ARDUOUS ACCESS

A Look at the Primary Health Care Crisis in Quebec, Canada

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Abstract

This manuscript-based thesis attempts to scrutinize the current crisis surrounding access to primary health care (PHC) in Quebec, Canada through mixed methods and multiple perspectives. Using logistic regression, the relationship between socioeconomic status and access to PHC was closely examined from the individuals' perspective (i.e. access from 'below'). These results reveal that household income, size of household, region of residence and marital status are all factors which threaten equitable access to family doctors in the province. From a micro perspective in Montreal, Quebec, access from 'above' was then studied through in-depth qualitative interviews with family physicians. Arduous access to PHC in Quebec was thus found to be the possible result of supply-side regulation mechanisms adopted by the provincial government in an attempt to cut healthcare costs. In response to these findings, a series of recommendations was finally made to improve access to PHC in the province, all whilst balancing the sometimes conflicting goals of universal healthcare and curbing costs.

Abrégé

Cette thèse vise à mieux comprendre la crise concernant l'accès aux soins de santé primaires au Québec, en employant de multiples méthodes et perspectives. Avec l'aide de la régression logistique, le lien entre le statut socio-économique et l'accès aux soins primaires a été étudié à partir de la perspective de l'individu (c'est-à-dire, la demande de soins). Ces résultats démontrent que le revenu du ménage, la taille du ménage, la région de résidence et le statut marital sont tous des facteurs qui affectent l'accès équitable aux médecins de famille dans la province. Ensuite, en employant une perspective plus microsociale, l'offre de soins a été étudiée à l'aide d'entrevues avec des médecins de famille à Montréal, Québec. La difficulté d'accès aux soins de santé primaires semble être le résultat d'une série de politiques qui régulent l'offre des soins afin de réduire les coûts associés à la santé. À la lumière de ces résultats, des recommandations sont offertes afin d'à la fois améliorer l'accès aux soins de santé primaires tout en étant conscient du but à long-terme de limiter l'augmentation des coûts de santé.

ARDUOUS ACCESS
A Look at the Primary Health Care Crisis in Quebec, Canada

The situation in the province of Quebec is nothing short of critical when it comes to accessing family doctors. With estimates ranging from 800,000 (M. Dawes, personal communication, 25 July, 2008) to 2 million Quebecers without a family doctor (Gladu & Martel, 2006), it is becoming increasingly evident that having a regular generalist is a resource that a significant proportion of the population does not possess. This is not for a lack of trying, however. In a recent statement, the president of the *Fédération des médecins omnipraticiens du Québec* (FMOQ), Dr. Louis Godin, declared that roughly 1 million Quebecers are searching for a family doctor and are unable to find one (Tremblay, 2008). Other sources cite a more conservative 830,000 (Statistics Canada, 2005).

These numbers have not gone unnoticed. In the very first Canadian Health Consumer Index released in September 2008, Quebec was ranked eighth out of ten provinces on all indicators of health care (Walberg & Björnberg). Specifically, with regards to primary health care, Quebec placed last out of all provinces with only approximately 73.5% of Quebecers having a family doctor, compared to Ontario—the next lowest province—with 81.6%. Of all indicator areas tested in the index, such as wait times, patient information and health outcomes, Quebec's greatest weakness was undoubtedly in primary health care. Parallel to this, however, the province boasted excellent scores for relatively short wait times related to specialist care and radiation therapy. In fact, Quebec is the only province where more than 50% of patients are able to see a specialist within a month. It therefore seems that access to primary, not specialist care, is what is most problematic in the province.

This problem of poor access to PHC in the Quebec has largely been attributed to a lack of physicians, especially since having a family doctor is closely associated with improved access to primary health care (Lambrew, Defriese, Carey, Ricketts, & Biddle, 1996). In a brochure distributed to Montrealers in the autumn of 2008 by the *Agence de santé et des services sociaux* (Montreal's health agency), under the heading "If you are looking for a family doctor", the Agency laments: "There is a shortage of doctors in Quebec. Various measures have been taken and new doctors are being trained, but it will be a few years before the situation rights itself" (2008: 6). The *Ministère de la santé et des services sociaux* (MSSS) estimates that 295 new family physicians per year are required to simply maintain the current level of service, taking into

account retirements and other forms of attrition. In 2009, however, current estimates predict that only 220 new family physicians will enter into practice, meaning that Quebec will once again be running a deficit of doctors (Fédération des médecins omnipraticiens du Québec, 2008).

Paradoxically however, Quebec has 111 family doctors per 100,000 population—one the highest proportions in the country, third only to the Yukon (205) and Nova Scotia (116) (Canadian Medical Association, 2009). While this may seem high, the FMOQ argues that the numbers do not represent full-time practising generalists—if they did, the province's 7,800 family doctors would be closer to 6,800 or 71 physicians per 100,000 population (Canadian Institute for Health Information, 2006; Pinker, 2002). So if Quebec has one of the highest proportions of family physicians, then why is it the most difficult province in which to obtain primary health care? Why are so few physicians practicing full time? If a lack of family doctors *is* to blame for the crisis, what explains *who* gets access to these scarce resources? And if other factors are at play, what are they and how can they be addressed?

It seems that there are more questions than answers when it comes to understanding the issues with access to primary health care in Quebec. These questions therefore suggest the importance of a study which delves deep into the experiences of both patients and physicians in trying to make sense of the crisis Quebecers are currently facing. Chapter 2, therefore, will quantitatively ask (from the patient's perspective) *who* has access to a family doctor in Quebec, and whether or not social inequities exist. What individual factors can affect the likelihood of having a generalist? What impact does socioeconomic status have, and if it is significant, then what are the implications for the Canadian health care system? Chapter 3 will then qualitatively ask (from a physician's perspective), *why* access to family physicians is so strained. What factors have contributed to making access to family doctors so difficult, both in Quebec and Montreal more specifically? If proven to be significant quantitatively, then why *does* socioeconomic status matter when it comes to finding a primary health care provider? What possible solutions can be proposed to help improve the situation? This mixture of methods will hopefully serve to provide a comprehensive view of the current situation regarding access to family physicians in Quebec. Before embarking upon such a study, however, chapter 1 will serve to delineate key definitions and concepts concerning the nature of primary health care, the significance of access and the ways in which access is theorized about. Only then will empirical discussions about Quebec's access woes be appropriate.

CHAPTER 1: Overview of Concepts, the Literature and the Thesis

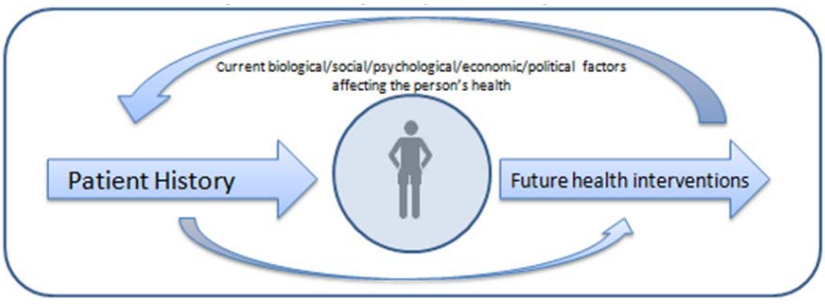
WHAT IS PRIMARY HEALTH CARE (PHC)?

Thirty years ago, in the very first international gathering of its kind highlighting the importance of primary health care, the International Conference on Primary Care produced the Declaration of Alma-Ata which broadly defined PHC as being:

> [E]*ssential* health care based on practical, scientifically sound and socially acceptable methods and technology made *universally accessible* to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process (The World Health Organization, 1978, emphasis added).

At its most basic level, PHC includes education and prevention, a proper supply of safe drinking water, food and sanitation, maternal and child care (including family planning), immunizations, prevention and control of endemic diseases, appropriate treatment of common diseases, and the provision of essential drugs (The World Health Organization, 1978). As an approach to healthcare, it is therefore thought to take into account the broader (social) determinants of health which, in addition to patient history and biological factors, lead to disease. PHC also manages the more specialized health interventions which follow as a result—see Figure 1 below (The Primary Care Wait Time Partnership, The College of Family Physicians of Canada, & The Canadian Medical Association, 2008). In doing so, primary health care provides a 'medical home' for patients—a space of continual care—where practitioners of PHC adopt an integrative approach to medicine, effectively overseeing the events before and beyond a health problem to ensure the broadest spectrum of preventive and curative care available (American Academy of Family Physicians et al. 2007).

Figure 1: The Purview of the Primary Health Care Practitioner



In other words, instead of being a *type* of medicine, primary health care is in fact,

> [A]n approach to medicine that forms the basis for and determines the work of all other levels of health systems. Primary care addresses the most common problems in the community by providing preventive, curative, and rehabilitative services to maximize health and well being. It integrates care when there is more than one health problem and deals with the context in which illness exists and influences the responses of people to their health problems. It is care that organizes and rationalizes the deployment of all resources, basic as well as specialized, directed at promoting, maintaining and improving health (Starfield, 1998: 9).

At this juncture, I want to draw an important distinction between primary *health* care and primary care, the latter being mainly characterized by 'first-contact services' (Health Canada, 2006; Primary Care Wait Time Partnership et al. 2008). For the purposes of this thesis, the term *primary health care* is used to distinguish the services offered within the context of the medical home from those strictly 'first-contact' services obtained in an emergency room or drop-in clinic, (which may well still be administered by family physicians). It is this first type of care that will be the subject of research throughout this thesis.

To further expound upon the concept of PHC, there are several defining characteristics which clearly distinguish primary health care from either secondary (short-term consultative) or tertiary (long-term disease management) forms of care (Starfield, 1998). Among these characteristics is that PHC usually takes place in a community setting and is thus better able to consider the various determinants of health (including social ones) which may be at play. It is also less labour intensive, less hierarchical, more flexible and more adaptive than more specialized forms of care. It furthermore deals with a much broader range of problems that may have not yet been pre-diagnosed by a health professional. In addition, the patient is typically known by the physician, access is usually direct (that is, there is no need for a referral to a family doctor), and there tends to be a long-term responsibility for the patient on behalf of the same physician, regardless of health status. Finally, it tends to offer more preventive services than other specialized forms of care (Bindman, et al. 1996).

The Four Attributes of PHC

Primary health care as an approach is thus quite clearly distinct from other approaches in medicine. As a whole, these differences can be summarized in the four main attributes of PHC, which are: first-contact care, longitudinality, comprehensiveness, and coordination. The

first attribute refers to the accessibility and utilization of primary health care services[1]. According to Starfield, accessibility and utilization go hand in hand, since a facility does not provide first-contact care "unless its potential users perceive it to be accessible and reflect this in their use" (1998: 30).

It is important to note that while many drop-in clinics or emergency departments may offer first-contact services, where they differ most remarkably from primary *health* care (as it is defined in this thesis) is in the following attribute: longitudinality[2]. This term, coined by Alpert and Charney in 1974, refers to "a long-term personal relationship between practitioners and the patients in their practice. Continuity is not necessary for this relationship to be present; interruptions in the continuity of care for whatever reason need not disrupt this relationship" (Starfield, 1998: 143). Continuity can also be achieved with specialists, insofar as it refers to the "extent to which patients see the same practitioner or visit the same facility from one visit to another or even over a period of time" (Starfield, 1998: 144), though the continuity would tend to focus on the disease and not the person as much. This is why the term 'longitudinality' is preferred over continuity to describe this unique characteristic of PHC.

The importance of a longitudinal relationship with a medical provider is quite well established[3], though the causal mechanism is not always clear (Starfield, 1998). Longitudinality has been associated with improved medication compliance, better health outcomes (including better birth outcomes), and fewer preventable diseases (Cabana & Jee, 2004; Macinko, Starfield, & Shi, 2003; Starfield, 1998). Physicians tend to be better able to understand the specific needs of their patients and are thus better able to detect certain types of medical issues (especially psychosocial problems). This in turn enables them to make more accurate diagnoses and to treat conditions less aggressively than if they do not know the patient (Starfield, 1998). Longitudinality is also associated with improved efficiency, as it can lower hospitalization rates as well as costs (Cabana & Jee, 2004). Finally, it is linked to improved patient satisfaction, which makes them more likely to keep follow-up appointments (Cabana & Jee, 2004; Starfield, 1998).

Several reasons explaining these benefits of longitudinality have been proposed (Starfield, 1998). First, a better sense of trust is formed between the practitioner and the

[1] For a more elaborate discussion of first-contact services and accessibility, please refer to the section entitled 'What does it mean to have access?' on page 15.
[2] In other words, the goal of this thesis will be to understand what affects one's potential of having access to first contact care in the context of a primary health care relationship characterized by longitudinality.
[3] For a review of these benefits, please consult Rogers, J., & Curtis, P. The Concept and Measurement of Continuity in Primary Care. Am J Public Health, 70(2), 123.

patient. This tends to make the former more sensitive to subtle health cues emitted by patients, while the latter more responsive to recommendations from their physicians. Second, a better family history is collected over time, and the doctor eventually becomes a type of 'repository of information' who can coordinate all of the information which has accrued and apply it to the benefit of the patient [4].

The third and fourth attributes are highly interconnected. Comprehensiveness refers the way in which all types of care are arranged for by the physician or the medical facility, including preventive and curative services, all whilst being aware of the patients' broader social, medical and personal contexts (Starfield, 1998; The College of Family Physicians of Canada, 2007). Because primary health care providers are aware of these broader factors (in part because of their longitudinal relationship with the patient), they are often able to solve medical mysteries that puzzle specialists, who tend to narrowly look at only one disease or organ system. When a particular problem requires outside consultation, that is when a physician *coordinates* these services. Coordination, the final attribute, consists not only of referrals into the broader medical community but also following up on issues which were previously discussed (Starfield, 1998). Primary health care can thus be thought of as a centralized hub from which patients are guided through the health care system towards more specialized care, diagnostic services, hospitals and community organizations (see Figure 2 below) (The World Health Organization, 2008).

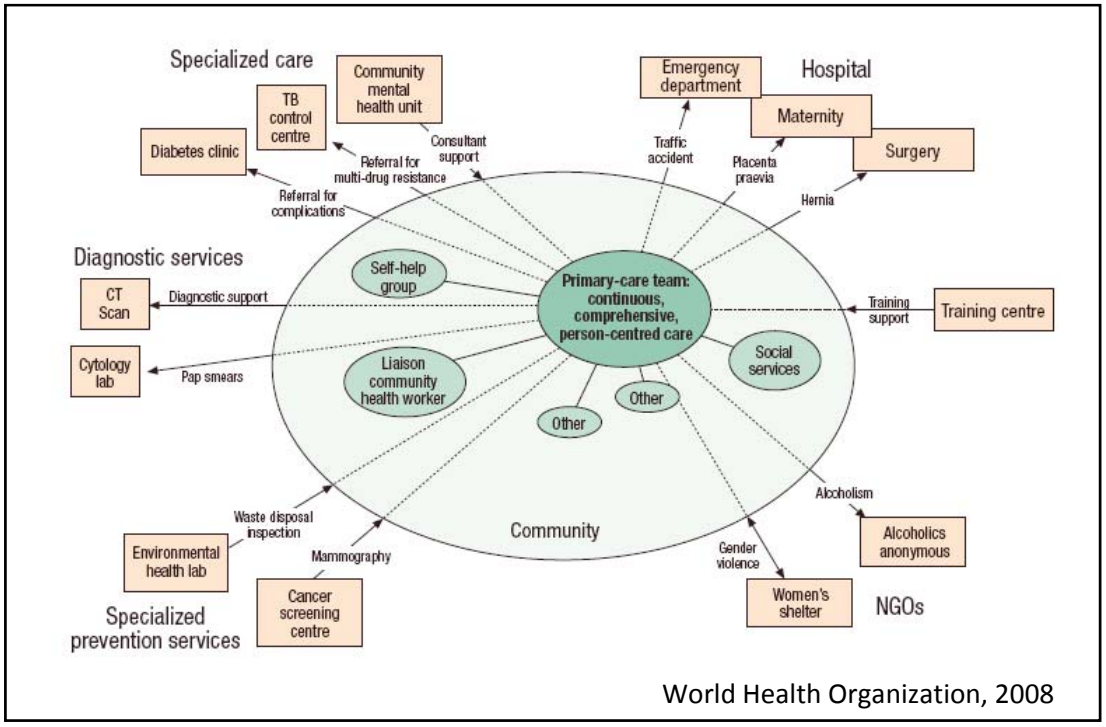
Who Practises Primary Health Care?

Several different types of healthcare professionals practise PHC, such as doctors, nurses, social workers, nutritionists, psychologists and pharmacists (Institute of Medicine, 1978). In Canada, family medicine is the branch which is usually associated with this type of care, though paediatrics and internal medicine are also related fields. A family doctor is someone who "usually establishes the first contact with the patient, assumes overall responsibility for continuity and comprehensiveness of care, and orients his/her practice towards the successful treatment, prevention and management of disease while taking into account the patient's personal and social situation" (According to the Collège des médecins de famille as cited in Fédération des médecins omnipraticiens du Québec, 2008). While in Canada, family medicine is often used interchangeably with primary health care, it is incorrect to assume that family

[4] It is important to note that 'locational longitudinality' (i.e. where the regular source of care is a *place* rather than a person) is also known to be beneficial, but it is considered less so than individual longitudinality (Starfield 1998).

doctors are the main or only providers of PHC in all countries or regions. As such, while family doctors may be used synonymously throughout the text with 'primary health care practitioners', it is useful to remember that they are not the only providers of such care, both within Canada and abroad.

Figure 2: Primary Care as a Hub of Coordination:
Networking Within the Community Served and with Outside Partners



World Health Organization, 2008

The Importance of Primary Health Care

PHC has often been referred to as the backbone of any healthcare system (Primary Care Wait Time Partnership, et al., 2008). Because it is frequently the first point of access to care, it serves as both a hub and a gatekeeper to the broader health care system by both facilitating and restricting access to more specialized services (Ibid.; The World Health Organization, 2008). The benefits of doing so are many. While some patients might already know what ailment they have or which specialist to see and when (thereby saving time and money by avoiding a trip to a family doctor), there are a number of medical problems, which may fall within a single or multiple fields of medicine, that can be satisfactorily treated by a generalist. Also, primary health care doctors are specially trained to deal with a wide variety of problems, and can therefore adequately direct patients to the correct specialist or service (Starfield, 1998). In addition, PHC has been shown to be cost-effective, both in developing and developed countries (De

Maeseneer, De Prins, Gosset, & Heyerick, 2003; Walsh & Warren, 1979). Because most of their patients have already been evaluated by family physicians, specialists tend to be better at treating sick people than identifying those who are well. The higher rate of false-positives that is associated with specialists tends to involve lengthy and expensive diagnostic tests and interventions which could often have been prevented with the clinical guidance of a generalist, who is experienced with treating a broad range of people in varying states of health (Starfield, 1998). Finally, generally speaking, those who contact their PHC physician before seeking more specialized care tend to have better health outcomes than those who do not. Referrals to surgical or specialist procedures have often been found to be better justified than if patients first sought initial care from specialists without a referral, and health outcomes were also better in referred patients (Starfield, 1998).

Primary health care is thus associated with improved system efficiency (that is, better outcomes at a lower cost), since it can lead to fewer unnecessary or preventable treatments and interventions (Primary Care Wait Time Partnership et al. 2008; Starfield, 1998). For example, regular and timely access to PHC has been associated with a reduced incidence of preventable hospitalizations for men and women of all ages, in both Canada and the United States (Ansari, Laditka, & Laditka, 2006; Australian Government Department of Health and Ageing, 2008; Bindman, et al., 1995; Laditka, Laditka, & Probst, 2005; Menec, Sirski, Attawar, & Katz, 2006; Parchman & Culler, 1994, 1999; Starfield, 1998). The reverse can also be seen when primary health care is not easily accessible. In its absence, patients tend to seek help from emergency departments or walk-in clinics, (Asanin & Wilson, 2008; Australian Government Department of Health and Ageing, 2008; Starfield, 1998) which is worrisome for reasons of cost-effectiveness and longitudinality respectively (Baker & Baker, 1994; Osmun, 1994; Pineault, et al., 2009)[5]. Studies have also found that the total percentage gross domestic product spent on health actually decreases if PHC is used for gatekeeping (Starfield, 1998).

In terms of the impact of PHC on health outcomes, research has shown that patients with access to a regular family physician are more likely to receive preventive health services (such as immunizations and blood pressure monitoring) and benefit more from early disease

[5] Consider Osmun's (1994) comparison between walk-in clinics and the fast-food industry: "It is care that is impersonal and between strangers, but it is easy and usually you don't have to wait in line. There is no ongoing commitment between patient and doctor, and care is dispensed in metaphorical, Styrofoam packages. The patient need not look at the rest of the menu, and the doctor only has to serve what is ordered" (1340).

detection than those without such access (Fryer, Dovey, & Green, 2000). Finally, PHC has also been found to reduce health disparities and improve general health and well-being (Australian Government Department of Health and Ageing, 2008; LaVeist & Isaac, 2005).

WHAT DOES IT MEAN TO HAVE ACCESS?

Now that we are familiar with primary health care and its benefits, we can turn to the issue that is central to this thesis—access. Much of the literature on PHC tends to focus on one of its most essential components—accessibility. Barbara Starfield argues that accessibility is *especially* important in primary health care, given that it is the first point of contact with the health care system as a whole (1998). Without an easily accessible point of entry to the system, important interventions may be either delayed or avoided altogether, diagnostic tests are out of reach, and in many systems where family physicians act as gatekeepers for secondary or tertiary forms of care, access to specialists may also be thwarted. It is also important to remember that access refers to a way in which people experience health services, so *perceptions* of access may be more representative of accessibility than actual access (Wilson & Rosenberg, 2004).

Many have attempted to classify access into different categories. Donabedian (1972) distinguished between socio-organizational access (that is, do health structures match the needs of society?) versus geographic access (that is, the physical and temporal distance to services). Others have focused on the distinction between potential and realized (or revealed) access (Andersen & Newman, 1973; Joseph & Phillips, 1984), whereby the former refers to the presence of factors conducive to accessibility and the latter refers to the actual use of services. Realized access can further be broken down into equitable access, which occurs when need and demographic characteristics account for most of the variance in utilization, and inequitable access, which occurs when social structure, health beliefs and enabling resources (like income) determine who gets medical care (Andersen & Newman, 1973). Additionally, efficient access is when the level of health status or satisfaction increases relative to the amount of health care services consumed (Andersen & Newman, 1973).

Penchansky and Thomas (1981) broke down access into five distinct components: availability, accessibility, accommodation, affordability and acceptability. This first component, which refers to whether or not it is even possible to obtain medical services (that is, what Andersen and Joseph & Phillips would refer to as potential access), is the very first step in establishing access. Without even the possibility of entering the medical system, all the other components of Penchansky and Thomas' model are moot. To measure availability, the two

authors propose asking patients for their own perceptions of access through the following questions: 'All things considered, how much confidence do you have in being able to get good medical care for you and your family when you need it'? and 'How satisfied are you with your ability to find *one* good doctor to treat the whole family'? Similarly, the Institute of Medicine (1978) proposed the following questions to establish standards for availability in the US:

- Is access to primary care services provided 24h/day, 7 days a week?
- Is it possible to schedule an appointment?
- Can most (90%) medically urgent cases be seen within 1 hour?
- Can most (90%) patients with acute but not urgent problems be seen within 1 day?
- Can most (90%) appropriate requests for routine appointments be met within 1 week?

While many of the above standards may seem utopian in the current Quebec context[6], they can still serve the important purpose of an ideal which can be worked towards, as opposed to something to be duplicated in the near future.

Ways of Conceptualizing Access

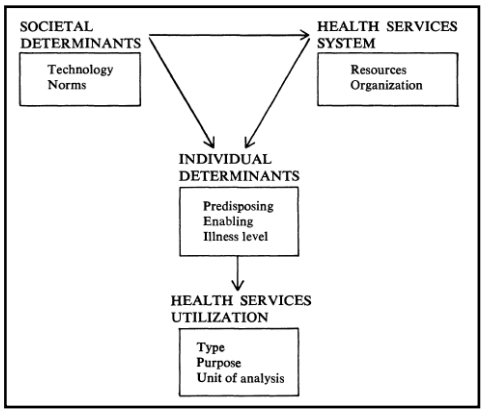
There are numerous ways in which accessibility to health services can be measured,[7] but there are two models in particular, proposed by Andersen and Newman and Gomes and McGuire, which stand out with regards to their relevance to this particular thesis. The former has been widely used in the literature but in light of its numerous limitations (some of which Andersen conceded to himself in 1995), the latter model was also included because it takes into account the possibility of there being inequities (or disparities) in access to services. The first model by Andersen and Newman (1973) measures access by examining the different factors which affect health care utilization. The two authors see the usage of health services as a type of individual behaviour which can be understood as being a function of the individual herself, her environment, and the interaction between the individual and the environment. As such, they propose a theoretical framework which incorporates each of these elements (individual, societal

[6] To be sure, here I am referring to the availability of primary health care as it is defined in this thesis (i.e. access to a physician who can coordinate comprehensive care, and with whom a patient has a longitudinal relationship). I am not referring to the availability of first contact services *only*, such as those available in drop-in clinics or EDs.

[7] For a thorough overview of many of these methods, please consult Barbara Starfield (1998), Primary Care: Balancing Health Needs, Services and Technology, pp. 129-135.

and systemic) in an attempt to better understand the factors which impact the utilization of health care services (see Figure3 below)[8].

Figure 3: Determinants of Health Services Utilization (Andersen & Newman 1973)



They begin with societal determinants, indicating how advancements in technology have affected disease levels, especially with regards to certain infectious diseases such as small-pox and tuberculosis, which have in turn affected utilization rates of care since fewer people are sick. They also point to how changing societal norms can affect how likely someone is to seek care for a particular condition. Changes in beliefs about mental disorders, for instance, have decreased the number of inpatients at psychiatric hospitals over time. Similarly, shifting views on childbirth have almost entirely transplanted the site of births from the home to the hospital. Finally, political norms can also affect the way medical services are financed, which is evidenced by examining liberal versus conservative approaches to social policy. In short, Andersen and Newman argue that one's decision to access medical care may actually be structured by prevailing trends and beliefs in society at any given time.

Utilization of health care is not only decided at a normative, societal level, however. Health system determinants, such as the volume and distribution of resources, as well as various organizational components, can also play an important role in determining whether or not someone will receive care. On the one hand, the amount and geographic distribution of resources, (such as labour and capital) which are dedicated to the health system can have an important effect on the facility of access to care. This is illustrated, for example, by examining the relationship between the number of MRI scanners in a given area and the wait times

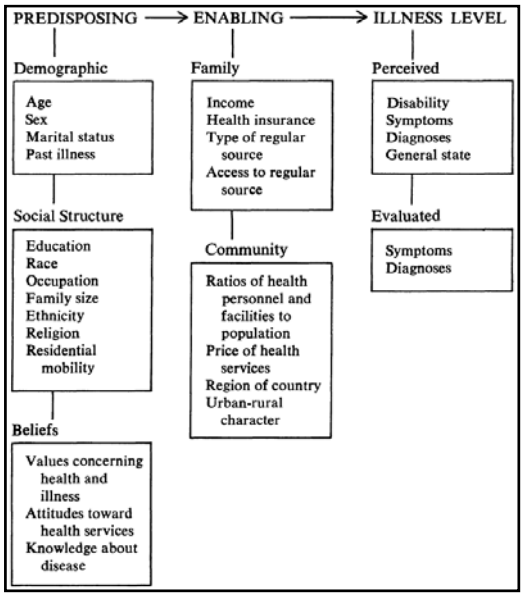
[8] Since Andersen and Newman's influential model was first published, health service utilisation (or realized access) has become one of the most widely used indicators of access in the literature on primary health care, if only because it is an easy measure to obtain (see page 28 in Chapter 2 which discusses this).

associated with this type of diagnostic procedure. Another example is the physician-to-population ratio in rural versus urban regions, which indicates to us that access may not be uniform across a single country or province.

On the other hand, there is the organization of the health care system. The different ways in which a system's resources are coordinated and managed can also have a significant impact on utilisation of services. These factors directly impact access, which Andersen and Newman define as "the means through which the patient gains entry to the medical care system and continues the treatment process. It specifies the requirements that must be met and the barriers which must be overcome before medical care is received" (Andersen & Newman, 1973: 102). Access is thought to increase under a variety of circumstances, namely when financial barriers to care are removed and when wait times are shortened. In addition to access, structure can also affect one's utilisation of health services. This, Andersen and Newman explain, refers to the specific components of the health care system which affect what happens to the patient once he or she has gained access, such as the nature of primary care practices, referrals to other sources of care, admission to hospital and post-discharge care.

Finally, individual determinants can also influence one's likelihood of using health services, according to Andersen and Newman (see Figure 4 below).

Figure 4: Individual Determinants of Health Service Utilization (Andersen & Newman, 1973)



They argue that utilisation is dependent upon: (1) the predisposition of the individual to use services (pre-disposing factors); (2) their ability to secure services (enabling factors); and (3)

their level of need (illness-level factors). Predisposing factors such as demographic characteristics and social structural aspects are all elements which are known to affect one's likelihood of seeking out medical care. An enabling factor, on the other hand, is one that makes it possible for an individual to seek and obtain medical services if and when they deem it necessary. Finally, illness-level factors are the most obvious and significant causes of health service utilisation, since both perceived and evaluated levels of need will almost always lead to higher usage rates.

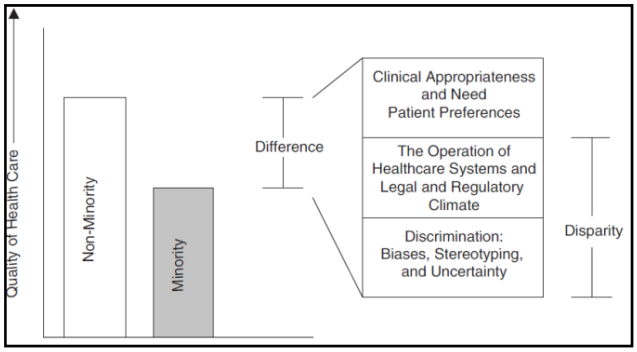
In sum, while Andersen and Newman's model examines factors which affect one's likelihood of using health services (or *realized* access), there are several key points to retain with regards to *potential* access. For instance, the same individual determinants which affect utilisation rates will be just as important in determining whether or not someone has the need or the ability to attempt to gain access to services to begin with. Similarly, health system determinants can play a deciding role in one's level of access, given that both a system's resources and organization directly affect accessibility to services. It is only when considering societal determinants—those factors such as technology and norms which influence utilisation—that their model becomes less useful for understanding potential access in the context of this thesis. Nevertheless, there are still some valuable points to glean from this factor. Changing norms or values, for example, may not only affect the types and frequency of care utilised by patients, but also whether that care is sought out to begin with. Technological advancements such as e-mail or teleconferencing can also make it easier to get in touch with a physician and seek medical assistance. In general, however, societal factors, as defined by Andersen and Newman, lie beyond the scope of this thesis and as such, will not be addressed in any great detail.

The second important model to consider is one proposed by Gomes and McGuire which was discussed in the 2003 Institute of Medicine report entitled "Unequal Treatment" (Smedley, Stith, & Nelson, 2003). The Gomes and McGuire model identifies several main factors which explain the gap in the quality of care obtained by visible minorities in the U.S. (see Figure 5 below). In it, they distinguish between those factors which simply indicate a difference in quality from those which point to a disparity in quality. These same factors leading to differences and disparities in quality, however, can easily be applied to the context of access to care.

To begin, the authors examine clinical appropriateness and need as well as patient preferences. It makes sense that those who are sicker tend to receive better quality care and

better *access* to care than their healthier counterparts. This difference is not unjust—in fact it could be construed as the opposite—a natural and/or fair occurrence.

Figure 5: The Gomes and McGuire Model (Smedley et al., 2003)



This is why it is referred to as a difference (or an inequality, as it is referred to in the Canadian context[9]). In much the same way, we cannot argue that it is unfair if two equally sick patients do not have the same access to a primary health care practitioner if one patient prefers not to seek medical care. On the other hand, the operation and/or regulation of the health care system, as well as possible discrimination, can and do constitute sources of disparities (or inequity) in both access to and quality of health services, which indicate that a social injustice may be at play. For Smedley *et al*., and in the context of their study of racial minorities, a disparity refers to "racial or ethnic differences in the quality of healthcare that are not due to access-related factors or clinical needs, preferences, and appropriateness of intervention" (2003: 3-4). In the context of access to care, however, many other factors might contribute to possible differences and disparities in accessibility. Age, for example, might constitute an inequality in access, since older people tend to be more likely to have a family physician, whereas area of residence (rural/urban) might constitute an inequity if people living in one region tend to have better access to PHC practitioners than those living in the other, even when taking health status into account.

In sum, there is much to be gleaned from these two models in terms of improving our understanding of those factors which affect access to primary health care. Andersen and Newman's model enables us to analyze and identify both the individual and system

[9] There is some debate surrounding whether or not disparity (as used in the American context) translates to inequity (in the Canadian or international context). For more information on this disagreement, please consult Carter-Pokras, O., & Baquet, C. (2002). What is a Health Disparity? Public Health Reports, 117(5), 426-434.

determinants of access, which respectively require two separate units of analysis: the individual and the system. Gomes and McGuire's model, on the other hand, allows us to parse out which determinants represent inequalities and which represent inequities, thereby allowing us to recognize which factors can or should be changed by policy.

THESIS OVERVIEW

It is therefore in using these frameworks that this thesis will attempt to comprehend the current crisis in primary health care which exists in Quebec, by specifically examining one very precise form of access—*potential* access to care, as opposed to *realized* access. Utilisation rates that measure *realized* access really only account for access after the fact; that is to say, they do not take into consideration the very first step in seeing a physician, which involves finding that family doctor. The empirical discussions which follow therefore only deal with the approximately 830,000 Quebecers who are still in the first stage of waiting for PHC; that is, finding a doctor. Without that stage, it is impossible to even conceive of getting an appointment and/or being referred to specialist care—in other words, using the health care system to its full potential.

Beyond merely being a necessary means of entering the system, potential access to PHC has also been promised and promoted to Canadians by a variety of different sources for over 20 years. The College of Family Physicians of Canada and the Canadian Medical Association have both declared that "every Canadian should have the opportunity to have a personal family physician" (as cited in Primary Care Wait Time Partnership, et al., 2008: 17). More broadly in 1984, with the introduction of the Canada Health Act (and prior to that, with the 1970 Medical Care Act), Canadians were assured that by removing the financial barriers to accessing care, they could enjoy what the country would come to boast as 'universal healthcare'. The Canada Health Act (CHA) specifically states that, "the primary objective of Canadian health care policy is to protect, promote and restore the physical and mental well-being of residents of Canada and to facilitate reasonable access to health services *without financial or other barriers*" (1985, emphasis added). In fact, accessibility is one of the five main pillars of the CHA.

In light of these promises and declarations ensuring Canadians' equality, and given the well-established benefits of PHC discussed earlier, the following research questions are born:

Research Questions:

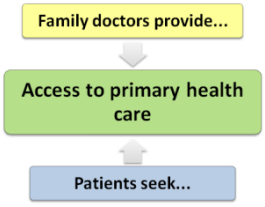
- From the individual determinants' perspective:
    - Generally-speaking, are there inequities in access to family physicians in Quebec?
        - If so, what unequal and/or inequitable factors might influence one's

likelihood of having a family doctor

- From a system determinants' perspective:
    - More specifically, in Montreal (as a case study), *why* is access to family physicians so difficult?
        - Why, in a province with so many family physicians per capita, is there actually a shortage?
        - What can be done to improve access to primary care both in Montreal and Quebec as a whole?

Because of the distinct nature of the two major empirical questions above, they will be treated using separate methods of inquiry. Chapter 2 will quantitatively examine the macro situation across the province as a whole (from the demand side of the equation) and will ask *who* has access to a family doctor. What individual factors can affect this likelihood? What impact does SES have, and if it is significant, then what are the implications for our Canada Health Act which views all Canadians as being equal? Chapter 3 will qualitatively zoom in on the specific situation in Montreal and from a physician's perspective, ask *why* access to family physicians is so strained. What factors have contributed to making access to family doctors so difficult, both in Quebec and Montreal more specifically? Why does socioeconomic status matter when it comes to finding a primary care provider? What possible solutions can be proposed to help improve the situation? These two methods, which look at access from above (from the physicians' (or supply) perspective) and from below (using data on the general population of potential patients), will complement each other to provide a comprehensive view of the current primary health care crisis in Quebec.

Figure 6: Access from Above and Below



Thirty years after Alma-Ata, we might ask what relevance the declaration has to modern, developed nations which already have clean drinking water and high immunization rates. And yet, Canada, as an industrialized country, cannot totally dismiss it altogether, since we may have yet to satisfy one of the most basic tenets of the declaration, which is to make true primary health care—and not merely first-contact services—universally accessible. The Canada Health Act may have attempted to remove financial barriers to care, and made universal

insurance coverage available in this country, but the true question is, do we actually have a universally *accessible* health care system, wherein those who seek primary health care services (deemed 'essential' by the WHO) actually receive them? This will be the ultimate research query driving the rest of this thesis.

CHAPTER 2: Arduous Access - Does Socio-Economic Status Affect Access to Primary Care in Quebec, Canada?

INTRODUCTION

Despite being a diverse and at times divided province, the one thing most Quebecers can agree on is that finding a family doctor is sometimes easier said than done. An estimated 24% of adult Quebecers do not have a regular medical doctor compared to the national average of approximately 14.3%, which makes Quebec quite unique in terms of its access woes (Statistics Canada, 2005). This has forced some people to turn to desperate means in order to find a physician, like Chantal Veilleux from Granby, who placed an ad in a local newspaper in 2006 which read "URGENT: SEEKING MEDICAL DOCTOR! Willing to pay $200" (Johnson, 2006). Evidently, in recent years, it appears that the demand for family doctors has begun to far outweigh the supply in this province. And the problem with scarce resources is that socioeconomic-gradients have the tendency of developing.

It was not supposed to be this way, however. In 1984, with the introduction of the Canada Health Act (and prior to that, with the 1970 Medical Care Act), Canadians were assured that by removing the financial barriers to accessing care, they could enjoy what the country would come to boast as 'universal healthcare'. The Canada Health Act (CHA) specifically states that, "the primary objective of Canadian health care policy is to protect, promote and restore the physical and mental well-being of residents of Canada and to facilitate reasonable access to health services *without financial or other barriers*" (*Canada Health Act, R.S. 1985, c.C-6, s.3a*, emphasis added). Forty years later, however, while the goals of our healthcare policy remain the same, their successful fulfillment needs to be questioned. Are adequate health services being offered to everyone equitably? In particular, do Canadians, or more specifically, Quebecers, enjoy comparable access to family doctors, regardless of socioeconomic status (SES)?

Let us begin by discussing the importance of primary health care (PHC). In the context of this study, it refers to the "direct provision of first-contact services, […] including health promotion, illness and injury prevention, and the diagnosis and treatment of illness and injury

[…], by providers such as family physicians [and] nurse practitioners" (Health Canada, 2006)[10]. Unlike specialist care, it is notably characterized by longitudinality (or continuity over time) which focuses on the whole person and not just a specific ailment or organ system (Starfield, 1998). Studies have shown that patients with regular access to a family physician are more likely to receive primary health care (Lambrew, et al., 1996) and preventive health services (such as immunizations and blood pressure monitoring) than those without such access (Fryer, et al., 2000). In addition, regular and timely access to primary health care has been associated with a reduced incidence of preventable hospitalizations for men and women of all ages, in both Canada and the United States, indicating that the benefits of regular access are not only accrued by individuals, but are also profitable for the health care system, as it can prevent costly secondary care interventions (Ansari, et al., 2006; Bindman, et al., 1995; Laditka, et al., 2005; Menec, et al., 2006; Parchman & Culler, 1994, 1999).

In light of the above-mentioned benefits of PHC, the situation in Quebec, where more than one-fifth of all residents lack access to a regular family physician, is all the more alarming. Several have pointed to a lack of physicians as being the major culprit for decreased access in the province. From discussions of possibly closing one of the Centre Hospitalier de l'Université de Montréal's emergency rooms because of a lack of doctors, to scholarly articles citing the need for between 700-800 more family physicians in this province, it seems as though Quebec sorely needs more medical (wo)manpower (Fédération des médecins omnipraticiens du Québec, 2008; Pinker, 2002; Sullivan, 2003). That said, the province has one of the highest family physician-to-patient ratios in the country, indicating that the doctors that do work in the province do not seem to be working full time in primary health care (Canadian Medical Association, 2009; Fédération des médecins omnipraticiens du Québec, 2008). This may partly be due to certain restrictions imposed on family physicians in the province known as AMPs (see chapter 3).

Given the obvious structural barriers to care caused by the possible shortage of physicians, which Quebecers *do* get access to these limited family doctors and what does this depend on? According to the CHA, everyone should have equal access, regardless of socioeconomic status. The type of single-payer healthcare which is found in Canada is thought

[10] While it is true that other health practitioners, such as nurses, can and do provide primary health care, for the purposes of this paper, access to a family physician will be used as a proxy for access to primary health care. See Lambrew, et al., 1996 for more information on the positive association between having a regular family physician and access to primary health care.

to contribute to access, since "[a]ccessibility is assumed to increase as the proportion of medical care expenditures paid for by the government, voluntary insurance, or third-party payers increases" (Andersen & Newman, 1973: 102).

Despite the presence of the CHA, however, which ostensibly removed financial barriers to care, do inequities remain in terms of who gets access to family doctors? Does simply removing the financial barrier to care translate into equal access for equal need? In other words, does Quebec suffer from what Andersen refers to as 'inequitable access' to primary health care, that is, when social structure, health beliefs or enabling resources (like social networks or income) actually determine who gets medical care (1995)? These questions will be at the center of this paper, whose goal is to determine whether there is a positive relationship between SES and the likelihood of having a family physician amongst Quebecers. As we shall see, while the current literature has thoroughly examined the relationship between health care *utilisation* and socioeconomic status, very few studies have looked at the impact of SES on the likelihood of having a regular source of care (which is known to be a clear indicator of access to primary health care). Furthermore, very few studies have looked at the case of Quebec specifically, despite its seemingly unique status relative to the rest of Canada. As such, what follows is a study which examines the extent to which socioeconomic inequities affect the likelihood of having a regular source of care in Quebec.

ACCESS: WHO IS GETTING IT?

The relationship between socioeconomic status and access to primary health care is not entirely clear-cut in the Canadian context. Eyles and colleagues (1995) wrote a resounding critique of the CHA, arguing that policymakers cannot assume that by simply removing the financial barrier to access, the distribution of access will be fair. Between 1985 and 1991, the medical services usage rates of Canadian individuals in the lowest income quintile had decreased by 50%, such that the poor were using less and less medical services, despite the fact that the health gap between the richest and the poorest had increased. In other words, although the needs of the poor for health care have increased since 1985, their use of medical services has not increased commensurately, indicating that the rich are enjoying disproportionate use of care. Eyles et al. conclude that removing financial barriers to access therefore might not be the ultimate equalizer, since elements such as education, level of social support and area of residence may also affect one's use of physician services.

These authors therefore point to the importance of socioeconomic status in accessing physicians, even in a universal, one-payer national health service system; that is, it may be that an individual's position in society, particularly in terms of their income and education, affects whether or not they are more likely to use physician services. Others have certainly found this to be the case. In a recent Canadian report by Alice Nabalama and Wayne Millar, it was not only found that seniors, individuals with chronic health conditions and women tend to be more likely to visit a general practitioner (which may be expected based on differences in need), but that blacks and individuals with higher income were as well (2007). As they conclude: "Twenty years after the introduction of the Canada Health Act, several factors beyond need were significantly associated with the likelihood of having seen a doctor. The results of this analysis indicate that socio-economic status remains a factor in the use of physician services" (2007: 32). Another recent study of healthcare usage found that richer individuals tend to visit generalists more often than their poorer counterparts, even when accounting for health need (Allin, 2008). International comparison studies tend to agree, indicating that the relative probability of seeing a doctor is higher for richer people in Canada compared to other countries, even though actual visits are more common among low-income individuals (van Doorslaer, Masseria, & Koolman, 2006).

In their recent study, Kathi Wilson and Mark Rosenberg (2004) examined issues of access to care at a national level and found very similar results. While only 5.9% of the population aged 25 and above in 1998-99 reported not receiving care when it was needed, it was found that 25% of those with an annual household income of less than $10,000 reported cost as being a barrier to accessing care, compared to only 6% of those making more than $80,000. Furthermore, a full 11.8% of individuals in the lowest income bracket experienced difficulty accessing care, whereas only 5.2% of those in the highest bracket reported similar difficulty. And while they found a negative relationship between education and accessing care, the authors concluded that employment status and income (in addition to age) were all important factors affecting one's likelihood of using medical services.

While many of the above-mentioned studies found a positive relationship between these two variables, however, some studies actually present mixed results. Dunlop et al. (2000), for example, considered the frequency of visits to family physicians in Canada, according to several covariates. They found that there was no significant relationship between an individual's income and their likelihood of seeing a family physician frequently (more than six times)

throughout a given year. That said, individuals with higher incomes were found to be more likely to see a specialist than those with lower incomes. Furthermore, people with post-secondary education were more likely to see a GP than those without such an advanced education, but this did not affect their frequency of visits to a GP. Similarly, Birch et al. (1993) concluded that income was not a significant predictor of health service utilization, but that education, social support and region of residence were.

Still other studies have found either a non-existent or negative relationship between SES and access. Immediately after the introduction of universal healthcare in Quebec through the Medical Care Act of 1970, Siemiatycki et al. found that, "the rates of physician visits during the two-week period preceding the survey were essentially the same in the low, middle and high economic classes, thus confirming that disparity of access had been reduced" (1980: 10). More recent work has found that the poor in Canada actually use physician services more frequently than their wealthier counterparts (Kephart, Thomas, & MacLean, 1998; Mustard & Frohlich, 1995). In a cross-national study between Canada and the U.S., Katz et al. (1996) found that low-income Ontarians visited physicians 25-33% more frequently than low-income Americans, asserting that universal healthcare in Canada has indeed succeeded in redistributing health services to the poor and elderly. Similarly, Murray Finkelstein found no relationship between income and health service utilization, boldly concluding that "the utilization of physicians' services under universal health insurance in Ontario is based on need rather than income" (2001: 570). Nationally, it has been found that low-SES patients even experience shorter wait times than higher SES patients for certain common surgical procedures (Samuel E.D. Shortt & Shaw, 2003).

In a rare qualitative study on this topic, Wellstood et al. (2006) tried to assess system- and individual-related barriers to care in Hamilton, Ontario. While they found that wait times, limited hours of operation and transportation issues were amongst the more noteworthy system barriers expressed by respondents, these issues did not vary significantly between individuals from neighbourhoods with different socioeconomic levels. They therefore suggest that while access might be strained, it is not any better for wealthy Ontarians than for less well-off residents.

Besides socioeconomic status, some authors have suggested other factors which may affect access to primary health care. In a recent Canadian qualitative study, it was found that immigrants are more likely to use walk-in clinics and hospitals for primary health care and thus

tend to lack a regular, longitudinal source of care (Asanin & Wilson, 2008). Furthermore, these individuals often lack private insurance for extended health benefits, and as such, tend to avoid seeking care for fear of not being able to comply with the physicians' orders, such as purchasing prescription drugs.

Social networks are another important factor which has been known to affect one's ability to access care (Alter, Basinski, Cohen, & Naylor, 1999; Alter, Basinski, & Naylor, 1998; Prentice, 2006). In an opinion-editorial piece entitled, "Waiting for Medical Care: Is it Who you Know that Counts?", Samuel Shortt (1999) argues that increasingly, individuals with higher socioeconomic status (due to their employment status and income) may be more likely to receive services more quickly due to their social connections. Alter et al. (1999) examine this very phenomenon in cardiovascular health services and conclude that over 80% of physicians studied had been personally involved in facilitating preferential access for a patient on the basis of factors other than health need. Patients deemed most likely to receive preferential treatment include: individuals with personal ties to the physician; high profile public figures; politicians; hospital board members and donors to hospital foundations; and aggressive, well-informed or potentially litigious patients. The study concludes by indicating that factors other than clinical ones can and do affect one's likelihood of accessing cardiovascular services in Canada. In a similar study of angiography wait times, Alter et al. (1998) conclude that non-clinical factors (such as a physician's hospital affiliation) can significantly increase one's likelihood of getting an angiography sooner, even when controlling for health need. In other words, not only does it depend on 'who you know', but how well connected your physician is, in order to gain timely access to certain procedures.

In sum, it appears that the jury is still out on the net effect of socioeconomic status on access to care nation-wide. That having been said, most of the studies outlined above only examine the relationship between SES and actual number of visits to family physicians, effectively using a measure for care that has already been received as a dependent variable. But as Beck (1973) points out, achieved access represents only a minimal portion of the access iceberg which is visible above water. The much larger part of the iceberg below represents those in need of care but who do not receive it. Furthermore by exclusively focusing on achieved access, there is no way to distinguish between those patients who did not visit a family physician because they did not have one from those who simply chose not to visit their physician during a particular time period. Finally, using sheer number of visits speaks little to the quality of those

visits, as they may have just as easily taken place in a drop-in clinic with a random physician as with a doctor they have known for 20 years. To my knowledge, few studies to date have examined potential access to care by using a dependent variable which asks respondents if they have a regular doctor, thereby accounting for those who may have a physician but do not visit them often all whilst being careful to only include those individuals who receive longitudinal care from one physician.

In addition, more updated research needs to be conducted on the particular situation in Quebec, since fewer Quebecers on average seem to have a family physician than most other Canadians. To date, few studies have focused specifically on provincial access issues, despite the fact that the provision of health care falls under provincial jurisdiction in Canada (cf. Guend & Tesseron, 2009; Haggerty, et al., 2004; Pineault, et al., 2009).

As such, in order to address some of these gaps in the extant literature, this paper will explore whether there is a positive relationship between SES and the likelihood of having a family physician amongst Quebecers. I will thus be asking who reports having the most difficulty accessing primary health care in Quebec, and what factors can mediate one's likelihood of having a family doctor.

DATA & METHODS

The data for this study came from the confidential Master File of the Canadian Community Health Survey (CCHS), release 3.1 (Statistics Canada, 2005). This national, cross-sectional survey is designed to provide information concerning Canadians' health status, utilization of health services and determinants of health. It specifically targets non-institutionalized individuals aged 12 years and older living in all 10 provinces and three territories. It does not include individuals living on native reserve land, full-time members of the armed forces or individuals living in very remote regions of the country. Overall, with its sample size of 132,947 individuals, it is intended to represent over 98% of the Canadian population. For the specific purposes of this study, the Canadian sample was restricted to Quebecers aged 18 and older, thus decreasing the resulting sample size to 27,318 individuals.

The dependent variable in this analysis, as has been alluded to, consists of having a regular medical doctor. It was derived from question HCU_Q01AA which asked, "Do you have a regular medical doctor?", with the possible outcomes being either yes or no. As with any dataset, the CCHS has its limitations, and one of them is that it does not contain a question directed to all sampled individuals asking specifically whether or not they have a primary

healthcare physician[11] [12]. Even if such a question had existed, however, it may have excluded individuals who might receive regular primary health care from professionals outside of the area of family medicine (such as internists or gerontologists).

The limitations of the chosen dependent variable are several and worth addressing. First, it is possible that an individual's regular source of care (if they answered in the affirmative) is in fact a specialist, such as a gynaecologist, for example. The question is therefore not strictly limited to primary health care providers. Furthermore, the wording of the question (especially the term *regular*) may in fact provoke individuals who do have a doctor but do not see them regularly, to answer in the negative.

While these are important limitations, the variable also boasts several benefits. To begin, it does effectively measure *potential* access to care, defined by Andersen as the presence of enabling factors. That is to say, individuals with a regular source of care can be considered to have the *possibility* of seeing that physician if and when they deem it to be necessary. It is moreover a measure which has been used in the literature to approximate the number of Quebecers lacking a family physician (Primary Care Wait Time Partnership, et al., 2008). Finally, though infrequently, the question of having a regular source of care has indeed been employed in the past in studies on access to primary health care (Lambrew, et al., 1996; Prentice, 2006).

Beyond measuring potential access, by its reference to having a *regular* medical doctor, this question also taps into the important issue of longitudinality—the element of primary health care which markedly distinguishes it from the kind of first-contact care that might be obtained at a drop-in clinic or in an emergency department. PHC prides itself on having long-term, continuous relationships between doctors and patients, and as such, it is access to this type of care that the chosen variable will measure (Blumenthal, Mort, & Edwards, 1995). As Barbara Starfield comments herself, "Having longitudinal care means that individuals in the population identify with a source of care as 'theirs,'" which is effectively what this variable asks (1998: 143). Given this, and the above-mentioned benefits, question HCU_Q01AA was finally selected as the study's only dependent variable. Logistic regression using Stata version 10 was then employed using odds ratios to determine the different probabilities of having a regular medical doctor, as per the covariates described below.

[11] There is one variable (ACCE_50A) which does in fact ask "Do you have a regular family doctor", but it is directed towards a specific subsample of individuals which exclusively reside in New Brunswick. It was therefore not applicable to this study.

[12] Also note that the French translation of this question reads, "Do you have a family physician"?

The primary independent variables—completed years of education and annual household income—served as the two major indicators of socioeconomic status. Education was operationalized as a variable with five categories: less than high school, high school diploma, some post-secondary, trade school/CEGEP diploma, and university degree. Income, on the other hand, was based on household income to account for homemakers who depend on the revenue of their spouse. Furthermore, as has been illustrated in the past, household income and social capital are closely related, and as such this measure may be more likely to take into account the social networks that are shared by a household as a whole instead of simply personal connections—a factor which will be discussed later in this study (Robinson & Siles, 1999). Household income adjusted for the number of people in the household (see Table 6) was operationalized categorically, since this question had significantly fewer missing values than comparable continuous variables[13]. The five income categories are thus: $0-$19,999, $20,000-$39,999, $40,000-$59,999, $60,000-$79,999, $80,000+.

Several control variables were also included in the analysis to ensure the proper specification of the models. As was mentioned above, several studies consider health status to be an important control variable, since being sicker can have an important impact one's likelihood of having a regular physician (Birch, et al., 1993; Dunlop, et al., 2000; Hayward, Bernard, Freeman, & Corey, 1991; Nabalamba & Millar, 2007; Wilson & Rosenberg, 2004). Self-perceived health (ranging from excellent to poor) was used as an indicator of health need in this study, as it has been found to be a good predictor of one's overall health, not to mention an important determinant of help-seeking behaviour (Benyamini, Leventhal, & Leventhal, 1999; Idler, Leventhal, McLaughlin, & Leventhal, 2004). Excellent health was therefore predicted to vary inversely with likelihood of having a physician. The presence of chronic health conditions was also introduced as an indicator for evaluated health need. In addition, sex and age were also included as control variables as these were found to be important need factors in the literature (Eyles, et al., 1995; Hayward, et al., 1991; Nabalamba & Millar, 2007; Prentice, 2006; Wellstood, et al., 2006; Wilson & Rosenberg, 2004). Being female and older was thus expected to positively affect one's likelihood of having a regular physician.

Finally, other variables thought to affect one's likelihood of having a family physician in the literature were also introduced, as a means of further identifying possible inequities in

[13] While 14.27% of the responses for categorical household income were missing, this number increased to 18.31% and 24.68% for continuous personal and household income respectively.

access. Health region of residence is one such variable, since previous research indicates that access is particularly strained in certain parts of the province, such as Montreal[14] (Pinker, 2002). Area of residence (rural/urban) was another, as the literature has consistently pointed to disparities in access between residents in these regions (Birch, et al., 1993; Hayward, et al., 1991; Nabalamba & Millar, 2007; Philibert, Pampalon, Hamel, Thouez, & Loiselle, 2007; Pineault, et al., 2009). Similarly, household size (as a possible proxy for social networks), language spoken at home (Nabalamba & Millar, 2007) and marital status (Dunlop, et al., 2000; Eyles, et al., 1995; Wilson & Rosenberg, 2004), were also introduced. Finally, visible minority status and country of birth were included in the model as well, since the literature indicates that visible minorities are less likely to have access to PHC than their Caucasian counterparts (Asanin & Wilson, 2008).

Another way of looking at all of these variables is to recall Andersen and Newman's (1973) individual determinants model for understanding healthcare *utilization* or achieved access, which I argue can be applied to a study on potential access. Thus, as predisposing factors, I am including educational attainment, age, gender, visible minority status, marital status and labour status. Enabling factors include area of residence (including health region), household size and average household income. Finally, need factors are being addressed as both perceived and evaluated health status. To distinguish between inequalities in access and inequities in access, it may also be useful to adapt the Gomes and McGuire model (Smedley, et al., 2003), which was originally used to explain the gap in the quality of health services obtained by racial minorities, to our purposes of better understanding access in Quebec. As such, the measures for differences (or inequalities) in access include: self-perceived and evaluated health need, age and sex. On the other hand, the indicators of possible inequities in access to PHC include: income, education, area of residence, household size, health region, labour status, visible minority status and marital status.

After including all of the above-mentioned variables, only 23,502 respondents had available information for this regression analysis[15], and thus constituted the final sample size for each model. Sampling weights were used to correct for differences in the probability of being selected for the sample (Long & Freese, 2001). Bootstrap weights were also used to account for

[14] Quebec is divided into 16 health regions: Abitibi-Témiscamingue, Bas-Saint-Laurent, Capitale-Nationale, Chaudière-Appalaches, Cote-Nord, Estrie, Gaspésie-Iles-de-la-Madeleine, La Mauricie/Centre-du-Québec, Lanaudière, Laurentides, Laval, Montérégie, Montreal, Nord-du-Québec, Outaouais, and Saguenay-Lac-Saint-Jean.

[15] The remaining 3,816 individuals were removed from the sample using listwise deletion. For a list of the descriptive statistics for the full sample, please consult Table 1 in the appendix.

the complexity of Statistics Canada's cluster sampling methods. Once these weights were applied, the modal respondent in this final sample had a regular medical doctor (75.11% of all respondents), earned $80,000 per year or more in household income, had a trade school or CEGEP diploma, reported being in very good health, had some sort of diagnosed chronic condition[16], was male and aged between 31-45 years of age, lived in a household that had an average of 2.67 residents, resided in Montreal, was born in Canada, was white, spoke French and was married.

Analytic Design

Three nested models were created in order to estimate the effects of socioeconomic status on the likelihood of having a regular medical physician (see Table 6). At each stage, a new series of variables was introduced; the first model included only the independent variables—household income and education. Model 2 then incorporated the control variables described above, and finally Model 3 was a full model which added the disparity measures.

To further ensure the soundness of these models and their estimates, several diagnostic tests were carried out. First of all, a Likelihood Ratio (LR) test was conducted to assess whether model 2 was a statistically significant improvement on model 1, and whether model 3 was an improvement on model 2. Indeed, with the improvement in the log likelihood being found to be significant, despite the loss in degrees of freedom, both models 2 and 3 were found to have more explanatory power than their predecessors. The pseudo-R^2 of this final model was 0.144, up from 0.123 in the second model and from 0.009 in the first. In addition, the normality of each variable was tested for and found to be within normal limits, by checking for the skewness and kurtosis. Heteroskedasticity was also normal.

In this particular analysis, there was initial concern surrounding the possibility of multicollinearity between the two main independent variables—education and household income. Since these two are known to vary in a similar fashion, a Variance Inflation Factor (VIF) and tolerance test were both carried out to detect multicollinearity. The results of these tests, however, proved to be normal, indicating that at least within this sample, multicollinearity was not a factor affecting the significance of any of the independent variables.

In addition, sensitivity analyses were conducted to compare the distributions of the variables in the full sample of Quebecers to those in the final regression sample. Significant

[16] In addition to including such diseases as cancer, diabetes and asthma, it is important to note that this variable also broadly includes other conditions such as cataracts, urinary incontinence and food allergies.

differences were found between the distributions of household income in the two samples, such that the higher income categories were found to have more individuals in them in the sample restricted to non-missing observations than in the full sample. The lowest income category, on the other hand, was not found to have a significantly different distribution in the two samples. Upon running a Chow test, however, it became clear that the effect of income on having a regular medical doctor was not significantly different between the two samples when adjusting for age.

As a final test, standardized residuals and Cook's distance were examined to ensure that there were no influential outliers that could contribute to systematic biases in the sample (Long & Freese, 2001). While two observations with large residuals were detected, the results remained the same even when they were removed from the sample for testing.

RESULTS & DISCUSSION

Several important pieces of information about the final sample should be noted from the following cross-tabulations. First, Table 1 indicates that the elderly comprise the largest proportion of adult Quebecers making less than $20,000 per year in household income. Over half of the individuals aged 60 and above earn less than $39,999.

Table 1: Income by Age Group in Percentages (95% Confidence Intervals)

	Age				
Household income	18-30	31-45	46-60	61+	**Total sample**
$0-19,999	10.87 (9.8-12.05)	7.0 (6.22-7.87)	9.16 (8.1-10.34)	23.29 (11.16- 12.28)	11.7 (11.16-12.28)
$20-39,999	20.96 (19.44-22.56)	16.96 (15.59-18.42)	18.47 (17.21-19.8)	38.32 (36.58-40.09)	22.52 (21-75-23.3)
$40-59,999	23.87 (22.2-25.62)	22.78 (21.22-24.4)	20.74 (19.23-22.34)	20.23 (18.75-21.8)	21.93 (21.14-22.75)
$60-79,999	18.64 (17.02-20.38)	20.22 (18.76-21.76)	19.17 (17.66-20.79)	8.54 (7.49-9.63)	17.25 (16.47-18.06)
$80,000+	25.65 (23.81-27.58)	33.05 (31.26-34.88)	32.46 (30.4-34.58)	9.63 (8.29-11.15)	26.59 (25.6-27.61)
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Parallel to these findings, Table 2 indicates that the elderly in Quebec tend to be the least well-educated, with almost 45% of all those aged 60 and above not having completed high school.

Table 2: Education by Age Group in Percentages (95% Confidence Intervals)

Education level	Age				
	18-30	31-45	46-60	61+	**Total sample**
Less than HS	9.82	10.42	16.82	44.91	18.97
	(8.68-11.11)	(9.34-11.61)	(15.59-18.14)	(43.14-46.7)	(18.26-19.69)
H.S. diploma	9.76	11.18	15.76	11.37	12.2
	(8.65-11.0)	(10.01-12.47)	(14.29-17.34)	(10.17-12.7)	(11.57-12.87)
Some post-secondary	14.73	5.43	6.2	4.68	7.55
	(13.24-16.35)	(4.7-6.28)	(5.38-7.14)	(4.03-5.44)	(7.04-8.08)
Trade school/CEGEP	43.66	40.24	34.14	21.52	35.54
	(41.67-45.67)	(38.26-42.26)	(32.26-36.06)	(20.08-23.02)	(34.55-36.53)
University degree	22.03	32.72	27.08	17.52	25.75
	(20.46-23.68)	(31.03-34.46)	(23.54-28.9)	(15.96-19.2)	(24.9-26.62)
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Table 3 shows the proportion of individuals with a family doctor, according to self-perceived health status. A troublesome 13.46% and 9.05% of those individuals reporting being in either fair or poor health respectively do not have regular doctor, whereas almost 30% of those in excellent health do not have one.

Table 3: Regular Medical Doctor by Self-Perceived Health Status in Percentages (95% Confidence Intervals)

Has a regular medical doctor	Self-perceived health status					
	Excellent	Very good	Good	Fair	Poor	**Total sample**
No	29.84	26.49	23.14	13.46	9.05	24.86
	(28.04-31.7)	(25.11-27.92)	(21.61-24.75)	(11.51-15.68)	(6.32-12.78	(24.08-25.73)
Yes	70.16	73.51	76.86	86.54	90.95	75.11
	(68.3-71.96)	(72.08-74.89)	(75.25-78.39)	(84.32-88.49)	(87.22-93.68)	(74.27-75.92)
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Table 4 shows the differences between perceived and evaluated health need, whereby nearly 50% of those with reporting being in excellent health also report having a chronic health condition. Table 5 finally indicates that a somewhat worrisome 18.48% of those with chronic illnesses do not have a regular medical doctor.

Table 4: Presence of Chronic Health Conditions by Self-Perceived Health Status in Percentages (95% Confidence Intervals)

Chronic health conditions	Self-perceived health status					
	Excellent	Very Good	Good	Fair	Poor	**Total sample**
No	50.05	34.63	21.83	4.38	1.32	31.36
	(48.07-52.02)	(33.05-36.25)	(20.35-23.39)	(3.2-5.97)	(.42-4)	(30.45-32.29)
Yes	49.95	65.37	78.17	95.62	98.68	68.64

	(47.98-51.93)	(63.75-66.95)	(76.61-79.65)	(94.03-96.8)	(96-99.58)	(67.71-69.55)
	100.00	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Table 5: Regular Medical Doctor by Presence of Chronic Health Conditions in Percentages (95% Confidence Intervals)

Regular medical doctor	**Chronic health conditions**		
	No	Yes	**Total sample**
No	38.94	18.48	24.89
	(37.21-40.69)	(17.64-19.35)	(24.08-25.73)
Yes	61.06	81.52	75.11
	(59.31-62.79)	(80.65-82.36)	(74.27-75.92)
	100.00	**100.00**	**100.00**

Two bivariate regressions were run to determine the individual zero-order relationships of all the variables and one's likelihood of having a regular medical doctor (see Table 6). Immediately from these values, it appears that education seems to be a significant negative predictor of having a physician ($p \leq 0.001$), whereas income does not seem to be significant, except for the highest category.

Model 1 however, which includes only the two independent variables for socioeconomic status, shows a perplexing departure from the bivariate relationships above. Income, which was previously non-significant, has become quite significant, such that individuals making $20,000 or more per year of household income tend to be more likely to have a regular medical doctor than those making less than that amount. At the same time, education has remained a significant negative predictor of the dependent variable. Thus, we are left with conflicting results with regards to the effect of SES on access to family doctors. On the one hand, income appears to positively affect one's likelihood of access, whereas on the other, increasing education seems to negatively affect one's chances of having a physician. The second model sheds some light on these puzzling associations.

In many ways, Model 2 might be considered even more puzzling than the first model, in terms of its departure from the original zero-order relationships mentioned above. As we can see, once the control variables were introduced, the significance of the two independent variables was completely inversed, such that now income is significant and education is not (except at its highest level). Upon further investigation and closer examination of the data, it became clear that we have here an example of both a suppression effect and a spurious relationship.

Table 6: Odds Ratios Predicting the Likelihood of Having a Regular Medical Doctor in Adult Quebecers[17]

		Zero orders	Model 1	Model 2	Model 3
Socioeconomic status	**Household Income** ($0-$19,999)				
	$20,000-$39,999	1.164*	1.265**	1.476***	1.323***
		(.087)	(.095)	(.119)	(.110)
	$40,000-$59,999	.979	1.150	1.586***	1.307**
		(.074)	(.088)	(.132)	(.114)
	$60,000-$79,999	1.042	1.268*	1.978***	1.582***
		(.095)	(.122)	(.200)	(.172)
	($80,000+)	.931	1.188*	1.826***	1.631***
		(..075)	(. 104)	(.167)	(.169)
	Education (< High School)				
	High School	.670***	.650***	.919	.972
		(.059)	(.059)	(.092)	(.097)
	Some post-secondary	.521***	.508***	.956	1.057
		(.054)	(.054)	(.111)	(.124)
	Trade school/CEGEP	.579***	.561***	.931	.986
		(.039)	(.040)	(.075)	(.080)
	University degree	.520***	.504***	.734***	.938
		(.036)	(.040)	(.064)	(.085)
Control (need) variables	**Self-Perceived Health** (Excellent)				
	Very good	1.180**		1.016	1.006
		(.096)		(.065)	(.066)
	Good	1.412***		.981	.998
		(.087)		(.068)	(.069)
	Fair	2.735***		1.272*	1.333*
		(.278)		(.144)	(.156)
	Poor	4.276***		2.026**	2.322***
		(.888)		(.458)	(.537)
	Chronic diseases (No)				
	Yes	2.813***		2.072***	2.098***
		(.131)		(.109)	(.113)
	Sex (Male)				
	Female	2.142***		2.218***	2.226***
		(.105)		(.121)	(.125)
	Age in years (18-30)				
	31-45	1.515***		1.472***	1.301***
		(.085)		(.088)	(.082)
	46-60	3.236***		2.993***	2.645***
		(.221)		(.212)	(.222)
	61+	8.434***		7.475***	6.428***
		(.680)		(.654)	(.702)
Disparity measures	**Health region of residence** (Montreal)				
	Bas-Saint-Laurent	2.580***			2.158***
		(.227)			(.239)
	Saguenay-Lac-Saint-Jean	3.251***			3.064***
		(.399)			(.439)
	Capitale-Nationale	1.847***			1.719***
		(.165)			(.179)
	La Mauricie/Ctre du Québec	1.880***			1.682***
		(.198)			(.214)
	Estrie	1.970***			1.824***
		(.227)			(.254)
	Outaouais	1.774***			1.526***

[17] Reference categories in parentheses in the variable column

	(.182)			(.189)
Abitibi-Témiscamingue	1.240*			1.045
	(.126)			(.133)
Cote-Nord	1.616***			1.349**
	(.163)			(.156)
Nord-du-Québec	1.193			1.096
	(.172)			(.182)
Gaspésie-Iles-de-la-Madln	1.972***			1.425*
	(.247)			(.219)
Chaudière-Appalaches	3.154***			2.899***
	(.339)			(.379)
Laval	1.487***			1.285**
	(.118)			(.122)
Lanaudière	1.626***			1.372*
	(.164)			(.177)
Laurentides	1.496***			1.220
	(.143)			(.138)
Montérégie	1.569***			1.478***
	(.130)			(.142)
Location of residence				
(Rural)				
Urban	.657***			.821**
	(.041)			(.059)
Household size				
	.936***			1.083**
	(.018)			(.031)
Country of birth				
(Other)				
Canada	1.650***			1.053
	(.119)			(.129)
Visible minority status				
(White)				
Other	.448***			.807
	(.040)			(.094)
Language				
(French)				
English	.869			1.124
	(.068)			(.110)
Other	.540***			.985
	(.063)			(.151)
Marital status				
(Married)				
Common-law	.520***			.759***
	(.033)			(.059)
Widowed	2.360***			.893
	(0.313)			(.151)
Separated	.685**			.827
	(.088)			(.113)
Divorced	.792*			.705**
	(.085)			(.084)
Single	.368***			.736***
	(.022)			(.060)
Pseudo R^2		.009	.123	.144
Log likelihood		-13068.76	-11562.36	-11290.24
Wald chi2		98.35	1246.06	1443.96
Df		7	16	42
n		23502	23502	23502

Notes: Robust standard errors are in parentheses below odds ratios
Levels of significance: *p≤0.05, **p≤0.01, ***p≤0.001
The fit statistics above were obtained from weighted models estimated without bootstrapping.

First, the suppression effect: as was discussed earlier, the elderly were amongst those with the lowest household incomes in this sample, such that over half of the individuals aged 61 and above earn less than $39,999 (see Table 1). Given that the lowest income category was the reference category in this regression, the negative effects of low income on having a regular medical doctor and the positive effects of being elderly cancelled each other out in the bivariate regression, which prevented all other income categories from being significantly different from the reference. Then in the first model, education was introduced, which partly took into account the possible effects of age (as we shall soon discuss), making income somewhat significant. Finally, in the second model, once age is adequately controlled for, the positive relationship between income and having a regular physician becomes fully significant. In other words, age was the suppressor variable which concealed the relationship between income and access (Babbie & Benaquisto, 2002).

Now onto the spurious relationship; as was discussed above, we know that more than half of individuals over the age of 60 have only a high school diploma or less as their highest level of educational attainment (see Table 2). Since 'less than high school' is the reference category, a disproportionate number of individuals reporting that level of education are elderly. As such, it is the overpowering positive effect of age, not education, which is in fact being represented in the first two regressions. This also explains why education appears to vary negatively with access, since education is really an inverse proxy for age in this case, and medical need increases as we get older. Once again, by introducing age as a control variable in the second model, this spurious relationship is exposed, thereby leaving the highest category of education as the only significant predictor of access ($p \leq 0.001$).

With regards to the control variables introduced in this second model, we can see that each of them proved to vary significantly in the predicted direction. Let us deal with each of these variables in turn. First, self-perceived health was found to have a positive significant effect on the dependent variable only when health status is reported as being either fair or poor in relation to excellent; all other categories are non-significant. Individuals who perceive themselves to be in fair-to-poor health are therefore between 27.2% and 102.6% more likely to have a physician compared to those in excellent health. The effect of self-perceived health, however, may have been attenuated by both the presence of chronic diseases and age as further control variables. For those with chronic diseases, the results clearly show that these individuals are significantly more likely to have a regular physician than those who did not report

having such a condition. Sex was also found to be significant, such that women were more than twice as likely to report having a regular physician as their male counterparts. Finally, age was probably the single most important control variable, as it significantly affected the influence of the two indicators of SES on the dependent variable (see discussion above). Indeed, as predicted, older individuals are significantly more likely to have a regular physician than their younger counterparts. This is evidenced by the fact that being between the ages of 31 and 45 increased one's likelihood by 47.2% (compared to the age group 18-30), while being 65 and above increased that likelihood by 647.5%, even when controlling for health need. In sum, these results largely concord not only with the extant literature which shows a positive effect of socioeconomic status on access, but with the hypotheses laid out earlier in this paper.

At last, a third, full model was run which included the independent variables for socioeconomic status, the control variables for need and finally, a set of possibly inequitable factors which may affect access to health care (referred to as disparity measures). In this final model, income remains robustly significant in the positive direction, even when holding all other variables (including health need) constant, which confirms this study's original suspicion that the probability of having a regular physician is not uniform across all income categories[18]. Education notably remains insignificant, effectively confirming that it was age, not educational attainment, which explained the original relationship between this independent variable and the dependent variable. The effect of the control variables in this model also remained largely the same (in the same direction with the same significance), with only the odds ratios for age being slightly reduced due to the introduction of the disparity measures.

Onto the disparity measures; this series of variables—health region, of residence, location of residence, household size, country of birth, visible minority status, language and marital status—certainly unveils an interesting look at how access to regular physicians is stratified in Quebec. First off, by looking at health region, it becomes clear that one's likelihood of having a regular physician is higher in any other region than in Montreal (the reference category), with the notable exception of Abitibi-Témiscamingue, Nord-du-Québec and the Laurentides, which did not differ significantly from the reference category. This is all the more striking when we look at the next variable, location of residence, which unequivocally indicates that living in urban areas is associated with a worse likelihood than in rural areas, even when

[18] There are no significant differences between the last four income categories, indicating that after a certain point ($20,000), the effect of income on access plateaus.

controlling for health need, which concords with some of the extant literature (Pineault, et al., 2009). The implications of this are many. While it was once thought that Quebec's outlying regions were suffering from poor access to family doctors, it now appears that a shift may have occurred such that strained access is actually more prevalent in the cities rather than in the countryside, perhaps because of increased medical (wo)manpower in the regions. This makes sense when we zoom in on the Saguenay-Lac-Saint-Jean region where individuals are three times more likely to have a regular physician than Montrealers, even when taking health status into account. A recent newspaper article reported that the total number of physicians in Saguenay-Lac-Saint-Jean has actually increased substantially over the last 5 years, with the addition of 39 new family physicians and 34 specialists (Labrie, 2008), thus perhaps explaining this finding. In the meantime, however, Montrealers seem to have among the worst likelihood of having a regular physician in the province[19].

In contrast to region and location of residence, several disparity measures were not found to be significant. Country of birth, visible minority status and language did not significantly impact one's likelihood of having a regular physician. This in fact represents refreshing news, since it may be safe to assume that discrimination or stratification based on these variables is not a major source of inequities in access. Marital status, however, was found to be significant, which suggests that unmarried individuals (with the exception of being widowed or separated which was insignificant), tend to be less likely to have a regular doctor, perhaps as a result of lacking a spouse to encourage and accompany them to their medical visits, or possibly the consequence of having smaller social networks (see below).

At this point, it may be natural to question the validity of these results on the basis of patient choice. In other words, it might be because they do not want a physician that those 24% of Quebecers do not have one. This is in fact what Gomes and McGuire refer to as patient preference (Smedley, et al., 2003). For any number of reasons, several people avoid going to the doctor, even when they might benefit from it. According to a national survey of 1,000 Americans, one-third of men reported that they would not consult a physician if they felt chest pains or shortness of breath, the two of the leading signs of a heart attack (Goff, 2000). This may be due to a mixture of fear, embarrassment and machismo: "The problem begins in the late teens. While women are taught the importance of seeing a doctor for an annual pap smear to

[19] A separate model (please refer to Table 9 in Appendix) did not find significant variation in access within the island itself, suggesting that there are few inequities between neighbourhoods.

detect cervical cancer, men have no such scheduled tests" (Goff, 2000). As such, men are less likely to seek out physician services, which makes them more likely to lack a family physician—by choice. Others have found that certain individuals, such as substance abusers and gay people, avoid doctors for fear of being judged or due to outright discrimination (Goff, 2000; Quan, 2008). Therefore, it is absolutely necessary to take this into account when interpreting the data above.

In order to do so, I constructed a fourth model (see Table 10 in Appendix) which excluded those individuals who reported that the reason they did not have a regular medical doctor was because they did not try to contact one (a reason cited by almost half of those without a regular physician—see Table 7 below). Even when removing these individuals from the regression however, the results remained substantively the same, which attests to the robustness of the findings presented above (n=21,266).

Table 7: Reasons Cited for Not Having a Regular Medical Doctor (95% Confidence Intervals)[20]

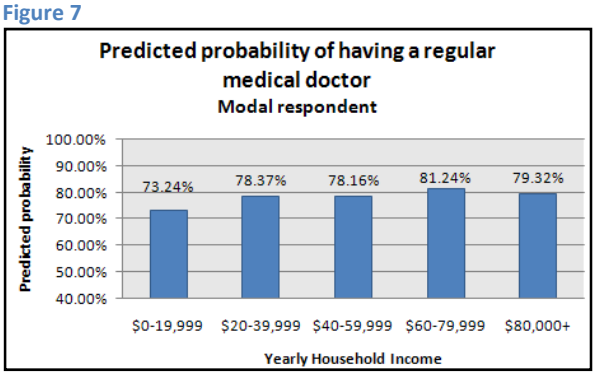
Reason	Percentage (%)
No medical doctors available in area	11.69 (10.45-12.93)
Medical doctors in the area are not taking new patients	17.76 (16.22-19.30)
Have not tried to contact one	43.61 (41.48-45.74)
Had a medical doctor who left or retired	12.71 (11.36-14.06)
Other	24.23 (22.57-25.88)

Note: Respondents could select more than one reason for not having a regular medical doctor

Another way of looking at the impact of income on the dependent variable is by examining the predicted probability of having a regular medical physician by income level. Figure 6 below shows the percentage of 'average' (or modal) respondents in this sample which have a regular doctor, by income. The figure predicts that 73.2% of average Quebecers who earn less than $20,000 per year in household income will have access to a regular physician.

[20] Respondents could select more than one reason for not having a regular medical doctor.

Figure 7



Compared to the more than 81% of average respondents who have a physician and earn in excess of $60,000 in yearly income[21], this 8 point gap makes it clearer to what extent income can have an effect on having a regular doctor. This figure is even more disconcerting when we consider our potentially most worrisome 'patient': a Montreal man who is average for the sample, with the exception of being between the ages of 46-60[22], in very good health, and single (see Figure 7). Only 46.7% of these types of individuals are predicted to have a regular doctor if they make less than $20,000 per year in household income. This proportion increases by almost 12%, however, for those who make between $60-79,999 per year. Once again, it is clear how staggering the effect of income is for those with very poorest in society. If we consider a respondent with the exact same characteristics residing in the Saguenay-Lac-Saint-Jean region, however, we can see to what extent region also matters (see Figure 8).

Figure 8

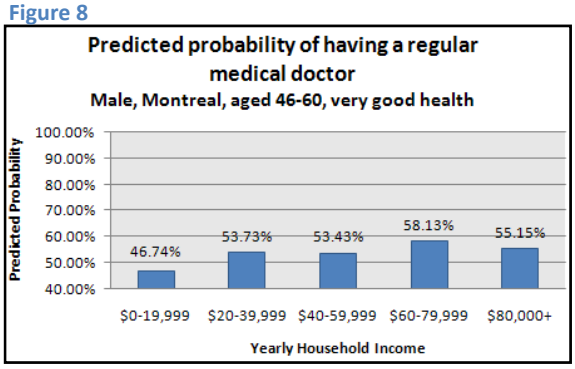
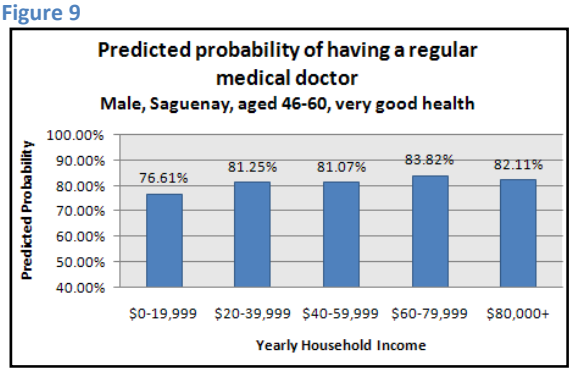


Figure 9



An individual with these traits who makes less than $20,000 per year is 76.6% likely to have a regular doctor, whereas 88.8% of those making between $60-79,999 are predicted to have a regular physician. These results strongly indicate that access to regular medical doctors

[21] There are no significant differences between the predicted probabilities for household incomes higher than $20,000, which indicates that the positive effect of income plateaus after that amount.

[22] It is at this age that men should begin the habit of getting yearly physical exams from their primary health care practitioners (Medical News Today; www.medicalnewstoday.com/articles/73884.php).

may be stratified inequitably not only by income, but by region as well, since Montrealers clearly seem to have a disadvantage relative to other Quebecers[23]. In other words, it may be that as resources become scarcer (as they are in Montreal compared to the other regions—see Chapter 3), the potential for inequalities and inequities increases.

The news is not all bad, however, when it comes to accessing regular physicians in the province. Figures 9 and 10 show the predicted probabilities of having a regular physician for otherwise average women in both Montreal and the Saguenay aged 61 years and above, who suffer from chronic health conditions and are in very poor health.

Figure 10

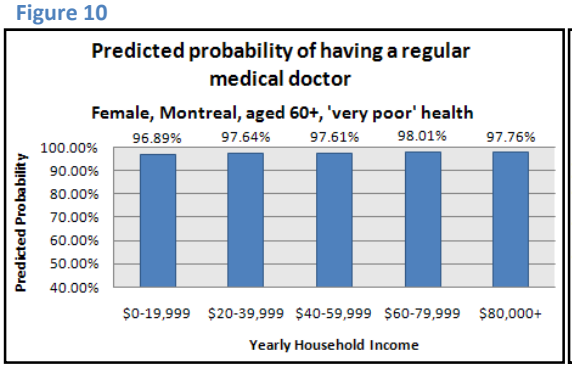
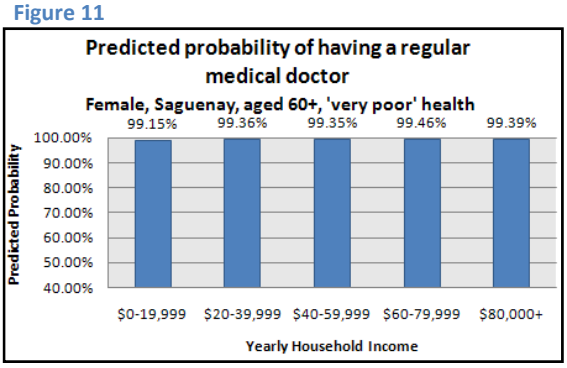


Figure 11



The results indicate that for this type of individual, the differences in likelihood between the richest and the poorest are negligible. In Montreal, this likelihood varies from 96.89% to 98.01%, whereas those chances increase only moderately to between 99.15 and 99.46% in the Saguenay. In sum, these results seem to indicate that while the likelihood of having a regular physician may be stratified by income and region under certain circumstances as discussed above, those individuals who need these doctors the most, do seem to have access to them in this province.

CONCLUSION

Socioeconomic status therefore clearly has a significant impact on access to primary health care. The results show that those individuals with lowest amount of household income ($0-19,999) are the most vulnerable to these effects, indicating that the least fortunate in Quebec society still receive the worst access to family doctors, despite having adjusted for health status. These results concord with parts of the literature which found a significant relationship between income and access to primary health care in Canada, although as was

[23] Please note that these same analyses were run for the *female* equivalent respondent in both Montreal and the Saguenay and differences in probability ranged from 65.94%-75.38% in Montreal to 87.84-91.95% in Saguenay.

discussed above, many of these studies examined achieved rather than potential access and none looked specifically at the situation in Quebec (Eyles, et al., 1995; Nabalamba & Millar, 2007; van Doorslaer, et al., 2006; Wilson & Rosenberg, 2004). While income proved to be the only significant socioeconomic predictor of access, it does suggest that differential access to certain types of care persists in Quebec, despite the presence of a universal healthcare system. These results imply that healthcare policy may need to be revisited in this province if access to all care is to be provided "on uniform terms and conditions, unprecluded, unimpeded, either directly or indirectly, by charges (user charges or extra-billing) or other means (age, health status or financial circumstances)" the way it is guaranteed in section 12(a) of the Canada Health Act (1984).

Other interesting factors were also tied to accessing family physicians. Just as Dunlop et al. (2000) had found with regards to the usage of PHC services, it appears that living in rural areas, even in regions quite remote from major metropolitan centres, is associated with better potential access to family physicians than living in urban regions, especially Montreal. Married people were significantly better off when it comes to access, also confirming Dunlop et al.'s findings. Sex, age and health status, as could be expected, were found to be significant, as they too can impact one's likelihood of having a family physician. Women, for instance, may require a regular physician at earlier ages than men due to the need for regular gynaecological check-ups that should be performed on a yearly basis. It is important to note, however, that while age, sex and health status might affect access, they are not considered to be inequitable factors. The first two are also not mutable factors (that is, ones that can be modified). Differential access to family physicians based on household income and region of residence is inequitable on the other hand, and can indeed be changed through strategic policies (Andersen & Newman, 1973).

These results, however, should be placed in the context of the several limitations of this study. To begin, this was a cross-sectional analysis which examined the situation in Quebec at a given moment in time, thus making it impossible to draw causal conclusions about the effects of SES on access to family doctors. But while this causal link could not be established, one compelling rationale for the associations shown here could be social networks, as has been found to be the case in other contexts in the literature (Alter, et al., 1999; Alter, et al., 1998; Prentice, 2006; Samuel E. D. Shortt, 1999). Individuals of higher socioeconomic status are known to have social networks which include other high-SES individuals, such as physicians (through a

process known as status homophily[24]), and as such, are perhaps more likely to access PHC practitioners through their own connections (Prentice, 2006). Andersen actually conceded in later revisions of his model that social networks could in fact be an *enabling* determinant of health service utilisation (1995).This may especially be the case when resources (such as the availability of family doctors) are most scarce, such as in certain regions like Montreal. This link has yet to be proven, however, since few datasets address the issue of social networks and health. Future research must thus be performed to better understand this possible relationship.

Another limitation of the study can be found in the sample. Because the CCHS does not include individuals living on Indian reserves in their sampling frames, it was difficult to assess the impact of income on access to family physicians within this socioeconomically vulnerable subgroup of the population. More specialized studies (possibly qualitative in nature) therefore need to be conducted to understand the access woes associated with aboriginals in the province.

In view of these limitations, what are some of the broader lessons that can be drawn from these results? One of the most common shortcomings of healthcare delivery is inverse care, according to the World Health Organization: "People with the most means—whose needs for health care are often less – consume the most care, whereas those with the least means and greatest health problems consume the least. Public spending on health services most often benefits the rich more than the poor in high- and low-income countries alike" (The World Health Organization, 2008: xiv). This may well become the case in Quebec, in light of the stratified access to primary health care discussed above. While the WHO recommends universal coverage as a means of overcoming inverse care, it acknowledges that we must be careful before declaring universality a panacea for access: "Universal coverage is not, by itself, sufficient to ensure health for all and health equity—inequalities persist in countries with universal or near-universal coverage—but it provides the necessary foundation" (2008: 25). As such, the Organization suggests the implementation of targeted measures to offset the remaining inequities left behind after universal coverage is established in a country. Perhaps what Quebec needs then, are approaches aimed specifically at lower-income individuals in order to specifically improve their access to family physicians and more broadly, to avoid a potential situation of inverse care.

[24] Lazarsfeld and Merton (1964) define status homophily as "observed tendencies for similarity between the group-affiliation of friends or between their positions within a group" (24). In this case, the similarity lies in SES.

But simply having a regular primary care physician does not automatically translate into *access* to primary health care, even though the two have been found to be associated to one another (Lambrew, et al., 1996). Even individuals who have secured a family physician can continue to suffer from arduous access: "The scarcity of family physicians and the workloads that many family physicians carry on a daily basis mean that even Canadian with a family physician may still experience difficulties accessing care" (Primary Care Wait Time Partnership, et al., 2008: 9). Securing that regular source of care, however, is an essential first step towards obtaining primary health care—a step without which all of the other attributes of PHC such as longitudinality and coordination are impossible.

So for the time being, Quebec stands in a position where, despite the presence of a universal health care system and the CHA's guarantees for equitable access without regard for financial circumstances, individuals making less income still have poorer access to longitudinal primary health care. More research needs to be done to further understand this phenomenon, perhaps by examining more closely the role of social networks. We also have much to learn about how and why Quebec ended up in this position, and perhaps more importantly, why access is so uneven within the province's own health regions. These and other questions will therefore be the subject of Chapter 3.

CHAPTER 3: Arduous Access – A Case Study of Access to Family Doctors in Montreal, Quebec

INTRODUCTION

Access to primary health care (PHC) in Quebec is difficult. With over 25% of Quebecers lacking a family doctor, and more than 830,000 people in search of one, the situation can be described as nothing else but critical (Statistics Canada, 2005). Montrealers in particular are known to suffer amongst the worst access in the province, to the point where residents even in remote regions of Quebec such as Saguenay-Lac-Saint-Jean and Bas-Saint-Laurent are up to three times more likely to have a family physician than those living in Montreal (see Chapter 2). Some attention has been given to this issue of access at a provincial level (Guend & Tesseron, 2009; Haggerty, et al., 2004; Pineault, et al., 2009; Siemiatycki, et al., 1980), but few studies to date have delved qualitatively into the reasons *why* Quebec is in such a primary health care crisis. Furthermore, while most studies look at access from the patients' (or demand) side, no study to my knowledge has examined access from the providers' (or supply) perspective. In addition, very little work has been done on the case of Montreal, and existing literature is

limited to quantitative studies (Pineault, et al., 2009; Siemiatycki, et al., 1980). So why is access so difficult in Quebec, and why is it worse in Montreal, according specifically to family doctors?

The following paper will attempt to address these and other questions in hopes of ultimately arriving at a set of proposed solutions to improve the accessibility of primary health care in this province. Part I will examine a series of cost-containment and supply-side regulation strategies employed by the Quebec government which, as we shall see, may have had the inadvertent effect of significantly decreasing access along with health expenditures. The effects of these measures can be further divided into two kinds; first, measures which have contributed to a lack of physicians and second, measures which have affected the nature and location of family physicians' practices. Then, a brief discussion will follow on the impacts of these measures on patients, especially in light of how the decreased supply of doctors may have led to the stratification of access based on socioeconomic status. Finally, in Part II, a series of solutions will be proposed which will try to take into account the often competing goals of patient access and economic efficiency (Blank & Burau, 2004).

METHODOLOGY

The observations made throughout this paper are derived from a period of fieldwork which lasted approximately eight months, from February to October 2008 in Montreal, Canada. The data consist of a series of semi-structured in-depth interviews in either English or French, lasting between 30 and 75 minutes, with a purposive sample of 24 individuals: 16 family physicians, three nurses working at a primary health care clinic, two administrative staff also from a PHC clinic, two union leaders (generalists by training) from Quebec's family physician federation (FMOQ), and one senior government official working for the Ministry of Health and Social Services (*Ministère de la santé et des services sociaux du Québec* or MSSS). The interviews were held in the respondents' workplaces, which ranged from Groupes de médicine familiale (family medicine groups)[25] to community clinics, private practices and drop-in clinics. The physicians in the sample were between the ages of 25 and 65, had between 1 and 35 years of experience, spoke mostly English in the workplace (though all were fluently bilingual) and were often involved in administrative and/or academic activities *in addition* to their clinical duties.

[25] A groupe de médecine familiale (or GMF) consists of 8 to 12 physicians with a committed nursing staff which work together in a clinical environment which aims to provide primary health care seven days a week, with or without an appointment to registered patients. For more information on GMFs, see page 79 or visit http://www.santemontreal.qc.ca/En/drmg/gmf.html

The respondents were recruited using snowball sampling, a method whereby interviewees suggest names of other people who may be interested in getting involved with the study, forming what is known as referral chains (Berg, 2007). This kind of sampling is especially suited for interviewing family physicians, as they are notorious for being exceptionally difficult research subjects to recruit (Borgiel, et al., 1989; Penrod, Preston, Cain, & Starks, 2003). The initial 'snowball' began with the clinical director of a major university clinic, who then graciously put me in touch with several of his colleagues. This first interview was key, as it not only established trust with this gatekeeper respondent, but it also enabled me to use this doctor's name and recommendation in order to gain the interest (and the time) of other physicians. One drawback to this type of sampling, however, can involve recruiting very similar types of individuals and therefore lacking variety (and representativeness) in the sample. While almost all family physicians I interviewed had either been trained or were otherwise affiliated to the McGill University Health Center (as a result of the sampling technique I employed), their responses were later triangulated with the government and union officials I spoke to—none of whom were affiliated with McGill.

The respondents were asked about their own views and opinions regarding the accessibility of primary health care in both Quebec and Montreal. They were also asked about what they felt could constitute possible solutions to the challenges they outlined. Some of the questions included, 'What factors do you feel affect access to primary health care services?' 'What impact, if any, have government policies had on access?' and 'In your opinion, what, if anything, could be done to improve access to primary health care in Montreal?' These questions were revised periodically throughout the duration of the fieldwork, through a constantly reflexive process, to adapt to the newly emerging themes which were raised in previous interviews (Strauss & Corbin, 1994). For example after the first few respondents, it became apparent that the use of social connections was an important method of obtaining access to PHC. As such, a question was added to the interview guide that asked 'In your experience, what role do social connections play in gaining access to family doctors?' This inductive/deductive process was useful not only for verifying the information which had been collected from other respondents, but also for improving the overall validity of the results.

Written informed consent was obtained in advance from all interviewees. A bilingual consent form was signed by every participant, which clearly stated the research goals of the study, the potential (though minimal) risks involved and the extent of the participant's

contribution to the research. It also outlined the possibility of maintaining the interview confidential, as well as the interviewee's right to stop the interview or the audio recording thereof at any time. Finally, participants were invited to check off whether they gave the researcher permission to interview them, record the exchange and/or use their remarks in written form in any resulting publications[26]. This consent form, along with the project as a whole, was duly approved by the McGill University Research Ethics Board (please refer to appendix).

Finally, when a point of conceptual and theoretical density was reached, whereby similar themes were being repeated time and again by different respondents, the data collection phase of the study was completed (Strauss & Corbin, 1994). The interviews were meticulously transcribed verbatim and then coded carefully through latent coding[27], with the use of MaxQDA, a qualitative data analysis software program. A code system composed of six major thematic groups was then created (such as 'solutions', for example), with each containing several sub-categories (including such subcodes as 'improve the appreciation of family doctors' and 'team-based approaches'), which resulted in the production of nearly 60 codes. These codes then formed the backbone for the subsections of this paper. A total of 1228 coded segments were generated, categorized and analyzed, and if necessary, translated into English. Finally, several of these coded segments were then selected to be included in this article.

PART I. CUTTING BACK ON EXPENSES

The government of Quebec has not been immune to economic hardship in the past 20 years. In 1995-96, not long after the failed referendum attempt at Quebec sovereignty and the pre-emptive exodus of several companies' corporate headquarters from Montreal, and with the effects of the 1991 recession still reverberating, the economy was stagnant. Very few new jobs were created during that time, and unemployment remained at a steep 11.8 percent compared to the national average of 9.4 percent during the same time (Fry, 1997). Because of this downturn in the economy, the government was thus forced to downsize considerably, and healthcare, which constituted more than a quarter of the province's budget, was no exception

[26] Those who did not grant me such permission have been identified herein only by their years of experience.

[27] This method of coding looks for underlying themes and meanings in communication and identifies them as codes. It is distinct from manifest coding, which merely considers the frequency that a word or idea appears in a given document (Babbie & Benaquisto 2002).

(Ministère des finances du Québec, 1995). As one government official remarked, "You cannot clean up public spending without touching health" (September, 2008).

To make matters worse, the federal government, which had set a zero-deficit goal for the mid-1990s, was becoming increasingly tight-fisted with its transfers to provinces during that time. From the early 1980s until the mid 1990s, provincial transfers through various policies (including the Canada Assistance Plan, the Established Programs Financing Act and the Health and Social Transfer block fund) were routinely limited, reduced and/or frozen (Department of Finance Canada, 2009). As a result, provinces (just like the federal government), were forced to scale back their expenditures. When health care systems face economic hardship, they usually respond by using one or both of the following reform approaches: demand-side regulation and/or supply-side regulation (Blank & Burau, 2004; Starfield, 1998). By adjusting either the demand for or the supply of medical services, healthcare expenditures are expected to decrease. The first approach, demand-side regulation, seeks to decrease patient demand by using a variety of measures designed to deter health service utilization. Examples of such policies include charging user fees or co-payments to reduce the amount of unnecessary visits to doctors. This approach, however, can also have the inadvertent affect of decreasing the number of *necessary* visits for those individuals who might actually need them but cannot afford to pay. As such, they are not always advisable, especially in the context of a universal healthcare system.

Supply-side regulation mechanisms, on the other hand, tend to be aimed at health care providers and can involve direct controls over the amount of money that is spent on health care by a government or funding agency. Examples of such interventions include global caps on health care budgets to restrict health expenditures, changing physician remuneration by going from a fee-for-service to a salary-based system, for example, and restrictions on laboratory testing and other expenses incurred by physicians (Blank & Burau, 2004; Starfield, 1998). Other interventions can involve placing restrictions on the scope of a physician's practice, whereby certain procedures which were previously exclusively performed by doctors are instead deregulated to allow other health professionals, such as nurses, psychologists and nutritionists, to carry them out (Starfield, 1998).

Of these two possible approaches to cost-containment, Quebec has largely decided to adopt the latter. While it is true that some user fees and other demand-deterring policies have

become more ubiquitous, the vast majority of changes have been to the supply end of the equation.

Since this paper focuses on the perspective of health providers, what will follow is an in-depth look at access from above; that is, not from the patients' experience but from the doctors' view. While it is true that these individuals are heavily interested in the provision of primary health care in this province (and thereby biased), their unique experiences can still shed some much-needed light on the problem at hand. It is from this perspective that a series of supply-side regulation mechanisms used by the Quebec government will be unveiled, coupled with a discussion about how they have impacted doctors' ability to provide access to primary health care. Part 1.1 will discuss a set of issues (including supply-side regulation mechanisms and the broader context of academic medicine) that is common to Quebec and the rest of Canada and that has impacted the supply of family doctors both provincially and nationally. These include early retirement programs, decreased medical school admissions and a generalized lack of appreciation for family medicine within medical school. Then Part 1.2 will look at how these relatively few doctors spend their time, by examining Quebec-specific supply-side regulation policies which have had an impact on the nature and location of family practices. This section will therefore closely examine the *activités médicales particulières* (AMPs or specific medical activities) that are required of family physicians, as well as the regional physician (wo)manpower (or resource) plans known as PREMs (*Plans régionaux d'effectifs médicaux*) which affect where doctors are permitted to work. Finally, in Part 1.3, the effect of these policies on patient access will be studied. In the end, it will become apparent that Quebec has not only effectively reduced the number of practising family doctors, but has also changed how and where they practise medicine, much to the detriment of access to PHC in Quebec and Montreal more specifically.

Part 1.1: Factors Affecting the Supply of Family Physicians in Quebec which are Common to the Rest of Canada

> **Q.** In Montreal, what would you say are the most important factors that affect access to primary health care?
> **A:** There just aren't enough doctors. For me, it's that simple.

1.1.1 Early Retirement

The first supply-side regulation strategy employed by the Quebec and other provincial governments which affected the provinces' supply of physicians was the early retirement programs instituted in 1997. In an attempt to decrease spending, the government proposed to its public servants to voluntarily retire as early as age 55—a proposal which up to 1500

physicians and 4000 nurses accepted (Radio-Canada, 2008). While some of these professionals would have taken their retirement anyway during that period, the vast numbers dealt an unprecedented blow to Quebec's human resources: "Far more people left than we had expected, to the point where I said [to my colleague], 'Look, stop talking to me about departures – there are more retirees than employees' " (MSSS government official, September 2008).

As a direct result of this policy, the health care system was indisputably left with a depleted supply of doctors. Consequently, what was initially designed as a quick fix for the province's strained budget has since been heavily criticized for its lack of foresight. Dr. Ricard, communications director of the FMOQ, remarked: "That, in my opinion, was a very short term measure. We didn't think about the medium- and long-term impact when we encouraged these doctors to take their retirement" (September, 2008). Others have called it an "ill-advised scheme" (Dr. Michael Malus, 30 years experience, director of the Herzl family medicine clinic at the Jewish General Hospital, February, 2008), the consequences of which we are still feeling over ten years later.

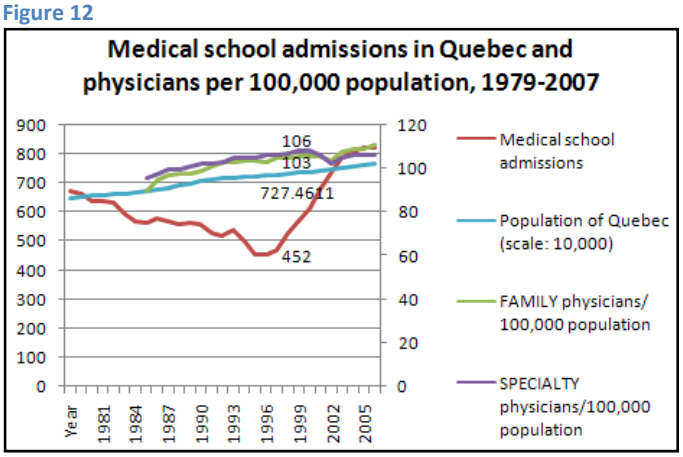
One of those consequences is the added responsibility on younger doctors. One respondent said, "Yes of course it imposes a burden [on the remaining doctors] and since then, we've tried to play catch-up". With so many experienced doctors having left, and as we will see, with fewer students graduating from medical school to replenish the dwindling stock of health professionals, the Quebec health care system was effectively left in the hands of a precarious few.

1.1.2 Decreased Medical School Admissions

At approximately the same time as the early retirement programs, the Quebec government decided to decrease the number of admissions to the province's four medical schools. As education is highly subsidized by the government in this province, it made fiscal sense to reduce expenses in this manner. This measure must be placed in national context, however. In an attempt to reform Canadian healthcare, analysts Morris Barer and Greg Stoddart were asked by the country's health ministers to release a series of reports on medical services in Canada, which were published in the *Canadian Medical Association Journal* between 1992 and 1993. Amongst the reports' 53 recommendations, Barer and Stoddart suggested cutting back on the number of new physicians being trained because of a possible surplus of doctors per population—a finding that the provinces were all too quick and eager to act on (Evans & McGrail, 2008). In 1992, the Banff Conference of Ministers of Health thus recommended that

provinces reduce medical school admissions by 10%. This recommendation, which coincided with federal cutbacks in transfer payments for health to the provinces, was highly influential in convincing deputy ministers of health to drastically reduce admissions across the country (R. Wilson, personal communication, October 28, 2008).

Figure 12



Note: Figures for 1997-1998 are indicated.
Source: MELS statistics obtained by special request from the medical schools; CANSIM; Canadian Medical Association 2009.

The effects of this policy, however, are largely more palpable now than when it was originally implemented in the mid-1990s. As Ruth Wilson (32 years experience), past president of The College of Family Physicians of Canada, pointed out, "It takes a while for that cut to work its way through the system. It takes at least four years of medical school plus the two to five years of residency, so it was about 10 years later that the effects of the cuts started to become more obvious". In Quebec specifically, medical school admission rates went from 670 students in 1979-80, to a 20-year low of 452 in 1997-1998 (see Figure 11 above).

The reaction to these numbers in the province is clear. Several doctors once again cited the short-sightedness of the government's policies, arguing that both the cut admissions and early retirement plans were but a quick scheme to save money. When asked about these cost-containing measures from 1990s, Dr. Mark Roper (20 years experience), president of the *Département régional de la médecine générale*[28] of Montreal (DRMG), went even further, saying, "I'm telling you, if [anyone] doesn't see the early retirement programs and the decrease in cohorts and restrictions on recruitment as obviously for what they are, then I think [they]'re a fool because it's obvious" (August, 2008).

[28] DRMGs are regional family medicine departments in Quebec which are designed to manage the provision of primary health care services in the given region.

The government, however, has since significantly increased the number of medical school admissions since 1997-1998, to the point where last year, over 820 students were admitted to the province's four medical schools (see Figure 11 above). The government official I interviewed actually expressed the Ministry's desire to further increase these caps, but that now the resistance is coming from the medical faculties: "Yes, yes, they tell us that they can't take anymore [students]. 'We can't take anymore; we don't have any more professors, internships...'" This may, however, be a case of 'too little, too late' on behalf of the government's part since these increased cohorts will still take almost ten years to begin producing more physicians. In the meantime, Quebecers are still trying to grapple with a decreased supply of physicians as a direct result of the government's cost-containing measures.

1.1.3 Appreciation of Family Medicine

By now, we can appreciate the historical context which has created a backdrop for the shortage of physicians both in the province and across Canada today. These are not the only factors however which have affected the number of generalists practising in Quebec. As we are about to see, the depreciation of family medicine as a career option in medical school has had the effect of decreasing the numbers of graduating students choosing to become family doctors.

The lack of appreciation for family medicine is an unfortunate phenomenon which can be found in many medical schools across Canada, and whose effects have translated into fewer students choosing to pursue it as a career. On average, 30% of residency training positions in family medicine across the country remained unfilled from 2000 to 2003 (Sullivan, 2003)[29]. In Quebec more specifically, the trend is particularly worrisome: "In 2007, we filled 78% of the positions in family medicine; there were 300 spots available and only 236 were taken. In contrast, in specialty [medicine], there were 420 spots and 397 were filled, which represents a proportion of 94%" (Dr. Ricard, FMOQ, September, 2008). More recent data from the Canadian Resident Matching Service (CaRMS) indicate that of the 346 residencies in family medicine available in Quebec in 2008, only 300 were filled. In contrast, only 3% of the specialist residencies were left open (Fédération des médecins omnipraticiens du Québec, 2008). In 2009, the trend continued with 19% of residency positions remaining open (Fédération des médecins omnipraticiens du Québec, 2009). Less than 50% of graduating students are opting for family

[29] More recent data from the Canadian Resident Matching Service (CaRMS) indicates that since 2003, this trend has improved nationally, such that on average, 94.5% of all residency positions have been filled (2009).

medicine, which has resulted in 1,923 new specialists in the province compared to only 1,309 newly graduated generalists, from 2000-2007 (Fédération des médecins omnipraticiens du Québec, 2008).

Family medicine therefore appears to have become decreasingly popular amongst medical students, especially in Quebec. The reasons for this are many, and broadly include two general aspects; 1) an overemphasis on specialities in university, and 2) current work conditions in practice (Fédération des médecins omnipraticiens du Québec, 2008). The former will be addressed below, but for more a detailed discussion of the latter, please consult sections 1.2.1 and 1.2.2.

1.1.3.1 (Over)valuing Specialty Medicine

Many respondents remarked that their training in medical school was much more focused on specialized rather than generalized medicine. Only one month out of 20 is dedicated to a rotation in family medicine in Quebec, which some argue, is unbalanced. Consider Dr. Ricard's comments: "Look we have a problem. We are exposed a little bit to family medicine [in the first year] but after that, during rotations, we have blocks of specialties. We'll spend two months in surgery, two months in gynaecology, two months in paediatrics...and then one month in family medicine. We find that it just doesn't make sense". Dr. Godin, president of the FMOQ with over 30 years of experience, agrees saying that he feels that family medicine deserves more of a distinct status: "The way university is structured is really for the specialized world. Family medicine is but one of thirty-five branches of medicine, whereas it should be the largest branch *next* to specialized medicine. It should count as 50% of our educational focus".

As other doctors pointed out, however, longer rotations might not be as feasible within family medicine as compared to other types of medicine: "One extra body in the O.R. [operating room]—who cares? [But] if you're going to work with me, I can't have five people following me around. A) There's no room in my office, B) I don't have the time; I can't teach you. And it's going to slow down my day" (Dr. Golberg, 6 years experience in family medicine, May 2008).

Part of the reason why students might lack some exposure to family medicine during medical school may be due to the way university teaching is structured. One respondent pointed out that specialists are often required to do some teaching as part of their affiliation to the university health centres where many of them practise. Since not nearly as many family physicians are affiliated to these centres (and therefore do not have the same teaching requirements), the academic staff in universities tends to be disproportionately composed of

specialized doctors. In fact, a study conducted at Memorial University in Newfoundland found that declining interest in family medicine amongst students is in large part due to the utter absence of family physicians teaching critical full-year courses to second-year students (Bethune, et al., 2007). To remedy this, a new course in family medicine was introduced at the end of the second year in order to improve Memorial students' exposure to this branch of medicine.

The other side of the coin, with regards to what some would call the overvaluing of specialties in medical school, is the outright denigration of family medicine as a career option. Almost all of the respondents I spoke to had a similar tale to tell regarding some negative experience in medical school. Consider one doctor's response when I asked how family medicine was perceived at her university:

> You don't tell people you want to do family medicine at McGill. It's not a good idea. People who are not smart enough to do specialties will go in family medicine. People who want to take the easy way out and only have a two-year residency instead of five to seven years will go in family medicine. People who are a little bit more touchy-feely rather than scientific will go in family medicine. Real scientists, real doctors will go in specialty and sub-sub-specialties. It was kind of frowned upon to go in family medicine (Family doctor, 2 years of experience, August 2008).

Others cited specific examples of comments made by faculty or friends that made them feel as though generalized medicine was second best. For instance, one physician who had recently graduated relayed the following: "[T]o a certain extent without realizing it, all through[out] medical school... you'll hear case presentations with [doctors saying], 'The family doctor thought it was this, but then they showed up in my office...' So it's just pervasive, pervasive". In his years as both director of Student Health Services and the Office of Student Affairs for the Faculty of Medicine at McGill University, Dr. Pierre-Paul Tellier laments the fact that this is not uncommon: "Students go through and they express an opinion of wanting to be a family physician… while doing their surgery rotation or, doing an internal medicine rotation, and the answer that they get is, well, 'You know, I'm sure you're much smarter than that'" (28 years of experience, February, 2008).

More frequently, however, it is in more subtle ways that family medicine gets put down in medical school. As one interviewee remarked: "No one would consciously say that [family doctors] are not important" (Family doctor, 3 years of experience, May 2008). Instead, hidden messages regarding family medicine can sometimes be found even in the structural components of a medical school, such as the names of buildings (where few or no family doctors are honoured) or the identification of certain courses as required or elective (Hafferty, 1998). This is

what Frederic Hafferty refers to as the *hidden curriculum*, which recognizes that "[n]ot all of what is taught during medical training is captured in course catalogs, class syllabi, lecture notes and handouts […] Indeed, a great deal of what is taught—and most of what is learned—takes place […] outside formally identified learning environments: in the elevator, the corridor, the lounge, the cafeteria or the on-call room" (1998: 403-404). It is by taking into account these subtle, often latent messages conveyed within a university that we can better understand the denigration of family medicine.

The result of these denigrating comments has been the subordination of family medicine in comparison to other specialties—an effect which has significantly contributed to the decrease in family medicine graduates discussed above. Prestige is well known as one of the factors which influence an individual's decision to enter a particular field of medicine (Fujisawa & Lafortune, 2008), especially for the kinds of people that are typically in medical school:

> [Medical schools] let in a number of students, all of whom are Type-A personalities, who were always at the top of the class, always were the ones who pursued every different avenue available to them...And then to turn around and say, you know, 'Well why don't you go into this general category where you can be one of a number in a work force, that you'll have your own set of population, but you'll never pursue anything to the end. You'll never become a specialist in the left part of the thyroid or whatever…You'll never be world-renowned for your work.' You know, there's a disconnect there, for sure (Dr. Stephenson, 1st year resident, April 2008).

The prestige of family medicine is also affected by remuneration. Family doctors reported feeling that the government favours specialists because the former are paid significantly less, not only in comparison to their secondary care colleagues but also in relation to their primary care counterparts across the country: "We are often asked, why should I in Quebec be paid worse than my colleagues in Ontario or elsewhere?" (Dr. Ricard). Between specialists and generalists especially, there is a noticeable gap in salaries (Fujisawa & Lafortune, 2008)—a gap that several doctors bemoan: "[W]hy should it be such a discrepancy between a specialist and a general doctor?" (Dr. Rohan, 30 years of experience, September, 2008). In sum, it appears that the focus on specialization and the prestige accorded to it have highly influenced some students to pursue careers in specialized medicine after graduation. It is therefore little wonder that the province is not fulfilling its quotas for generalists.

At this junction, it is very important to note that the environment described above may not be the same across all medical schools. In fact, several of my respondents commented that they found McGill University to be particularly oriented towards specialized medicine, but that other institutions had a more welcoming attitude towards generalists:

> We've got [the University of] Sherbrooke which pushes people into family medicine much more, we've got U de M [University of Montreal] which is a bit of both, and we've got Laval [University] which is a little bit more than U de M, so we've got the whole range in Quebec**.** So, if you really felt you wanted to go into family medicine, you could go to Sherbrooke...[If] you come here [to McGill] you know that you're going to get a much more secondary, tertiary care training (Dr. Martin Dawes, 30 years of experience, chair of family medicine, McGill, July 2008).

So while remaining an important phenomenon, the overvaluing of specialty medicine may not be generalizeable to all contexts within Quebec.

Nevertheless, the Quebec government has taken heed and is now committed to promoting family medicine in medical schools. Both respondents from the FMOQ and from the MSSS agree that something urgent must be done to boost the numbers of graduates: "[T]here is currently a trend which we must reverse. Look, we get criticized at the manpower planning table, so we have to go back to having 50% specialists and 50% family doctors. We're insisting on this as well as the fact that it is not shameful to be a family doctor" (MSSS government official). In fact, many physicians expressed that this trend has improved significantly in recent years, but there is still a long way to go before equality can be reached between primary and specialist care in medical school.

Part 1.2: Regulating the Practice of Family Medicine – Policies Specific to Quebec

"[W]e've got lots of rules here in Quebec"
—Dr. Ricard, FMOQ

Up to now, we have been introduced to a series of supply-side regulation mechanisms employed by the government, as well as the academic context in which family doctors are trained, but none of these factors have been exclusive to Quebec. This next section will focus on two policies that are particular to the province: the *Activités médicales particulières* (AMPs) or specific medical activities, and the *Plans régionaux d'effectifs médicaux* (PREMs) or regional physician (wo)manpower plans.

1.2.1 Specific Medical Activities (AMPs)

Quebec has had a long history of difficulties with staffing its emergency rooms. Tragically, in June 2002, this problem came to a head when Claude Dufresne, a resident of Shawinigan, suffered a heart attack and died as a result of his local ER being closed for the evening due to a lack of physicians ("Editorial: Quebec's Bill 114," 2002). What followed from this fatality was what Dr. Godin, president of the FMOQ, referred to as a 'national crisis', whereby the Quebec government was forced to act swiftly and decisively in order to prevent

such occurrences from repeating themselves. The ensuing Bill 114, 'An Act to Ensure the Continued Provision of Emergency Medical Services', which was released merely a month after the incident, required the regional medical boards (DRMGs) to draw up a list of all on-duty physicians, including family physicians and emergentologists, who would then be scheduled to work a certain number of shifts in the ER per month. Failure to do so would result in up to a 20% deduction in remuneration for those physicians refusing to comply (National Assembly of Quebec, 2002).

In 2004, however, Bill 114 was replaced by specific medical activities (AMPs) legislation to ensure access to an even broader array of medical services ("E.R. Staffing Law Replaced," 2002). The FMOQ signed an agreement with the Ministry of Health and Social Services which established a set of rules concerning these activities (MSSS-FMOQ, 2004). Each DRMG is responsible for creating a list of acceptable AMPs, which tend to be focused around the following areas: 1) emergency departments (as a priority); 2) community or long-term care clinics; 3) ward work in hospitals; 4) medical services dispensed within the framework of a residential and long-term care centre (CHSLD), rehabilitation centre or home care through a health and social service centre (CSSS); 5) obstetrical privileges at an accredited hospital; 6) primary health care services for 'vulnerable clientele'[30], including the elderly (aged 70 and above) and patients with chronic illnesses; or 7) any other activity considered to be a priority by the local DRMG and that is approved by the Ministry of Health. All family physicians are subject to AMPs, with time commitments varying by seniority. Physicians with less than 15 years of experience are expected to perform 12 hours per week of AMPs, while those with between 15 and 20 years of experience are only required to do 6 hours per week. Doctors that have more than 20 years of experience are not formally required to do a minimum number of hours[31], but may be called upon at any time by the DRMG to participate in AMPs if there is an urgent need which cannot be satisfied by those with less seniority. Exemptions are only granted to younger doctors under very strict circumstances, such as pregnancy or physical or mental incapacitation.

[30] Interestingly, economic vulnerability does not figure here as a criterion for 'vulnerable clientele'. See pages 71-73 for a discussion on access and socioeconomic status.

[31] When asked why senior physicians do not have the same requirements as younger ones, Dr. Roper, president of the Montreal DRMG replied: "[W]hen you're 20 years out and never worked emergency, you're a bit rusty, so you're better off staying in your office. But you know these things are agreed to by the Federation of General Practitioners [FMOQ], and a lot of them are over 20 years, so [those] would be the things that the young people have to do quite easily, that they don't have to do. So there's an element of that to it. Eat your young, you know".

Failure to fulfill the requisite volume of AMPs for more than two consecutive trimesters without a valid exemption results in a 30% deduction in the remuneration of all services dispensed outside of a hospital or CLSC.

1.2.1.1 Specialized Generalists

"I think the government would like the family doctors to do everything"
—Family physician with 3 years experience

A direct result of the implementation of AMPs has been a blurring of the types of care provided by family doctors. The number of generalists providing secondary care in Quebec has increased from 33.5% in 2003 to 39% in 2007, in stark contrast to Ontario, where in 2005 only 9% of family physicians provided this type of care (Fédération des médecins omnipraticiens du Québec, 2008; Lemieux, 2008). 10% of all family doctors in Quebec *only* dispense secondary care, and amongst those with less than 10 years of experience, this number jumps to 36%. The reasons for this are clear[32], according to the FMOQ: "This tendency is explained by the fact that we require physicians with less than 20 years of experience to perform...AMPs. No such type of rule exists in the other Canadian provinces" (2008: 6). This generates a very peculiar sort of paradox for family doctors: "On the one hand, we are asked to go work in hospitals; on the other hand, we're asked to provide primary health care" (Dr. Ricard).

Now, family medicine by definition has always been multidisciplinary, and particularly in rural regions, generalists have at times been required to provide various forms of specialty care (such as perform surgery), which may not fall within the purview of primary health care. But as Dr. Godin comments, this phenomenon has shifted recently: "Quebec family physicians are people who work a lot in secondary care, and this is not only in remote hospitals and regions, this is even true in urban zones like Montreal" (October 2008). Some family doctors have even decided to sub-specialize in certain fields: "I found out recently that in Montreal—Montreal!—at an important university health centre, there are family physicians practising hemato-oncology. Hemato-oncology! We didn't become family doctors to do hemato-oncology"! (Dr. Ricard). As a result, these new 'specialized' family doctors can effectively choose what types of patients (and by extension, pathologies) they want to deal with. For example, a family doctor who chooses to work in obstetrics is not required to take on older patients with multiple morbidities. On the

[32] Other reasons for increasing specialization which surfaced during the interviews included physician preference and/or the international tendency for physicians to specialize rather than focus on the general (Starfield 1998).

other hand, a physician who wants to focus more on geriatrics is not required to see any pregnant mothers. What used to be the defining characteristic of family physicians (that is, being *generalists* who see all types of patients) is now becoming increasingly rarer due to the changes that have occurred in the profession.

Simultaneously, due to the shortage of family doctors, other types of practitioners have slowly begun dispensing more primary health care, especially in the cities. Consider Dr. Ricard's observations: "How many gynaecologists still perform cytology screenings? How many paediatricians do 'well-baby care'? How many cardiologists monitor hypertension? There are a lot of specialized doctors who are doing what I consider to be primary care, so it's not negligible [as a phenomenon]". This raises the question of whether or not this type of inversed division of labour between specialists and generalists is appropriate. According to Barbara Starfield, it is not: "[D]isease specialists may provide the most appropriate care for the specific illnesses within their area of special competence, but a primary care practitioner is required to integrate the care for the variety of health problems that individuals experience over time" (1998: 4). Specialty care also costs more and is more difficult to access, making it unsustainable given Quebec's limited resources. As such, a system whereby the division of labour between generalists and specialists is blurred and overlaps may in fact be problematic for governments and patients alike.

1.2.1.2 Reactions from Physicians

"We didn't join the army, we became doctors"
—Family physician, 3 years of experience, May 2008

AMPs can be problematic for physicians as well. Many of them expressed frustration towards what they referred to as the province's punitive measures to distribute health services. As one newly graduated physician remarked, "Someone told me once that Quebec is all stick and no carrot. And sometimes a carrot goes a long way" (August, 2008). One effect of this 'stick' employed by Quebec has been the reduction of physicians' professional freedom to practise the kind of medicine they want. Dr. Tellier, an older physician with over 25 years of practice, said the following about his experience with AMPs: "When [they] first came into account, I was on that cusp [because I had more than 20 years experience]. And I knew that I could go 'Phew, I don't need to...go practise and do things that I don't want to do". A younger doctor confided that she previously worked in a rehabilitation clinic for the sole purpose of fulfilling her AMPs: "That was purely for my AMPs which I probably never would have done otherwise. And yeah, it was

boring". Others expressed that they felt forced to take on certain types of clientele: "I'm seeing my colleagues struggle to see patients who are sicker [and] that take longer because those are the vulnerable patients" (Family physician, 2 years of experience, August 2008).

The resulting sentiment for many physicians has been one of feeling patronized. As one doctor expressed: "I guess [it's] a little bit demoralizing. You feel like a child or a student forever. [...] And there's a certain amount of anger that comes with that. [...] Everyone says, 'oh, well everywhere has its problems'. But I don't think everywhere has that punitive, paternal aspect going on". There is therefore a lot of resentment towards the government for a policy which is perceived as being highly controlling.

In addition to feeling angry about the financial penalties for not fulfilling AMPs ('Give 30% of your money to who?' asked one physician who was particularly outraged by the policy), most doctors especially resented the *requirement* aspect: "I don't have any problems, I guess, with asking people to do [AMPs] for a period of time. But it seems to be going on forever. When you're forcing people, they do not like to do that so much" (Family physician, 28 years of experience, April 2008). Even residents are concerned, because they see their colleagues in other provinces enjoying more freedom: "Yeah, I mean, it creates a climate, I think, for residents to feel as though there are special requirements in this province that don't exist in other provinces" (Dr. Stephenson).

The government's response, however, is firm. The high-ranking official that was interviewed stated matter-of-factly that, "Obviously everyone would like to have their choice of the type of practice, but the choice we made was that these essential tasks must be absolutely shared by everyone" (October 2008). In fact, it was his contention that many doctors would be doing these very same tasks anyway, even if they were not required to do so by law. This was not in dispute by some respondents, like one physician who admitted that she was enjoying her current AMP: "Yeah, it's interesting because I might not have tried working in methadone if I hadn't had to". But as Dr. Godin, president of the FMOQ, argued, we have reached a point where we must evaluate the utility of AMPs: "Are they rendering the results we are hoping for? Are we just hassling young doctors in particular to do something they would have done anyway?" This is something to consider if we hope to keep new graduates in the province.

1.2.1.3 Family Practice Becomes Difficult

It is important to note that most physicians acknowledged the importance of this policy for equitable distribution care, but they especially deplored the fact that it partially prevents

them from doing the work that they were trained to do. As Dr. Golberg eloquently stated, “They're all good ideas. There's nothing wrong with the ideas. But in a way, it doesn't make sense to take people away from doing good things that are still also valuable [like primary health care] and move them to things that maybe aren't so” (May 2008). An older, more traditional family doctor lamented the fact that, “there are a number of drop-in clinics and places where you can go to get rapid care for simple one-shot problems, but there aren’t that many people opening up family practices where they’re doing... a kind of old-time, old style of general practice that I still provide. People just aren’t doing that anymore, for a bunch of reasons”. These reasons are largely related to AMPs. First of all, doctors must fulfil between 6 and 12 hours of AMPs per week, but hospitals or clinics tend to require a minimum of 20-25 hours per week of service, which severely restricts the amount of time they have for a family practice: “Because of [AMPs], you’re constrained in how many days a week or how many hours a week you’re allowed to have private practice and that discourages newer physicians to get involved in private practice” (Family doctor with 7 years of experience, April 2008). Secondly, beyond lacking the time to dedicate to a family practice, AMPs make it difficult for new doctors to *afford* one. Consider Dr. Dawes’ observation: “So, if you set up your office…and then suddenly you can’t work there for one and a half days. Okay, you can make your money in Emerg, but you’re basically paying a secretary to do nothing, you are denying your primary care patients that access to you. And they will go see you in Emerg. It doesn’t make sense”.

The result has been the slow demise of the traditional family doctor whose office doors are open every day for the general public (Labrie, 2008). One such remaining physician said that, “[to do what I do], you have to be at least four week days in your office, better five…But it doesn’t happen […] There's really nothing that favours the young doctor out of residency opening up what you would traditionally have thought of as a family practice” (27 years of experience, April 2008). It is worth noting, however, that not all respondents agreed that traditional family medicine is on the decline. The government official that was interviewed countered this idea by saying, “I would say that this is not what I observe; there are many family doctors with very heavy workloads that offer a complete array of services”. Dr. Ricard of the FMOQ even considered AMPs to be a pretext for young doctors not wanting to open up private practices: “I personally think it’s a question of organizing your time”. Nevertheless, the paradox generated by AMPs is a very important one to consider. If family doctors are required to spend a

day and a half per week working in mostly *secondary* care, does this not directly compete with the time they spend dispensing *primary* health care to their patients?

1.2.1.4. AMPs' Impact on Access to Primary Health Care

The obvious question left to ask is, what impact do AMPs have on access to primary health care? The answer is mixed. For some patients, especially those deemed vulnerable by the government, access has improved. One physician even referred to these patients as almost being lucky: "If you're a vulnerable patient, it's a little bit easier. If you're hospitalized, then you're inside the system; someone has to follow you when you leave [...] It's a matter of luck...or bad luck if you're in the hospital" (August 2008). In fact, the government continues to strongly support these policies for the betterment of access to these essential services: "[AMPs] are very effective, powerful tools which we must keep" (MSSS official, September 2008). For the rest of the healthier population, however, AMPs have made it more difficult to access general primary health care: "Family physicians are fulfilling other needed roles in the health care system [...] and they're less available for the provision of ongoing primary care" (Dr. Ruth Wilson, past president of the College of Family Physicians of Canada, October 2008). Furthermore, AMPs do not take into account other types of activities such as teaching or administrative work performed by physicians, which leaves them even less time for providing routine primary health care. The result for the non-vulnerable population is clear: "They usually end up in emergency rooms or walk-in clinics" (family doctor with 7 years of experience, April 2008), or ironically, "[t]hey might become a sick, vulnerable patient for lack of prevention" (family doctor with 2 years of experience, August 2008). For those who are fortunate enough to see a family physician, the impact on their longitudinality of care is also important to consider; it is often more difficult to follow-up with patients if a physician only works at a clinic one day per week.

Almost every person interviewed deplored the fact that the government has effectively robbed Peter to pay Paul, or in other words, created one problem to solve another by redirecting primary care resources towards secondary care needs: "The government's reaction to not having enough doctors in emergency was to deny primary care access, which increases the burden on emergency care. Anyone could have predicted that. Doesn't take a lot of intelligence" (Dr. Dawes, July 2008). One doctor eloquently summed up this delicate dilemma surrounding AMPs:

> I think it leaves out the main type of patient, the 40-year-old woman who needs a pap test every year, the 55-year-old guy who needs his blood pressure checked. That's the core of the medical

> population. But it's those patients, I think from what I've seen, who don't get access to medical care. It's nice to have... We need people in the emergency room. We need people doing deliveries. And people taking care of addiction and mental health and all those highly valued areas. But if it's to the detriment of the main family medicine, I don't think that's much better (Family doctor, 2 years of experience, August 2008).

This may therefore explain Quebec's peculiar position of having the highest proportion of family doctors per capita *and* the largest population without a family doctor. These physicians are simply not providing as much primary health care as they could as a direct result of provincial policies which mandate them to dispense other types of much-needed care, possibly at the expense of the 'average' patient. In other words, this policy designed to improve access to certain types of care may have had the complete opposite effect on other types, namely primary health care.

1.2.2 PREMs

A second Quebec-specific policy which has impacted access to PHC is the *Plans régionaux d'effectifs medicaux* or PREMs. Quebec, just like many other Canadian provinces, is a place where many inhabitants reside in remote regions, making it historically difficult to adequately provide equitable medical care to all citizens across the province. In 1982, Bill 27 was introduced which sought to penalize doctors wishing to practice in urban centres by docking 30% of their salary for the first three years of their practice. This initiative allowed for at least minimal staffing of rural medical teams (Cousineau, 2007). Then, in 2004, shortly after the infamous Claude Dufresne incident which occurred in Shawinigan, in the outlying region of Mauricie, the Quebec government replaced Bill 27 with a system of permits (or PREMs) "to foster an equitable distribution of family physicians across Quebec" (Rodrigue, 2004). An MSSS-FMOQ joint committee on medical human resource management was formed and an agreement was struck to institute a number of physician quotas to be filled each year in order to adequately serve each of the regions in Quebec[33]. As former FMOQ president, Dr. Renald Dutil mentioned, the plan was mostly aimed at improving access to family doctors in the outlying regions as opposed to the cities: "In 2004, the regions experiencing the most severe shortages, such as the Mauricie, Outaouais and remote regions, will receive a large influx. In regions with better

[33] Quebec is divided into 16 health regions: Abitibi-Témiscamingue, Bas-Saint-Laurent, Capitale-Nationale, Chaudière-Appalaches, Cote-Nord, Estrie, Gaspésie-Iles-de-la-Madeleine, La Mauricie/Centre-du-Québec, Lanaudière, Laurentides, Laval, Montérégie, Montréal, Nord-du-Québec, Outaouais, and Saguenay-Lac-Saint-Jean.

manpower levels, such as the Estrie and Quebec region, only *vacated* positions will be filled" (Rodrigue, 2004, emphasis added).

To work in a specific part of Quebec, a new family physician[34] (or 'nouveau facturant' as they are called) must obtain what is known as a 'notice of compliance', or permit, from the regional department of general medicine (DRMG), which is allotted a strict number of PREMs each year by the government that cannot be exceeded (Rodrigue, 2004). Doctors are then free to work in any desired region after having spent three years in a remote one. Just like AMPs, however, these initiatives have a punitive element which is meant to encourage compliance; any physician who decides to practise outside of their permitted region may be deducted 30% of their earnings and prohibited from working in hospitals within that unauthorized region. Compared to the other provinces, however, Quebec also provides relatively meagre incentives to work in very remote regions[35]—a fact which many doctors dislike: "Everywhere else in North America, there is no punitive attempt to make doctors work in outlying areas" (Dr. Malus, February, 2008). The result then tends to be intense competition for a very limited number of positions in urban areas.

1.2.2.1 Reactions from Physicians

"PREMs... Now *that's* one disincentive to work here [in Quebec]!"
—Dr. Malus, 30 years of experience, March 2008

The response to PREMs from physicians in Montreal has been quite negative. Many of the doctors who trained in Montreal abhorred the fact that they may have had to leave the city to be able to practise. As one younger physician who managed to obtain a PREM in Montreal, said, "The idea of being forced out of Montreal would not have been a pleasant one". Another said, "It would have been a disaster". In fact a current resident who just recently went through the application process described it as a "horrible experience. I really hated it" (April 2008). She and other young physicians relayed having to obtain very strong letters of reference and job offers at different clinics or hospitals, often strategically trying to create a profile for the type of physician the government is looking for in that particular region, if only for the purposes of obtaining a Montreal PREM: "[Once] you find out you can work in Montreal, then a lot of us

[34] PREMs also apply to specialists, but in addition, they must also obtain special permission from the establishment they wish to work in, known as a PEM. For more information, visit: http://www.fmrq.qc.ca/formation-medicale/

[35] For more information on these incentives, please turn to page 77-78.

have forgotten what we had promised before. Some of us said we'd work in hospital and end up working private clinics. Or work full time and end up working part time".

Most of all, the doctors in Montreal were particularly upset at what they considered be a rationing of doctors in the cities. Dr. Dawes sums up this view quite well:

> Montreal is one of the worst supplied areas, and so a family physician who has just qualified is faced with intense competition to get a job in Montreal, but less competition in Chibougamau. […] This is a completely deliberate policy by the government to restrict access in Montreal to try and force new family physicians just qualified to go and work in rural areas. Absolutely deliberate.

So what is the impact of PREMs on access? Have they generated the intended results and if so, what has this meant specifically for access in Montreal?

1.2.2.2 PREMs' Effect on Access

Thus far, the evidence does in fact show that there is a more equitable distribution of physicians across the province. For example, an additional 39 family physicians have begun practicing in the Saguenay-Lac-Saint-Jean region over the past five years (Labrie, 2008). But as Dr. Godin points out, the system is far from perfect: "We have a pie [of doctors] that is too small […] What PREMs do is share the poverty. At this stage, if we didn't have them, there would be some regions which would gain some because they're more attractive and others which would lose out terribly because that pie won't grow any larger". Dr. Ricard added, "I would be very worried if tomorrow morning there weren't PREMs [...] I think they establish a certain level of equity".

While this initiative may have improved the distribution of physicians in outlying regions, however, it has had a questionable impact on urban centres like Montreal. In 2007, for example, only 84 physicians received permits to start practicing on the island, but with approximately 78 doctors taking their retirement during the same period, there were only really 6 new physicians added to the city's medical human resources. This is especially alarming since Montreal's DRMG estimates that 240 *additional* full time doctors are necessary to adequately address the health needs of the island, according to the president, Dr. Mark Roper. Many doctors therefore feel that improved distribution in the regions has come at the expense of access in the cities: "The government deliberately rationed reduced access to family physicians in Montreal… in an aim to provide access in rural regions. And the PREM [was introduced] deliberately to push family physicians out of Montreal" (Dr. Dawes, July 2008). To further complicate things, Montreal's population swells daily due to the approximately 300,000

commuters who come to study, work and play but who also use medical services during the day—a fact which is overlooked when deciding the number of PREMs for the region[36].

The result is a significant amount of tension between the cities and the regions. When asked if the number of PREMs allotted to Montreal last year was sufficient, the FMOQ president diplomatically responded, "If you ask Mark Roper [Montreal DRMG president], he'll say no. If you ask Luc Laurin [Laurentides DRMG president], he'll say it's too much". Dr. Roper, who, incidentally, was interviewed in the context of this study, said, "My job, and I try to do this as academically as possible, is to prove [...] that the access to doctors on the island is as worse if not worse than a lot of the regions in the province". Dr. Ricard, director of planning and regionalization at the FMOQ, disagrees, however: "If PREMs have favoured the regions, in my opinion it's because there were changes to be made there. Because the manpower shortage which provoked AMPs and PREMs did not occur in Montreal, it took place in the isolated region of Mauricie-Centre-du-Québec, one of the province's worst serviced regions for many years now". During the interview, Dr. Ricard also provided data on the observed gap between health needs and access to care in the different regions, and while Montreal was below the Quebec average, other regions like Outaouais and Mauricie were far worse off. These data, however, conflict directly with previous quantitative findings which hold that individuals residing in both of these regions were between 77-88% more likely to have a family doctor than those living in Montreal (see chapter 2). Dr. Ricard's and the government's hesitance to admit that Montreal is perhaps disproportionately disfavoured by the PREMs may actually be a result of politics, Dr. Roper explained:

> How do you candy-coat [this policy] so that the public tolerates it? It was sold to mainland Quebec... as a way of distributing the doctors from Montreal to the outside regions. But, as you may know, the political power of mainland Quebec really determines who gets in power, so anything that distributes resources of Montreal to the mainland is a great way to spin your project.

Data from a representative sample of Quebecers show that 33.7% of Montrealers lack a family physician compared to the provincial average of 24.9%, clearly indicating that access is disproportionately more strained on the island (Statistics Canada, 2005). Quebec's system of permits, designed to equitably distribute the province's relatively few new family doctors to the

[36] In fact, according to Dr. Roper, president of the Montreal DRMG, another 80 physicians *in addition* to the 240 doctors needed to provide adequate access to Montrealers would be required to accommodate these commuters.

outlying regions, therefore simply cannot be discarded as a potential explanation for this disparity.

1.2.3 Exodus of Family Physicians

One possible consequence of AMPs and PREMs has been an increase in the number of physicians leaving the province. Anywhere between 15 and 40 of Quebec's approximately 200 graduates in family medicine choose to practice elsewhere each year (The Gazette; Zins Beauchesne and Associates, 2007)—a number which may seem relatively low if not placed into context. According to Dr. Dawes, chair of family medicine at McGill, "In 2001-2002, we were a net importer of family physicians...So, we would net import 10 percent more doctors...than we trained in family medicine. Since then, we have gone to being a net *exporter* and... 10% of all the family physicians we train now go out of the province" (emphasis original). Indeed, these numbers are confirmed by a recent report by the Canadian Institute for Health Information, which indicated that the net migration between jurisdictions in family medicine has consistently been negative in Quebec from 2004-2007 (2008a). This means that in both 2006 and 2007, for example, the province lost 15 family doctors per year to other provinces or territories. Many physicians interviewed in the context of this study cited dissatisfaction with work conditions as a reason for wanting to leave, much to the benefit of other provinces: "A physician once told me that AMPs and PREMs in this province have done a great job of solving the doctor shortage in Ontario. So many of the residents…here have decided, 'that's enough, we'll leave'. And in fact Ontario is actively recruiting residents from this province to come there" (Dr. Stephenson, 1st year resident)**.**

A study was conducted by Zins Beauchesne and Associates for the FMOQ, of the 27 medical students who chose to complete their residency outside of Quebec in 2007. While most cited the quality of residency programs as the main reason for leaving Quebec, one third of those surveyed admitted that PREMs were decisive in their decision to seek a residency program outside of the province. This factor was found to be more important amongst Anglophone students than Francophones, however, suggesting that the former might be disproportionately affected by language barriers which make it unattractive to practice in rural, heavily-French regions of the province. That said, a full 43.2% of those surveyed were Francophone and nearly 75% of all students leaving the province cited the work conditions in Quebec as either their primary or secondary reason for wanting to leave.

The provincial government, however, does not view PREMs as having a significant effect on the departure of doctors from the province: “Of course, when you’re obliged to go work far away, it can be unpleasant. But it’s not serious. It is not a dominant factor [for the exodus]” (MSSS official). Dr. Ricard agrees, “We really have to try to dissect why it is that people are going elsewhere. Is it really because of the PREMs and AMPs”? While the Zins Beauchesne data seem to have already answered this question for Dr. Ricard, what cannot be ignored is the fact that Quebec’s already austere cohorts of graduating family doctors are being further depleted by a very real emigration of physicians to other provinces and countries offering more favourable work conditions.

Part 1.3: Impact on the Patient

> “I think every day I'm asked if I can take on a new patient, a family member, a colleague or a neighbour”
> —Family doctor, 3 years of experience

Studies have found that Quebecers with higher income are more likely to have a family doctor than their less fortunate counterparts (see chapter 2). While this may be an interesting finding, the causal mechanism for such an association has yet to be explored. To better understand this relationship, the question was put to the physicians in this study: how can socioeconomic status impact access to PHC in the context of a universal health care system?

The resounding response was clear: social connections—and not merely having money—make all the difference. Simply put, “It has nothing to do with money. No money changes hands here. In other societies, if you pony up the money, you get quick service. It’s not the case here; it has everything to do with personal contacts” (Dr. Pavilanis, Chief of the Department of Family Medicine, St. Mary’s Hospital). A good example of this can be taken from this doctor’s personal experience: “If you walk in off the street and ask to see Dr. Pavilanis, the answer is no, never. […] Last night one of my colleagues in British Columbia called me. He said that his son's in Montreal, he's got a problem, would I see him? The son called me this morning, I'll see him tomorrow” (August 2008). These types of social arrangements do not take place exclusively between fellow physicians, however. During the interview with Dr. Malus, he explained that earlier that morning his car mechanic had asked him for assistance in finding a gastroenterologist. When asked if he perceived this to be a common occurrence, he replied, “It’s rampant. Rampant”.

The relationship between socioeconomic status and social capital can be understood by examining the similarity of people within an individual's peer group (a process known as status homophily discussed in Chapter 2). As Dr. Pavilanis says, "Obviously, I'm of middle class, my origins and where I live, so I don't have a lot of personal friends who are on welfare". He goes on to explain, "Just so we're clear, if someone is on welfare or destitute and is my patient, I would still go that extra yard to help them get whatever they need, but it's harder for them to gain access to me". As such, these qualitative data confirm that more than how much money you have, it is who you know that can make all the difference when it comes to having a family physician.

Interestingly, the use of connections can go both ways. The physicians interviewed often reported using their own contacts to help needy patients get the care they require, especially if they are socioeconomically disadvantaged: "For my own patients, I sort of make sure that a person who has a real need is pushed through the system […] If they have private [insurance], yes, sure that's fine; I have less arrangements to do. But if I feel that somebody needs faster access, I pick up the phone and call the specialists" (Dr. Rohan). As Dr. Dawes put it, "I mean the role of the family physician is to be an advocate for the patient too and our job is to steer him through the healthcare system". As such, "it's all about developing personal relationships with specialists and getting your own access" (Family doctor, 3 years experience). Family doctors also expressed having to be careful with the ways they use their social capital to avoid 'crying wolf' as one interviewee called it. Younger physicians, especially in family medicine, tend to have fewer connections within the health care system, in part because they are newer and spent fewer years in residency than their specialist colleagues, prompting to them to be more careful with their requests for 'favours': "If it's a patient who doesn't have insurance and you're worried about their ovaries, you have to decide am I really worried? Am I just being overcautious? Because I have to be careful how I use my begging" (Family doctor, 3 years experience). In short, just as patients draw on their social networks to gain access to care, so do family physicians, who sometimes have to resort to informal means to fulfill their formal responsibility of coordinating the care of their patients.

In summary, Part I has given us a better understanding of the crisis of primary health care in the province. Because of early retirement plans, decreased medical school admissions, an overvaluation of specialty medicine and the exodus of certain family medicine graduates due

to work conditions in Quebec, the province currently suffers from a relative shortage of doctors. Furthermore, the doctors we do have are limited in terms of the scope and location of their practice thanks to AMPs and PREMs, which have not only had a negative effect on the number of physicians in the cities, but also on access to routine primary health care for many Quebecers. This in turn may have made access to PHC differential based on socioeconomic status, despite a universal health care system, since patients (and physicians) in Montreal must now draw on their social capital in order to gain access to such limited medical resources. So with this clearer understanding of Quebec's difficulties surrounding the provision of adequate primary health care, and bearing in mind the need for controlling costs—which is in part why access is so arduous to begin with—what types of solutions can be proposed? This question will be addressed in Part II.

PART II. POSSIBLE SOLUTIONS

Most respondents were eager to provide their own suggestions for improving access to primary health care in the province so a lengthy list of possibilities was compiled. The majority of these solutions, however, fell within one of four major themes: increasing the number of physicians, fostering a better appreciation of family medicine, using incentives rather than sanctions, and adopting team-based approaches in PHC. The first two address the challenges raised in Part 1.1 (that is, the province's shortage of physicians), whereas the third aims at improving the work conditions described in Part 1.2. Finally, the last proposed solution implies a return to the fundamentals of primary health care, and if applied effectively, could in fact improve many of the issues raised throughout all of Part I, including some of the socioeconomic inequities in access. Let us begin with increasing the province's supply of physicians.

2.1 More Doctors are Needed

The most common response to the question, "How would you improve access to primary health care in Quebec" was, "Having more bodies. That's the bottom line" (family physician, 2 years experience). For David Dedeyne, the manager of a Montreal clinic, having more doctors is fundamental: "Of course, I'd like to have more space, I'd love to have newer computers, I'd like to do all types of renovations to facilitate work for my staff...But again, if I don't have doctors for the drop-in clinic or for appointments, well..." In fact, when asked what the best way to improve the situation was, the government official replied, "I would triple the number of doctors and university admissions".

While increasing medical school admissions can and is being employed as a means of generating more doctors (see Figure 11 above), policymakers must be aware of the current limitations facing universities. As Dr. Pavilanis points out, "[Governments] seem to [say to universities], 'Just take more students.' But there's no funding that comes with it, there's no new professors that come with it [*sic*]. So it's difficult on the universities". Any policy recommendation to increase the province's supply of physicians by admitting more students must therefore be accompanied by a concerted plan to supplement the resources of Quebec's four medical schools. This may even involve opening a fifth one to fulfil demand.

Another way of increasing the supply of physicians is through the use of international medical graduates or IMGs (Asanin & Wilson, 2008). Approximately 23% of physicians working in Canada were trained internationally (Primary Care Wait Time Partnership, et al., 2008), though licensing procedures for these physicians are very restrictive: "While educated immigrants are recruited on the basis of their potential professional contributions to Canadian society, the re-accreditation requirements they must meet often act as barriers to the full utilization of their skills" (Boyd & Schellenberg, 2007: 2). Also, family doctors coming from abroad are expected to comply with the province's AMP and PREM requirements, possibly making Quebec slightly less attractive as a destination. This even applies to physicians coming from France under the new France-Quebec Agreement on the Mutual Recognition of Professional Qualifications, signed in October 2008, whereby over 100 mutual recognition arrangements for doctors are expected to be signed within the next two years (Lemay, 2009; Ministère des relations internationales du Québec, 2008).

In addition, many physicians interviewed actually had reservations about relying on doctors who obtained training elsewhere to solve our problems: "The first thing is if they were trained in other countries, they probably are needed in the other countries. There isn't any place that I know that has a terrible physician surplus" (Dr. Pavilanis). Others expressed concerns about the level of training IMGs have: "They're rusty sometimes. We have one who was an anesthesiologist. He hasn't done a pap test in a long, long, long time […] The first months we're just training them to write a prescription the way a pharmacist expects to receive a prescription. It puts a lot of strain on our system". These physicians' comments echo those made by the Primary Care Wait Time Partnership, which cautioned, "Canada's planning has become overly dependent upon IMGs to resolve the access to care problems faced by Canadians because

of our physician shortages" (2008). For these reasons, Quebec should perhaps be wary of over relying on IMGs as a means of boosting our medical human resources.

We may, however, want to consider that an 'add-and-stir' approach, consisting of simply increasing the number of physicians in the province, might not be an ideal solution. Merely adding more family doctors to the current system without making any changes to improve the valorization of the discipline or the organization of primary health care in the province, will likely prove to be inefficient (Pineault, et al., 2009). A revamping of the current structure is absolutely essential, and thus constitutes the bulk of the next three recommendations.

2.2 Better Appreciation of Family Medicine

One way to increase the number of family doctors, and incidentally, creating better working conditions for those already in place, is by creating a better appreciation of family medicine. This has in fact become one of Australia's priorities in its plans to improve access to primary care (Australian Government Department of Health and Ageing, 2008). One way of doing so could be to introduce a new category of AMP; one which, in addition to obstetrics and emergentology, would recognize the provision of routine primary health care as a primary concern: "That to me should be as [much of] a priority as anything else", according to Dr. Golberg. The FMOQ has in fact considered the idea of 'mixed' AMPs, whereby generalists would be required to work both in secondary care *and* PHC.

Improving the outlook on family medicine in medical school is also absolutely crucial. The solution might lie in being more purposive and proactive in the recruitment of family physicians, which worked successfully for two specialties formerly suffering from low interest: anaesthesiology and gynaecology (Sullivan, 2003). But these two aforementioned specialties do not carry the same undervalued status in medical school as family medicine, nor are they comparatively paid far less than any other specialty. To improve the attractiveness of family medicine, a joint effort on behalf of the FMOQ and the government is absolutely crucial. The former must become more active on college campuses, creating awareness of family medicine where little exists, while the latter, through its policies (which include remuneration and work conditions) must make it clear that primary health care is just that—*primary*, for everyone, including the government's bottom line. As has been previously mentioned, secondary care is far more costly both to the health and the pocketbook of Quebec. PHC must therefore be prioritized, especially if we are to keep rising healthcare costs at bay.

Especially with regards to remuneration, it has long been said that family doctors' salaries should be on par not only within the discipline, but also within the profession as a whole (Primary Care Wait Time Partnership, et al., 2008). And this is necessary not only to attract more people to the field, but also to adequately recognize the importance of the care dispensed by family doctors. As Dr. Ricard mentioned, "It's important that remuneration reflects all the complexity and the workload on the shoulders of family doctors". Interestingly, however, what was never proposed as a solution by anyone interviewed was privatization. In fact, some doctors explicitly spoke out against it: "It's not a solution. It draws the doctors off to sort of a small segment of the population and it further deprives the public" (Dr. Malus). Indeed, if the aim is to improve access to care, privatization may not be the best option.

Now while improving the valorization of family medicine might lead to more doctors, as would increasing enrolments in universities for example, let us not forget that Quebec already has one of the highest ratios of family physicians per capita in the country. So as was mentioned earlier, is there actually a *shortage* of doctors, or perhaps a mismanagement of how and where they currently practise (Gladu, 2007)? This is important to consider, since once again, adding more doctors to an already inefficient equation may not have the desired effect. What then can be done to improve the care being offered by those doctors we do have?

2.3 Create Incentives Rather than Sanctions

> "That's a big one. They have to use carrots instead of sticks with people"
> —Family doctor, 27 years of experience

To make the best of use of those doctors we already have, and to stave off losing any more, Quebec must change the way it goes about distributing them both within the province and amongst practice areas. The best way to go about this, according to most respondents, is to use incentives rather than sanctions: "I don't think they realize that you can try and get people up to the outlying regions with a carrot, but I don't think the stick approach works very well" (Family doctor, 28 years experience). It might also be more costly to maintain and police such complex distribution systems as PREMs and AMPs than to allow freedom of choice. In the words of one physician: "Let's cut the bureaucracy".

Several doctors recommended getting rid of PREMs altogether, citing their effects on doctors leaving the province: "The PREM, it doesn't help Quebec... It helps Ontario. It's good for Ontario. I'm sure Ottawa is very happy with the circulation" (Family doctor, 2 years experience).

Others argued that PREMs are problematic because they severely limit access to doctors in Montreal: "[The government] would have to change their policies...They have to allow doctors to actually practice in Montreal that want to practice here" (PHC nurse, 6 years experience).

Others proposed putting an end to AMPs: "I think things will balance out. If we don't have the AMPs, there'll be people like me who love obstetrics and will do it anyway, even if they are not required to do it" (Family doctor, 2 years experience). We must be careful when suggesting the elimination of PREMs and AMPs, because as we have seen, they have indeed served an important purpose in the Quebec health care system. One valid recommendation to the province, however, might be to leave specialty work to the specialists; in others words, as access to specialists and secondary care improves in the province, it may be time for family doctors to go back to dispensing mostly primary health care[37]. The way to do this could be quite simple; it could involve making PHC as much of a priority as emergency care or obstetrics (by making it an AMP), or the province could replace the *requirement* function of AMPs with financial *incentives* to encourage doctors to provide important services, just as was recommended in the United States (Starfield & Simpson, 1993).

This type of incentive system is already in place within much of Canada, which is in part why so many Quebec graduates opt to leave the province. Consider Dr. Pavilanis' comments: "[W]e have graduates who are flown out with their wives and children at graduation to Calgary and are offered salaries double to what we're offered here with no constraints, so why would I go through all the AMPs when I can go live in Calgary for double the salary? I'm not exaggerating—*double* the salary for a starting student, with no constraints". To be fair, Quebec does have some incentives in place, especially to encourage doctors to work in particularly understaffed and/or remote regions of the province[38]. But as Dr. Malus points out, this may not be enough: "[I]f you go and work in the periphery you'll get 130%...Now that sounds very good, but it's really not enough…for someone who's a young doctor with a family and is going to school, wife working…The positive incentives from other provinces are much larger than that". An example of one such incentive can be found in British Columbia, under the Family Physician Recruitment Plan (or FPs4BC). To encourage recently-graduated family physicians to practice in

[37] The government official interviewed admitted that the province has made significant gains in reducing wait times for certain surgical procedures, for instance, and that now the focus must shift towards family medicine.

[38] $14.7 million is set aside each year to encourage doctors to work in poorly-staffed or isolated areas by giving them an additional 5-40% of their usual income. 20 lump sum payments of $20,000 are also granted yearly (Rodrigue, 2004).

geographic areas of need, the Ministry of Health Services offers up to $100,000 in funding per doctor, which includes student debt forgiveness, support to establish or join a group practice, as well as a weekly 'new practice supplement' of $2,000 for the first half year of practice in these areas (British Columbia Ministry of Health Services, 2009). An additional $1,500 bonus is added if the full hospital privileges are also obtained. Clearly, these types of programs can be very attractive to physicians in both B.C. and other provinces.

Smaller, more localized incentives do exist in Quebec to encourage doctors to return to their home regions after university, however. For example, one doctor originally from Drummondville relayed the fact that the local hospital sometimes paid for a student's living expenses during medical school if they agreed to return there after graduation. Incentives also exist for the AMPs. For example, one *forfait incitatif* (incentives package) consists of approximately $50 per vulnerable patient per year that a physician agrees to take on. It also carries a second important benefit: "[W]hen a doctor has more than 200 vulnerable patients in his practice, his salary is no longer capped[39]" (Dr. Ricard).

Nevertheless, the general feeling among the respondents of this study was that more substantial incentives are needed to make the practice of family medicine more palatable in Quebec. This is something the MSSS official interviewed mentioned he wanted to look into for the future, especially in the form of quality outcome initiatives like in the UK, so changes to the current structure may well take place sooner than expected.

2.4 Team-Based Approaches

This final recommendation for change was not only repeatedly mentioned by my respondents, but is also echoed by the World Health Organization (2008), the Primary Care Wait Time Partnership (2008), the Health Council of Canada (2009) and even in the original Alma-Ata declaration (The World Health Organization, 1978). Both intra- and inter-professional teams of health workers are increasingly being considered one of the best ways of improving access to primary health care (Institute of Medicine, 1978). Not only can they improve a *physician*'s access to resources (by pairing nurses with doctors, for instance), they can also help ensure longitudinality of care by providing patients with at least a regular *location* for PHC—even if personal longitudinality is what is considered ideal (Primary Care Wait Time Partnership, et al.,

[39] Quebec physicians working in private practice are subject to a cap on the number of patients they can bill the government for each month (Pinker, 2002)

2008; Starfield, 1998). The government official that was interviewed agreed, saying "A physician with a team can increase by 20-30% the number of patients he can serve".

The important role of nurses in a team model for PHC absolutely cannot be overlooked. As Dr. Ruth Wilson, former president of the CCFP mentioned, the nurse-doctor relationship is one of the oldest professional relationships, even though doctors have become much more independent recently through the establishment of individual private practices. Increasingly however, in part due to the shortage of doctors, new policies such as Bill 90 have increased the responsibility of nurses in the province[40], such that under certain circumstances they may now prescribe oral contraception to new patients: "[it] is a very specific prescription that actually has *my* signature, *my* name, *my* license number; that's my very own prescription" (PHC nurse, 6 years experience). Nurses may also diagnose and treat streptococcal throat infections, though the antibiotics they may prescribe must first be authorized by a physician. So through teamwork and the selective shifting of responsibility from doctors to nurses, physicians are then free to focus their time on more complex medical issues, thereby improving access (Kemp, 2007).

Another important phenomenon has been an increase of 10 percent in the number of Canadian nurse practitioners[41] in the past 5 years (Canadian Institute for Health Information, 2008b). This has been facilitated by the establishment of new Masters-level programs which are only now beginning to graduate their first cohorts. While most respondents were open to the idea of nurses and nurse-practitioners taking some of the pressure off of physicians, some did have reservations: "Sometimes I find that it takes away from the things I like to do" (Family doctor, 2 years of experience). Nevertheless, expanding the responsibilities of nurses and nurse practitioners may be an interesting avenue for Quebec to explore, if and only if proper measures are taken to adequately compensate them for their new duties and not overburden them.

An excellent example of a team-based approach which pairs nurses with family doctors is the *Groupe de médecine familial* (GMF) or 'family medicine group' initiative, which was introduced under the recommendation of the Clair commission to improve access to PHC (Agence de la santé et des services sociaux de Montréal, 2007a). A GMF consists of 8 to 12 physicians with an extended nursing staff who provide medical and case management services, with or without an appointment, 7 days a week, to patients who sign up for these services. In

[40] The nurses interviewed seemed to welcome to added responsibility, but did not appreciate the absence of an accompanying salary increase: "So we're doing more with the same salary", said one nurse.
[41] Nurse practitioners are specially trained nurses who can perform many of the same functions as physicians.

practical terms, this means that patients registered with a GMF get 12 hours of access per day during weekdays and 4 hours a day on week-ends and holidays. The problem is, with only 180 GMFs currently open across the province, getting access to these highly-coveted clinics is difficult (Fédération des médecins omnipraticiens du Québec, 2008): "It's like a golf and country club... But once you're in, you're in" (Dr. Malus). In addition to GMFs, a series of network clinics (*cliniques réseau)* have opened in Montreal to provide walk-in services, along with semi-urgent laboratory and imaging services, every day of the year, in part to account for those 300,000 commuters who travel to the island each day to work or study, and who also seek non-urgent care in Montreal (Agence de la santé et des services sociaux de Montréal, 2007b)[42].

As the FMOQ has stated, GMFs in particular have been especially effective at improving access to PHC for large numbers of patients, due to the partnerships with other professionals, namely nurses (2008). Along with the Family Health Teams in Ontario and the Primary Care Networks in Alberta, collaborative models between health professionals, such as GMFs, are clearly and indisputably an essential way of the future in PHC. Initiatives like these, in addition to being cost-effective, have the potential of offering more attractive and flexible work conditions to doctors, especially if GMF work was recognized as an AMP. In other words, if doctors were given more incentives to work in outlying regions and the opportunity to join GMFs to fulfill their AMPs, Quebec might actually have the beginnings of a solution to its current primary health care crisis.

CONCLUSION

What we have now is a clear narrative from 'above' of how it came to be that over a quarter of all Quebecers lack a family physician. The province currently lacks hundreds of full-time family doctors, in part due to a series of arguably near-sighted policy decisions such as the early retirement programs and medical school admission cuts. But these policies have largely existed across all of Canada, and may in fact account for those 15% of Canadians who currently do not have a family doctor. Quebec also has one of the highest proportions of generalists in the country, making the shortage of doctors puzzling.

To account for Quebec's added woes, the two major policies that are specific to the province—AMPs and PREMs—must therefore be closely scrutinized. Perhaps part of the reason we may lack so many physicians is because of the way they are currently distributed throughout

[42] For more information on network clinics, please consult http://www.fmoq.org/P/English/Documentation/Detail.aspx?dId=88

the province, and throughout practice areas. Due to physician shortages in other branches of medicine, the government has reassigned family doctors to these needy fields through AMPs, which may have effectively prevented the province's many physicians from reaching their full potential in the provision of routine primary health care services. It is time that family doctors stop being forced to pick up the slack for the province's shortage of specialists and start focusing on the very services they were trained to do—services which we now know are absolutely crucial to the population's health and to the government's pocketbook. In a system where access to specialists hinges upon a referral from a family doctor, it is intolerable to limit patients' access to this first entry point simply because family doctors are plugging holes in the rest of the health care system. In a similar way, while PREMs have tried to 'rob the rich to feed the poor' by successfully transferring physicians to the countryside, they may have had the adverse effect of leaving cities poorly provisioned with doctors, such that now, nowhere in the province is access worse than in Montreal (see chapter 2).

The broader implications of these two policies are worth noting. These are two examples of what can be considered somewhat 'iatrogenic policies', or initiatives which, while well-meaning, may have actually had some adverse consequences on access to primary health care in certain regions like Montreal. By successfully improving the accessibility of some forms of secondary care, AMPs may have partially sacrificed access to primary health care. By improving the distribution of doctors across the regions through a system of permits, the government may have in fact made access in the cities more difficult. We must therefore be mindful of all the possible consequences of our policies and most importantly, be open and flexible to change if and when they prove to be inefficient or ineffective.

Another unintended effect of Quebec's specific policies has been the gradual demise of the traditional family doctor. One result of this has been that some Quebecers with regular family physicians can enjoy longitudinality (that is, seeing a physician who knows them) while others can benefit from easy accessibility (that is, getting care easily and quickly when it is needed)—but few are those who enjoy both simultaneously. The situation has thus caused more people to seek primary health care in drop-in clinics and emergency departments, effectively leaving them without a 'medical home' (Haggerty, et al., 2004). While some initiatives such as the GMFs are currently working to correct this unfortunate phenomenon, Quebec has a long way to go in order to ensure that Quebecer's are getting the care they need, which includes *both* longitudinality *and* accessibility. This could be achieved by improving the prospects of

future family doctors, both within medical school and beyond, through concerted efforts by the government and professional associations like the FMOQ.

We must remember some of the limitations of this study however, in order to place these findings into context, however. As was mentioned earlier, it is true that the bulk of the data used in this analysis came from family doctors themselves—a source which may be considered biased, especially considering that many of those interviewed were deeply involved in the healthcare system through their administrative, academic or union duties. While many of the findings were triangulated with either the literature or with the comments made by either policymakers or other health professionals, future studies should perhaps strive to include a more diverse sample, which could include patients, specialists, policy makers and other health care professionals. This could not only add to the validity of the findings, but it could also very well lead to a more integral and three-dimensional view of the current crisis.

Limitations notwithstanding, the case at hand of Quebec may serve as an interesting example for other health care systems, in that it shows to what extent governmental policies (including structural cost-containment through supply-side regulation mechanisms) can sometimes have an inadvertent negative impact on access to some types of healthcare. If the province has any hope of finding a medical home for the over 800,000 Quebecers who are currently search for one, it will have to take a long, hard look at its policies, as well as its priorities, concerning the provision of one of medicine's most basic and fundamental forms of care: PHC.

CHAPTER 4: Concluding Remarks

The extent to which access to primary health care is arduous in Quebec, and the reasons why this might be the case, should now be clear. By looking at access from both the patients' perspective and the physicians' perspective (or from below and from above), this thesis has allowed us to better appreciate the unique difficulties facing the province. Also, by using two complementary methods, quantitative and qualitative analyses, the various data presented herein were able to complement each other in ways that could not have been possible if only a single method had been used.

Chapter 2 looked at Quebec's situation from a macro perspective using individual-level quantitative data; it was through this lens that the question, "Who *does* have access to a family

physician?", was asked and answered. In a representative sample of adult Quebecers, it was found that factors beyond only health need do in fact affect one's likelihood of having access to primary health care (these are the disparities in Gomes and McGuire's model). Namely, highly vulnerable individuals with very low income (<$20,000/year) are less likely to have a family doctor than those earning more than that amount. This means that despite the putative absence of financial barriers to care under a universal health care system, the poorest of the poor in society still do not obtain equal access for equal need.

Geographical location is also a pivotal factor in one's likelihood of access, such that individuals residing in Montreal were found to be particularly disadvantaged in this respect—even more so than Quebecers residing in distant regions. On this point, the qualitative data—which zoomed in on the case of Montreal and thus adopted a micro perspective—served to fill a gap in the quantitative data. Through in-depth interviews with physicians and medico-administrative personnel, it was discovered that certain Quebec-specific policies, such as PREMs, may actually be responsible for this regional disparity in access. Doctors in Montreal reported having the impression that access to PHC in the regions is being prioritized over access in the city, and the quantitative data presented herein seem to confirm this fact.

Another area of dialogue between the two methods is on the issue of access to routine, preventive primary health care. In chapter 2, through the use the predicted probabilities, it was reassuring to find that Quebecers who need health care the most—that is, the elderly, those living with chronic illnesses, and/or individuals reporting poor self-perceived health—are highly likely to have a family physician, regardless of their income level or region of residence (see Figures 9 and 10). More disconcertingly, however, it was also found that it is the 'average', relatively healthy middle-aged Quebecer seeking access to a family doctor who not only has the most difficulty in doing so, but is also the most vulnerable to the effects of income. On this issue, the qualitative data serve two functions: to both confirm and explain the aforementioned findings. Most doctors interviewed agreed that access to routine PHC is what is currently in lowest supply in Quebec. But it is thanks to our understanding of AMPs that this finding can be put into context. Patients who are older, have chronic diseases, are pregnant, or have just been discharged from hospital, all constitute what is known as 'vulnerable clientele'—a valid AMP choice for doctors looking to satisfy the government's requirements. By law, these patients have a guaranteed right to have a family physician (Agence de la santé et des services sociaux de Montréal, 2008), and this is reflected in the predicted probabilities found in Chapter 2.

The quantitative findings finally conclude with a hypothesis; that the possible associational factor between income and access may in fact be social networks. Here again, the qualitative data come to complement this gap in Chapter 2, by testing the hypothesis directly on the interviewees. Indeed, it was found that social connections are an important means of gaining access to the preciously limited supply of primary health care available in the province, and that individuals with higher income simply tend to be more likely to have the kind of connections that can get them an appointment with a physician. This parallels the relationship found between social networks and occupational status in the literature, whereby the best jobs tend to be obtained through informal connections rather than through formal channels (Lin & Erickson, 2008). The quantitative data also tell us that the effect of income is most important in regions with fewer human resources, such as Montreal (see Figure 7), which can also be understood by examining the PREM system discussed in Chapter 3. What we may have here, then, is an intervening relationship between income and access, whereby social connections, which come with higher socioeconomic status, are what directly lead to having a family doctor in areas where resources are scarce and access is difficult. Better quantitative data on this issue of connections are therefore absolutely crucial, as they will help improve our understanding of the causal relationship between income, social capital, and access to care, which can invariably give us a clearer understanding of how informal methods are being employed to gain access to healthcare in this province.

Chapter 3, on the other hand, brings its own conclusions from the micro-perspective of family physicians in Montreal. Through this approach, it was therefore possible to answer the question, "*Why* is access to PHC so strained in Quebec, and Montreal more specifically"? Throughout the chapter, it became clear that a series of policy decisions made by the provincial government may in fact be to blame for Quebec's access woes. The early retirement plans, decreased medical school admission rates and poor valorisation of family medicine in university, while all very cost-effective, were in fact found to be detrimental to province's supply of physicians. In addition, two policies particular to Quebec, AMPs and PREMs, can explain not only why access is so strained in Montreal, but also why routine PHC is so difficult to come by throughout the province. If nothing else, this study clearly shows how policies can have very real impacts on the health and well-being of a population, and as a result, policymakers should really be more aware of the possible effects of their decisions. If Quebec is hoping to make PHC more accessible, the first place it will have to look is within.

These results therefore make a significant contribution to the extant literature by not only confirming reports that socioeconomic inequities persist in access to care within Canada, but also by finally reconciling the paradox presented at the beginning of this thesis—that is, that over 25% of Quebecers lack a generalist in a province with one of the highest family doctor per capita rates in the country. The thesis also lends support to both the Andersen and Gomes and McGuire models, which respectively predict the factors that affect usage of care and differentiate between disparities and differences in that usage, but I did so by applying the models in a slightly different context; one of *potential* rather than achieved access to care. Finally, the coupling of methodologies and the dual perspective of access from above and below are meant to offer an innovative look at an empirical question which is currently of great importance to many Quebecers and Canadians alike.

Given the main findings of both studies, then, what can be done to improve the plight of those 830,000 Quebecers actively searching for a family physician? As Andersen (1995) points out, this depends on the mutability of the factors which are currently affecting access. While demographic or social structural characteristics (such as race or occupational structures) may be difficult or impossible to change, enabling factors such as income, region of residence and governmental policies regarding access are in fact highly corrigible. Bearing this in mind, let us consider some of the possible ways of ameliorating access to PHC in the province.

Recommendations for change

At the end of Chapter 3, several solutions were proposed in order to address the reasons why access to PHC is so strained. These broadly included increasing the number of physicians dispensing primary health care in the province, making family medicine more attractive to students and practitioners alike, using a system of incentives rather than sanctions to improve the work conditions of family doctors, and finally to adopt a team approach to help satisfy the ever-increasing demands for PHC. In addition, Chapter 2 concluded with the recommendation for more targeted measures designed to specifically address the access needs of low-income Quebecers.

This past October, Quebec's family physician union, the FMOQ, released a "Statement of Principles for a National Family Medicine Policy" (2008), which largely touted the same recommendations for change as were outlined above, albeit independently, since the report followed the completion of the interviews for this study. In it, the FMOQ president deplores the fact that Quebec (or Canada for that matter) lacks a policy making family medicine a priority, as

has been done in other countries such as New Zealand and Australia. Furthermore, the Federation devises a series of recommendations around three major policy axes—training in family medicine, organization of care and remuneration—in hopes of increasing access. Suggestions for improving the appreciation of family medicine include the addition of an assistant-deanship of family medicine in each university to promote the field, the institution of a code of ethics enshrining respect towards the practice of primary health care, an increase in the duration of family medicine rotations in medical schools to two months (instead of one), and finally a heightened involvement of the Federation in universities in order to further promote family medicine as a field of practice. Parallel to the recommendation above for more team-based approaches, the FMOQ also recommends that as a priority, each family doctor be paired with at least one nurse to form a team[43]. The FMOQ also recommends a re-evaluation of AMPs, which they feel encourage doctors to work in secondary, as opposed to primary, health care. It is worthy to note that nowhere does the FMOQ suggest getting rid of the AMP program, unlike some of the respondents interviewed in chapter 3. Instead, it strongly urges the government to consider placing more importance on primary health care activities, without ever sacrificing all-important access to emergency services. Finally, with regards to remuneration, the Fédération requests that in order to formally recognize the complexity of family practice, the remuneration of family physicians should be on par with other generalists across Canada, as well as specialists here in Quebec[44]. In fact, the ratio of specialist earnings in relation to generalists' in Canada is 1.5, a gap which the FMOQ fervently seeks to diminish.

The province could also learn valuable lessons from other countries' successful attempts at improving access to PHC. The UK, for instance, guarantees access to a primary health care *professional* (defined as a GP, practice nurse, or other health professional such as pharmacist) within 1 business day and access to a GP within two business days (Primary Care Wait Time Partnership, et al., 2008). In the US, Starfield and Simpson (1993) recommended providing financial incentives (either in the form of scholarships or loan forgiveness) to students entering family medicine. They also advocated for the use of quality outcome performance targets which

[43] Some are sceptical of this, however. In an opinion-editorial piece, Jean-Robert Sansfaçon correctly points out that there is also a lack of nurses in this province, drawing attention to the larger human resource problem facing Quebec's health care system (2008). One way to make this possible would to attract nurses who have either retired or who work with private placement agencies, precisely because these nurses are already looking for better working conditions (Lévesque 2008).

[44] A similar suggestion was put forth by Starfield and Simpson to diminish the proportion of specialists to generalists in the US (1993).

provide bonuses to doctors who achieve primary health care goals. Australia, in 2008, announced its Primary Health Care Strategy to improve the access and quality of PHC (Australian Government Department of Health and Ageing, 2008). A task force of health experts including GPs, a nurse, allied health professionals, academics, a pharmacist, and a consumer representative has been struck to help the government devise a reform process. This could be an interesting model for Quebec to follow, especially since the Alma-Ata declaration states that "The people have the right and duty to participate individually and collectively in the planning and implementation of their health care" (The World Health Organization, 1978).

One of the main objectives of Australia's PHC reform is that "[a]ll Australians have access to required primary health care services, which are clinically and culturally appropriate to their needs and circumstances, and are delivered in a timely and affordable manner" (Australian Government Department of Health and Ageing, 2008: 14). As the FMOQ points out, however, no such declaration has ever been made by any provincial government in Canada and it is absolutely urgent that this be corrected (2008). One possible reason for the absence of such a statement is the arguably conflicting policy objectives of saving money and providing *everyone* with a family physician. While it is true that supply-side regulation effectively rations the supply of primary health care available to Quebecers, thereby reducing costs, a valid question is whether or not this is the best avenue to take in health policy. My answer is no. Let us not forget that PHC in Canada serves as a gateway to the rest of our healthcare system, and thus restricting access to family doctors can effectively prevent access to more specialized health services (see Figure 2). Beyond this, however, the results presented in Chapter 2 indicate that inequities tend to be more common when scarcity exists, so rationing PHC services may very well lead to even more inequity—something our health care system is designed to prevent. Primary health care has also been shown to reduce other health disparities, improve access to preventive services and can even prevent costly avoidable hospitalizations—all of which is more cost-effective than investing government funds in other types of care that may be highly effective but less efficient (such as secondary care). Finally, we must consider the spirit of the Canada Health Act and the broader Canadian values that are associated with health care. Does rationing access to PHC—deemed as a form of 'essential' health care by the WHO—in order to economize resources jive well with the intentions behind the CHA? I would argue that it does not, and may in fact directly contravene the principle of accessibility.

By creating a provincial policy in full support of primary health care for all, the Quebec government will not only improve access for patients, but reaffirm the importance of the work performed by family doctors, possibly having a trickle-down effect in medical schools where family medicine is currently so under-respected. This may well be the most crucial first step the government can take in redressing the current crisis surrounding PHC—and it cannot be taken soon enough.

Generalizability

Although the scope of this study examined the specific situation of a single Canadian province, there are important characteristics that make this study applicable to other contexts. First, as was mentioned at the end of Chapter 3, many Quebecers not only lack access to PHC, but they also effectively lack a medical home. To access the kind of primary health care that has been defined in this thesis has very much become an individualized responsibility in this province, where it is up to the *patient* to find the resources (time, money, energy and information) necessary in order to secure an appointment with a family physician. Quebecers are thus left fending for themselves, not unlike millions of other individuals across the globe with inadequate access to primary health care.

Secondly, as a result of such difficult access, we saw how individuals can sometimes turn to informal means, such as social connections, in order to get the care they require. This is not uncommon in situations of scarcity, as has been found in certain parts of Eastern Europe and Cuba (Jenkins, 2008; Verdery, 1996).That having been said, however, as the quantitative data show, this raises serious questions about the equity of access to health services, especially in light of the Canada Health Act's promise for "reasonable access to care without financial or other barriers" (*Canada Health Act, R.S. 1985, c.C-6, s.3a*). While it may be true that personal connections are increasingly being used as a global currency to obtain health care, the ensuing possible threats to equity cannot be ignored.

Finally, this is a case study of a universal healthcare system whose findings caution us that universal coverage is not a panacea for access woes. As Ruth Wilson, former president of the College of Family Physicians of Canada has been known to say, universal coverage may *insure* access, but it does not *assure* that it is obtainable. It is perhaps this point which is the most important to take away from the study; Quebec's example shows us that access to primary health care can continue to be difficult, uneven, and stratified based on socioeconomic status, *despite* the absence of financial barriers. And this is especially problematic for primary health

care, since one of the defining characteristics which distinguish it from secondary care, is its accessibility. So while universal coverage may be a fundamental first step towards health for all, this study should caution us that it is by no means a magic bullet.

In closing, it has been over 30 years since world leaders congregated in Alma-Ata to pledge their support for a revolutionary new model of health care that held great promise in its capacity to bring health to all. In 2008, the World Health Report revisited this question of primary health care, citing the need for it 'now more than ever'. In this report, Dr. Margaret Chan, Director-General of the World Health Organization, writes that "It is important to learn from the past and, in looking back, it is clear that we can do better in the future" (2008: ix). Indeed, she is right. If Quebec, or any other health care system, is to fulfil the promises made at Alma-Ata, then we must learn from our current and past mistakes through a self-reflective process such as this one, and strive to improve for the future. Otherwise, primary health care for all will forever remain the best good idea that couldn't.

APPENDIX

Table 8: Descriptive Statistics for the Full Sample of Quebecers Aged 18 Years or Older, Including Missing Values

Variable	Category	%
Having a regular medical doctor	Yes	75.53
	No	24.37
Household Income	($0-$19,999)	10.15
	$20,000-$39,999	19.33
	$40,000-$59,999	18.80
	$60,000-$79,999	14.75
	($80,000+)	22.71
	.	14.27
Education	(< High School)	19.33
	High School	11.99
	Some post-secondary	7.59
	Trade school/CEGEP	33.73
	University degree	23.65
	.	3.71
Self-Perceived Health	(Excellent)	23.15
	Very good	35.43
	Good	30.35
	Fair	8.78
	Poor	2.21
	.	0.08
Chronic diseases	(No)	30.82
	Yes	69.01
	.	0.17
Sex	(Male)	48.98
	Female	51.02
Age in years	(18-30)	22.16
	31-45	28.53
	46-60	27.66
	61+	21.64
Health region of residence	(Montreal)	25.55
	Bas-Saint-Laurent	2.70
	Saguenay-Lac-Saint-Jean	3.61
	Capitale-Nationale	9.00
	La Mauricie/Centre du Québec	6.41
	Estrie	3.95
	Outaouais	4.44
	Abitibi-Témiscamingue	1.84
	Cote-Nord	1.1
	Nord-du-Québec	0.09
	Gaspésie-Iles-de-la-Madeleine	1.27
	Chaudière-Appalaches	5.22
	Laval	4.87
	Lanaudière	5.48
	Laurentides	6.57
	Montérégie	17.9
Location of residence	(Rural)	19.6
	Urban	80.4
Household size (mean)		2.69
Labour status	(Had a job – worked last wk)	55.59
	Has a job – not work last wk	6.02
	No job last week	28.31
	Permanently unable to work	1.51
	.	8.57
Country of birth	(Other)	12.19
	Canada	84.8
	.	3.01
Visible minority status	(White)	88.79
	Other	8.03
	.	3.18
Language	(French)	80.9
	English	9.36
	Other	6.62
	.	3.12
Marital status	(Married)	41.72
	Common-law	21.54
	Widowed	5.66
	Separated	2.36
	Divorced	5.37
	Single	23.33
	.	0.02
Total n	27318	
Reference categories are in parentheses		

Table 9: Odds Ratios Predicting the Likelihood of Having a Regular Medical Doctor in Adult Quebecers (adjusted for sub-health regions within Montreal)

		Odds ratios
Socioeconomic status	**Household Income**	
	($0-$19,999)	
	$20,000-$39,999	1.169
		(.143)
	$40,000-$59,999	1.075
		(.144)
	$60,000-$79,999	1.476*
		(.233)
	($80,000+)	1.627***
		(.244)
	Education	
	(< High School)	
	High School	.807
		(.122)
	Some post-secondary	.914
		(.164)
	Trade school/CEGEP	.780
		(.101)
	University degree	.746*
		(.095)
Control (need) variables	**Self-Perceived Health**	
	(Excellent)	
	Very good	.894
		(.090)
	Good	.838
		(.092)
	Fair	1.118
		(.209)
	Poor	1.560
		(.526)
	Chronic diseases	
	(No)	
	Yes	2.280***
		(.199)
	Sex	
	(Male)	
	Female	2.132***
		(.184)
	Age	
		1.042***
		(.004)
Disparity measures	**Sub-health region of residence**	
	(Côte-des-Neiges, Métro, Parc Extension)	
	La Matapédia	2.265**
		(.702)
	Matane	1.489
		(.425)
	La Mitis	1.721
		(.578)
	Rimouski-Neigette	1.971*
		(.604)
	Les Basques	2.069*
		(.670)
	Rivière-du-Loup	3.087***
		(.988)
	Témiscouata	2.248**
		(.679)
	Kamouraska	4.219***
		(1.335)
	Pierrefonds et Lac Saint-Louis	.786
		(.195)

Lasalle et Vieux Lachine	.938
	(.218)
Verdun/Côte-St-Paul, St-Henri, P. St-Charles	.867
	(.213)
René-Cassin & NDG-Montreal-Ouest	.808
	(.203)
Nord-de-l'Île & Saint-Laurent	.958
	(.258)
Ahuntsic & Montreal-Nord	.758
	(.186)
La Petite Patrie & Villeray	.884
	(.212)
Faubourgs, Plat. Mt-Royal, St-Louis Parc	.757
	(.178)
Saint-Michel & Saint-Léonard	.718
	(.157)
Hochelaga-Maisonn., Oliv-Guimond, Rosemont	.678
	(.155)
Riv-des-Prairies, Mercier, Pte-aux-Trembles	1.030
	(.262)
Laval –East	1.083
	(.236)
Laval - West	1.196
	(.236)
Location of residence	
(Rural)	
Urban	.891
	(.167)
Household size	
	1.020
	(.045)
Country of birth	
(Other)	
Canada	.930
	(.603)
Visible minority status	
(White)	
Other	.862
	(.116)
Language	
(French)	
English	1.435**
	(.176)
Other	1.114
	(.172)
Marital status	
(Married)	
Common-law	.776*
	(.098)
Widowed	.738
	(.219)
Separated	1.033
	(.224)
Divorced	.577***
	(.098)
Single	.812
	(.102)
n	8822

Notes: Robust standard errors are in parentheses below odds ratios
Levels of significance: *p≤0.05, **p≤0.01, ***p≤0.001
The sub-health regions listed are those that had available data and are thus not exhaustive of the whole province (see *n* above).

Table 10: Odds Ratios Predicting the Likelihood of Having a Regular Medical Doctor in Adult Quebecers (excluding those who do not have a family physician because they do not want one)

		Odds ratios
Socioeconomic status	**Household Income**	
	($0-$19,999)	
	$20,000-$39,999	1.271*
		(.125)
	$40,000-$59,999	1.379**
		(.142)
	$60,000-$79,999	1.538***
		(.186)
	($80,000+)	1.370**
		(.156)
	Education	
	(< High School)	
	High School	.934
		(.112)
	Some post-secondary	.896
		(.123)
	Trade school/CEGEP	.954
		(.092)
	University degree	.849
		(.087)
Control (need) variables	**Self-Perceived Health**	
	(Excellent)	
	Very good	.954
		(.075)
	Good	.866
		(.071)
	Fair	1.163
		(.159)
	Poor	1.615
		(.404)
	Chronic diseases	
	(No)	
	Yes	1.840***
		(.121)
	Sex	
	(Male)	
	Female	1.690***
		(.110)
	Age in years	
	(18-30)	
	31-45	1.155
		(.089)
	46-60	2.325***
		(.237)
	61+	5.143***
		(.686)
Disparity measures	**Health region of residence**	
	(Montreal)	
	Bas-Saint-Laurent	1.957***
		(.291)
	Saguenay-Lac-Saint-Jean	2.939***
		(.475)
	Capitale-Nationale	2.428***
		(.368)
	La Mauricie/Ctre du Québec	1.401*
		(.211)
	Estrie	1.803***
		(.299)
	Outaouais	1.256
		(.183)
	Abitibi-Témiscamingue	.746**

	(.107)
Cote-Nord	1.101
	(.145)
Nord-du-Québec	1.889
	(.229)
Gaspésie-Iles-de-la-Madln	1.231
	(.218)
Chaudière-Appalaches	3.451***
	(.626)
Laval	1.265*
	(.151)
Lanaudière	1.359*
	(.21)
Laurentides	1.036
	(.145)
Montérégie	1.418**
	(.163)
Location of residence	
(Rural)	
Urban	.813*
	(.070)
Household size	
	1.075*
	(.036)
Country of birth	
(Other)	
Canada	.946
	(.133)
Visible minority status	
(White)	
Other	.856
	(.117)
Language	
(French)	
English	1.062
	(.118)
Other	.957
	(.158)
Marital status	
(Married)	
Common-law	.781**
	(.075)
Widowed	.911
	(.172)
Separated	1.109
	(.180)
Divorced	.690**
	(.093)
Single	.730**
	(.075)
n	21266

Notes: Robust standard errors are in parentheses below odds ratios
Levels of significance: *p≤0.05, **p≤0.01, ***p≤0.001

REB FILE # 313-0408: CERTIFICATE OF ETHICAL ACCEPTABILITY OF RESEARCH INVOLVING HUMANS

McGill

Research Ethics Board Office
McGill University
1555 Peel Street, 11th floor
Montreal, QC H3A 3L8

Tel: (514) 398-6831
Fax: (514) 398-4644
Ethics website: www.mcgill.ca/researchoffice/compliance/human/

Research Ethics Board I
Certificate of Ethical Acceptability of Research Involving Humans

REB File #: 313-0408

Project Title: Arduous access: the challenges surrounding access to primary care in Montreal, Quebec

Principal Investigator: Tania Jenkins **Department:** Sociology

Status: Master's student **Supervisor:** Prof. A. Quesnel-Vallée

Funding agency and title: N/A

This project was reviewed on May 2, 2008 by

Expedited Review ✓
Full Review ____

Elaine Weiner, Ph.D.
Acting Chair, REB I

Approval Period: May 2, 2008 **to** May 1, 2009

This project was reviewed and approved in accordance with the requirements of the McGill University Policy on the Ethical Conduct of Research Involving Human Subjects and with the Tri-Council Policy Statement: Ethical Conduct For Research Involving Humans

*All research involving human subjects requires review on an annual basis. A Request for Renewal form should be submitted 3-4 weeks before the above expiry date.
*If a project has been completed or terminated and ethics approval is no longer required, a Final Report form must be submitted.
*Should any modification or other unanticipated development occur before the next required review, the REB must be informed and any modification can't be initiated until approval is received.

REB FILE # 313-0408: ETHICS REVIEW RENEWAL REQUEST

McGill University

ETHICS REVIEW
RENEWAL REQUEST/FINAL REPORT

Continuing review of human subject research requires, at a minimum, the submission of an annual status report to the REB. This form must be completed to request renewal of ethics approval. If a renewal is not received before the expiry date, the project is considered no longer approved and no further research activity may be conducted. When a project has been completed, this form can also be used as a Final Report, which is required to properly close a file. To avoid expired approvals and, in the case of funded projects, the freezing of funds, this form should be returned 3-4 weeks before the current approval expires.

REB File #: 313-0408
Project Title: Arduous Access: The Challenges Surrounding Access to Primary Care in Montreal, Quebec
Principal Investigator: Tania Jenkins
Department/Phone/Email: Sociology / 514-806-2761 / tania.jenkins@mail.mcgill.ca
Faculty Supervisor (for student PI): Amélie Quesnel-Vallée / amelie.quesnelvallee@mcgill.ca

1. Were there any significant changes made to this research project that have any ethical implications? ___Yes __X__No
   If yes, describe these changes and append any relevant documents that have been revised.

2. Are there any ethical concerns that arose during the course of this research? ___ Yes _X__ No. If yes, please describe.

3. Have any subjects experienced any adverse events in connection with this research project? ___ Yes _X_ No
   If yes, please describe.

4. __X__ This is a request for renewal of ethics approval.

As the final copy of my thesis is due in June, I would like to extend the approval until such time in case I need to conduct additional interviews.

5. ____ This project is no longer active and ethics approval is no longer required.

6. List all current funding sources for this project and the corresponding project titles **if not exactly the same** as the project title above. Indicate the Principal Investigator of the award if not yourself.

- Social Science and Humanities Research Council of Canada (SSHRC) Internal Graduate Student Research Grant ($1000), 2008-2009;

Principal Investigator Signature: _____ Date: March 16, 2009

Faculty Supervisor Signature: _____ Date: March 18, 2009.
(for student PI)

****NOTE NEW MAILING ADDRESS****
Submit to Lynda McNeil, Research Ethics Officer, 1555 Peel Street, 11th floor, fax: 398-4644 tel:398-6831

(version 12/07)

For Administrative Use **REB:** ____REB-I ____REB-II _____REB-III

____ The closing report of this terminated project has been reviewed and accepted

___/ The continuing review for this project has been reviewed and approved

____ Expedited Review ____ Full Review

Signature of REB Chair or designate: _____ Date: April 8, 2009

Approval Period: May 2, 2009 to Aug 1, 2009

Submit to Lynda McNeil, Research Ethics Officer, McGill University, 1555 Peel Street, 11th floor, Montreal, QC H3A 3L8
tel:514-398-6831 fax: 514-398-4644 email:lynda.mcneil@mcgill.ca (version 02/08)

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