
  - geriatric assessment and outpatient service
  - eating disorders program

  In addition to these clinic forms of service, the Department of Psychiatry will also provide a psychiatric

emergency assessment service for Emergency Department walk-in patients. A psychiatric consultation/liaison service to all other clinical departments of the acute care hospitals will also be provided.

The scope of this program is estimated to include ___ annual outpatient visits and ___ day hospital places at FVHC/EFVCC.

- General Ambulatory Clinics/Programs

  Planning assumes the development of prototypical and flexible ambulatory care facilities at the FVHC/EFVCC site. Consultative, examination and procedure rooms will be capable of accommodating a variety of disciplines without mitigating the potential to develop dedicated space for key programs and services. Those programs/services which will be accommodated in flexible, multi-use facilities include:

  - selected divisions of Medicine
  - selected divisions of Surgery
  - Pediatrics (see Maternal Child Program)
  - Psychiatry (see Mental Health/Psychiatry Program)
  - Psychology (see MH/Psych Program)
  - home TPN
  - Obstetrics & Gynecology (see Maternal Child Program)

  In addition to those programs outlined above, the following programs/services will be configured in dedicated ambulatory care accommodations at the hospital site unless otherwise noted:

  - cardiac diagnostic services (see Cardiopulmonary Neurodiagnostic Services)
  - respirology services, including pulmonary function lab (see Cardiopulmonary/ Neurodiagnostic Services)
  - G.I. investigation/endoscopy services (see General Day Care)
  - nephrology services including hemodialysis, C.A.P.D., I.P.D. (see Renal Dialysis Unit)
  - neurologic diagnostic services (see Cardiopulmonary Neurodiagnostic Services)
  - metabolic and diabetes education (see Wellness Centre)
  - orthopedic services (cast room)
  - obstetric/gynecology services (women's health) (see Maternal Child Program)

- anaesthetic services (Pre-Admission Clinic) (see Health Information Management)
- nutritional counselling (see Wellness Centre)
- enterostomal therapy

- Multi-Cultural Services

  Planning assumes the enhancement of a culturally sensitive focus at all sites, which will impact on food services, family services and spiritual services planning and improved language/interpretation services. The complete range of services to be provided will be developed further during the facility programming phase of the project.

- Rehabilitation Services

  Some outpatient Rehabilitation Services (including PT/OT/ Speech) will continue to be provided to a variety of patients in recovery from medical or surgical operations/trauma (e.g., acute surgical orthopedics, neurological, cancer patients and frail elderly). Assumptions supporting the provision of rehab services at FVHC/EFVCC include the continued provision of the following programs:

  - Amputations
  - M.S.
  - Parkinsons
  - Strokes
  - Arthritis

- Other Ambulatory Diagnostic and Treatment Services

  The following diagnostic and treatment or clinical support services also accommodate ambulatory patients (inpatients or outpatients) at selected hospital sites:

  - Social Work
  - Medical Imaging (including General Radiography, Ultrasonography, CT, MRI, Nuclear Medicine)
  - Laboratory Medicine
  - Pharmacy

Emergency Services

The following figures illustrate the means of estimating future emergency workloads for the FVHC/EFVCC site.

Historical statistics for all four emergency departments, appearing in Figure 4 below, consistently show more than 70% of all emergency visits being accommodated by the MSAGH and CGH sites, with the MMH and FC sites accounting for less than 30% of the total visits.

FIGURE 4: HISTORICAL EMERGENCY WORKLOADS BY HOSPITAL SITE

	Emergency Visits					
	1997/98		1998/99		1999/00	
Hospital Site	#	%	#	%	#	%
MSA General Hospital	42,222	40.8	43,641	39.1	41,780	40.0
Chilliwack General Hospital	34,680	33.4	35,395	31.7	34,375	32.9
Mission Memorial Hospital	21,103	20.3	25,854	23.2	21,852	21.0
Fraser Canyon Hospital	5,705	5.5	6,602	6.0	6,329	6.1
Totals	103,710	100.0	111,492	100.0	104,336	100.0

Populations for LHA 34 Abbotsford and for the FVHR during the same two periods appearing in Figure 4 and the population projected to the planning horizon are illustrated in Figure 5 below.

FIGURE 5: HISTORICAL POPULATIONS AND EMERGENCY SERVICES UTILIZATION FOR LHA 34 AND THE FVHR

	1998/99		1999/00		2015/16		
Population Base	Population	Emergency Utilization/1,000 Population	Population	Emergency Utilization/1,000 Population	Population	Emergency Utilization/1,000 Population	Projected Emergency Visits
LHA 34	114,859	970.7	116,176	898.6	152,019	895.0	136,057
FVHR (incl. LHA 34)	240,144	464.3	243,175	429.1	327,187	425.0	139,054
Assuming a self-sufficiency factor of 80%, the number of total Regional annual visits used for planning purposes:							**147,000**

The projection of emergency visits reflects the following assumption:

- Development of Figure 5 assumed that the reduction in utilization rates will bottom-out, but measures to reduce non-urgent visits to Emergency will continue with a net result in a small reduction in utilization rates projected in the future.

The following Figure 6 presents a model of 1999/00 emergency workloads and projected workloads distributed by site as at the planning horizon.

FIGURE 6: HISTORICAL AND PROJECTED EMERGENCY WORKLOADS FOR EACH HOSPITAL

Hospital Site	1999/00 #	1999/00 %	2015/16 #	2015/16 %
MSA General Hospital	41,780	40.0	58,800	40.0
Chilliwack General Hospital	34,375	32.9	48,500	33.0
Mission Memorial Hospital	21,852	21.0	32,400	22.0
Fraser Canyon Hospital	6,329	6.1	7,300	5.0
Total	104,336	100.0	147,000	100.0

Planning for emergency services at the FVHC/EFVCC site will be based on supporting a total of 60,000 visits annually.

Inpatient Services

The FVHR's hospital-based services and programs will be programmed to support the bed numbers and case capacities for the FVHC/EFVCC site illustrated in Figure 7 below. The projected numbers of patient days and discharges were derived from the number, occupancy rate, and average length of stay for each bed type. A detailed accounting of existing beds by site, department, and/or division appears as Appendix F.

An enhanced focus on a continuum of care for all inpatients will be initiated; including expansion of inter-disciplinary counselling/ assessment, discharge planning and family involvement.

FIGURE 7: FVHC/EFVCC SITE INPATIENT BED DISTRIBUTION AND FUTURE CASE CAPACITIES

	Existing (2000)	Future (2005)					Future (2015)				
Type	Beds	Beds	% Occ.	Pt. Days	ALOS	Cases	Beds	% Occ.	Pt. Days	ALOS	Cases
General Purpose Units											
Medical	88	132	90	45,988	7.5	7,358	142	90	49,275	7.5	7,884
Surgical	38		90		5.0			90		5.0	
Telemetry	-	14	90	4,599	3.0	1,150	16	90	5,256	3.0	1,752
Oncology	-	5	90	1,642	6.0	274	10	90	3,285	6.0	547
Subtotal, General Purpose Units	126	151		52,229		8,782	168		57,816		10,183
Special Purpose Units											
Obstetric, Ante/Postpartum	21	28 [1]	85	7,446	2.5	2,978	32 [1]	85	9,198	2.5	3,679
Pediatric	18	20	85	6,205	2.5	2,482	20	85	6,205	2.5	2,482
Psychiatric	20	29	90	9,527	9.5	1,003	36	90	11,826	9.5	1,245
Intensive/Coronary Care	10	13	85	4,033	3.5	1,152	18	85	5,595	3.5	1,599
Surgical Step Down	4	6	85	1,862	2.5	745	6	85	1,862	2.5	745
Palliative	-	7	90	2,299	8.0	287	10	90	3,285	8.0	411
Subtotal, Special Purpose Units	73	103		31,372		8,647	122		37,971		10,161
Total Beds	199	254		83,601		17,429	290		95,787		20,344
Neonatal Care	Bassinets	Bassinets									
Special Care	5	7	80	2,044	8.0	256	10	80	2,920	6.0	487
Total, Neonatal Care	5	7	80	2,044	8.0	256	10	80	2,920	6.0	487
TOTAL	**204**	**261**		**85,645**		**17,685**	**300**		**98,707**		**20,831**

Notes:
1 Includes ante/postpartum and LDRP beds.

Cancer Care Services

The new regional cancer centre on the site of the replacement MSA General Hospital will be planned to support the following workload volumes.

	2000	2005	Projected 2015/16
Cancer Frequency			
Area 1 [1]	5,008	5,545	7,002
Area 2 [2]	4,489	5,303	7,358
Northern Region [3]	802	963	1,340
Total	10,299	11,811	15,700
EFVCC Outpatients			
New Patient Appointments	0	1,200	2,800
Follow-Up Visits	0	7,200	16,800
Medical Oncology			
Chemo Treatment New Courses	0	200	480
Chemo Visits	0	2,800	6,400
Radiation Oncology/Therapy			
Cancer Cases for Lower Mainland	0	11,811	15,700
Treatments/Visits EFVCC	0	2,000	1636
Fractions Required	0	18	22
Fractions EFVCC [4]	0	36,000	36,000

Notes:
1 Area 1 includes Vancouver, Burnaby, Richmond, North Shore, Coast Garibaldi.
2 Area 2 includes Fraser Valley, South Fraser, Simon Fraser Health Regions.
3 Northern Regions includes Peace-Laird, Northern Interior and Northwest Interior.
4 Based on 9,000 fractions per machine per year for 10 hours per day, 5 days a week.

OPERATIONAL PARAMETERS

OPERATIONAL PARAMETERS

KEY FACILITY-WIDE OPERATING SYSTEMS & SUPPORT SERVICES

To ensure that operating systems information receives the broad exposure it requires, this section of the document consolidates narratives describing the FVHR's role in the movement of patients, visitors, staff, specimens, consumable materials, equipment, and information and the proposed methods for doing so. Factors having a direct bearing on operations at the FVHC/EFVCC site are also described.

Note: Although final decisions regarding many of the models proposed below may require further review (in the form of a cost-benefit analysis), the following descriptions assume a combination of centralized and decentralized functions, which will be used for planning purposes. In some cases, assumptions regarding proposed locations of the centralized services are made, but the potential for development on one of the acute care sites or in a remote, freestanding facility is acknowledged pending further analyses.

Biomedical Engineering Services

Biomedical Engineering services will have a physical presence at all acute care sites, however, the FVHC/EFVCC site is the proposed location for service administration and for an enhanced technical workshop capable of providing regional services.

Biomedical Engineering services will support the acquisition, repair, and routine maintenance of medical devices used in the delivery of patient care. Development and evaluation of new and/or experimental equipment will also be performed. Although some electrical equipment will also be serviced by plant maintenance personnel, clinical engineers will typically focus their work on equipment that is used for the diagnosis, monitoring and treatment of patients.

It is assumed that Biomedical Engineering will also provide a total service to the Cancer Centre excluding major radiation therapy equipment, which will be maintained by Clinical Physics staff.

The range of clinical engineering services described above will be provided to all facilities under the Region's jurisdiction (including home care services). On-site work will require periodic travel by clinical engineers making this mode of service delivery especially appropriate for scheduled preventative maintenance programs. Urgent responses to unanticipated equipment failures will be addressed through special visits and/or an equipment loaner service.

Due to extensive reliance on electronic technology in the provision of acute care, planning assumes that basic engineering workshop space will be established at each acute care site. Furthermore, it is assumed that one enhanced, full-service technical workshop capable of providing the regional services described above (excluding maintenance of a loaner equipment inventory which will remain located, as currently, at Mission) will be established. The FVHC/EFVCC site will experience a greater concentration of technology-intensive disciplines (e.g., vascular surgery and MRI) making this the preferred site for a full-service workshop as well as the administrative base for the Region's clinical engineers.

As a consequence of the expansion and volume of technical resources, more in-service staff education and demonstration activities will also be provided.

Planning assumes that biomedical engineering will not service imaging and lab equipment (vendor-support serviced) or become involved with servicing the Region's information systems. Difficulties in distinguishing between hardware and software problems warrant leaving this function under a single authority and preferably under the Region's Health Information Management service.

Health Information Management

Health Records Procurement/Management

The ability to universally access and share patient-related information among authorized users of this information throughout the FVHR is a major development priority. This concept will promote the use of the 'virtual health record' which is defined as a *digitally stored, computer accessible collection of health information about one person linked by a person identifier*. This will enable each patient/client to be tracked and his/her history retrieved regardless of where they enter the system. With an integrated and ubiquitous information system, patient/client information can be linked rapidly to medical treatment protocols.

The information available would include:

- Demographic data
- Personal health data
- Visit history
- Medication profiles
- Diagnostic test results
- Diagnostic images
- Assessment data
- Clinical notes/consultation
- Physician notes
- Nursing/care documentation
- Immunization records

Admitting functions for outpatients will be decentralized. Inpatient admitting will continue to be centralized. The assignment of unique patient identifiers will be consolidated at the FVHC/EFVCC site and will capture "core" data on all patients entering any part of the FVHR system.

Admitting/Registration

Admitting/registration services at all acute care sites will continue to function as the initial point for core data collection on most acute patients entering the Region's health care system. The FVHC/EFVCC site, however, will assume an added role as the Region's coordinating centre for assignment of patient identification due, in part, to the breadth of care services offered. Cancer patients will be admitted separately by BCCA.

Use of a single patient identification system throughout the FVHR does not imply a single patient record, although a single record which follows a patient to any acute care site is conceivable. The model being proposed is a means of accessing patient information only and planning assumes that each FVHR facility will either create records suited to their own needs or will "borrow" existing records and update the contents as necessary.

Patient booking will be decentralized within each acute care site and potentially to each department, but with access to a common database.

Strong communication linkages will continue to develop between admitting services and the various booking functions at each acute care site. The surgical suites, ambulatory clinics, day programs, and the various clinical support services will continue to manage their own scheduling, but access to a common data base will enable coordination of services during a single visit.

Health Records departments will be provided at all acute care sites and each will include transcription services.

The ability to share and access patient information will promote the integration of inpatient, outpatient, and emergency patient records under a single system. This will not preclude decentralized holding of active records (e.g., in the vicinity of the ambulatory clinics), however, all records will be managed according to a common set of standards and update practices. Furthermore, all records generated in respect of services provided under the auspices of the FVHR will be considered the Region's records. Individual physicians providing services on behalf of the FVHR may keep extracts for their own records; however, these will be optional and will not replace any part of the Region's records. Partially centralized transcription services will be provided at all sites initially, but this service will likely be phased out as the “virtual record” goes on-line and voice recognition computer systems are fully operational, allowing for off-site (including home-based) transcription, abstraction, dictation and data analysis.

Partially centralized transcription (if required) will be provided at all sites initially, but eventually will be totally off-site.

Records of patients being actively followed will be held within each service area enabling ready access by medical and other authorized personnel. Once a patient is no longer active in a service, his/her record will be deemed inactive and will be returned to the custody of Health Record services for retention and then retrieved when necessary.

The long-term retention of inactive health records will continue to be accommodated off-site, but will remain under the authority of each hospital's Department of Health Records.

Planning assumes that the long-term retention of inactive records will be continue to be centralized within the Region and accommodated off-site. Inactive records will remain under the control of the appropriate acute care site; however, sharing of records between sites is anticipated. It is assumed that, in the longer term, some or all of inactive records will be electronically scanned and stored on disk.

Management of services to patients and their escorts on the acute care sites will promote a concept of "one stop shopping" providing a patient-focusses, seamless transition through the

various service points of the Hospital. Facilities and services having natural public affinities or that are routinely accessed by patients will be consolidated as much as practically possible. Physically grouping services such as admitting with reception/general information, patient locater service, and patient accounting will enable rapid processing of an encounter. Furthermore, these encounters will be self-initiated as opposed to being directed by a hospital's escort service.

At all acute care sites, first visits to an outpatient clinic or for outpatient diagnostic procedures will require patients to proceed to their destination via Admitting services. Subsequent visits for treatment and/or assessment of the same condition will not require a stop-off in Admitting before proceeding to their destination.

A Pre-Admit Clinic will provide reception, pre-operative patient assessment/care and patient education in support of the Same Day Admit Program.

Pre-Admit Clinic

A Pre-Admit Clinic will accommodate the reception, pre-operative patient assessment/care/educational and office/consultation space associated with medical/general and surgical day procedures. The main objective of providing these services is to transfer a number of inpatient functions to the outpatient setting, thus streamlining the admission process for both patients and hospital staff, reducing the pre- and post-operative in-hospital length of stay, and minimizing last minute cancellation of surgical procedures.

Switchboard/Call Centre

Switchboard services will be expanded to become a regional call centre located with regional administration, potentially off-site. BCCA switchboard services may be separate, but opportunities for integration will be considered. Reception services, currently operated by admitting, will be provided by volunteers or others in the future.

Health Information Systems

Each site will include a centralized facility to accommodate the communications technology as well as personnel assigned to each site for user support services.

The model on which the FVHR will develop its health information systems assumes a centralized core of patient information. Other user applications will be fully integrated with this core; however, different applications and the core will be allowed to develop independently of one another (subject to integration capabilities).

Decentralized access to the patient-based core is assumed with the Region promoting "access at point of service" among all of its facilities.

Detailed plans for the future organization and operation of the Region's Health Information Management department will evolve

through subsequent planning work. Master programming for the FVHC/EFVCC site, however, will be guided by the following assumptions:

- Information technology for the Region will operate within the provincial health architecture framework and has been developed in order to maximize the use of multi-media communications systems focussed on voice/data/video imaging.

- Locations for facility management will be dependent on the specific applications and influenced by a number of factors, including need for security provisions, number and size of servers, etc. It is assumed, however, that both remote and on-site facility management will be utilized.

Each site will accommodate decentralized computer workstations throughout user departments supported by a centralized server centre.

- Hardware and workstations supporting a variety of user applications will be accommodated locally (i.e., within user departments at all acute care sites), but the communications technology allowing integration with the core and with other sites will be centralized at each site.

A sample of applications that are of greatest significance to functional programming include:

- remote access to a networked, secure system by physicians and other community agencies;

- extending the network within and beyond the walls of FVHC/EFVCC will allow for telehealth/medicine, video conferencing, teleradiology (i.e., exchange of grand rounds information, exchange of electronic imaging);

- an electronic patient record will evolve with the creation of an off-site data repository; with the use of SMART cards and/or other menus, patient information can be consolidated across multiple provider organizations;

- a mainly copper and fibre optic landline based WAN strategy moving to wireless and portable communication devices allowing flexibility as to place of work (70 to 80% of communications traffic will be wireless);

- 'point-of-care' technology using wireless technology which will allow clinicians to document workload and patient charts electronically;

- educational resources found internally and externally will be accessible (i.e., CD banks); and

- others.

Training of FVHC information systems personnel and staff at any of the Region's facilities will be based at the major sites (i.e., FVHC, CGH, MMH, FCH). General information systems administration will be centralized at the FVHC/EFVCC site. User support for individual workstations and applications, including the personnel responsible for providing this support, will be decentralized to various sites.

Planning will continue to be based on the generation, movement and retention of paper documents.

Although technology will support conversion to electronic records and data management eventually, planning will anticipate the continued generation, movement, and retention of paper documents.

Space for equipment storage and a staging area to prepare and load workstations scheduled for deplacement is also required. This function will be centrally located at the FVHC/EFVCC site.

Telecommunications

The Fraser Valley Health Region is currently being served by a state-of-the-art telecommunications system provided by NEC Canada. The two main components of this system are the NEAX PABX, a voice/data/video switch and an integrated voice processing system, plus a 'virtual private network' allowing local-to-local calling via a 4-digit coordinated dialling plan connecting all sites. The availability of this system has or will allow the following enhancements:

- Nurse Call System - Integrated.
- Wireless - (including wireless handsets in Nursing Units as part of the Nurse Call upgrade), leading ultimately to connectivity between Nurse Call, Wireless telephone, Meditech, patient, doctor and nurse.
- Aimworks - a comprehensive Telemanagement System consisting of several modules allowing for ranging levels of self-management of the telecommunications infrastructure.
- Voice Processing - including features of the voicemail server expanded to provide enhanced voice processing, IVR and unified messaging.
- Call Centre - allowing FVHR to configure any of its sites to function as a Call Centre on a dynamic basis.
- Med Help - including a suite of communications oriented applications, e.g., Physicians Office Network (P.O.N.), Patient Phone Services, Telemedicine and Video Conferencing (including desktop televideo-conferencing).

Laundry/Housekeeping Services

The regional Laundry will continue to operate remotely from the FVHC/EFVCC site.

The CGH-based regional laundry will require upgrading which must coincide with the opening of the replacement FVHC/EFVCC facility.

Laundry

The FVHR will continue to provide regional laundry services out of centralized facilities and immediate-term planning assumes continued reliance on the existing facility located at Chilliwack General Hospital. Centralized services will evolve according to a total linen management concept consisting of:

- general administration
- soiled and clean linen handling to user facilities
- soiled linen processing
- pack making (including surgical and obstetrical packs)
- standard and custom cart stocking
- uniform service (including purchasing and tailoring)
- inventory monitoring and control

Major objectives of this centrally administered service is to maximize the use of circulating stocks, control loss, minimize requirements for linen inventories at each site, and reduce the amount of handling as linen and linen bundles pass from point of processing to point of use.

Decentralization of linen management to all acute care sites will require the presence of Laundry personnel who will be responsible for the handling of clean and soiled linen and uniforms, but with distribution provided by Materiel Services.

Users of the centralized laundry will continue to include all acute care hospital sites as well as several long-term care facilities in the Region. As well, facilities outside of the Region may be provided service by the regional laundry in the future. The control of linen at each of these locations will become a decentralized extension of the central service and will include:

- linen bulk and exchange (quota) cart distribution
- soiled linen collection from containment areas associated with a linen chute (excludes the initial collection and consolidation of soiled linen which will be conducted by Housekeeping personnel)
- restocking and monitoring decentralized inventories
- uniform distribution and collection

The transportation of linen between user facilities and the central processing site will be by regularly scheduled truck deliveries. Linen delivery to point of use will be conducted by Regional Laundry personnel using exchange carts.

Housekeeping

Housekeeping will continue to be a regionally managed service with satellite operations at all acute care sites fro the purposes of maintaining a clean and sanitary internal Hospital environment; ensuring healthful environment; and reserving the capital investment in physical facilities, by regularly scheduled cleaning.

Key functions of this service includes:

- administrative activities relating to FVHC/EFVCC housekeeping services management, staffing and record keeping
- training for housekeeping staff at FVHC/EFVCC
- centralized storage for major housekeeping equipment for both the acute hospital and cancer facilities
- storage of approximately 1 week's supplies from which housekeeping staff will top up aide carts
- general cleaning of interior building surfaces, including interior window surfaces
- cleaning of operating rooms, and LDRP's between procedures, and nightly storage, recharging and cleaning of housekeeping equipment in Surgical Suite and Maternity Unit
- cleaning patient rooms, and stripping and making all beds at time of patient discharge or transfer; decontamination of beds
- washing of general purpose moveable equipment (e.g., I.V. poles, wheelchairs, stretchers, carts)
- collection of garbage and transfer to garbage chutes
- collection of soiled linen and transfer to linen chutes
- minor furniture rearranging, conference room set-ups

Housekeeping closets, each servicing approximately 700 m^2 will be distributed throughout the new buildings, providing space for day-to-day housekeeping supplies. Housekeeping closets will also provide for storage of basic housekeeping equipment (i.e., aide cart, with wheeled bucket/mop; floor sink; vacuum cleaner; floor polisher; brooms, etc.).

Housekeeping staff will separate soiled linen and garbage at use areas (at garbage/linen chute or point-of use with-pick-up by MM staff).

Materiel Services

General administrative services, including purchasing, supporting Materiel Services, transportation services and a single stores inventory location will be consolidated at an off-site warehouse.

The FVHR's materiel services will be built upon a concept of centralization designed to eliminate the duplication of functions, which are common to many facilities. The scope of services described below will be centrally administered and will support the acquisition and distribution of materials for all facilities under the Region's jurisdiction. Inherent in the concept of centralized administration is communications technology enabling the integration of materials handling and financial systems.

Medical, nursing, allied health and technical personnel at the various sites will have input to purchasing decisions, however, requisition processing, tendering and contract administration will be carried out by Materiel Services staff.

Management of consumable supplies inventory will rely on the development of an off-site central warehouse for the Region and

satellite stores at each site. The satellite stores support on-site needs such as:

- cart staging area
- safety stock items
- disaster stock items
- fresh (daily) food supplies
- capital equipment receiving

A top-up (or par level) system of supplies delivery to clean supply holding areas will be utilized at all acute care sites.

Inventories of consumable supplies required by nursing units and departments in their day-to-day operations will generally be maintained close to point-of-use according to a "par level" system. Daily requisitions will be filled from the Central off-site warehouse and trucked to each site.

The linen system will be maintained by Laundry personnel, but distribution of linens will be handled by Materiel Services staff using an exchange cart system (see Laundry Services description above).

FVHR printing service will be contracted out.

The FVHR printing service will be contracted out. Word processing and medical transcription will not be provided centrally as planning assumes that clerical personnel at each site will continue to produce general correspondence, reports for patients' records, and other confidential documents.

Materiel Services will distribute all materials, food, equipment, linen and patients throughout the acute care facilities.

Materials management services will assume responsibility for the distribution of all materials food, equipment, linen and patients throughout the acute care and facilities, although out of necessity, this will be a decentralized service to each site. A messenger/portering system established at each site will rely on a pool of staff porters to move supplies (including top-up and exchange carts), equipment, and patients between on-site destinations. Training given to all porters will enable responsibility for most intra-facility transports with the exception of patients in critical condition. These patients will be transported by nursing personnel and porters. A pneumatic tube system will be used to reduce demand on porters.

Central Processing will continue to be provided at all acute care sites.

Because of the difficulties and costs inherent in maintaining a sterile environment, planning anticipates continued decentralization of Central Processing to each of the acute care sites. This will also include the retention of ETO sterilization and the provision of pass-thru washers possibly with conveyer belts.

Active centralized equipment stores will be managed by MS.

Active equipment storage for items used intermittently (including stand-by equipment) by a variety of users will be managed by Materiel Services.

The long-term retention of inactive records will be maintained in Burnaby.

The scope of services included under the FVHR's centralized materials management service will include archival storage and retrieval. Traditional users of this type of service (Administration,

Health Records, Medical Imaging, and Laboratory) will have access to a central inactive stores area and will administer policies governing retention of items held there.

A central dead stores area will be established off-site for the long-term retention of various pieces of equipment and furniture.

Also included at FVHR's centralized materials service will be a central dead stores area for the long-term retention of records and equipment furniture items.

Nutrition & Food Services

Each FVHR acute care hospital site will continue to operate a separate Nutrition & Food Service Department providing for the production of food utilizing conventional production kitchens, plus cafeteria and catering services.

The system at the FVHC/EFVCC site will be sized to continue to provide a bulk meal service to the Worthington and Cottage (ECU's) Pavilion residents located on the existing MSA General Hospital site.

The provision of patient, staff and visitor meal services in the FVHR will be based on the concept of decentralized food production facilities at each of the acute sites and a number of the residential care sites. Planning assumes the following functions to be conducted at each hospital site:

- product breakout, assembly and ingredient control
- processing to include a mix of outsourced products as well as those prepared on-site
- limited processing of specialty and therapeutic food requirements utilizing conventional technology
- meal tray assembly
- bulk food assembly to serve dining room service/buffet service on selected patient care units, selected residential facility sites and revenue/catering operations
- assembling meals for transportation (incl. Meals-on-Wheels and take home meals for patients/adult day care clients, etc.)
- warewashing
- delivering meal trays to and from the patients' bedside or dining area
- short order preparation in revenue and catering operations
- catering to functions held on-site
- restocking decentralized kitchenettes
- maintaining inventories of perishable food items used by food services

Planning assumes the following functions to be conducted centrally from the regional offices:

- purchasing and utilizing an electronic order/inventory system with most contracts to be tendered by the Fraser Valley Materiel Services Alliance
- four-week core menu planning
- vending contracting

A computerized management information system (MSM) will be used for menu processing, production, cafeteria/catering and nutritional assessments. Data files will be created for patient nutritional care plans and monitoring of outcomes, as well as menus, recipes, inventory items and menu costing. Nutritional

analysis capabilities will also be available. This system will be integrated with the region's Meditech IS platform.

Transportation of processed food from FVHC/EFVCC to other regional facilities will be centrally coordinated and operated under the auspices of the FVHR Materiel Services. One exception to this will be the Meals-on-Wheels program, which will continue to be coordinated by Home Care services using volunteers for home deliveries.

Inpatient and outpatient dietetic counselling services will be provided at the FVHC/EFVCC site. Both individual and group nutrition education will be provided to patients, clients and their families. Services provided by inpatient dietitians will form an integral part of the inpatient care. The dietitians' offices will be decentralized to locations in close proximity of the services/programs to which they provide therapeutic nutrition services. Dietitians will provide post discharge follow-up to their clients.

Pharmacy

The production of unit dose packaging and dispensing, special medication compounding, narcotic control, as well as inventory control will be provided at the FVHC/EFVCC site. Sterile manufacturing will continue to be provided at each site. Automated medication cabinets (e.g., Pyxis) will be provided at point-of-service as required.

Medication needs of acute, rehabilitation patients and long-term care residents will be accommodated under a Region-wide system. Components of this system will be both centralized and decentralized based on current trends of physically separating the roles of clinical pharmacists from the "production technology" of pharmacy operations.

The model proposed for the Region will include a central drug preparation and distribution centre at the FVHC/EFVCC site with pharmacy satellites being decentralized for the other acute care sites.

Centralized functions will include purchasing, manufacturing/ compounding, packaging, unit dose picking, and inventory management. Decentralized functions will consist of provision of STAT medications, sterile manufacturing, special compounding narcotics, interim doses as well as some wardstock medications and clinical pharmacy consultations on the use and potential side effects of medications. Consultative services will be available to patients as well as medical and nursing staff. Dispensing to outpatients and emergency patients will be decentralized to each of the acute care sites.

Decentralized drug inventories and medication preparation will not be anticipated with the exception of STAT medications, special medication compounding, interim doses and some wardstock medications, the outpatient pharmacies and the FVHC/EFVCC's pharmacy.

Due to the unique nature of products and services required by cancer patients, the BCCA-managed pharmacy in the EFVCC will accommodate drug inventory maintenance, clinical pharmacy

consultations, central chemotherapeutics preparation for inpatients, outpatients and some community patients.

Dispensing of medications will generally be conducted using automated medication cabinets (e.g., Pyxis) for inpatients and long-term care residents (scope to be determined). Planning assumes that unit doses will be delivered to each site by the Region's transportation network and then each site's internal portering system will deliver to the point-of-use assuming that the required level of security containment can be maintained throughout delivery.

Pharmacy Information access will include (paperless) on-line charting and prescribing, and access to PharmaNet at key locations on all sites.

Different Pharmacy outreach services will evolve at each acute care sites.

Pharmacy's outreach role will be accommodated at the four acute care sites, however, planning assumes that very different foci will evolve at each one. The FVHC/EFVCC site, which is the proposed location for most of the "high technology" services, will participate in various home care programs in which the emphasis is on drug therapy (e.g., home IV therapy, home TPN, direct observed therapy). Home care will generally be a shared responsibility, involving FVHR community service agencies, but the integration of pharmacy personnel into such roles as home visits, patient and community worker instruction, and drug preparation and delivery is anticipated.

Other outreach functions anticipated for the FVHC/EFVCC site will build on the existing pharmacy-based drug information service and planning assumes that a regional poison control service will continue to be provided by St. Paul's Hospital. This service will provide 24-hour consultative coverage for suspected and confirmed cases of poisonings and drug reactions. Access will usually occur by telephone, however, the service's reference materials will also be available to authorized hospital personnel. In the future, access may also be available through the FVHR's computer network.

In addition to its clinical service role, Pharmacy Services will participate in clinical research protocols conducted at any of the acute care sites, but excluding those associated with the Cancer Centre. Studies will include the evaluation of approved medications and "phase II" trials involving new medications. The scope of services required to support these will coincide with those established for routine clinical services, therefore, substantial requirements for research-dedicated resources are not anticipated.

Plant Services

Plant Services will provide a full range of services supporting the maintenance and daily operations of facilities under the FVHR jurisdiction including renovation/construction projects up to $1.5 million. Services include:

- Facilities Maintenance & Repairs
- Facilities Plans/CAD Files Management
- Plant Operations/Engineering (energy centres)
- Security Services (including parking control and video surveillance/card access systems)
- Maintenance of call centre and building alarm systems

The administrative functions supporting regional Plant Services will be consolidated at the FVHC/EFVCC site.

Most of the above services will be at least partially decentralized to each of the Region's facilities because of needs to continuously support daily operations.

- Selected services will continue to be contracted out include:
  - Medical gases testing
  - Pressure vessel inspection
  - Breakers/transformers
  - Appliance repair (kitchen equipment/sterilizers, etc.)

The materials inventory for Plant Services will be decentralized to each Plant Services department on each site.

Energy management is a major operational issue and expense for the FVHR and, therefore, the project will ensure effective energy conservation options are incorporated into the new facilities. Non-project funding sources will be considered to finance energy management capital requirements.

Transport Services

A central transportation network supporting the movement of people and materials will be administered out of the FVHC/EFVCC Central Materials Management location.

Critical to the FVHR's success in moving large volumes of people, supplies, equipment, specimens, food, and information and moving all of these items on time, is a coordinated transportation system. Planning, therefore, assumes the establishment of a central transportation service that will assume responsibility for all aspects of a scheduled vehicular pick-up and delivery system. Unscheduled and urgent requirements will also fall within this service's responsibility with the exception of emergency patient transportation. The Region's transportation network will accommodate movement of the following:

- patients and long term care residents (elective and non-urgent cases only and excluding ambulance transportation)
- staff
- consumable supplies, pharmaceuticals and equipment
- prepared food and soiled ware
- mail including inter-office (within 1 site) mail

- specimens, films, and patient records
- linen and uniforms
- waste

Summary

The table below attempts to graphically illustrate the extent to which systems and services described in this section will be centralized and decentralized and in which location.

LOCATION OF CENTRALIZED AND DECENTRALIZED SYSTEMS AND SERVICES

System/Service	**Sites** FVHC/ EFVCC	CGH	MMH	FCH	Other
Admitting/Registration	▲	▲	▲	▲	
Biomedical Engineering	●	▲	▲		
Central Processing	▲	▲	▲	▲	
Health Information Systems	▲	▲	▲	▲	●
Health Records	▲	▲	▲	▲	❍
Laundry Services	❍	●	❍	❍	
Materiel Management	▲	▲	▲	▲	●
Nutrition & Food Services	▲	▲	▲	▲	
Plant Services	●	▲	▲	▲	❍
Transport Services	●	❍	❍	❍	

LEGEND:

● Major presence, centralized Regional service location (may be limited to a single site)

▲ Major presence (may be "full-service" and/or represents a satellite operation)

❍ Minor presence (decentralized and/or may represent a minor satellite operation)

Other Represents other FVHR facilities suggested as residential and community-based facilities, or other off-site location (e.g., materiel services warehouse).

PHYSICAL PARAMETERS

PHYSICAL PARAMETERS

SITE

The replacement facility will be developed on the lands owned by the Regional Hospital District on Marshall Road in Abbotsford, British Columbia (as determined through an evaluation documented included in Appendix K: Summary of Possible Hospital Sites to the June 2000 Proposal Submission to the Ministry of Health).

Planning should potentially accommodate (later) additional development for other related health and community services on the same site as the replacement facility (including the optional provision of food, housekeeping, laundry, and maintenance services from the FVHC/EFVCC facility).

FINANCIAL PARAMETERS

FINANCIAL PARAMETERS

CAPITAL FUNDING

No fixed capital budget has been established for the replacement project, however, the June 2000 Proposal submitted to the MOH jointly by the Fraser Valley Health Region and the BC Cancer Agency did estimate total project costs of approximately $189 million, $154 million for the hospital and $35 million for the cancer centre. The Master Program will rationalize and establish space requirements on which an updated preliminary capital cost estimate will be generated.

There are no capital funding restrictions on the functions to be included in the project (health or other community services).

OPERATIONAL FUNDING

No fixed operating budgets have been established for the replacement hospital facility and cancer centre facilities, however, a preliminary Pre-Construction Operating Estimate (PCOE) has been prepared for the Hospital only. The Project Definition Report phase of the work will provide refinements to the earlier estimate as well as include a PCOE for the Cancer Centre portion of the project.