

**ENSURING EXCELLENCE:
RENEWING BC'S PRIMARY
CARE SYSTEM**

A Discussion Paper by BC's Physicians

September 2002



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EXECUTIVE SUMMARY

In 2000, the BC Medical Association (BCMA) embarked upon a review of the province's primary care delivery system against the backdrop of increasing government assertions that primary care must be 'reformed', as well as increasing concerns among primary care physicians over the impact changes would have on patients, providers, and the health care system.

ATTRIBUTES OF EFFECTIVE PRIMARY CARE

An effective primary care delivery system should incorporate the following core attributes.

It must be:

- patient-focused
- accessible
- coordinated
- continuous
- comprehensive
- appropriate
- accountable
- sustainable

BC'S PRIMARY CARE DELIVERY SYSTEM: STRENGTHS AND WEAKNESSES

BC's existing primary care delivery system is among the best in the world, demonstrating numerous positive features, including full-spectrum GPs as first point of contact, clinical and professional autonomy, patient and provider choice, plurality of payment mechanisms, required referral to specialists, protection of patient privacy, and professional accountability. However, there are notable and growing deficiencies in the system, such as access concerns (including provider shortages), insufficient integration of care delivery, insufficient management of complex and chronic conditions, lack of incentives for full-spectrum general practice, inadequate information systems, and inadequate patient accountability.

Practical approaches are needed, building upon the positive attributes of that which already exists. **One size does not fit all.** Primary care delivery in BC is too complex and BC's

patient population and geography too diverse to be satisfied by a single approach. A combination of approaches, tailored to specific patient and provider populations, is required.

ELEMENTS OF PRIMARY CARE RENEWAL: THE RESEARCH

The BCMA extensively reviewed a number of primary care delivery systems. While each jurisdiction has taken a unique approach to primary care renewal, several common themes have developed, including:

- Encouraging Full-Spectrum Practice
- Enhanced Practice Governance
- Enhanced Information Technology
- Group Practice
- Improving Accountability
- Integrating Care Delivery
- Patient Rostering
- Physician Payment Reform
- Targeting 'At-risk' Populations

WHAT HAVE WE LEARNED?

Elements of BC's primary care delivery system must be improved regardless of the delivery model employed. Changes are needed to ensure practising physician input, enhance health information technology, encourage group and multidisciplinary practice, and improve clinical governance structures.

PRIMARY CARE DELIVERY MODELS

Differing patient/provider needs and geographic circumstances preclude recommending a single primary care delivery model for BC. Based upon our research, and the experience of BC's practising physicians, five primary care delivery models are presented, each with inherent strengths and weaknesses. **Patients and providers must be allowed to enter into each primary care delivery model voluntarily.**

Model 1: Enhanced Fee-For-Service Practice

The *Enhanced Fee-for-Service Practice* model would effectively address the needs of the majority of BC's GPs and their patients. This model takes advantage of the existing clinical infrastructure and requires only incremental change, including enhanced fees and bonuses for providing 'full-spectrum' care. *Enhanced Fee-for-Service Practices* would have integrated IT systems incorporating an Electronic Medical Summary (EMS). GPs would practice in real or 'virtual' groups providing 24/7 community-based on-call. To create a multidisciplinary team environment, full-spectrum GPs would incorporate allied health professionals directly into their practices.

Rostering

Models 2-5 require a formal patient rostering system, including a written care contract between patients and physicians for a specified period.

Model 2: Blended Rostered Practice

The *Blended Rostered Practice* model would work well for 'mainstream' general practice by taking advantage of the existing GP clinical infrastructure and incorporating the benefits of formal rostering. This model should solidify the GP/patient relationship, promote continuity of care, and reduce rostered patients' reliance on emergency rooms and walk-in clinics. For *Blended Rostered Practices* to be viable, at least six physicians are needed. As a general principle, a physician receiving blended payments, with a roster of at least 2,000 patients, should receive approximately 50% of his/her income through rostering stipends. The remaining proportion of his/her income would be generated through fee-for-service billings.

Model 3: Capitated Rostered Practice

The fundamental difference between the *Capitated Rostered Practice* model and the *Blended Rostered Practice* model is the degree of fixed payment. Under Model 3, funding to physician groups would be primarily a capitated amount per rostered patient, supplemented by fees for encouraging desired full-spectrum care activities. Potentially, the services of other health care professionals could be negotiated into the practice's capitation rate. Due to significant practice size requirements, the difficulty in setting predictive capitation rates, and the potential perverse incentives under capitation funding, Model 3 has limited application in BC.

Model 4: Mainstream Community Health Centre (CHC)

Models 4 and 5 have two fundamental differences from Models 1-3. First, CHC providers would be remunerated through salary and/or sessional payments. Second, CHC providers would have to be located in the same physical setting. Patients would formally roster with *Mainstream CHCs* that would be equipped with a comprehensive IT system, including an Electronic Medical Summary (EMS). The *Mainstream CHC* model is intended to service the traditional patient population.

The impact of BC's existing CHCs is unclear and they should be formally, externally evaluated. From initial evidence, it appears that *Mainstream CHCs* would be more expensive than traditional GP practices. Moreover, they would likely require more providers per patient; therefore, this model's applicability in BC appears limited.

Model 5: Complex Care Community Health Centre (CHC)

A growing percentage of the population suffers from chronic and/or complex conditions. The *Complex Care CHC* model is intended to service population groups with particularly high needs, e.g. HIV/AIDS, frail elderly. *Complex Care CHCs* would include a variety of providers and serve a relatively small number of patients. The *Complex Care CHC* should take over the entire primary care needs of its patients, instead of addressing just the needs of their identifying condition. Patients could be referred to the CHC by their attending GP. Model 5 would comprise a significant improvement to the delivery of care for the growing number of complex and chronic patients.

CONCLUSIONS

BC's primary care delivery system is under significant stress and must be improved. Our response must be measured. There is little evidence to suggest the superiority of one delivery mode. Each approach has inherent strengths and weaknesses. Changes should be made incrementally, choosing delivery models most appropriate to the needs of each patient and provider group. Incentives need to be provided to facilitate necessary changes. New delivery models must be thoroughly evaluated prior to their widespread implementation. Incorporating active public and provider input in decision processes is necessary to sustain long-term systemic change, and to ensure that quality of care remains our highest priority.

PART 1

THE RESEARCH

In 2000, against the backdrop of increasing government assertions that primary care must be ‘reformed’ and increasing concerns among physicians over the impact this change would have on patients and the medical system, the BC Medical Association (BCMA) embarked upon a review of the province’s primary care delivery system.

The issue of reforming primary care in Canada gained widespread attention in 1995 with the release of the government document A Model for Reorganization of Primary Care and Introduction Of Population-Based Funding.¹ The authors, primarily senior health bureaucrats, postulated that the existing primary care delivery system, combined with fee-for-service remuneration, was uncoordinated and leading to an over-servicing of patients. They proposed the establishment of population-based funding for larger primary care organizations (PCOs) that directly integrated general practitioners (GPs) with other providers, e.g. nurses, nutritionists, and social workers. Their model envisioned large, rostered, multi-disciplinary practices using electronic health records, providing 24/7 on call coverage, and capitation funding.

¹ This was the first of the three studies released at a 1995 meeting of the country’s health ministers in Victoria, BC. It is commonly referred to as the “Victoria Report,” and was produced by the Federal/Provincial Advisory Committee on Health Services.

1. INTRODUCTION

1.1 DEFINITION OF PRIMARY CARE

Primary care is an individual's first point of contact with the health care system. This is where most services are received, most conditions are managed, and where other health services are mobilized and coordinated. Although there are many descriptions of primary care, the Canadian Medical Association (CMA 1994) defines it as:

First-contact assessment of a patient and the provision of continuing care for a wide range of health concerns. The scope of primary medical care includes the diagnosis, treatment and management of health problems; prevention and health promotion; and ongoing support, with family and community intervention where needed.

1.2 ATTRIBUTES OF EFFECTIVE PRIMARY CARE

Based upon a literature review, as well as the professional opinion of BC's practising physicians, we have developed eight core attributes of effective primary care, as illustrated in Table 1 (below).

TABLE 1: CORE ATTRIBUTES OF EFFECTIVE PRIMARY CARE

<i>Patient-focused</i>	Care based upon the needs of the individual patient, including his/her biological, psychological, and/or social needs. To the degree possible, care is provided in the context of the patient's cultural and community framework. The patient is actively involved in the care process. Patient-focused care allows for a mutually agreed upon patient-provider relationship.
<i>Accessible</i>	Timely and equitable access to core health services ² for the entire population.
<i>Coordinated</i>	Identification and mobilization of appropriate resources, preventing the unnecessary usage and duplication of services. The most qualified generalist (in most cases the general practitioner) acts as the patient's first point of contact with the health care system, either directly or through his/her direct supervision.
<i>Continuous</i>	The provision and nurturing of an ongoing relationship between the patient and the health care professional.
<i>Comprehensive</i>	The provision of a wide range of health services in a variety of settings to meet patients' needs, including: health promotion and illness prevention, diagnostic, therapeutic, rehabilitative, and palliative care.
<i>Appropriate</i>	The provision of beneficial, evidence-based health services; facilitating the delivery of the correct service in the best-suited place at the right time by the provider with the required clinical training and competencies.
<i>Accountable</i>	The validation of actions in accordance with accepted standards to ensure ongoing quality of care and decision-making. Accountability incorporates appropriate resource management, evaluation, governance, and monitoring. Decision-making is inclusive and transparent.
<i>Sustainable</i>	The ability to finance and provide core health services while balancing the needs of individual patients on an ongoing basis.

² Core health services need to be determined jointly by government, providers, and the public.

2. BC'S PRIMARY CARE DELIVERY SYSTEM

This section critically appraises BC's existing primary care delivery system, including its strengths and weaknesses. The core attributes of effective primary care (defined in Section 1.2) are used to guide this process. Appendix A describes BC's primary care delivery system.

2.1 STRENGTHS

BC's existing primary care delivery system is amongst the best in the world, demonstrating many positive features, including:

- *Patient and provider choice*
- *Full-spectrum GPs as first point of contact*
- *Protection of patient privacy*
- *Required referral to specialists*
- *Professional accountability*
- *Physician clinical autonomy*
- *Physician professional autonomy*
- *Plurality of payment mechanisms*

***The GP/patient
relationship is the
cornerstone of
our primary care
delivery system***

2.1.1 PATIENT AND PROVIDER CHOICE

Patients in BC are free to choose their physician; correspondingly, physicians are able to maintain those patients with whom they have a good working relationship.

Provincial and national surveys have shown that the public values the ability to choose and change their personal family doctor without interference from government (BCMA 1998b).

2.1.2 FULL-SPECTRUM GPs AS FIRST POINT OF CONTACT

The GP/patient relationship is the cornerstone of the primary care delivery system. Full-spectrum GPs treating patients over time acquire insights not otherwise elicited. These insights are valuable in ensuring effective care. Evidence shows that GPs, as

the first point of contact, improve patient outcomes, reduce overall system costs, and decrease hospital use (Starfield 1994,1998; Coulter 1998).

2.1.3 PROTECTION OF PATIENT PRIVACY

BC's existing primary care delivery system appropriately places the physician in a guardianship role over the release of medical information. Privacy has been recognized as a fundamental right of every Canadian and is grounded in The Canadian Charter of Rights and Freedoms (1982).³ In British Columbia, hospital information is protected by the Freedom of Information and Protection of Privacy Act (Government of British Columbia 1996).⁴ FOIPPA does not apply to personal information contained in the private offices of physicians or private laboratories. Privacy of personal information in physicians' offices is protected by the policies of the College of Physicians and Surgeons of British Columbia.

2.1.4 REQUIRED REFERRAL TO SPECIALISTS

As in most developed health systems (the US being a notable exception), BC's medical insurance plan usually requires a patient to obtain a physician's referral in order to access insured consultations with a specialist.⁵ GP referral generally improves the appropriateness of health problems presented to specialists, making better use of increasingly scarce resources and resulting in lower overall costs (Zayed 1995; Forrest and Reid 2001).

2.1.5 PROFESSIONAL ACCOUNTABILITY

BC's practising physicians are responsible both legally and ethically for the care they provide, and are held to a high standard of scrutiny regarding the delivery of medical services. The College of Physicians and Surgeons of BC, in conjunction with the BCMA, administers comprehensive programs to monitor and enhance physician performance. The College of Family Physicians of Canada (CFPC) and the Royal College of Physicians and Surgeons of Canada (RCPSC) oversee mandatory programs

³ In 1992, the Supreme Court of Canada (*McInerney v. MacDonald*, (1992) 93 D.L.R. [4th] 415) established that a patient in Canada owns the information contained in his or her medical record, while the attending physician owns the actual physical record.

⁴ FOIPPA (1996) guarantees the public access to personal information collected by public bodies, and prevents the unauthorized collection, use, or disclosure of personal information by public bodies.

of continuing medical education (CME) and continuing professional development (CPD) as part of their Maintenance of Certification. Additionally, physicians are subject to peer review, audit and inspection.

2.1.6 PHYSICIAN CLINICAL AUTONOMY

In Canada, medicine is a self-governing profession under the auspices of the provincial Colleges of Physicians and Surgeons. The majority of physicians practise in independent offices and are not employees of any particular organization. This combination allows BC physicians to exercise clinical autonomy and act in their patients' best interests. Individual BC physicians have not been required to engage in utilization management activities that directly interfere with their fiduciary duty to their patients,⁶ nor are they encumbered by organizational priorities that may not be in the patients' best interests. In contrast, some American Health Maintenance Organizations (HMOs) much more directly require GPs to explicitly balance patient needs with organizational interests (e.g. organizational pre-approval for hospital admissions and specialist referrals).

2.1.7 PHYSICIAN PROFESSIONAL AUTONOMY

Public funding and private delivery of medical services in BC works well. Patients are satisfied with the quality of their medical care and physicians have inherent incentives to practise efficiently. Most BC GPs work in offices that they own or lease, either individually or in groups. This community-based office network is a valuable asset in the provision of primary care, providing thousands of patient contacts each day. It is a significant investment in terms of real estate, equipment, and human resources that must not be overlooked through the process of primary care renewal.

2.1.8 PLURALITY OF PAYMENT MECHANISMS

No single payment mechanism fully meets the needs of all patients, physicians, and payors in all circumstances. Several payment mechanisms exist in BC, each with their inherent strengths and weaknesses.

⁵ Effectively, this process is regulated by specialists, as they may bill the specialist fee schedule only if the patient is referred.

⁶ This does not imply that all utilization management activities inherently place physicians in a conflict situation. Particularly at the provincial level, utilization management is an important responsibility of the medical profession.

2.2 WEAKNESSES

There are notable and growing deficiencies in BC's primary care delivery system, including:

- *Access concerns (including provider supply)*
- *Integration of care delivery*
- *Management of complex and chronic conditions*
- *Lack of incentives for full-spectrum general practice*
- *Inadequate information systems*
- *Inadequate patient accountability*

2.2.1 ACCESS CONCERNS

A growing concern with BC's health system is the lack of timely access to many services, including long wait lists for specialist consultations and diagnostic services. For a growing number of patients, a newer concern is their inability to access a GP. A 1999 Angus Reid poll revealed that 61% of Canadians believe that there are insufficient numbers of doctors practising in Canada today to meet health needs.⁷

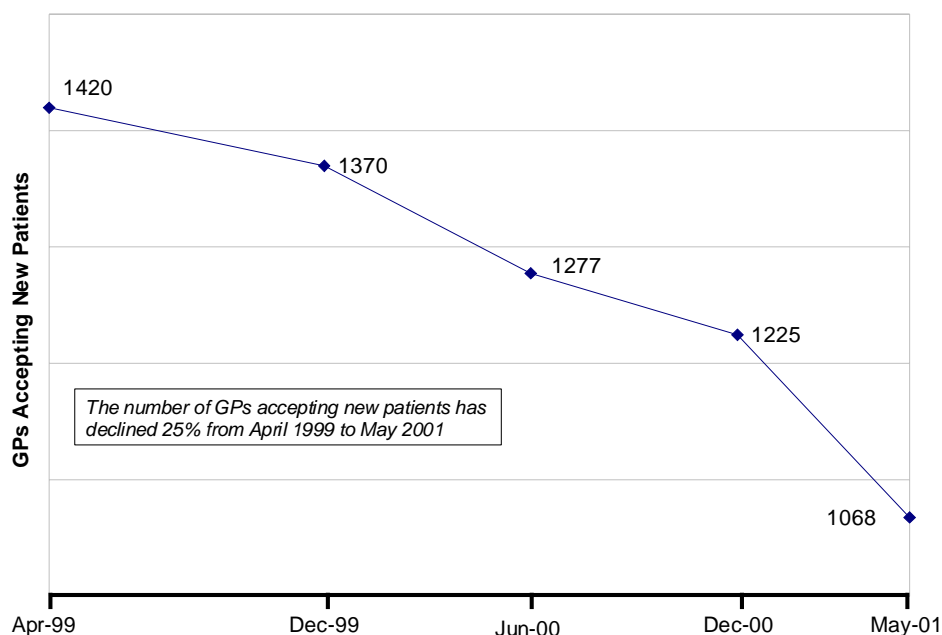
The importance of adequate physician supply is identified in the work of several researchers, notably Starfield (1994, 1998) and Shi et al. (1999), who demonstrate a direct relationship between the availability of primary care physicians and better population health outcomes. The potential severity of the physician supply situation can be identified by analyzing three areas: 1) current supply trends; 2) aging and other demographics, and; 3) education and recruitment.

2.2.1.1 CURRENT SUPPLY TRENDS

BC's physician resources are not keeping up with the growing and aging population, particularly in rural areas. BC requires more than 400 new physicians each year to maintain current levels of supply, without accounting for the increased requirements of an older population. It has been estimated that more than 100,000 British Columbians are 'orphaned' and cannot access a family doctor. Figure 1 (below) shows that the number of BC GPs accepting new patients has dropped by 25% over the past two years. The most recent report from the Canadian Institute of Health Information

(CIHI) indicates that the number of GPs per 100,000 population has fallen from 102 in 1993 to 94 in 2000, an almost 8% decrease (CIHI 2001b).

FIGURE 1: NUMBER OF GPs ACCEPTING NEW PATIENTS, BRITISH COLUMBIA, 1999 TO 2001



SOURCE: BRITISH COLUMBIA COLLEGE OF PHYSICIANS & SURGEONS

2.2.1.2 AGING AND DEMOGRAPHICS

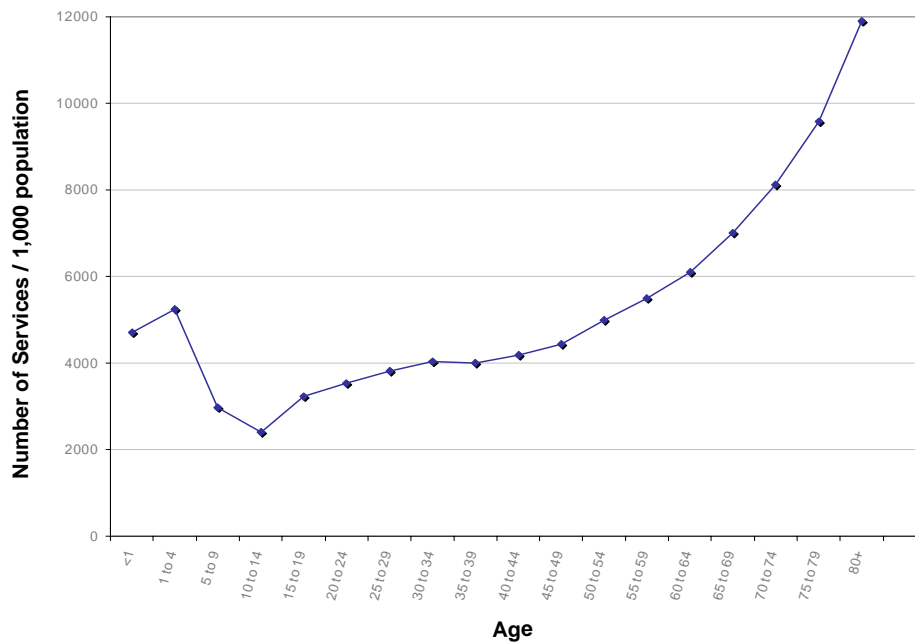
Like the rest of the population, BC's doctors are aging. Already 40% of BC's practising physicians are over the age of 50 (CIHI 2001a). The growing number of female physicians is also having an impact, as female physicians tend to work fewer hours than their male counterparts (Kazanjian 2000). According to the CMA's 2001 Physician Resource Questionnaire (CMA 2001b), male GPs worked an average of 55 hours weekly, compared to 46 hours for females (not including on-call). From 1996 to 2000, the percentage of female physicians practising medicine has increased by 15% (CIHI 2001a) and this trend is continuing; 67% of the 2004 University of British Columbia medical school graduating class is female. The combination of aging physicians and a higher percentage of female physicians means there will be

⁷ Canadian Medical Association, 1999. This same survey showed that the preferred option to increase the supply of physicians is to increase enrollment in medical schools (66%).

increasingly fewer physicians available to look after British Columbians unless we are able to retain our existing physicians and recruit more doctors to the province.

Physician shortages will be compounded by the increased demand for medical services exerted by BC's growing and aging population. Figure 2 (below) demonstrates that the demand for GP services increases as the population ages.

FIGURE 2: NUMBER OF GP SERVICES PER 1,000 POPULATION BY 5-YEAR AGE GROUP, 1998/99



SOURCE: MSP PAYMENT DATA SERIES VOLUME 5, NUMBER 2

2.2.1.3 EDUCATION AND RECRUITMENT OF NEW PHYSICIANS

Since 1993, reductions in medical school and postgraduate training positions have resulted in Canada producing 285 fewer family physicians per year – a cumulative loss of more than 1,900 family doctors (Thurber, Busing 1999; College of Family Physicians of Canada 2000). BC produces the smallest number of medical graduates per capita in Canada (only 128 per year for a population of 4.1 million). As a result, BC must import physicians to meet its medical needs. Only 26.5% of physicians practising in BC were actually trained here (McBride and Cairns 2001). Current evidence suggests that BC's ability to attract needed physicians from other provinces is diminishing. Over

the past decade, BC has experienced a decline in net inter-provincial migration from a high of 250 in 1993 to only 52 physicians in 2000 (CIHI 2001b).

A diminishing proportion of medical school graduates are choosing to enter family medicine. According to the Canadian Resident Matching Service (CaRMS), only 28% of the 2001 class of medical graduates listed Family Medicine as their first choice of residency training, a number that has been declining steadily for each of the last three years. Family Medicine residency positions were actually left vacant in 2001.⁸ In contrast, 55% of BC's currently practising physicians are GPs.

The existing CaRMS match prioritizes graduating medical students over practising physicians for the limited number of residencies, and there are no designated re-entry positions. Consequently, it is virtually impossible for practising family physicians to return for specialty training. Entry into family practice is, consequently, perceived as irreversible. Moreover, students must file their CaRMS applications at the beginning of their graduating year. This forces them to choose a specialty path in just their third year of medical school before gaining much, if any, experience in the specialty they have chosen.

Canada is facing increasing international competition for medical graduates. Large signing bonuses being offered in the United States and other countries are a significant consideration for today's medical graduates. The Ontario Medical Association estimates that students who need to rely on loans are entering medical school with as much as \$28,000 of debt, and graduating with an average debt of more than \$70,000 (OMA 2000).

2.2.1.4 SUPPLY OF OTHER PRIMARY CARE PROVIDERS

The nursing shortage in BC is a major concern. A recent report from the Canadian Institute for Health Information shows that, since 1994, the number of RNs in BC per 10,000 residents has declined from 74 to a current 68, a decrease of almost 8%. This is the lowest nurse to population ratio in Canada (Keating 2001; CIHI 2001c).

This result should come as no surprise. From 1993 to 1997, nearly 1,600 full-time

⁸ Sixty-six family medicine positions remained vacant after the first iteration.

nursing positions were eliminated in BC. Additionally, more than 1,000 of BC's nurses took early retirement. The Canadian Nurses Association (CNA) predicts a national shortage of between 59,000 and 113,000 nurses by 2011 (CNA 1997; Bailey 2001).

In addition to a shortage of nurses and physicians, there are shortages of other primary care providers, including physiotherapists. There are an estimated nine position vacancies for every physiotherapist who is currently looking for work. However, with over 300 applicants annually, the University of British Columbia graduates only 36 physiotherapists each year, less than one-third of the number needed to replace annual provincial attrition rates (Bren 2000).

2.2.2 INTEGRATION OF CARE DELIVERY

A 2000 Canadian Medical Association (CMA) policy primer ranks the integration of Canada's primary care delivery system significantly behind the UK (no.1) and the US (no.2). As noted by the College of Family Physicians of Canada (2000), there is too often a disconnection between primary care and the hospital or home care sectors.⁹ In a recent report by The Centre for Nursing Studies, physicians identified a number of barriers to the full utilization and acceptance of nurses in community-based primary care, including the lack of a mechanism to remunerate fee-for-service physicians for hiring nurses to work in direct association within their practices (The Centre for Nursing Studies 2001).

2.2.3 MANAGEMENT OF COMPLEX / CHRONIC CONDITIONS

BC's primary care delivery system provides high quality care for the majority of the population with episodic illnesses. Unfortunately, this is not always the case for populations facing chronic and/or complex health conditions (e.g. HIV, addictions, Hepatitis C, serious/persistent mental illness, frail elderly). Complex/chronic patients typically face more barriers to accessing care in traditional GP offices. Moreover, care for these patients is too often fragmented.

⁹ 6% of GP respondents said they are not informed when their patients are referred to home care and 49% said that they are not consulted on their patients' care plans. 96% of GPs indicated they would like to see a formal mechanism requiring hospitals and other providers to involve family physicians in the home care process.

Chronic care patients constitute a significant and growing portion of the population. It is estimated that 60,000 British Columbians suffer from serious mental illness and are unable to receive adequate care (Fournier 2001). Wagner (2001) notes that nearly two-thirds of Americans aged 65 or older have two or more chronic conditions, and one-quarter have four or more conditions. Chronic disease is a major cause of disability in BC. The Vancouver/Richmond Health Authority (2001) estimated it spent 70% of its resources on treating chronic conditions.

2.2.4 LACK OF INCENTIVES FOR FULL-SPECTRUM GENERAL PRACTICE

Although the full-spectrum GP as first point of contact is a fundamental strength of BC's primary care delivery system, this type of practice is diminishing. There are two primary causes of this shift in care. First, a growing public demand for episodic care of low-severity health problems. Second, there are few incentives for physicians to shoulder the greater responsibilities of comprehensive general practice. This trend appears to be increasing, particularly among newer medical graduates. Almost 33% of Canada's GPs less than 30 years of age work in walk-in clinics, while only 18% of their counterparts aged 40-54 does so (CFPC 2002). Increasing effort is needed to preferentially support and encourage entry into 'full service' family practice and retain it as the foundation of the primary care delivery system.

2.2.5 INADEQUATE INFORMATION SYSTEMS

BC's health system is significantly behind almost all other sectors in the deployment of information technology (IT). Potentially, IT can enhance the efficiency and efficacy of access to health information, by reducing duplication of services and improving coordination of care. The development and implementation of IT will only succeed with the involvement and support of practising primary care physicians.

2.2.6 INADEQUATE PATIENT ACCOUNTABILITY

In a 2001 CMA public opinion survey, 61% of respondents felt that many Canadians misuse the health care system. The College of Family Physicians of Canada has stated that an effective primary care system requires that patients better understand how to use the health care system more effectively and efficiently (CFPC 2001a). Enhancing patient accountability requires looking at explicit accountability measures,

including formal rostering, financial disincentives for discretionary utilization, and/or health savings accounts.¹⁰

¹⁰ Health savings accounts (HSAs) are usually set up by employers or the government. The payor purchases an insurance policy for beneficiaries who are given more autonomy to utilize the services they feel best meet their needs, within pre-defined limits. Versions of HSAs have been implemented in the US, Singapore, China, and South Africa.

3. KEY ELEMENTS OF PRIMARY CARE RENEWAL

The BCMA reviewed the primary care delivery systems of a number of nations, including the UK, New Zealand, and the United States. While each of these nations has taken a unique approach to primary care renewal, several common themes have developed:

1. *Physician Payment Reform*
2. *Patient Rostering*
3. *Group Practice*
4. *Improved Integration*
5. *Enhanced Information Technology*
6. *Improved Accountability*
7. *Encouraging Full-Spectrum Practice*
8. *Targeting 'At-Risk' Populations*
9. *Enhanced Practice Governance*

3.1 PAYMENT REFORM

Primary care reform in Canada is too frequently tied to payment reform.

Many critics fail to comment on factors, besides physician remuneration, that affect patient care.

They continue to believe that shifting

GPs from fee-for-service to capitation or salary will resolve most of the problems facing the health care system. It is imperative to distinguish between primary care reform and payment reform. ***Payment 'reform' is not a necessary pre-condition for primary care renewal.*** All payment systems have inherent strengths and weaknesses; none is perfect.

Payment 'reform' is not a necessary pre-condition for primary care renewal

3.1.1 FEE-FOR-SERVICE

The majority of physicians in Canada are paid primarily through fee-for-service (FFS). Other countries in which the majority of primary care physicians are remunerated this way include Germany, Norway, Belgium, France, New Zealand, and Australia (Starfield 1998). The value of fee-for-service lies in its simplicity and transparency, along with the incentive to provide direct patient services. The money follows the patient in an administratively simple manner. FFS encourages productivity, compensating physicians for their hours of work. This is an important factor as the number of doctors, nurses, and other health care professionals per capita diminishes. The primary weakness of fee-for-service is the incentive to provide more services at the potential risk of quality. The ability to adequately compensate FFS physicians for the care of more complex patients is contingent on the effectiveness of the established fee schedule(s).

3.1.2 CAPITATION

Capitation fundamentally differs from fee-for-service by providing a fixed payment for all medical services required by a patient. Its advantage lies in its fiscal predictability for the payor and its apparent simplicity, as there is no need to create a complex fee schedule to compensate physicians for the wide variety of services they provide. Theoretically, capitation allows physicians to spend more time with patients, as there is no incentive to provide a greater number of services. Capitation is used in the United Kingdom and The Netherlands.

Capitation offloads the risk of variable patient utilization from the payor to the physician, as any services to patients over the predetermined capitation rate are provided 'free' by the physician. This risk of statistical variability is greater as the size of a patient group diminishes, therefore, true capitation requires a large practice size to make this risk acceptable.

Capitation's weakness lies in placing the provider in a potential conflict of interest, as any service provided involves costs. Once a patient is rostered to a practice, there is a disincentive to provide care. The simplicity of capitation may also prove false; capitation rates are notoriously difficult to determine equitably and the methodology required is complicated, requiring considerable micromanagement. Without accurate

capitation rates, there is risk of 'cream-skimming' – the preferential rostering of healthier patients who require less care.

Capitation has not proven successful in increasing health promotion and illness prevention activities (Abelson & Lomas 1990). Research has also revealed no change in hospitalization rates for patients of capitated practices (Hutchinson et al. 1996). Canada's only major experiment, to date, with capitation, Ontario's Health Service Organizations (HSOs) program, largely failed – at great expense – to achieve its objectives (Mowatt 1997).

3.1.3 SALARY / CONTRACT

In a salaried/contractual position, physicians' hours and workload are clearly defined. Like capitation, salaries have the advantage of providing budgetary certainty for the payor. Abelson and Lomas (1990) note that there is evidence to suggest that salaried physicians emphasize a more comprehensive approach to the delivery of primary health care, including more counseling and education for patients.

Salary has its drawbacks. Royce (2000) notes that some physician groups in the United States experienced more than a 20% reduction in physician productivity after converting to a salaried system. There is also concern that physicians, as salaried employees, would lose professional autonomy and be less able to act as patient advocates.

3.1.4 BLENDED FUNDING

Some payment models have attempted to capture the advantages of both capitation and fee-for-service structures by blending them, i.e. partial capitation and partial fee-for-service remuneration. Blended funding uses capitation to provide a base remuneration to the physician as an incentive to roster patients but also pays a diminished fee for the provision of the actual services performed. Experience with this model is preliminary but deserves further consideration. A recent CMA survey shows that 28% of Canadian GPs identified blended funding as their preferred mode of remuneration (CMA 2001b).

3.2 ROSTERING

Rostering, the registration of patients to a single GP or group of GPs, is used in a number of countries. Although not prevalent in Canada, there have been experiments with rostering such as Health Service Organizations (HSOs) and the new Family Health Networks in Ontario as well as BC's Primary Care Demonstration Projects (PCDPs). Based on these experiences, the following strengths and weaknesses of rostering are identified.

3.2.1 STRENGTHS OF ROSTERING

- *Clarification of responsibilities in the patient/physician relationship.* Formal rostering of patients with a physician makes the individual responsibilities of the parties more explicit.
- *Opportunities for increased patient accountability.* These include the behavioral effects of rostering itself, as well as financial disincentives to seek care from multiple physicians.
- *Identification of a clearly defined population for the provision of appropriate clinical care.*
- *Promotion of greater continuity of care.* Through a formal agreement, patients receive non-emergency primary care through a specific physician or group of physicians.
- *Reduced duplication of services.* Rostering can reduce duplication by encouraging a single entry point.
- *Reduced reliance on walk-in clinics.*

Having a regular family physician is associated with increased patient satisfaction, better preventative care, more timely access to care, better compliance with medication, lower medical costs during hospitalization, and less discomfort with chronic diseases and disability (Talbot 2001). Previous experiments (Ostbye 1997) with rostering have also shown positive results.¹¹

¹¹ The rostering experiment in Norway made it simpler for participating physicians to administer and plan their practice activities, thus providing better continuity of care. Collaboration with hospitals and physicians became easier since it was clear which physician was responsible for each patient. Coordination of services for individual patients also improved. There was no reduction in specialist referral rates. Hospital admission rates decreased. The overall use of emergency departments and walk-in clinics decreased from 5-15%.

3.2.2 WEAKNESSES OF ROSTERING

- *Reduced Patient Choice.* A number of surveys indicate that Canadians value their freedom of choice in accessing physicians and are resistant to the idea of being on a roster (BCMA 1998b).
- *Physician Obligation.* With a growing shortage of GPs and a lack of locum replacements, physicians may find it difficult to take time away from clinical practice for education or holidays.
- *Patient Sense of Entitlement.* In some rostered environments (e.g. UK, Norway), the contract between a physician and patient has led to increased patient expectations.
- *Increased Administrative Costs.* Developing and maintaining a roster will likely increase the overhead costs to a practice.
- *Geographic Issues.* A formal rostering system will create unique challenges in metropolitan areas. Rostering may force patients to choose a GP practice either close to their work or residence, but not both.

Although rostering is currently not a popular concept in Canada, support appears to be growing.¹² The public appears to be changing its perspective for two reasons: 1) the increasing numbers of 'orphan' patients who cannot find a GP taking new patients¹³, and; 2) the benefits that can be gained through rostering (e.g. strengthening the patient-physician relationship).

3.3 GROUP PRACTICE

GPs in the United Kingdom and New Zealand have formed larger practice groups. In the UK, small GP offices have largely been replaced by Primary Care Groups (PCGs), incorporating large numbers of physicians and nurses, typically more than 100 providers (Charleton 1998). PCGs were formed by the current Labour government as a replacement to the previous Conservative government's system of GP fundholding. PCGs are collections of family practices in a geographical area (average population 100,000) with budgets encompassing general medical services, prescription

¹² A Decima Research Inc study (December 2000) shows that 94% of Ontario residents believe it is important to have a family doctor to provide the majority of care and to coordinate care delivered by others.

¹³ The College of Family Physicians of Canada estimates that 30% of Canadians are having difficulty accessing a family doctor.

medications and hospital/specialist care. There are 434 PCGs serving between 46,000 and 257,000 patients each (Rogers and Sheaff 2000).

Approximately 80% of New Zealand GPs belong to Independent Practitioner Associations (IPAs), with between 6 and 340 members. IPAs are independently owned and operated by physicians (Malcolm 1999). IPAs, unlike PCGs in the UK, are entered into voluntarily without preconditions detailing ownership, population-served or location. IPAs have also taken added budgetary responsibility beyond primary care, including lab services and pharmaceuticals, and have resulted in administrative savings of up to 23% of total expenditures.¹⁴

3.4 IMPROVED INTEGRATION

An often-stated goal of primary care reform is better coordination of care delivery. Patient care needs to be coordinated in two dimensions, vertically (merging of independent sectors of health delivery) and horizontally (multi-disciplinary teams).

3.4.1 HORIZONTAL INTEGRATION (MULTIDISCIPLINARY TEAMS)

Horizontal Integration is the consolidation of similar activities that occur within the same health care sector. For example, this could include the consolidation of GP practices with other primary care providers such as nurses, physiotherapists, and/or pharmacists. The benefits of multidisciplinary practice include the potential for spreading administrative expenses across a larger entity, better coordination of care delivery, and more resources for needed programs and services through reduced duplication (Howard 2000).

Team-based care has led to some positive developments in other countries. Halligan & Donaldson (2001), note that multidisciplinary teams in the United Kingdom are reducing patient waiting times. In the United States, co-management of patient care by primary care physicians and mental health specialists is emerging as an effective approach to treatment in an effort to ease pressure on hospitals. The Irish Government has announced the goal to establish thirty community-based primary care teams of

¹⁴ These savings are used to benefit patients through physician CME, enhanced IT, enhanced screening services (e.g. mammography, bone density testing), health promotion, and patient education.

GPs, nurses, dentists, and pharmacists by 2003 to provide 'one-stop services' (Payne 2001).

There are several examples of collaborative practices in Canada. In Quebec, there are currently 146 Centre Local de Services Communautaires (CLSCs) employing approximately 1,500 salaried physicians (approximately 20% of Quebec GPs) and more than 5,000 FTE nurses (Dumont-LeMasson 2000). In addition, the Quebec government has recently committed \$15m towards enhancing and expanding its Family Medicine Group pilots, which offer 24/7 comprehensive care in an interdisciplinary model.

Ontario has 56 CHCs employing 139 salaried physicians with 90 Nurse Practitioners, who provide primary health care to an estimated 2% of the Ontario population (Hutchinson et al. 2001). The Ontario government is also advocating the establishment of more Family Health Networks to include teams of physicians and nurse practitioners.

A fundamental challenge with the team approach to primary care delivery is to effectively structure the 'team' in terms of authority, autonomy, and liability. Even with the best collegiality, differences of opinion will inevitably arise. 'Care by Committee' becomes problematic, as a single professional ultimately needs to be responsible and accountable for clinical decisions and actions.

Another issue inherent in a team approach is the delegation of medical acts to other health care professionals. Provincial Colleges of Physicians and Surgeons mandate that physicians must not delegate an act to another health care professional if he/she is uncertain about the skills, qualifications, and/or judgment of the individual to whom the procedure is delegated. When a medical act is delegated that is outside the accepted scope of practice of another discipline, the responsibility for this act is shared and the physician who delegates the act retains responsibility and liability.¹⁵

3.4.2 VERTICAL INTEGRATION

Vertical integration refers to the consolidation of independent sectors of patient care delivery, such as an organization composed of hospitals, primary care physicians, home care, and long-term care services. The benefits of vertical integration include

improved alignment of incentives among different levels of providers, coordination across sectors and services, and the creation of system leadership instead of individual agency leadership (Howard 2000). An American example of a vertically integrated model is the staff-model HMO that owns its facilities and hires its physicians.¹⁶ One attempt to vertically integrate health delivery in Canada has been the development of regional health authorities. Marriott and Mable (2000) note that Canada's regional health authorities do not control physician budgets nor are their patient populations rostered.

3.5 INFORMATION TECHNOLOGY

Enhanced IT has the potential to reduce duplication of services and provide clinical support to health professionals, especially in rural and remote areas. British Columbia lags behind other jurisdictions, including the United States, the United Kingdom and most Scandinavian countries in implementing health related information technology.

By 1996, more than 90% of GPs in the Netherlands, and UK already used electronic information systems in their practices. Over 80% of Dutch and Swedish GPs have electronic health records for their patients (HarrisInteractive 2002). In 2000, the British government released its ten-year plan to reinvest in the health care system, with a \$574 million investment in IT, including a goal that 75% of hospitals and 50% of primary care groups have electronic health record systems by 2004 (NHS 2000). To promote this initiative, the National Health Service (NHS) has implemented the '*GP Computer Reimbursement Scheme*' through which physicians are reimbursed up to 50% of equipment and 70% of training costs associated with implementing office-based computer systems that are linked into regional health authority information systems (NHS 1999).

¹⁵ For more information, see *Policy Manual for College of Physicians and Surgeons of British Columbia*, 1995.

¹⁶ Under this model, the HMO may own hospitals, laboratories, or pharmacies, or it may contract for these services (including specialists). Employees of staff-model HMOs are typically paid a salary and, possibly, incentive bonuses.

3.6 IMPROVING ACCOUNTABILITY

Accountability within health care reflects the degree to which providers, patients, and payors take shared responsibility for decision-making and care provision. As stated in the College of Family Physicians of Canada's recent submission to the Romanow Commission, accountability within the health care system must focus on the system as a whole as well as the roles of all players — including physicians, nurses, hospitals, pharmacists, patients, and governments (College of Family Physicians of Canada 2001a).

3.6.1 PATIENT ACCOUNTABILITY

Many primary care delivery systems have taken steps to improve patient accountability, including co-payments, formal rostering, and health savings accounts. In New Zealand, patients pay directly for GP services.¹⁷ These payments are subsidized for approximately 30% of patients who are children, maternity, low-income, or defined as 'high users' (those people having more than 12 consultations in the previous year) (Sibthorpe 1999). In Sweden, patients pay approximately \$20 CAD to access a primary care facility, with total co-payments are capped at approximately \$200 CAD per year per family, including hospital and pharmaceutical fees (MacKinnon 2001). Maternity care and scheduled visits for children under six years are provided free. Evidence of the effectiveness of these accountability mechanisms is seen by the fact that Canadians access GPs, on average, more than six times per year, while Swedish patients visit a GP, on average, only three times a year (Ibid.).

Research shows that formal rostering can lead to improved patient accountability (Ontario Medical Association 1996; Ontario Provincial Coordinating Committee for Community and Academic Health Services Centre Relations 1996). The benefits of formal rostering have been described as follows:

Overall, a rostering system lends itself to both patient and physician accountability for effective utilization of available resources and facilitates the determination of services the patient population in any community requires. Rostering affords the opportunity for the establishment of contracts between patient and doctor, which could define service standards for the

¹⁷ Fees are set by individual GPs and, at the time of publishing, range from approximately \$21 to \$31 CAD.

physician and define expectations and accountabilities for the patient. (Ontario Medical Association 1996)

A Patient Registry would strengthen accountability of patients. (Manitoba Medical Services Council 1995)

Providers and consumers should develop mutually accountable relationships. At times providers feel that they have the sole responsibility for managing health care utilization, but have few tools to promote responsible use of services by consumers. The strength or effectiveness of provider/consumer accountability will depend on how 'visible' their mutual rights and responsibilities are. (Ontario Provincial Coordinating Committee for Community and Academic Health Services Centre Relations 1996)

3.6.2 PROVIDER ACCOUNTABILITY

Numerous regulatory steps already exist to ensure provider accountability, including peer review and clinical practice guidelines and payment protocols. Physicians in BC are also subject to audit and inspection by the College of Physicians & Surgeons, as well as by government. The BC Medical Services Plan (MSP) routinely audits claims by physicians to ensure that they are billing correctly and appropriately. There are currently 28 payment protocols in effect in BC, covering a range of services from preoperative testing to prenatal ultrasound. Continued effort is needed, however, to ensure that physician services reflect best practices and lead to better outcomes.

3.6.3 PAYOR ACCOUNTABILITY

Payors must be accountable for the decisions they make regarding the health care system. Government must ensure that the level of care is not compromised and that costs are not excessive. Several jurisdictions have attempted to enhance public and provider involvement in decision-making through the regular publication of wait times for various health services, the drafting of patient charter of rights, and the enhancement of quality assurance activities, (including report cards). In the latest Compas Survey (2001), 74% of Canadians stated a Patients' Charter, guaranteeing a minimum level of medical and hospital services, was a good idea. A Pollara Survey (2000) reports that 80% of Canadian respondents expressed support for public reporting of system performance through regular report cards.

3.7 ENCOURAGING FULL-SPECTRUM PRACTICE

Addressing the full-spectrum of a patient's health care needs and providing comprehensive care are fundamental features of any effective primary care delivery system. Initiatives are underway in countries such as the United Kingdom, the US and Norway to examine this issue. The UK government provides incentives to capitated physicians to provide more comprehensive care. For example, bonuses are paid to GPs for minor surgery, immunizations, home visits, contraception services, maternity care, Pap tests, child health surveillance, and the management of chronic diseases (Starfield 1998).

More recently, the UK government announced it would be providing \$230 million as an incentive to improve the comprehensiveness of GP services. Amounting to approximately \$23,000 CAD per practice, this funding is intended to establish extra clinics, extend hours of operation, train GP specialists, offer better heart and cancer services, and provide a bonus to all practices achieving specified clinical targets.

3.8 TARGETING 'AT-RISK' POPULATIONS

It is essential that any primary care delivery system ensure that all individuals, regardless of socio-economic status and/or health condition, have timely access to a full-spectrum of health services. The health status of certain populations (e.g. First Nations, low income), however, remains sub-optimal (British Columbia Ministry of Health 1999). Many American HMOs have developed 'centres of excellence' for clients with complex and chronic conditions such as diabetes, heart disease, and high blood pressure. These centres have proven to be effective at improving the health status for these 'at-risk' populations. Concerns do exist, however, around the carving out of specific disease entities from a patient's regular primary care provider, with the resultant reduction of care integration.

The United Kingdom NHS is developing separate National Service Frameworks for specific conditions and population groups. These will provide standards as well as create performance measurements for assessment. Presently, the NHS has produced frameworks for mental health, cancer, and coronary heart disease, while those for the frail elderly and diabetes care are currently being developed (NHS 2000). In 1998, 11

Health Action Zones were also announced to improve care quality, primarily in lower income areas.

The importance of dealing with populations with chronic illness will become more even more critical as our population ages. Within the next 30 years, the percentage of Canadians over age 65 is expected to double from the current 12% to almost a quarter of the population (Ramsay 2001).

3.9 ENHANCED PRACTICE GOVERNANCE MODELS

Effective governance strengthens quality control, evidence-based practice, and peer review (Dobson 1999). Practice governance structures must allow for adequate provider input and formalize reporting relationships, including responsibility for patient care. The organization of practice governance is gaining increased attention in nations such as the UK and New Zealand, where primary care physicians have organized into larger group practices. According to the UK Department of Health (NHS 2000), the main components of practice governance include:

1. Clear lines of responsibility and accountability for the overall quality of clinical care.
2. Quality improvement systems (including clinical audit, supporting and applying evidence-based practice, implementing clinical standards and guidelines, workforce planning and development).
3. Education and training plans.
4. Clear policies aimed at managing risk.
5. Integrated procedures for all professional groups to identify and remedy poor performance.

Effective practice governance requires significant financial and human resources. The UK's Primary Care Groups (PCGs), for example, have faced many governance hurdles as time and human resources remain critical constraints. According to a recent UK survey, 41% of those responsible for practice governance did not have a budget to support its implementation and 35% said that they had little or no fiscal support (Campbell 2001). The prospects for success are limited in this type of fiscal environment.

PART 2

WHAT HAS BEEN LEARNED?

BC has an excellent primary care delivery system, however, improvements can be made. Practical approaches are needed that address these issues from the patient and provider perspectives, building on the positive attributes of what already exists.

Section 4 presents recommendations that should be implemented regardless of the primary care delivery model employed. Section 5 describes five alternative primary care delivery models, as well as provides commentary on their relative merits and limitations.

One size does not fit all. Primary care delivery in BC is too complex, and the patient population and geography too diverse, to be satisfied by a single approach. A combination of approaches is required, tailored to the needs of specific patient and provider populations.

4. RECOMMENDATIONS FOR ALL DELIVERY MODELS

Elements of BC's primary care delivery system must be improved regardless of the delivery model employed. Consequently, under all of the proposed models, the BCMA recommends the following:

1. ensuring practising physician input
2. enhancing health information technology
3. encouraging group practice
4. encouraging multidisciplinary practice
5. improving practice governance
6. encouraging full spectrum practice
7. improving patient, provider, and payor accountability

4.1 ENSURING PRACTISING PHYSICIAN INPUT

It is essential that practising physicians be actively involved in the design of primary care models. Experience in other jurisdictions, most notably New Zealand's Independent Practitioner Associations (IPAs), shows that physician-led primary care reform is more likely to succeed than bureaucratically imposed frameworks (Malcolm and Mays 1999).

Eighty-four percent of doctors in Canada are not satisfied with the input they have on the future direction of the public health care system (Pollara 2000). Physicians' openness to proposed changes in primary care is shaped by how they think reform will affect the quality of patient care, their professional autonomy, working conditions, and income. Evidence of physician uncertainty is seen in a 2000 national survey by the Medical Post, in which 59% of physician respondents believed that primary care reform would significantly change the way medicine is practised over the next five years. Due partially to this uncertainty, many new medical graduates are foregoing family medicine in favour of specialization.

The recent health governance changes in BC have made it more difficult to ensure

adequate practising physician input. The larger and more dispersed regions require new input structures that have not yet been established. Unfortunately, practising physicians are now excluded from becoming health authority board members.

RECOMMENDATION 1

That where alternative primary care delivery models are considered, practising physicians, representative of and accountable to their professional colleagues, be integral in the planning, design and evaluation process.

4.2 ENHANCING HEALTH INFORMATION TECHNOLOGY

To date, the BC government's investment in health information technology has focused almost exclusively on hospital-based IT systems. Despite a federal funding commitment, it appears that the federal, provincial, and regional health authorities do not yet have a clear vision for the dissemination of IT. The doctors of BC are concerned that, if multiple IT systems are implemented across various health sectors (e.g. labs, hospitals), they will not facilitate effective communication and integration, and may compromise confidentiality.

PRIVACY

A fundamental issue in the implementation of health information systems is the protection of privacy. Fifty-one percent of public respondents to a 1999 Canadian Medical Association survey indicated they would not agree to the release of personal health information without their direct consent, even if personally identifiable information were removed.

IT initiatives must protect patient privacy rights while facilitating the needs of providers to provide timely, quality care.

RECOMMENDATION 2

That health information policies be developed in BC that protect patients' privacy rights and facilitate the effective sharing of information.

INVESTMENT

The BC government has not invested sufficiently in its health IT infrastructure. Most sectors of the American economy devote 7 to 10% of their operating budgets to IT (Dorenfest & Associates 1995). For BC's health system, this same level of investment would mean expenditures in the range of \$1 billion annually. The CMA estimates the start-up costs for a national health information infrastructure; connecting physicians, hospitals and long-term care institutions at \$4.3 billion, with yearly operating costs after the five-year implementation of \$830 million (CMA 2000).

Support for the purchase and integration of health information technology in physicians' offices must be provided if significant advancements are to be expected. The BC government's approach, to date, has been to develop IT systems that physicians can connect to on a voluntary basis. This approach has resulted in a delayed and fragmented infrastructure with little or no involvement of practising physicians.

Other governments, such as the United Kingdom, the Netherlands and Alberta, have provided financial assistance to integrate information systems in physicians' practices. The UK NHS recently initiated a '*GP Computer Reimbursement Scheme*'. Physicians are reimbursed for up to 50% of equipment and 70% of training costs to install regionally-linked computer systems in their offices (NHS 1999). In Alberta, physicians are reimbursed up to \$7,000 annually for initial purchase and ongoing IT costs. Without direct government financial support, health care IT will continue to remain fragmented in BC.

RECOMMENDATION 3a

That practising physicians, through their representative organizations, be integrally involved in the development and implementation of a province-wide health care IT system and infrastructure.

RECOMMENDATION 3b

That the BC government, directly or through federal initiatives, fund the initial purchase, ongoing connectivity and data management, training and upgrading costs of integrated IT systems in physicians' offices.

ELECTRONIC HEALTH RECORDS

There appears to be government interest in developing a comprehensive Electronic Health Record (EHR) across numerous health care providers and agencies. While theoretically enticing, the creation of a complete electronic repository of all individual health-related information across all sectors of the health care system is unrealistic for the foreseeable future due to privacy issues, financial costs, technological barriers and the volume of data required.

The cost of implementing a full EHR is estimated at over \$23,000 per full-time physician (Ornstein 2001). This is consistent with

preliminary figures from the BC Primary Care Demonstration Projects (PCDPs) showing that office-based IT systems cost between \$20,000 and \$40,000 per physician. A 2001 presentation at the BC PCDP Evaluation Conference, Richmond showed that, for BC's approximately 8,000 physicians, this amounts to a prohibitive capital outlay.

A comprehensive EHR potentially creates information overload. The usefulness of such an extensive health record is questionable. Providers cannot reasonably be expected to extract relevant data from a complete electronic medical history in a realistic amount of time. Too much information is often as unhelpful as no information.

Alternatively, and less expensively, there are significant benefits that can be achieved by focusing on an Electronic Medical Summary (EMS). The EMS would provide key medical information, including active medical conditions, medications, allergies, laboratory or medical imaging results and/or links to this information.

The creation of a complete electronic repository of all individual health-related information across all sectors of the health care system is unrealistic for the foreseeable future.

RECOMMENDATION 4

That IT systems be developed which integrate primary care providers, hospitals, and long-term care facilities through an Electronic Medical Summary (EMS) and core data set.

The EMS would be more effective than a full patient Electronic Health Record for transmitting relevant clinical information between health professionals and facilities. Figure 3 illustrates a sample EMS.

FIGURE 3: SAMPLE ELECTRONIC MEDICAL SUMMARY

ELECTRONIC MEDICAL SUMMARY

PATIENT INFORMATION

PHN:

NAME:

OCCUPATION: PHONE NUMBER:

DOB: CHILDREN:

EMERGENCY CONTACT: CONTACT NUMBER:

ALLERGIES:

MEDICATIONS

CODE	SUMMARY	START	STOP
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

FAMILY PHYSICIAN: PHONE NUMBER:

MEDICAL SUMMARY

CURRENT PROBLEM LIST

CODE	SUMMARY	START	STOP
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

DIAGNOSTICS / RECENT INVESTIGATION

CODE	SUMMARY	START	STOP
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

PAST MEDICAL HISTORY / OPERATIVE PROCEDURES

<input type="text"/>	START	STOP
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FAMILY HISTORY:

For the foreseeable future, the physician's paper chart will continue as the official patient record. The EMS, however, could provide a relevant patient summary and be made available to appropriate providers, such as physicians in an emergency department, another GP sharing on-call duties, a nurse, or a community-based physiotherapist.

The EMS should be part of an electronic database that contains the records of all patients within a physician's practice. Patients should have the opportunity to review

their EMS on a regular basis and, in certain cases, be allowed to withhold certain information. The attending physician or his/her designate under direct supervision should enter EMS data. This focus of control will serve not only to govern the entry of accessible information but also to strengthen the relationship between the patient and the attending GP.

4.3 ENCOURAGING GROUP PRACTICE

The majority of BC's GPs already work in groups, with an average practice size of almost five physicians. Only 22% of BC's GPs work in solo practice (College of Family Physicians 1998). The pooling of physician resources provides a number of advantages. Modern medical equipment and training is expensive and, therefore, impractical to provide for a small number of patients. Group practice, with a larger patient base, makes it more practical for individual physicians to diversify their clinical expertise and develop skills in a particular area, e.g. psychiatry, anaesthesia. This allows a greater variety of medical services to be offered within the group. Larger physician practices should be able to attract allied health practitioners, creating a 'real' multidisciplinary environment (refer to Section 4.4).

Group practice should help to reduce physician burnout through the sharing of clinical responsibilities. It offers economies of scale through proportionally lower overhead expenses (Malcolm and Mays 1999). Conversely, group practices can suffer diseconomies if they become too large, primarily through increased administrative costs and larger practice governance structures (Bojke et al. 2001).

VIRTUAL GROUPS

Given advances in information technology (IT), it is often unnecessary to locate GP groups within the same physical space. Many of the advantages of group practice can be realized through the development of so-called 'virtual' groups separated by distance but connected through IT. A fundamental difference between the virtual groups proposed here and the already existent call group associations amongst GPs is the required sharing of clinical information on patients within the group.

The creation of larger real or virtual groups is not without hurdles. Leases, capital costs, staff commitments and geographic considerations often make forming or

expanding physician groups difficult. It is essential, therefore, that entry into larger groups be voluntary and incentives be provided, such as reimbursement of IT expenses, to facilitate this process.

RECOMMENDATION 5

That incentives be developed to encourage general practitioners to practice in groups, real or virtual.

4.4 ENCOURAGING MULTI-DISCIPLINARY PRACTICE

Greater collaboration among health professionals will become even more necessary as BC's shortage of providers grows. Initiatives that can be implemented relatively quickly and easily, taking advantage of the existing network of physicians' offices, are required to reduce current barriers to multi-disciplinary practice. As stated in Senator Kirby's draft Commission Report (Standing Senate Committee on Social Affairs, Science, and Technology 2002), the goal of teamwork should not be to displace one health care provider with another, but rather to look at the skills each professional brings to the team and coordinate the deployment of these skills.

Effective multidisciplinary teams require a clear delineation of responsibility and accountability, including a team leader who should be the best-trained generalist. In the majority of instances, this would be the GP. Detailed health professional job descriptions should be developed, clearly outlining roles and responsibilities in order to best meet patients' needs. Team members should be held independently accountable for their own professional practice. Physicians should require from all health professionals evidence of liability coverage that is sufficient to cover actions that might arise from negligent performance.

The GP, where available, should remain patients' first point of contact. This is consistent with quality care and public opinion. A 2000 survey in Ontario indicated that:

- 88% of the public wants a physician as their first point of contact.
- 68% of the public supports the idea of family doctors working with nurses in a collaborative practice model (Decima 2000).

The BCMA supports the establishment of independent nurse practitioner practices in locations where it is not viable to sustain a physician-based general practice, e.g. remote communities. However, the nursing shortage appears to be even more acute than the physician shortage. The Registered Nurses Association of British Columbia estimates that BC has a deficit of 1,200 nurses (RNABC 2002). Moreover, there is no recognized nurse practitioner training program in the province. Consequently, it is unrealistic to believe that BC will be able to replace an undersupplied profession (GPs) with an even more undersupplied profession (Nurse Practitioners).

ACCOUNTABILITY AND LIABILITY

The team leader is generally held responsible for the quality of patient care, whether or not that care is delivered by him/herself. Consequently, it is expected that the team leader will supervise, either directly or indirectly, the allied health professionals working in the practice. Direct supervision is not required for acts that are within each practitioner's scope of practice. However, the team leader is expected to ensure that each health professional is appropriately qualified and has demonstrated competence. The College of Physicians and Surgeons' of BC Policy Manual (1995) states that a physician must not delegate an act to another health care professional if he/she is uncertain about the skills, qualifications, and/or judgment of the individual to whom the procedure is delegated. The College goes on to state that:

when a medical act that is outside the accepted scope of practice of another discipline is delegated, the responsibility for this act is shared. The physician who delegates the act still has a responsibility to the patient; the physician who attests to the competence of another person to perform the act carries a responsibility regarding the initial level of competence achieved; the person who carries out the act must do so with care and diligence and is legally liable if negligent (pp. D1-3).

The College of Family Physicians of Canada (CFPC 2000a) states that only certain medical acts may be delegated, and that there must be broad consensus from the medical community that this delegation is appropriate. Liability may only be shifted to ancillary personnel if that health care professional is entitled by law to perform the act in question. While steps can be taken to minimize risk, physicians can never completely insulate themselves from liability concerns when they delegate a clinical act.

The Canadian Medical Protective Association (2001) states that a physician will find it easier to defend an allegation of improper delegation or supervision if a formal process of delegation is in place and had been followed. A physician should be able to demonstrate that s/he ensured that the individual to whom the procedure was delegated had the appropriate knowledge, skill, and judgment to perform the delegated act and that adequate supervision was provided.

RECOMMENDATION 6

That the BCMA, the BC College of Physicians and Surgeons and relevant BC health professional organizations work to determine the principles under which medical acts can be appropriately delegated within a multidisciplinary primary care practice.

The employment arrangement for allied health professionals likely impacts physician liability. Employer/employee relationships between GPs and allied health professionals appear to impose a heavier liability burden for the GP than do professional partnerships/independent contractor arrangements. Employers may be found liable for the wrongful acts of an employee without any evidence of direct negligence on the part of the employer. While a physician will not normally be held vicariously liable for the wrongful acts of other health care professionals acting within their scope of authority, physician(s) as employer may be held vicariously liable for the negligent acts of that professional.¹⁸

ACCREDITATION

Accreditation levels should be developed to enhance training for allied health professionals. For nurses, few advanced skills programs currently exist short of enrolling in the full nurse practitioner (NP) program, an investment that not all nurses are able or willing to make. Short-term accreditation 'modules' that focus on nursing skills relevant to community-based practice, e.g. management of chronic diseases, are needed. British, American, and Canadian studies have discussed the extensive role played by NPs in acute care management and the monitoring of chronic illnesses (Way et al. 2001). This concept could be expanded to include modules relevant to the

¹⁸ Based on the principle of *respondeat superior* "let the principal answer."

interfaces between physicians and other health care professionals. These modules would need to be examined on a case-by-case basis for sufficiency.

FINANCIAL BARRIERS

Financial barriers impede the incorporation of allied health professionals directly into physicians' offices. Currently, the ability for physicians to bill for services provided by non-physicians is too limited. By occupying office space, these professionals limit the physician(s) ability to use the full office resources to generate revenue and increase costs through utilization of resources. Financial barriers are greatest with incorporating clinical nurses, as neither government nor third party benefits cover their services, and the public is not accustomed to paying for them directly.

Reducing these barriers could be accomplished in several ways, three of which are:

1. Providing direct government funding to physicians for incorporating allied health providers directly into their practices.
2. Developing a fee schedule through which the services of allied health professionals could be billed to government.
3. Introducing fees to physicians for the supervision of allied health professionals.

RECOMMENDATION 7

That mechanisms be developed, including financial, to support the long-term integration of allied health professionals into community-based physicians' offices, with the physicians' clinical guidance and expertise.

4.5 IMPROVING PRACTICE GOVERNANCE

Practice governance is the business of managing and running a practice; clinical governance is a subset of practice governance dealing specifically with patient care. Practice governance structures need to be improved and formalized as the trend towards larger practices continues and, certainly, if practices become multi-disciplinary. According to the National Physician Workforce Study, only 25% of Canadian GPs were solo practitioners in 2001, compared with 31% in 1997 (CFPC 2001). In multidisciplinary practices, the team member ultimately responsible for clinical decisions should be the best-trained generalist, usually the GP.

The main components of effective practice governance include:

1. Clear lines of responsibility and accountability
2. Programs for quality improvement
3. Education and training plans
4. Procedures to identify and remedy poor performance

As long as these general principles are adhered to, there should be flexibility in governance structures between practices. Practice governance should be tailored to fit the needs of different locations, mix of health professionals and/or modes of remuneration. For example, individual health professionals should be responsible for developing their own programs for skills training and performance review. These programs and plans should be reviewed and approved by their clinical team leader to ensure they are consistent with the overall objectives and goals of the practice. A member from each health care profession within the group should be appointed to act as the 'practice governance leader' for that profession. In the UK, where practices are relatively large, the governing board typically consists of 4 to 7 GPs, 1 to 2 nurses, an allied health professional, and the organizations' administrator.

Although BC's health care professionals are already stretched for time, practice governance must be prioritized. Health professionals need to be compensated for their governance activities. In the UK, GP practice chairs receive between £11,000 and £15,000 for their governance work (NHS 2002). Similar compensation mechanisms will be required in BC if practice governance is to succeed.

RECOMMENDATION 8

That once alternative primary care delivery models are more fully developed, the BCMA draft governance templates for both physician-only and multi-disciplinary group practices.

4.6 ENCOURAGING FULL-SPECTRUM PRACTICE

Full-spectrum practice refers to the provision of a comprehensive range of services, which may include health counseling, illness prevention and screening, on-call coverage, hospital-based services and obstetrics. Unfortunately, full-spectrum practice is eroding in BC. Within the last two years, almost 25% of BC GPs have

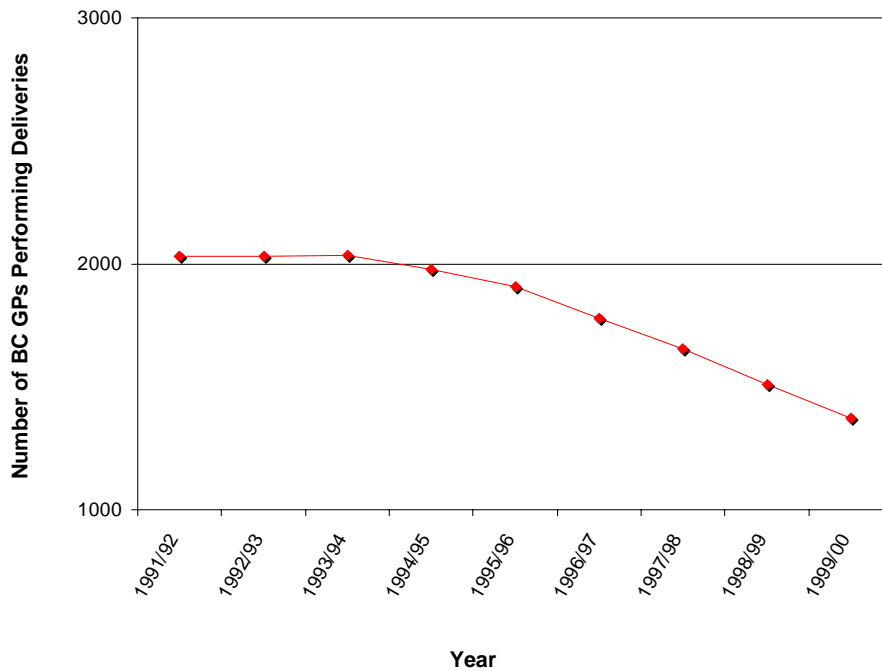
reduced their scope of practice while only 8% have expanded it. An additional 11% of GPs indicate they intend to reduce their scope of practice within the next two years, while only 4% state they intend to increase it.¹⁹ For example, the number of GPs providing obstetrical services is declining (see Figure 4). An increasing number of GPs are leaving hospital practice and many new graduates are not even applying for privileges. Over the last nine years in BC, the number of GP hospital visits dropped by almost 21%, while the population increased 21% and hospital inpatients became 24% sicker.²⁰ Today, it simply does not pay to maintain a hospital-based general practice. The same trend is seen in the fields of emergency medicine and palliative care.

Appropriate incentives are required to reverse these trends and encourage GPs to provide full-spectrum practice. GPs working in fee-for-service practices should receive enhanced fees for providing more intense, complex and time-consuming services as well as bonuses for providing deliveries, home visits, maintaining hospital privileges, and regularly updating electronic medical summaries (see Section 4.2 above). Enhanced fees for complex/high intensity patients should also be introduced to better reward physicians for comprehensive and chronic care than for less intensive, episodic care.

¹⁹ National Family Physician Workforce Survey, commissioned by the College of Family Physicians of Canada, 2001.

²⁰ Data from the Ministry of Health's PURRFECT (Population Utilization and Referral Rates for Easy Comparative Tables) database, 2001.

FIGURE 4: NUMBER OF GPs PERFORMING DELIVERIES IN BRITISH COLUMBIA (1991/92 TO 1999/00)



A Note on Incentives

Recent primary care initiatives have been clear that incentives to 'do the right thing' are a necessary component of any delivery model. The incentives employed are as varied as the models attempted, including bonuses for the introduction of electronic clinical information systems, special payments for providing preventive-type services, etc.

RECOMMENDATION 9

That appropriate payment structures and incentive mechanisms be identified that encourage full-spectrum care regardless of the modality of physician payment.

ON-CALL

According to the 2001 National Family Physician Workforce Survey, almost 85% of BC's GPs participate in on-call activities, averaging 20 hours per week. Community-based on-call is a valuable patient service, as it reduces pressure on more expensive and already-stressed hospital emergency departments as well as reduces patient reliance on walk-in clinics.

Of concern is the growing trend among BC's GPs to decline to provide on-call. This change is based primarily on two factors: 1) the intrusion of on-call into family and personal life, and; 2) no compensation for call.

Full-spectrum practices would, ideally, provide compensated 24/7 community on-call coverage. This does not imply that the practice must be physically open 24/7. It is unrealistic to require GPs to physically see patients 24-hours per day, 7 days per week. To be acceptable, 24/7 community on-call must be based upon the following principles:

TABLE 2: PRINCIPLES OF COMMUNITY-BASED ON-CALL

- For urgent medical problems only
 - Allows for telephone triage, advising patients on the appropriate course of action
 - Sharable through after-hours call groups
 - Service delivery following triage based on the physician's clinical judgment
 - On-call physician has specific patient information (*facilitated through Electronic Medical Summary*)
-

COMPENSATED

It is vital that on-call be spread between sufficient numbers of GPs. The Canadian Medical Association (CMA) notes that an on-call frequency greater than one in five is excessive and need not be accepted. Consequently, **GP call groups should be comprised of at least six physicians** to allow for member absences for continuing medical education, illness, vacation, etc. Community on-call coverage can be provided by a member of the group or a designated physician. Larger groups make 24/7 community on-call coverage more feasible through the pooling of both human and clinical resources. IT systems providing an Electronic Medical Summary of patients' important clinical information would also make this service more effective.

RECOMMENDATION 10

That 24/7 community-based call be encouraged and compensated.

The BC government's recently established 24-hour health line, staffed by nurses, recognizes that community call should be a compensable service. Unfortunately, the health line has also focused attention on the disparity in government's willingness to compensate nurses for services it wants physicians to provide free of charge.

4.7 IMPROVING ACCOUNTABILITY

The sustainability of our publicly funded primary care delivery system requires that accountability mechanisms be improved for patients, providers, and payors alike.

PATIENT ACCOUNTABILITY

A valid criticism of BC's health system is the lack of patient accountability. There are no incentives for patients to take personal responsibility for their utilization of physician services. Government has been complicit in this behaviour by avoiding any explicit disincentives and/or limits on public entitlement to 'free' medical services. Without direct accountability, human nature is such that many individuals maximize their use of physician services. All other health systems studied have introduced combinations of direct mechanisms, including co-payments, health savings accounts, and formal patient rostering to enhance patient accountability (refer to Section 2.2.6).

RECOMMENDATION 11

That medical service co-payments, health savings accounts, and formal patient rostering be examined for applicability in BC.

PAYOR ACCOUNTABILITY

Contrary to common belief, the BC Medical Services Plan (MSP) does not insure all physician services. While the BC government regularly advises physicians on those services that are not publicly covered, it has avoided any significant role in educating the population. British Columbians need to better understand the limits of 'free' physician care. The BC government should take an active role in educating the public on limits of publicly insured physician care and the legitimacy of physicians billing directly for uninsured services.

The BC government should improve the transparency of our health system through published wait times and regular report cards on how various elements of the health delivery system are performing. As recommended by the BCMA in Turning the Tide (BCMA 2001), the government should create a process for developing and applying a Health Charter, for completion within the next three years. This Charter should address the public's legitimate expectations for health care delivery, as well as outline individual responsibilities and accountability mechanisms.

PROVIDER ACCOUNTABILITY

While several accountability mechanisms already exist for BC's health providers, (e.g. peer review, audit and inspection) improvements can be made. For example, report cards informing physicians of their patient load, diagnostic testing rates, prescription practices, clinical outcomes and medical costs would help to inform them of their relative performance. The implementation of 'best practices' through clinical practice guidelines and payment protocols also help to improve provider accountability. There are currently 28 physician payment protocols and clinical practice guidelines in effect in BC, covering a range of services, including preoperative testing and ultrasound examination (see Table 3 below). Expanded effort is needed to ensure that best practices lead to better outcomes.

Physicians, as a group, need to assist government with system-wide utilization management activities. Activities like the BCMA/Ministry of Health Joint Utilization Committee need to continue. However, disincentives to treating individual patients, as have been introduced in some American Health Maintenance Organizations (HMOs), must be avoided. Management decisions must not interfere with the physician/patient relationship. The individual physician's primary responsibility must remain the needs of each patient over the collective needs of the health system.

TABLE 3: BC MSP GUIDELINES AND PROTOCOLS

24-hour Ambulatory ECG (Holter Monitor)
Antinuclear Antibody Testing
Assessment and Management of Obstructive Sleep Apnea in Adults
Bone Density Measurement
Chest X-rays in Asymptomatic Adults
Clinical Approach to Adult Patients with Dypepsia
Clinical Approach to Adult Patients with Gastroesophageal Reflux Disease
Clinical Management of Chronic Hepatitis B
Clinical Management of Chronic Hepatitis C
Cholesterol Testing: Adults Under 69 Years
Detection of Drugs of Abuse in Urine: Methadone Maintenance Program
Detection and Treatment of Helicobacter Pylori Infection in Adults
Diabetes Care
Diagnosis and Management of Sore Throat
Electrocardiograms
Follow up of Patients after Curative Resection of Colorectal Cancer
Investigation and Management of Iron Overload
Investigation of Suspected Infectious Diarrhea
Prenatal Cytogenetic Testing
Prenatal Ultrasound
Preoperative Testing
Treatment of Cataract in Adults
Treatment of Gallstones in Adults
Use of the Hematology Profile in Adults
Use of Homocysteine Measurement in the Evaluation of Atherothrombotic Disease
X-ray for Acute Ankle Injury

SOURCE: MEDICAL SERVICES PLAN 2002

5. PRIMARY CARE DELIVERY MODELS

Differing patient/provider needs and geographic circumstances preclude recommending a single primary care delivery model for BC. Based upon the research outlined earlier and the experience of practising physicians, five primary care delivery models are presented, each with inherent strengths and weaknesses.

The numerous structural and implementation issues associated with these models are complex. Consequently, **the model descriptions below are incomplete.** Each requires further development. The descriptions do, however, provide a basic outline of the main features of each model.

VOLUNTARY

A fundamental principle of primary care renewal is that both patients and providers must enter into each primary care delivery model voluntarily. As noted by the College of Family Physicians of Canada (2000), *there are too many differences from one community to the next (e.g. geography, professional resources, population demographics) to presume that a single delivery model will be appropriate for all.* Therefore, the CFPC opposes any attempt to force family doctors into one particular type of practice.

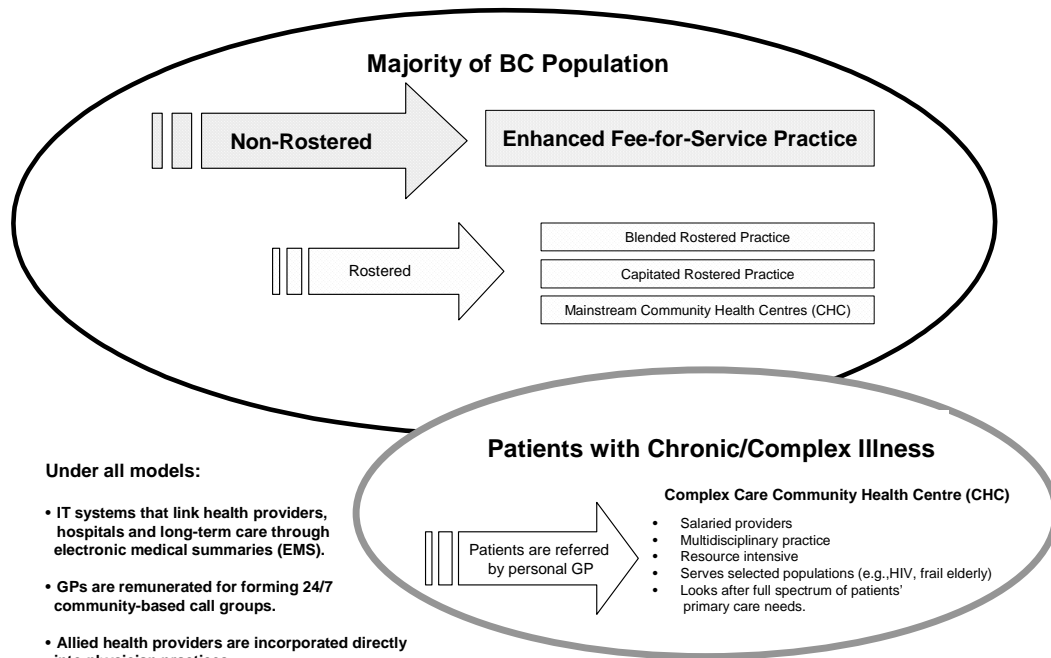
RECOMMENDATION 12

That entry into a particular primary care delivery model be voluntary for patients and providers.

The five primary care delivery models described below are:

- 1. Enhanced Fee-For-Service Practice*
- 2. Blended Rostered Practice*
- 3. Capitated Rostered Practice*
- 4. Mainstream Community Health Centre (CHC)*
- 5. Complex Care Community Health Centre (CHC)*

FIGURE 5: PRIMARY CARE DELIVERY MODELS FOR BRITISH COLUMBIA



5.1 NON-ROSTERED PATIENTS

MODEL 1: ENHANCED FEE-FOR-SERVICE PRACTICE

Fee-for-service (FFS) is the primary remuneration mechanism for the majority (94%) of BC's GPs. While some advocates of primary care reform claim that GPs are dissatisfied with FFS, the 2000 BCMA membership survey shows that almost 60% of BC's practising physicians view FFS as their preferred payment method. 17% prefer blended payment (combination of FFS and other), 17% salary or sessional, and just 1% capitation. 5% had no preference.

The trend among GPs to leave the responsibilities of full-spectrum care in favour of high-volume, low-intensity clinics and/or narrowly focused practices is a significant concern. Having a full-spectrum family physician is associated with increased patient satisfaction, better preventative care, more timely access, better compliance with

treatment, lower medical costs during hospitalization and less discomfort with chronic diseases and disability (Talbot et al. 2001).

A series of incentives needs to be created through FFS payment for the delivery of care to specific clinical areas that are now deficient. For example, GPs need enhanced fees for home visits, conferencing on patient care with other health professionals, hospital work, and obstetrics. BC's existing fee schedule does not adequately address the care requirements of elderly and/or complex patients. The GP fee schedule should be age/gender and/or case-mix adjusted. As in several other jurisdictions, including the United Kingdom and Ontario, bonuses for preventative screening activities, e.g. immunizations, Pap tests, mammograms, should be implemented. In Ontario's recently established Family Health Networks, GPs receive the following incentives for preventative activities:

TABLE 4: ONTARIO FAMILY HEALTH NETWORKS - INCENTIVES FOR PREVENTATIVE ACTIVITIES

<i>Preventative Activity</i>	<i>Target Level</i>	<i>Compensation</i>
Flu vaccination for patients 65+	60%	\$ 200
	65%	\$ 440
	70%	\$ 770
	75%	\$ 1,100
	80%	\$ 2,200
Children with at least five immunizations prior to age 2	85%	\$ 400
	90%	\$ 1,100
	95%	\$ 2,200
Female patients between 35 and 69 years who had a minimum of one Pap Test in past two years	60%	\$ 220
	65%	\$ 440
	70%	\$ 660
	75%	\$ 1,320
	80%	\$ 2,200
Female patients between 50 and 69 that had a mammogram at least once in past two years	55%	\$ 220
	60%	\$ 440
	65%	\$ 700
	70%	\$ 1,320
	75%	\$ 2,220

SOURCE: ONTARIO MINISTRY OF HEALTH 2001

INFORMATION TECHNOLOGY

While the GP's paper chart will realistically remain the patient record for the foreseeable future, the Electronic Medical Summary (EMS) (see Section 4.2) is a more efficient and cost-effective means of transmitting cogent information to other health professionals and components of the delivery system. Under the *Enhanced Fee-for-Service Model*, full-spectrum GPs would be provided with the funding to acquire the necessary hardware and software as well as to create and regularly maintain an EMS for each patient. As technology advances and more GP offices become 'paperless', charting and billing software should become sufficiently sophisticated that the EMS will be automatically updated.

Real or virtual GP groups would consist of at least six GPs. Experience demonstrates that smaller groups provide a narrower scope of services and cannot realistically provide continuous on-call coverage. Alternatively, very large physician groups tend to become bureaucratic and require costly managerial support. For these reasons, the OCFP recommends that GPs work in groups of 7 to 16 physicians, with a publicly funded nurse practitioner for every 3 to 4 physicians, provided it is geographically feasible. The Quebec Clair Commission (Clair 2000) recommended that multidisciplinary primary care practices include 6 to 10 doctors and 2 to 3 nurses.

ON-CALL

Enhanced Fee-for-Service Practices ideally would provide compensated 24/7 community on-call coverage. This does not imply that the practice must be physically open 24/7. During after-hours, the group would provide community on-call coverage as defined in Section 4.6.

MULTI-DISCIPLINARY PRACTICE

The demographic data (refer to Section 2.2) clearly indicates that dwindling numbers of primary care providers will need to work as a team to care for the growing needs of an increasing and aging population. While not always geographically feasible, in many cases multi-disciplinary teams can be created virtually, either through IT or within GP's offices, taking advantage of existing clinical infrastructure. Every effective team has a leader. Allied health professionals would work under the clinical guidance of the GP(s), who would bear the ultimate responsibility and liability for care decisions.

Each multi-disciplinary practice group would develop detailed health professional job descriptions, clearly defining roles in order to meet patients' needs. Moreover, appropriate triage guidelines would be put in place to ensure integration of care delivery. The objective is to develop allied health professional roles that complement and support, rather than compete with, each other. Allied health professionals will continue to have independent authority to act within their respective scopes of practice.

To be viable, government funding is required to encourage Enhanced Fee-For-Service GPs to directly incorporate allied professionals in their practices. Funding mechanisms could range from the creation of a fee schedule for allied health care professionals, block funding provided to the GP(s), and/or salary/sessional payments paid to the allied health professionals by either the provincial government or regional health authority, with an overhead component provided to the GP group for the use of the office facility.

SUMMARY

The *Enhanced Fee-for-Service Practice* model would effectively meet the needs of the majority of BC's GPs and their patients. Implementing this delivery model takes advantage of the existing community-based GP clinical infrastructure and requires only incremental change; avoiding the confusion, costs, and loss of productivity that accompany more major revision.

Fee-for-service is a transparent, flexible payment mechanism that rewards the provision of services and is endorsed by the majority of BC's GPs. The proposed fee schedule revisions would facilitate the provision of more complex and time intensive care, a source of frustration with the current fee schedule. The disadvantage to fee-for-service remains the potential for rewarding volume of care as opposed to quality of interactions, however, the majority of physicians are dedicated professionals who welcome the removal of systemic impediments to the provision of care to more complex and intensive cases. As with all the models described in this paper, ongoing evaluation of clinical and cost-effectiveness should be conducted through a transparent, external process.

RECOMMENDATION 13

That the Enhanced Fee-for-Service Practice model be actively encouraged as an efficient, easily implementable improvement to the delivery of mainstream primary care in BC.

5.2 FORMALLY ROSTERED PATIENTS

Models 2-5 below require a formal rostering system, including a written care contract between patients and physicians for a specified time period. Under formal rostering, physicians and patients agree to an exclusive primary care relationship that places obligations upon both parties.

ADVANTAGES

The advantages of formal rostering have been discussed in detail earlier in this paper (Section 3.2.1), including:

- *Clarification of responsibilities in the doctor-patient relationship*
- *Increased patient accountability*
- *Identification of a clearly defined population for the provision of comprehensive clinical care*
- *Promotion of greater continuity of care*
- *Reduced duplication of services and the number of doctors seen (Osbyte et al. 1997)*
- *Increased value of family practices*
- *Improved distribution of GPs*
- *Reduced reliance on walk-in clinics and emergency departments*

Canadian public opinion has not historically favoured rostering. However, this attitude appears to be changing. The proportion of Canadians identifying that they have a 'regular doctor' dropped from 90% in 1999 to 71% in 2001. The shortage of GPs has begun to hit home as the number of these 'orphan' patients has risen. There

are already an estimated 100,000 patients in BC without an identifiable GP.²¹ A poll in the March 1999 edition of 'Health Insider' revealed that 85% of the public agrees with registering with one physician.

Once patients realize the benefits of joining a rostered practice, (including access to full-spectrum primary care, maintenance of an EMS, 24/7 community-based on-call, etc.), they will be more inclined to roster. **Entry into a rostered practice must remain voluntary for both patients and providers.** Compulsory rostering inappropriately impedes patient and physician choice.

To date, provincial governments have avoided formal patient rostering, perhaps fearing a negative public reaction to a reduction in choice of health care provider. Governments have also been unwilling to encourage any direct patient accountability for their use of medical services and have looked to alternative approaches such as 'virtual' rostering, which penalizes only physicians for outside patient use. **Most of the benefits of rostering are not achieved through a 'virtual' system** as implemented in the existing Primary Care Demonstration Projects (PCDPs), discussed in more detail below.

PATIENT ACCOUNTABILITY

Patients must be accountable for their use of health care services. As noted by the Ontario Medical Association (1996), "the requirement to have patients assume financial responsibility for the cost of discretionary care accessed outside their rostered family practice would, to some extent, have the effect of making patients accountable...but still allow for reasonable access as per the *Canada Health Act*." A formal rostering system, including financial disincentives for discretionary use of primary care services, would be an effective way to improve patient accountability.

Patients seeking non-emergency primary care outside of their rostered practice but within their geographic area should face financial disincentives. This should be outlined explicitly as part of the patient/physician contract (see below for more

²¹ The College of Family Physicians of Canada (CFPC) estimates that approximately 30% of Canadians are currently having difficulty accessing a family doctor. In the 2001 NFPWS, 49% of GPs across Canada report that there is a poor availability of family physicians accepting new patients within their practice communities and that about two-thirds of all GPs in the country will no longer routinely

details). Such disincentives are not contrary to the *Canada Health Act* (1984). All 'medically necessary' primary care services will continue to be provided by patients' rostered practices.

THE ROSTERING PROCESS

In establishing a roster, similar guidelines as outlined by the Ontario Medical Association (OMA 1998) would be adhered to, including:

1. Patients sign a care contract with one GP within the group to provide the majority of their care.²² Enrolled patients may receive services from any of the practice's physicians.
2. All insured patients who reside in the practice's geographic area, and are not resident in a long-term care facility, would be eligible for enrolment.
3. Patients may change physicians a maximum of twice per annum.²³
4. De-rostering would require at least 30 days written notice, at the discretion of either the patient or physician.
5. Parents and/or guardians would sign for minors.
6. Patients could register with only one practice at given time.
7. No patient would be denied access to the practice on the basis of pre-existing conditions.

MODEL 2: BLENDED ROSTERED PRACTICE

The *Blended Rostered Practice* model provides a payment mechanism that combines fee-for-service with capitation, potentially, gaining the best of both worlds. In a 2000 BCMA membership survey, 60% of BC's practising physicians preferred fee-for-service, 17% preferred blended funding, and only 1% preferred capitation.

THE CARE CONTRACT

Patients wishing to enter *Blended Rostered Practices* would be required to sign a formal rostering agreement with the physician. Both the physician and patient would retain a copy of this care contract. Under the terms of the contract, the GP would agree to be the patient's primary care provider, addressing his/her primary care needs and coordinating care with other health providers. The patient would agree to contact

accept new patients. The CFPC estimates that Canada requires at least 3,000 additional family doctors and, by 2011, this shortfall could widen to at least 6,000 unless action is taken.

²² Rostering with one physician is necessary to ensure effective lines of accountability.

his/her rostered physician for all primary care needs, except in an emergency or when out of their geographic area. At a minimum, the care contract would outline:

1. The key responsibilities of the patient and the attending physician.
2. The commitment of the patient to seek primary care services from this physician group and the acknowledgement that they will be financially responsible for non-emergency utilization outside the group within the practice's geographic area.
3. The length of enrolment.
4. The process for de-rostering.
5. General offices hours and means of access for out-of-hours care.

RECOMMENDATION 14

That the BC College of Physicians and Surgeons and the BCMA jointly develop template patient/physician care contracts outlining the key responsibilities of patients and physicians under a formally rostered delivery model.

Roster information would be transferred to the Medical Services Plan (MSP) by the practice. Rostered patients would then receive a different MSP card that identifies them as being rostered to a particular practice. Recognizing the potential for decreased utilization, formally rostered patients should receive incentives such as reduced MSP premiums and/or tax credits. Incentives, combined with growing public concern over lack of access to GPs, should create a significant rostering demand. Patients who do not roster with the practice would continue to utilize GP services as before. GPs would bill the fee schedule as per usual for these patients.

ON CALL

Blended Rostered Practices ideally would provide compensated 24/7 community on-call coverage. This does not imply that the practice must be physically open 24/7. After hours, the group would provide community on-call coverage as defined in Section 4.6.

²³ Norway's experience with rostering shows that only 3-4% of patients change physicians each year.

BLENDED PAYMENT

As a general principle, a physician receiving blended payments and with a roster of at least 2,000 patients would receive approximately 50% of his/her income through rostering stipends. This mix of funding would facilitate flexibility in the way services are provided, enabling telephone or other electronic communication as well as the face-to-face interaction required through FFS remuneration. Rostered stipends would be paid monthly or quarterly.

The rostering stipend would be sufficient to cover the costs of incorporating allied health professionals, development of IT systems (including the EMS), additional administrative and practice governance costs, as well as any structural changes to the office.²⁴ To properly recognize the care requirements of elderly and/or complex patients, the rostering stipend would be adjusted for age, gender, and, patient risk factors.²⁵ If the stipends and the GP fee schedule were properly adjusted, there would be no disincentive to care for patients with complex and/or chronic ailments.

Blended Rostered GPs would still maintain a significant proportion (~50%) of their income through FFS, maintaining an incentive to directly provide services, thus addressing the concerns with pure capitation models (see Model 3). As per the *Enhanced FFS Practice* model, blended rostered physicians would receive bonuses for performing screening activities (e.g. pap tests, immunizations).

ROSTER SIZE

There would be no limit on an individual GP's roster size or on the number of patients the group can roster as a whole. A roster cap is arbitrary and does not adequately take into account the unique circumstances of individual physician practices, e.g. specialization on the part of the physician, hours worked.

²⁴ As an example, in addition to the quarterly per patient stipend, the Ontario Family Health Network (OFHN) contracts allocate \$1 per rostered patient per quarter year to cover additional administrative costs.

²⁵ One potential approach for adjusting for patient risk is the Adjusted Clinical Grouping (ACG) system developed by Johns Hopkins University and currently used by the BC Primary Care Demonstration Projects (PCDPs) for setting capitation rates.

GROUP SIZE

For *Blended Rostered Practices* to be viable, at least six physicians are needed to ensure sufficient patient/provider choice, continuity of care, 24/7 call, and to encourage multidisciplinary practice. It should be noted that, due to the significant proportion of income retained through FFS (~50%), the minimum effective size for *Blended Rostered Practices* is significantly smaller than for purely capitated practices making them easier to implement.

SUMMARY

The *Blended Rostered Practice* model would work well for 'mainstream' general practice. This model takes advantage of the existing GP community-based clinical infrastructure and incorporates the benefits of formal rostering that should solidify the GP/patient relationship, promote greater continuity of care, and reduce rostered patients' reliance on emergency rooms and walk-in clinics. This model does not suffer from the inherent productivity and/or adverse selection concerns in capitation models (see Model 3).

Despite the advantages of formal rostering, the public and the medical profession will need to be persuaded. Consequently, *Blended Rostered Practices* will take more time to develop than the *Enhanced Fee-for-Service* model proposed above. The second round of federal Health Transition Funding (HTF), which was allocated to the BC government in April 2002, provides an excellent opportunity to explore this possibility.

RECOMMENDATION 15a

That Blended Rostered Practices be actively piloted in BC.

RECOMMENDATION 15b

That rostered patients face financial disincentives for utilizing non-emergency primary care services within their geographic area but outside of their rostered group.

RECOMMENDATION 15c

That Blended Rostered Practices be formally, externally evaluated regarding their cost effectiveness and impact on quality of care.

MODEL 3: CAPITATED ROSTERED PRACTICE

The fundamental difference between the *Capitated Rostered Practice* model (no.3) and the *Blended Rostered Practice* model (no.2) is the degree of fixed funding. Under Model 3, funding to physician groups would be primarily a capitated amount per rostered patient, supplemented by fees for encouraging desired full-spectrum care activities, e.g. hospital work, obstetrics. BC's existing Primary Care Demonstration Projects (PCDPs) are an example of one approach to capitated funding (see below for more details on the PCDPs).

Capitated Rostered Practices would receive a fixed amount per patient on a quarterly basis. This stipend should be sufficient to cover additional expenses in administering the capitated contract, IT costs (including the Electronic Medical Summary), and the incorporation of allied health professionals. The capitation rates should be adjusted for differing patient characteristics, e.g. age, gender and health status.²⁶

Like the previous two models, *Capitated Rostered Practices* would have the following features: an integrated IT system including an Electronic Medical Summary (EMS); allied health professionals under the clinical guidance of GPs; 24/7 community-based call, and explicit practice governance structures.

As with Model 2, patients in a *Capitated Rostered Practice* would sign a formal care contract, outlining patient and physician responsibilities (refer to Model 2 for more details). Rostered patients would face financial disincentives for using non-emergency primary care services within their geographic area outside their rostered group. Recognizing the potential for decreased utilization, formally rostered patients should receive incentives such as reduced MSP premiums and/or tax credits. Patients who do not roster with the practice would continue to utilize GP services as before. GPs would bill the fee schedule as per usual for these patients. As per Ontario's recently established Family Health Networks, *Capitated Rostered* physicians should receive bonuses for preventative screening activities, e.g. immunizations, Pap tests, mammograms. *Capitated Rostered Practices* ideally would provide compensated 24/7

²⁶ The existing Primary Care Demonstration Projects (PCDPs) use the Johns Hopkins Adjusted Clinical Groups (ACGs) to try to account for differing patient health status.

community on-call coverage. This does not imply that the practice must be open 24/7. After-hours, the group would provide community on-call coverage as defined in Section 4.6.

For further details on other aspects of this delivery model, including roster size and the care contract, refer to the description under Model 2 above.

CONCERNS WITH CAPITATION

While the BCMA endorses a plurality of payment mechanisms for physicians depending upon their individual practice circumstances, there are drawbacks to using capitation as the dominant remuneration, including:

Administrative Requirements: Experience in other jurisdictions has shown that capitated practices generally require additional administration to manage the funding arrangement. In the UK, for example, a full-time case manager is assigned to each Primary Care Group (PCG). Recognition of additional administrative and governance requirements must be incorporated into any capitation contract.

Sufficient Practice Size: Capitation offloads the risk of variable patient utilization onto the physician group. Capitated Rostered practices, whether real or virtual, will need to be larger than in Models 1 or 2 due to the financial risks associated with a fixed fee contract with variable patient utilization. Consequently, capitation is more compatible with large physician practices that are better able to level out varying cash flows. In the UK, capitated Primary Care Groups (PCGs) typically include more than 100 GPs. The BCMA remains skeptical that small capitated practices, including the existing Primary Care Demonstration Projects (PCDPs), are viable over the long term. It is noteworthy that the BC government guaranteed each PCDP practice a quarterly payment floor to accommodate potential patient outflows. The PCDP contracts, therefore, are not truly risk bearing.

Setting Capitation Rates: Experience has shown that, due to unforeseen variations in future patient utilization; it is very difficult to accurately set capitation rates. Population-based funding models have not been particularly predictive of patient behaviour. Consequently, various modifiers have been

employed to improve the capitation model. Age/gender adjustments alone do not accurately reflect actual health care costs. Alternatively, BC's PCDPs use the Johns Hopkins Adjusted Clinical Groupings (ACGs) to adjust the capitation rates for different patient populations. While ACGs show potential, it remains uncertain whether the ACG adjustment is sufficiently predictive. If capitation rates don't accurately reflect actual patient costs, they encourage the preferential rostering of healthy patients, commonly known as 'cream-skimming.'

Perverse Incentives: The incentive in a rostered, capitated practice is to enrol patients, but once enrolled there is no incentive to provide more than the minimal number of services necessary to keep a patient from transferring care. This has the potential to significantly increase patient wait times and reduce patient satisfaction. The negation clauses within the existing BC's PCDPs are unacceptable. Negation penalizes physician(s) for outside patient utilization, which they cannot control. Rather, if capitation rates are set appropriately and patients are formally rostered and face financial penalties for non-emergent outside utilization, negation should be unnecessary.

SUMMARY

The BCMA endorses the ability for physicians to choose the remuneration mechanism that best suits their individual practice style. For the reasons outlined above, however, capitation has limited application in BC.

RECOMMENDATION 16a

That Capitated Rostered Practices involve formal, not 'virtual' rostering.

RECOMMENDATION 16b

That Capitated Rostered Practices include sufficient numbers of patients and physicians to adequately address variations in patient utilization.

RECOMMENDATION 16c

That capitation rates be negotiated provincially.

FEDERAL/PROVINCIAL PRIMARY CARE DEMONSTRATION PROJECTS

In 1998 the BC government, through \$9.6 million in federal funding, created its own delivery model through eight Primary Care Demonstration Projects (PCDPs). As articulated by the BC Ministry of Health (2001), the goals of these projects were: 1) to provide more integrated health care delivery through multidisciplinary teams; 2) to incorporate a health promotion and illness prevention focus, and; 3) to realign funding to patients, not services.

Six of the eight PCDPs receive population-based funding (capitation) and one receives sessional payments. After initial resistance, and at the insistence of the BCMA, one fee-for-service practice was added. Only three of the six capitation sites are 'typical' family practices. The remaining three deliver primary care services for specialized patient groups (e.g. HIV patients, mental illness, low income). With the exception of the one FFS practice, the PCDPs receive population-based funding (capitation) for 'core' services,²⁷ while 'non-core' services are paid through fee-for-service. The government's population-based funding model uses the adjusted clinical groups (ACGs) developed by John Hopkins University.²⁸ The external evaluation of the PCDPs, due by March 31, 2002, has, regrettably, been abandoned by government. Consequently, there is limited evidence available to judge their clinical- or cost-effectiveness.

The BCMA has significant concerns with the existing PCDPs and does not want to see this process repeated with the next round for federal Health Transition Funding (HTF), due to begin in 2002/03. The design and implementation of any new models of primary care delivery must include integral involvement of practising physicians, representative of and accountable to their professional colleagues, and be formally evaluated prior to full-scale implementation.

²⁷ In establishing core and non-core services, the Ministry of Health identified 233 fee items that accounted for over 99% of GP billings in BC. Of these fee items, those pertaining to anaesthesia, minor surgery, obstetrical, and emergency services were removed, and are known as non-core services. The remaining 76 fee items are 'core services' that all GPs are expected to provide as part of comprehensive primary health care delivery.

²⁸ Each of the 82 ACG categories has a specific yearly payment rate, with higher rates being paid for patients with greater illness burden. As a result, each patient who is virtually rostered with the practice is placed to one of 82 ACG categories and payment to practices is based on this.

Two of the major weaknesses of the PCDPs are: 1) the implementation of information technology, and, 2) their 'virtual' rostering system.

Information Technology: The PCDPs faced significant IT hurdles, particularly with vendor selection and implementation. Based upon the limited information currently available, it cost an estimated \$20,000 to \$40,000 per physician to computerize each PCDP practice. Extrapolated to BC's approximately 4,000 GPs, the cost would be over \$100 million.

Virtual rostering: The PCDPs' 'virtual' rostering system is unacceptable. Patients are rostered based on their historical utilization patterns attained from MSP records. Unlike the formal rostering used in true capitation systems (e.g. UK and Norway), BC's PCDP patients are not required to formally contract with the practice for a specified period, and may not even know they are rostered. In 'virtual' rostering, the physicians are liable for costs incurred if a rostered patient seeks services from another practice. However, these physicians do not even know which patients are seeking outside services and incurring financial penalties to the practice. With no direct accountability, there is limited incentive for patients to seek care through their rostered physician.

RECOMMENDATION 17

That the BC government re-establish the external evaluation of the federal/provincial Primary Care Demonstration Projects (PCDPs), including analysis of their cost-effectiveness and impact on patient care.

MODEL 4: MAINSTREAM COMMUNITY HEALTH CENTRE

Model 4 (*Mainstream CHC*) has two fundamental differences from Models 1-3 above: 1) CHC providers would be remunerated through salary and/or sessional payments, and; 2) CHC providers would have to be located in the same physical setting.

Two types of CHCs are described below. The first is the *Mainstream CHC*, intended to service the more traditional patient population. The second is the *Complex Care CHC*, intended to service population groups with particularly high needs, e.g. HIV/AIDS, frail elderly (Model 5).

The *Mainstream CHC* model (no.4) is similar to the already existing REACH Clinic in East Vancouver and the CHC equivalents that exist in Quebec (CLSCs), which employ approximately 20% of that province's GPs.²⁹ A primary benefit of CHCs is the direct integration of health professionals, potentially including GPs, nurse practitioners, social workers, nutritionists, etc. within the same physical space. This physical proximity assists in the coordination of care delivery as well as in sharing of information. CHCs may provide an enhanced professional lifestyle. Since all CHC providers are on salary, hours of work can be clearly defined. BC's fee-for-service GPs are currently working, on average, in excess of 75 hours per week.³⁰ Salaried CHC arrangements could prove quite attractive, particularly for those providers who wish to work fewer or a set number of hours each week.

Despite their potential advantages, *Mainstream CHCs* have some significant limitations, including:

Reduced physician autonomy: As salaried employees, physicians become directly subject to organizational rules and priorities. This raises the potential for conflict of interest, particularly in times of fiscal restraint, as the CHC's interest may not be the same as the patient's. Physician clinical autonomy must be the utmost consideration if the public is to maintain confidence in our primary care delivery system. One needs only to look to the 'HMO backlash' in the United States to see the impact of prioritizing organizational over patient needs. Physicians must be free to act as patient advocates.

Significant administrative requirements: Unlike the typical GP office, CHCs require an additional administrative level separate from clinical providers. For example, Vancouver's REACH CHC employs a full-time administrator plus several part-time administrative staff to support just six GPs.

Lack of provider resources: The Quebec CLSC experience demonstrates that CHC physicians will not work the long working hours of the typical fee-for-service physician. Consequently, to meet rising patient demand, salaries will require either substantial overtime payments or an increase in the number of

²⁹ At time of printing, there are 146 CLSCs in Quebec employing approximately 1,500 salaried physicians and approximately 5,000 FTE nurses (Dumont-Le Masson 2000).

available physicians and allied health professionals. Both of these scenarios are unrealistic over the short-to-medium term, as there is already a shortage of physicians and nurses.

Reduced productivity: As with capitation, there is evidence that salary remuneration reduces physician productivity. As noted by Royce (2000), some physician groups in the United States experienced a 20% reduction in physician productivity shortly after they converted to a salary system. Moreover, since CHC providers will be salaried employees, union confrontations may escalate. A contractual dispute with one health care group could result in job action that would disrupt the whole network of CHCs.

Existing Infrastructure: A huge financial investment has already been made by BC's GPs in terms of office space, equipment, staff, etc. The implementation of CHCs must recognize these investments through buy-outs, etc.

Costs: The CHC delivery model for mainstream primary care appears to be costly compared with traditional fee-for-service practice. Unfortunately, the empirical evidence on CHCs is sparse. In a previous evaluation by the then Vancouver/Richmond Health Board (V/RHB 1996), the average cost per patient visit to the Downtown South CHC was \$70.74. This is very high compared to the then GP office visit of \$25.83.³¹

Unfortunately, the V/RHB evaluation provides no empirical evidence on the CHCs impact on the use of other health providers, emergency room visits, hospital stays, etc. Long-standing CHCs in BC, such as REACH, have never been formally, externally evaluated in terms of patient quality of care or costs.

While the BCMA endorses the ability for physicians to practise in CHCs, this model will likely not be attractive to the majority of BC's GPs. In fact, outside of Quebec, the interest in pursuing salary payments has been very limited.

³⁰ Including on-call responsibilities.

³¹ It should be noted that the Downtown South CHC services a relatively low-income population. Consequently, it is reasonable to assume that their costs/patient would be somewhat higher than the provincial average.

RECOMMENDATION 18

That a formal, external evaluation of the clinical and cost-effectiveness of BC's existing Community Health Centres be undertaken.

MODEL 5: COMPLEX CARE COMMUNITY HEALTH CENTRE

Hoffman, Rice et al. (1996) report that nearly two-thirds of Americans aged 65 or older have two or more chronic conditions, and one-quarter have four or more conditions. Chronic disease is a major cause of disability in BC. Approximately 3% of BC's population over age 65 is considered 'frail'. The Vancouver/Richmond Health Board (2001) estimated that the chronic conditions consume 70% of health care spending in that region.

The editors of the British Medical Journal recently asserted that the mainstream primary care delivery system should remain the health care setting for most chronically ill patients; given the importance of preventative care, management of co-morbidity, and the need for coordination. There are, however, subsets of the chronically ill population facing significant access hurdles through traditional GP offices. The complex- and resource-intensive needs of these patients are not adequately addressed within the existing delivery system. For example, it is estimated that about 60,000 British Columbians are suffering from serious mental illness and unable to receive adequate care. To date, there has been only a limited response by government to establish *Complex Care CHCs*, including two of the Primary Care Demonstration Projects (Spectrum Health, which provides care for HIV/AIDS; and Surrey Health Services, which focuses on mental illness).

Complex Care CHCs would serve patients with multi-disciplinary needs, including:

- Persistent/Serious Mental Illness
- Frail Elderly
- HIV/AIDS
- Addicted Populations

These CHCs would include a variety of providers and service a smaller number of patients in a more time- and resource-intensive manner, often in settings unique to the individual, e.g. elderly outreach providing home visits, traveling clinics for addicted

populations. The Vancouver Coastal Health Authority's (VCHA) recently announced second round of primary care projects appears to be a step in the right direction. At the time of printing, two new projects will focus on the frail elderly and diabetes care. This should be more effective than VCHA's previous approach, which saw CHCs superimposed into communities already well-served by established GPs, and without appropriate consultation with the medical profession.

Complex Care CHCs would take over the entire primary care needs of patients, rather than address solely the needs of their identifying condition. The provision of coordinated, comprehensive and integrated care is best done through the same team. Patients attending *Complex Care CHCs* would either self identify or be referred by their attending GP. It is recognized that these CHCs may be a more expensive delivery model than traditional GP offices. Because of the relatively small proportion of the population to be served by *Complex Care CHCs*, and the need for sufficient numbers of patients to be viable, there would be a limited number of these CHCs province-wide, primarily in the larger urban areas (e.g. Lower Mainland, southern Vancouver Island, Okanagan).

Patients would formally roster with the *Complex Care CHC*, which would be equipped with an IT system that integrates primary care providers, acute care, long-term care, and home care. As with the other models, physicians who wish to enter into salaried arrangements and practice in a *Complex Care CHC* must do so voluntarily.

RECOMMENDATION 19a

That Community Health Centres (CHCs) be encouraged as an effective delivery model for complex/chronic patients.

RECOMMENDATION 19b

That patients of CHCs formally roster with the health centre.

RECOMMENDATION 19c

That CHC physician salaries and sessional arrangements be negotiated provincially.

RECOMMENDATION 19d

That CHCs provide the full-spectrum of primary care to the patients they serve.

A NOTE ON WALK-IN CLINICS

Walk-in clinics satisfy a public demand for rapid, extended hours access to primary care and provide an alternate venue to overcrowded, expensive emergency departments. The use of walk-in clinics appears to be increasing. A recent poll commissioned by the CMA (2001a) indicates that 32% of respondents had been to a walk-in clinic within the last six months. According to the 2001 National Family Physician Workforce Survey, 19% of GPs identified a walk-in clinic as their primary practice setting, up from 10% in 1997. Walk-in clinics generally provide a limited scope of primary care services. While Canadians regularly visit walk-in clinics, they tend to be more satisfied with the care offered by their regular GPs (Lorinc 2001). The dilemma is not how to eliminate walk-in clinics but rather how to better integrate them into the rest of the primary care delivery system.

6. CONCLUSIONS

British Columbians are privileged to be served by a primary care delivery system that ranks among the best in the world. However, our system is under significant stress from increasing demands, aging patients and providers, and an inadequate technological and physical infrastructure. Our response must be measured and based on evidence.

As stated by Relman (1994),

No one wants to be taken care of by an angry or demoralized physician but rather a competent, well-informed, compassionate provider who will have no incentive to do more or less than is medically appropriate for each patient, and who practices in facilities with adequate resources and good management.

There is little evidence to support the superiority of one delivery model and/or payment modality over another. As recently recommended in a Canadian review of primary care reform by Hutchinson et al. (2001) “*we should proceed incrementally, encouraging active public and provider input in choosing primary care delivery models most appropriate to the needs of each community.*” In addition to embracing the concept of pluralism, and unlike BC’s past experience with the Federal/Provincial Primary Care Demonstration Projects, new delivery models must be formally, externally evaluated prior to their widespread implementation.

***Strong evidence is
lacking to support the
superiority of any
one model of organizing,
funding, and delivering
primary care***

(Hutchison et al., 2001)

Models 1 (*Enhanced Fee-for-Service Practice*) and 2 (*Blended Rostered Practice*) are best suited for the delivery of mainstream primary care in BC. Models 3 (*Capitated Rostered Practice*) and 4 (*Mainstream Community Health Centre*), although advocated by some, have significant limitations and application in BC. Model 5 (*Complex Care CHC*) would comprise a significant improvement to the delivery of care for the growing number of complex and chronic patients.

The BC government received its next round of federal Health Transition Funding in April 2002. The \$74 million designated to BC over the next four years provide an opportunity to make constructive change. Practising physicians, representative of and accountable to their professional colleagues, must be involved in the development and evaluation of this next round of transition funding.

BC is a large and diverse province with a myriad of primary care needs. No single model will optimally serve all populations. We must ensure active public and provider input in choosing models most appropriate to the needs of each community and providing adequate incentives to facilitate necessary changes. Experience shows that a unilaterally imposed framework may create a short-term change, but will not be sustained.

Primary care delivery is the backbone of our health system. While many considerations must be weighed in the development of future delivery models, quality of care and the capacity to provide this care must come first.

COMPARISON OF PRIMARY CARE DELIVERY MODELS

	<i>MODEL</i>				
	Enhanced Full-Spectrum	Blended Rostered	Capitated Rostered	Mainstream Community Health Centre	Complex Care Community Health Centre
FEATURES					
IT system integrating primary care providers, acute care, long-term care, and home care through the Electronic Medical Summary (EMS)	✓	✓	✓	✓	✓
Allied health professionals incorporated into community-based physician practices	✓	✓	✓	NO	NO
Multidisciplinary team in same physical setting	NO	NO	NO	✓	✓
24/7 community based on-call	✓	✓	✓	✓	✓
Formally rostered patients (rostering is voluntary)	NO	✓	✓	✓	✓
Rostered patients face financial disincentives for using non-emergency primary care services within their geographic area outside of their rostered group	NO	✓	✓	✓	✓
Enhanced fees and/or bonuses for providing 'full-spectrum' care, e.g. maintaining hospital privileges, obstetrics, updating EMS	✓	✓	NO	NO	NO
GPs receive annual stipend (age/gender/case-mix adjusted) for rostered patients	NO	✓	✓	NO	NO
Capitation funding supplemented by enhanced fees for 'full-spectrum' care	NO	NO	✓	NO	NO
Targeted to mainstream patient population	✓	✓	✓	✓	NO
Patients are referred by personal GP	NO	NO	NO	NO	✓
Targeted to patients with chronic/complex conditions, e.g. HIV, persistent/serious mental illness, frail elderly	NO	NO	NO	NO	✓
Remuneration through salary or contract/ sessional payments	NO	NO	NO	✓	✓

LIST OF RECOMMENDATIONS

ENSURING PRACTISING PHYSICIAN INPUT

1. That where alternative primary care delivery models are considered, practising physicians, representative of and accountable to their professional colleagues, be integral in the planning, design and evaluation process.

HEALTH INFORMATION TECHNOLOGY

2. That health information policies be developed in BC that protect patients' privacy rights and facilitate the effective sharing of information.
- 3a. That practising physicians, through their representative organizations, be integrally involved in the development and implementation of a province-wide health care IT system and infrastructure.
- 3b. That the BC government, directly or through federal initiatives, fund the initial purchase, ongoing connectivity and data management, training and upgrading costs of integrated IT systems in physicians' offices.
4. That IT systems be developed which integrate primary care providers, hospitals, and long-term care facilities through an Electronic Medical Summary (EMS) and core data set.

ENCOURAGING GROUP PRACTICE

5. That incentives be developed to encourage general practitioners to practice in groups, real or virtual.

ENCOURAGING MULTI-DISCIPLINARY PRACTICE

6. That the BCMA, the BC College of Physicians and Surgeons and relevant BC health professional organizations work to determine the principles under which medical acts can be appropriately delegated within a multidisciplinary primary care practice.
7. That mechanisms be developed, including financial, to support the long-term integration of allied health professionals into community-based physicians' offices, with the physicians' clinical guidance and expertise.

PRACTICE GOVERNANCE

8. That once alternative primary care delivery models are more fully developed, the BCMA draft governance templates for both physician-only and multi-disciplinary group practices.

ENCOURAGING FULL-SPECTRUM PRACTICE

9. That appropriate payment structures and incentive mechanisms be identified that encourage full-spectrum care regardless of the modality of physician payment.
10. That 24/7 community-based call be encouraged and compensated.

ACCOUNTABILITY

11. That medical service co-payments, health savings accounts, and formal patient rostering be examined for applicability in BC.

VOLUNTARY

12. That entry into a particular primary care delivery model be voluntary for patients and providers.

ENHANCED FEE-FOR-SERVICE PRACTICE

13. That the Enhanced Fee-for-Service Practice model be actively encouraged as an efficient, easily implementable improvement to the delivery of mainstream primary care in BC.

BLENDED ROSTERED PRACTICE

14. That the BC College of Physicians and Surgeons and the BCMA jointly develop template patient/physician care contracts outlining the key responsibilities of patients and physicians under a formally rostered delivery model.
- 15a. That Blended Rostered Practices be actively piloted in BC.
- 15b. That rostered patients face financial disincentives for utilizing non-emergency primary care services within their geographic area but outside of their rostered group.
- 15c. That Blended Rostered Practices be formally, externally evaluated regarding their cost effectiveness and impact on quality of care.

CAPITATED ROSTERED PRACTICE

- 16a. That Capitated Rostered Practices involve formal, not 'virtual' rostering.
- 16b. That Capitated Rostered Practices include sufficient numbers of patients and physicians to adequately address variations in patient utilization.
- 16c. That capitation rates be negotiated provincially.
17. That the BC government re-establish the external evaluation of the federal/provincial primary care demonstration projects (PCDPs), including analysis of their cost-effectiveness and impact on patient care.

COMMUNITY HEALTH CENTRES

- 18. That a formal, external evaluation of the clinical and cost-effectiveness of BC's existing Community Health Centres be undertaken.
- 19a. That Community Health Centres (CHCs) be encouraged as an effective delivery model for complex/chronic patients.
- 19b. That patients of CHCs formally roster with the health centre.
- 19c. That CHC physician salaries and sessional arrangements be negotiated provincially.
- 19d. That CHCs provide the full-spectrum of primary care to the patients they serve.

APPENDIX A

BC'S PRIMARY CARE PROVIDERS

GENERAL PRACTITIONERS

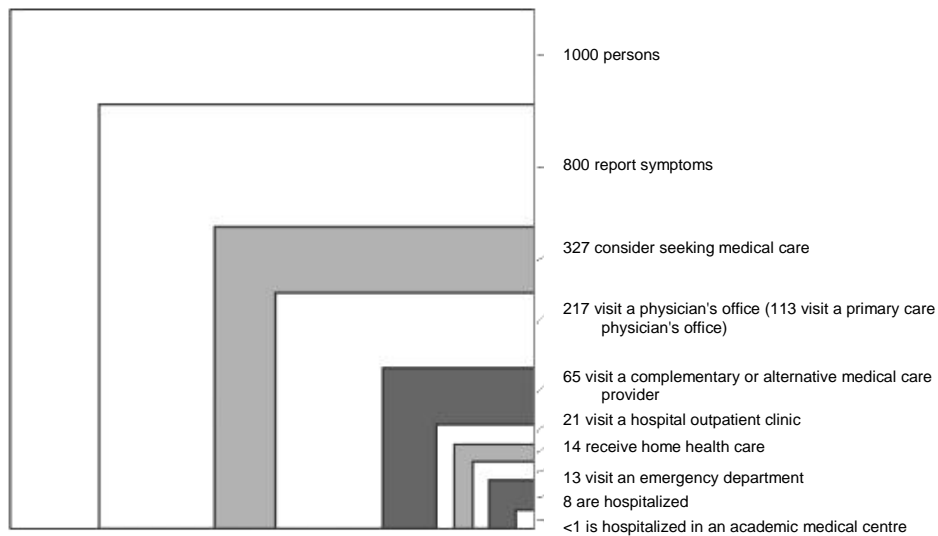
General Practitioners (GPs) deliver the majority of primary care in BC, diagnosing an estimated 95% of the problems presented by patients³² and coordinating patient care by arranging referral to an appropriate specialist or alternative primary care provider, when required. Eighty-two percent of BC's population accessed a GP in 1999/00. The average person visits his/her GP approximately seven times a year (British Columbia Ministry of Health 2000). As prohibited by the Canada Health Act (1984) and the BC Medicare Protection Act (1996), patients do not pay user fees when accessing a GP. In 2000/01, there were 4,353 general practitioners in BC (any GP who rendered at least one service during that fiscal year). Of this number, 890 were part-time GPs (with gross income less than \$63,750).³³

A recent study by Dr. Larry Green shows that the vast majority of medical care is provided in primary care physicians' offices. The results of this study are depicted in Figure 6 below.

³² Approximately 5% of patient visits to primary care providers result in a referral to specialist (Bertakis 2001).

³³ According to Medical Services Plan Claims File, 2000/01.

FIGURE 6: THE ECOLOGY OF MEDICAL CARE REVISITED 2001



Reproduced from: Green et Al. The ecology of medical care revisited. N Engl J Med 2001;344:2021-5.

British Columbians do not need to register/roster with a single or group of GPs; despite this, the majority of British Columbians (approximately 85%) report having their own personal family doctor. Despite the fact that there are no legislated requirements for 24-hour, 7 days per week community-based coverage, the majority of BC's GPs currently provide this service without payment. GPs in British Columbia tend to work in group practices, sharing expenses and resources. 94% have fee-for-service as their primary form of remuneration.

GPs in British Columbia work long hours, averaging 53 hours per week, excluding on-call. Of these 53 hours, approximately 83% of their time is spent in clinical practice, 8% in academic activities, 6% in administering their practice, and 3% in other professional activities (CFPC 2001b). In addition to regular office hours, almost 85% of BC's GPs participate in on-call activities, averaging 20 hours per week. For the full-service family physician, the multitude of time pressures is leading to frustration and burnout.

Although the majority of GPs provide primary care services to patients, some also provide specialty care. In addition to designated specialties, an increasing number of

GPs have acquired a special clinical expertise in areas such as sports medicine, addiction medicine, palliative care, mental health, and emergency medicine.

GP SCOPE OF PRACTICE

BC General Practitioners provide a wide range of clinical services from preventive counseling to acute interventions. *Practice Styles*, a 1997 survey by the College of Family Physicians of Canada, helps to illustrate this, as seen in the table below.

TABLE 5: MEDICAL SERVICES PROVIDED BY GENERAL PRACTITIONERS IN BRITISH COLUMBIA

<i>Medical Service</i>	<i>Percentage Of GPs Engaged In Service</i>
Adult health care	91.0
Care of the elderly	90.6
Child health care	87.5
Adolescent health care	87.5
Preventive medicine/ Lifestyle counselling	84.5
Mental health / psychotherapy	83.2
Chronic disease management	83.1
Surgery (minor)	82.0
Palliative care	79.1
Obstetrical care	72.5
Addiction medicine	72.4
Surgery (assisting)	71.5
Aboriginal health care	71.0
Sports medicine	68.7
Emergency medicine	68.6
HIV/AIDS health care	61.0
Occupational / Industrial medicine	57.3
Alternative / Complementary medicine	53.6

SOURCE: COLLEGE OF FAMILY PHYSICIANS OF CANADA 1997

SPECIALISTS

The GP to specialist ratio in BC (0.55 to 0.45) is higher than the Canadian average (0.51 to 0.49). Direct patient access to specialists in BC is regulated. The vast majority of patients are referred to specialists by GPs. The existing payment policy provides a financial incentive for specialists to limit practices to consultation, rather than primary care. Some BC specialists have significant GP office visit billings,

indicating the provision of primary care. These are primarily paediatricians who billed the province's Medical Services Plan for over 44,000 visits in 1999/00. Compared to other provinces, in particular Ontario and Quebec, BC specialists provide relatively little primary care.

GP HOSPITALISTS

Although a relatively new phenomenon, GP hospitalists may have a significant impact upon primary care delivery in BC. Primarily responsible for the care of 'orphan' patients (i.e. persons admitted to hospital without a family physician) hospitalists are also responsible for internal hospital quality control and are expanding their role into supervising hospital-run home care programs. Surrey Memorial Hospital, Burnaby Hospital, and the Vancouver Island Health Authority have all recently hired hospitalists.

While the use of hospitalists has been associated with increased efficiencies in hospital care, their introduction has had 'ripple' effects as well. Ironically, it has usually been community-based GPs who have left their practices to take these positions, thereby, creating even more orphan patients. Their in-hospital presence has also resulted in some other GPs reducing or eliminating their hospital activities, increasing the schism between hospital and community care.

OTHER PRIMARY CARE PROVIDERS

Primary medical care is delivered, with few exceptions, by family physicians. Primary health care, in the broader context, is serviced by a number of community-based practitioners, including nurses, nurse practitioners, physiotherapists, midwives, chiropractors, and naturopaths. In British Columbia, primary care physicians have historically worked in cooperation with other health care providers through referrals and delegation of care.

British Columbians pay a variety of user fees and co-payments when utilizing other primary care services. As of 1 January 2002, the majority of British Columbians pay privately for physiotherapy, chiropractic, naturopathy, massage therapy, and non-surgical podiatry services. Only those patients that qualify for premium assistance

(earning less than \$20,000 per year) are insured for up to a combined ten visits per year for such services.

NURSES

In 1999, there were 27,548 practising registered nurses (RNs) employed in nursing in British Columbia.³⁴ Of these, 96% were female and only 47% worked regular full-time. The total number of RNs entering the profession in BC in 2000 was 1,178 (RNABC 2002).

The training requirements for nurses vary across Canada. For example, nursing students in Atlantic Canada and Saskatchewan must complete a Bachelor's degree, since no diploma programs exist. In other provinces, such as BC, students can choose a diploma or degree program. (CIHI 2001a)

The shortage of nurses in BC is a major concern for the province's primary care system, as there is an estimated deficit of at least 1,200 nurses province-wide. According to the RNABC, more than 13,000 (48%) of nurses in BC are between the ages of 45 and 65 and the association estimates 4,000 are poised to retire, while 9,000 will be in a position to retire by 2011 (Bailey 2001).

NURSE PRACTITIONERS (NPs)

In general, Nurse Practitioners are registered nurses with advanced knowledge and decision-making skills in assessment, diagnosis, and health care management. Alberta, Ontario, and Newfoundland have passed legislation to support expanded roles for nurses as NPs.³⁵ The policy and legislative frameworks governing nursing practice in an extended role, as well as educational expectations, are quite varied across Canada (The Centre for Nursing Studies 2001). In some provinces, NP programs are certificate programs that can be taken by nurses who hold a diploma or degree.

The first Canadian NP program started in the 1970s but ended in the early 1980s, leaving few practising NPs and few opportunities for shared practice between NPs and GPs. This educational program was reinstated in Ontario in 1995 when supporting legislation was proclaimed, and certification in an extended class began in 1998 (Way

³⁴ This figure does not include Licensed Practical Nurses, Licensed Graduate Nurses or Registered Psychiatric Nurses.

et al. 2001). Currently in Canada, 50% of NPs work in community health centres (CHCs), while the rest work with GPs and family practice units or in ambulatory, emergency, and long-term care facilities (Baxter 2000).

There are a limited number of Nurse Practitioners (NPs) in British Columbia. The Ministry of Health is currently reviewing their role within the health care system. According to the previous government's Health Action Plan, the Ministry's goal was to implement regulated NPs in the health care system by the year 2002.³⁶ There are selected examples where NPs are already working in BC. At the Reach Clinic in East Vancouver, two NPs have worked for almost 30 years. According to the BC Nurses Union (BCNU), NPs also work in some northern BC communities (British Columbia Nurses Union 2002).

PHYSIOTHERAPISTS

Physiotherapists in BC work in two primary streams, hospital and community-based practice. In addition to orthopaedic training, BC physiotherapists also receive extensive training in neurological conditions, post-surgical rehabilitation, and pulmonary treatment. Since 1989, residents of British Columbia have had direct access to physiotherapists.³⁷ A doctors' referral is required for physiotherapy treatment in a hospital as well as WCB and ICBC-supported visits.

There are approximately 2,500 physiotherapists licensed to practice in BC (PABC 2002). Fifty-two percent of British Columbians over the age of 18 have visited a physiotherapist at least once, and, in a given year; about 19% of BC adults visit a physiotherapist (Physiotherapists Association of British Columbia 2001). Eighty-one percent of BC adults stated in a recent survey that they visited a physiotherapist in a private clinic rather than in a hospital (Ibid.). The most common reason for visiting a physiotherapist is to treat back or neck pain (42% of respondents).

As of 1 January 2002, the majority of BC residents pay privately for community-based physiotherapy visits, ranging from \$30-50. Portions of these fees may be

³⁵ Nurse Practitioners in Ontario, for example, are allowed to prescribe medications within standard protocols and order selected lab tests, X-rays, and diagnostic ultrasound.

³⁶ Refer to *BC Health Action Plan*.

³⁷ The same is true in all Canadian provinces.

reimbursed through individual's private health insurance plans through employment, etc.

MIDWIVES

In BC, legislation regulating midwifery and enabling midwives to apply for limited hospital privileges came into effect 1 January 1998. This legislation also declares midwifery to be an autonomous profession for licensed practitioners, and requires that midwives advise their clients to consult a medical practitioner for a medical exam during the first trimester of pregnancy. Midwives in British Columbia carry out examinations necessary to establish and monitor normal pregnancies, manage normal deliveries and advise pregnant women as soon as any at-risk pregnancy is detected.

BC is the second province in Canada (Ontario was the first) to regulate midwifery. Midwives must be registered with the College of Midwives of BC. Currently, the only midwifery program in Canada is a four-year baccalaureate program in Ontario, where the majority of Canada's 350 registered midwives reside. The University of British Columbia, however, is planning to start a four-year midwifery degree program in September 2002 with approximately 10 to 15 students. As of January 2000, there were 57 midwives in British Columbia. For each course of care³⁸ midwives are paid \$2,250 and can provide no more than 40 courses of care annually, thus, receiving a maximum annual billing of \$90,000.

CHIROPRACTORS

Chiropractors treat musculo-skeletal disorders and have assumed a prominent role in the management of back pain. Chiropractors are now recognized by legislation as a primary contact professional in all jurisdictions in Canada. As of July 1999, there were 717 licensed chiropractors in the province of BC (Canadian Chiropractic Association 2002).

In 1998/99, approximately 10% of males and a slightly higher proportion of females over the age of 12 consulted with a chiropractor in Canada for treatment (Canadian Chiropractic Association 2002.). As of 1 January 2002, the majority of BC residents pay privately for community-based chiropractic visits. The BC Chiropractic Association

³⁸ Course of care includes caring for one woman from beginning of pregnancy through labor, birth and postpartum period (time commitment to provide full course of care is approximately 40 to 50 hours).

recommends rates of \$45 for the initial visit and \$35 for subsequent visits. A portion of these fees may be reimbursed by individual's private insurance plans through employment, etc.

NATUROPATHS

The goal of naturopathy is the management of diseases, disorders, or conditions through education and natural therapies to support and stimulate self-healing. Naturopaths receive at least three years training at an accredited naturopathic college. They have been licensed in BC since 1936, and are regulated by the College of Naturopathic Physicians of BC. In 1998/99, approximately 2% of females and 1% of males over the ages of 12 consulted with either a naturopath or homeopath for treatment in Canada. As of 1 January 2002, the majority of BC residents are required to pay privately for community-based naturopathy visits, with the average rate being approximately \$60 an hour. Individuals may have a portion of these fees reimbursed by their private health insurance plan through employment, etc.

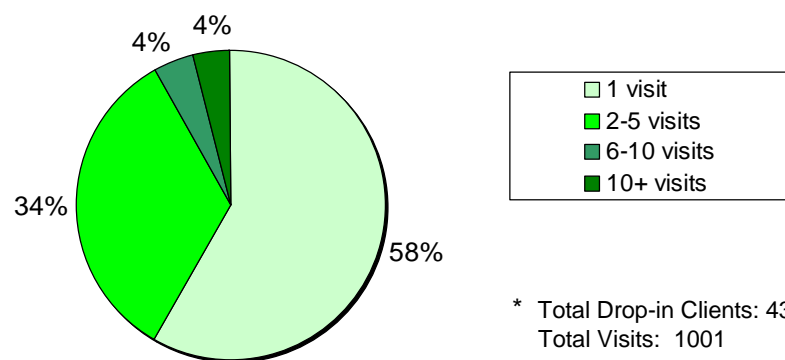
APPENDIX B

RECENT PRIMARY CARE INITIATIVES IN BRITISH COLUMBIA

COMOX VALLEY NURSING CENTRE

The Comox Valley Nursing Centre was funded by the BC Ministry of Health and sponsored by the Registered Nurses Association of British Columbia (RNABC). A Nursing Coordinator and four nurses staffed the centre, which began in May 1994 as a 16-month demonstration project. The Nursing Centre offered a variety of community-based services, including a client drop-in service, a group service, and outreach services. The regular client list for the Centre reached 432 by the end of the 16 months.³⁹ The chart below demonstrates the total number of drop-in clients and their number of visits.

FIGURE 7: CVNC DROP-IN CLIENTS VISITATION RATE, MAY 1994 – SEPTEMBER 1995



SOURCE: REGISTERED NURSES ASSOCIATION OF BC AND BRITISH COLUMBIA NURSES UNION, 2000

³⁹ This does not include the clients who are part of the group service of the center but who do not have client records, nor does it include those who participate in Outreach activities of the Centre.

Once accounting for the main costs of salaries and overhead, the cost for each client was \$26.20 per personal contact and \$6.17 by telephone. These costs are significant, as one of the benefits of utilizing more nurses as opposed to physicians is to reduce overall expenditures.

A University of Victoria School of Nursing report on the Comox project recommends that demonstration projects such as the Comox Valley Nursing Centre be funded for longer periods, particularly if the impact on longer term and population outcomes (morbidity, lifestyle, etc.) is to be evaluated. This report also recommends that approaches to assessing the cost-effectiveness of services be given critical examination by researchers, evaluators, governments and health care providers (University of Victoria School of Nursing 1996).

VANCOUVER/RICHMOND COMMUNITY HEALTH CENTRES

The Vancouver Coastal Health Authority (VCHA) is actively promoting alternative primary care delivery models within its region. The previous Vancouver/Richmond Health Board (V/RHB) had set a goal of implementing 15 multidisciplinary community health centres (CHCs) by 2005. These CHCs are to offer a wide range of on-site and outreach health services including primary health care and health information services. They are also to include doctors, nurse practitioners, addiction workers, mental health workers, psychiatrists, rehabilitation therapists, nutritionists, long-term care advisors and other health professionals, with some variation from centre to centre.

One such centre is the Three Bridges Community Health Centre, which provides community-based integrated care to low-income residents on a drop-in basis. In a previous evaluation by the V/RHB, (then called the Downtown South CHC) it was found that the total cost of the centre was \$63,735 per month, translating to an average cost of \$70.74 per patient visit. This is very high compared to the then GP office visit of \$25.83. However, it must be recognized that low-income clients are, typically, more costly users of the system. Unfortunately, the evaluation provided no empirical evidence on the impact on hospital visits, etc. The VCHA is facing a number of difficulties in achieving its goal to establish 15 CHCs by 2005. One of the major problems is recruiting health personnel, particularly physicians, to participate in these projects.

VANCOUVER/RICHMOND INFORMATION POLICY PROJECT

In 2001, the former Vancouver/Richmond Health Board (V/RHB) passed a 10-year, \$100 million plan to link computer systems within the region in an effort to create a regional Electronic Health Record (EHR). This plan, entitled the Vancouver/Richmond Health Board Health Info-Structure Vision, is designed to “*establish a strategic framework to guide the region’s investments in health information management.*” (V/RHB 2001) The \$15 million first phase, to be completed over the next 18 months, is intended to increase the number of people with access to patient records collected at the region’s hospitals and community health centres (CHCs).

One of the criticisms of the V/RHB vision is that too little attention has been paid to the issues of security and privacy. The plan raises concerns for practising physicians regarding patient’s privacy, through accessing the health information contained in physicians' files. The V/RHB report acknowledges that, “many of the key elements for an EHR are currently outside the direct control of the V/RHB, for example, in the records of physicians or private laboratories.” The passing of the plan by the V/RHB sparked a series of negative articles in the Vancouver Sun (Bramham 2001).

The V/RHB report demonstrates the potential pitfalls associated with a move towards EHRs. While the promise of being able to retrieve information on patients quickly is attractive, mechanisms must be put in place to ensure patient privacy. A central piece of the privacy puzzle is ensuring that once information is collected it is not used inappropriately, particularly for secondary uses by third parties.

CAPITAL HEALTH REGION SELF-CARE PROJECT

The Self-Care program was piloted in the Capital Health Region between 1997 and 1999. It was intended to enhance people’s health care knowledge and decision-making capabilities while encouraging the more appropriate use of health care services. As part of the program, a 330-page health handbook was mailed to 12,000 households.

An evaluation of the Self-Care program found that more than 80% of the callers to a trial help-line, staffed by nurses, had someone in their house read or use the health

handbook.⁴⁰ Eighty percent also said they felt more confident and knowledgeable in making decisions about health concerns.

The evaluation reported less hospital Emergency Room visits for common, non-urgent complaints after phoning the support hot line. The handbook did not reduce visits to GPs, as people went to their doctors for reassurance even after receiving advice over the phone.

Despite these mixed results, in 2001 the previous NDP government expanded the Self Care pilot project province-wide. The program is to cost approximately \$13 million for the first year of operation and an additional \$8 million a year thereafter (Spurgeon 2001).

NURSE FIRST CALL

Beginning in 1997, the Nurse First Call program was implemented in 16 sites and included the training of 254 Registered Nurses (RNs) to manage minor and uncomplicated health problems without immediate intervention from a physician in emergency units. The First Call model is a system whereby, based on an initial assessment, the RNs diagnose patients to one of three levels of care: non-urgent, urgent, or emergent. In 1997, RNs at Ashcroft District General Hospital became BC's first 'First Call' nurses. The BC Government expanded the program to ten more sites in 1998.

A March 2000 RNABC/BCNU review of the First Call program states that over 50% of patients surveyed rated their care as excellent, while 79% of patients rated their overall experience as excellent or very good; 55% of responding physicians rated their overall experience with the program as excellent or very good. Importantly, only a small portion of patients presenting at the Emergency Rooms (approximately 7%) were seen by RNs. Over the three-month review period, RNs assessed only 211 patients. Consequently, there are concerns over the cost-effectiveness of the First Call program. The total budget for the program was \$384,100, of which \$268,826 was used to educate the 254 RNs (approximately \$1,058 per nurse) to perform the ten treatment protocols outlined as part of the program.

⁴⁰ More than 80% of callers were women, a third of who called about a child aged 14 years or under.

BC HEALTH ACTION PLAN

In 2000, as part of the previous NDP government's Health Action Plan, \$2.5 million was allocated to establish five primary health centres that will provide community-based care, advice, and information 24-hours a day, 7 days per week. Details of these centres remains unclear, except that a number of the centres are designed to improve access to primary care services in more remote locations and for some targeted populations (e.g. First Nations). At the time of publishing, it is proposed that these five primary care centres will be located in Logan Lake, Ashcroft, Clinton, Francois Lake, and Vancouver's Downtown Eastside. The Vancouver project will consist of a new health information system designed to connect 15 health service agencies in the Downtown area.

LIST OF ABBREVIATIONS

ACGs	Adjusted Clinical Groupings
BCMA	British Columbia Medical Association
BCNU	British Columbia Nurses Union
CHC	Community Health Centres
CIHI	Canadian Institute of Health Information
CMA	Canadian Medical Association
CME	Continuing Medical Education
CMPA	Canadian Medical Protective Association
CNA	Canadian Nurses Association
CaRMS	Canadian Resident Matching Service
CFPC	College of Family Physicians of Canada
CPSBC	College of Physicians and Surgeons of British Columbia
EHR	Electronic Health Record
EMS	Electronic Medical Summary
FFS	Fee-for-Service
FOIPPA	BC Freedom of Information and Protection of Privacy Act
GP	General Practitioner
HABC	Health Association of British Columbia
HMO	Health Maintenance Organization
HSO	Health Service Organization
HTF	Health Transition Funding
IPA	Independent Practitioner Association
IT	Information Technology
MSP	Medical Services Plan
NFPWS	National Family Physician Workforce Survey
NHS	National Health Service
NP	Nurse Practitioner
OCFP	Ontario College of Family Physicians
OFHN	Ontario Family Health Network
OMA	Ontario Medical Association
PABC	Physiotherapists Association of British Columbia
PCG	Primary Care Group
PCOs	Primary Care Organizations
PCDPs	Primary Care Demonstration Projects
RCPSC	Royal College of Physicians and Surgeons of Canada
RN	Registered Nurses
RNABC	Registered Nurses Association of British Columbia
UBC	University of British Columbia

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