UBC CENTRE FOR
HEALTH SERVICES AND
POLICY RESEARCH

A written submission to the

British Columbia Conversation on Health

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Robert G Evans PhD
Kimberlyn McGrail PhD

On behalf of the UBC Centre for Health Services and Policy Research

About CHSPR

Advancing world-class health services and policy research, training and data resources on issues that matter to Canadians

The Centre for Health Services and Policy Research (CHSPR) is an independent research centre based at the University of British Columbia. CHSPR's mission is to advance scientific enquiry into issues of health in population groups, and ways in which health services can best be organized, funded and delivered. Our researchers carry out a diverse program of applied health services and population health research under this agenda. The Centre's work is:

- Independent
- Population based
- Policy relevant
- Interdisciplinary
- Privacy sensitive

CHSPR aims to contribute to the improvement of population health by ensuring our research is relevant to contemporary health policy concerns and by working closely with decision makers to actively translate research findings into policy options. Our researchers are active participants in many policy-making forums and provide advice and assistance to both government and non-government organizations in British Columbia (BC), Canada and abroad.

Funding and Support

CHSPR receives core funding from the BC Ministry of Health, and ongoing support from the University of British Columbia and the UBC College of Health Disciplines. This enables the Centre to focus on research that has a direct role in informing policy and health reform, and facilitates CHSPR's continuing development of the BC Linked Health Database. Our researchers are also funded by competitive external grants from provincial, national and international funding agencies. They include the Canadian Health Services Research Foundation, the Canadian Institutes of Health Research, the Commonwealth Fund, Health Canada, the Michael Smith Foundation for Health Research, and WorkSafeBC.

Data Services: BC Linked Health Data Base

Much of CHSPR's research is made possible through the BC Linked Health Database, a valuable resource of data relating to the encounters of BC residents with various health care and other systems in the province. These data are used in a de-identified form for applied health services and population health research deemed to be in the public interest. CHSPR has developed strict policies and procedures to protect the confidentiality and security of these data holdings and fully complies with all legislative acts governing the protection and use of sensitive information. CHSPR has over 30 years of experience in handling data from the BC Ministry of Health and other professional bodies, and acts as the access point for researchers wishing to use these data for research in the public interest.

Submission Overview

The UBC Centre for Health Services and Policy Research (CHSPR, the Centre) submission to the British Columbia Conversation on Health is intended to provide context and insight into many of the issues raised over the course of the province's one-year public engagement process.

In particular, it provides a synopsis of work conducted at the Centre on issues surrounding sustainability, demographic pressures, health human resources, hospital overcrowding, wait times and private provision of care.

While this submission does voice reservations regarding the initial framing of the Conversation on Health, we remain committed to working with government in order to strengthen health care in the province, and across Canada. This submission is made in that spirit.

Key Points

- The overall health of British Columbians is good, and improving. There is also some evidence to suggest that health inequities between high and low income Canadians are decreasing.
- Public health insurance in British Columbia *is* sustainable. The sustainability of health care spending pattern rests in its relationship to overall revenues, not to total spending. Between 2001/02 and 2005/06, annual increases in health expenditures in British Columbia were about 2% below revenue growth.
- Population aging takes place slowly, and accounts for health care cost increases of about 1% per capita per year. Aging Baby Boomers will increase that rate slightly and a shrinking labour force may decrease rates of economic growth, but these cost factors will remain within our capacity to finance.
- Increases in intensity of servicing and use of health care technologies—not demographic shifts—are the major drivers of cost increases.
- Canada and British Columbia have always had a large component of privately delivered, and privately financed, health care services. An established body of evidence indicates that public financing systems have proven more effective at containing costs than mixed public-private systems. A growing body of evidence indicates that non-profit facilities produce better health outcomes than for-profit facilities.
- Private financing mechanisms—private insurance, user fees, out-of-pocket payment—redistribute the burden of payment from higher to lower income individuals, and from the healthy to the sick.
- The current perception of a shortage of doctors exists even though the supply of physicians per capita has been stable over time.
- There are capacity constraints in acute care, but better management, including increasing community-based services, should be considered as part of the solution.
- While progress has been made—within the public health care system—to address wait times, more needs to be done. Addressing wait times can not be done without also addressing issues of appropriateness of care, and monitoring unintended consequences of increasing capacity for particular procedures.
- Debates over public and private financing of care are, in large part, a result of entrenched ideologies unlikely to be swayed by evidence. Perhaps more importantly, these debates have also distracted the public, the media and policy-makers from issues related to health care management, appropriateness of care, end of life care, the use of technology, and long-term health human resources planning.

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The context

We're healthy. Something must be working

The backdrop to any conversation about health in British Columbia is, or should be, that we are—on average—very healthy. Canadians are among the healthiest people in the world, with average life expectancies below only perennial leaders—Japan, Scandinavian countries, and a handful of others. British Columbians are the healthiest Canadians. If our province were a separate country we, along with Switzerland, would be tied for second place behind Japan. And our overall population health continues to improve.

There are of course significant variations around these averages—as there are in every country. Higher income, higher education and higher social status are everywhere associated with a longer and healthier life, and these gradients are greater in Canada than in a number of European countries. Canadian gradients are, however, much less pronounced than elsewhere in the Americas, and particularly in the United States. There is also some evidence that socioeconomic differences are shrinking over time. Eliminating this 'health-wealth' gradient would have a far greater impact on life expectancy than curing any disease, such as cancer or heart disease.

It is important to keep these facts in mind, because so much of the public discourse on health is in fact about health care, and tends to focus almost exclusively on shortcomings. In the media, 'If it bleeds, it leads.' Good news stories are few, and are primarily about scientific advances that may or may not translate, eventually, into improved health. Meanwhile the health care system goes about its business, day in and day out, contributing to the remarkably good health of British Columbians.

It is also generally understood, though frequently overlooked in the public discourse, that the primary determinants of health lie outside the health care system. Health care has a great deal to do with caring for, and sometimes curing, people who have become ill or injured—it has much less to do with why they became ill or injured in the first place. The provincial Act Now program recognizes this. However, amid the rhetoric of 'obesity epidemics' and various forms of reckless lifestyles, it is important to recognize that British Columbians are, again on average, the fittest people in Canada and well up in the world. We could do better, and next year perhaps we will, but we should not sell ourselves short. We are doing pretty well.

The fiscal sustainability myth: It's the revenues, not spending

British Columbia's Conversation on Health was opened, however, with a focus not on health, nor on health care per se, nor even more narrowly on health care expenditures, but only on provincial government health expenditures. These are large, and growing, as are public expenditures on health in every other high-income country. Assuring value for money for these large expenditures is a demanding task for all governments, everywhere, and is a perfectly proper focus for public debate. But focusing on dollars alone can never answer the central question of whether British Columbians are, in fact, receiving value for money. We spend a great deal—what benefits do we receive in return?

Unfortunately, the Conversation opened amid assertions that provincial government expenditures on health were 'unsustainable'—absorbing a steadily increasing share of the provincial government budget and crowding out other important (and potentially health-enhancing) public programs. Recent, short-term and atypical trends were extrapolated in order to create the illusion that health care spending could eat up virtually all of the province's public resources within a medium-term future.

Restoring sustainability would require restraining the growth of public spending on health to a stable share of the provincial budget. This, it was asserted, would require radical changes in present patterns of health care financing. Strongly hinted, if not always explicitly stated, was that these changes would involve not only cost containment, but also a shift of costs from public to private budgets—increased user fees and expanded private insurance.

This initial framing of the Conversation was unfortunate, because the allegations of unsustainability were incorrect and misleading. There is no crisis of 'unsustainability' in public health care in British Columbia or anywhere else in Canada. The initial framing of the Conversation was based on a misreading of provincial fiscal data. How did the framers of the Conversation go so badly wrong?

All budgets have two sides, revenue and expenditure. They need not match, and in British Columbia have moved in very different directions over the last decade. References to the provincial budget in the Conversation on Health focused exclusively on the expenditure side and ignored the revenue side. Yet the test of sustainability of spending patterns on any particular item—for governments, corporations or households—is their relationship to overall revenues, not to total spending. Is health spending taking up a steadily increasing share of provincial revenues? No.

Table 1 presents provincial government revenues and expenditures for 2000/01 to 2005/06 as reported in Finance Canada's Fiscal Reference Tables: Table 26, combined with provincial government expenditures on health for the corresponding calendar years as reported by the Canadian Institute for Health Information (CIHI).

The present government took power in British Columbia in 2001/02. Between then and 2005/06, provincial government health spending rose by 19%, from $10.1 billion to $12 billion (average growth of 4.4% per year). This was indeed much faster than growth in total program expenditures, which grew only 6.1%, from $28.9 billion to $30.7 billion (or 1.5% per year). Net of health spending increases, there was essentially no growth in other program spending. Health spending did increase its share of provincial program spending.

But over the same period, provincial own-source revenues rose by 22%, from $24.7 billion to $30.2 billion, or an average of 5.1% per year. Total provincial revenues rose even faster, by 6.4% per year, because federal transfers increased substantially during this period. Health expenditure growth was thus about 2% a year below total revenue growth during these four years.

There is of course more to the story. Virtually the first official act of the newly elected Liberal government in 2001 was to bring in a substantial cut in income tax rates. Finance Canada estimates that this cut reduced provincial own-source revenues by about $2.3 billion. Combined with a slow-down in British Columbia's economy, this reduced revenues from $26.7 billion in 2000/01—just above pro-

Table 1: Provincial government revenues and expenditures *(000,000)*, 2000/01 to 2005/06

Finance Canada's Fiscal Reference Tables: Table 26, combined with provincial government expenditures on health as reported by the Canadian Institute for Health Information.

	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
REVENUES						
Own source revenues	$26,699	$24,700	$23,836	$25,543	$28,141	$30,161
Federal cash transfers	$3,284	$3,320	$3,823	$3,619	$5,222	$5,786
Total revenues	$29,983	$28,020	$27,659	$29,162	$33,363	$35,947
Change in revenues, year to year		-6.55%	-1.29%	5.43%	14.41%	7.75%
EXPENDITURES						
Total program expenditures	$26,378	$28,941	$27,864	$27,915	$28,373	$30,705
Debt charges	$2,050	$1,727	$2,532	$2,438	$2,294	$2,182
Total expenditures	$28,428	$30,668	$30,396	$30,353	$30,667	$32,887
Other	-$52	$1,464				
Change in expenditures, year to year		7.88%	-0.89%	-0.14%	1.03%	7.24%
Deficit (-) or surplus	**$1,503**	**-$1,184**	**-$2,737**	**-$1,191**	**$2,696**	**$3,060**
HEALTH SPENDING						
BC government health spending	$9,165	$10,118	$10,764	$11,181	$11,433	$12,017
Change in health spending, year to year		10.41%	6.38%	3.87%	2.26%	5.11%

gram spending of $26.4 billion—to $24.7 billion and a shortfall of $4.2 billion in 2001/02. The overall budgetary position—after accounting for federal transfers, debt charges and a one-time accounting adjustment for "joint trusteeship of pension plans" (Finance Canada, notes to Fiscal Reference Table 26)—shifted from a surplus of $1.5 billion to a deficit of $1.2 billion.

The government took strong action to restore its fiscal position, actually cutting program expenditures by 3.7% in 2002/03 and then freezing them for the next two years. Keeping in mind that population growth in British Columbia averages a little over 1% per year, and inflation was running at between 2% and 2.5% per year, the expenditure cut amounted to roughly 7% per capita, adjusted for inflation, in a single year. This draconian action was then followed by two years of virtually zero growth, with no allowance for a growing population and inflation.

The severity of the program spending cuts is somewhat masked by the fact that the deficit of 2001/02 resulted in a jump of nearly 50% in provincial debt servicing charges. Total provincial government expenditures thus fell by less than 1% in 2002/03. In effect, about $800 million in additional interest costs were paid by making cuts to program spending.

The impact of the tax cuts at the beginning of 2001/02 rippled through provincial budgets for the next four years. By 2005/06, however, the cuts and freezes to expenditure had restored substantial and growing surpluses, assisted by increased federal transfers and slowly falling debt charges. Program expenditures were again growing—faster than health spending in that year. A particularly turbulent period in British Columbia's budgetary history seems to be over.

Regardless of the merits (or lack thereof) of the 2001/02 tax cut, the fiscal pattern is clear. Tax cuts led to deficit, deficit led to expenditure cuts, and expenditure cuts restored a surplus. The expenditure cuts were significantly greater for public programs other than health, with the result that health spending rose relative to other program spending. But it did not rise relative to total provincial government revenues. Those revenues, apart from the one-time impact of the tax cuts, have been rising in line with, or slightly faster than, the overall provincial domestic product.

The longer-run trends in provincial government revenues and expenditures, as reported by Finance Canada and CIHI, are shown in ***Figures 1*** and ***2***. (The break in the graph reflects government accounting changes; figures for 1999/2000 and before are not precisely comparable to those for later years.) Finance Canada estimates of what provincial revenues and deficits would have been in the absence of the 2001/02 rate cuts are included as separate lines, although provincial expenditures have not been adjusted downwards for the lower debt charges that would have resulted. The turbulence, and the wholly atypical nature of the period after those cuts, is unfortunately reflected in the confusion of these lines.

So there is no sustainability crisis in British Columbia health care. The dramatic rise in the health care share of program spending was a consequence of a one-time adjustment in expenditure patterns necessitated by tax cuts and a political commitment to a balanced budget. There is no need for further expenditure cuts, unless the provincial government chooses to initiate another major cut in tax rates. If anything was unsustainable, it was the continuing *decline* in (inflation adjusted) per capita public expenditures of the early 2000s. Furthermore, an analysis of national and aggregate provincial revenue and expenditure patterns (Evans, 2005, 2007) shows that public health care is just as sustainable across Canada as it is in British Columbia.

Figure 1: BC provincial fiscal data, 1984/85 to 2005/06

Finance Canada.

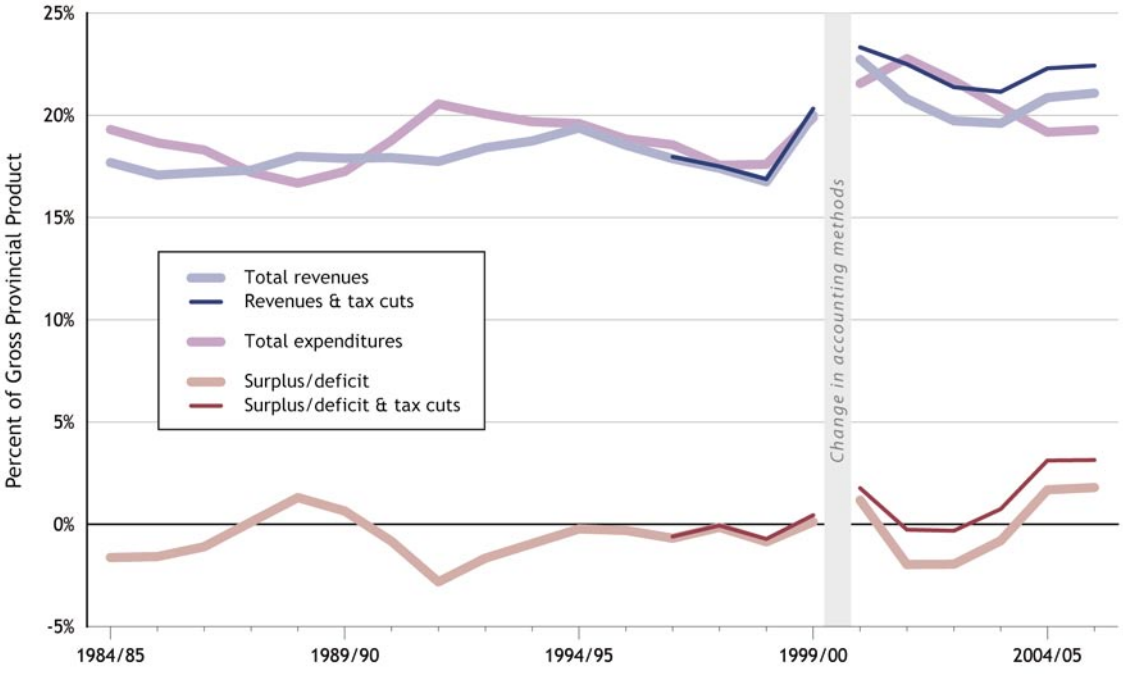
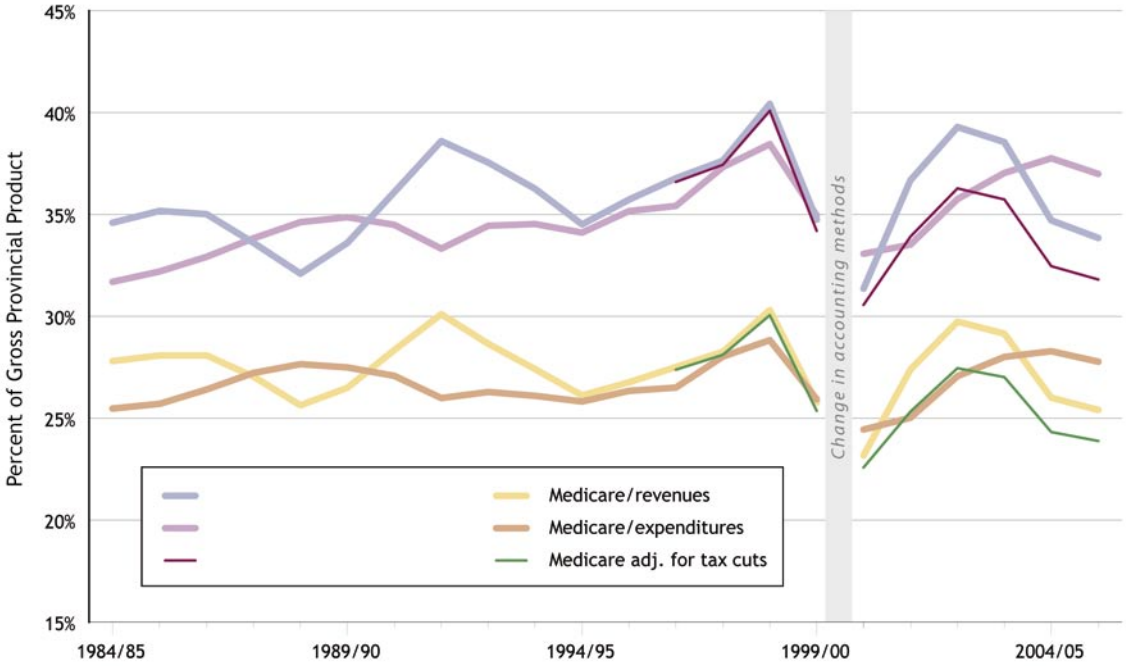


Figure 2: BC, health care and the provincial budget, 1984/85 to 2005/06

Finance Canada, Canadian Institute for Health Information.



The rhetoric of 'unsustainability' of pubic expenditures on health seems to have a peculiar currency in Canada. Steven Lewis pointed this out in his keynote address to the International Symposium on Health Innovation—sponsored by the Conversation on Health. (June 19-20, 2007) The term, and the concern, are virtually non-existent in other high-income countries—countries where the public sector typically covers a larger share of health expenditures than in Canada, and where overall health spending takes up a similar share of national income.

There is one major exception to this sustainability story, and it is the exception that proves the rule. Pharmaceutical expenditures all over Canada have been rising rapidly—significantly faster than in the rest of the health care sector—and are taking up an increasing share of national income and of public sector resources. But pharmaceuticals are not covered under Medicare—their funding is split between public funds, private insurance, and out-of-pocket payments. This pattern parallels the American pattern of health care funding, and yields the same uncontrollable cost escalation one finds in the American health care system generally. Medicare, by contrast, was designed on the European model of universal, single-payer coverage and generates the same relative stability of costs relative to national income.

The health care system may present a great many problems in British Columbia, in Canada and in other high-income countries, but lack of fiscal capacity is not one of them. Why we, alone among high-income countries, continue to give this spurious issue a prominent place in public discussions about health care is an interesting, but different, question.

The myths: A zombie jamboree

Over the past 20 years, the UBC Centre for Health Services and Policy Research has been involved in a broad range of research, always with a focus on issues with currency for policy-makers. It turns out that those issues can be summarized in a few broad categories, and that the categories have been pretty constant over time. In some cases research evolves—the changing dynamics of work patterns among physicians, for example, is not yet well understood, but it is clear there must be something fueling the feeling that there is a doctor shortage. In other cases, issues become zombies—impossible to resolve permanently, even with the best research evidence.

Apocalyptic demography

A perpetual myth that clouds conversations about health care is that of the *Grey Tsunami*. A combination of low birth rates and rising life expectancies has resulted in a steady increase in the average age of the Canadian population, and this will accelerate as the Baby Boom generation crosses into old age. This is true, and inevitable. It is also correct that older people, on average use more health care and generate more expenditures than younger people. It follows that, all else being equal, an aging population will generate increasing use and costs per capita. All of this is true.

The myth arises from the presumption that this process explains the past escalation of health care costs, and that a future acceleration will make public health care unsustainable. The argument is logically flawed and empirically erroneous.

First, there is no Grey Tsunami. Population aging takes place slowly. A number of studies of its impact have been done in different jurisdictions, including several at CHSPR with British Columbia data. All show that population aging can account for increases of only about 1% per capita per year in health care costs—much smaller than past increases and smaller than average rates of economic growth.[1,2,3,4] Aging Baby Boomers will increase that rate slightly, and the shrinking labour force may lower rates of economic growth, but demography-generated cost escalation will remain within our growing financing capacity.

All studies show that it is the increased servicing, particularly of the elderly[5], that accounts for the lion's share of cost escalation, and this is virtually certain to be as true in the future as it has been in the past. Sustaining the care of an aging population at any given level of intensity is not, and will not be, a fiscal problem. What is a major issue is the appropriateness and effectiveness of the increasingly intensive servicing that is being offered to, and accepted by, patients.

The logical flaw in the Grey Tsunami argument is its focus on public financing of health care. Why should cost escalation be a reason for shifting costs from public to private budgets? Do health care costs become more sustainable if paid by patients themselves, rather than from public budgets? If costs are rising because more people are receiving more effective health care, and their health is being maintained or improved, is that not an entirely appropriate way of spending public funds? And if costs are rising because of increasing levels of inappropriate or over-priced care, why does that become more acceptable if the costs are shifted to patients? The real objective is, or should be, achieving greater value for money, full stop. All the evidence indicates that this is better achieved—though far from perfectly—through public financing.

High users of health care

Lurking behind arguments connecting the unsustainability of cost escalation with the public-private financing mix, is almost always some presumption that significant amounts of care are being used by people who knowingly use 'frivolous' care, simply because it is 'free' (at point of service). But this is false. Studies of actual use patterns, including several in British Columbia, show that care is heavily concentrated on a small number of people, people who are in fact quite ill. They are typically elderly and/or chronically ill, and suffering from several different illnesses–co-morbidities. [6,7]

These realities do not establish that all the care these patients receive is appropriate—there is some reason to believe that it may not be. But they are in fact quite ill. Any notion that cost escalation is driven by the 'frivolous' use of care by people who should know better is a myth. Greater value for money will require improving the effectiveness of care for the chronically ill with multiple co-morbidities, through better application of evidence on what works and what does not. Shifting costs from the public to patients will simply penalize the sick financially, adding to the burden of illness itself.

The increases in intensity of servicing that are the major drivers of cost escalation have several sources. One of these is changes in formal or informal clinical guidelines, changes that can significantly redefine the proportion of the population in need of treatment. Similarly, expanded diagnostic capacity and use leads to the discovery of an increasing degree of clinical abnormality that is treatable, but that treatment may have little or no impact on health.

If clinical guidelines could be rigorously rooted in evidence from clinical trials, and were in fact closely followed by clinicians, they could be a powerful tool for improving value for money. But when clinical guidelines are significantly influenced by current practice and convention (or worse, by manufacturers of drugs or testing equipment) rather than trial evidence, they can become a floor from which clinical practice expands. With rare and highly publicized exceptions, growth in servicing intensity is being driven not by patients asking for more interventions, but by physicians recommending them. The majority of these recommendations are undoubtedly based on the belief that patients will benefit, but these beliefs—and particularly their extension—too often lack a secure evidentiary base.

One of the strongest supports for this concern comes from the documentation of geographic variations in clinical practice. Large variations in how, and how intensely, patients are treated for particular conditions have been observed for years, and increasingly sophisticated methods have been developed for ruling out the hypothesis that these variations correspond to differences in patient needs. Health atlases, like those developed and updated at CHSPR, are a primary tool for identifying these variations in capacity, use and patient outcomes.

A principal focus for efforts to improve the effectiveness of care, particularly for the chronically ill with multiple co-morbidities, has been the restructuring and strengthening of primary care. It is widely accepted, on the basis of good supporting evidence, that a strong and well-coordinated primary care system both improves patient outcomes and saves costs. Canada (and the United States) lag behind other high-income countries in the development of modern systems of primary care. Researchers at CHSPR have been closely involved in the development of new models. [8,9,10,11]

The puzzling physician shortage

It is now generally accepted, at least in public discussions, that Canada faces a serious shortage of physicians. What is not widely recalled is that this consensus arose quite suddenly in the early 1990s, after an equally widespread consensus that Canada was suffering from an expensive doctor glut. Also missing from the public discourse is the fact that since 1990, there has been little or no change in the actual supply of physicians per capita. The steady supply of physicians, which was previously a surplus, is now suddenly a shortage.

CHSPR researchers have been tracking these twists and turns for many years, and now have underway a major project funded by the Canadian Institutes of Health Research to document what has happened to levels and patterns of physician workloads in British Columbia. [3, 12]

Preliminary observations are that average annual days of work per physician in British Columbia have fallen significantly over the last decade. Yet billings per physician after adjusting for fee increases—the usual measure of productivity—have risen. Earlier work at CHSPR showed that these increases in fee-adjusted billing rates were primarily concentrated among specialists. There has been little change among general practitioners.

There is evidence from Manitoba that billing activity has been falling among cohorts of younger doctors, and rising among older doctors. This would suggest trouble ahead. National data on annual hours of work indicate that physician hours of work, while still above average for the workforce as a whole, have been falling, and falling for males as well as females. In fact, contrary to common belief, the increasing number of female doctors has had some impact on average hours of work, but this is dominated by changes in male work patterns.

The current CHSPR project focuses on billings, not hours of work, but promises to provide, within a year, a much more fine-grained picture of what has been happening to patterns of servicing, by region, specialty and age of physician, and age and sex of patient. Aggregates can be quite deceptive, concealing the underlying dynamics.

A less puzzling nursing shortage

It is also widely accepted that Canada suffers from a shortage of nurses, and here the dynamics are better understood. In the first place, the expansion of the hospital sector in the 1960s and 1970s brought in a large cohort now reaching retirement—often early, because nursing is physically demanding. There is thus a 'bulge' of nurses who are now late in career and must somehow be replaced.

But there are two other factors. The fiscal problems of Canadian governments—federal and provincial—in the early 1990s led to significant reductions in the level of federal transfers to the provinces, and reductions in public spending at both levels of government followed. For the health care sector, this translated into minimal increases in hospital expenditures throughout the 1990s, and actual reductions between 1993 and 1996. Hospital spending per capita in 2000 was only 8.4% greater than in 1991. General inflation over this nine-year period was 18.7%, implying that hospital budgets per capita in real-spending-power terms, fell by 8.7% across Canada.

This period of sustained contraction was reflected in reduced purchases of capital equipment, and reductions in new hiring. Newly trained—younger—nurses could not get jobs, or when they could, they were part time or casual. Many trained nurses left the field, and have not come back. There is thus a gap in the age distribution of the nurse workforce—the younger people who were not hired in the 1990s are not there to replace the retirees of this decade. A doctoral thesis by Marco Vujicic, working with CHSPR, demonstrated that this factor provides a better explanation for current shortages than do inadequate wages or working conditions. Nurses did not walk away from nursing. They were pushed out by shrinking hospital budgets.

When the money again started to flow, a second factor became apparent. It takes time to train new people. But nursing associations have successfully lobbied provincial governments to raise the standards for entry to practice to the BSN level. If nurse training requires four years, not two, it takes twice as many training places to graduate a given annual number of nurses. Provincial governments are trying in various ways to work around the bottleneck imposed by the changes in entry-to-practice requirements.

So the nursing shortage, unlike the physician shortage, is readily explicable in terms of specific policy changes, in financing and in training requirements, superimposed on an obvious demographic pattern. It reflects the lack of any coherent and forward-looking human resources policies at the provincial, let alone national, level. The short-term responses have been for wealthier provinces to try to recruit from the less wealthy—an obviously ineffective national policy—and to import foreign-trained nurses. If Canadians want self-sufficiency, however, that will require entry-to-practice and training requirements that are based more on evidence than on professional aspirations. Or a lot more money for nursing schools.[13]

Over crowding: Patients in the corridors

Decreases in hospital expenditures during the 1990s not only affected nursing levels but also led to a reduction in the number of acute care inpatient beds. This decline continued a trend that started in the late 1960s, but by the 1990s there were claims that the system had finally gone too far: More cuts to acute care were going to have dire consequences for patient care and the health of the population.[14, 15] The decrease in acute care beds was real, but over the same time period, the use of day surgery was increasing quite dramatically. The benefits of providing services to patients on a day surgery or outpatient basis had been known for decades–both to patients who are in most cases happy to minimize their time in hospital, and to the system, which could avoid unnecessary overnight stays. But it took a fiscal crisis, strangulation of hospital budgets, to force substantial changes in the way services were delivered.

Researchers at CHSPR and other centres, including the Manitoba Centre for Health Policy, studied the effects of acute care downsizing and have generally found no major impact on the health of the population. People are going into acute care less often, and their stays in hospital tend to be shorter, but concerns that the impact might be more heavily felt by certain populations (such as lower income groups) did not materialize. And the population did not suffer by any measure of health outcome, such as 30-day mortality or rates of hospital readmission.

How is this possible? For one, the acute care system began to deal with the many patients who were admitted to acute care and stayed for months at a time. These individuals required some level of care, but in most cases required services that were far less intense than those provided in acute care.[16] The capacity constraint in acute care led to shorter hospitals stays, better identification of when patients were ready to be transferred to other types of care, and better integration with long-term care facilities.

None of this dismisses arguments that acute care capacity may now be too constrained—that the system will not be there when people need it. Media stories point to strained hospital resources as the root of over-crowding in emergency rooms; there are not enough places to put people who need to be admitted to hospital and moved to an inpatient acute care bed. This argument may be true in areas where population growth rates are high. In other cases, however, research suggests that better management of resources can help ease these problems. Immunizing elderly people in nursing homes can reduce hospital admissions for the flu and pneumonia. Adjusting staff vacation schedules and elective surgeries can accommodate expected peaks in ER and acute care use. Analysis of hospital use has shown that these peaks in use are quite regular, and thus predictable.

Another concern is that downsizing in acute care has opened a backdoor to increased private health care costs. People who used to be cared for in acute care now have shorter stays, are treated via day surgery or not admitted in the first place. This can create a burden on family members and friends who have to pick up the slack left by a retreating health care system. These are real concerns, but if these patients do not require the intensity of service offered in acute inpatient care, then the answer does not lie in re-opening capacity in hospitals or clinics, public or private. Instead, the focus should be on providing community services that can help maintain people in their homes and provide respite to family members who are providing care. CHSPR is working on a research project on home and community care in cooperation with the British Columbia Ministry of Health and the province's health authorities. This project will look at changes in the profile of people who use home health care services, over time, as well as changes in how they use other parts of the health care system, including physicians and hospitals.

Finally, even though there is far less use of acute care services than previously, there are still wide geographic variations in use, and these variations do not always correlate with the health needs of a given community.[17] Why does place of residence have such a strong influence on the type of care individuals receive? Natural geography may play a role in British Columbia, since people who live in rural and remote areas of the province may be admitted more frequently simply because there is no other option. But regional variations are greater than these considerations can explain, and this is an area of research that deserves further investigation.

Wait times

Long waiting lists for high-profile procedures such as hip and knee replacements and cataract surgery have caught the attention of the media, public and governments. People can wait many months, in some cases more than a year, for surgery that could have an enormous impact on their quality of life. Replacement of a painful knee can improve or reinstate basic mobility, reduce or even eliminate constant pain, and can allow patients to return to long-abandoned activities. Removal of a cataract can have similarly dramatic effects, allowing people to retain (or regain) their independence.

There is little debate that long waits are unacceptable for these types of procedures. There is less agreement regarding what to do about it. Some researchers describe waiting lists as a function of a funnel and spout–wait times depend both on how many people are told that they need a service (the funnel) and how many people are regularly receiving it (the spout). Increasing capacity for one service can increase the size of the spout, but without other changes, may make the spout for another service smaller. At the same time, increasing capacity can cause physicians to refer more patients for that service, thereby increasing the size of the funnel. If both of these occur, more people may well be receiving the service, but wait times may not be affected at all, or may even increase.

A mix of all of these factors appears to be affecting wait times. The federal government has provided additional funding for provinces to address wait times for selected procedures, and recent reports suggest that these initiatives have had some positive effects. At the same time, there is some suggestion that wait times for other procedures have been affected–collateral damage.

But what is really happening when capacity increases (the funnel gets bigger) and more and more people are being referred for a particular service? Why are these people being referred? Are physicians who previously shied away from necessary procedures due to interminable waiting lists simply restoring balance? Or are the characteristics of typical patients referred for the particular procedure changing as well? A study done by CHSPR researchers suggests that the latter is an important factor. The study looked at patients before and after cataract surgery, concentrating on the acuity of their vision.[18] It found that as the number of cataract surgeries increased, the level of vision loss at which people were referred for service decreased–people were less impaired when they had their cataract removed. Furthermore, a substantial number of people were actually worse off after their surgery than before.

It is impossible to talk about wait times without talking about appropriateness of care. Who should be receiving services? How long should they wait? Appropriate queuing, appropriate wait times, and uniform patient assessment criteria regardless of geographic location, are all issues that were addressed by the Western Canada Wait List Project.[19, 20, 21] One of the early and fundamental things that this work pointed out was the abysmal state of affairs for data collection around waiting lists. Waiting lists were often physician-specific, rather than organized by institution or region. There were no standard criteria for how and when people were added to wait lists. There was no standard for assessing who should be referred for service. These things are getting better, but there is still a long way to go.

More promising are innovative solutions that appear to be supplying increased levels of service, while generating fewer unintended side effects in other parts of the health care system. Improving efficiency and ensuring appropriateness and equity of care need to be front and centre as this work continues. Knee-jerk reactions to throw more money at the system in the hope of increasing throughput will not remove the problem.

Private is better. Or is it?

CHSPR researchers have long been involved in research around the role of the private and public sectors in health care.[22, 23, 24, 25] When talking about this, it is important to separate issues of financing (whether the money that goes into the health care system comes from private or public sources) from issues of funding (differences in public and private providers of service).

Delivery of services

Canada and British Columbia have always had a large component of private delivery of health care services. Physicians operate as private businesses. Hospitals are public, but are not owned or operated by provincial governments, as they might be in other health care systems (for example the United Kingdom). Another critical distinction in health care delivery, however, is for-profit versus non-profit. Hospitals are not-for-profit providers, and physicians, while private, have significant motivations other than profit. In contrast to this, there is a mix of non-profit and for-profit nursing homes in British Columbia, home care services are provided by both for-profit and non-profit providers, and the pharmaceutical industry is entirely for-profit.

A growing body of research evidence suggests that the profit status of health care providers does make a difference in the type and quality of care provided. The case of pharmaceuticals is pretty straightforward: pharmaceutical companies are interested in securing long patents on their products, in marketing those products to physicians and directly to consumers, and in ensuring that branded products (rather than cheaper but therapeutically equivalent alternatives) are prescribed wherever possible. The combined affect of these strategies is to drive costs in this sector of the health care system steadily upward without necessarily achieving an offsetting health benefit.[26, 27, 28] CHSPR researchers recently were awarded a Canadian Institutes of Health Research-funded project grant to assess the return on investment from this increasing expenditure on pharmaceuticals.

Other researchers have analyzed data from studies that compared outcomes at non-profit and for-profit hospitals. Their conclusion? Non-profit facilities produce better outcomes—and this is after controlling for differences in the type and complexity of patients cared for in these different hospitals.

Owners of private, freestanding surgical clinics argue that the profit motive encourages more efficient, lower cost supply of surgical services. But here the evidence is at best inconclusive. The problem is that private facilities tend to provide a limited range of services to generally healthy patients. A for-profit facility has incentive to select the patients that are most profitable. They avoid the more complex and expensive cases—elderly patients with multiple co-morbidities—and leave these to public hospitals.

The for-profit facility will appear to be more efficient, but its lower costs may simply reflect the selection of lower-cost cases. The specialized facility also has the advantage that operating room schedules do not have to be disrupted by emergency cases or unexpectedly time-consuming procedures. It may well be entirely appropriate that the more complex and costly procedures are referred to hospitals, where the back-up facilities are available. But it is entirely inappropriate to compare the relative costs of procedures in the two settings as if they corresponded to equivalent workloads. Furthermore, the

establishing specialized facilities to serve the 'cheap and cheerful' could perfectly well be done, and in some cases has been, within the public system. This approach has no necessary connection to private, for-profit delivery.

CHSPR researchers have compared outcomes for patients in non-profit and for-profit nursing homes and found similar results. [24, 29, 30] Patients in for-profit facilities are more likely to be transferred to acute care for conditions that are often considered to be preventable– for example falls and fractures. While the complete picture is more complex (not all types of non-profit facilities performed equally), in no case did for-profit care produce better results.

Non-profit facilities also provide a higher average number of hours of direct patient care than for-profit facilities. American researchers have made a direct connection between staffing hours and patient outcomes, to the point that there are now standards of minimum staffing levels for nursing homes in the United States. There is also a public, online reporting system that allows patients and their families to look at the performance of individual nursing homes.

Financing of services

There is a long history of research on public versus private financing regarding the mix of sources of financing on the distribution of burden of payment, as well as on the distribution of service use. There are five broad potential sources of funds to support any health care system: direct taxation (e.g. income taxes), indirect taxation (e.g. consumption taxes), social insurance, private insurance and out of pocket payments. Health care systems employ different mixes of these financing methods.

Health care systems that rely more heavily on direct taxes as a source of finance tend to be more progressive, meaning that people with higher incomes pay a higher proportion of their income to support the health care system. This is true because income and other direct taxes are usually designed to be progressive, with tax rates being a direct (and non-linear) function of income levels. Indirect taxes, such as consumption taxes, tend to be regressive, with a greater (proportionate) burden of payment falling on lower income individuals. Indirect taxes tend to consume a greater portion of income at the lower end of the income scale—a direct result of the fact that these taxes are often levied on non-discretionary goods. These goods are purchased out of necessity by poor and rich alike, but obviously account for a greater share of the disposable income of those less well off. Out-of-pocket payments tend to be the most regressive form of health care finance because payments represent a much larger proportion of the income of lower income individuals. A higher proportion of poor people have poor health, which makes the impact even more pronounced.

The health care system in British Columbia is financed by a mix of direct taxation (including income taxes and premiums), indirect taxation (federal and provincial sales taxes) private insurance, and out-of-pocket payments. Physician and hospital services are covered almost entirely by the first two sources—which in British Columbia turn out to be more or less proportionate to incomes. [31] Pharmaceutical sector financing is quite regressive—as one would expect, since about half of British Columbia's drug bill is financed by out-of-pocket payments or private insurance.[32] The relatively high proportion of private payment for home and nursing home sectors would suggest that financing for these sectors is also regressive.

Advocates for various forms of out-of-pocket payment tend to disregard these distributional effects, while claiming that direct payments by users encourage patients ('consumers') to make more careful choices in their use of health care. This, it is argued, leads to lower overall costs, and a more effective use of services. The evidence refutes the latter claim, and provides no support for the former.

The classic study of user fees, the Rand Health Insurance Experiment from nearly two decades ago, showed that people required to pay greater user charges did decrease their use of health care services. But equally clearly, those reductions were of both (professionally judged) necessary and unnecessary care. Patients could not selectively reduce their use of less appropriate forms of care. Other studies of user fees for pharmaceuticals have shown similar results.

A large body of evidence has emerged, over the last 15 years, from a long and still growing series of European studies of the distribution of financial burdens and care use in different member states or the European Community. These indicate that equity in care use (defined as equal access for equal need) is better achieved in systems that have greater equity in financing. Less reliance on out-of-pocket payment–the principal determinant of regressivity of financial burdens–is associated with greater equity of access. Inequitable financing systems generate inequity of access, which is certainly intuitively plausible. In principle these two different dimensions of equity could be separated—in practice they are not.

Values, choices, ideology and interests

The accumulated evidence makes it clear. The interminable public-private debate arises from conflicts of ideology and economic interest, conflicts that are real and permanent, and so cannot be resolved by the accumulation of fact or the refinement of argument. Private financing mechanisms do not result in more appropriate patterns of care use, and private delivery systems do not yield more efficient or more effective care. There is evidence on both counts, and it is negative.

What private financing mechanisms actually do—as compared with public financing—is redistribute the burden of payment from higher to lower income individuals, and from the healthy to the sick.[33] At the same time, they improve the relative access of those with higher incomes. This in itself is sufficient explanation for the continuing advocacy of more private financing—which tends to come predominantly from organizations representing upper-income groups. But these conflicting economic interests tend to be paralleled by differences in ideology or values.

The public system rests on a fundamental value–-that health care should be available to Canadians on the basis of need, and should be financed on the basis of ability to pay. Those values are widely, but not universally, shared. The competing ideology that would base access on ability and willingness to pay does tend to be concentrated among those with greater ability to pay.

A consequence of these conflicts in values and economic issues is that the real and important issues of health care management tend to be overlaid by the public-private lens. Discussion is further distorted by the fact that all expenditures are by definition equal to someone's income. Public financing systems have proven more effective at containing costs than have mixed public-private systems. Provider representatives accordingly advocate more private payment as a way to increase, or at least protect, their incomes against the (relatively effective) constraints of single-source funding. For their part, the preferred answer to all health care issues is never better management, but more money–-which automatically becomes increased income.

All health care systems present problems of cost-containment and value for money. But this real issue has been converted into a fallacious claim of unsustainability to which the answer offered is not better mechanisms for cost control but a shift of costs from public to private budgets. No one's income is threatened, indeed new income opportunities may be opened, but the re-distribution of access and of cost burdens will favour the healthy and wealthy.

The supply of human resources and the length of waiting lists, are likewise very real issues. But they are issues that have been, or should have been, obvious for years. Time, attention and energy that might have been devoted to working out solutions has instead been squandered in public-private arguments. 'Turf protection' by professional associations has been allowed to block efforts to find genuine solutions through streamlining surgical throughputs, restructuring primary care, or rationalizing nursing education. Nearly 20 yeas ago, the British Columbia Royal Commission on Health Care and Costs declared bluntly that the health care system needed "More management, not more money". But the echo came back, then as now: "More money." And calls for more private money links the interests of providers with those of the healthy and wealthy.

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Resources

Determinants of Health

Healthier Societies: From Analysis to Action.
Heymann J, Hertzman C, Barer ML, Evans RG (editors)
New York: Oxford University Press; 2006.
Extensive research has shown that social factors are as important as biological ones in determining health, and their impact is enormous in both adults and children. The challenge of changing public policies and programs remains. Healthier Societies: From Analysis to Action addresses the fundamental questions which will lead the way toward countries investing seriously in improving social conditions, as a way of improving population health. The book is divided into three parts. Section one addresses to what extent health is determined by biological factors, by social factors, and more fundamentally, by the interaction between the two. Section two examines four case studies that demonstrate the ways in which social change can dramatically affect adults' health, as well as launch children's lives onto healthy trajectories. This section analyzes the cases of nutrition, working conditions, social inequalities, and geographic disparities. The third section of the book takes a serious look at what would be involved in translating the research findings described throughout the book into action.

Determinants of Health: Impact on Health and Social Policy.
Cardiff K, Green C, McGrail K and Wood L
Summary of the 11th Annual CHSPR Health Policy Conference; 1998 November 6; Vancouver, BC. Vancouver (BC): Centre for Health Services and Policy Research; February 1999.
Our understanding of the importance to a population's health of individual, family, and community factors has grown considerably over the past decade. This conference highlighted recent research advances in some of these areas --early childhood and workplace experiences in particular. The morning session began with an overview of the historical trajectory through which we have arrived at our current understandings about the determinants of health. Clyde Hertzman and Robert Evans discussed where the term 'determinants of health' came from and how the term has been used and misused. The issues and agendas of various stakeholder groups were addressed and the distributional implications, related to consideration of the determinants of health in the formulation of health and social policy, were examined. Following this the morning panel focused on new understandings of how the determinants of health influence our health status throughout our lifetimes. Dan Offord covered the effects of early childhood experience on health and John Frank described the issues related to the work environment and health. Cameron Mustard highlighted the utility of using linked records to improve health system performance, inform public policy and enhance understanding of population health. The afternoon panel session drew from the perspectives of policy-makers and practitioners, including Shaun Peck (B.C. Ministry of Health) and David Dodge (Health Canada). Margaret McGregor discussed the implications of new understandings of health determinants for clinical policy and practice.

The Case for an Early Childhood Development Strategy.
Hertzman C
Canadian Journal of Policy Research. 2000 Autumn;1(2):11-18.
Prenatal and early childhood experiences have a more powerful and longlasting effect on subsequent health, well-being and competence than had been previously thought. The new evidence supporting this claim is rich in implications for policy in Canada. The evidence on this connection between childrens' early experiences and lifelong health, well-being and competence is summarized, and it is shown how our knowledge regarding the determinants of healthy child development can be translated into generic policy strategies. This knowledge base is starting to affect policy in Canada in a number of positive ways.

Demographic Pressures

Apocalypse No: Population Aging and the Future of Health Care Systems.
Evans RG, McGrail KM, Morgan SG, Barer ML, Hertzman C
Canadian Journal on Aging. 2001;20(suppl. 1):160-191.
Illness increases with age. All else equal, an older population has greater needs for health care. This logic has led to dire predictions of skyrocketing costs--'apocalyptic demography'. Yet numerous studies have shown that aging effects are relatively small, and all else is not equal. Cost projections rest on specific assumptions about trends in age- specific morbidity and health care use that are far from self-evident. Sharply contrasting assumptions, for example, are made by Fries, who foresees a 'compression of morbidity' and falling needs. Long term trends in health care use in British Columbia show minimal effects of population aging, but major effects, up and down, from changes in age- specific use patterns. Why then is the demographic apocalypse story so persistent, despite numerous contrary studies? It serves identifiable economic interests.

Avalanche or Glacier? Health Care and the Demographic Rhetoric.
Barer ML, Evans RG, Hertzman C
Vancouver (BC): Centre for Health Services and Policy Research; 1995. Note: A revised version of this paper was published in the Canadian Journal on Aging. 1995;14(2):193-224.
The rhetoric asserts that current demographic trends explain much of the recent health care cost 'explosion', and that the worst is yet to come. The reality, as reflected in a steadily accumulating collection of research studies, is that to date the effects of aging on health care costs have been quite limited, accounting for only a small proportion of the observed escalation. Future effects, while not inconsequential, will appear gradually, and will be within the capacity of historical rates of economic growth. The reality is that the forces driving health care costs have little to do with demographics and are largely within our control. But why have claims that population aging will bankrupt our system persisted? Claims that the health care system is being engulfed in a wave of grey appear to arise in three ways: 'compression of time frame', 'selection of sub-population', and 'observation of patients'.

Growing Old Together: The Influence of Population and Workforce Aging on Supply and Use of Family Physicians.
Watson D, Reid RJ, Roos NP, Heppner P
Canadian Journal on Aging. 2005 June;24(suppl 1):37-45.
Canadians have expressed concern that access to a family physician (FP) has declined precipitously. Yet FP-topopulation ratios remained relatively stable over the last decade, and there were perceptions of physician surpluses, at least in urban centres, 10 years ago. We evaluated whether demographic changes among patients and FPs, and in the volume of care received and provided over the period, contribute to this paradox. Given the relationship between age and FP use in fiscal year 1991/1992, an aging population should have been associated with a 2 per cent increase in visits by 2000/2001. Likewise, given the relationship between FP age and workloads in 1991/1992, an aging workforce should have been associated with a 12 per cent increase in service provision a decade later. Yet visit rates and average FP workloads remained unchanged. There was an increase in age-specific rates of FP use among older adults and a decline in rates among the young, and an increase in age-specific workloads such that older FPs provided many more services than their predecessors (30%) and younger FPs provided many fewer (20%). In terms of impact on future requirements for FPs, both changes in age-specific rates of use, and changes in age-specific patterns of FP productivity, trump population aging as key drivers.

Prescription Drug Expenditures and Population Demographics.
Morgan SG
Health Services Research. 2006 April;41(2):411-428.
This report provides detailed demographic profiles of prescription drug utilization and expenditures in order to isolate the impact of demographic change from other factors that affect drug expenditure trends. Data Sources/Study Setting: Demographic information and drug utilization data were extracted for virtually the entire British Columbia (BC) population of 1996 and 2002. All residents had public medical and hospital insurance; however their drug coverage resembled the mix of private and public insurance in the United States. Per capita drug expenditures increased at an average annual rate of 10.8 per cent between 1996 and 2002. Population aging explained 1.0 points of this annual rate of expenditure growth; the balance was attributable to rising age/sex-specific drug expenditures. Relatively little of the observed increase in drug expenditures in BC could be attributed to demographic change. Most of the expenditure increase stemmed from the age/sex-specific quantity and type of drugs purchased. The sustainability of drug spending therefore depends not on outside forces but on decisions made by policy-makers, prescribers, and patients.

Booming Prescription Drug Expenditure: A Population-Based Analysis of Age Dynamics.
Morgan SG
Medical Care. 2005 October;43(10):996-1008.
Prescription drug expenditures in North America have nearly doubled in the past 5 years, creating intense pressure for all public and private benefits managers and policymakers. This study describes age-specific drug expenditure trends from 1996 to 2002 for British Columbia. It shows changes in expenditures per capita quantified for 5 age categories: residents aged 0 to 19, 20 to 44, 45 to 64, 65 to 84, and 85 and older. The cost impacts of 7 determinants of prescription drug expenditures are quantified. Population-wide expenditures per capita grew at a rate of 11.6% per annum. Growth was primarily driven by the selection of more costly drugs per course of treatment and increases in the number concomitant treatments received per patient. Population aging did not have a major impact on expenditures. However, expenditure per capita grew most rapid among residents aged 45 to 64, the cohort that expended most over the period. The aging of this demographic cohort may threaten the financial viability of age-based drug benefit programs.

Beneath the Calm Surface: The Changing Face of Physician-Service Use in British Columbia, 1985/86 Versus 1996/97.
Barer ML, Evans RG, McGrail KM, Green B, Hertzman C, Sheps SB
Canadian Medical Association Journal. 2004 March 2;170(5):803-807.
Although expenditures on health care are continually increasing and often said to be unsustainable, few studies have examined these trends at the level of services delivered to individual patients. We analyzed trends in the various components that contributed to changes in overall expenditures for physician services in British Columbia from 1985/86 to 1996/97. Total payments to fee-for-service physicians in British Columbia rose 86.3% over the study period. The increase was entirely accounted for by the combined effects of population growth (28.9%), aging (2.1%) and general inflation (41.4%). Service use per capita rose 10.5%; this increase was offset by a decline of 9.4% in inflation-adjusted fees. The average cost of age-adjusted per-capita services rendered by general or family practitioners (GP/FPs) increased very little (3.3%) over the 11-year period, compared with a nearly one-third (31.8%) increase for medical specialists. Although there was a dramatic increase in the number of GP/FPs seen on average by each patient (32.9%), this increase was offset by the combination of decreases in the number of visits per physician (–14.9%), the number of services provided per visit (–8.0%) and the "real cost" of each service provided (–3.5%). Visits to medical specialists increased by about 20% over the study period in all age groups. However, for each person 65 years of age or over receiving any services, the average fee-adjusted expenditures increased 24.8%, almost 4 times the rate of increase for people younger than 65. The use of surgical services grew 26.5% for seniors while declining –2.0% for people under age 65.

Chronic Conditions

Chronic Conditions and Co-morbidity Among Residents of British Columbia.
Broemeling A-M, Watson DE, Black C. Vancouver (BC): Centre for Health Services and Policy Research; February 2005.
Chronic health conditions have been identified as a key challenge for health care during the twenty-first century. Chronic conditions affect a significant proportion of the population, not only in Canada, but around the world. The majority of health care services are used by individuals with chronic conditions5 and the cost of treating chronic conditions is significant. In Canada, 67 per cent of total direct health care costs and 60 per cent of indirect costs in terms of lost productivity and foregone income are attributed to chronic diseases. This report profiles patterns of chronic health conditions among British Columbia residents, the presence of multiple conditions (co-morbidity) among those with chronic conditions, and the impact of chronic conditions and co-morbidity on utilization of health care services.

Conspicuous Consumption: Characterizing High Users of Physician Services in one Canadian Province.
Reid RJ, Evans RG, Barer ML, Sheps S, Kerluke K, McGrail K, Hertzman C, Pagliccia N
Journal of Health Services Research and Policy. 2003 October;8(4):215-224.
In every health care system, only a small proportion of the population accounts for most of health services usage. It is often assumed that these individuals are just sicker, older or more likely to seek out health care than the rest of the population. This influential study found that this small group of high users was struck by an extraordinary burden of ill health, with most individuals suffering from at least six different major complaints. A combination of chronic physical and mental health conditions was particularly common. This preliminary study has important policy implications for those interested in health care financing, as it indicates that for a resource-intensive group like the high users, efforts should be made to provide coordinated multidisciplinary care.

As Good as it Gets? Strategies for Improving Chronic Care Management.
A summary of the 2005 health policy conference of the UBC Centre for Health Services and Policy Research; 2005 February 25; Vancouver, BC. Vancouver (BC): Centre for Health Services and Policy Research; August 2005.
Featuring keynote speaker Dr Ed Wagner from the Group Health Cooperative in Seattle, CHSPR's 2005 health policy conference focused on an increasingly important issue for today's health care planners: chronic care management. Dr Wagner is an international leader in improving health care for chronic conditions, and the principal architect of the chronic care model. His address will be followed by presentations and a panel discussion of how chronic care management is being implemented in BC, and the strategies, data and information required to improve our current models.

Strengthening Primary Health Care

Results-Based Logic Model for Primary Health Care.
Watson D, Broemeling A-M, Reid RJ, Black C
Laying an Evidence-Based Foundation to Guide Performance Measurement, Monitoring and Evaluation. Vancouver (BC): Centre for Health Services and Policy Research; September 2004.
Primary health care (PHC) is the foundation of Canada's health care system. For most people, PHC is their first point of contact with the health care system, often through a family physician. It is where short-term health issues are resolved and the majority of chronic health conditions are managed. The last few years have seen increasing concern about access to and the quality of PHC in Canada. When asked to deliberate about the various options to sustain their health care system, many Canadians suggest reform to PHC. People are ready for new models of service delivery that will improve or sustain the level of care already provided. Between 1997 and 2008, substantial federal and provincial investments are dedicated to improving the delivery of PHC in Canada. All of these financial investments have, to varying degrees, required evaluation to ensure that the policy, administrative and practice community monitor, guide and report on PHC renewal. Yet, despite these investments, a common performance measurement and evaluation framework for understanding the PHC system, and the impact of renewal efforts, is lacking. In response, we have developed a results-based logic model for PHC using the Treasury Board of Canada results-based management accountability framework (RMAF), policy analysis, research evidence, and broad consultation.

Primary Health Care Experiences and Preferences: Research Highlights.
Watson DE, Krueger H
Vancouver (BC): Centre for Health Services and Policy Research; May 2005.
Across the nation, there have been substantive investments and activities to renew primary health care in response to factors such as growing concerns among Canadians and health care providers. One key ingredient to renewal efforts is information about the expectations and preferences of key stakeholders, particularly citizens and family physicians. This document is intended to highlight evidence from across Canada to help primary health care decision makers identify priorities for local research on the expectations and preferences of citizens for the organization of primary health care; the expectations and preferences of family physicians on models of delivery; and ongoing temporal shifts in patterns of use and delivery of primary health care.

Measuring the Performance of Primary Health Care: Existing Capacity and Future Information Needs.
Broemeling A-M, Watson DE, Black C, Reid RJ
Vancouver (BC): Centre for Health Services and Policy Research; October 2006.
Because of the key role it plays, primary health care (PHC) has long been the focus of renewal efforts, and has recently benefited from substantial government investment. Yet despite our recognition of the importance of PHC, and despite a long history of provincial and federal reform initiatives and investment, Canada lacks the most basic ability to measure and monitor our PHC system. We know little about how PHC systems are structured across and within Canadian provinces, how PHC services are delivered, and how effective those services are. As much as we try to improve our PHC system, we won't be able to determine if it is getting better (or worse) if we don't measure key aspects of its performance. It is being increasingly recognized that investments in sophisticated new data collection strategies are required to make it possible to measure, monitor and manage PHC. Measuring the Performance of Primary Health Care looks at how we can better measure key aspects of PHC using data and information that already exist. The report also identifies gaps in the current data landscape that hinder system reporting, and recommends how these gaps might be filled.

Data, Data, Everywhere: Population-based Health and Health Service Data in Canada.
Black C, McGrail K, Fooks C, Baranek P, Maslove L
Vancouver (BC): Centre for Health Services and Policy Research; April 2005.
Data, Data, Everywhere: Improving Access to Population Health and Health Services Research Data in Canada, presents the results of interviews with data collectors, custodians and users around collection, storage and use of data; reviews privacy and access issues; surveys international and Canadian activities in providing access to data sets; outlines considerations for creating an inventory of research databases; and makes recommendations for improving access to and use of Canadian data in population health and health services research. While Canada has an international reputation as an innovator in understanding the power of population-based administrative data, and in converting that understanding into research findings, this country is not currently recognized as a leader when it comes to the systematic organization, archiving, documentation of and access to data relevant to population health and health services research. The report highlights numerous barriers to the current use of and access to data and presents ten recommendations for change.

Who are the Primary Health Care Physicians in British Columbia (1996/97 to 2004/05)?
Watson DE, Black C, Peterson S, Mooney D, Reid RJ
Vancouver (BC): Centre for Health Services and Policy Research; August 2006.
Accurate data on PHC resources lays the foundation for meaningful discussion, evaluation and planning of physician supply, health service distribution, practice composition, and ultimately, health care renewal. But getting that data and using it to create valid information—determining who and where British Columbia's physicians are, what services they provide, and their practice composition—is often more difficult than it sounds. By developing new analytic techniques, researchers at CHSPR have compiled what might be the most accurate picture of the supply, distribution and characteristics of physicians in British Columbia. The work highlights recent trends from 1996/07 and 2004/05, and by developing a sophisticated, validated information system, lays the foundation for continued policy-relevant research into the attributes and qualities of BC's PHC system.

Who are the Primary Health Care Registered Nurses in BC?
Wong ST, Watson DE, Young E, Mooney D, MacLeod M
Vancouver (BC): Centre for Health Services and Policy Research; March 2006.
This report describes the population, distribution and location of Registered Nurses (RNs) working in primary health care-related (PHC-R) roles in BC. To categorize and identify RNs most likely practicing in a PHC-R role, the report analyzes registration information collected by the College of Registered Nurses of British Columbia (CRNBC) in 2000 using a combination of four variables – place of work, area of responsibility, position and work status. Of the 27,570 practicing RNs in British Columbia in 2000, 3,179 (12%) were identified as providing PHC-R services. When factored as a ratio of workforce to population, this equals 78 PHC-R RNs per 100,000, or 1,277 people per PHC-R RN. The PHC-R RNs represent 43 per cent of the combined PHC RN and PHC physician workforce in BC. The supply of PHC-R RNs varied across health service delivery areas (119 per 100,000 population in Kootenay Boundary to 56 per 100,000 in Fraser South) and local health areas (244 per 100,000 in Castlegar to zero in Arrow Lakes and Armstrong-Spallumcheen). In 2000, there was no association between the supply of PHC-R RNs in a geographic area and that area's health status, as measured by premature mortality rate (one of our best measures of population health). This was the case at both the health service delivery area level and local health area level. Similarly, the report found no association between the supply of PHC providers (PHC physicians and PHC-R RNs combined) and premature mortality. However, geographic areas with a lower supply of PHC physicians tend to have a greater supply of PHC-R RNs.

Health Atlases

Planning for Renewal: Mapping Primary Health Care in British Columbia.
Watson DE, Kruegar H, Mooney D, Black C
Vancouver (BC): Centre for Health Services and Policy Research; January 2005.
This project is CHSPR's first step in providing information resources to inform the renewal of primary health care in British Columbia. Building on the BC Health Atlas, it presents a range of profiles that describe the demographic, socioeconomic and health status of the population, temporal changes in population size, the level of supply and geographic distribution of physicians and nurses, and patterns of use of primary health care and related services. Mapping Primary Health Care in BC highlights information gaps to better guide the development of system-level evaluation and performance measurement tools.

British Columbia Rx Atlas.
Morgan S, Schaub P, Mooney D, Lam J, Caetano P, McMahon M, Rahim-Jamal S
Vancouver (BC): Centre for Health Services and Policy Research; December 2005.
The British Columbia Rx Atlas combines data from 214 million prescriptions filled in the province between 1996 and 2003 with hospital records, population data, and demographic information to explore the drivers of change in pharmaceutical expenditure over time and variations across regions. The result is a comprehensive breakdown of the $350 million British Columbians spend on prescription drugs every year. This atlas takes the first step towards addressing the drug utilization and expenditure information gap for one Canadian province, and provides what we believe to be the world's most detailed portrait of the determinants of the use and cost of pharmaceuticals to date. However, it is a descriptive report that deliberately contains minimal analysis and interpretation of findings. It provides signposts to areas for further investigation by those policy-makers, practitioners and researchers best placed to focus on the underlying dynamics and possibilities for policy intervention.

The British Columbia Health Atlas. 2nd Edition.
McGrail KM, Schaub P, Black C
Vancouver (BC): Centre for Health Services and Policy Research; May 2004.
The BC Health Atlas, Second Edition, focuses on the period ending just before British Columbia formed six health authorities in 2001, marking a major shift in the delivery of health care services for the province. It displays geographic information in user-friendly map and graphic formats and highlights new measures of health status and health care service use, including premature mortality rate as a measure of need for health care services. The Atlas maps health status and nine separate indicators of health care service use across the province, and explores the relationship between the two.

Health Human Resources

Growing Old Together: The Influence of Population and Workforce Aging on Supply and Use of Family Physicians.
Watson D, Reid RJ, Roos NP, Heppner P
Canadian Journal on Aging. 2005 June;24(suppl 1):37-45.
Canadians have expressed concern that access to a family physician (FP) has declined precipitously. Yet FP-topopulation ratios remained relatively stable over the last decade, and there were perceptions of physician surpluses, at least in urban centres, 10 years ago. We evaluated whether demographic changes among patients and FPs, and in the volume of care received and provided over the period, contribute to this paradox. Given the relationship between age and FP use in fiscal year 1991/1992, an aging population should have been associated with a 2 per cent increase in visits by 2000/2001. Likewise, given the relationship between FP age and workloads in 1991/1992, an aging workforce should have been associated with a 12 per cent increase in service provision a decade later. Yet visit rates and average FP workloads remained unchanged. There was an increase in age-specific rates of FP use among older adults and a decline in rates among the young, and an increase in age-specific workloads such that older FPs provided many more services than their predecessors (30%) and younger FPs provided many fewer (20%). In terms of impact on future requirements for FPs, both changes in age-specific rates of use, and changes in age-specific patterns of FP productivity, trump population aging as key drivers.

The Impact of Deficit Reduction on the Nursing Labour Market in Canada: Unintended Consequences of Fiscal Reform.
Vujicic M, Evans RG
Applied Health Economics and Health Policy. 2005;4(2):99-110.
This article examines trends in the labour market for registered nurses in Canada during the hospital downsizing period. Of particular interest is the effect of hospital spending reforms on nurse employment levels in hospitals and on the age structure of the nursing workforce. After identifying the trends, the main factors driving the trends are discussed.

Access to Care

The Quick and the Dead: 'Managing' Inpatient Care in British Columbia Hospitals, 1969 to 1995/96.
McGrail KM, Evans RG, Barer ML, Sheps SB, Hertzman C, Kazanjian A
Health Services Research. 2001 February;35(6):1319-1338.
Acute care use continued to fall over the last decade. The rate of decline increased during the last time period of study and affected seniors to the same degree as younger patients. At the same time, use of extended care decreased, compared to steady increases in earlier years. The result was that by 1995/96 nearly 40 per cent of inpatient days were used by people who died in hospital, compared to 9 per cent in 1969. These people, however, still represent a small proportion of separations. The "bed blocker" problem common to many hospital systems appears to have been largely alleviated in British Columbia over the decade 1985-95. The concurrent decrease in extended care use, however, makes it difficult to say where and how these people are now being cared for. Care for the dying has become a bigger issue for hospitals, but whether this is because of heroic interventions at the end of life is not clear. A "top-down," capacity-driven management approach to hospital use in British Columbia has produced effects that may seem familiar to those involved in more "bottom-up" managed care approaches in the United States.

Strangulation or Rationalization? Costs and Access in Canadian Hospitals.
Barer ML, Morgan SG, Evans RG
Longwoods Review. 2003;1(4):10-19.
Beginning a little over a decade ago, Canadian hospitals began experiencing the most severe fiscal restraint of the past half-century. Between 1992 and 1996, hospital expenditure per capita fell sharply, from $939 to $858. These cuts fuelled professional declarations and a swarm of anecdotes about the dire consequences for the health of Canadians, whose confidence in the healthcare system dropped precipitously. Yet, a series of provincial royal commissions or similar inquiries during the previous decade had concluded that there was substantial scope for rationalization and cost containment within the provincial hospital systems. This paper examines the statistical record, looking at hospital capacity, access and utilization, prior to, during and after the 1990s reductions, and the

impact of provincial finances on hospital funding decisions. While hospital bed capacity and inpatient utilization declined significantly, day surgery and other hospital-based ambulatory services have increased dramatically. There seems to be little or no evidence of "dire consequences" from the cuts themselves. But having succeeded once in implementing major program cuts in response to looming or actual deficits, right wing governments may, in the future, be tempted to create deficits deliberately through tax cuts. A "privatization" agenda for healthcare, designed to benefit the wealthy and private provider groups, could then be supported by claims that the public system is fiscally "unsustainable."

Hospital downsizing and trends in health care use among elderly people in British Columbia.
Sheps SB, Reid RJ, Barer ML, Krueger H, McGrail KM, Green B, Evans RG, Hertzman C
Canadian Medical Association Journal. 2000 August 22;163(4):397-401.
There has been considerable downsizing of acute care services in British Columbia over the past 2 decades. In this population-based study we examined changes in the proportion of elderly people who used acute care, long-term care and home care services between 1986-1988 and 1993-1995 to explore whether the downsizing has influenced use. Changes in death rates were also examined.

Western Canada Waiting List Project: From Chaos to Order: Making Sense of Waiting Lists in Canada. Final Report.
Edmonton (AB): Western Canada Waiting List Project; March 2001.
The Western Canada Waiting List (WCWL) Project is a collaborative undertaking by 19 Partner organizations: seven regional health authorities; four medical associations; four provincial ministries of health; and four health research centres. The Project is unique in the multidisciplinary nature of its partnership and the scope of its work. It has provided an opportunity for key stakeholders to work in collaboration on a sensitive and highly relevant health care issue: effective management of waiting lists for elective health care.

Toward Improved Access to Medical Services for Relatively Underserved Populations: Canadian Approaches, Foreign Lessons.
Barer ML, Wood L, Schneider DG
Vancouver (BC): Centre for Health Services and Policy Research; May 1999 (144 pages).
This document is intended to provide a status report on initiatives in place across Canada, the primary objective of which is to improve access to medical care in areas that are considered underserved. The number of such policies and practices one finds as one canvasses the provinces and territories is astonishing, the fact that one finds variants on the same few themes virtually everywhere one looks is revealing, and the relatively ineffective record of this panoply of policies in reducing the geographic disparity of primary and secondary medical services, is sobering. Because it is so obvious that Canada continues to suffer from relative policy impotence in this arena (despite copious good will and much creativity and innovation), we also examined a small set of other countries in the hopes of gleaning some lessons from abroad about what might be importable, and effective. To this end, we offer relatively detailed descriptions of initiatives in the United Kingdom, the United States, Australia and New Zealand.

Improving Access to Needed Medical Services in Rural and Remote Canadian Communities: Recruitment and Retention Revisited.
Barer ML, Stoddart GL
Vancouver (BC): Centre for Health Services and Policy Research; June 1999 (48 pages).
The report addresses the problem of improving access to medical services in rural and remote communities in Canada, and reviews policy options for addressing this problem. It is written in a question-and-answer format appropriate for a wide general audience. The questions cover a range of topics including some of the history of the problem, approaches which have been used in Canada and elsewhere, assessments of these approaches, and the scope for further policy development in this area. Our assignment was to revisit the analysis of geographic maldistribution of physicians in our 1991 report, Toward Integrated Medical Resource Policies for Canada, and to re-assess current policy options in this area, in the context of emerging access issues in rural and remote areas of the country. Although we are aware that concerns about access to care are surfacing in some urban areas, an analysis of these situations was not our assigned task. Nevertheless, some of the policy directions we identify are relevant to the urban context as well.

Ending Waiting-list Mismanagement: Principles and Practice.
Lewis S, Barer ML, Sanmartin C, Sheps S, Shortt SED, McDonald PW
Canadian Medical Association Journal. 2000 May 2;162(9):1297-1300.
An abyss divides common understandings about waiting lists from evidence about their nature and causes and what might work to rationalize them. In a recent comprehensive report for Health Canada we found that the state of waiting-list information and management systems in Canada is woefully inadequate, particularly for elective procedures. Here, we identify key lessons and outline a number of initiatives that should contribute to more durable solutions both in Canada and in other countries experiencing similar problems.

Access to Physicians in Under-Serviced Communities in Canada: Something Old, Something New.
Chan B, Barer ML
In: Australian Medical Workforce Advisory Committee and Commonwealth Department of Health and Aged Care. 5th International Medical Workforce Conference 2000: Papers. Sydney, Australia: Australian Medical Workforce Advisory Committee;2001. pp. 329-362.
Virtually all countries, both industrialized and developing, experience some degree of geographic variation in the supply of physicians. Such variation has engendered public concern that those living in areas with low physician supply are being "underserved," that underservicing affects the well-being of the population, and that this variation in access to services runs contrary to widely-held principles of social equity (at least in those countries with public health insurance schemes). From the provider perspective, work conditions in underserviced areas are a major issue, as the experience in these communities is characterized by heavy workload, burnout, and professional isolation. Canada's physical geography makes the country fertile ground for debate on what to do about 'underservicing'. Like Australia, Canada is characterized by vast areas of sparsely populated wilderness combined with a number of urban centres concentrated along a relatively thin border. Although Canada and the United States (US) have comparable proportions of the population living in rural areas (22%1 vs 25%2), many of Canada's rural areas are characterized by much greater distances from major metropolitan areas. These factors make the challenges in distributing physicians to remote populations particularly difficult.

Waiting Lists and Waiting Times for Health Care in Canada: More Management!! More Money?? Full Report.
McDonald P, Shortt S, Sanmartin C, Barer ML, Lewis S, Sheps S
Vancouver (BC): Centre for Health Services and Policy Research; July 1998.
With rare exceptions, waiting lists in Canada, as in most countries, are non-standardized, capriciously organized, poorly monitored, and (according to most informed observers) in grave need of retooling. As such most of those currently in use are at best misleading sources of data on access to care, and at worst instruments of misinformation, propaganda, and general mischief. Where waiting list data are carefully and accurately compiled and routinely monitored, e.g., for cardiac procedures in Ontario or radiation oncology in British Columbia, the public clearly benefits. There is consequently an urgent need for a national investment in the design and development of information and management systems that can provide the public with a greater sense of confidence about access to, and quality of care. Such an initiative affords Canada an opportunity to examine the nature and impact of measures taken in countries, such as New Zealand, which have made clear commitments in this area. Without such commitments, the chaotically acquired and misleading data on waiting lists and times will continue to exert undue influence on policy (re)action. They will also continue to haunt efforts to improve the precision with which resource allocation decisions are made, both within health care, and between health care and other important determinants of the health of Canadians.

Public and Private Financing

Revitalizing Medicare: Shared Problems, Public Solutions.
Rachlis M, Evans RG, Lewis P, Barer ML
Prepared for the Tommy Douglas Research Institute. Vancouver (BC): Centre for Health Services and Policy Research; January 2001.
Medicare still enjoys broad support, but Canadians have become increasingly concerned that care will not be available for them when they need it. A substantial majority believes that health care is "in crisis." Public opinion is a potent catalyst for change. These widespread concerns have already led to large increases in public funding for Medicare. But how those funds are used will be critical to its future. Douglas' position has subsequently been supported by numerous provincial reports, and by the recent National Forum on Health. However, Medicare has never had universal support, and its opponents have always exaggerated its weaknesses. They now allege that Medicare's principles of universality and public, not-for-profit care are 'tired' and no longer relevant. These claims are demonstrably false, yet they dominate much of the health care debate in Canada.

Private Highway, One-Way Street: The Deklein and Fall of Canadian Medicare?
Evans RG, Barer ML, Lewis S, Rachlis M, Stoddart GL
Vancouver (BC): Centre for Health Services and Policy Research; March 2000.
'Medicare' has two meanings for Canadians: the entire range of health care services, or only those (mainly physicians and hospitals) mandated and governed by the Canada Health Act (CHA). This paper focuses on the narrower legal meaning of Medicare, as does the recent Alberta proposal to fund CHA-mandated services delivered on an overnight stay basis in privately owned and operated facilities. Nevertheless there is considerable confusion in the minds of the public, and concerns about access to or private costs of other health care services (e.g. home care and pharmaceuticals) may create a pervasive anxiety about the health care system overall that then generates concerns about the sustainability of the narrower core of physicians and hospitals.

Staffing Levels in Not-for-profit and For-profit Long-term Care Facilities: Does Type of Ownership Matter?
McGregor MJ, Cohen M, McGrail K, Broemeling AM, Adler RN, Schulzer M, Ronald L, Cvitkovich Y, Beck M
Canadian Medical Association Journal. 2005 March 1;172(5):645-649
Currently there is a lot of debate about the advantages and disadvantages of for-profit health care delivery. We examined staffing ratios for direct-care and support staff in publicly funded not-for-profit and for-profit nursing homes in British Columbia. The nursing homes included in our study comprised 76% of all such facilities in the province. Of the 167 nursing homes examined, 109 (65%) were not-for-profit and 58 (35%) were for-profit; 24% of the for-profit homes were part of a chain, and the remaining homes were owned by a single operator. The mean number of hours per resident-day was higher in the not-for-profit facilities than in the for-profit facilities for both direct-care and support staff and for all facility levels of care. Not-for-profit facility ownership is associated with higher staffing levels. This finding suggests that public money used to provide care to frail eldery people purchases significantly fewer direct-care and support staff hours per resident-day in for-profit long-term care facilities than in not-for-profit facilities.

Income-Based Drug Coverage in British Columbia: The Impact on Private and Public Expenditures.
Morgan S, Yan L
Healthcare Policy. 2006 November;2(2):109-110.
The lack of large and differential policy impacts on drug expenditure and utilization rates across age and income groups suggests that changes in the BC PharmaCare Program were designed in a manner that ensured continued access to medicines for the populations previously served by the drug plan (e.g., senior citizens). It also indicates that the policy did not significantly increase access to medicines by populations that might have been better served under the new policy (e.g., non-seniors). Finally, although it was hoped that income-based pharmacare might increase consumer cost consciousness, changes in the relative cost of certain drugs purchased following the policy change appear to have stemmed from other policies directly targeting the expenditure impact of therapeutic choices.

Income-Based Drug Coverage in British Columbia: The Impact on the Distribution of Financial Burden.
Hanley GE, Morgan S, Yan L
Healthcare Policy. 2006 November;2(2):112-114.
The PharmaCare Program redistributed public subsidies in a manner that was more progressive than previous programs; this reduced the regressivity of private pharmaceutical payments. However, total public subsidy decreased, and private spending increased by a commensurate amount. This makes the program's overall financial impact on BC households somewhat ambiguous. Income-based pharmacare could improve financial equity unambiguously if public shares of drug spending are expanded.

Direct-to-Consumer Advertising and Expenditures on Prescription Drugs: A Comparison of Experiences in the US and Canada.
Morgan SG
Open Medicine 2007;1(1):E37-45.
The difference in per capita expenditures on prescription drugs in the United States and Canada began to increase at almost exactly the same time that DTCA began to flourish in the United States. From 1975 to 1994, the difference in inflation-adjusted expenditures on prescription drugs between the United States and Canada was never more than $36 per capita (measured in year 2005 Canadian dollars). Over the same period, spending on DTCA in the United States was never more than $2 per capita (year 2005 Canadian dollars). Inflation-adjusted per capita spending on DTCA in the United States grew from just over $2 in 1995 to just under $18 in 2005 (year 2005 Canadian dollars). Over the same period, the difference in inflation-adjusted per capita expenditures on prescription drugs between the two countries grew from approximately $31 to approximately $356 (year 2005 Canadian dollars).

How Does Direct-to-Consumer Advertising Affect Prescribing? A Survey in Primary Care Environments With and Without Legal DTCA.
Mintzes B, Barer ML, Kravitz RL, Bassett K, Lexchin J, Kazanjian A, Evans RG, Pan R, Marion SA
Canadian Medical Association Journal. 2003 September 2;169(5):405-412.
Direct-to-consumer advertising (DTCA) of prescription drugs has increased rapidly in the United States during the last decade, yet little is known about its effects on prescribing decisions in primary care. We compared prescribing decisions in a US setting with legal DTCA and a Canadian setting where DTCA of prescription drugs is illegal, but some cross-border exposure occurs. Patients with higher self-reported exposure to advertising, conditions that were potentially treatable by advertised drugs, and/or greater reliance on advertising requested more advertised medicines. Physicians fulfilled most requests for DTCA drugs (for 72% of patients in Vancouver and 78% in Sacramento); this difference was not statistically significant. Patients who requested DTCA drugs were much more likely to receive 1 or more new prescriptions (for requested drugs or alternatives) than those who did not request DTCA drugs (OR 16.9, 95% CI 7.5–38.2). Physicians judged 50.0% of new prescriptions for requested DTCA drugs to be only 'possible' or 'unlikely' choices for other similar patients, as compared with 12.4% of new prescriptions not requested by patients. Interpretation: Our results suggest that more advertising leads to more requests for advertised medicines, and more prescriptions. If DTCA opens a conversation between patients and physicians, that conversation is highly likely to end with a prescription, often despite physician ambivalence about treatment choice.

Breakthrough Drugs and Growth in Expenditure on Prescription Drugs in Canada.
Morgan S, Bassett KL, Wright JM, Evans R, Barer ML, Caetano P, Black C
British Medical Journal. 2005 October 8;331:815-816.
Driven by increased use of prescription drugs and by shifts from old to new products, spending on drugs in Canada doubled between 1996 and 2003. Which drugs drove this expenditure growth? The Canadian Patented Medicine Prices Review Board appraises the therapeutic novelty of every patented medicine in Canada to distinguish "breakthrough" drugs from other medicines. Since 1990, the board has published these appraisals in annual reports. We applied the board's classifications for breakthrough drugs to total expenditures on and use of prescription drugs in the province of British Columbia (population 4.2 million).

Care Outcomes in Long-Term Care Facilities in British Columbia, Canada: Does Ownership Matter?
McGregor MJ, Tate RB, McGrail KM, Ronald LA, Broemeling A-M, Cohen M
Medical Care. 44(10):929-935, October 2006.
This study investigated whether for-profit (FP) versus not-for-profit (NP) ownership of long-term care facilities resulted in a difference in hospital admission and mortality rates among facility residents in British Columbia, Canada. Research design: This retrospective cohort study used administrative data on all residents of British Columbia long-term care facilities between April 1, 1996, and August 1, 1999 (n = 43,065). Hospitalizations were examined for 6 diagnoses (falls, pneumonia, anemia, dehydration, urinary tract infection, and decubitus ulcers and/or gangrene), which are considered to be reflective of facility quality of care. In addition to FP versus NP status, facilities were divided into ownership subgroups to investigate outcomes by differences in governance and operational structures. Results: We found that, overall, FP facilities demonstrated higher adjusted hospitalization rates for pneumonia, anemia, and dehydration and no difference for falls, urinary tract infections, or DCU/gangrene. FP facilities demonstrated higher adjusted hospitalization rates compared with NP facilities attached to a hospital, amalgamated to a regional health authority, or that were multisite. This effect was not present when comparing FP facilities to NP single-site facilities. There was no difference in mortality rates in FP versus NP facilities. Conclusions: The higher adjusted hospitalization rates in FP versus NP facilities is consistent with previous research from U.S. authors. However, the superior performance by the NP sector is driven by NP-owned facilities connected to a hospital or health authority, or that had more than one site of operation.

For-profit Versus Not-for-profit Delivery of Long-term Care.
McGrail KM, McGregor MJ, Cohen M, Tate RB, Ronald LA
Canadian Medical Association Journal [Commentary]. 2007;176(1):57.
Public funds can be used to pay for health care services that are delivered either by for-profit or not-for profit agencies. A systematic review of patient outcomes in US hospitals by ownership status showed that not-for-profit hospitals tended to produce better results.1 Although there are no Canadian acute care hospitals in the for-profit sector, the issue of interest here is whether the same trend in outcomes applies to for-profit and not-for-profit ownership of long-term care facilities. About 60% and 30% of all publicly funded long-term care beds in Ontario and British Columbia, respectively, are in forprofit institutions.2,3 The co-existence of for-profit and notfor-profit providers in the same province creates a "natural laboratory" for examining their differences. This is particularly true because the funding paid by the province to these facilities is tied to resident care requirements and thus the same amount is paid per standardized patient whether he or she is in a for-profit or a not-for-profit facility. Despite this, there has been relatively little Canadian research that examines the experiences of residents in these 2 types of facilities. Although there is an abundance of evidence from the United States demonstrating superior performance of the not-forprofit sector in measures of quality of care, there are claims that these findings have limited generalizability in Canada because of differences in the 2 countries' health care systems. However, a few Canadian studies are now starting to provide a portrait of what public investment "buys" in for-profit and not-for-profit facilities.

Medicare Financing and Redistribution in British Columbia, 1992 and 2002.
McGrail K
Healthcare Policy. 2007;2(4):123-137.
Equity in healthcare in British Columbia is defined as the provision of services based on need rather than ability to pay and a separation of contributions to financing from the use of services. Physician and hospital services in Canada are financed mainly through general tax revenues, and there is a perception that this financing is progressive. This paper uses Gini coefficients, concentration indexes and Kakwani indexes of progressivity to assess the progressivity of medicare financing in British Columbia in 1992 and 2002. It also measures the overall redistributive effect of medicare services, considering both contributions to financing and use of hospital and physician services. The conclusion is that medicare does redistribute across income groups, but this redistribution is the result solely of the positive correlation between health status and income; financing is nearly proportionate across income groups, but use is higher among lower-income groups. Informed public debate requires a better understanding of these concepts of equity.

Raising the Money: Options, Consequences and Objections For Financing Health Care in Canada.
Evans RG
Paper prepared for the Commission on the Future of Health Care in Canada Discussion Paper Series, paper no. 27. Saskatoon (SK): Commission on the Future of Health Care in Canada; October 2002.
All modern health care systems are predominantly financed from public revenues, supplemented by private sources. Most draw on general taxation; a few have public "social insurance" systems. Private financing is primarily through direct user payments; some countries also have private insurance systems for the better-off. The public share ranges from 60% to over 90%, most countries fall between 75% and 85%. Canada reports a 72.6% public share (2001); the public tax expenditure subsidies to private insurance bring the true figure to about 75%. Although the public share in Canada is relatively low, the public-private debate has largely focused on raising the private share. This paper accordingly describes several proposed mechanisms for such a shift, and assesses both the revenue potential of private finance and its impact on the distribution of health-care costs and access to care. It does not deal with potential increases in the public share, e.g. a national tax-financed Pharmacare program, though its conclusions have obvious implications for such proposals.

Preserving Privilege, Promoting Profit: The Payoffs From Private Health Insurance.
Evans RG
In: Flood CM, Roach K, Sossin L, editors. Access to Care, Access to Justice: The Legal Debate Over Private Health Insurance in Canada. Toronto (ON): University of Toronto Press; 2005.
Historically, the Canadian Supreme Court has avoided direct intervention in health care policy-making. This posture changed dramatically with the release of the Chaoulli decision in June of 2005. In a narrow and bitter 4:3 decision the Supreme Court of Canada in the Chaoulli decision, struck down Quebec laws prohibiting the sale of private health insurance on the basis that they violate Quebec's Charter of Human Rights and Freedoms. Three of the four judges in the majority also found the provisions violate section 7 of the Canadian Charter of Rights and Freedoms but three other judges in a blistering dissent found that the insurance restrictions violated neither the Quebec nor the Canadian Charters. The result makes further Charter challenges to similar laws in other provinces inevitable, but the question of whether they will or should succeed remains contested. The new role that the courts may play in health care is of crucial importance not only to the courts, but to the Canadian public and their governments.

Political Wolves and Economic Sheep: The Sustainability of Public Health Insurance in Canada.
Evans RG
Vancouver (BC): Centre for Health Services and Policy Research; December 2003.
The future is an uncertain place, and all forecasts will be falsified. But why should the future be different from the quite sustainable past? A standard triad of reasons is typically offered--and has been for decades. The triad consists of interlinked claims about trends in demography, technology, and public attitudes, each asserted to be generating increasing needs or demands (the distinction is typically fuzzy) for increasingly expensive health care. Aging populations have greater needs; advancing technology creates ever more expensive possibilities for intervention; and "public expectations" of the health care system are ever increasing. People just want more, and want it now. But (it is further asserted) no government can afford to meet these ever-expanding needs/demands. So we should, indeed must, limit the public liability, and let those who can, buy more for themselves if they wish. There is really no alternative. When one unpackages these broad generalities, however, and looks at the actual data, a very different picture emerges.

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UBC Centre for Health Services and Policy Research
The University of British Columbia
201-2206 East Mall
Vancouver, B.C. Canada V6T 1Z3

Tel: 604.822.4969
Fax: 604.822.5690
Email: enquire@chspr.ubc.ca

www.chspr.ubc.ca