

Discussion Paper
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The College of
Family Physicians
of Canada

Le Collège des
médecins de famille
du Canada



**Patient-Centred
Primary Care in Canada:**

BRING IT ON HOME

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EXECUTIVE SUMMARY

"Home isn't where our house is, but wherever we are understood"

- Christian Morgenstern

The College of Family Physicians of Canada (CFPC) recommends the introduction of the medical home concept for the people of Canada; incorporating the strengths of medical home models elsewhere in the world with the primary care renewal experiences currently unfolding across Canada.

A medical home is a patient-centred medical care setting where: 1) patients have a personal family physician who provides and directs their medical care; 2) care is for the patient as a whole; 3) care is coordinated, continuous and comprehensive with patients having access to an inter-professional team; 4) there is enhanced access for appointments; 5) the practice includes well-supported information technology, including an electronic medical record; 6) remuneration supports the model of care; and 7) quality improvement and patient safety are key objectives.

The CFPC sees the Canadian medical home built with the ongoing relationship between the patient and his or her family doctor serving as its foundation and the pillars noted above as its main supports. By adopting this concept and language we have an opportunity to help Canadians better understand that the primary care initiatives unfolding across the country are focused on what is best for them, not just for the system or its providers. By setting a goal for every practice to try to become a medical home for its patients, we could develop something uniquely Canadian that will ensure patient-centred care with improved access, and better health outcomes. Increased support from all stakeholders will be required however to help Canadians achieve the full potential of our nation's primary care initiatives, to build on the successes being realized and "bring them on home".

RECOMMENDATIONS

1. All people of Canada should have access to a family practice /primary care setting that they can call their medical home.
2. The Canadian medical home should include the following key components:
 - Patient-centred to meet the range of health needs that patients experience over a lifetime
 - A personal family physician for each patient
 - Team-based care, including both 1) inter-professional collaboration that includes the patient's family physician and other health professionals, and 2) intra-professional collaboration (i.e. between the patient's personal family physician, other family physicians with special interests and skills, and other consulting specialists)
 - Timely access to care, for both primary care visits and referrals for more highly specialized services and consultations; achieved through both face-to-face visits as well as through electronic communications between patients and providers.
 - Comprehensive, continuous care “from cradle to grave” through appropriate linkages between primary care and other parts of the health system, and between the patient's family physician and other healthcare providers
 - Electronic medical and health records
 - Appropriate funding and remuneration to support the medical home and its professional team members
 - Ongoing evaluation of outcomes/quality improvement programs.
3. Every family practice and primary care setting in Canada should be given the opportunity, education and support to develop a patient-centred medical home that meets the needs of its patient population.
4. Governments, health authorities and organizations involved in ensuring access for patients to primary care medical services, should support the attainment of the essential components of the patient-centred Canadian medical home in the primary care models they are developing.
5. The CFPC and its members should continue to work with the public /patients, governments, and other key stakeholders to help support the establishment of and evaluate the effectiveness of Canadian medical homes.

INTRODUCTION

The concept of a "medical home" is gaining momentum in many countries. This is defined as a patient-centred medical care setting that includes the following features: 1) patients have a personal family physician who provides and directs their medical care; 2) care is for the patient as a whole; 3) care is coordinated, continuous and comprehensive with patients having access to an inter-professional team; 4) there is enhanced access for appointments; 5) the practice includes well-supported information technology, including an electronic medical record; 6) remuneration supports the model of care; and 7) quality improvement and patient safety are key objectives.¹ The medical home acts as the central hub for the provision and coordination of the medical care services needed by each of its patients.

Across Canada, governments working together with family physicians, nurses and other health professions have implemented a number of primary care reform initiatives, such as Primary Care Networks in Alberta, Family Health Teams in Ontario and Family Health Centers in Prince Edward Island. Many of these approaches offer features similar to a medical home but remain poorly understood by the public. Many of them include the core elements of a "medical home", and in fact some are now referring to them as "medical homes" (Health Council of Canada, 2009b; Canadian Institute for Health Information, 2009). The "medical home" concept brings the components together under a more completely developed strategy with a more patient-centred focus. It should be noted here that we are not recommending that the various primary care models being introduced throughout Canada should be re-named "medical homes". But we are recommending that each of these should aspire to serve as a medical home for its patients.

The CFPC recommends the introduction of the medical home concept for the people of Canada – incorporating the strengths of medical home models elsewhere meshed with the lessons learned from primary care renewal experiences across Canada. By adopting this patient-centred concept and language, we have an opportunity to help Canadians better understand that the primary care initiatives being introduced across the country are focused on what is best for them and not just for the system or its providers. By setting a goal for every practice to try to become a "medical home" for its patients we could develop something uniquely Canadian that will ensure patient-centred care with improved access and better health outcomes for all people throughout our nation. Increased support from all stakeholders will be required, however, to help Canadians achieve the full potential of our primary care initiatives – to build on the successes being realized and "bring them on home."

¹ Concepts collected from several sources, including: Berenson et al, *A House Is Not a Home: Keeping the Patient at the Center of Practice Redesign*, Health Affairs, Vol 27, No 5, September / October 2008.

HISTORY OF THE MEDICAL HOME

The first use of the term "medical home" was in 1967 in the American Pediatrics Association's (APA) "Standard of Child Health Care" (Sia et al., 2004, p. 1473). In 1974, the medical home was central to an APA policy that stated paediatricians must be advocates for children in their care and that their patients have access to continuous care without encountering financial or social barriers (Sia et al., 2004, p. 1473).

The American Academy of Family Physicians (AAFP) adapted the medical home model for primary care in 2004. The Association of American Medical Colleges (2008) made the following recommendation: "Every person should have access to a medical home—a person who serves as a trusted advisor and provider supported by a coordinated team—with whom they have a continuous relationship. The medical home promotes prevention; provides care for most problems and serves as the point of first-contact for that care; coordinates care with other providers and community resources when necessary; integrates care across the health system; and provides care and health education in a culturally competent manner in the context of family and community" (AAMC, 2008, p. 4).

The American Patient-Centered Medical Home (PCMH) is based on four cornerstones: primary care; patient-centered care; new-model practice; and, payment reform (Rittenhouse & Shortell, 2009, p. 2038). It is a model of practice that is being increasingly embraced across the United States to advance patient-centred care and population health outcomes.

The concept of a medical home is now emerging internationally as a model to improve delivery of primary care and accessibility for patients. A 2007 survey comparing health care experiences in Australia, Canada, Germany, the Netherlands, New Zealand, the United Kingdom, and the United States found that "having a 'medical home' that is accessible and helps coordinate care is associated with significantly positive experiences" (Schoen et al., 2007, p. 717).

Further, the survey (Schoen et al., 2007) found that across the seven nations, three-quarters or more of respondents said that there was value in having a medical home (p. 722).

With the medical home gaining global recognition in the US and around the world, the CFPC proposes that it is time for stakeholders in Canada's health care system to pull the pieces of primary care reform together under the umbrella of a Canadian medical home strategy.

THE CANADIAN MEDICAL HOME

The CFPC defines a Canadian medical home as:

A medical office or clinic where each patient would have:

- I. *Her or his own family doctor*
- II. *Other health professionals working together as a team with the patient's own family doctor*
- III. *Timely appointments for all visits with the family doctor and with other primary care team members*
- IV. *Arrangement and coordination of all other medical services, including referrals to consulting specialists*
- V. *An electronic medical record*

The medical home would include:

- i. *Appropriate funding and resources*
- ii. *Necessary system supports for ongoing evaluation and quality management*

The core elements essential to a medical home are not novel to Canada. Many of them have been front and centre in the initiatives focused on primary care reform over the past decade. Although the focus has slipped recently, between 2000 and 2004 support for primary care was a high priority for First Ministers (see Appendix A).

Nevertheless, throughout Canada primary care models are still emerging to support front-line, comprehensive, patient-centred care. Components of the proposed medical home are found in many of these models. Patients have a personal family physician, sometimes with the support of health care teams that contribute to comprehensive, first contact health services delivered across an individual's lifespan. Quality improvement, enabled by electronic information management, is gaining importance. Other necessary system supports such as alternative methods of remuneration and enhanced access to other specialty services, are becoming more readily available, resulting in a model that resembles a medical home.

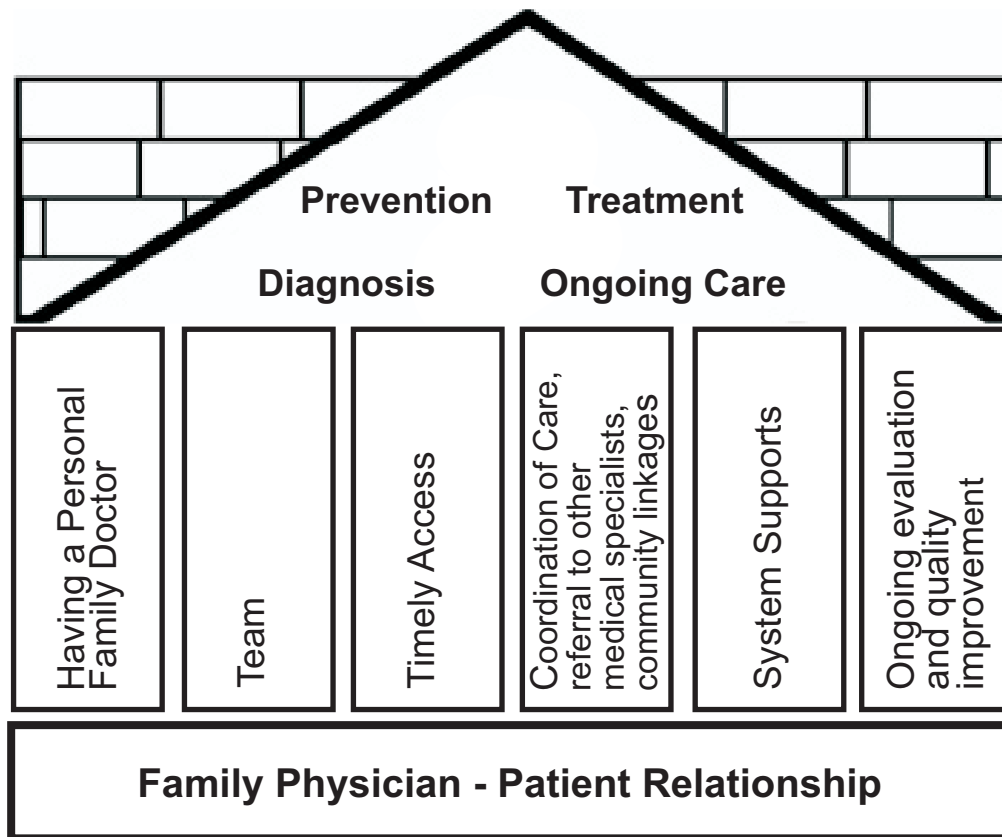


Fig. 1. Canadian Medical Home

Beal et al. (2007) found that "When adults have a medical home, their access to needed care, receipt of routine preventive screenings, and management of chronic conditions improve substantially" (p. 1). A recent Canadian Institute for Health Information (CIHI) study (2009) reported that 41 percent of Canadian adults had at least one of seven chronic diseases (arthritis, cancer, emphysema or COPD, diabetes, heart disease, high blood pressure, and mood disorders not including depression). While almost all (96 percent) reported having a regular place of care, CIHI (2009) concluded that further improvements are still needed to help patients manage their chronic conditions. A medical home would facilitate the development of enhanced chronic disease management strategies and engage patients in more effective self-management of their conditions.

In addition to improving care for patients with chronic diseases, a medical home can also address population health, specifically the determinants of health. Starfield and Shi (2004) note that a relationship with a medical home is associated with better health outcomes (p. 1493).

They also found that a medical home can lead to "reductions in disparities in health between socially disadvantaged subpopulations and more socially advantaged populations" (p. 1493). Additional early research in the US finds that a patient-centred medical home offers better "quality of care, patient experiences, care coordination, and access" and that strengthening primary care yields relatively immediate reductions "in emergency department visits and inpatient hospitalizations that produce savings in total costs" (Grumbach, Bodenheimer, & Grundy, 2009, p. 1)

THE FOUNDATION:

The Canadian medical home will serve the patient. The foundation of the medical home is the ongoing relationship between the patient and his or her family doctor. The centrality of the patient to family physicians was emphasized by Dr. Ian McWhinney, considered by many to be the father of academic family medicine in Canada, who stated: "We define family medicine in terms of relationships, and continuity of the patient-doctor relationship is one of our core values" (The College of Family Physicians of Canada, 2000b). The title of the book, "Patients First" (2004), published to celebrate our College's 50th anniversary, was chosen to emphasize the importance to our discipline of patient-centred care and the patient-doctor relationship in the day-to-day work of family physicians.

Family medicine as a discipline in Canada is guided by the Four Principles of Family Medicine, all of which revolve around the continuing relationship between family physicians and their patients. The recently-approved CanMEDS-Family Medicine Roles (2009) further define the different responsibilities family physicians must carry in order to serve the needs of their patients. These principles and roles are consistent with the attributes and competencies needed by family doctors who will be aligned with medical home models. Further, these principles and roles will be essential to helping our discipline develop the education, training, and life-long learning objectives for family physicians in Canada.

With 86 percent of Canadians having their own family physician, the establishment of this foundation is well underway.

Four Principles of Family Medicine

- **The patient-physician relationship is central to the role of the family physician**
- **The family physician is a skilled clinician**
- **Family medicine is a community-based discipline**
- **The family physician is a resource to a defined practice population**

CanMEDS-FM Roles

- **Family Medicine Expert**
- **Communicator**
- **Collaborator**
- **Manager**
- **Health Advocate**
- **Scholar**
- **Professional**

THE PILLARS:

The pillars supporting every Canadian medical home will include: a personal family doctor for every patient; care provided by the family doctor and other health care professionals working as a team with the patient's family doctor; timely access for appointments with the family doctor and other members of the team; the arrangement and coordination by the family doctor or other medical home team members of all other medical care services provided in the community (e.g. laboratory and diagnostic imaging tests, dieticians, physiotherapists, occupational therapists, social workers, etc); referral (with pre-arranged, committed, timely access for medical home patients) to other medical specialists and highly specialized services; communications and care provider links to hospitals in the community; system supports including appropriate funding and resources, electronic health/medical records; and, ongoing evaluation and quality improvement programs.

Patients will be the ultimate beneficiaries of the enhanced focus on patient-centred care achieved throughout the health system through medical homes. Appropriately-supported medical homes will serve as an entry point and central hub for the provision and coordination of all the medical care and services needed by each patient. Each of the pillars of the Canadian medical home will need to be well-supported to ensure the desired outcomes.

I. A Personal Family Physician for Every Patient

The role of the family doctor is essential to each patient-centred medical home. For a number of years the CFPC has been advocating for every Canadian to have her or his own family doctor. We've been recommending and working on changes that will help our country move towards being able to deliver on this goal as soon as possible. We set a target that 95 percent of the population in every community throughout the nation should have a family physician by 2012. While some communities have achieved this target most have not.

Research led by the internationally acclaimed studies of Dr. Barbara Starfield and her colleagues has provided substantive evidence that a strong primary care system with access to family physicians and teams of health providers results in better population health outcomes. Further it delivers more efficient, higher quality health care delivery with lower costs (Barr, 2008; Bodenheimer, Grumbach, & Berenson, 2009; Macinko, Starfield, & Shi, 2007).

Family physicians and other primary care providers are central to the promotion of wellness and instrumental in helping patients prevent illness. This was supported by Macinko et al. (2007) when they noted that "Geographic areas with more general and family physicians per population have lower hospitalization rates for conditions that should be preventable or detected early with good primary care (including diabetes mellitus or pneumonia in children and congestive heart failure, hypertension, pneumonia, and diabetes mellitus in adults)" (p. 122).

Rosenthal (2008) also found that urban and rural communities with "an adequate supply of primary care practitioners experience lower infant mortality, higher birth weights, and immunization rates at or above national standards despite social disparities" (p. 428). Finally, for patients deemed to be "high" or "very high resource users", Hollander, Kadlec, Hamdi and Tessaro (2009) revealed that "seeing a primary care practitioner on a regular basis seemed to be related to lower hospital use and, thus, lower costs" (p. 33). And for higher-care-needs patients with diabetes and congestive heart failure (CHF), "a 1% increase in attachment to practice is associated with an average decrease in the total cost of care of \$80-\$323" (Hollander et al, 2009, p. 41).²

²Hollander et al (2009) warn that "these findings need to be replicated and refined in future research" (p. 41)

Evidence supports having a primary care physician results in better population health outcomes. According to Macinko et al. (2007), "Primary care physician supply was associated with improved health outcomes, including all-cause, cancer, heart disease, stroke, and infant mortality; low birth weight; life expectancy; and self-rated health... Pooled results for all-cause mortality suggest that an increase of one primary care physician per 10,000 population was associated with an average mortality reduction of 5.3 percent, or 49 per 100,000 per year" (p. 111). To put this figure into perspective, in the United States, a 5.3 percent reduction in "all-cause mortality" would have potentially reduced the number of deaths in the year 2000 by 127,617 (Macinko et al., 2007, p. 119).

Importantly, Canadians understand and highly value having a personal family physician. In a Decima poll (2004) commissioned by the CFPC, 88 percent of respondents said that having a family doctor allows them to feel more confident in their ability to access appropriate and timely care. Ipsos-Reid polls performed for the Canadian Medical Association have shown that Canadians rate the care provided by their family doctors highly and that those with a family physician were more satisfied with all other aspects of health care in Canada than those without a family doctor.

A strong patient-physician relationship and the centrality of the patient are defining principles of the discipline and the practice of family medicine in Canada. Canadian family physicians who are dedicated to the principles of family medicine will welcome the opportunity to be part of a well-supported Canadian medical home in which every patient has a personal family physician. This model will be welcomed by Canadians.

³Macinko, Starfield and Shi (2007) refer to a primary care physician as "doctors of allopathic medicine working in family medicine, general practice, general internal medicine, and general pediatrics..." (p. 115). In the US, these areas are all involved in delivering primary medical care services

II. Access to a Patient-Centred Team

Each practice that becomes a Canadian medical home should include access for patients to a team of health providers working together within trusted relationships.

A patient's personal family physician is the care provider most responsible for providing and coordinating medical care. However, physicians share the responsibility for the provision of care for a number of clinical services with nurses, pharmacists and others who have advanced training and skills enabling them to have expanded scopes of practice. In moving towards patient-centred care, all team members should play important roles, use facilitative leadership skills, and communicate effectively with all team members (AAMC, 2008; Nutting et al., 2009, p. 256).

Family physicians and nurses have a long history of working together in family practice and primary care settings. Many recent primary care renewal models have further strengthened the roles and relationships between these two professions as key providers in patient care and each are essential members of medical home teams. Others such as pharmacists, physiotherapists, occupational therapists, social workers, psychologists, and dieticians can be added depending on availability and community need. In the Health Council of Canada's (2009b) "Value for Money", the "medical home" is a place, "where people have not only a primary doctor, but a place they can receive care from a team that, depending on their needs, might include nurses, pharmacists, midwives, social workers, doctors, nutritionists, and physical therapists" (p. 34).

The Canadian Medical Home: A Patient's Experience

Naomi is in her late 50s. She is an insulin-dependent diabetic, has high blood pressure, and progressive arthritis in her knees and hips.

She books an appointment to see her family physician, who is part of a Canadian medical home, after she experiences recent problems with cough and fever. Her family doctor diagnoses a lower respiratory tract infection but also notes Naomi's elevated blood pressure. Further, her glucometer results indicate an increase in blood sugar.

Naomi's family doctor documents the differential diagnosis, orders appropriate lab tests, provides Naomi with a prescription for the chest infection, and advises her to adjust her insulin dosage. He arranges for his nurse to contact her the following day to assess her blood sugar and recheck her blood pressure.

The medical home practice nurse sees Naomi the next day. He checks Naomi's blood pressure and blood sugar. As a trained diabetes educator, he is able to advise Naomi on further adjustments to her insulin dosage, and arranges for her to see the dietician affiliated with the medical home to review her dietary adherence. If her blood sugar remains elevated despite adjustments, arrangements will be made for her to see an endocrinologist affiliated with the medical home. As her blood pressure remains elevated, he discusses increasing her blood pressure medication with the family doctor. He also notes that Naomi is having more problems with her hips and knees and is finding it difficult to get around her house.

The nurse contacts the community occupational therapist (OT), who is linked with the medical home. The OT arranges to do a home visit to assess Naomi's mobility and recommend aids to increase her safety at home. All of this information is recorded in Naomi's electronic medical record so it is readily available to all the caregivers of Naomi's medical home team.

Naomi appreciates timely access to her medical home and the coordination of her care through one practice setting.

Wedel, Kalischuk, Patterson and Brown (2007), in their study on primary health care in Taber, Alberta, found that: "Successful integration of primary healthcare depends on gaining an understanding of individual, family and community health care needs as well as creating opportunities for healthcare users and providers to come together and use this information to arrive at a shared vision of optimal healthcare delivery" (p. 84). In some jurisdictions, physician (or clinical) assistants are being introduced to practice settings as valued team members.

Also critical to the medical home team are physicians who provide expertise in areas that go beyond the focus of some family doctors. This includes other family physicians who have developed special interests or focused practices, as well as other specialists. These physicians can provide services upon referral from the patient's personal family doctor. Physicians linked together within a medical home should provide these requested services for patients of that home in a timely manner according to agreed-upon priority protocols. These physicians could be co-located within the same medical facility or elsewhere in the same or nearest community.

As appropriate to each patient's care, team member relationships with patients will benefit overall care. Each provider's roles and responsibilities have to be respected and supported by other members of the team. The need for ongoing communication among all team members is essential. Trust and respect for one another's roles must be established and sustained for the team to survive.

III. Timely Access to Patient-Centred Care

In a study conducted by Wong et al. (2008), timely access was rated by patients as one of the most important elements of primary care. While a majority of Canadians (76 percent) report that the quality of primary health care they receive is "excellent" or "very good", 13 percent said that they had difficulty accessing primary care (CIHI, 2009). In the 2007 Commonwealth Fund Study, Canadians' estimates of the time it took to access care were comparatively poor – up to 6 days. The shortage of family physicians and the inadequate system supports for many of the core elements of primary care reform are contributing to Canada's ongoing failure to resolve this access problem.

Timely access to primary care is the subject of a major CFPC-Canadian Medical Association study currently being completed. The interim report addressed a number of challenges that are impeding timely access to primary care as well as from primary care to more highly specialized services. For almost 5 million people (14%) their most critical health care need is finding a family doctor. For those who have a family physician, access to primary care after hours may still be a challenge. To improve access for patients, Canada needs more physicians and nurses, better supported team-based care, electronic health records, and the implementation of newer and more advanced scheduling systems in family practice. Some of these have been gaining momentum, and providers and patients have been expressing increasing satisfaction.

Strategies to make the practice and its health providers more accessible to patients that have been introduced in American medical home and/or Canadian primary care renewal models include: the substitution of e-mail and telephone and fax encounters for face-to-face visits when clinically appropriate; group rather than individual appointments; advanced access (same-day) appointments; and, "improvement of the coordination of care with specialists, hospitals, and other service providers" (Bodenheimer, Grumbach & Berenson, 2009, p. 2695).

As these newer communications evolve and resolve some of the legal, privacy and remuneration challenges that have slowed their introduction, it is expected they will become core to each medical home practice and will contribute to more timely access to care for many patients.

IV. Coordination of Care

Primary care should be comprehensive, ensure continuity, and coordinate care between other clinicians and other levels of care (i.e. secondary, tertiary and quaternary). (Rittenhouse & Shortell, 2009; Rosenthal, 2008; Wong, Watson, Young, & Regan, 2008). Further confirming the importance of continuity, Starfield, Chang, Lemke and Weiner (2009) found that having a regular family physician results in patients seeing fewer specialists and this can lead to decreased costs (p. 222).

Continuity is critical not only to enhancing quality, particularly with respect to reducing barriers for those with chronic illnesses, but also to reducing errors. Both Rosenthal and Wong (2008) found that a breakdown in the doctor-patient relationship appears to be a significant contributor to health care errors.

Research indicates that "a wide range of services are provided by primary care practitioners and...associated with better health outcomes at lower costs" (Starfield & Shi, 2004, p. 1494). Starfield and Shi, (2004) note: "Having a regular source of care was found to be the most important factor associated with receiving preventive care services, even after considering the effect of demographic characteristics, financial status, and need for ongoing care" (p. 1495).

Ensuring that patients have access to a suite of primary care services provided and/or coordinated by their personal family physician and a team of health professionals is a key objective for the Canadian medical home.

But coordination of care does not mean all providers can and should be in one location. Some medical homes, particularly in urban centres, may involve a number of health care providers, whereas rural and remote communities may have only one family physician and one nurse. Canadian medical homes should create networks. Team members may, in some settings, work in different geographic regions but coordinate care for patients across a larger region. For example, the electoral district of Bulkley Valley-Stikine, British Columbia has 32,000 people spread over 176,914 square kilometers; an area almost twice the size of Portugal. Therefore, it would be a prudent use of resources to have medical homes in this region network through a series of locations rather than a single location.

A medical home must be linked with other health care services in the community, the region, and province including hospitals and other health care institutions and health care services (such as home care) in the area. There should be strategically planned networks of physicians and other health care professionals, located in the same clinic, the surrounding community or the nearest community. The physician team that is part of a medical home should include the family physician who will be the personal doctor for each patient as well as other family physicians whose practices include special interests, and other consultant specialist colleagues.

As stated in its discussion paper "Primary Care and Family Medicine in Canada: A Prescription for Renewal" (2000a), the CFPC has long advocated for the creation of linkages called Family Practice Networks (FPN): "...family doctors throughout Canada would be encouraged to form real or virtual groups, practising either in the same office setting or in different locations, but linked with one another to facilitate transfer of information and to share clinical responsibilities. Wherever possible, this linkage should be supported through the implementation of electronic information and communications technology."

Developing linkages across the health care system is essential if health care providers are to ensure that patients can access the care they need in a timely and efficient manner.

V. Supports for Patient – Centred Medical Homes

To be successful, patient-centred medical homes will require significant system supports. These include, but are not restricted to: sufficient health human resources; adequate funding and clearly defined liability protection for all team members; system support for electronic health record systems; agreements from each health care profession about the clinical, and organizational roles and responsibilities for all team members, and; establishment of links/networks with other health professionals and hospitals in the community. Building and sustaining medical homes requires support from the public and the community, from other health care providers, from regional health authorities, and from provincial and federal governments.

A medical home cannot be built by merely checking items off a list. It must be a continuous process and, for some, it may need to be guided by a willingness to change and venture into new territories: new information systems, new scheduling practices, new coordination arrangements, new methods of team-based care, and a renewed focus on providing well organized preventive and chronic care (Nutting et al., 2009, p. 255). Some of these elements already exist in primary care models throughout Canada, but in order to build an effective Canadian medical home, many of them will need to be enhanced.

i. Electronic Information and Communication

The value of electronic health records to achieving cost-effective quality care and better outcomes is becoming increasingly apparent. The patient-centred approach in the US medical home model has emphasized the need for EHR/EMR's for the storage and information sharing about patients and to assist in communicating with patients and with other caregivers about patients. Medical homes must implement electronic health records (EHR), to "facilitate the coordination of care" (Sandy et al., 2009, p. 1140).

In Canada, the uptake of electronic medical records falls below many other comparable developed nations. According to the National Physician Survey (2007), 12 percent of family physicians use electronic medical records (EMR) in lieu of paper charts. In Australia, EMR use is at 64 percent; 87 percent in the Netherlands; 100 percent in New Zealand; and 29 percent in the United States (SOAR Family Medicine, 2006, p. 35).

Greater uptake of electronic records is supported in some nations. For example, governments in some European countries "equip all primary care practices with interoperable, ambulatory care-focused electronic health records that allow information to flow across settings to enhance the continuity and coordination of care" (Bodenheimer, Grumbach & Berenson, 2009, pp. 2694-2695). Electronic medical records are essential to ensuring appropriate and timely communication with other providers within the health care system, as well as tracking preventative patient care measures and outcomes. They also offer the possibility of different methods of communication with patients which can improve access and enhance patient self-management strategies.

Electronic and information technology needs, however, involve more than electronic records. A relatively simple tool such as email can "increase patient/physician interaction and interfere less with the patient's work schedule" (Rosenthal, 2008, p. 433). Another example: a family practice website can offer tips, information and updates to a practice's patient panel. Again, the focus of a medical home is on patient-centredness and electronic tools should be used to enhance the patient experience. Finally, issues related to privacy, liability and remuneration need to be resolved to enable this method of interaction in Canada.

ii. Funding/Remuneration

In Canada, about half of family physicians (48 percent) receive at least 90 percent of their professional income from fee-for-service (FFS) (National Physician Survey, 2007). Approximately 31 percent of family physicians receive at least 90 percent of their professional income through blended payment (NPS, 2007). It seems that blended payment models are more common among those practicing in newer primary care models. For example, Wranik and Durier-Copp (2009) found that in Family Health Networks in Ontario, family physicians "receive enrolment funding per patient, 10% of applicable FFS billing codes, several targeted payments, and FFS for non-enrolled patients" (p. 10).

While more time is needed to evaluate the impact of different payment mechanisms on both provider performance and patient health outcomes, it appears that blended funding approaches have had "some positive effect on preventive care delivery and quality of care" (Wranik & Durier-Copp, 2009, p. 22).

In patient-centred models of care, remuneration models are also essential in creating incentives for delivery of primary care to more diverse patient populations. They also allow family physicians the opportunity to spend enough time with those patients whose needs are more complex. Payments based on meeting specific preventive health targets can also be included. While pay-for-performance is a concern if it leads to directing care to only meet certain indicators, incentives for meeting preventive care targets combined with the ability to identify and track them on an electronic medical record may be beneficial.

VI. Quality Improvement and Evaluation

An important support to the patient-centred medical home is the ability to monitor performance in meeting the health care needs of patients. The electronic medical record is proving to be an invaluable resource to this requirement but electronic information systems must be improved to support both quality improvements in family practice as well as patient safety issues. Tracking performance is essential to quality improvement, just as it is to the ongoing evaluation of the medical home.

Some newer models of primary care across Canada have not been operational long enough to have been thoroughly evaluated. Some data indicate that the US medical home model may improve quality of patient care and accessibility, but further research is needed to determine how a medical home can best serve community needs (AAMC, 2008; Barr, 2008; Schoen et al., 2007).

The following areas need to be evaluated: patient health outcomes; preventive care targets; patient satisfaction; key performance indicators (KPI's) in which physicians are not penalized if patients choose not to undergo the recommended treatment; provider/team member satisfaction; cost; patient use of other health services (e.g. ER, hospitalizations); service to marginalized populations; teaching (for potential 'bonuses' for teaching/mentoring); community outreach; team effectiveness; wait times; continuity index, and; access to care.

But Rittenhouse et al. (2008) caution that evaluation of a medical home should proceed carefully since it is more than the sum of its parts (p. 1256). It needs to be examined in terms of the global value of patient-provider relationships offering continuous, comprehensive primary care (Rittenhouse et al., 2008, p. 1256).

RECOMMENDATIONS

THE CFPC believes that the medical home model will address many of the current challenges in the delivery of primary care services in Canada and therefore recommends that:

1. All people of Canada should have access to a family practice /primary care setting that they can call their medical home.
2. The Canadian medical home should include the following key components:
 - Patient-centred to meet the range of health needs that patients experience over a lifetime
 - A personal family physician for each patient
 - Team-based care, including both 1) inter-professional collaboration that includes the patient's family physician and other health professionals, and 2) intra-professional collaboration (i.e. between the patient's personal family physician, other family physicians with special interests and skills, and other consulting specialists)
 - Timely access to care, for both primary care visits and referrals for more highly specialized services and consultations; achieved through both face-to-face visits as well as through electronic communications between patients and providers.
 - Comprehensive, continuous care “from cradle to grave” through appropriate linkages between primary care and other parts of the health system, and between the patient's family physician and other healthcare providers
 - Electronic medical and health records
 - Appropriate funding and remuneration to support the medical home and its professional team members
 - Ongoing evaluation of outcomes/quality improvement programs.
3. Every family practice and primary care setting in Canada should be given the opportunity, education and support to develop a patient-centred medical home that meets the needs of its patient population.
4. Governments, health authorities and organizations involved in ensuring access for patients to primary care medical services, should support the attainment of the essential components of the patient-centred Canadian medical home in the primary care models they are developing.
5. The CFPC and its members should continue to work with the public /patients, governments, and other key stakeholders to help support the establishment of and evaluate the effectiveness of Canadian medical homes.

APPENDIX A - PRIMARY CARE IN CANADA

Most Canadians' initial contact with the health care system is through primary care with a majority of Canadians receiving care through a family physician. In a recent Canadian Institute for Health Information (CIHI) study (2009), it was found that 91% of surveyed Canadians have a regular place for primary care with 78% going to a doctor's office (17% chose walk-in clinics, centre local de services communautaires or community health centres).

Over the past decade, primary care renewal and primary care teams were the focus of provincial and federal health care reform efforts. Multiple commissions and consultations were carried out with a cross-section of stakeholders in Canadian health care, including the CFPC and its Chapters.

The Health Transition Fund (HTF), established in 1997 by Canada's First Ministers (premiers and the Prime Minister), channelled \$150 million to 140 projects to "test and evaluate innovative ways to deliver health care services" (Health Canada). When the HTF was first launched, four provinces required family physicians to be part of teams or work in groups as a precondition for funding (Health Council of Canada, 2009a). HTF funding concluded in 2001.

In 2000, the First Ministers agreed to "accelerate primary care renewal" and to invest in primary care so "Canadians receive the most appropriate care, by the most appropriate providers, in the most appropriate settings" (Health Council of Canada, 2009a, p. 26).

In the same year, the Primary Health Care Transition Fund (PHCTF) was established by the federal government with \$800 million over six years. The PHCTF sought: "to establish multi-disciplinary teams, so that the most appropriate care is provided by the most appropriate provider," "to increase the emphasis on health promotion, disease and injury prevention, and chronic disease management," "to expand 24/7 access to essential services," and "to facilitate coordination with other health services (such as specialists and hospitals)" (Health Council of Canada, 2009a, pp. 26-27).

The First Ministers continued their support for primary care with the First Ministers' Accord on Health Care Renewal in 2003. The Accord stated: "The core building blocks of an effective primary health care system are improved continuity and coordination of care, early detection and action, better information on needs and outcomes, and new and stronger incentives to ensure that new approaches to care are swiftly adopted and here to stay" (Health Council of Canada, 2009a, p. 27).

This was followed the next year with the *10-Year Plan to Strengthen Health Care*. This plan set a target of 50 percent of Canadians having access to around-the-clock multidisciplinary teams by 2011. The Health Council of Canada (2009a) notes that while it is difficult to determine how many Canadians have access to team-based care, it is unlikely that in two years, half of the population will meet the access to teams target set for 2011.

Most provinces have initiated the development of primary care teams with the aim to improve patient-centredness. Canadian primary care team models vary from some that involve transformation in the way the family physician's office is arranged and functions to some where the focus is on aligning family physicians' practices with other community health care professionals to provide care for specific groups of higher need patients (e.g. Primary Care Networks in Alberta that focus on chronic disease patients).

Primary Care Teams in Canada

The following is an overview of some of the primary care initiatives across Canada:

British Columbia

Integrated Health Network (IHN): BC launched 26 IHNs in November 2008. They currently serve a patient population of 50,000. "Teams within Integrated Health Networks target patients with mental health conditions and addictions, patients with two or more chronic conditions, or patients who reside in underserved communities" (Health Council of Canada: British Columbia Perspective, 2009a).

Patients are enrolled through their family physician and are cared for by teams that vary depending on patient needs. A patient's team includes family physicians and may include nurses, mental health specialists and pharmacists (Health Council of Canada: British Columbia Perspective, 2009a).

Interdisciplinary primary health care teams in BC, ranging in size from three to 20 providers, are typically led by a family physician and are comprised of a variety of health care providers (Health Council of Canada: British Columbia Perspective, 2009a).

The *BC Primary Health Care Charter*, published in 2007, sees patients as partners in primary care reform.

Alberta

Primary Care Network (PCN): Comprised of physicians, nurses, pharmacists, dieticians and other front line providers, there are currently 30 PCNs in Alberta. Approximately 60 percent of family physicians belong to a PCN with a goal to increase that figure to 80 percent by 2011 (Ward, 2009).

PCNs improve patient care and access and are able to accept more patients. According to Ward (2009), nearly two million Albertans (Alberta has a population of about 3.65 million) have access to a family physician through a PCN.

Saskatchewan

Primary health care teams include a variety of health care providers such as family physicians, nurse practitioners and social workers. According to the Health Council of Canada (2009a): "In smaller communities a team may consist of a nurse practitioner working in collaboration with an off-site physician who may provide visiting services once or twice per week" (Saskatchewan Perspective, p. 1).

Saskatchewan's Patient First Review allows for public consultation on health care system policy.

Manitoba

Physician Integrated Network (PIN): Are being established to expand "interdisciplinary care in fee-for-service group practices" (Health Council of Canada: Manitoba Perspective, 2009a, p. 1).

PINs seek to improve the delivery of primary care by: improving access; improving providers' access to patient information; improve providers' work life; offer high-quality primary care with a focus on chronic disease (Health Council of Canada: Manitoba Perspective, 2009a).

About 9 percent of Manitoba's family doctors have joined the PIN and 65 more doctors are being recruited.

Ontario

Family Health Teams (FHT): FHTs are interdisciplinary teams with size and composition based on community needs and provider availability (Health Council of Canada: Ontario Perspective, 2009a). Led by family physicians, FHTs are generally composed of 10 primary care physicians and seven other health care providers; but teams can range in size from one physician to 50, and large networked FHTs may include 116 physicians.

There are currently 150 FHTs in Ontario with plans to expand by another 50. Approximately 1.9 million Ontarians belong to a FHT; 250,000 of whom did not previously have a family physician (Health Council of Canada: Ontario Perspective, 2009a).

Community Health Centres (CHC): CHCs also offer interdisciplinary care with physicians, nurse practitioners, social workers, etc. providing primary health and health promotion programs. CHCs "improve primary health care by targeting specific populations. These include high-risk or vulnerable populations..." (Health Council of Canada: Ontario Perspective, 2009a).

Family Health Networks (FHN) and Family Health Groups (FHG) "are made up largely of groups of physicians who work together to deliver comprehensive care to their patients. These practices provide after-hours access to a nurse through a telephone advisory service" (Health Council of Canada: Ontario Perspective, 2009a).

Quebec

Family Medicine Group (FMG): An FMG is a team typically comprised of a family physician and a nurse and other health care providers based on community need. The Quebec government plans to have 300 FMGs throughout Quebec with the entire population registered with a family medicine group physician (Ministère de la Santé et des Services sociaux, 2009). Quebec has recently launched the next generation of its primary care strategy, Integrated Network Clinics, again, modeled on team-based care.

New Brunswick

Community Health Centres (CHC): A core team of a physician, nurse practitioner and a nurse can be complemented with other health care providers based on community need. CHCs "provide health promotion and illness/injury prevention services, chronic disease management, and a focus on the broader determinants of health such as employment, education and poverty" (Health Council of Canada: New Brunswick Perspective, 2009a). There are seven CHCs in New Brunswick.

Health Service Centres (HSC): HSCs are physicians' offices complemented with nurse practitioners and nurses.

Nova Scotia

Family physicians working with either a nurse practitioner or a family practice nurse form a typical primary care team. Dietitians, social workers and other health care providers can be added depending on community need (Health Council of Canada: Nova Scotia Perspective, 2009a).

Prince Edward Island

Family Health Centres (FHC): There are five family health care teams in PEI, which include at least one family physician working with a nurse practitioner or an advanced practice nurse (Health Council of Canada: Prince Edward Island Perspective, 2009a). These teams may include other health providers such as mental health counsellors, depending on community need.

Other teams in PEI include: primary health home care teams; integrated palliative care teams; public health teams; and, community mental health and addiction teams.

A recent review of FHCs set a goal to "broaden existing teams, by expanding the number of physicians working in teams and adding other providers when possible" (Health Council of Canada: Prince Edward Island Perspective, 2009a). A sixth and seventh FHC are being established in rural PEI.

Newfoundland and Labrador

Primary care teams, with a lead family physician working with nursing staff, community health staff and a social worker, are geographically defined; that is, these teams serve all people within a given area (Health Council of Canada: Newfoundland and Labrador Perspective, 2009a).

Other providers can be part of the team and are added as needed and when available.

Currently, the government of Newfoundland and Labrador is planning 30 team areas to serve the entire population of the province (Health Council of Canada: Newfoundland and Labrador Perspective, 2009a).

Yukon

In Whitehorse, the Diabetes Collaborative is a team of family physicians, nurses, physiotherapists and nutritionists managing patients with diabetes. The family physician is typically the clinical leader.

In rural and remote regions of the territory, teams typically consisting of a physician and a nurse, work collaboratively but are not always co-located (Health Council of Canada: Yukon Perspective, 2009a).

Northwest Territories

Integrated Service Delivery Model (ISDM): The ISDM serves the general population but some teams target specific patient groups, such as people with diabetes. The ISDM coordinates care and targets "service and system integration, from primary community care to secondary and tertiary levels of service...[it is a] team-based, client-focused approach to provid[ing] health and social services" (Health Council of Canada: Northwest Territories Perspective, 2009a).

Nunavut

Nunavut suffers from a lack of health care providers, but typically, the community health nurse leads an interdisciplinary team and is the first point of contact for patients. "Different health care providers can be on a team at any given time, depending on the circumstances and whether team members are on location, visiting, or virtual" (Health Council of Canada: Nunavut Perspective, 2009a).

The Northern Medical Unit has physicians on call, such as consultant specialists in Winnipeg, who can consult by telephone or email and some communities such as Baffin, Kivalliq and Kitikmeot have physicians, physiotherapists and others visit these communities regularly (Health Council of Canada: Nunavut Perspective, 2009a).

The core team in community health centres is usually comprised of two community health nurses, a social worker, community health representatives, clerk interpreters, and an X-ray technician (Health Council of Canada: Nunavut Perspective, 2009a).

REFERENCES

- Association of American Medical Colleges. (2008). *The medical home: AAMC position statement*. Washington, DC.
- Barr, M.S. (2008). The need to test the patient-centered medical home. *Journal of the American Medical Association*, 300(7), 834-835.
- Beal, A.C., Doty, M.M., Hernandez, S.E., Shea, K.K., & Davis, K. (2007). Closing the divide: How medical homes promote equity in health care: Results from the Commonwealth Fund 2006 health care quality survey. *The Commonwealth Fund*.
- Beaulieu, M-D., Rioux, M., Rocher, G., Samson, L., & Boucher, L. (2008). Family practice: Professional identity in transition. A case study of family medicine in Canada. *Social Science and Medicine*, 1-11. doi: 10.1016/j.socimed.2008.06.019
- Berenson, R.A., Hammons, T., Gans, D.N., Zuckerman, S., Merrell, K., Underwood, W.S., & Williams, A. (2008). A house is not a home: Keeping patients at the centre of practice redesign. *Health Affairs*, 27(5), 1219-1230.
- Bodenheimer, T., Grumbach, K., & Berenson, R.A. (2009). A lifeline for primary care. *The New England Journal of Medicine*, 360(26), 2693-2696.
- Bindman, A.B. (2009). Is there a personal doctor in the house? *Annals of Internal Medicine*, 150(5), 351-352.
- Canadian Institute for Health Information. (2009). *Analysis in brief: Experiences with primary health care in Canada*.
- The College of Family Physicians of Canada. (2004). *Patients call for wait time remedies*. Retrieved on September 30, 2009 from: <http://www.cfpc.ca/English/cfpc/communications/news%20releases/2004%2011%2025/default.asp?s=1>
- The College of Family Physicians of Canada. (2000a). *Primary Care and Family Medicine in Canada: A Prescription for Renewal*. Mississauga, ON: The College of Family Physicians of Canada.
- The College of Family Physicians of Canada. (2000b). *The Role of the Family Physician in Home Care*. Mississauga, ON: The College of Family Physicians of Canada.
- The College of Family Physicians of Canada. (2009). Proceedings from the Leaders' Summit: *The evolution of family medicine, past, present and future*. Mississauga, ON: The College of Family Physicians of Canada.
- The College of Family Physicians of Canada and the Section of Teachers of Family Medicine. (2009). *CanMEDS – Family Medicine*. Working Group on Curriculum Review. Mississauga, ON: The College of Family Physicians of Canada.
- Enthoven, A.C, Crosson, F.J., & Shortell, S.M. (2007). 'Redefining health care': Medical homes or archipelagos to navigate? *Health Affairs*, 26(5), 1366-1372.
- Forster, J., Rosser, W., Hennen, B., McAuley, R., Wilson, R., & Grogan, M. (1994). New approach to primary medical care. *Canadian Family Physician*, 40, 1523-1530.
- Government of Quebec. Ministry of Health and Social Services. Retrieved on September 3, 2009 from: <http://www.msss.gouv.qc.ca/sujets/organisation/gmf/index.php?accueil-en>
- Green, L. (2009). The patient-centered medical home: A discussion at NAPCRG 2008. *Annals of Family Medicine*, 7(2), 183-184.

- Grumbach, K., Bodenheimer, T., & Grundy, P. (2009). *The outcomes of implementing patient-centered medical home interventions: A review of the evidence on quality, access and costs from recent prospective evaluation studies*. Patient-Centered Primary Care Collaborative, Centre for Excellence in Primary Care.
- Haggerty, J., Burge, F., Lévesque, J.-F., Gass, D., Pineault, R., Beaulieu, M.-D., & Santor, D. (2007). Operational definitions of attributes of primary health care: Consensus among Canadian experts. *Annals of Family Medicine*, 5(4), 336-344.
- Health Canada. *Health Transition Fund*. Retrieved on September 2, 2009 from: <http://www.hc-sc.gc.ca/hcs-sss/ehealth-esante/infostructure/finance/htf-fass/index-eng.php>
- Health Council of Canada. (2009a). *Teams in action: Primary health care teams for Canadians*. (includes provincial perspectives). Toronto.
- Health Council of Canada. (2009b). *Value for money: Making Canadian health care stronger*. Retrieved on September 16, 2009 from: http://www.healthcouncilcanada.ca/docs/rpts/2009/HCC_VFMReport_WEB.pdf
- Hollander, M.J., Kadlec, H., Hamdi, R., & Tessaro, A. (2009). Increasing value for money in the Canadian healthcare system: New findings on the contribution of primary care services. *Healthcare Quarterly*, 12(4), 30-42.
- Kidd, M.R., Watts, I.T., Mitchell, C.D., Hudson, L.G., Wenck, B.C., & Cole, N.J. (2006). Principles for supporting task substitution in Australian general practice. *Medical Journal of Australia*, 185(1), 20-22.
- Macinko, J., Starfield, B., & Shi, L. (2007). Quantifying the health benefits of primary care physician supply in the United States. *International Journal of Health Services*, 37(1), 111-126.
- Morgenstern, C. (2005). *Stufen: Eine Entwicklung in Aphorismen und Tagebuch-Notizen*. Retrieved on September 8, 2009 from: <http://www.gutenberg.org/files/15898/15898-8.txt>
- National Physician Survey. (2007). Retrieved on September 3, 2009 from: http://www.nationalphysiciansurvey.ca/nps/2007_Survey/Results/ENG/National/pdf/Q33/Q33a_CORE.only.pdf
- Nutting, P.A., Miller, W.L., Crabtree, B.F., Jaen, C.R., Stewart, E.E., & Stange, K.C. (2009). Initial lessons from the first national demonstration project on practice transformation to a patient-centered medical home. *Annals of Family Medicine*, 7(3), 254-260.
- Rittenhouse, D.R., Casalino, L.P., Gillies, R.R., Shortell, S.M., & Lau, B. (2008). Measuring the medical home infrastructure in large medical groups. *Health Affairs*, 27(5), 1246-1258.
- Rittenhouse, D.R., Shortell, S.M. (2009). The patient-centered medical home: Will it stand the test of health reform? *Journal of the American Medical Association*, 301(19), 2038-2040.
- Rosenthal, T.C. (2008). The medical home: Growing evidence to support a new approach to primary care. *Journal of the American Board of Family Medicine*, 21(5), 427-440.
- Sandy, L.G., Bodenheimer, T., Pawlson, L.G., & Starfield, B. (2009). The political economy of U.S. primary care. *Health Affairs*, 28(4), 1136-1144.
- Schoen, C., Osborn, R., Doty, M.M., Bishop, M., Peugh, J., & Murukutla, N. (2007). Toward higher-performance health systems: Adults' health care experiences in seven countries, 2007. *Health Affairs*, 26(6), 717-734.
- Sia, C., Tonniges, T.F., Osterhus, E., & Taba, S. (2004). History of the medical home concept. *Pediatrics*, 113(5), 1473-1478.
- SOAR Family Medicine (2006). *An international colloquium of six organizations to advance the renewal of family medicine*. Mississauga, ON: The College of Family Physicians of Canada.
- Starfield, B., & Shi, L. (2004). The medical home, access to care, and insurance: A review of evidence. *Pediatrics*, 113(5), 1493-1498.

- Starfield, B., Chang, H-Y., Lemke, K.W., & Weiner, J.P. (2009). Ambulatory specialist use by nonhospitalized patients in US health plans. *Journal of Ambulatory Care Management*, 32(3), 215-225.
- Susman, J. (2009). Beyond the walls of the medical home. *The Journal of Family Practice*, 58(4), 178.
- Vesely, R. (2009). Medical home blueprint: Four doc groups release guides seeking consistency. *Modern Healthcare*, 39(18), 18.
- Ward, R. (2009, August 20). Solving the family doctor shortage. *The Calgary Herald*. Retrieved on August 25, 2009 from: <http://www.calgaryherald.com/opinion/oped/Solving+family+doctor+shortage/1911890/story.html>
- Wedel, R., Kalischuk, R.G., Patterson, E., & Brown, S. (2007). Turning vision into reality: Successful integration of primary healthcare in Taber, Canada. *Healthcare Policy*, 3(1), 80-95.
- Wong, S.T., Watson, D.E., Young, E., & Regan, S. (2008). What do people think is important about primary healthcare? *Healthcare Policy*, 3(3), 89-104.
- World Health Assembly. (2009). *Primary health care, including health system strengthening*. Sixty-Second World Health Assembly, Agenda item 12.4.
- Wranik, D.W. & Durier-Copp, M. (2009). Physician remuneration methods for family physicians in Canada: Expected outcomes and lessons learned. *Health Care Analysis*. doi: 10.1007/s10728-008-0105-9