

The geographies of crisis: exploring accessibility to health care in Canada

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<http://cag-acg.ca>**Abstract:***Wednesday January 8, 2014**Week 13*

There is increasing concern in Canada that the health care system is in a state of crisis. It is argued that reductions in federal government transfers to the provinces have resulted in a health care system characterized by under-funding in key areas and policy decisions based more on provincial fiscal concerns than the health needs of their constituents. Provincial governments have responded to reduced levels in federal funding by undertaking aggressive restructuring tactics such as the closure of hospitals and the deinsuring of medical services from provincial health plans. The end result of this restructuring, as argued by the media, consumer groups and indeed some health researchers, is a state of 'crisis' (i.e., lower levels of accessibility, long waiting lists, overcrowding in hospitals and increasing costs of medication). One crisis theme often mentioned is that fiscal decisions of various kinds are reducing economic and geographic accessibility, one of the five principles of the Canada Health Act (CHA) that defines the very essence of the Canadian health care system. Using data from the 1998-99 National Population Health Survey (NPHS), this paper explores the extent to which an accessibility crisis exists within the Canadian health care system by examining access to health care services and the barriers encountered in trying to access services in each of the ten provinces. The results show that approximately 6.0 percent of Canadians report access problems, with values ranging from 4.5 percent in Newfoundland to 8.3 percent in Manitoba. Regional variations in barriers to accessing care were also observed. In particular, geographic accessibility appears to be a main barrier to care in Atlantic Canada while economic accessibility emerges as a main barrier to care in Western Canada. We discuss these findings in the context of the current debates on the Canadian health care system 'crisis'.

Keywords: health care, accessibility, geographies of crisis**Full Text:**

De plus en plus de Canadiens s'inquiètent que leur système de soins de santé soit en état de crise. On défend l'idée selon laquelle la réduction des paiements de transfert aux provinces par le gouvernement fédéral serait responsable de l'état d'un système de santé caractérisé par un sous-financement dans les domaines-clés et des décisions politiques de santé basées, non pas sur les besoins des membres de la société canadienne, mais sur la fiscalité provinciale. Les gouvernements provinciaux ont réagi à la réduction du financement fédéral par une tactique de restructuration agressive (fermeture d'hôpitaux et retrait de services médicaux des programmes d'assurance de santé provinciaux). Selon les médias, les groupes de consommateurs et même les chercheurs en soins de santé, cette restructuration a eu pour effet un système en état de 'crise' (diminution de l'accès aux services, longues listes d'attente, hôpitaux surchargés, augmentation des coûts des médicaments etc.). Un des thèmes récurrent est celui des décisions fiscales de toutes sortes qui entraînent une baisse de l'accessibilité financière et géographique. Cette accessibilité est pourtant un des cinq principes de la Loi canadienne sur la santé définissant l'essence même du système de santé au Canada. Utilisant les données tirées de l'Enquête nationale sur la santé de la population, 1998-99 et examinant l'accès aux services de santé et les obstacles rencontrés dans les 10 provinces canadiennes, cet article évalue dans quelle mesure une crise d'accessibilité existe au sein du système de santé canadien. Les résultats montrent qu'environ 6.0 pour cent des Canadiens ont rencontré des problèmes d'accessibilité, avec des variantes allant de 4.5 pour cent à Terre-Neuve jusqu'à 8.3 pour cent au Manitoba. On observe aussi des variantes régionales dans les obstacles rencontrés. L'accessibilité géographique en particulier semble un obstacle majeur dans les régions de l'Atlantique, alors que l'accessibilité financière semble être un obstacle majeur dans l'Ouest du

Canada. Ces resultats sont presentes dans le contexte des debats actuels sur l'existence d'une 'crise' dans le systeme de sante au Canada.

Mots-cles: Soins de sante, accessibilite, geographies de la crise

Introduction

Human geographers have long been concerned with issues of geographic accessibility. In health geography, access to health care services has consistently been identified as a key theme of research (Mayer 1982; Meade et al. 1988; Rosenberg 1998; Meade and Erickson 2000). Within Canada, accessibility takes on special meaning for geographers in general, health geographers in particular and most critically to all Canadians because of the fifth principle of the 1984 Canada Health Act (CHA).

The CHA is the only piece of Federal legislation that governs health care delivery in the provinces and territories. According to the CHA, all provinces and territories in Canada must abide by five principles in order to receive federal funds: universality; comprehensiveness; portability; public administration; and accessibility. The underlying sentiment of 'accessibility' in the CHA is to ensure access to medically necessary health care services for all Canadians regardless of ability to pay. In fact, the act states that to meet the requirements of accessibility, provincial health insurance plans "must provide for insured health services on uniform terms and conditions and on a basis that does not impede or preclude, either directly or indirectly whether by charges made to insured persons or otherwise, reasonable access to those services by insured persons."

Some researchers have argued that the CHA is unclear in its discussion of what constitutes 'reasonable access' to medically necessary services (e.g., Eyles et al. 1995). However, recently, Health Canada has distinguished between two types of reasonable access--economic and physical (Health Canada 2000). According to Health Canada, economic accessibility refers to the provision of health care services without financial charges, either direct or indirect. Physical access, on the other hand, is "interpreted under the Canada Health Act using the "where and as available" rule. Thus, residents of a province or territory are entitled to have access to insured health care services at the setting "where" the services are provided and "as" the services are available in that setting." (Health Canada 2000, 7).

The provinces and the territories have interpreted the latter part of the accessibility principle to mean that they have a responsibility to provide health services in large cities and small towns, rural areas and remote areas. They do so through various mechanisms ranging from incentives for physicians to locate in underserved areas to telemedicine to programs that subsidize the costs of patients who need to travel to specialized medical facilities found only in the largest cities or even outside of Canada.

Access to health care services is, therefore, an important issue for geographers to consider given its importance in the CHA and the importance that Canada's public, universal and comprehensive health care systems holds in the Canadian psyche. Access to health care services is also an especially salient issue to explore given the current political and social climate in which the future of the health care system in Canada is being debated.

Throughout the 1990s and into the present decade, there is increasing concern that the Canadian health care system is in a state of crisis. One crisis theme often mentioned is that fiscal decisions of various kinds are reducing accessibility as defined by the CHA. While there is much anecdotal evidence of the existence of a crisis, there are few systematic studies to assess whether a crisis exists and what type of crisis is it. Given this gap in our knowledge, using data from the National Population Health Survey (NPHS), this paper explores the extent to which an accessibility crisis exists within the Canadian health care system by examining access to health care services and the barriers encountered in trying to access services in each of the ten provinces.

The next section of this paper sets the context for the analysis to follow by first discussing the rhetoric of crisis as presented in the media and various health reports and second by outlining the framework we employ for examining accessibility to health care services. The third section describes the NPHS data set and the statistical methods employed in this analysis. In the fourth section, we discuss the main research findings that demonstrate most Canadians continue to indicate that their access to health care services in Canada is good. The results also reveal regional variations in barriers to accessing care. In particular, geographic accessibility appears to be a major barrier to care in Atlantic Canada while economic accessibility emerges as a main barrier to care in Western Canada. The final section of the paper situates the findings in the context of the current debates on the Canadian health care system `crisis'.

Geographies of Access

Geographic access to health care services has been and continues to be an important area of research for health geographers (e.g., Rosenberg 1983; Joseph and Phillips 1984; Haynes 1991; Oppong and Hodgson 1994). As early as the 1980s Joseph and Phillips (1984) examined accessibility to health care services from both a spatial and theoretical perspective. In 1988, Rosenberg extended accessibility research further by identifying and distinguishing between geographic and economic accessibility. One of the underlying assumptions of geographic/physical access to services is that people living in regions with more services will have greater access to health care (Rosenberg and Hanlon 1996). In this vein, researchers have focused on access to services within under serviced regions and the impacts of hospital closures on access to care (Anderson and Rosenberg 1990; James 1999).

In the Canadian context, research on access to health care delivery needs to be seen from the perspective of the constitutional responsibility of the provinces and territories vis a vis the federal government. Since the provinces and territories are permitted to establish various health institutions and implement health policies as long as they fulfil the stipulations of the federal Canada Health Act, there exists 13 different provincial/territorial health care systems within Canada. (1)

Access to health care is an especially salient issue when considered in the context of the CHA. The CHA is a unique piece of legislation because it is the only federal health care legislation concerned with geographic and economic accessibility. The primary objective of health care policy as outlined in the CHA 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." Based on the recommendations of the Hall Commission (1980), the spirit and purpose of the CHA is to ensure equality of access to medically necessary services by prohibiting the use of extra-billing and user fees. As such, the underlying sentiment of the CHA is to create an even playing field for accessing services both geographically and economically. As noted earlier, there is also the *de facto* provincial intent to provide reasonable geographic access to health services. By exploring access to health care services in each of the provinces, this paper gives insight into the accessibility to health care services and whether crises of accessibility vary from province to province.

"Crisis! What Crisis?"

Recently, supporters and critics of the Canadian health care system have engaged in numerous debates concerning the viability of the CHA and the extent to which access to health care services, as mandated by the CHA, is being achieved. It is argued that reductions in federal government transfers to the provinces have resulted in a health care system characterized by under-funding in key areas and policy decisions based more on provincial fiscal concerns than the health needs of their constituents. Provincial governments have responded to reduced levels in federal funding by undertaking aggressive restructuring tactics such as the closure of hospitals and the deinsuring of medical services from provincial health plans (Hanlon and Rosenberg 1998; Giacomini 1999; James 1999). The end result of this restructuring, as argued by the media, consumer groups and indeed some health researchers, is a state of crisis (i.e., lower levels of accessibility, long waiting lists,

overcrowding in hospitals and increasing costs of medication) and decreasing confidence in the Canadian health care system.

In its report entitled Health Care, Limited: The Privatization of Medicare, the Canadian Centre for Policy Alternatives (CCPA) argues that the quality and accessibility of the Canadian health care system has been eroded over time (CCPA 2000). Indeed, various reports released by the Fraser Institute argue that increased waiting times for medical services and decreased access to high-tech medical procedures are indicators of a health care crisis (Walker and Wilson 2001).

Newspaper headlines from Canada's two national newspapers as well as various community newspapers sound alarms that our health care system is in a state of crisis: "Government cuts take care out of health care" (North Bay Nugget 2000); "Medical care that's not even fit for a horse" (Globe and Mail 2000); "Single-tier health care system `a Utopian fraud' (National Post 2000); "Health system needs surgery" (Ottawa Citizen 2000); "Radiologists sound health care alarm (Toronto Star 2000).

In addition to health and media reports, public opinion polls conducted by Canadian survey firms reveal that confidence in the health care system is waning and that, in general, Canadians perceive the system to be in a state of crisis. Results from the 1997 Canadian Election Study revealed that 68 percent of individuals surveyed felt that the quality of health care in Canada has worsened in the previous five years (see Table 1). In addition, the study showed that 55 percent of Canadians believed that the quality of health care was much worse than it was five years previously.

IPSOS-Reid reports that 76 percent of Canadians agree that Canada's health care system is in crisis and 78 percent say the quality of care is worse than what it was five years ago (IPSOS-Reid 1999). Similarly, research conducted by EKOS has shown that an increasing proportion of the Canadian population feels that the quality of health care has deteriorated over time. Polls conducted by EKOS in November 1997 revealed that 68 percent of the population felt the quality of health care had deteriorated and this percentage increased to 72 percent in December 1999 (EKOS 2000).

Surveys conducted by the Angus Reid Group in 1991 and 2000 show a substantial decrease in the percentage of Canadians rating the quality of health care in Canada as excellent or very good. In 1991 over 60 percent of Canadians rated the health care system as excellent while in 2000 this figure decreased to 26 percent. Further, results from the 2000 survey reveal that almost 80 percent of Canadians feel that their provincial health care system is in a state of crisis (Angus Reid 2000). Finally, a poll conducted by IpsosReid in 1999 revealed that only 55 percent of Canadians believed that the health care system was living up to the Canada Health Act's principle of accessibility (IpsosReid 1999).

While there is much anecdotal evidence of the existence of a crisis, there are few systematic studies to assess whether a crisis exists and what type of crisis is it. For example, often cited as evidence of a health care crisis, the Fraser Institute's study on waiting times in Canada is actually based on physician perceptions of waiting times, not on the analysis of how much time people actually wait to receive services (Rachlis et al. 2001). While the information provided by opinion polls, and media and health reports is important, they are not necessarily a direct reflection of people's experience with their provincial or territorial health care systems. Opinion polls and media and health reports also say little about the extent to which a crisis varies spatially.

The claims that a crisis exists in Canada's health care system re-opens questions about economic and geographic accessibility. As geographers we are interested in geographic access to health care services. Therefore we focus our research mainly on the issue of geographic accessibility, but we also present some evidence about economic accessibility based on our analysis of the National Population Health Survey (NPHS).

Data and Methods

In contrast to opinion polls that measure people's perceptions and attitudes to the health care system, starting in 1994, Statistics Canada took up the challenge of measuring people's actual health status and utilization of health services across Canada through the National Population Health Survey (NPHS). As measurements of actual health status and utilization of health services, the NPHS provides us with a rich source of data for exploring both the extent to which an accessibility crisis exists within the Canadian health care system and if and how it is manifested spatially from province to province.

The NPHS is a longitudinal household survey conducted every two years by Statistics Canada. Within the NPHS98/99, the third and most recent wave of NPHS that is available, there are two Public Use Microdata Files (PUMF) available: the general file and the health file. The general file contains questions on health, health care utilization, sociodemographic and socioeconomic information for all members of the household. The total sample size of the file is 49,046. The health file contains all of the questions of the general file plus detailed questions for the individual who answered the questions for all members of the household in the general file. The sample size of the health file is 17,244. A third longitudinal file also exists, but can only be accessed through Statistics Canada. While the general file contains less detail than the health file, we use it for the purposes of this paper because it contains more observations.

Since we wish to explore geographic variation in access to health care services and barriers to accessing services in Canada, the NPHS provides the ideal data set for analysing this issue. This is because the NPHS98/99 includes questions designed to measure access to services and barriers encountered in trying to access services (e.g., waiting times and costs).

Specifically, the NPHS asks respondents the following question; "During the past 12 months was there ever a time when you felt you needed health care but you didn't receive it?" A series of follow-up questions were asked to those respondents who indicated that health care was needed but not received. In particular, respondents were asked the following open-ended question; "Thinking of the most recent time, why didn't you get care?" Responses to this question were assigned to one of fourteen pre-coded categories: i) health care not available in area; ii) health care not available when required; iii) waiting time too long; iv) felt it would be inadequate; v) cost; vi) too busy to get care; vii) didn't get around to it; viii) did not know where to get it; ix) transportation problems; x) language problems; xi) personal/family responsibilities; xii) dislikes doctor/afraid; xiii) decided not to seek care; and xiv) other. While the survey contained fourteen possible reasons for not receiving care, we have chosen only five categories to examine accessibility (see Table 2). The NPHS does not provide descriptions of these categories beyond the information included in the first column of Table 2.

In our analysis, geographic accessibility is equated with using 'health care not available in area' and 'transportation problems'. Cost is used to analyse economic accessibility. In addition, the literature suggests that access should also be analysed in terms of the availability of care. Hence, the availability of care is analysed using 'waiting times' and 'health care not available when required'. According to the actual survey document, this last category includes such factors as 'doctor on holidays' and 'inconvenient hours'. A decision was made to focus only on those aged 25 and over and living in the provinces. Children, teenagers and university-aged adults were eliminated from the analysis because it was felt that their ability to access services and their resulting utilization behaviour is very much tied to the decision-making of their parents or legal guardians. The analyses that follow also exclude the Territories due to a decision by Statistics Canada to suppress any information they acquired from respondents living in the Territories. To develop population estimates from PUMF, whatever analyses are carried out must be weighted using weights provided by Statistics Canada. In addition, Statistics Canada demands that only estimates above a certain magnitude may be reported. In the analysis that follows, all of the values presented are either the population estimates or the estimates converted into percentages based on the appropriate national or provincial population aged 25 and over and meet the Statistics Canada criteria for public release (for more details about weighting and the release of population estimates see Statistics Canada 2000).

In the first stage of the analysis we use a series of frequency analyses at the national level to understand access to care for individuals aged 25 years and older. This sets the context for the remainder of the paper, which seeks to explore how access to care and the factors that impede it vary spatially. Then in the second stage, a series of cross-tabulations are conducted for each of the ten provinces that examine: i) if care was not received; ii) the type of care not received; and, iii) reasons for not receiving care.

How access is measured, the definition of need and availability are contested issues in health care research. In their early work on accessibility, Aday and Andersen (1974) argue that access can refer to the availability of services whenever (e.g., waiting times) and wherever (geographic access) they are needed. That is, it is not enough that services exist in a particular place, but individuals must be able to make use of the services at the point in time when they are required. Donabedian (1972) argues that the evaluation of access should focus on whether health care systems correspond with the needs of the population they serve (also see Birch and Abelson 1993). Eyles and colleagues (Birch et al. 1993; Eyles et al. 1993, 1995; Newbold et al. 1994, 1995) produced a series of papers in which need for care is defined as self-assessed health status. In this body of work, if individuals with the poorest self-assessed health have the highest likelihood of utilization then health care systems are argued to have achieved accessibility. While intuitively this makes sense, this method relies on an indirect measure of access that overlooks consumer perceptions of accessibility.

More recent work has incorporated direct measures of accessibility by using self-rated unmet health care needs. For example, using data from the 1996 U.S. Household Survey, Cunningham and Trude (2001) and Hendryx et al. (2002) measure access through two self-assessed evaluations: 1) patients' perceptions of whether they did not get medical care when needed; and, 2) whether they postponed getting medical care when needed. While self-rated measurements are subject to bias (Redelmeier et al. 2001), they are ideal for accessibility studies because they are a direct measurement of access and allow for the evaluation of access in relation to self-assessed need for care.

In essence the NPHS follows the same approach to accessibility as the 1996 U.S. Household Survey. Recognizing the contested meanings of accessibility, availability and need, and the limitations imposed by the very nature of surveys like the NPHS, the analysis that follows is similar in approach as those taken by Cunningham and Trude (2001) and Hendryx et al. (2002).

Results

Table 1
Quality of Health Care over the last five years

Quality of Care	Percentage	Have needs that health care personnel?	Percentage
Better	4.1	Most	35.1
Worse	56.1	A little	44.4
About the same	24.6	Don't know	0.5
Don't know	2.8		

Source: Institute for Social Statistics, 1997

Figure 1 illustrates that only a very small proportion (5.9% or approximately 1.2 million people) of the estimated Canadian population, aged 25 years and older, report not receiving care when needed. Of those respondents, approximately 71 percent report they did not receive care for a physical health problem, while 11 percent report it was for a mental or emotional health problem, 10 percent for an injury and 8 percent a check-up (see Figure 2). In exploring access to care, Figure 3 demonstrates that the most commonly cited reason for not receiving care is waiting times. In addition, 16 percent indicate that health care was not available when required, 11 percent report cost as a barrier to care, while 7 percent felt that care was not available in the area and 2 percent cite transportation problems.

These results suggest that, at the national level, an overwhelming crisis in the health care system does not appear to exist. Only a very small proportion of the Canadian population indicates not

receiving care. While this value may appear to be quite small, as Figure 1 shows, the percentage of the population reporting they did not receive care when needed has been increasing since the NPHS was first conducted in 1994-95. If this pattern holds, it suggests that more and more Canadians will be reporting accessibility problems in the future. In addition, specific barriers to receiving health care exist. In particular, waiting times, cost, and unavailability are the most commonly reasons cited for not receiving care. While this analysis provides an interesting snapshot at the national level, to explore fully the reputed state of crisis, it is necessary to examine access at the provincial level.

Figures 4 to 10 examine access and barriers to health care for each of the ten provinces. Recall that at the national level only 5.9 percent of the estimated population report not receiving care. A slightly different picture emerges at the provincial level. Figure 4 shows that in four of the provinces (Newfoundland, Prince Edward Island, Quebec, and Ontario) a lower percentage of the estimated population report not receiving care relative to the national level while five have higher percentages. In particular, Manitoba has a much higher percentage of the estimated population (8.3%) reporting they did not receive care. Similar to the national picture, within all of the provinces the majority of respondents indicate that they did not receive health care for a physical problem, ranging from a high of 86 percent in PEI to a low of 67 percent in Alberta (see Figure 5).

What emerges at the provincial level of analysis is, first, that geographic accessibility appears to be a major barrier to care in Atlantic Canada, in particular Newfoundland, and in the province of Saskatchewan. Second, economic accessibility emerges as a major barrier to care mainly in Western Canada (i.e., Alberta and British Columbia). Third, unavailability of care, as measured by waiting times, is shown to be a main barrier of care across all of Canada.

While geographic inaccessibility to health care proves to be a barrier to care across Canada, it is especially evident in Saskatchewan and Newfoundland. Figure 6 shows that approximately 14 percent of the non-receivers in Saskatchewan and 13 percent in Newfoundland state they did not receive care because it was not available in their area. This is followed by 12 percent in Prince Edward Island, 10 percent in Manitoba and 9 percent Nova Scotia. In contrast, only 4 percent of respondents in Quebec and 5 percent in Alberta and British Columbia indicate that care was not available in the area. It is worth noting that the list of provinces where the percentage who indicate services are not available is higher than the national figure (7%) are mainly the "have not" provinces, which have historically depended more on the federal government and transfer payments from the "have" provinces to improve the supply of health services.

Slight evidence of geographic inaccessibility surfaces when exploring issues related to transportation. As shown in Figure 7, transportation problems are cited most frequently by respondents in Newfoundland (5%) and Nova Scotia (4%). While these percentages are small, they are much higher than the lows of less than 1 percent in Quebec, British Columbia and Prince Edward Island.

The NPHS includes only one variable in the series of questions that allows us to explore economic accessibility. As illustrated in Figure 8, the majority of respondents who cite economic problems in accessing care live mainly in Alberta and British Columbia. For example, almost 16 percent of the non-receivers living in British Columbia and 14 percent in Alberta state that cost is the reason for not receiving care. This is in contrast to much lower percentages observed in Prince Edward Island (3%), Manitoba (6%) and Nova Scotia (6%).

In terms of the unavailability of care (e.g., inconvenient hours, doctor on holidays) there is variation between the provinces. In particular, almost 30 percent of non-receivers in Nova Scotia and 23 percent of non-receivers in British Columbia report care was not received because it was not available when required. This is compared to lows of 11 percent in Alberta and Prince Edward Island (see Figure 9).

Finally, Figure 10 explores waiting times and accessibility to health care. The results show that, in general, waiting times are a main barrier to care in all of the provinces, but are particularly evident in

Prince Edward Island (33%) and less so in British Columbia (18%) and New Brunswick (18%).

The findings from this analysis demonstrate regional variation in both access to health care services and the factors that impede it. Atlantic and Central Canada have a much lower percentage of their population reporting that they did not receive care relative to the national level and the rest of Canada.

Table 2
Possible reasons for not receiving health care included in the survey (N=79)

Barrier to Receiving Care	Type of Accessibility Barrier
Not available in area	Geographic
Not available after hours (if a doctor on holiday, intervention shown)	Availability
Waiting time too long	Availability
Not a needed or appropriate	Economic
Cost	Economic
Too busy to get care	
Did not get around to it	
Did not know where to go	Geographic
Transportation problems	Geographic
Language problem	
Personal or family responsibility	
Doctor's doctor/other	
Decided not to seek care	
Other reasons	

Regional variations are also evident when exploring barriers to receiving care. In particular, a higher level of the Atlantic population (especially Newfoundland) and those living in Saskatchewan, relative to other regions in Canada, cite problems related to geographic accessibility, such as transportation issues and unavailability of health care in their area as reasons for not receiving care. This may be due to the fact that the majority of health care services in Canada tend to be located in urban settings. As Ng et al. (1999) report, rural Canada has less than half the number of physicians per 1,000 population relative to large urban centers. However, over 50 percent of the population in Atlantic Canada resides in rural areas (Canada 1996), which means that, given the distribution of health care services, the majority of the population living in Atlantic Canada is not located near those services. In fact, research has shown that approximately 7 percent of Canadians who live in rural areas are located more than 25km from a physician (Ng et al. 1999).

In addition to the geographic separation between health care services and the population, Atlantic Canada is also experiencing a net loss of physicians (CIHI 2001). For example, in 2000, all of the Atlantic provinces experienced a net loss of physicians, ranging from a net loss of 3 in PEI to 50 in Newfoundland (CIHI 2001). This is compared to net gains of 50 in British Columbia and 120 in Ontario. A study conducted by Jordan (1998) revealed that 55 percent of the population living in rural, Atlantic Canada, reported a loss of physicians. An absolute loss in physicians coupled with the majority of the population living in under-served areas may account for why Atlantic Canadians report geographic accessibility problems more frequently than the remainder of the Canadian population.

Discussion

On the surface, the findings of this paper appear to contradict much of what has been presented in the media and various health reports. The analysis shows that only a small percentage of Canadians (5.9%) report not having access to health care services when needed. However, one must acknowledge that this figure has been increasing since the 1994-95 NPHS. At the provincial level, these figures range from a low of about 4.5 percent in Newfoundland and Prince Edward Island, to a high of 8 percent in Manitoba. Since the overall numbers reported in the NPHS are quite low, the

existence of a crisis, in terms of accessing health care, as reported in the media and elsewhere is questionable.

While this research does not support the argument that an overwhelming crisis exists, it does demonstrate regional variations in both access to health care and barriers to receiving care. In particular, Atlantic Canadians appear to experience geographic barriers to care, such as transportation problems and the unavailability of health care, more frequently than the population living elsewhere in Canada, with the exception of Saskatchewan. In addition, waiting times impact access to care most frequently in Prince Edward Island, Nova Scotia, Quebec, Manitoba, Saskatchewan and Alberta. Finally, economic barriers to care are experienced mainly by the population living in Alberta and British Columbia.

The NPHS poses a very broad question to respondents in which 'health care' is open to multiple interpretations. For example, a respondent can define health care as a regular check-up, a medical appointment for a specific illness, the use of hospital emergency services, or specialized medical technologies. In this sense, a crisis may exist in accessing hospital or other specialized technologies (Walker and Wilson 2001) or medical services, such as, radiation therapy for cancer treatment (Frketic 2001).

Similarly, the fourteen categories of barriers to care available for analysis in the NPHS are open to a range of interpretations. Each respondent who reported that health care was not received when needed was asked 'Thinking of the most recent time, why didn't you get care?' The answers given by respondents were assigned to one of the fourteen pre-coded categories. These categories are not only very broad but theoretically it is difficult to interpret the direct meaning of each. For example, the category 'cost' could refer to the cost of traveling to a doctor's office to receive care (e.g., bus fare or taxi fare), the opportunity costs involved in missing time from work, or payment for a service not provided under various provincial health plans. In addition, the NPHS survey documentation does not provide an explanation for how responses are assigned to categories. For example, if an individual did not go to their doctor because they could not afford the transportation this response could be coded as 'cost' (economic barrier) or 'transportation' (spatial barrier). One could assume that based on the actual survey question and instructions to interviewers, included in the NPHS documentation, multiple coding is allowed. (2)

In addition, the measures of accessibility included in this paper are based on self-reported access problems and barriers to receiving health care. As such, they are subject to recall bias and may affect the quality of the data (Redelmeier 2001).

It is also the case that the perception of crisis is fuelled by what takes place within provinces at a much more geographically specific scale of analysis. For example, the sense that there is a crisis might be manifested in specific major cities across Canada where emergency departments are overcrowded at specific times of the year (e.g., during winter months of the influenza season).

Closely related to whether the perception of crisis is a function of geographic scale is whether it is also a function of specific events at specific points in time. Most Canadians continue to indicate that they see a general practitioner on an annual basis. For example, 87 percent of respondents in the NPHS reported that they had seen or spoken with a family doctor/general practitioner once in the past twelve months. It may be only when they need to see a specialist or there is an emergency does the issue of access come to their attention. When these experiences are negative, they have a lasting impression on people's minds, which are likely to be reflected in public opinion polls. They are not likely to be reflected in surveys such as the NPHS, which only reflects their specific utilization of health services over the previous 12 months.

If the current climate of fiscal restraint continues or worsens and depending on what kinds of policy decisions are taken by the federal and provincial governments (e.g., delisting and/or the privatization of services), people's patterns of health care utilization will change as access to health services

changes. The general file we used in this analysis demonstrates that the percentage of Canadians reporting access problems has increased since the first NPHS was conducted. The NPHS is the ideal data set for exploring access to health care in the context of current and future political and social climates of health care. In 1994/95 the NPHS interviewed a panel of 17,276 individuals, returned to interview them a second time in 1996/97, a third time in 1998/99 and will continue to follow them every two years until 2015. As more of the longitudinal data become available, the potential for linking changes in accessibility to health care services to policy changes will increase. If more of the people in the longitudinal file, increasingly indicate that they have trouble accessing health care services, then indeed a crisis will exist in the Canadian health care system.

Conclusions

Access is a core concept of human geography and is particularly important to Canadians as they consider the future of their health care system. In this paper, we have reflected upon what accessibility means in the health geography literature, what it means legislatively in the context of the CHA and the perception that access to health care is declining as measured in public opinion polls and the media.

Within this framework of what accessibility means as a geographic concept, legislatively and perceptually, we have used the NPHS to analyze Canadians' access to health services and for those who indicated that they had a problem accessing health services, what factors explained their lack of access. Taking into account the limitations of the NPHS, the results of the analysis suggest that most Canadians continue to enjoy reasonable access to health care services although there is some geographic variation provincially in the percentage of Canadians who indicate a lack of accessibility. There is also geographic variation provincially in the factors that explain why there is a lack of accessibility. These factors reflect both physical and economic access issues, as well as the relative resources of the provinces.

The growing perception that a crisis exists in the Canadian health care system and that it manifests itself in the declining ability of Canadians to get health care services locally and on a timely basis cannot be denied. Perhaps, what this papers does is remind us that there are differences between perceptions and behaviour, and that health geographers and indeed geographers, in general, have an important role to play in exposing those differences in contributing to public policy.

Table 1

Quality of health care over the last five years

Quality of Care	Percentage
Better	4.3
Worse	68.1
About the Same	24.8
Don't Know	2.8

How much has health care worsened?

	Percentage
Much	55.1
A Little	44.1
Don't Know	0.8

SOURCE: (Institute for Social Research, 1997)

Table 2

Possible reasons for not receiving health care included in the