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Articoli/*Articles*

CANADIAN PHYSICIANS: THE STRUGGLE WITH HEALTH REFORM

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SUMMARY

The Canadian health system is now in an era of significant change. Decentralization, the changing role of government, consumer movement and new views on health greatly affect physicians' relationships with patients, consumers and other health professionals, and will determine the governance and mandate of medical associations. While the Canada Health Act requires coverage of all medically necessary health services provided by hospitals and medical practitioners, the understanding of the term medically necessary *appears to be changing to include issues related to financial sustainability and scientific appropriateness. As governments become interventionist in the health care system as a reaction to fiscal imperatives, their traditional role as funder and planner is changing as they begin in a more explicit manner, to manage the health care system and to engage in directly influencing patient management decision-making. These new directions will have a major influence on the practice of medicine in the 21st century.*

In Canada, there is strong public and political support for the basic principles that underlie the health care system. Indeed, for most Canadians, the national public health insurance system is a significant social, cultural and economic achievement[1]. How-

Key words: Decentralization - Government - Consumers- Health Perspectives

ever, because of slow economic growth and increasing health care costs, the capacity of governments to fund the level of health services to which Canadians have become accustomed has become burdensome. As well, there are concerns about access to care, our aging population, our changing values and expectations about health and health care. Over the last five years, Canada has been reforming the organizations designed to provide health services and is making significant changes in the way services are delivered, administered and financed[2]. Physicians in Canada are in the middle of this dynamic and innovative change process.

The purpose of this paper is to assess how the role of physicians has historically evolved in Canada, how the role of physicians has changed because of the significant changes that are now taking place, and to discuss how emerging trends and issues are likely to influence the role of physicians in Canada in the future.

Historical evolution of the role of physicians in the Canadian Health Care System : the Early Years to the End of the 70s

In the early years of this century the delivery of health services was a local affair[3]. The relationship between physicians and their patients was not complicated: patients paid some money or bartered some goods or services in exchange for the physicians' services and medicines. Physicians were the centre of medical work and hospitals were the institution of last resort, a place to die. As it became clear that individuals could not fund all of their health service needs, the public looked for new arrangements to fund services. The vast distances, climate, poor transportation and communication systems contributed to access and service delivery problems. One of the first moves in the field of medical insurance was the enactment by the Province of Saskatchewan in 1916 of the Rural Municipality Act[4]. This act gave authority to rural municipal councils to assess taxes, thus allowing them to pay physicians a retainer fee. The fee was an incentive to attract physicians to settle in sparsely populated areas of Saskatchewan. This initiative became a significant event as it set the stage for a unique program of Municipal Doctor plans that

served the Prairie provinces well for many years. This program also set the stage for a change in the relationship of physicians with their patients. A governmental power came forth to provide financial contributions to physicians so that services could be provided in isolated areas. In a sense, the two-way relationship between physicians and patients changed in that all funding no longer came from patients.

From 1916 to the late 1960s, Canada like most other countries, experienced significant changes in medical practice that were a result of the impact of scientific and clinical advancements and the developments of health insurance[5]. Scientific and clinical medicine came to a full flowering and changed the entire system of providing services. The paradox of the scientific revolution was that it reduced relatively the capacity of the individual physician to meet health care needs and simultaneously vastly increased the capacity of medicine, working interdependently with the rest of the organized health care system[6]. To give full service to patients, family physicians had to make extensive use of hospitals services. Hospitals felt the impact. The once fearsome institution - the hospital, the last resort, had become the centre of scientific medical practice. This was particularly true for the specialist. The trend in most urban hospitals was to provide appointments to specialists and to limit the hospital privileges of the general practitioners. This trend closely followed the growth of medical specialization and the increase in the numbers of professional and technical staff. The specialization of work was regarded as necessary and inevitable; however, it also created problems and became an important root cause of issues during the 80s and 90s, such as the steady rise in hospital costs.

By the 1940s, the necessity for health insurance became apparent. The provincial and federal governments were being pressured to provide leadership and funding. There was some expansion in private health insurance coverage in the 40s and 50s, sponsored in many cases by physician groups; however, the ability of the private sector to finance wide-scale coverage was limited. The influence of returning World War II veterans was strong and many expressed the view: *We and our families had coverage during the war, why not now?*[7]. Canada is a country of

immigrants, and many of those who arrived before the 1960s came from countries where the health concepts of Bismarck and Beveridge were in place. They were therefore accustomed to, and had expectations that, reasonable access to health services would be available.

The first step in the development of comprehensive health services took place in 1943, when the Saskatchewan government enacted North America's first compulsory state sponsored universal hospital insurance program[8]. In 1958, the Federal government followed the Saskatchewan lead and agreed to finance a similar program on a 50-50 cost sharing basis with all the provinces. In 1962, the Saskatchewan government enacted North America's first compulsory state sponsored universal medical care insurance program. After a major dispute between physicians and the provincial government (physicians withdrew services on mass) over the terms and conditions of administering the act, physicians were paid on a fee-for-service basis using an agreed upon schedule of fees negotiated between the medical profession and the provincial government. The dispute became a defining moment because it set the pattern for future issues and disagreements between the provincial governments and physicians. Physicians were allowed to bill over and above the agreed schedule. In 1968, the Federal government again followed the Saskatchewan lead and financed a similar program on a 50-50 cost sharing basis with the provinces. In return, the government's role changed from very limited participation in the physician-patient relationship to one in which government paid for the services delivered. In other words, a three-way relationship developed between physicians, government and patients.

The payments under both national cost sharing agreements were based on a national average, the wealthy provinces receiving from the federal government a lower percentage of their actual costs than the lower income provinces received. In this way, the federal government became a social leveller and standard setter[9]. As a response, provincial governments increased the number of acute care hospitals with the belief that was the best care that could be provided. It is not surprising then that Canadians looked to their governments to help solve the health access, provision and finance problems[10]. This is typical of Canadians for they frequently, as an instinctive response have turned to their governments for collective action.

As medicine became more specialized, the role of funding in the physician and patient relationship became contentious[11]. To reassure the public of their competence and motivation physicians emphasized the self governing aspects of the profession and the long training involved. Their prime role was serving society, patients and science, and this was key to justifying the medical profession's claim to self-regulation. This also provided a justification for market restrictions on other health professionals as necessary to protect the patient's health. In effect, the medical profession committed itself to the separation of clinical practice and financial self-interest. The fee-for-service system was regarded as the foundation to support clinical freedom because a physician and not the government could choose the course of treatment that was in the best interests of the patient and be paid for it.

The claims of practice and empirical realities about professional self-discipline were at odds with themselves. Many studies in the 60s, (Task Force on Health Care Costs, 1969) indicated that the fee-for-service system did influence the volume and kinds of services provided and the professional regulatory regime was at best weak and that it rarely dealt with or ineffectively monitored clinical and financial conflicts. Many studies noted that the fee-for-service was one of the main reasons for the alarming increases in hospital services (Browne, 1970).

As physician controlled health care insurance grew, it appeared as a neutral third party in the doctor-patient relationship. Here, no money changed hands between the doctor and patient, except for a small payment allowed for by extra billing. As a result when patients communicate with their physicians, they communicate almost totally on clinical issues. Private health insurance was promoted to Canadians as a method to remove financial consideration from the care process. However, as the government health care insurance story unfolded it had another side. In the physician-government dispute in Saskatchewan the medical profession expressed great fear of having the insurance system operated and controlled by government because it could

be a vehicle to interfere in clinical freedom by *civil servants*[12]. The medical profession in Canada in the 1970s resisted with a passion any attempt by provincial governments to change methods of payment and initiate changes in the health care system that would influence medical practice. In one sense the leaders of medicine were preparing the profession for what was to happen in the 1990s. However, the concept that clinical judgement should be based as much as possible on scientific knowledge and completely divorced or minimized from financial considerations became a strong belief held by the medical profession and the public in Canada by the end of the 1970s.

In the latter part of the 60s all governments in Canada became concerned with the growth in the health care costs. The federal government became particularly concerned, because it felt that it was required under the cost sharing agreements to pay its share of costs that were decided and generated solely by the provinces; in effect, the federal government had lost control of its portion of the health care bill. After considerable study and debate the federal government arranged with the provincial governments a new cost sharing agreement, the *Established Program Financing Act (EPF) of 1977*, under which the annual federal contribution consisted of a cash contribution and a transfer of personal and corporate income tax points[13]. In effect this was a block grant as it ended the link between federal expenditures and actual health care costs incurred by a province. The ceiling of the block grant increased the controversy and tension between the federal and provincial governments. In short, the federal government could control its contributions simply by holding down the rate of growth in total transfers. As a result, the provinces themselves have had to finance a larger share of health care costs because cost pressures continued.

The 1980s
Canada Health Act

After a great deal of debate with the provincial governments and the medical profession, the federal government passed the *Canada Health Act* in 1984[14]. The Act laid down the five basic principles of how health services would be administered with the provinces.

1. *Comprehensiveness* - requires coverage of all medically necessary health services provided by hospitals and medical practitioners.
2. *Universality* -requires that 100% of the population be insured for health services under uniform terms and conditions.
3. *Portability* - requires that persons who move within Canada receive converage.
4. *Public Administration* - requires that administration must be by a public nonprofit authority and responsible to the provincial government.

Health services funded by a provincial plan under the Act *cannot*, by law, be also funded simultaneously by private insurance companies[15]. High income individuals are prohibited from opting out and seeking private insurance. The outcome is a one tier system of health care for those services covered by the Canada Health Act. Physicians must operate their practices either *all in* or *all out*. They cannot, as in many other countries, be both in for some patients and out for others. It is technically possible for physicians to fully opt out of a provincial plan and practice on a private basis. However, their patients would not have either private or public insurance and as a result this option has not developed.

5. *Accessibility* - requires that there must be reasonable access to insured health services unimpeded either directly or indirectly by charges or other means.

In effect, the provinces agreed to these five conditions to receive funding from the federal government and to end the practice of extra billing by physicians and hospital inpatient and outpatient user charges. A province that decides that its hospitals and/or physicians should use user charges is penalized by the federal government; the total of such charges are deducted from the funds allocated to the province.

Federal and Provincial Health Care Studies

During the 70s and 80s, the federal and provincial governments embarked on a series of major studies to examine the health system. Most of the reports had similar themes and recommendations[16] that converged around the concepts: a) that fundamental principles of the Canada health system, such as

universality were sound and should remain the basis of the health care system, b) that the resources devoted to health care services were sufficient to meet the needs of the population, c) that the great health equation was *not* true, that is, the more that is spent on health services the higher the health status of the population, d) that much of the health care that was provided was ineffective, inappropriate, expensive and not evaluated, e) that the present governance structure and management processes in the health care system were antiquated and obsolete, f) that the importance of preventive and, community-based services and regionalization was emphasized, g) that physicians were a part of a multidisciplinary team, h) that alternative methods of payment should be considered to the fee-for-service system because its built-in incentive to increase services and is an impediment to system delivery innovations and improvement[17], i) that the focus of the health system must be on providing and funding only those services that improve health outcomes, and, j) that many sources of mortality and morbidity are beyond the capability of the conventional health care system and that more extensive interventions are needed by other areas to deal effectively with these issues. The reports indicated that the fiscal realities of Canada required a major reform of the health care system. Despite the effort, very little structural reform took place in the 70s and 80s[18]. Today, a new set of principles is evolving, though not legislated or fully accepted; however, they have been discussed and debated extensively in Canada[19]. (See Table 1.)

1990s - A Period of Major Health Care Reform and Cost Reduction
Health Care Reforms

By 1992, spending on health care services in Canada was approaching 10.1% of its Gross Domestic Product (GDP) (Blomqvist 1994) and governmental deficits were continuing to grow in size. Governments in Canada concluded that the tenure of the existing health care system was no longer viable and a health care affordability crisis existed. Deficit reduction became a major governmental policy priority and governments increased their resolve to make changes, provide reforms and reduce costs. Some reforms initiated since 1992 are listed below.

De-insuring services, using user charges for services not covered by the Canada Health Act.
1. Organizing health services on a regional community basis.
2. Reducing medical school enrollment - 10% reduction (Government of Canada 1991)
3. Modifying fee schedules to change practice patterns, instituting caps on individual physician earnings and experimenting with other payment methods such as capitation and salary.
4. Freezing and cutting public sector wages, salaries and physician fee schedules.
5. Cutting acute care beds, staff positions and converting hospitals into health clinics.
6. Expanding prevention, community services and home care services.
7. Increasing copayments for drugs publicly financed and removing some drugs from formularies.
8. Instituting caps for budgets so that financial risk rests with the provider.

Changes in Federal Transfers to Provinces and Cost Control Crunch

As was noted earlier, the federal cash transfer portion of EPF has over the years been decreasing which has resulted in the provinces bearing more of the risk for increasing health care costs. Many health care analysts have been concerned that federal cash transfers will eventually disappear completely. The British Columbia Royal Commission notes that

> *Because the cash transfer is the only amount shown as an actual federal contribution in the provinces' accounts, its disappearance will have the same effect as the termination of the entire EPF agreement. Long before this point, declining federal EPF cash transfers will call into question the legitimacy of a continuing federal management role in... health care*[20].

The key issue is how will the federal government be able to enforce the principles of the Canada Health Act, when the threat of withdrawing funds for provincial noncompliance will in effect disappear.

Meanwhile the federal government delivered its 1995 budget in which it set up a new transfer regime that folded those programs under EPF and postsecondary education and social assistance into one grant called the Canada Social Transfer[21]. This provides more predictability for the federal government because it is a block grant. The provinces thus will have a wider scope of discretion in allocating resources to health, postsecondary education and social services sectors. The federal Minister of Finance in his 1996 budget said that he would not let the cash transfer portion drop below $11 billion. Recently in the June 1997 federal election the Prime Minister announced that the floor would be raised to $12.5 and that the government would be able to balance the federal budget in 1999. This was a response to public and provincial government pressure to slow down restraint and increase funding to secure services and the federal role. There is also concern how quickly the health care system can respond to cost cuts and still maintain service quality and acceptable access [22].

It is too early to make an assessment that fiscal restraint is over. While the federal government appears to have brought its fiscal affairs under control and eight of the ten provinces have been similarly successful, two of Canada's largest provinces Ontario and Quebec still have major deficits and have major cost restraint programs that will influence their health care systems for at least the next two or three years. However, some preliminary results can be provided. Canada's health expenditures as percentage of GDP peaked in 1992 and 1993 at 10.1%[23]. In 1994 it dropped to 9.7% and is estimated to continue to drop in 1995 to 9.3% and 1996 to 9.1%. While not all of the drop can be attributed to cost constraint measures, it does indicate that the pressure of cost escalation exhibited throughout the 80s and early 90s has abated, and provides some indication of the cost crunch that the Canadain health care system has faced over the last number of years.

Analysis

Physician Representation, Method of Payments and Income levels

Physicians have national and provincial medical associations that represent their political and economic interests. One of the primary activities of the provincial associations is to negotiate the fee schedules with the provincial health ministries[24]. These associations have aggressively defended professional interests and have resisted policy initiatives they consider will hinder economic and clinical freedom. Their activities have contributed to strong and overt government-professional conflict[25]. The physician strikes in the Provinces of Saskatchewan in 1962, Quebec in 1970, and in Ontario in 1986 are some dramatic examples of such conflict. The relationship between the associations and the provincial governments can be characterized as constantly negotiating a stressful agenda.

In Canada fee-for-service has remained the most prevalent method of payment for physicians. Many physicians feel that the fee-for-service method is the only pay method that can fairly fund them for the excessive demands placed on their time by patients and it appeals to their independant spirit (Nestman, 1997). There have been, however, significant concerns as to the continuance of the fee-for-service system. First, it has been regarded as an open-ended payment system in which physicians can decide the mix and volume of services they provide and as a result they have a great deal of discretion determining their own incomes. In the 1990s, provincial government put some restrictions on this flexibility by employing spending caps on individual physician earnings (sometimes by specialty) and negotiated fixed budgets for physicians' services at the provincial level. If physicians individually or in total exceed the limit established, they will absorb all of the overexpenditure themselves. This has lessened the incentive to increase services that the fee-for-service basis provides. A concern is now emerging about what impact the deinsuring of services will have on the growth of services that are provided by physicians on a private basis where the effective control systems are not in place. Second, the current fee schedules have a strong tendency to reward curative medicine at the expense of preventive medicine, such as health education and counselling. Third, the fee-for-service results in a wide variation in physician incomes that has negative results for physician solidarity, and for income negotiation with provincial medical associations and provincial departments of health (Nova

Scotia, 1997). Fourth (Nestman, 1989), when most physicians are paid on a fee-for-service basis, and most other health care professionals are paid on a salary basis and hospitals are funded on a global budget basis, these payment systems have major implications for resource allocation. The level of resources consumed in the patient care process is determined, in large part, by individual physicians. As a result, health service budgets are set implicitly, not explicitly, and this makes the changing of the allocation of health care resources very difficult to achieve, particularly if the changes are being attempted from those outside the medical profession. Physicians, as a group, are not responsible in a line management sense to administrators in Canada, and it is therefore misleading to think of the hospital as a well defined economic entity that is under the control of a single central source, such as the chief executive officer. Physicians are not directly held responsible for costs incurred in the hospital. This situation has a disabling and tension provoking influence on the health system because the financial payment systems are in conflict in terms of their impact on hospital operations. Lastly, the fee-for-service method does not encourage physicians to include in their practice the services of other health professionals, because the cost of including them must come out of their income.

These concerns and others have resulted in many provincial governments considering other methods of payment for physicians. At the provincial level many pilot projects are taking place (CMA News, 1997) and some provinces have released discussion papers that recommend various pay methods (Nova Scotia, 1997). Some common themes coming out of this process are that payment methods should centre on improving the population's health by focusing on improved outcome and evidence-based practices and encouraging physicians to accept responsibility for the health of their patients (Nestman, 1997). In addition the payment system should encourage delivery of care with other health care professionals as team members. The stage has been set for change and only time will tell if major change will come forth.

Physicians in Canada enjoy high incomes compared to other self-employed professionals. For example in 1992 the average

before tax income for self-employed physicians was $133,000, compared to $109,000 for dentists, $96,000 for lawyers, $67,000 for accountants and $38,000 for engineers. The income was five times higher than $25,000 the average salary for workers[26].

Physicians and Acute Care Hospitals

While physicians's fees represent approximately 14.6% of total health care expenditures in 1996,[27] physicians have a significant influence over the other 85.4% of costs incurred in the system. Their influence is particularly extensive in the acute hospital system. Since 1987 and until 1995 one in three hospital beds and one in five hospitals have been closed in Canada (Tully, 1997). (See Table 2). The decline in number of beds is 30%: the number of short-term beds fell to 26.9% or approximately 30,000 and long term beds fell to 35.6% - 21,600. As for hospitals 246 were closed, converted to other uses or amalgamated. This is a drop of 20 per cent. Patient length of stay has also dropped during this period: short term from 9 to 7 days: long term 236 to 153. As a result, the number of beds per 1,000 fell from 6.6 to 4.1. During the same period the number of outpatient visits rose 15% to 38 million. By contrast, in-patient days decreased 17% from 52 million to 43 million. The increase in out-patient visits can linked be to the increases in day and night care programs (visits up 46% by 1994); surgical day care (up 37%) and general and special clinics (up 24%).

The trend in annual operating expenses is also very revealing. From 1987 to 1992 public hospitals' average annual increase in operating expenses (in current dollars) was 8%. However, during the period when cost restraint was taking hold from 1992 to 1995, hospitals experienced a negative annual growth of -2.4% in operating expenses. Even when population growth is allowed for, these trends are significant. This reflects the efforts made by provincial governments to control or reduce hospital expenditures. It is important to note that significant bed and hospital closures have taken place or have been announced since 1995. It seems clear the trend will continue for the time being.

In the 1960s when Canadian Medicare was being introduced, planners predicted an undersupply of physicians[28]. During the 70s

and 80s there was a major expansion in enrollment in medical schools. By 1989 health care analysts became alarmed because medical schools graduated so many physicians that the growth in the supply of physicians was over three times higher than the general population growth during the 1980s[29]. The cut in bed availability and the increase in the number of physicians resulted in a decrease in the number of beds available for the physician pool[30]. By squeezing global budgets, provincial governments were able to tighten the relationships between physicians and bed capacity. Clearly provincial governments chose the policy that had an impact on moderating the increase in hospital costs. However, it did also distort the health system by not dealing with the real issue - the increase in the number of physicians at a faster rate than population growth. In a highly publicized and influential report, Barer and Stoddart[31] suggested that medical school enrollment should be cut and this eventually led to a 10% cut in enrollment in 1993. Please note in Table 3 that for both general/family and specialist practitioners for the period 1982 to 1989 that the physician population ratios were dropping (enriched supply), but by 1990 the ratios stabilized through to 1995. In effect, the growth in the number of physicians is close to population growth. Throughout this time the general/family and specialists ratio was approximately 55% in favour of general/family practitioners.

These trends have significant implications for physicians - that is, the nature and location of their practice, their income, educational needs, personal and professional aspirations. In addition for the community, costs of health care do not necessarily decrease when they are not incurred in institutions. The costs of nursing care, drugs, medical supplies etc., provided by hospitals have to be covered by other institutions or by patients themselves[32]. Data are not yet available to indicate the impact of these trends on physicians and their practices and patients and their families. However, there have been many negative reports in the media and poll results from the public and physicians regarding the pace and extent of reforms. Noteworthy, The National Forum on Health (1997) (a Federally appointed agency comprising eminent scholars and administrative officials) has reported that

there is no evidence that reduced stays in hospital have adversely affected health status or readmission rates

and they noted that recent studies show that several people who continue to use hospitals do not need to be there. This debate will no doubt continue.

In essence, several things are happening in health care reform in Canada[33]. Firstly, the role of the acute care hospital is being redefined and in this process it is being down sized for technical, clinical and organizational reasons. Patients in hospitals are having shorter lengths of stay and are more active during their stay. Secondly, as the role of the hospital changes to an acute care service only, health care is moving to the community. Home care services, out-of-hospital use of diagnostic and treatment technologies and ambulatory care visits are increasing in volume and scope. Surgical procedures that normally involved several days of stay in the hospital are now being performed safely in clinics or physicians' offices. The hospital is significantly changing in terms of its role in the system and the scope and volume of services it offers.

Physician Distribution

Canada is a sparsely populated country. As a result, access to services throughout the country has always been a major concern; in fact, it has been a strong contributing force to the development of the Canadian health insurance program. The system was founded on the principle that *health services should be available to all Canadians wherever they are and whatever their financial means*[34]. As noted above, the growth in the number of physicians practicing in the system has for many years actually exceeded the growth in population. However, this historic growth did not alleviate a geographic maldistribution of physicians throughout the country[35]. The trend has been that new graduates locate in urban areas (overserviced), while residents that live in rural and less urbanized areas (underserviced) continue to experience problems in access to specialized and primary physician care. A significant contributor to this problem is the lack of consensus about what would comprise an optimal physician to population ratio. This is a result of the inability of defining the un-

derlying concepts of need, demand and productivity. These issues make it difficult to indicate with some degree of specificity how many physicians in the various specialities should be working in a given geographic area[36]. A national study of physicians in rural areas and those that recently left rural areas, identified the lack of personal opportunities, morale problems related to long working hours, and insufficient professional support as problems[37]. The difficulties are particularly great for family physicians in rural areas who deal with problems that their counterparts in cities can readily refer to specialists.

Attempts to deal with the distribution problem have only had limited success[38]. One of the major contributors to this problem has been that up until now the current funding systems for physicians have guaranteed payment for their services regardless where they practiced. It has been assumed that competition for patients would by itself provide for an equitable distribution of physician resource within communities. This has not been the case. Provincial health departments have attempted to deal with this issue by providing financial and other incentives to physicians to locate outside the population centres, by financially penalizing physicians for establishing their practices in overdoctored areas, by refusing to provide billing numbers to physicians in over serviced areas and by recruiting foreign physicians to rural areas. Barer and Stoddart suggested several recommendations that would aid in relieving the distribution problem, such as compulsory rural area rotations and the development of residency programs to prepare generalist specialists to serve as rural consultants. Several innovative pilot projects are now in process using telemedicine and the preliminary results are encouraging (Robb, 1997)[39]. The medical associations have, however, been critical of these options because they are perceived as a threat to physician freedom, interfering with a physician's choice of practice locaton.

Physicians and Other Health Care Professionals

Over the last five years there has been a growing recognition of the role health professionals such as midwives, nurse practitioners, physiotherapists etc., play in the delivery of health care

services. Historically, other health care professionals in Canada that have practiced within the medical model have had few areas of clinical decision-making that they can legally practice unless they are under the supervision of a physician. In the 70s and 80s there has been ongoing debate and negotiation between nurses and physicians about what procedures and duties can be appropriately and legally performed by nurses. However, the power to diagnose and prescribe remained with physicians. This is despite the fact that some of the other health professions have clearly defined areas of expertise that are quite distinct from the expertise of physicians. Some health care professionals, such as chiropractors, optometrists, etc., have operated outside the medical model. These professionals each have their own legislation and each can diagnose and treat within a defined legal spectrum of practice. Physicians have no authority over these professionals and do not perform any role in deciding how they practice. However, these professionals are in a constant state of dispute and disagreement with physicians about the boundaries of practice and the efficacy of practices.

So it is obvious that traditional views are, in the 1990's undergoing significant change in Canada. First, nurse practitioners are beginning to play a more significant role in the health care system. The education of nurse practitioners requires an extra 12 months beyond the baccalaureate level in a university setting. Nurse practitioners in northern Canada have worked for decades in primary care settings and have had their own case loads, admitting and discharging patients under their care. They have been licensed to diagnose, prescribe and perform invasive procedures. What is new in the 1990s is that the services of nurse practitioners are now being accepted in southern Canada with legislation that defines their scope of practice[40]. Nonetheless, the increasing reliance on nurse practitioners by health care providers has been strongly criticized by provincial medical associations, which have made the case that nurses should perform their tasks only under the supervision of physicians, again failing to recognize that, as mentioned above, nurse practitioners have practised competently and effectively for decades in northern Canada. Secondly, there is a growing acceptance of the

multidisciplinary team approach to delivery of services both in acute care and community care settings[41]. Health professionals, such as nurses, nurse practitioners, physiotherapists, occupational therapists, speech therapists, dietitians, social workers, etc., are potential members of this team. Often this trend is driven by some physicians themselves, as well as other health professionals. However, a major force in the recognition of other health professions is consumers themselves who expect a wider choice and selection of services. In fact, many practitioners who did not fit into the traditional medical model, such as chiropractors etc., are now in some quarters being recruited to the team because of consumer recognition and selection. Third, the arrival over the last five years of a new category of health professional - midwives - has sent a strong message of the acceptability of other health professionals in the health care scene[42]. Several provinces have developed setup educational programs at the university level for midwifery and legislated self-governing colleges of midwifery.

These changes are not taking place uniformly across Canada. Rather some provinces are taking the lead and moving the agenda along. The force and direction of the changes are strong and it is clear the changes will have a definite impact on physicians.

Regionalization

A key issue in the reform process is whether the new regional governance structure can improve the performance of the health care system[43]. What impact will it have on physician practices? The governance of the regions varies from province to province; members of the regional councils can be either elected, appointed, professional or non professional or a mix of the above. Some provinces have restricted the scope of services administrated by regional agencies to only acute hospitals[44] while others have included a wide spectre of services on the continuum of care[45]. So far physician services, i.e.fee negotiations and payment, have been excluded from the mandate of regional agencies and have remained under the provincial ministry preview[46]. The emerging role of the ministries of health is to provide some specialized services, distribute funding envelopes to

the regions, develop provincial polices and plans, and set standards, evaluate programs and monitor outcomes.

Some provinces (British Columbia, Saskatchewan, and Nova Scotia) have devolved authority from the ministry of health to regional councils which have a clear legal mandate and considerable degree of autonomy [47]. In these provinces the specific changes that will occur will be decided and carried out by the regional bodies. In contrast, New Brunswick has delegated certain managerial functions and plans for the regions to execute and they will be accountable to the ministry of health. The province decided that regional hospital boards will oversee the implementation of their plan as well as day-to-day operations. The Province does give the power to the regional boards to enforce a management plan to regulate the supply and distribution of physicians and nurses.

Comprehensive assessments of these changes have not as yet taken place. Disputes have and will continue to take place about the powers that will be relinquished to the regions. It is clear that accountability for health services as designated by the constitution continues to rest with the provincial government and it will, as a result be unable to elude ultimate responsibility and accountability for the use of resources. Canadian governments have adhered to the concept that a minister of the crown should maintain control of the public purse because he or she is ultimately responsible to parliament for those resources (Nestman, 1989). As a result, the authority regional boards will assume will be dependent on what is delegated by the provincial government.

It is, however, the shift of power to the regions that has raised concerns about the meaning it will have for physicians and their professional associations[48]. While regionalization has decentralized planning, budgeting and delivery of health services to regional bodies it simultaneously has the potential to centralize the planning and delivery of health services at regional levels. The disbanding of hospital boards and the creation of regional boards that closely oversee (and sometimes assume ownership) the operations of hospitals can be regarded as a significant shift to more centralized control. For some physicians the idea that nonmedical people might manage and control the livelihood of

practising physicians is a concern (CMA,1996). For others as long as they have effective participation in regional governance they feel that regionalization can be a positive change.

For provincial governments while they have set up regional bodies to fund and administer regional health systems, they must maintain some overall control of services and standards. For example, if a province has ten regions with each given executive authority to make decisions, it is inevitable that differences will emerge because of the different characteristics of each region. However, there is a need for some uniformity and provincial standard setting. Will this mean that as regionalization evolves, the provinces will be required to introduce strong provincial controls, policies and guidelines and as a result some recentralization will most likely take place? The question for provincial medical associations is how do they arrange their administrative and membership affairs in this changing climate. Traditionally, their major relationships have been with the provincial government regarding issues of policy, fee negotiations, standards etc. If regional bodies assume more power over medical affairs, provincial medical associations will have to respond. An example is the agreement the Saskatchewan Medical Association (SMA) has negotiated with the provincial government[49]. The agreement provides a process for physicians to be involved in regional planning and gives the SMA the right to represent all physicians in clinical practice and becomes their agent for representation with respect to remuneration and terms and conditions of work. The SMA has responded by restructuring their administrative affairs in that SMA districts now match health district boundaries, and each district medical staff association became a subsection of the SMA. This has given the SMA a stronger role as an advocate and representative of physicians; however, it does extend the reach of the SMA to day to day affairs and local issues. It is too early to evaluate the success of provincial medical associations adapting to a regional structure; however, provincial hospital association have had a difficult time adapting to a regional structure in Canada. For physicians this creates an uncertainty as to the future of administrative direction of medical affairs, and for provincial

medical associations it results in a dilemma about how to plan their administrative affairs. This also complicates the negotiating role for the provincial associations. In the past negotiations have always had the difficulty of reconciling the interests of the various specialities into a unified bargaining stance with government. If administration of the payment system is devolved to regions this will add the complexity of not only bargaining by specialty, but also by region.

Physicians and Quality of Care

Through their organized and self-governing professional organization, physicians have had a strong influence on health policy and standard setting in Canada[50]. While provincial governments have the constitutional authority to regulate health providers, they have delegated control over physicians to professional self-governing colleges. The college's mandate is to set and enforce standards for licensure and practice in the public interest. In the last few years governments have made the colleges more accessible and accountable to the public by requiring lay representation on governing councils and by mandating public disclosure of disciplinary proceedings.

Physicians in Canada have taken a lead in developing practice guidelines[51] to ensure that clinical decisions are based on the best available scientific evidence. However, there is a great deal of controversy within the medical profession as to the extent individual physicians should be required to follow or be restrained by the guidelines. At this point practice guidelines are voluntary. Only in a few cases are physician practices subject to review by the professional colleges. Also while there is a strong expectation that physicians will participate in continuing education there are no formal requirements for recertification. Over the last eight years there have been many efforts within the larger health care system to improve the efficiency, effectiveness and efficacy at the micro level, such as, quality improvement,[52] outcome measurement and technology assessment[53]. Efforts have moved from improving administrative and clinical support changes to those processes that improve the direct patient process itself and where professional resistance may be highest.

While governments and health care organizations have been occupied with budget cutting and structural change there are indications that once this phase of reform is over, *quality fine tuning* will be given a higher priority[54].

The Changing Role of the Federal and Provincial Governments and Its Impact on Physicians

Canadians have accepted a strong role for governments and a strong commitment to egalitarianism[55]. This reflects a Canadian acceptance of a central authority to make decisions that are important to the future of the health care system. Canadians would not now be enjoying health service delivery on uniform conditions and terms without the crucial role played by the federal government. The role of the federal government as standard setter and controller must be carefully considered. The greatest threat to the five principles of the Canada Health Act has been decline in federal contributions for health care. The credibility of the federal government's management role in health care is now being challenged. It must make a decision as to whether the level of existing cash transfer is sufficient to allow it to remain an effective administrator of the health system. It is the only government which can establish national standards, and enforce these standards by eliminating its financial support for provinces that attempt to reduce their health care costs by not adhering to the principles of the Canada Health Act[56]. The provinces have a similar decision to make. While many provincial governments have set up regional bodies to administer regional health systems there is a need for uniformity and standard setting at the provincial level. Funds raised by the federal government to provide services under the Canada Health Act are transferred to provinces with the understanding that all citizens are entitled to the same basic services. Will the extent of regional decision making be such that the provinces will feel the need to legislate the principles of the Canada Health Act and play the role of standard setter and controller that the federal government now plays with the provinces? If they do then it can be argued that provincial governments, through regional authorities, will move the arm of government to a more micro management

focus. In other words, for physicians the fear that government will interfere (or manage - depending on one's viewpoint) with health care issues closer to the actual delivery points may become a reality.

One of the major shifts in government strategy in the 1990s has been the shift from open ended funding to global fixed budgets[57]. When physicians increase volume under fixed budgets, they in effect receive a reduced price per unit of service. However, prices cannot be scaled down indefinitely and physicians specifically have tended to maintain income by increasing volume. When the total health care budget is equal to price times quantity of services both components become a focus for cost control review. However, when the option of using the pricing systems as a vehicle to control cost has been curtailed, the focus then shifts to volume and intensity of services[58]. For provincial policy makers the only way they may be able to control health care cost expenditures is to be more active, focused and direct with their actions. The issue then arises as to what level of the system does the government play a stronger role - provincial, regional, or the provider level? The role of government in health care services will undoubtedly have to be determined. Provincial governments have traditionally played the role of payers, not managers, of services. The significance of this shift from provincial governments as a payer of health services to health service manager is immense. In the past provincial governments have exercised their authority on the health care system through global budgets, which had an indirect impact on bed capacity and non physician labour costs. Now governments are taking a more direct approach in, reducing the number entering medical schools, taking over ownership of hospitals through regional authorities, closing hospitals and beds, expanding community care, changing the methods of pay for physicians, restricting billing numbers, utilization controls, developing one point entry systems, promoting generic drugs etc.. It is important to note that this new role, to manage the health care system, is very different from the management of patient care itself at the micro level. When provincial governments use policy tools such as fixed budgets and bed closure, it is next to impossible for them

to influence or impact directly patient management decisions that could provide delivery efficiencies. However, some reforms now being undertaken are starting to engage in directly influencing patient management decision-making. At the centre of this issue is the relationship of the provincial government as a manager, to the physicians and other health care professionals who are responsible for making patient care decisions.

There are several ways that a provincial government can increase its patient management roles in the health care system. One is for physicians to be salaried by the payer or governmental health service organizations. The resulting entity becomes *in charge* as both a system's manager and the patient care manager. There are examples of direct service provision in Canada. Many large teaching hospitals, for example, have now negotiated with some medical staff to move to salary method of payment. Another way is for the government to contract for patient care with health services organizations that includes incentives for efficiencies, such as agreements with physicians and policy makers for developing and enforcing protocols to restrict use, moving physicians to rural areas, encouraging hospitals not to accept certain types of patients, denying or restricting admitting privileges etc. Another example is the health services organizations in Ontario[59] or community health centres in Quebec and Saskatchewan[60] that were developed with the expectation that they would reduce costs and improve quality by using other payment systems such as salary and capitation. Another example is changing who can make patient care decisions. As noted earlier some provinces are now broadening the scope of decision making to include other health care professionals, such as midwives and nurse practitioners. Many of these reforms are being undertaken with a significant degree of resistance from the medical profession[61]. In addition, regionalization of health care budgets has the potential to move management decisions closer to actual delivery. For example, if regional boards use their budget power to contract physicians, other health care providers and hospitals, the distinction between a payer and the provider is blurred - a governmental HMO. Policy initiatives are moving in many directions and there is no common pattern across the

country; however, they do have one component in common; these approaches bring the government management of health care resources closer to the actual patient decision making[62]. Provinces as payers are struggling with the problems of effective management in the context of fixed constrained budgets.

Summary, conclusions and observations

Physicians in Canada have always enjoyed a significant degree of economic and clinical freedom. However, the historical status, dominance and power of the medical profession in Canada is in decline as it is other industrialized countries. The decline involves a loss of influence over the terms and condition of work, levels of remuneration and methods of payment, and health care policy. While the medical professions's historical claim to continue the right to professional self-governance and accountability can be justified based on adherence to the practice of scientific medicine and representing the patient interests without penury gain, such claims in the future will be increasingly challenged by governments, the public and other health professionals. A central challenge comes from the new view of what health is and what makes people healthy. Several Canadian reports, as well as others, have noted that physician services are not the only, and maybe not the most important, determinant to achieving a healthy population (Lalonde, 1974, Meeting of Ministers of Health, 1994). The position of the medical profession within the health care system is being modified by the growth and professional legitimation by governments and the public of the other health care professions, i.e., midwives, nurse practitioners etc. Indeed, the active involvement of governments in the micro management of the medical care system during the reform process regarding cost restraint measures, may only be a precursor to more active involvement in quality management, outcome measurement and evidence based-practice in the future.

As the definition of health has evolved, it has had a major influence on health care management and policy. In the early years, physicians were the centre of attention. The physician was the primary diagnostician and the prescriber, and also the final decision-maker in terms of assessing the appropriateness

of remedies and their impact[63]. By the 1970s the centre of attention changed to health service institutions. Health care institutions became the location where the art and science of health care were practiced by all health professions. In the 1990s a wider health care concept has been accepted. Community-based and more patient-centred care are now being delegated to regional and community levels. The patient (consumer) is becoming an influential decision-maker and the practice of health care is increasingly coming under the scrutiny of outcome measurement, evidence-based practice and practice guidelines. As a result, the management of health has moved from the alleviation of pain and suffering to the provision of care, by a multidisciplinary team using a multidimensional view of health, for patients. This has significant implications for the medical profession. The constant struggle between governments and the medical profession for health care resources will become more complex. Scientific health care knowledge is rapidly diffusing and the medical profession is losing its guildlike control of knowledge. The development of new technology and biomedical knowledge will become more of a driving force in economic development and the primary beneficiaries of the new knowledge will be health care consumers. Traditionally, multinational corporations involved in development of health care technology and services have transferred through the marketplace knowledge to physicians. In the future, multinational corporations will focus less on marketing their new technologies to health professionals and traditional health service organizations and more to independent consumers.

The new views about how health services should be administered and funded, and the arrival of reforms to make them a reality will have a major impact on the practice of medicine. It will fundamentally reverse the traditional stance of medicine that the physician-patient relationship is free of pecuniary interests. The new thrust on the contrary promotes the power of financial mechanisms and incentives to control medical costs by influencing physicians, patients and other health professions[64]. In essence, the new view sees financial mechanisms as a force that should not be resisted, but rather recruited as a proper regulating device to aid the improvement in quality and distribution of

health care resources. For physicians, this means that they must now look beyond the physical and biological sciences to the other determinants of health and the management sciences. The management sciences provide such tools as cost-benefit and cost-effective analysis based on a blend of economics, accounting, statistics, probability decision theory, etc. Decisions by physicians should no longer be based only on clinical grounds, but also on the economic impact they will have on society (The College of Family Physicians, 1995). In essence, the economic consequences of decision making should be honed to influence physician decision making by transferring them into financial incentives based on scientific research, e.g., practice guidelines, evidence-based practice, etc. The financial incentives would encourage physicians to follow the guidelines and patients could then be given the results so that could shop for the highest quality. In effect health services could be reorganized to use scientific knowledge balanced with their impact on costs and efficiency and by that develop a more effective and equitable health care system.

One of the debates in Canada is how physicians will be paid that would allow for these new views. The incentives inherent in the fee-for-service method were primarily to provide more services. Under the new payment methods, operating under fixed global budgets, the incentives are to provide fewer services. The direction of incentive forces is opposite. However, the impact of this change is significant. In effect, this means the system has altered its fundamental sense of how it will deliver services. It has moved from promoting medicine as a profession that will not allow financial interest to dominate patient care decision-making to promoting the view that physicians are subordinate to financial incentives based on evidence-based medicine. There are a number of reasons why this change has taken place. One factor has been the rise of market oriented and lean government thinking[65] as well as the inability of government to control costs that was evident in the 1980s. With these pressures the sanctity of the old physician-patient relationship gave way to a recognition that physician decisions are influenced by financial interests and that the framework that will govern this regime will be evidence-based practice and practice guidelines.

In essence, what is proposed is that the financial incentives and payment system must consider all of the issues that are essential to practice the new scientific medicine. The question that is pertinent here is, has Canada also started to change the definition of the term *medically necessary*? Under the Canada Health Act physicians are required to provide all medically necessary services to patients. Under the emerging system the definition is changed to physicians providing all medically necessary services for the patient that are financially sustainable and scientifically appropriate for society. It is too early to determine if this scenario as described will actually take place. However, the essence of medical decision-making in Canada is evolving in a new direction that will have a major influence on the practice of medicine in the 21st century. There will be a need to study the social, economic, technical, educational, moral and ethical issues involved in this change.

While these comments have a resonance with all physicians, there is a growing recognition that the primary care physicians are going to play a crucial role in the Canadian health care system in the next century. It is they who will be in the front line integrating and coordinating care, responding to the need for personal care and controlling costs. Primary care has a reputation of having too much pressure, too little income, too much paper work and a lot of hassle. This needs to change. It is the primary care physicians who will balance the need for treatment with the need for health promotion and prevention of illness. If primary care providers focus on treatment it will only leave them frustrated with an inability to improve the health of patients they see. Other health care professionals have the expertise to assist in a meaningful and satisfying way as partners in the care process. However, it is the primary care physicians that must acquire the capacities in these new views of health because it is they who will influence the direction of the system and it is they who will be key to getting the rest of the system committed to these values. Emphasis must be placed on the patient-physician relationship and relationships with other members of the team. These relationships may have to be redefined.

The provinces have excluded physicians' services from the regional authorities' scope of authority. In effect, the administration and management of significant interrelated parts of the health system are being administrated by two different levels. This will compound the difficulty of coordination and integration of the delivery of services when in actual fact this was one of the major objectives of health reform. However, it is more difficult to draw physicians into a regional administrative scheme than it is to draw hospitals. Physicians by tradition and custom are regarded as independent private contractors. It was easier for hospitals to be designated to regions. While they were before reform technically independent organizations with boards of trustees, the nature of the funding arrangement with the departments of health means in essence that their operations were closely supervised. For the medical professional there is an element of uncertainty about where the locus of medical administration will be focused, that is, at the provincial or regional level. While this is an important administrative and political question (centralization-decentratizaton) for provincial governments, it is a professional question for the medical profession, because it will impact on central issues to their professional governance, such as the character of self-government, fee negotiations, personnel issues and policy making.

When the health care insurance programs were first developed in Canada, the nature of Canadian society was very much different from that of today. There were shortages of hospitals and physicians and access to care was a major concern. The payment mechanism at the national level was a cost sharing system that allowed provinces to decide the level of expenditures. At the provincial level, physicians were paid on a fee-for service basis and hospitals were on a line-by-line budget at first, then a global budget[66]. The hospital system was in an expansion phase and as a result these systems promoted growth and encouraged productivity. In the mid 70s, the tempo changed when the federal government enacted a block funding to pay for their share of health services to limit their risk in terms of total health care funding. The provinces also had fiscal problems and were concerned that federal action was resulting in the risk for increasing health care costs being shifted to their jurisdictions. The provinces responded with capping physician expenditures and

applying strict limits to global budgets. In effect, as the situation in the country and health care system changed so did the funding methods throughout the system. In a sense, as the needs at the macro level required fixed budgets, a cascading effect resulted. It is in this vortex that survival of the fee-for-service method of payment will either take place or new payment systems will come forth. The pressure for change will be significant. On top of this, fixed budgets are under pressure because they have not encouraged promotion of appropriate care. Since policy makers may be unable to make health care practice improvements through global budget strategies alone, will incentives (financial or others) and regulations be created which will in turn change the authority and role of government as a payer, planner and direct provider? Canada may be entering an era when the downward pressure on cost management will eventually be replaced by a more direct public management of the system. The answer to this question will have direct impact on the role of physicians in the health care system and development of the profession itself.

It is clear that the Canadian health system is now in an era of significant change. The significant reforms initiated are dominated by the concepts of decentralization, the changing role of government, consumer movement and new views on health. The pressure of adjusting the present health care system to one in which community-based services provide a significant portion of services will require a significant reallocation of resources. Health care expenditures are also people's incomes. Resistance has emerged and will continue. The expanding role of medicine in community care will not be similar to an institutional-based practice. New alliances, administrative and clinical patterns will emerge that will influence all the professions. The shift from acute care to community based services represents a shift in health values, such as cure to care, cure to prevention, etc. Because this represents a shift in values, health care planners must be creative in devising methods that are effective, efficient and appropriate for the services delivered. In short, we cannot assume that management systems built for acute care for physicians and hospitals are also appropriate for community based

services. One of the strategies of moving services to the community sector is to shift tasks to a lower cost setting. However, there is a lot of evidence that community resources are not ready or able to assume this responsibility at this time. It will take time and resources to develop this capacity. In Canada, reform is being accompanied by budgetary constraints. Many commentators have indicated that some resources cut in acute care are finding a difficult time being reallocated to the community[67]. In other words, funds are leaving the health system to fight the deficit[68]. For physicians who wish to practice in a community setting, this situation will leave them with uncertainties and opportunities simultaneously. Uncertainties, as to administrative direction and funding, as to roles of physicians and other health professionals, as to the nature and the extent of services availability and as to professional cooperation and interaction, will provide a need for flexibility, vision and leadership. Physicians are amply placed in the health care system to provide these needed attributes. The challenge for the medical profession will be to provide skillful and thoughtful actions.

Despite the increasing challenges to clinical autonomy, status, and economic freedom, medicine in Canada remains and will remain a powerful and prestigious profession. Canadians are not challenging the clinical leadership or the income position of physicians. Rather, they are asking for fundamental changes in how the system operates so that they can be assured that they are getting quality care when they need it. They are asking physicians to be one of the key participators in this process; however, their new found freedom will result in them questioning and debating each step along the reform trail. Physicians and all health professional must listen. One of the tenets of the development of the Canadian health care system was that the impact of changes should be acceptable to the providers and government alike. Now consumer voices will be also heard in a more meaningful way. Mechanisms are needed to increase public accountability so that the public can judge the health care system's performance on an ongoing basis. Health care reform for many health care providers is a struggle. If all health care providers could understand what the Canadian

health care system really is - an expression of the values of compassion and concern for caring for all citizens - the very ideals why they were drawn to the health professions themselves - then the reform process would have more meaning and be more satisfying, and the outcome more successful than ever before.

Table 1
New Emerging Principles

1. Freedom of Choice. The system must provide for more independence for health care consumers and reduce dependence on institutional care and professional services.

2. Responsibility. All citizens practice lifestyles that contribute to their own health. Both consumers and health practitioners are respectively responsible in their use and provision of services.

3. Sense of Ownership - The health system must give local people influence and authority over it.

4. Regional or Local Systems - The services that a health system provides must have a local dimension and direction.

5. Focus on Health - Health care services must focus more on health and less on sickness.

6. Continuity of Care - A health system must be unified so that there are no walls or barriers among the various segments.

7. Professional Team Work - Health care professionals and health care services must be delivered through interdisciplinary teams whose members share responsibility and authority, work interdependently and cooperatively, and whose roles compliment each other.

8. Effectiveness. The health care system must be outcome-oriented.

9. Adaptability - The health care system must be flexible and adapt to changing times and circumstances.

10 Affordability - The health care system must be affordable. It must be streamlined, efficient and effective and must relate to the resources available.

11. Consultation - Those who manage the health care system at every level must consult with their local communities, consumer groups and health care professionals.

Source WHO Midnet Lawrence Nestman (adapted).

Table 2

Canadian Bed Counts
Number of Hospital Bed Decreases and Beds Per 1,000 Population

Province	Number of Hospital Bed Decreases			Beds Per 1,000 Population	
	1986-87	1994-95	Percentage Change	1986-87	1994-95
Newfoundland	3,401	2,753	-19.1	5.9	4.7
Prince Edward Island	755	513	-32.1	5.9	3.8
Nova Scotia	5,705	3,722	-34.8	6.4	4.0
New Brunswick	5,151	3,397	-34.1	7.1	4.5
Quebec	54,741	38,849	-29.0	8.1	5.3
Ontario	51,181	37,303	-27.1	5.4	3.4
Manitoba	6,369	5,527	-13.2	5.8	4.9
Saskatchewan	7,272	4,675	-35.7	7.0	4.6
Alberta	17,990	8,372	-53.5	7.4	3.1
British Columbia	19,466	15,527	-20.2	6.4	4.2
Canada*	172,425	120,774	-30.0	6.6	4.1

*Includes Northwest Territories and Yukon

Source: Statistic Canada - Tully et. al. 1997.

Table 3
Physician Statistics
1982-1995

	General/Family Practitioners			Specialist Practitioners			All Practitioners		General/ Specialists
	Count*	% of Total	Population**	Count*	% of Total	Population**	Total Count*	Population	Ratio
1982	20,355	50.78	1,244	19,726	49.22	1,284	40,081	632	1.03
1983	21,143	51.02	1,210	20,297	48.98	1,260	41,440	617	1.04
1984	21,598	50.94	1,195	20,802	49.06	1,241	42,400	609	1.04
1985	22,789	51.52	1,144	21,441	48.48	1,216	44,230	589	1.06
1986	23,533	51.61	1,120	22,062	48.39	1,195	45,595	578	1.07
1987	24,770	52.07	1,078	22,802	47.93	1,171	47,572	561	1.09
1988	26,079	52.47	1,041	23,627	47.53	1,149	49,706	546	1.10
1989	27,164	52.94	1,015	24,150	47.06	1,141	51,314	537	1.12
1990	27,334	52.73	1,023	24,507	47.27	1,141	51,841	539	1.12
1991	27,929	52.83	1,014	24,934	47.17	1,136	52,863	536	1.12
1992	26,471	52.88	1,009	25,365	47.12	1,133	53,836	534	1.12
1993	29,361	52.23	991	25,794	46.77	1,128	55,155	528	1.14
1994	28,719	52.18	1,024	26,321	47.82	1,117	55,040	534	1.09
1995	28,619	52.03	1,042	26,387	47.97	1,130	55,006	542	1.08

* Excludes semi-retired residents
** Population Per Active Practitioner

Source: Southam Medical Database, Canadian Institute For Health Information
Physicians counts as of December 31st of each year.
Population Based on January 1 of following year, Statistic Canada.

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