

# Canadian Health Policy Failures

**What's wrong? Who gets hurt?  
Why nothing changes**

by Brett J. Skinner, PhD





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*by Brett J. Skinner*



*Fraser Institute*  
2009

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# About the author

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Since 2002, Dr. Skinner has authored or coauthored 40 major original pieces of applied economics and public policy research. In 2003, he was co-author of a paper that was awarded the Atlas Economic Research Foundation's Sir Antony Fisher International Memorial Award for innovative projects in public policy. His research has been published through several think-tanks including the Fraser Institute, the Atlantic Institute for Market Studies (Halifax), and the Pacific Research Institute (San Francisco). His work has also been published in several academic journals including *Economic Affairs*, *Pharmacoeconomics*, and *Alimentary Pharmacology & Therapeutics*. Dr. Skinner appears and is cited frequently as an expert in the Canadian, American, and global media. He has presented his research at conferences and events around the world, including twice testifying before the House of Commons Standing Committee on Health in Ottawa, and twice briefing bipartisan congressional policy staff at the US Capitol in Washington, DC.



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# Summary

Canadian health policy is increasingly failing patients and taxpayers. Canadians spend a lot on health care relative to comparable countries, yet our high relative level of spending does not buy Canadians as many health care resources as patients in other countries enjoy. Shortages of medical resources, as well as improper economic incentives within the Canadian health system, have resulted in growing waits for access to publicly funded, medically necessary goods and services. The available evidence indicates that wait times are longer in Canada than in almost all other comparable countries. Not only has our high level of spending not produced better access to health care, government health spending has also been growing at rates that are faster than our ability to pay for it through public means alone. This has resulted in health care consuming ever greater shares of the revenue available to governments, leaving proportionally less available for other public responsibilities and obligations.

Economic research and international experience suggest that economically liberal policy alternatives could dramatically improve the financial sustainability and the value for money spent in the Canadian health system. The expected result of introducing such policies in Canada would be to reduce wait times and increase access to health professionals, medical technologies, and new medicines. Most other countries that share Canada's social goal of publicly guaranteeing universal health insurance coverage are increasingly introducing economically liberal reforms into their health systems. Canada has gone the opposite direction in effectively prohibiting user fees for publicly funded services, extra-billing by health providers above public fee levels, and private payment or private health insurance for physician and

hospital services. Yet, all or some of these policies have been used successfully in other countries that also have publicly guaranteed universal health insurance systems, and those countries achieve better access to health care resources on a more economically efficient and financially sustainable basis than Canada.

There are four main political explanations for why economically liberal health policy reform is resisted in Canada. First, policy makers probably suffer from information asymmetry regarding health policy alternatives. An analysis of the health policy literature suggests that there is a dominant ideology among Canadian experts that is opposed to the liberalization of health policy. Ideological bias can cause researchers to ignore or unfairly discount evidence and policy options that are counter to their own preferences and worldviews.

Second, special interests in the health policy community benefit economically from the state's involvement in health care and therefore face incentives to favor interventionist public policies and oppose liberalization.

Third, the electoral incentives produced by the distribution of the tax burden and of illness are opposed to the introduction of economically liberal health policy reforms. The majority of the tax burden is paid for by a minority of the population. This means most people are disproportionately insulated from the price of public health insurance programs. Therefore, the majority of voters have significantly reduced financial incentives to make cost-benefit calculations about the performance of the health system. It also means that policy makers face fewer political risks from raising taxes to fund health care than from introducing price mechanisms that are paid by everyone. And ill people—those most directly harmed by a lack of access to medical care—make up an extremely small percentage of the population, therefore representing too few votes to have a decisive influence on policy makers about declining access and coverage under Medicare. The costs of public policy failure are not borne equally by policy makers and the public and this also can produce policy preferences that do not optimize the public interest.

Finally, federalism, as it is actually practiced in Canada, represents an institutional barrier to the adoption of liberal health policies. The constitutional division of powers assigns to the provinces sole legislative authority for medical services and medical insurance policy. Theoretically, this arrangement should facilitate health policy innovation. However, the national (or federal) government has “gamed” the formal division of powers under Canadian constitutional federalism by intervening in an area of exclusive provincial policy jurisdiction. Through the exercise of its spending power, the national government has imposed legislative requirements on the provinces that shape and constrain provincial health policy. The effect of federalism as it is actually practiced has been to create significant financial disincentives for policy innovation at the provincial level and to thereby erect a de facto institutional barrier to health policy liberalization.

Yet, despite these obstacles there are several reasons for optimism. While the Canada Health Act (CHA) is a partial barrier to economically liberal policy reforms, there is still a surprising degree of freedom under the act, and ultimately the provinces still have policy autonomy if they choose to exercise it. The nature of health policy liberalization as a wedge issue in a multiparty system also suggests that a reform platform could work as a winning electoral strategy. And the results from various public opinion polls indicate that when the right questions are asked, most Canadians might actually tend to prefer economically liberal and socially minimalist approaches to health policy.



# **Canadian Health Policy Failures**



# Introduction

Canada's publicly funded single-payer health care system—commonly known as “Medicare”—is no ordinary government program. Many Canadians politically support Medicare with the kind of fervor often reserved for fundamentalist religions. If Medicare is, for some, like a national religion, then the Canada Health Act (CHA) is its sacred text. The five “principles” of the CHA are recited like a catechism in introductory university courses on health policy. It is standard political doctrine that the Canadian health care system is the best in the world. To suggest that alternative health policy approaches might produce better outcomes for patients, taxpayers, and health care providers is often treated like blasphemy. Faithful devotion to Medicare is considered by many to be the very essence of what it means to be “Canadian.” Yet, despite all the rhetoric used by Medicare's advocates, the reality is that popular notions about the superiority of Canada's health care system are not supported by the facts. Most other developed countries that share Canada's core social goals for health care actually have better health care systems.

## International comparisons

One often ignored but enlightening fact is that no other developed country in the world has chosen to adopt the Canadian policy approach to health care. The truth is that other countries typically have some kind of pluralistic health insurance system which involves a mix of public- and private-sector (both for-profit and non-profit) involvement in medical insurance and the delivery of medical goods and services, accompanied by varying degrees of public subsidy and government regulation. By contrast,

Canada's approach to health care policy could be characterized as extreme. Canadian governments effectively ban private-sector funding of hospital and physician services. They also prohibit for-profit or competitive provision of publicly funded health care services. Canadian governments also regulate, restrict, abolish, or distort prices for medical goods and services.

International differences in health policy might be expected to produce differences in overall system performance, and this assumption has been the basis for comparative international rankings of health systems. It may surprise many Canadians to know that most of the published reports which use international comparisons either tend to rank Canada poorly or only slightly above average on performance, even though Canada has one of the most expensive health systems in the world. The relatively mediocre ranking of the Canadian system remains fairly constant across published studies, despite varying comparator groups and methods for measuring international health system performance, including differing performance criteria and emphasis on population health and social equity or economic efficiency outcomes.<sup>1</sup>

For example, the United Nations World Health Organization (WHO) published a report in 2000 ranking international health systems on the basis of overall performance for the year 1997 (WHO, 2000). In the comparison of 191 countries of varying economic development, Canada ranked 35th in the report's overall health attainment index and 30th in a second composite index of overall health system performance. According to the criteria used by the WHO, this places Canada in the top 15 to 20 percent

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1 There are only a few studies that analyze and rank overall health system performance in terms of public interest indicators (e.g., access to medical resources and treatment, value for money, health outcomes, etc.), use large groups of comparator countries, and which do not rely on subjective survey data to compare the performance of international health systems. Other studies have compared Canada's health system against smaller groups of countries, or have measured performance in terms of subjective perceptions among patients and health care providers using data collected from opinion surveys. Some of these studies include Blendon, Kim, and Benson (2001); Ramsay (2001); Schoen, Osborn, Huynh et al. (2004); Davis et al. (2007); Schoen, Osborn, Doty et al. (2007); Anderson, Frogner, and Reinhardt (2007); and Willcox, Seddon, and Dunn et al. (2007).

of countries in the world. However, in the context of a global comparator group that includes both rich and poor countries, this is probably not as high as many Canadians might expect.

Another 2008 study ranked the performance of Canadian health care in a group of 30 countries belonging to the Organisation for Economic Co-operation and Development (OECD)<sup>2</sup> in terms of being “consumer friendly” (HCP/FCPP, 2008: 21). The 30 member countries of the OECD are considered to have generally comparable levels of economic development and are often used for “apples to apples” international comparative analyses. The overall rankings were based on five separate indexes measuring patient rights and information, waiting times for accessing medical services, population health outcomes, the generosity of public health care systems, and access to pharmaceuticals. These five indexes were further comprised of 27 total variables used as proxies for each of these health system values. The results placed Canada 23rd of 30 in terms of overall performance, excluding consideration of costs. When adjusted for the level of health spending in each country, Canada’s rank fell to 30th of 30 countries compared.

Esmail and Walker (2008) also regularly rank the performance of Canadian health care in an international context using data published by the OECD. Their study is built on comparative international performance within a number of separate indicators of access to medical resources and population health outcomes. The study compares Canada only to other OECD countries that have the same social goals as Canada for health care, which is to provide a state guarantee of universal health insurance coverage. The results of this annual study show that Canada tends to consistently rank poorly against other OECD countries in terms of population-adjusted comparisons of the number of physicians and the numbers of four select diagnostic technologies (i.e., MRI, CT, mammography, and lithotripters). The study also ranks Canada against the OECD according to seven measures of population health outcomes. According to their data covering 28 OECD countries, Canada ranks between 17th and 24th on three broad measures of overall mortality rates that are largely affected

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2 For more information, please visit [www.oecd.org](http://www.oecd.org).

by factors other than medical care (i.e., healthy life expectancy/life expectancy, infant mortality, and perinatal mortality), between 6th and 10th on three measures of mortality that can be specifically affected by medical care (i.e., mortality amenable to health care, potential years of life lost, and breast cancer), and 2nd on mortality rates related specifically to colon or rectal cancer. According to their aggregate results, Canada ranks 7th overall on measures of population health outcomes. Their report also ranks international health systems on the basis of the availability of various medical resources (i.e., number per population), including physicians, and four types of advanced medical diagnostic technologies suggested as a proxy for overall access to an acceptable standard of high quality health care. Averaged across all five measures of access to medical resources, the aggregated results of their individual ranking comparisons would have placed Canada in the bottom 36 percent of the OECD countries compared.<sup>3</sup>

Overall, the weight of the available research comparing aggregate health system performance in an international context tends to support the view that the Canadian health system is not performing well relative to its peers. In particular, the conclusions that tend to be drawn are that Canadians spend a lot on health care relative to comparable countries, yet this high relative level of spending does not buy Canadians as many health care resources as patients in many other countries enjoy.

## US-Canada comparisons

In the Canadian health policy debate, the international evidence is often ignored by advocates of government-run health care who usually prefer to focus only on the flaws (whether real, imagined, or exaggerated) of the American health care system relative to Canada. Critics of the American health care system are specifically concerned about comparatively higher levels of health spending as a percentage of GDP<sup>4</sup> and the lack of universal insurance coverage in the United States. Canada's health care system

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3 Author's calculations.

4 GDP or Gross Domestic Product is a statistical measure of national economic output.

is often presented as a model for health care reform in the United States. Yet the reality is that the American health care system outperforms the Canadian system in terms of access to medical resources. This is especially obvious with regard to the most advanced medical technologies and treatments. It is true that Canadian governments promise universal health insurance coverage for all medically necessary care. But governments define “medically necessary” according to what they are willing to pay for. Increasingly, Canadian governments are reducing the real, practical economic value of public health insurance benefits. In terms of delivering actual access to medical goods and services, the Canadian system is not really doing a much better job at universalizing effective health insurance coverage than the American system. Access to a wait list is not the same thing as access to medical care.

Canadian health care is neither as good as its advocates say it is, nor is American health care as bad as its critics have asserted. Indeed, there are many unsubstantiated myths about the American system that are nevertheless regularly cited by advocates of government-run health insurance in both Canada and the United States, and are unquestioningly repeated by the media. These myths are easily dispelled by the facts.

## **The ‘cost’ of health care in Canada and the US**

One myth concerns the relative cost of health care in Canada versus the US. Some researchers have compared the growth of health spending in Canada and the United States over time and argued that Canada’s system has been better at cost control. In fact, before the introduction of government health insurance, Canada’s total health spending was roughly the same proportion of its GDP as total American health spending was of US GDP. The data show that after single-payer health insurance was introduced in Canada in 1970, American health spending grew to a higher percentage of GDP than Canadian health spending. This has led some to assume that centralized government control of health insurance is better at controlling costs than pluralistic public-private health insurance systems (Evans et al., 1989).

However, Ferguson (2002a) analyzed the relative growth of per-capita health spending in Canada and the US, separately from the relative growth of per-capita GDP in Canada and the US, from 1960–1998. Ferguson’s analysis showed that total health spending in the US and Canada grew at roughly similar paces until the late 1980s. However, GDP in the US grew slower than in Canada during much of the 1970s and early 1980s.

This, according to Ferguson, is why health spending, when measured as a percentage of GDP, appeared to grow faster in the US than in Canada during this period. If the different growth rates of GDP are not accounted for, it creates the illusion that Canadian public health insurance was better at cost control during this period. Ferguson (2002a: 25) further showed that if Canadian GDP had grown at the same rate as GDP in the US, Canada would have been spending an even higher percentage of its GDP on health care during the 1970s and 1980s than the US. According to Ferguson (2002a), Canada’s spending rank relative to the US would only have improved when governments began to restrict the scope of public health insurance benefits, impose price controls, and ration health spending in Canada during the late 1980s and early 1990s. The truth is that Canada’s alleged success at cost control during the 1970s and 1980s was an illusion created by different growth rates in GDP between Canada and the US. Since the late 1980s, Canada’s relative success at cost control has been achieved from government rationing, not a more efficient allocation of medical resources.

## **Hidden costs of Canadian health policy**

As a matter of fact, a comparison of American and Canadian health care shows that Canada’s particular approach to health care has significant hidden costs that are not usually acknowledged by the advocates of single-payer health care. The hidden costs of Canadian health care include:

- ⌘ significant unfunded liabilities and a financial sustainability crisis facing governments because of the uncontrolled growth of public health care spending;

- ‡ shortages of medical resources, especially for high technology and the most advanced medical treatments;
- ‡ significant numbers of people who lack actual effective access to publicly insured and medically necessary health care;
- ‡ significantly delayed access to the relatively fewer medically necessary goods and services that are available;
- ‡ government-imposed restrictions on the incomes of health professionals at levels below market value; and
- ‡ disincentives for medical innovation.

It is, of course, true that compared to Canadians, Americans spend more of their incomes on health care, but it is equally true that Americans get faster access to more and often better medical resources in return for the money they spend.<sup>5</sup> To illustrate this, table 1 contrasts the availability of medical resources and effective insurance coverage in the American and Canadian health systems using comparable government sources of data. The evidence is clear that the American health system tends to make more medical resources available to its population than the Canadian system.

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5 CIHI (2008a) data indicates that, at the provincial level, total health spending in Canada in 2008 ranged from a low of 6.9% of provincial GDP in Alberta to highs of 14.6% in Nova Scotia and 15.3% in Prince Edward Island. Incidentally, this means that health spending in Nova Scotia and PEI is roughly just as proportionally expensive as health spending in the United States overall. Thorpe (1993) also found that health spending grew faster in several Canadian provinces compared to several US states when studied over the same time period. These findings suggest that a single-payer health insurance system does not inherently produce lower overall costs or cost growth than a pluralistic insurance system; in fact, there are many complex economic, political, and institutional factors which interact to create demand-side and supply-side incentives in each system, and these incentives drive health spending.

**Table 1: Comparison of health insurance system outputs in Canada and the United States**

| Measures of system-wide health insurance benefit, coverage, and choice  | US      | Canada    | Data sources                                       |
|---|---------|-----------|--|
| Number of practicing physicians per million population in 2006  | 2,400   | 2,100     | OECD (2008)  |
| Number of practicing nurses per million population in 2006  | 10,500  | 8,800     | OECD (2008)  |
| Number of MRI units per million population in 2006  | 26.5    | 6.2       | OECD (2008)  |
| Number of MRI exams per million population in 2004–05   | 83,200  | 25,500    | CIHI (2006)  |
| Number of CT Scanners per million population in 2006  | 33.9    | 12        | OECD (2008)  |
| Number of CT exams per million population in 2004–05  | 172,500 | 87,300    | CIHI (2006)  |
| Number of inpatient surgical procedures per million population in 2004  | 89,900  | 44,700    | OECD (2008)  |
| Acute care hospital staff ratio, average number of staff per bed in 2005  | 5.3     | 4.3       | OECD (2008)  |
| Average age (years) of hospital facilities in 2003 (Ontario as proxy for Canada)  | 9       | 40        | OHA (2003)   |
| Estimated percentage of the population uninsured or “effectively” uninsured for non-emergency necessary medical services in 2007                          | 5.0%    | 7.4% [1]  | Herrick (2008); Statistics Canada (2008a)          |
| Estimated percentage of the population legally prohibited from directly buying local necessary medical services when uninsured or “effectively” uninsured | 0.0%    | 83.5% [2] | Flood & Archibald (2001); Statistics Canada (2007) |
| Estimated percentage of the population legally prohibited from buying private insurance for necessary medical services                                    | 0.0%    | 89.8% [3] | Flood & Archibald (2001); Statistics Canada (2007) |

Source: Adapted and revised from Skinner et al., 2008; other sources shown; most recent available data.

[1] In 2007, Statistics Canada (2008a) estimated that 1,146,787 Canadians (of the non-aboriginal, non-military, non-territorial population aged 12 and older) obtained access to primary-care physicians only through urgent/emergency rooms in hospitals or through community health clinics, hospital outpatient clinics, telehealth, etc., while 898,480 additional Canadians had no access to a primary-care physician.

[2] Six of 10 Canadian provinces accounting for 83.5% of the national population legally ban direct private payment for necessary medical services (provided in province).

[3] Six of 10 provinces accounting for 89.8% of the national population legally ban the purchase of private insurance for necessary medical services (provided in province).

## Health insurance coverage in Canada and the US

The typical response to such comparisons of medical resource availability is that Canada at least has universal access to these resources, whereas many people in the US are uninsured. But, even on the issue of health insurance coverage, the Canadian system does not perform much better than the United States when it comes to actually delivering effective access to “insured” medical care. Access to a wait list is not the same thing as access to health care. For example, chapter two of this book examines the shortage of physicians in Canada. The chapter shows Statistics Canada survey data which estimates the number of Canadians in 2007 who did not have access to a regular primary care physician, or only had access to primary physician services through emergency rooms or community health clinics. According to the analysis, 7.4% of Canadians fall into this category. These Canadians have similar (if not exactly the same) practical status as “uninsured” Americans in terms of effective access to insured health services. Without access to a family doctor it is very difficult to obtain regular primary care, referrals for elective specialty medical services, or access to most prescription drugs. When Canadians can’t get access to health care because they can’t find a physician or wait so long that they are effectively uninsured, they are, in this sense, not much better off than uninsured Americans.

By comparison, American governments do not guarantee universal health insurance coverage, but they do guarantee universal access to urgent and emergency health services. American governments legally require health professionals and hospitals to treat patients who need urgent or emergent care regardless of ability to pay. It is also true that, in practice, Americans who lack health insurance frequently utilize hospital ERs or charitable and/or publicly funded community clinics to obtain non-emergency primary health care services, often without securing payment in advance.<sup>6</sup> This is exactly how, according to Statistics Canada, 7.4% of

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6 According to the US National Association of Community Health Centers, community health centers are “non-profit, community-directed health care providers serving low income and medically underserved communities.” The centers are funded by government as well as philanthropic donations. According to the Association’s

Canadians obtain access to primary health care. This means that if, in its Current Population Survey (CPS), the US Census Bureau asked Americans about being without “access to health care” at any point during the survey year instead of being without “health insurance,” figures in both Canada and the United States might look more similar.

To illustrate this concept, consider that research shows that the actual number of effectively uninsured Americans is less than half of the figure usually reported by the US Census Bureau, and that being uninsured is usually only a temporary condition (Herrick, 2008; Graham, 2006). According to the US Census Bureau’s most recent Current Population Survey (CPS), 45.7 million Americans lacked health insurance in 2007 (DeNavas-Walt et al., 2008). However, estimating the number of people without health insurance in the United States is the subject of much debate. Table 2 illustrates the problems with the CPS with reference to the 2006 CPS survey. It shows the numbers for the estimated US population in each of the survey categories for health insurance coverage. Note that the total number of people with private health insurance, government health insurance, plus those without health insurance, exceeds the Census Bureau’s estimate for the entire population of the United States—an obvious impossibility. The number of responses to the CPS questionnaire is inaccurate by a margin of at least 32 million people.

An accurate estimate must take account of the particular characteristics of the survey population, including (BCBS, 2005; Herrick, 2008):

- ⌘ people who are temporarily uninsured only for a short period because they are between jobs and have, for the time being, lost employer-based health insurance, or who are students transitioning between family, school, and work coverage;

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most recent statistics (2007), 7.2 million uninsured patients were served annually by community health centers, with 18 million people in total served. The Association states that patients are served “regardless of their insurance status or ability to pay” (NACHC, 2009).

- ⌘ people who are eligible for public health insurance programs like Medicaid, Medicare, and the State Children’s Health Insurance Program (SCHIP) for children, but who are reluctant to enroll until the moment they require health care services;
- ⌘ people who have sufficient income to buy health insurance but choose not to; and
- ⌘ people who are uninsured for long periods of time because they lack employer-based insurance or the income to buy health insurance themselves.

Herrick (2008) publishes an annual analysis of the CPS data to identify the number of Americans whose income is too high to qualify for Medicaid (i.e., the American State-run health programs for low-income people) but still earn too little income to “easily afford” some of the best family health

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***Table 2: Inaccuracies in the 2006 US Current Population Survey (CPS) questionnaire on health insurance coverage among Americans***

| Survey response                         | Estimated population |
|---|----------------------|
| Had private health insurance            | 201,690,000          |
| Had government health insurance         | 80,270,000           |
| No insurance coverage during the years* | 46,995,000           |
| Total of above                          | 328,955,000          |
| Total CPS US population                 | 296,824,000          |
| Estimated magnitude of inaccuracy       | 32,131,000           |

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Sources: Skinner and Rovere, 2007e; Skinner, Rovere, and Warrington, 2008.

\*The figures reported by the US Census Bureau for the year 2006 indicate values that are potentially flawed. The report notes that the CPS estimates reflect point-in-time coverage rather than the number of people uninsured for the entire year.

insurance plans costing more than US\$12,000<sup>7</sup> annually. According to his research, 85% of US residents in 2007 were privately insured or enrolled in a government health program. Of the uninsured, 18 million had household incomes above \$50,000 and could afford health insurance, and 14 million qualified for government programs but had not enrolled. Herrick concluded that 32 million people, or 70% of the uninsured, could obtain coverage but have chosen to forgo insurance. That means 95% of US residents either have health coverage or access to it.

Based on Herrick's (2008) analysis, the estimated number of Americans who were effectively uninsured for non-emergency, necessary medical services during 2007 was roughly equal to 5% of the total population. The estimated percentage of the American population who were effectively uninsured in 2007 (5%) is actually lower than the estimate for the percentage of Canadians in the same year whose effective access to primary care was conceptually similar to uninsured Americans (7.4%). In fact, it is not much higher than the percentage of Canadians (3.25%) who Statistics Canada estimates do not have any access at all to a primary care physician, and who therefore probably have very limited, if any, actual access to publicly insured medical care. These figures do not even include an estimate of the number of Canadians who have access to a primary care physician but who are on waiting lists to get publicly insured medical treatment.

In addition, lacking health insurance is not the same thing as lacking access to health care. The uninsured in the United States are not prohibited from obtaining health care through direct payment, and it is illegal for hospitals to refuse urgent or emergency care. In other words, being uninsured in the United States is not an absolute barrier to getting necessary medical care. By contrast, in Canada, six out of 10 provinces accounting for 83.5% of the national population legally ban direct private payment for necessary medical services (provided in province), and six out of 10 provinces accounting for 89.8% of the national population legally ban the purchase of private insurance for necessary medical services (provided in province) (Flood and Archibald, 2001; Statistics Canada, 2007). This means that Canadian patients who want to escape the delays in the public

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7 According to Herrick (2008), many could potentially afford less generous coverage.

system are prohibited from paying privately for health care services (in addition to what they already pay in taxes for the public system). In practical terms, Canadian patients are unable to buy quicker access or better care than what the government health insurance program provides. In this sense, Canadian patients on waiting lists are worse off than uninsured Americans who may at least legally use their own money or credit to buy health care if they lack insurance coverage. Canadian patients can only pay privately for health care if they leave their province of residence. Ironically, the Canadian health care system encourages underserved patients to spend their money not only in other provinces, but also often in other countries, usually the United States. The absurdity of the policy is that because Canadian patients are not allowed to spend their own money on medical care provided at home, the economic benefit of this spending is lost for their province, and sometimes for Canada altogether, as Canadians are left to purchase health care from foreign economies.

## **Health insurance and bankruptcy in Canada and the US**

The American debate about health care has been influenced by controversial research (Himmelstein et al., 2009) claiming to show that nearly two thirds of personal bankruptcies in the United States result from uninsured medical expenses or loss of income due to illness. An earlier edition of this research (Himmelstein et al., 2005) claimed that just over half of personal bankruptcies were due to these “medical causes.” The authors of these studies have argued that the problem of “medical bankruptcies” would be solved by the adoption of a government-run health insurance system like Canada’s. The medical bankruptcy myth is also frequently raised in the Canadian health care debate and is regularly cited by the media north of the border. Yet the medical bankruptcy study has been soundly refuted by several researchers.

To begin, the idea that large numbers of Americans are declaring bankruptcy due to medical expenses is a myth. For example, Dranove and Millenson (2006) critically analyzed the data from the 2005 edition of the medical bankruptcy study. They found that medical spending was a

contributing factor in only 17% of US bankruptcies. They also reviewed other research, including studies by the Department of Justice, finding that medical debts accounted for only 12% to 13% of the total debts among American bankruptcy filers who cited medical debt as one of their reasons for bankruptcy.

Second, the notion that greater government involvement in health insurance will reduce bankruptcy can be tested by comparing personal bankruptcy rates in the United States and Canada. Unlike the United States, Canada has a universal, government-run health insurance system. Following the logic of Himmelstein and colleagues, we should therefore expect to observe a lower rate of personal bankruptcy in Canada compared to the United States.

Yet the evidence (Skinner and Rovere, 2009) shows that in the only comparable years, personal bankruptcy rates were actually higher in Canada. Personal bankruptcy filings as a percentage of the population were 0.20% in the United States during 2006 and 0.27% in 2007. In Canada, the numbers are 0.30% in both 2006 and 2007. The data are taken from government sources and defined in similar ways for both countries, covering the time period after the legal reforms to US bankruptcy laws in 2005 and before the onset of the 2008 economic recession.

This is important because the 2005 reforms produced US legal standards for bankruptcy filing that are now very similar to Canada's. Before 2005, it was much easier to file for bankruptcy in the United States, making cross-border comparisons prior to the legal changes meaningless. Further, in 2008, the United States was harmed by massive systemic home-mortgage defaults that did not occur in Canada because of differences in mortgage lending practices. US mortgage defaults would have been correlated with increased bankruptcy rates. Therefore, Canada-US comparisons in 2008 are not valid because the data is skewed by other policy differences unrelated to health insurance.

There is no reason to expect that bankruptcy would be affected by other factors in Canada and the US. Aside from universal single-payer health insurance, there are few significant health, social, or legal policy differences between the two countries that could be causally linked to bankruptcy rates.

Both countries have employment insurance programs that provide income support in the event of job loss. In fact, unemployment occurs with roughly similar frequency among Canadians and Americans. National unemployment rates in 2007 were 5.3% in Canada versus 4.6% in the United States (Statistics Canada, 2009).

Drug insurance is also structured almost identically, so exposure to drug costs is similar in both countries. While the entire Canadian population is universally eligible for publicly funded insurance for hospital and physician services, only about one third of the Canadian population is publicly insured for prescription drugs. In Canada, as in the United States, low-income people, disabled populations, and seniors are eligible for separate publicly funded drug programs, while most employed people obtain drug insurance as a benefit of employment, and the rest of the population pays cash.

Access to medical care for people who experience long-term unemployment, disability from illness, and chronic low-income status is also practically the same in both countries, being facilitated by non-profit, publicly funded community health centers and public programs such as Medicaid in the United States and government-run systems in Canada.

The truth is that the majority of debt among bankrupt consumers in both Canada and the United States is comprised of non-medical expenditures and therefore has little to do with health insurance coverage. On the rare occasion that medical debts do partially contribute to bankruptcy, they likely accumulate from patients' demands for the kinds of expensive cutting-edge or end-of-life treatments that would never be covered by government insurance anyway. It is a fact that many of these same types of expensive treatments are increasingly not insured by government health care in Canada.

Indeed, if we define medical bankruptcies the way Himmelstein and colleagues did for their study in the United States, we find such bankruptcies also occur in Canada. Survey research commissioned by the Canadian government (Redish et al., 2006) found that despite having a government-run health system, medical reasons (including uninsured expenses) were cited as the primary cause of bankruptcy by approximately 15% of bankrupt Canadian seniors (55 years of age and older).

## Purpose of international comparisons

Does this mean that this book is advocating America’s health care system for Canada? No. This comparison merely illustrates that much of what Canadians are told about their health care system (and other health care systems, including that of the US) is not correct. Across many objective indicators, the performance of other health systems is most often better than Canada. Indeed, by comparison with Canada, most other systems are very pragmatic in their policy structures. Overall, the goal of most other health systems is to help markets achieve universal health insurance coverage with the lowest possible cost to taxpayers, the highest possible benefit to patients, the fewest distortions to economic activity, and the least restriction on professional freedom and consumer choice. By contrast, the goal of Canadian health policy appears to be the egalitarian distribution of medical resources through the social redistribution of costs and centralized gatekeeping on access to medical treatment. In practice, the Canadian system is plagued by several serious failures, particularly regarding its ability to provide timely access to high quality medical resources at a sustainable economic price. In response to these failures, Canadian health policy reform has become a series of “too little, too late” empty gestures designed to maintain political support for a health care system that increasingly restricts the practical value of the public insurance benefit in order to keep costs growing at a financially sustainable pace.

## Outline of the book

The purpose of this book is to focus on the “exceptionalism”<sup>8</sup> of the Canadian health care system as a textbook case of government failure in medical insurance and medical services policy. Chapters one to six identify six key areas where the Canadian health care system is failing. The focus is on measuring and comparing the relative availability of medical resources

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8 Evans (2005b) used this term to describe the American health care system in an international context.

(and costs) instead of overall population health outcomes in this paper. This approach is consistent with the weight of research, which indicates that there is no statistical correlation between spending on medical care and population health outcomes.<sup>9</sup> This is because only a small percentage of the population in any given year makes significant use of curative medical treatment that could extend life. Population health statistics like life expectancy, for instance, are largely determined by non-medical factors. This finding is important because it means that it is inappropriate to judge the relative performance of international health insurance systems on the basis of population health statistics.<sup>10</sup>

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9 Including a study submitted to the federally commissioned National Forum on Health by the Centre for International Statistics (1998).

10 Appropriate comparisons of international health spending should measure the relative value received for the money spent on health care. Value for money means: how much does one country spend relative to similar countries, and how many health care resources are received in return for that money relative to similar countries? If a country spends more of its GDP on health care than Canada, does it get more or better health care resources (e.g., hospitals, physicians, nurses, high-tech equipment, advanced medicines, etc.), or faster access to health care resources than Canada? It is important to measure only the things purchased by the system of financing health care instead of the health outcomes produced by medical treatment. The output “good” produced by medical treatment is human health, but the output of health insurance is access to medical goods and services. Of course it is true that health insurance systems influence investment in and utilization of medical resources and therefore indirectly affect the performance of the medical system and patient health outcomes. However, it should be noted that the particular effects of the medical system are not usually apparent in broad population health outcomes statistics like life expectancy because only small percentages of the population have life-shortening health conditions that can be remedied by medical treatment. Broad population health statistics like life expectancy are more significantly affected by things that affect many people and which are usually unrelated to the type of health insurance policy used by a country. For example, clean water, nutrition, the treatment of sanitary sewage and waste, environmental pollution, auto accident rates, violent crime rates, poverty, infectious disease control, mass vaccination programs, etc. have the most statistically significant impact on population-wide health statistics. Once these factors are controlled for, there tends to be little absolute difference in life expectancy between countries that have similar levels of economic development. In order to accurately isolate and

Chapter seven offers some qualitative support for the quantitative analyses presented in earlier sections. The chapter provides a small sample of published media stories and journalistic reports that illustrate the ways in which real people are often harmed by Canadian health policy.

Chapter eight identifies and discusses the key health and prescription drug policies in Canada that are most problematic. Chapter nine provides a discussion about various potential alternative policies that could provide better outcomes. In both chapters, opposing opinions are discussed and critically analyzed and compared to research that supports the arguments presented in this book.

Chapters 10, 11, and 12 identify the key political factors that act as barriers to the adoption of more economically rational health care policies in Canada. One of these barriers is that the ideological political values of many in the academic research community tend to be opposed to the economic liberalization of health policy, and this could partially contribute to an information deficit for policy makers. Another is that some special interest groups actually benefit economically from the state's involvement in health care and therefore could face strong incentives to favor interventionist public policies and oppose liberalization. The electoral dynamics produced by the distribution of the tax burden and of illness are also not

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measure output produced by the medical system (i.e., quantity, quality, allocation, and organization of medical resources) one should measure differences in the health outcomes of patients actually treated by hospitals and doctors (assuming the populations have similar risk profiles). According to this measure there is probably little reason to doubt that the quality of medical care in Canada is among the best in the world. In fact, for patients that actually receive medical treatment, we would expect to see little difference in health outcomes between countries with similarly developed hospital systems, medical science, and medical professionalism. Therefore, I propose that the best way to accurately compare the “output” performance between health insurance systems is to know the number of people needing treatment and the number of people receiving actual access to the best available global standard of treatment and the cost of achieving this. Unfortunately, I am not aware of any international data source that makes such an analysis possible. Therefore, we are left with making comparisons about variations in the “output” between different health insurance systems using available international data on population, demographics, aggregate health spending, and aggregate volumes of medical resources.

favorable to the introduction of economically liberal health policy reforms. The majority of the tax burden is paid for by a minority of the population. This means most people are disproportionately insulated from the price of public health insurance programs. Therefore, the majority of voters have significantly reduced financial incentives to make cost-benefit calculations about the performance of the health system. It also means that policy makers face fewer political risks from raising taxes to fund health care than from introducing price mechanisms that are paid by everyone. And ill people—those most directly harmed by a lack of access to medical care—make up an extremely small percentage of the population, and therefore represent too few votes to have a decisive influence on policy makers about declining access and coverage under Medicare. The costs of public policy failure are also not borne equally by policy makers and the public, and this might also produce policy preferences that do not optimize the public interest.

The book concludes in chapter 13 on an optimistic note, with a discussion about the political feasibility of achieving economically liberal health policy reform in Canada. While the Canada Health Act (CHA) is a partial barrier to economically liberal policy reforms, there is still a surprising degree of freedom under the act, and ultimately the provinces still have policy autonomy if they choose to exercise it. The nature of health policy liberalization as a wedge issue in a multi-party system is also discussed to demonstrate that a reform platform could work as a winning electoral strategy. This is accompanied by a review of the results from various public opinion polls which indicate that when the right questions are asked, the responses suggest that most Canadians might actually tend to prefer economically liberal and socially minimalist approaches to health policy.



# Unsustainable costs

## Health spending in Canada

An annually updated report from the Canadian Institute for Health Information (CIHI) estimated that Canada's total national spending on health was \$171.9 billion dollars in 2008, up from \$161.6 billion in 2007 (CIHI, 2008a). According to the report, this represents a real annual increase of 4.3% after controlling for general price inflation. The CIHI report also estimated that total health spending accounted for 10.7% of Canada's national gross domestic product (GDP) in 2008, up from 10.6% of GDP in 2007. On a per-capita basis, total national health expenditures were estimated to be \$5,170 per person in 2008, up from \$4,900 in 2007.

## International comparisons

On their own, these statistics tell us little about the performance of the Canadian health care system in terms of economic efficiency. It is therefore useful to compare Canadian spending figures in an international context. At the international level, the relative costs of health insurance systems are usually compared by estimating total publicly and privately funded spending on health care as a percentage of the total national economic output or gross domestic product (GDP). International data suggests that Canada's health care system is relatively expensive when compared

with similar countries. Table 3 displays total (public plus private) national health spending as a percentage of domestic GDP for all 30 OECD member countries using the most recent 10-year period of available comparable data.<sup>11</sup> According to this analysis, Canada would rank, on average over the period, as the seventh highest spender on health as a percentage of its GDP. In a similar analysis using a more rigorous method, Esmail and Walker (2008) narrowed the comparison of Canada's total health spending relative only to OECD countries that have similar social goals regarding medical insurance policy.<sup>12</sup> They also adjusted health spending data to control for differences in the age profiles of domestic populations that could skew international comparisons.<sup>13</sup> Their most recent analysis suggested that after adjusting for population age, in 2005 Canada ranked

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11 Year to year percentage statistics and rankings are sensitive to fluctuations in GDP. The 10-year average is used here to smooth the effects of changes in GDP on the statistics.

12 Esmail and Walker's annually updated report excludes the United States and Mexico because, with the exception of these two countries, all other OECD member countries share Canada's basic social goal for health care, which is a state guarantee of universal health insurance coverage.

13 Countries with younger populations should be expected to spend proportionally less because there should be less demand for medical goods and services. Therefore, a comparison of spending that does not adjust for the age characteristics of a population will result in an underestimation of spending for younger populations. Research indicates that 50% of lifetime per-capita health expenditures occur after the age of 65 (Brimacombe et al., 2001). According to 2006 data published by CIHI on provincial and territorial government health care spending by age group, "Canadians younger than the age of 1 cost an estimated \$7,891 per person. From youths age 1 to adults age 64, spending averaged less than \$3,700 per person. There was a pronounced increase in per capita spending in the senior age groups: \$5,369 for age group 65 to 69, \$7,382 for 70 to 74, \$9,987 for 75 to 79 and \$17,121 for age 80 and older" (CIHI, 2008a: xiv). Similarly, data from the OECD confirms that health expenditures on seniors are significantly higher than per-capita spending in general (OECD 2008). According to research, Canada has the "seventh lowest proportion of seniors of the 27 OECD countries compared." (Esmail and Walker, 2008: 18) For this reason, Canada should be expected to face lower demands for health care, and therefore lower levels of health spending than countries with older populations.

**Table 3: Total public plus private health expenditure as a percentage of gross domestic product (GDP), OECD, 1997–2006, data not adjusted for population age profile**

| Rank | Country       | 10-year average | 2006 | 2005 | 2004 | 2003 | 2002 | 2001 | 2000 | 1999 | 1998 | 1997 |
|------|---------------|-----------------|------|------|------|------|------|------|------|------|------|------|
| 1    | United States | 14.2            | 15.3 | 15.2 | 15.2 | 15.1 | 14.7 | 13.9 | 13.2 | 13.1 | 13   | 13.1 |
| 2    | Switzerland   | 10.8            | 11.3 | 11.4 | 11.4 | 11.4 | 11   | 10.7 | 10.3 | 10.3 | 10.2 | 10.1 |
| 3    | France        | 10.5            | 11.0 | 11.1 | 11   | 10.9 | 10.5 | 10.2 | 10.1 | 10.1 | 10.1 | 10.2 |
| 4    | Germany       | 10.5            | 10.6 | 10.7 | 10.6 | 10.8 | 10.6 | 10.4 | 10.3 | 10.3 | 10.2 | 10.2 |
| 5    | Austria       | 10.1            | 10.1 | 10.3 | 10.3 | 10.2 | 10.1 | 10   | 9.9  | 10.1 | 10   | 9.8  |
| 6    | Iceland       | 9.4             | 9.1  | 9.4  | 9.9  | 10.4 | 10.2 | 9.3  | 9.5  | 9.6  | 8.9  | 8.1  |
| 7    | Canada        | 9.4             | 10.0 | 9.9  | 9.8  | 9.8  | 9.6  | 9.3  | 8.8  | 8.9  | 9    | 8.8  |
| 8    | Belgium       | 9.4             | 10.3 | 10.6 | 10.7 | 10.5 | 9    | 8.7  | 8.6  | 8.6  | 8.4  | 8.3  |
| 9    | Norway        | 9.2             | 8.7  | 9.1  | 9.7  | 10   | 9.8  | 8.8  | 8.4  | 9.3  | 9.3  | 8.4  |
| 10   | Portugal      | 9.1             | 10.2 | 10.2 | 10   | 9.7  | 9    | 8.8  | 8.8  | 8.2  | 8    | 8    |
| 11   | Denmark       | 8.9             | 9.5  | 9.5  | 9.5  | 9.3  | 8.8  | 8.6  | 8.3  | 8.5  | 8.3  | 8.2  |
| 12   | Sweden        | 8.8             | 9.2  | 9.2  | 9.2  | 9.4  | 9.3  | 9    | 8.2  | 8.3  | 8.2  | 8.1  |
| 13   | Netherlands   | 8.6             | 9.5  | –    | 9.5  | 9.4  | 8.9  | 8.3  | 8    | 8.1  | 8.1  | 7.9  |
| 14   | Greece        | 8.5             | 9.1  | 9    | 8.3  | 8.5  | 8.2  | 8.4  | 7.8  | 8.6  | 8.4  | 8.4  |
| 15   | Australia     | 8.4             | 8.7  | 8.8  | 8.8  | 8.6  | 8.6  | 8.4  | 8.3  | 8    | 7.8  | 7.6  |
| 16   | Italy         | 8.3             | 9.0  | 8.9  | 8.7  | 8.3  | 8.3  | 8.2  | 8.1  | 7.8  | 7.7  | 7.7  |
| 17   | New Zealand   | 7.8             | 8.0  | –    | –    | 8    | 8.2  | 7.8  | 7.7  | 7.6  | 7.8  | 7.3  |
| 18   | Japan         | 7.8             | 8.1  | 8.2  | 8    | 8.1  | 8    | 7.9  | 7.7  | 7.5  | 7.3  | 7    |
| 19   | Spain         | 7.7             | 8.4  | 8.3  | 8.2  | 8.1  | 7.3  | 7.2  | 7.2  | 7.3  | 7.3  | 7.3  |
| 20   | Finland       | 7.6             | 8.2  | 8.3  | 8.1  | 8    | 7.6  | 7.2  | 7    | 7.2  | 7.2  | 7.4  |
| 21   | Hungary       | 7.6             | 8.3  | 8.5  | 8.2  | 8.4  | 7.6  | 7.2  | 6.9  | 7.2  | 7.1  | 6.8  |
| 22   | UK            | 7.5             | 8.4  | 8.2  | 8    | 7.7  | 7.6  | 7.5  | 7.2  | 7.1  | 6.8  | 6.8  |
| 23   | Ireland       | 7.0             | 7.5  | 8.2  | 7.5  | 7.3  | 7.1  | 6.9  | 6.3  | 6.2  | 6.2  | 6.4  |
| 24   | Czech Rep.    | 6.9             | 6.8  | 7.1  | 7.2  | 7.4  | 7.1  | 6.7  | 6.5  | 6.6  | 6.6  | 6.7  |
| 25   | Luxembourg    | 6.7             | 7.3  | 7.8  | 8.1  | 7.6  | 6.8  | 6.4  | 5.8  | 5.8  | 5.7  | 5.6  |
| 26   | Slovak Rep.   | 6.1             | 7.4  | 7.1  | 7.2  | 5.9  | 5.6  | 5.5  | 5.5  | 5.7  | 5.6  | 5.7  |
| 27   | Mexico        | 6.0             | 6.6  | 6.4  | 6.5  | 6.3  | 6.2  | 6    | 5.6  | 5.6  | 5.4  | 5.3  |
| 28   | Poland        | 6.0             | 6.2  | 6.2  | 6.2  | 6.2  | 6.3  | 5.9  | 5.5  | 5.7  | 5.9  | 5.6  |
| 29   | Turkey        | 5.2             | 5.7  | 5.7  | 5.9  | 6    | 5.9  | 5.6  | 4.9  | 4.8  | 3.6  | 4.2  |
| 30   | Korea         | 5.1             | 6.4  | 5.9  | 5.4  | 5.4  | 5.1  | 5.2  | 4.5  | 4.4  | 4.2  | 4.2  |

Source: OECD, 2008.

as the second highest spender on health (as a percentage of GDP) among OECD countries with the same social goals (Esmail and Walker, 2008).<sup>14</sup>

There are of course limitations to the conclusions that should be drawn from simple international comparisons of health spending. More information is required if such data is to be meaningful to policy makers, including: an appreciation for the technical issues affecting data comparability<sup>15</sup>; false assumptions defining high levels of spending on health as necessarily negative<sup>16</sup>; and importantly, considerations of value for money. An

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14 If the US and Mexico were to be included in this comparison, Canada would rank third because, after age adjustment, the US still spends the most on health care as a percentage of its GDP.

15 OECD data submitted by member countries is not perfectly comparable due to differences in reporting compliance with OECD data definitions. Canadian expenditure data, for example, does not include spending by automobile insurers on medical rehabilitation or private-sector spending on occupational health care, whereas such expenditures are included in the total reported by the US. There may be other differences between jurisdictions, including incomplete reporting in some years. For details see CIHI (2008a: 70–75).

16 For instance, on the basis of such comparisons, some health policy experts have argued that Canada's government-run, single-payer health insurance system is less expensive than systems that permit greater scope for private payment or insurance for core health services (particularly the United States). This falsely assumes that the quantity and quality of health care received across countries is the same in these comparisons. To illustrate this point, consider that in 2006, Ethiopia spent 4.9% of its GDP on health care, or 5.1 percentage points less than Canada, which spent 10.0% of its GDP on health care in the same year (WHO, 2008). Yet, on a per-capita basis, Ethiopians spent only the equivalent (international currency adjusted) of \$22 per person on health care in 2006 compared to \$3,672 per person in Canada (WHO, 2008). There is no doubt that Ethiopia's health care system is not producing the same quality or quantity of medical goods and services as the Canadian system. Moreover, research shows that wealthier societies tend to spend proportionally more of their income on health care. This is because people in wealthy countries have proportionally more disposable income to devote to health care after other necessities like food, clothing, housing, transportation, education, etc. (Gerdtham and Jönsson, 2000). As people become wealthier, they simply have the capacity to spend a higher percentage of their income on improving their health and extending their lives without sacrificing their other needs and preferences. High levels of spending on medical goods and services might simply reflect consumer preferences for better health versus alternative uses of

assessment of the economic value associated with the Canadian health care system is considered in more detail in the subsections that follow.

## Sustainability

Aside from the comparative overall level of health spending, an additional concern when evaluating the macro-level financial performance of a health care system is the overall growth rate in health spending. From a long-term, macro-level perspective, sustainable health care financing requires health insurance systems to have enough current and expected future revenues to pay for current and expected future health care expenditures.<sup>17</sup>

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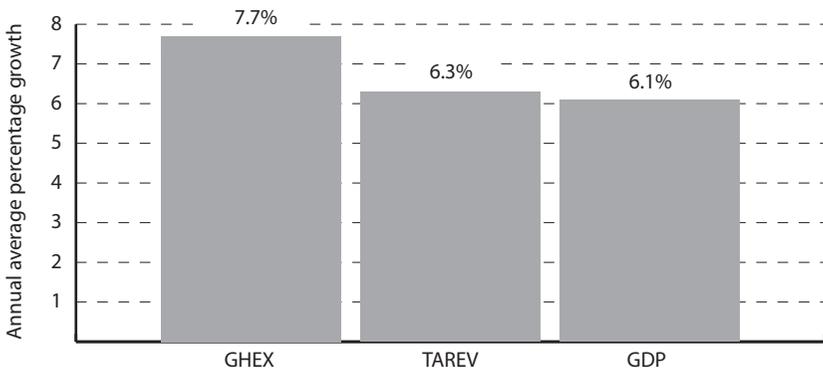
their money. Another false but common assumption is to view health spending only as a cost, without consideration of benefits received. The improved quality and length of life that good health makes possible is actually one of the highest forms of wealth—much more valuable than televisions, automobiles, and computers, for instance. Yet, when we spend our money on any of these other things, we consider such purchases to be contributing to our national economic wealth. It is therefore invalid to assume that merely spending a larger percentage of GDP on health care is necessarily bad. Pauly (1993, 2003) makes similar arguments about US health care spending levels.

<sup>17</sup> Sustainability problems tend to be associated only with insurance plans that distort normal price signals by over-insulating consumers from the cost of consuming insured goods and services, problems which are in turn more commonly associated with health insurance systems characterized by a single insurer occupying a very large share of the market. Sustainability problems are not normally a systemic concern in pluralistic insurance systems because any financial problems caused by expenditures exceeding revenues within any particular insurer are limited and contained, and do not affect the viability of the entire market. In competitive pluralistic insurance markets, spending and consumption are also typically influenced by price signals which create sustainable supply and demand dynamics. Concerns about the financial sustainability of the Canadian health care system are appropriate because it is characterized by the absence of price signals for consumers, the politicization of spending, redistributive tax financing, and the system-wide monopoly provision of medical insurance by government. Moreover, in a government-run system, the sustainability crisis is not always fully obvious to the public because costs can be shifted to future generations or to a minority of the taxpaying population.

Using this definition, a growing number of researchers have suggested that the Canadian health care system faces significant systemic challenges to its financial sustainability, including government commissions in Quebec (Clair, 2000; Menard, 2005), Alberta (Mazankowski, 2001), Saskatchewan (Fyke, 2001), and the Senate (Kirby, 2002), as well as a report by the British Columbia Ministry of Finance (Taylor, 2006). Other analyses by various think tanks include the Conference Board of Canada (Brimacombe et al., 2001), C.D. Howe Institute (Robson, 2001), Atlantic Institute for Market Studies (Crowley et al., 2002), Organisation for Economic Co-operation and Development (OECD, 2006), PriceWaterhouseCoopers (PWC, 2005), Institute for Research on Public Policy (MacKinnon, 2004), Fraser Institute (Skinner, 2002a, 2004a, 2005a, 2007b, 2007c; Esmail, 2004; Mullins, 2004a; Skinner and Rovere, 2006, 2007a, 2008a), and most recently University of Calgary, School of Public Policy (Di Matteo and Di Matteo, 2009).

According to the most recent update to an annual analysis of the sustainability of government health spending in Canada (figure 1), over the 10-year period between the fiscal years 1998/99 and 2007/08, on average

**Figure 1: National average of 10-year provincial annual percentage growth rates for government health expenditure (GHEX) and total available revenue (TAREV), 1998/99–2007/08; and gross domestic product (GDP), 1998–2007**



Source: Reproduced from Skinner and Rovere, 2008.

across all 10 Canadian provinces, government health expenditures grew at a rate of 7.7% annually, compared to 6.3% for total available provincial revenue from all sources, and 6.1% for gross domestic product (Skinner and Rovere, 2008a). According to this research, in nine of 10 provinces, government health spending has grown faster on average than revenue over the last 10 years. The only exception was the province of Alberta, which kept the pace of health spending growth just slightly below the growth of revenue over the trend period. The economic recession of 2008–2009 is expected to worsen this scenario, even for provinces like Alberta.

Earlier research using government sources of data has shown that the longer-term experience is similar (Skinner, 2007b). Table 4 displays the nominal and real (inflation-adjusted) figures for national GDP and government health expenditures between 1975 and 2005, as well as the corresponding annual growth rates. The comparator variables in this analysis differ from the approach used in annual studies by Skinner (2004a, 2005a) and Skinner and Rovere (2006, 2007a, 2008a) because comparable provincial revenue data was not available for the whole time period. Therefore, for the longer-term analysis, GDP was used by proxy following the rationale that government revenues are ultimately taken from GDP and cannot grow faster than GDP indefinitely. According to this analysis, if health spending grew faster than GDP over the long run, it was therefore assumed to have grown faster than revenue too. The data show that government health expenditures in Canada have tended to grow at a faster average annual pace than GDP for the entire 31-year period for which data is available. Figure 2 illustrates that, with temporary interruptions in the trend, government health expenditure has consumed an increasing share of GDP over the period, going from 5.4% in 1975 to 7.2% by 2005. This analysis suggests that in Canada, government spending on health care has grown faster on average than the absolute ability of the government to pay for it over this period.

These growth trends have resulted in health spending proportionally reducing the revenue remaining for other government priorities over time. To illustrate the fiscal challenge this creates for governments, a recent edition of the only annually updated analysis of this question (Skinner and Rovere, 2006) showed that the percentage of total revenue (from all

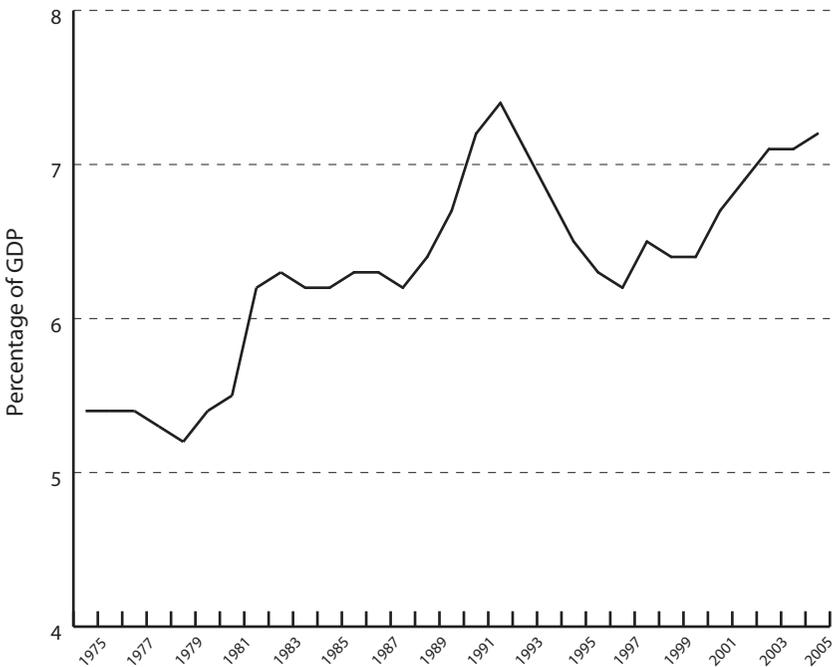
**Table 4: Long-term annual growth in Gross Domestic Product (GDP) and government health expenditure (GHEX), Canada, 1975–2005**

| Year | GDP, millions current \$ | Annual % change | GDP 1992, constant millions \$ | Annual % change | GHEX, millions current \$ | Annual % change | GHEX, millions constant 1992 \$ | Annual % change |
|------|--------------------------|-----------------|--------------------------------|-----------------|---------------------------|-----------------|---------------------------------|-----------------|
| 1975 | 173,621                  | -               | 503,249                        | -               | 9,300                     | -               | 26,957                          | -               |
| 1976 | 199,994                  | 15.2            | 539,067                        | 7.1             | 10,817                    | 16.3            | 29,157                          | 8.2             |
| 1977 | 220,973                  | 10.5            | 552,433                        | 2.5             | 11,845                    | 9.5             | 29,612                          | 1.6             |
| 1978 | 244,877                  | 10.8            | 561,644                        | 1.7             | 13,041                    | 10.1            | 29,909                          | 1.0             |
| 1979 | 279,577                  | 14.2            | 587,347                        | 4.6             | 14,552                    | 11.6            | 30,572                          | 2.2             |
| 1980 | 314,390                  | 12.5            | 599,981                        | 2.2             | 16,842                    | 15.7            | 32,141                          | 5.1             |
| 1981 | 360,471                  | 14.7            | 612,005                        | 2.0             | 19,943                    | 18.4            | 33,858                          | 5.3             |
| 1982 | 379,859                  | 5.4             | 581,714                        | -4.9            | 23,447                    | 17.6            | 35,906                          | 6.0             |
| 1983 | 411,386                  | 8.3             | 595,349                        | 2.3             | 26,080                    | 11.2            | 37,742                          | 5.1             |
| 1984 | 449,582                  | 9.3             | 623,553                        | 4.7             | 27,957                    | 7.2             | 38,775                          | 2.7             |
| 1985 | 485,714                  | 8.0             | 647,619                        | 3.9             | 30,095                    | 7.6             | 40,127                          | 3.5             |
| 1986 | 512,541                  | 5.5             | 656,262                        | 1.3             | 32,529                    | 8.1             | 41,650                          | 3.8             |
| 1987 | 558,949                  | 9.1             | 685,827                        | 4.5             | 35,055                    | 7.8             | 43,012                          | 3.3             |
| 1988 | 613,094                  | 9.7             | 722,988                        | 5.4             | 38,163                    | 8.9             | 45,003                          | 4.6             |
| 1989 | 657,728                  | 7.3             | 739,020                        | 2.2             | 41,911                    | 9.8             | 47,091                          | 4.6             |
| 1990 | 679,921                  | 3.4             | 728,747                        | -1.4            | 45,446                    | 8.4             | 48,709                          | 3.4             |
| 1991 | 685,367                  | 0.8             | 695,804                        | -4.5            | 49,382                    | 8.7             | 50,134                          | 2.9             |
| 1992 | 700,480                  | 2.2             | 700,480                        | 0.7             | 51,694                    | 4.7             | 51,694                          | 3.1             |
| 1993 | 727,184                  | 3.8             | 714,326                        | 2.0             | 51,980                    | 0.6             | 51,061                          | -1.2            |
| 1994 | 770,873                  | 6.0             | 755,758                        | 5.8             | 52,599                    | 1.2             | 51,567                          | 1.0             |
| 1995 | 810,426                  | 5.1             | 777,760                        | 2.9             | 52,791                    | 0.4             | 50,663                          | -1.8            |
| 1996 | 836,864                  | 3.3             | 790,240                        | 1.6             | 52,877                    | 0.2             | 49,931                          | -1.4            |
| 1997 | 882,733                  | 5.5             | 820,384                        | 3.8             | 55,002                    | 4.0             | 51,117                          | 2.4             |
| 1998 | 914,973                  | 3.7             | 842,517                        | 2.7             | 59,028                    | 7.3             | 54,354                          | 6.3             |
| 1999 | 982,441                  | 7.4             | 889,087                        | 5.5             | 63,056                    | 6.8             | 57,064                          | 5.0             |
| 2000 | 1,076,577                | 9.6             | 948,526                        | 6.7             | 68,995                    | 9.4             | 60,789                          | 6.5             |
| 2001 | 1,108,048                | 2.9             | 951,931                        | 0.4             | 74,658                    | 8.2             | 64,139                          | 5.5             |
| 2002 | 1,152,905                | 4.0             | 968,828                        | 1.8             | 79,782                    | 6.9             | 67,044                          | 4.5             |
| 2003 | 1,213,408                | 5.2             | 992,157                        | 2.4             | 86,267                    | 8.1             | 70,537                          | 5.2             |
| 2004 | 1,290,788                | 6.4             | 1,035,945                      | 4.4             | 92,054                    | 6.7             | 73,880                          | 4.7             |
| 2005 | 1,371,425                | 6.2             | 1,077,317                      | 4.0             | 98,795                    | 7.3             | 77,608                          | 5.0             |
| AVG  |                          | 7.2             |                                | 2.6             |                           | 8.3             |                                 | 3.6             |

Source: Skinner, 2007b; Statistics Canada, 2006b; CIHI, 2005b; calculations by the author.

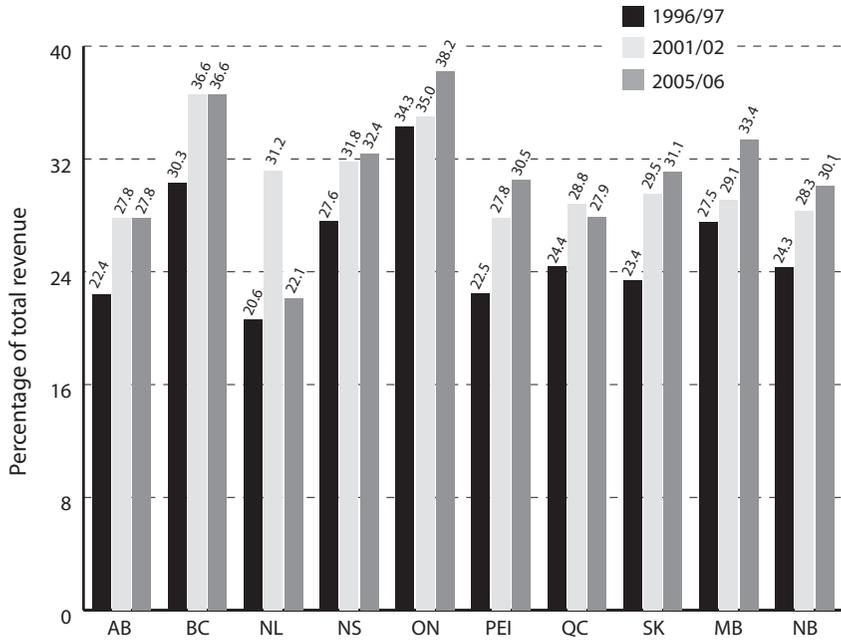
sources) consumed by health spending in each of the provinces increased substantially between the fiscal years 1996/97 and 2005/06. In order to illustrate this, data was obtained from Statistics Canada's Financial Management System database and is displayed in figure 3a. The data show provincial government health expenditures as a percentage of total provincial revenue from all sources for the fiscal years 1996/97, 2001/02, and 2005/06. The bars in the graph show that health spending has accounted for a progressively larger share of provincial revenues in every province over this time period. Figure 3b looks at government health expenditure more narrowly as a percentage of available revenues only. Of course, some government revenue is "locked in" to paying off past debts, so it is not currently available for program expenditures like health care. Therefore,

**Figure 2: Government health expenditure (GHEX) as a percentage of GDP, Canada, 1975–2005**



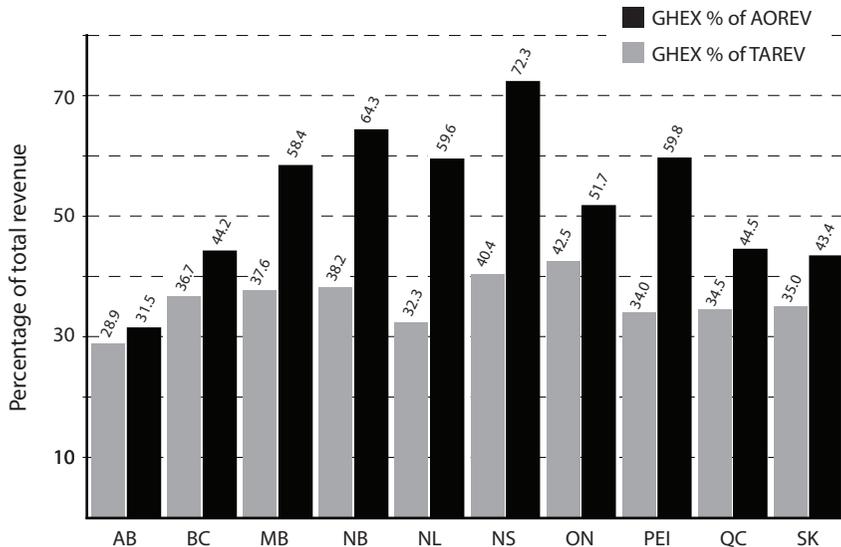
Source: Skinner, 2007b; Statistics Canada, 2006b; CIHI, 2005b; calculations by the author.

**Figure 3a: Provincial government health expenditure as a percentage of total provincial revenue from all sources, 1996/97, 2001/02, 2005/06**



Source: Skinner and Rovere, 2006; Statistics Canada, 2006a.

**Figure 3b: Government health expenditure (GHEX) as a percentage of total available revenue (TAREV) and available own-source revenue (AOREV), 2007/08, by province**



Source: Skinner and Rovere, 2008a; Statistics Canada, 2008b.

health care spending accounts for a much higher percentage of the actual revenue that is currently available for program spending. Figure 3b shows data for government health expenditures as a percentage of total available revenues (including federal transfers) in each province, and also separately as a percentage of provincial own-source revenue (federal transfers excluded). This analysis illustrates that the provinces are facing a deep financial crisis due to health spending pressures. As of 2008, government health spending already consumes between 31.5% (Alberta) and 72.3% (Nova Scotia) of available provincial own-source revenues. Due to the fact that the growth rate in government health spending continues to outpace the growth of revenue in the provinces, this can be expected to rise to even higher percentages in the future.

One way to illustrate the implications for the sustainability of government health spending is to project observed trends forward into the future. For example, in an annually updated projection analysis based on the most recent 10-year trend (1998/99 to 2007/08), Skinner and Rovere (2008a) estimated that the average annual growth in government health spending in six of 10 provinces was on pace to consume more than half of total revenue from all sources by 2036, if the observed trends continued unabated. It is important to note that future projections based on the trends indicated by these data are built on cautious expectations because the data are not adjusted to account for the impact of an aging population. All else being equal, as the population ages the growth in health expenditure should accelerate faster than projected above because research has shown that aging is associated with greater demand for health care. Future revenue growth could also be slower than recent trends because an aging population will proportionally reduce the size of the working population from which income taxes (a large source of revenue for governments) are drawn. The provincial revenue data used in these analyses include all sources (e.g., federal transfers) and thus represent the maximum provincial government capacity to pay for public health spending.

Spending and revenue trends are creating a serious, growing future funding deficit for health care. Using Statistics Canada's micro-simulation model and detailed data from Statistics Canada and the Canadian Institute for Health Information, one study estimated the unfunded liability associated

with government obligations to pay for health care in the future (Palacios and Veldhuis, 2006). The results suggested that as of 2003, Canadian governments faced future funding obligations for health care that exceeded expected future revenues by \$555 billion (Palacios and Veldhuis, 2006), or 46% of Canada's 2003 total economic output (GDP) of just over \$1.2 trillion (Statistics Canada, 2006b). According to the researchers, the unfunded liability for future public health care obligations grew by 28.5% between 1999 and 2003, rising from \$432.2 billion to \$555.3 billion over the period (Palacios and Veldhuis, 2006).

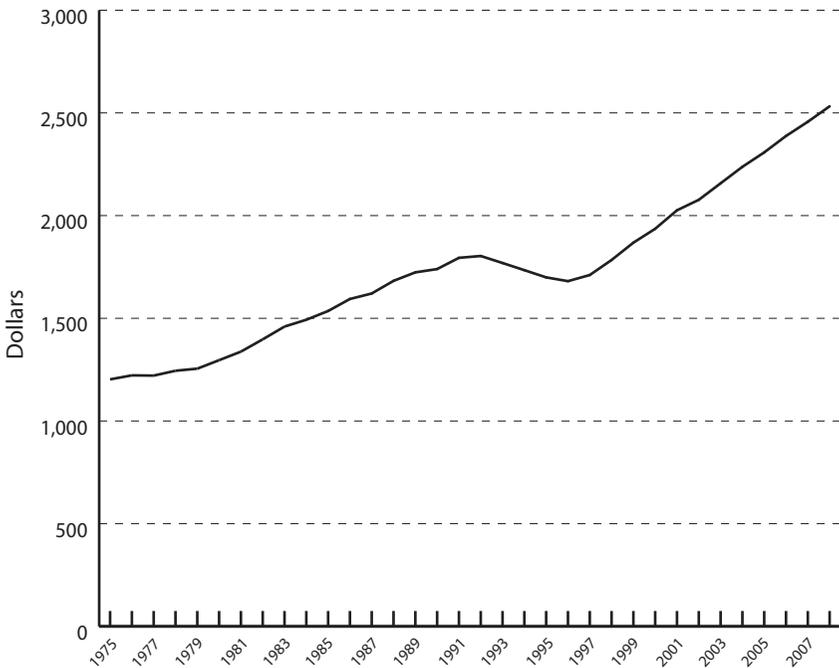
Other researchers are not persuaded that the growth in government spending on health is unsustainable. For example, Boychuk (2002), Guyatt et al., (2002), Dhalla (2007), and Béland (2007) have all suggested that relatively faster increases in health expenditures over the last few years are merely a "catching-up" response to earlier spending restraint, and therefore expectations about future growth rates should not be based on trends observed since the 1990s. This argument is based on the observation that by 2002, provincial spending on health care was only at the same level it would have been had there been no cutbacks in the 1990s and spending had remained at inflation-adjusted 1992 levels. However, analyses covering broader time periods suggest that the early to mid 1990s represented only a temporary halt to a long-term health care spending growth trend (Skinner, 2007b, 2007c). Annual data covering the years 1975 to 2008 (figure 4) show that, except for a brief period in the early to mid-1990s, provincial government spending on health has grown continuously in real terms, even after adjusting for inflation and population growth.

Researchers have also argued that reductions in federal transfers are the primary cause of the high rates of growth observed for provincial health spending since the late 1990s (Boychuk, 2002; Guyatt et al., 2002; Evans, 2003; Dhalla, 2007; Béland, 2007). However, Esmail et al. (2007) examined data on federal transfers finding that the federal government provided the provinces with an estimated \$115.7 billion in cash transfers for health care between 1997/98 and 2006/07. The average annual rate of growth in federal cash transfers to the provinces for health over this period was 12.9%. At the same time, it was estimated that the rate required to keep health spending growing at the same pace as population and inflation

was only 3.1%. Based on this data, it was further estimated that between 1997/98 and 2006/07, Ottawa increased its cash transfers for health to the provinces by \$36.0 billion more than needed to compensate for population growth and inflation over the same period.

There is also other case evidence indicating that in Ontario, for example, federal transfers increased 47.3% in absolute terms over the period 1988/89 to 1992/93, growing from 12.8% to 16.8% of total provincial revenue (table 5). Despite the boost to provincial revenues from federal transfers over this period, provincial government health expenditures in Ontario still increased by a larger magnitude (38.5%) than total revenue (12.3%) over the same period. The difference in growth resulted in health expenditures accounting for a larger share of total provincial revenue,

**Figure 4: Real (inflation-adjusted) per-capita (population-adjusted) provincial government health expenditures, Canada, 1975–2008**



Source: CIHI, 2008a (Table A.2.5: 103).

going from 31.3% in 1988/89 to 38.6% by 1992/93. The available evidence does not seem to support the view that reductions in federal transfers are causing unsustainable growth rates in provincial government health spending.

Some researchers have also suggested that while the spending and revenue trends observed since the mid 1990s cannot be sustained indefinitely, high rates of growth in government health spending might be “sustainable for the foreseeable future” without changing the financial structure of the Canadian health care system if the public is willing to pay more for health care through higher taxes, or to accept proportionately less spending on other functions of government (Dhalla, 2007: 51). Other researchers (Skinner, 2007c) have criticized this argument on the grounds that it is based on a series of implausible assumptions. For instance, the argument assumes that future demand for additional non-health care spending will continually decline relative to the demand for health care spending. It also assumes that individual demand preferences for health care spending versus non-health care spending are universally similar. The argument also does not acknowledge the economic limitations of chasing unrestrained

**Table 5: Revenues and expenditure by category, Ontario, fiscal years 1988/89–1992/93, millions of current dollars**

|  | 1988/89  | 1989/90  | 1990/91  | 1991/92  | 1992/93  | Total % growth,<br>1988/89–1992/93 |
|--|----------|----------|----------|----------|----------|------------------------------------|
| Total rev. from all sources                      | \$41,937 | \$46,829 | \$48,783 | \$46,642 | \$47,099 | 12.3%                              |
| Prov. own-source rev.                            | \$36,550 | \$41,093 | \$42,667 | \$40,014 | \$39,163 | 7.1%                               |
| Implicit federal transfer                        | \$5,387  | \$5,736  | \$6,116  | \$6,628  | \$7,936  | 47.3%                              |
| Gov't. health expenditures                       | \$13,131 | \$14,790 | \$15,812 | \$17,932 | \$18,180 | 38.5%                              |
| Gov't. health expenditures<br>as % of total rev. | 31.3%    | 31.6%    | 32.4%    | 38.4%    | 38.6%    |                                    |

Source: Skinner, 2007c; Statistics Canada, 2006a.

spending with tax increases.<sup>18</sup> It also assumes that a continually increasing tax burden would be politically acceptable beyond the short term. Finally, the unacknowledged alternative to tax increases is to constrain the growth in health spending by centrally restricting or delaying access to publicly insured goods and services by reducing the scope of public insurance benefits and restricting the supply of and/or imposing price controls on medical system inputs. The long-term feasibility of this approach is also probably doubtful.

Finally, some experts have argued that unsustainable rates of growth in government health spending are primarily driven by the excessive cost of new medical technologies, in particular new drugs, and not the structure of Canadian health insurance policy (Evans et al., 1989; Morgan and Hurley, 2002; Lee, 2006; Sanger, 2006). This argument is based on empirical observations that government spending on all types of prescription drugs (patented and non-patented) has at times increased faster than any other component of health spending, and new medicines also tend to be more expensive compared to older generations of drugs and other health treatments. On the other hand, Skinner and Rovere (2007b, 2008b) argue that patented prescription drugs have never accounted for a large enough percentage of total health care costs to have a major impact on overall growth rates in government spending on health. According to their analysis, spending on all types of drugs (patented and non-patented, prescription and non-prescription) together accounted for 16.7% of total government plus private health spending in Canada in 2006 (Skinner and

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18 In a 2004 analysis of the introduction of the Ontario health premium (i.e., income surtax), Skinner (2004a) demonstrated the problems with the logic of using tax increases to “chase” after expenditure growth. The paper projected current trends to show that in order for provincial health spending to remain at a constant percentage of provincial revenue, the new tax would have to increase to 10 times its original assessment cost in a decade without the increase or introduction of other taxes in its place. This, of course, was unsustainable, as it would put taxes on pace to consume ever-increasing shares of real income. In the meantime, increasing taxes would also cause GDP growth to slow, ultimately constraining the tax base and reducing the public money available for health or non-health related spending.

Rovere, 2008b).<sup>19</sup> But, prescription drugs (patented and non-patented) in particular accounted for only 9.3% of government spending on health care in the same year (Skinner and Rovere, 2008b). Historical data also show that the share of government health spending accounted for by prescription drug expenditures has also been much smaller in the past. Furthermore, Skinner and Rovere (2008b) present data showing that patented types of prescription drugs in particular accounted for only 6.3% of total annual government spending on health care in Canada in 2006 and still smaller percentages in past years. Therefore, they conclude that even high growth rates for spending on patented drugs would not have large statistical effects on the overall growth rate for total government health expenditure.

Skinner and Rovere (2007b, 2008b) also analyzed government health spending according to the use of funds spent. The analysis shows that spending between 2002 and 2006 on all the non-drug components of health care consistently grew at an unsustainable rate while accounting for between 91.4% and 90.7% (between 2002 and 2006) of total government spending on health. On an average basis, spending on health professionals, hospitals and institutions, and all other areas (including public health, administration, and research) grew at an annual rate of 6.5%, 6.9%, and 7.2%, respectively. Over the same period, these annual growth rates are between 1.2 and 1.3 times higher than the average annual growth in national gross domestic product (GDP) of 5.4%; between 3.0 and 3.3 times higher than the average annual growth in general inflation (CPI) of 2.2%; and between 1.2 and 1.4 times higher than the average annual growth in consolidated available provincial revenues from all sources of 5.3%. This means that even if governments spent zero on drugs, government spending on all other medical goods and services were still rising at an unsustainable rate over this period.

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19 CIHI data for drug expenditures accounts only for outpatient drugs. Drugs administered in hospital are counted under hospital expenditures and are not shown separately. However, most drugs administered in hospital are likely to be for anesthesia or to control pain and infection, which are almost always generic drugs.

Skinner and Rovere (2007b, 2008b) also present data showing that price inflation for existing patented drugs is not to blame for unsustainable growth rates in government spending on health. The Patented Medicine Prices Review Board (PMPRB), Canada's federal drug-price regulator, confirms that on average, post-market prices for patented drugs are not growing over time. The PMPRB uses the Patented Medicine Price Index (PMPI) to monitor the price trends of patented drugs in Canada. Since 1988, the PMPI has been used to measure the average annual change in prices of patented drugs using a basket of products already on the market (PMPRB, 2007). PMPRB data show that post-market prices for patented drugs in Canada were stable or declining over the most recent 19-year period, and that prices for patented drugs in Canada have actually decreased in nominal terms in six of the last 19 years. Overall, the average annual growth in prices for the entire 19-year period was only 0.6%. The PMPRB also compares the PMPI to the Consumer Price Index (CPI) in order to determine the year-to-year changes in existing patented drug prices in comparison to changes in general inflation for other goods and services (PMPRB, 2007). Over the entire period from 1988 to 2006, 1992 is the only year where the average annual price growth of patented drugs exceeded general price inflation. The average annual percentage growth in the CPI (2.5%) over this period exceeded the annual percentage growth in the PMPI (0.6%) by 1.9 percentage points. By implication, this means that prices for existing patented drugs are increasing at an even slower rate than they are allowed to grow under federal price controls that permit annual price increases matching the general rate of inflation (PMPRB, 2007). It also means that, after adjusting for inflation, prices for existing patented medicines have declined in real terms in 17 of the last 19 years.<sup>20</sup>

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20 Skinner and Rovere (2007b, 2008b) also separately looked at other data from the PMPRB comparing the average price of patented drugs in Canada to prices for the same drugs in a select group of other countries. Overall, the PMPRB data on average and median international prices suggests that patented drug prices in Canada are not excessive compared to similar countries, and are therefore not especially to blame for unsustainable growth in overall government health spending in Canada.

Despite a multitude of excuses, the fact remains that since Canadian Medicare was introduced in 1970, government health spending in Canada has always grown faster than the revenues available to governments, faster than the overall growth in the economy as a whole, and almost always faster than the general rate of inflation for other goods and services in the economy. The only time when government health spending has slowed is when governments have restricted public insurance coverage and rationed access to medically necessary goods and services. Unsustainable growth in government health spending is not caused by a lack of federal funding for provincial health care systems. It is not caused by the price of drugs, or the numbers of hospitals and physicians. The problem is not what we spend our health care dollars on; the real problem is the flawed design of health insurance in Canada.

## **The hidden price of Canadian health insurance**

All available evidence suggests that Canadians are paying more for, but getting less from, the government health insurance system over time. An example of this is contained in a 2004 analysis examining the Ontario budget (Skinner, 2004b). That study found that the provincial government had, at the time, underestimated the future long-term, annual average real (i.e., adjusted for inflation) growth in public spending on health care by about 4.5% per year, based on the most recent five-year trend. The study showed that public financing of health care in Ontario was not on a sustainable track. Furthermore, the study argued that provincial proposals for health policy reform, including a new progressive income-based surtax (misleadingly labeled a “health premium”), would not adequately address the difference between relative future growth rates for total revenues and public health care spending. It was calculated that Ontario’s new “health premium” tax would need to triple by 2008 and grow 10 times as large only a decade after its introduction in order to keep provincial revenues growing at the same pace as public health care spending. From the perspective of patients, this enormous tax increase was expected to occur at the same time as the province was reducing the scope of public

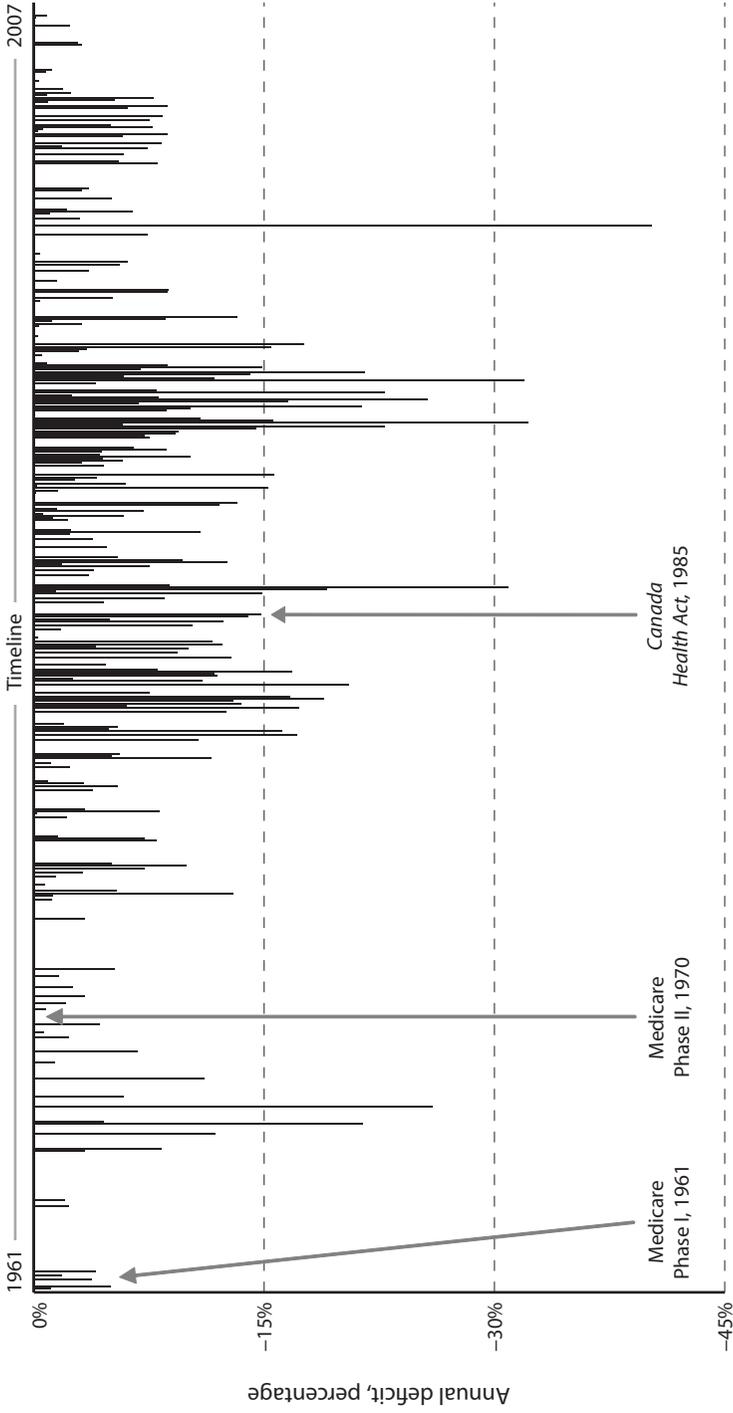
health insurance coverage by making some previously insured services ineligible for public reimbursement, and by refusing or delaying coverage for new medical technologies. The province has since left the new tax in place; but, in response to political backlash, the government has ruled out future increases in rates, reluctantly acknowledging that it cannot rely on such measures to fund future growth in public health care expenditures.

Yet, the cost and sustainability of government health spending has not actually become a political issue until more recently. This is because many Canadians have remained unaware of the full cost of government spending on public health insurance. First, health care consumption in Canada is financed through general taxes and therefore appears free at the point of consumption or use. User fees and extra billing are prohibited by the CHA and private payment is effectively banned by provincial policies. There are simply no direct monetary price signals to make Canadian patients aware of the cost of the health care they receive. Second, research by Ferguson (2002b) has shown that for much of Medicare's history, provincial government spending has been subsidized by borrowing, so the full cost of government health insurance has not been immediately appreciated by taxpayers in general. My own analysis of this issue is displayed below. Figure 5 shows budget deficits as they occurred in each of the provinces between 1961 (earliest available data) and 2007 (most recent available data). The annual budget deficits in each province are grouped by the year in which they occurred and stated as a percentage of total revenue in the province each particular year.<sup>21</sup> Key dates marking the introduction of government hospital insurance (Medicare Phase I, 1961), full government health insurance (i.e., extending public funding to include physician services) in every province (Medicare Phase II, 1970), and the implementation of the Canada Health Act (CHA) are shown. The data show that the full cost of government spending was not paid out of current revenues over most of the history of Medicare, but was instead deferred to future generations by accumulating government debt. There is also a correlation between the full introduction of Medicare by 1970 in all provinces and

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21 Provincial deficits are not individually identified in each year due to lack of available space.

**Figure 5: Provincial government annual budget deficits, Canada, 1961–2007**



Source: Statistics Canada, 2007a, 2007c. Author's calculations.

the increasing frequency and severity of annual budget deficits in the 35 years following.

Policy makers eventually resorted to tax increases to pay for the interest on the accumulating debt and the entrenched annual budget obligations, including public health insurance. The data in table 6 illustrate how the personal tax burden has risen in Canada since the introduction of government health insurance. Researchers (Veldhuis and Walker, 2006; Palacios and Veldhuis, 2007) have calculated the average total tax bill and average cash income<sup>22</sup> before taxes for Canadian families in 1961 (the earliest year of data available), 1969 (the year before the extension of public insurance coverage to physicians in all provinces), and 2007. Table 6 shows that the average tax burden (i.e., average tax bill as a percentage of average cash income) has increased from about one third of average cash income in 1961 to almost half of average cash income by 2007.

Despite the fact that the tax burden has risen, on average, since the introduction of Medicare, the majority of the population has personally been disproportionately insulated from the full cost of paying for the public health care system. Redistributive taxation leads many Canadians to underestimate the individual price they each pay for public health insurance.

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**Table 6: Changes in average tax burden for Canadian families following adoption of universal government health insurance coverage of hospital and diagnostic services (1961) and physician services (1969)**

| Year | Average cash family income, current \$ | Average family tax bill, current \$ | Average tax bill, % average cash income |
|------|--|-------------------------------------|---|
| 1961 | \$5,000                                | \$1,675                             | 33.5%                                   |
| 1969 | \$8,000                                | \$3,117                             | 39.0%                                   |
| 2007 | \$83,775                               | \$38,992                            | 46.5%                                   |

Source: Veldhuis and Walker, 2006; Palacios and Veldhuis, 2008. Calculations by the author.

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<sup>22</sup> Cash income equals total income minus non-cash items such as interest accumulated on income from pension funds but not cashed by the recipient and therefore subject to deferred taxation.

Canadian income earners also bear different tax burdens based on the level of their earnings. Given the nature of our tax system, higher income earners bear a greater proportion of the tax burden than lower income earners, and thus contribute proportionally more to our public health care system.

In order to determine a more precise estimate for the cost of public health insurance for the average Canadian family in 2008, researchers determined how much an average family is expected to contribute (in taxes) to all three levels of government. Under their analysis, the percentage of the family's total tax bill that pays for public health insurance is assumed to match the share of total government (federal, provincial, and territorial) tax revenues dedicated to health care, which was 22.6% in the fiscal year ending in 2008 (Esmail and Palacios, 2008). Table 7 shows the estimated price paid in taxes for public health care spending by income decile (10% of the population of Canadian families are in each decile, organized from lowest income decile to highest income decile). For comparison, table 7 also displays the per-capita figure for public health care spending. According to this calculation, the 10% of Canadian families with the lowest incomes paid an average of \$389 for public health care insurance to cover the whole family. This is a significant underpayment considering the average or per-capita cost (or the expected use per person) in 2008 was \$3,498. By contrast, the top 10% of income earners in Canada paid a little more than \$29,575 per family—a significant overpayment compared to per-capita costs.

**Table 7: Estimated tax price for government spending on health care in Canada, 2008: Distribution of total tax burden (all sources, all levels of government) by family income decile**

| Family income decile                             | 1st      | 2nd      | 3rd      | 4th      | 5th      | 6th      | 7th      | 8th      | 9th       | 10th      |
|--|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|
| Ave.annual cash income                           | \$11,309 | \$24,271 | \$32,866 | \$41,637 | \$51,298 | \$64,415 | \$78,430 | \$96,217 | \$122,321 | \$232,739 |
| Ave. annual total taxes                          | \$1,717  | \$4,756  | \$9,787  | \$15,244 | \$21,491 | \$27,602 | \$34,255 | \$43,637 | \$56,913  | \$130,719 |
| Ave. annual tax price for public health spending | \$389    | \$1,076  | \$2,214  | \$3,449  | \$4,862  | \$6,245  | \$7,750  | \$9,873  | \$12,877  | \$29,575  |
| Per-capita health care costs                     |          |          |          |          |          |          |          |          |           | \$3,498   |

Source: Esmail and Palacios, 2008.



## Shortage of medical professionals

One of the most frequently expressed concerns about the performance of the Canadian health care system is that there is a growing difficulty in accessing physician services. Access problems are typically defined as a difficulty in retaining the services of a regular family physician or general practitioner (GP), difficulty or delays in getting an appointment with a GP or physician specialist, or difficulty receiving treatment. Where these problems exist in Canada, they appear to be partially the result of a shortage in the overall supply of physicians relative to public expectations or demands.

There are various ways of assessing whether the supply of physicians in Canada is adequate and whether changes in this supply are affecting access for patients. One approach is to study access to physicians relative to historical Canadian norms for obtaining physician services. Since the establishment of Medicare in Canada, it has been normal for most of the population to receive primary physician care by “enrolling” in an independent private (or group) professional office-clinic of a general practitioner or “family doctor” located in their local community. However, recent data suggests that this traditional means of obtaining primary physician services is becoming more difficult. According to the Canadian Community Health Survey conducted by Statistics Canada in 2003, it was estimated that more than 1.2 million Canadians (about 5% of the 2003 Canadian population aged 12 years and older) were unable to find a regular family physician (or general practitioner) (Statistics Canada, 2004a). More recently, an update to the survey found that access to primary care physicians might be getting worse over time:

In 2007, 15% of Canadians aged 12 or older, about 4.1 million people, reported that they did not have a regular medical doctor, either because they were unable to find one, or because they had not looked. This proportion was up 3 percentage points since the 1996/1997 National Population Health Survey (NPHS). Of these individuals, 78%, or 3.3 million people, reported that they in fact had some place to go. Of these estimated 3.3 million people, 64% sought treatment in a walk-in or appointment clinic. Another 12% went to a hospital emergency room, while about 10% went to a community health centre. The remaining 14% chose to use other types of health care facilities or services such as hospital outpatient clinics, telephone health lines or doctor's offices ... Just under 1.7 million Canadians (6% of the population aged 12 or older) reported that they could not find a regular doctor in 2007 ... Provincially, 10% of the population in Prince Edward Island and Quebec said they could not find a doctor, significantly higher than the national average of 6%. (Statistics Canada, 2008a)

In practice, general practitioners (GPs) or family physicians essentially act as gatekeepers to the health system. Patients are referred to diagnostics and specialist treatment usually only after being examined by a GP. GPs are also the source of access to prescription medicines and sometimes refer patients directly to hospital admission. Therefore, access to primary care physicians can conceivably serve as a rough proxy for more generally estimating actual access to insured medical care in Canada or, in other words, effective insurance coverage. Details of the Statistics Canada survey data discussed above make it possible to get a more precise understanding of the scope of any problems that do exist in accessing physician services in Canada. Table 8 displays various population estimates for each of the response categories used in the survey data published by Statistics Canada. The categories allow us to separately define the level of access to primary care physicians reported by respondents. The totals in cells B11 (A8+A9+A10) and B12 in the table show that in 2007, approximately 7.4% of the Canadian population aged 12 years and older reported that they either could not obtain access to a primary care physician at all (3.25%),

**Table 8: Access to primary care physicians as a proxy for estimating “effective” access to insured health services in Canada, 2007, population aged 12 and older**

| Explanation of data and calculations   | Data cell coordinates | A         | B          | Percentage of population |
|--|-----------------------|-----------|------------|--------------------------|
| Estimated population, aged 12 and older.<br>Calculation: B2 + B3 + B4  | 1                     |           | 27,652,000 | 100.00%                  |
| StatCan reported population “has access to regular medical doctor”   | 2                     |           | 23,568,000 | 85.23%                   |
| StatCan reported population that “haven’t looked” for a regular GP   | 3                     |           | 2,410,000  | 8.72%                    |
| StatCan reported population that “cannot find” a regular GP: with or without alternative access to primary care        | 4                     |           | 1,674,000  | 6.05%                    |
| Estimated population “without regular” GP. Calculation: B2 + B3  | 5                     |           | 4,084,000  | 14.77%                   |
| StatCan estimate of population without regular GP, but with alternative access to primary care. Calculation: 78% of B3 | 6                     |           | 3,185,520  | 11.52%                   |
| Alternative access for above:<br>Percentages reported by StatCan   | -                     |           |            |                          |
| Walk-in clinic: 64% of B6.   | 7                     | 2,038,733 |            | 7.37%                    |
| Hospital ER: 12% of B6.  | 8                     | 382,262   |            | 1.38%                    |
| Community clinic: 10% of B6.   | 9                     | 318,552   |            | 1.15%                    |
| Hospital outpatient clinics, telehealth, other: 14% of B6.   | 10                    | 445,973   |            | 1.61%                    |
| Estimated population with only urgent/emergency or very limited access to primary care.<br>Calculation: A8 + A9 + A10  | 11                    |           | 1,146,787  | 4.15%                    |
| Estimated population with no access to primary care. Calculation: B5 – B6  | 12                    |           | 898,480    | 3.25%                    |

Source: Statistics Canada, 2008a.

Note: StatCan reported that of an estimated 4.1 million people who responded that they did not have a regular medical doctor, 78% or 3.3 million people also responded that they had an alternative place to get primary care. However, 78% of 4.1 million equals roughly 3.198 million. The reason for the decimal rounding discrepancy in StatCan’s estimates is not clear. I have chosen to apply the 78% figure published by StatCan to the subcategory figures published by StatCan (cells B3 and B4), which produces a population estimate of 3,185,520 for this subcategory of respondents.

or could only find access to a primary care physician at a hospital emergency room (1.38%), community health centre (1.15%), or other unspecified points of access (1.61%). These figures can probably be safely extrapolated to the entire population because it is doubtful that children under 12 years of age are likely to obtain independent access to primary care that is unavailable to their parents or older siblings.<sup>23</sup> A review of the survey methodology published by Statistics Canada indicates that the results are probably an accurate representation of general Canadian public opinion regarding personal access to primary care physicians.<sup>24</sup> Nevertheless, some caution is recommended in interpreting the results because the survey data is based on the subjective perceptions of the respondents about their access to physicians, which may or may not reflect their actual access to physicians if it were possible to objectively measure such access.

Another way to assess the supply of physicians is to compare Canadian data internationally. Table 9 shows that in 2006<sup>25</sup> there were 2.1 practicing physicians per 1,000 people in Canada (OECD, 2008). Canada's supply of physicians was below the 3.1 per 1,000 person average of the other OECD countries in 2006. The number of physicians per population among all 30 OECD countries ranged from 5.0 to 1.6 per 1,000 people. The median ratio was 3.3 per 1,000 people. Table 9 also shows that Canada ranked in the bottom third at 26th among the group of 30 OECD countries in 2006 in terms of the national availability of physician human resources. Canada's ratio of 2.1 physicians per 1,000 people was slightly below the average of the 2.15 average ratio for the 10 countries in the bottom third. By contrast, the average ratio for the top one third of OECD countries in 2006 was 3.85 physicians per 1,000 people. Other annually updated research (Esmail and Walker, 2008) shows that even after adjusting physician to

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23 An exception is that newborns often temporarily receive primary care from hospital programs.

24 According to Statistics Canada, "residents of Indian reserves, health care institutions, some remote areas, and full-time members of the Canadian Forces were excluded" from the survey Statistics Canada, 2008a.

25 2006 was the most recent year for which internationally comparable data was available from the OECD.

**Table 9: Number of practicing physicians per 1,000 population, 2006 or most recent data, 30 OECD countries ranked**

| Rank | OECD country    | Practicing physicians per 1,000 population |
|------|-----------------|--|
| 1    | Greece          | 5.0  |
| 2    | Belgium         | 4.0  |
| 3    | Netherlands     | 3.8  |
| 4    | Switzerland     | 3.8  |
| 5    | Iceland         | 3.7  |
| 6    | Italy           | 3.7  |
| 7    | Norway          | 3.7  |
| 8    | Austria         | 3.6  |
| 9    | Czech Republic  | 3.6  |
| 10   | Spain           | 3.6  |
| 11   | Germany         | 3.5  |
| 12   | Sweden          | 3.5  |
| 13   | France          | 3.4  |
| 14   | Portugal        | 3.4  |
| 15   | Denmark         | 3.3  |
| 16   | Slovak Republic | 3.1  |
| 17   | Hungary         | 3.0  |
| 18   | Ireland         | 2.9  |
| 19   | Australia       | 2.8  |
| 20   | Luxembourg      | 2.8  |
| 21   | Finland         | 2.7  |
| 22   | United Kingdom  | 2.5  |
| 23   | United States   | 2.4  |
| 24   | New Zealand     | 2.3  |
| 25   | Poland          | 2.2  |
| 26   | Canada          | 2.1  |
| 27   | Japan           | 2.1  |
| 28   | Mexico          | 1.9  |
| 29   | Korea           | 1.7  |
| 30   | Turkey          | 1.6  |

Source: OECD, 2008. Note: Data for Greece, Sweden, Portugal, Denmark, Slovak Republic, and Australia were not reported by the OECD for 2006. In order to facilitate comparisons, the most recently reported data for these countries was substituted instead, which was current to either 2005 or 2004. This method is supported by the observation that in all cases, earlier trends indicated stable or increasing numbers of physicians per 1,000 population.

population ratios for differences in the age profile of national populations (a factor which could influence aggregate demand for physician services), Canada ranks very low in terms of the availability of physicians relative to comparable countries.

On the other hand, some researchers have argued that the absolute number of doctors per population in Canada has remained roughly the same over a long period of time and that this suggests there is no *real*<sup>26</sup> shortage in Canada (Rachlis et al., 2001; Barlow, 2002; Chan, 2002).<sup>27</sup> Data indeed confirms that since reaching its peak of 2.2 physicians per 1,000 people in 1993, the physician-to-population ratio has maintained a virtually constant ratio of 2.1 physicians per 1,000 people in Canada (figure 6).<sup>28</sup> In response, other researchers (Esmail and Walker, 2008) have shown that the physician supply has grown faster relative to population in most other OECD countries, and that this implies a relative shortage of physicians in Canada. Using all publicly available data, figure 4 compares the Canadian supply of physicians with the average physician-to-population ratio among OECD countries between 1961 and 2005. The

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26 As defined by economists to mean actual effective access to needed services over time.

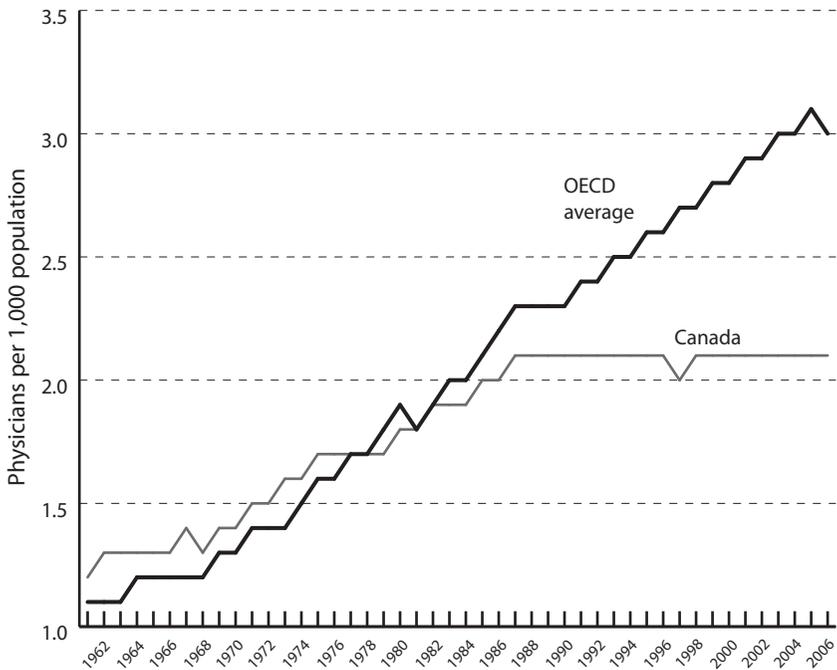
27 Barer and Stoddart (1991) have (at times) argued that Canada has too many doctors. Their 1991 paper on the subject is widely perceived as a major catalyst for government decisions to restrict the physician supply, as detailed by Chan (2002).

28 There are some comparability limitations in these statistics. The data reported by each member country in the OECD is not necessarily defined the same way. For example, data reported by Canadian and American sources is not defined in the same way. Direct communications with the OECD's health data division confirm that Canadian counts of active physicians include physicians in administration and research, teaching, etc. By contrast, US counts do not include physicians in administration and research, teaching, etc. The reporting difference inflates the number of physician resources per population published by the OECD for Canada relative to the US. According to the OECD representative that I contacted, "in this specific case, the data provided by our US data correspondent is in fact more consistent with the proposed definition for this OECD data collection than the data provided by Canada, since the proposed definition of 'practising physicians' excludes physicians in administration, research, etc. who do not have any contact with patients" (E-mail correspondence with Marie-Clémence Canaud, Health Division, OECD, 11/10/2008).

year 1970 marks the approximate implementation date for Medicare in all provinces. The data show that by 1979, Canada's supply of physicians had actually dipped below the OECD average. Since 1988, the gap between Canada's supply of physicians and that of the rest of the OECD has grown larger over time. Therefore, without accounting for changes in physician demographics, demand for physician services, or technological changes to medical practice, Canadians were essentially receiving the same absolute supply of physicians in 2006 that they were getting in 1988. Over the same period of time, the other health systems of the OECD continued to improve access to physicians for their populations.

By themselves, these trends do not necessarily indicate that the supply of physicians in Canada is affecting access to medically necessary health

**Figure 6: Number of practicing physicians per 1,000 population, Canada vs. average for all other OECD countries with available data, 1961–2006**



Source: OECD, 2008. Calculations by the author.

care services for the population. Yet, there are several reasons which suggest that maintaining a constant supply of physicians per population has not produced an adequate supply of physicians in Canada. Changing demographics, technological advancement, and increased complexity in medical treatment, as well as rising consumer expectations, mean that Canada's constant ratio of physicians-to-population since 1988 might disguise the actual insufficiency of our physician supply. In this context, a constant ratio of physicians to population could indeed produce declining access in "real" terms for patients.

It is important to note, for instance, that the gender balance of the physician workforce has changed with increasing numbers of females entering the medical profession (CIHI, 2006a). Research suggests that female physicians are more likely to work fewer hours and to take extended leaves from employment due to child bearing and family-related responsibilities, and that women are projected to make up an increasing percentage of the physician workforce, with estimates predicting 40% female representation by 2015 (Task Force Two, 2005). The changing gender balance in the Canadian physician population could be reducing the effective supply of physicians.

The aging of the physician and patient populations has probably also been a factor in reducing the effective supply of physicians. Research shows that the average Canadian physician is 48 years old (Task Force Two, 2005). Retirements are reducing the number of active physicians, especially those with the most experience (Task Force Two, 2005). The retirement issue is more severe when it comes to specialists (Task Force Two, 2005). At the same time, research also suggests that aging patient populations will, in the future, be linked to increasing demands for physician services because studies show that 50% of lifetime per-capita expenditures on health care occur after the age of 65 (Brimacombe et al., 2001).

Similarly, the technological evolution of medical practice is considered by some to be a contributing factor creating effective shortages of physician human resources. Medical science and technology have made significant advances since the beginning of public health insurance in Canada. These technological advancements have increased the effectiveness of treatment and have increased the range of treatable conditions, but are often not technological substitutes for medical labor. Researchers

have argued that, theoretically, it takes more physicians per population to adequately deliver this increased range and complexity of medical goods and services (Chan, 2002; Task Force Two, 2005). These facts suggest that there are probably too few physicians to meet the actual demand for services in Canada.

According to recent reports on the issue, Canadian provincial governments have acknowledged problems with the supply of physicians and have been attempting to correct shortfalls by boosting the number of medical school admissions (ACMC, 2004). Yet, some researchers have argued that in order to properly understand how current policies will address Canada's physician shortage, it is important to consider the impact of these changes in school admissions on the number of physicians entering the workforce over the next decade. Research by Ryten et al. (1998) found that the number of Canadian-trained physicians entering the workforce was insufficient to maintain the current supply of doctors at that time. More recently, Esmail (2006) compared the number of new Canadian-trained physicians who would actually enter the workforce between 2002 and 2015 to the number of new physicians required to maintain the current physician-to-population ratio. Esmail's projections suggest that the number of physicians leaving the workforce is greater than the number of Canadian-trained physicians entering the workforce every year through 2015. The finding suggests that without a significant addition of foreign-trained doctors, the Canadian physician-to-population ratio will decline in absolute terms between 2006 and 2015.



## Shortages of medical technology

Another shortcoming of the Canadian health system is reflected in concerns about a relative lack of access to advanced medical technology. Table 10 shows unadjusted OECD data on the availability of five important types of medical diagnostic technologies. Data was only available from the OECD for these particular types of technologies. Availability is defined as the number of units per million population. Data was not available in the most recent year for all countries in the OECD, and not at all for some countries. In order to maximize the number of countries with available data for comparison, the most recent data years reported to the OECD are presented. Countries are ranked from best to worst based on the availability of each technology. The data show that in terms of the availability of CT scanners, Canada ranked 22nd of 29 OECD countries with available data. Canada ranked 18th of 29 for MRIs, 23rd of 24 for lithotripters, 9th of 22 for mammographs, and 10th of 27 for radiotherapy equipment.

As discussed earlier in this chapter, averaged over the most recent 10-year period, Canada ranked as the seventh highest spender on health care, when measured as a percentage of GDP. Given Canada's spending rank, the supply of medical technologies in the top 10 should represent a reasonable range of possibility for Canada's health care system, all else being equal. Therefore, an average of the supply of each technology for the top 10 OECD countries (excluding Canada) is also shown for comparison. Using this comparison, it is notable that Canada's numbers fall below the average of the top 10 other OECD countries in terms of the supply of all five technologies. The difference between Canada's supply of technology

**Table 10: Number of units per million people, selected diagnostic**

| Rank | CT scanners                |                               |                       | MRIs                       |                               |                       |
|------|----------------------------|-------------------------------|-----------------------|----------------------------|-------------------------------|-----------------------|
|      | Country                    | Number per million population | Most recent data year | Country                    | Number per million population | Most recent data year |
| 1    | Japan                      | 92.6                          | 2002                  | Japan                      | 40.1                          | 2005                  |
| 2    | Australia                  | 51.1                          | 2005                  | United States              | 26.5                          |                       |
| 3    | Belgium                    | 39.8                          |                       | Iceland                    | 19.7                          |                       |
| 4    | United States              | 33.9                          |                       | Austria                    | 16.8                          |                       |
| 5    | Korea                      | 33.7                          |                       | Finland                    | 15.2                          |                       |
| 6    | Austria                    | 29.8                          |                       | Italy                      | 15.0                          | 2005                  |
| 7    | Luxembourg                 | 28.3                          |                       | Switzerland                | 14.0                          |                       |
| 8    | Italy                      | 27.7                          | 2005                  | Korea                      | 13.6                          |                       |
| 9    | Iceland                    | 26.3                          |                       | Greece                     | 13.2                          | 2005                  |
| 10   | Greece                     | 25.8                          | 2005                  | Luxembourg                 | 10.9                          |                       |
| 11   | Portugal                   | 25.8                          |                       | Denmark                    | 10.2                          | 2004                  |
| 12   | Switzerland                | 18.7                          | 1999                  | Ireland                    | 9.7                           |                       |
| 13   | Germany                    | 16.7                          |                       | Spain                      | 8.8                           |                       |
| 14   | Denmark                    | 15.8                          |                       | Sweden                     | 7.9                           | 1999                  |
| 15   | Finland                    | 14.8                          |                       | Germany                    | 7.7                           |                       |
| 16   | Sweden                     | 14.2                          |                       | Belgium                    | 7.1                           |                       |
| 17   | Spain                      | 13.9                          |                       | Netherlands                | 6.6                           | 2005                  |
| 18   | Czech Rep.                 | 13.1                          |                       | Canada                     | 6.2                           |                       |
| 19   | Ireland                    | 12.8                          |                       | Portugal                   | 5.8                           |                       |
| 20   | New Zealand                | 12.1                          | 2004                  | UK                         | 5.6                           |                       |
| 21   | Slovak Rep.                | 12.1                          |                       | France                     | 5.3                           |                       |
| 22   | Canada                     | 12.0                          |                       | Australia                  | 4.9                           |                       |
| 23   | France                     | 10.0                          |                       | Slovak Rep.                | 4.5                           |                       |
| 24   | Poland                     | 9.2                           |                       | Czech Rep.                 | 3.8                           |                       |
| 25   | Netherlands                | 8.2                           | 2005                  | New Zealand                | 3.7                           | 2003                  |
| 26   | Turkey                     | 7.8                           |                       | Turkey                     | 3.5                           |                       |
| 27   | UK                         | 7.6                           |                       | Hungary                    | 2.6                           |                       |
| 28   | Hungary                    | 7.2                           |                       | Poland                     | 1.9                           |                       |
| 29   | Mexico                     | 3.6                           |                       | Mexico                     | 1.4                           |                       |
| 30   | Norway                     | –                             | N/A                   | Norway                     | –                             | N/A                   |
|      | <b>OECD top 10 average</b> | <b>38.9</b>                   |                       | <b>OECD top 10 average</b> | <b>18.5</b>                   |                       |

Source: OECD, 2008; Calculations by the author.

\*Comparability in the data could be affected by accuracy in the reporting of OECD member countries, as well as differences in the quality of the devices counted. Utilization efficiency might also differ significantly, though data was not available for adjusted comparisons.

*technologies, OECD countries reporting data, 2006\**

| Rank | Lithotripters              |                               |                       | Mammographs                |                               |                       |
|------|----------------------------|-------------------------------|-----------------------|----------------------------|-------------------------------|-----------------------|
|      | Country                    | Number per million population | Most recent data year | Country                    | Number per million population | Most recent data year |
| 1    | Korea                      | 10.7                          |                       | France                     | 42.2                          | 2002                  |
| 2    | Japan                      | 7.1                           | 2005                  | Finland                    | 38.5                          |                       |
| 3    | Slovak Rep.                | 5.2                           |                       | Greece                     | 36.5                          | 2005                  |
| 4    | Switzerland                | 4.9                           |                       | Portugal                   | 35.2                          |                       |
| 5    | Belgium                    | 4.6                           |                       | Korea                      | 34.1                          |                       |
| 6    | Germany                    | 3.8                           |                       | Australia                  | 24.6                          |                       |
| 7    | Poland                     | 3.5                           |                       | New Zealand                | 23.1                          | 2004                  |
| 8    | Czech Rep.                 | 3.3                           |                       | Luxembourg                 | 21.8                          |                       |
| 9    | Iceland                    | 3.3                           |                       | Canada                     | 21.3                          | 2005                  |
| 10   | Italy                      | 2.9                           | 1996                  | Belgium                    | 19.4                          |                       |
| 11   | Luxembourg                 | 2.2                           |                       | Iceland                    | 16.4                          |                       |
| 12   | Portugal                   | 2.2                           |                       | Poland                     | 15.3                          |                       |
| 13   | Spain                      | 2.1                           |                       | Czech Rep.                 | 14.3                          |                       |
| 14   | Austria                    | 1.9                           |                       | Ireland                    | 13.9                          |                       |
| 15   | Ireland                    | 1.7                           |                       | Hungary                    | 13.4                          |                       |
| 16   | Greece                     | 1.4                           | 2005                  | Slovak Rep.                | 12.8                          |                       |
| 17   | Mexico                     | 1.4                           |                       | Denmark                    | 10.5                          |                       |
| 18   | France                     | 1.2                           |                       | Spain                      | 9.3                           |                       |
| 19   | Australia                  | 1.1                           | 2005                  | UK                         | 8.4                           |                       |
| 20   | Hungary                    | 1.1                           |                       | Turkey                     | 6.5                           | 2003                  |
| 21   | Turkey                     | 1.0                           | 2001                  | Mexico                     | 4.8                           |                       |
| 22   | Finland                    | 0.6                           |                       | Netherlands                | 3.9                           | 2005                  |
| 23   | Canada                     | 0.5                           |                       | Austria                    | –                             | N/A                   |
| 24   | New Zealand                | 0.5                           | 2003                  | Germany                    | –                             | N/A                   |
| 25   | Denmark                    | –                             | N/A                   | Italy                      | –                             | N/A                   |
| 26   | Netherlands                | –                             | N/A                   | Japan                      | –                             | N/A                   |
| 27   | Norway                     | –                             | N/A                   | Norway                     | –                             | N/A                   |
| 28   | Sweden                     | –                             | N/A                   | Sweden                     | –                             | N/A                   |
| 29   | UK                         | –                             | N/A                   | Switzerland                | –                             | N/A                   |
| 30   | United States              | –                             | N/A                   | United States              | –                             | N/A                   |
|      | <b>OECD top 10 average</b> | <b>4.9</b>                    |                       | <b>OECD top 10 average</b> | <b>29.2</b>                   |                       |

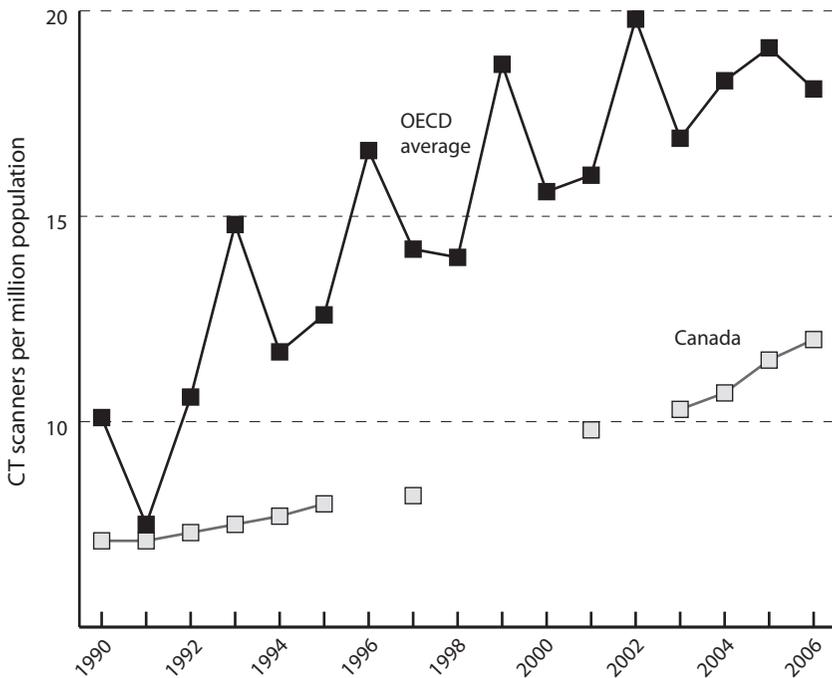
Source: OECD, 2008; Calculations by the author.

\*Comparability in the data could be affected by accuracy in the reporting of OECD member countries, as well as differences in the quality of the devices counted. Utilization efficiency might also differ significantly, though data was not available for adjusted comparisons.

and the average for the top 10 other OECD countries appears to be quite significant for CTs, MRIs, and lithotripters.

Another way to assess whether the supply of medical technology is adequate in Canada is to compare year-to-year changes relative to the average supply levels observed in other OECD countries over the same period. Figures 7, 8, and 9 show time series data for Canada versus an average for all other OECD countries with available data in each year. In each figure, the period begins with the first year in which data was available for Canada and at least one other OECD country for comparison.

**Figure 7: Number of CT scanners per million population, Canada vs. average for all other OECD countries with available data, 1990–2006**

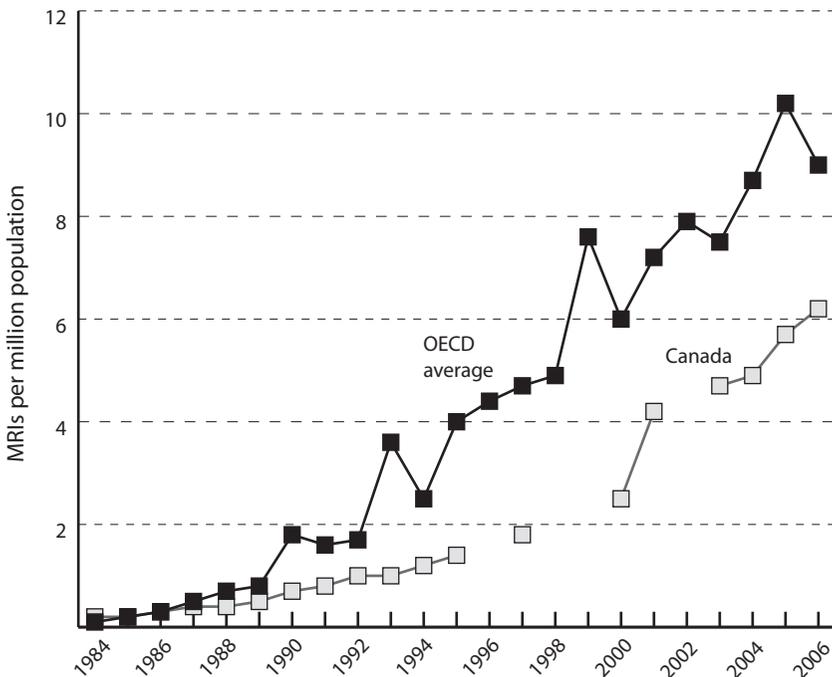


Source: OECD, 2008. Calculations by the author.

Note: Canadian data not reported by the OECD in some years. Time series begins in earliest year reported for Canada. Missing data points in some years.

Other research has reached conclusions similar to the findings presented above. For instance, in a more rigorous analysis, Esmail and Walker (2008) also annually examined OECD data to compare the international availability of these technologies, making adjustments to the data to account for differences in the age profiles of the populations in each international jurisdiction, and comparing only to countries with similar social goals for health policy. The results of their most recent age-adjusted analysis (based on countries with available 2005 data) rank Canada 19th of 26 countries for CT scanners, 14th of 25 comparable countries in terms of the

**Figure 8: Number of MRIs per million population, Canada vs. average for all other OECD countries with available data, 1984–2006**

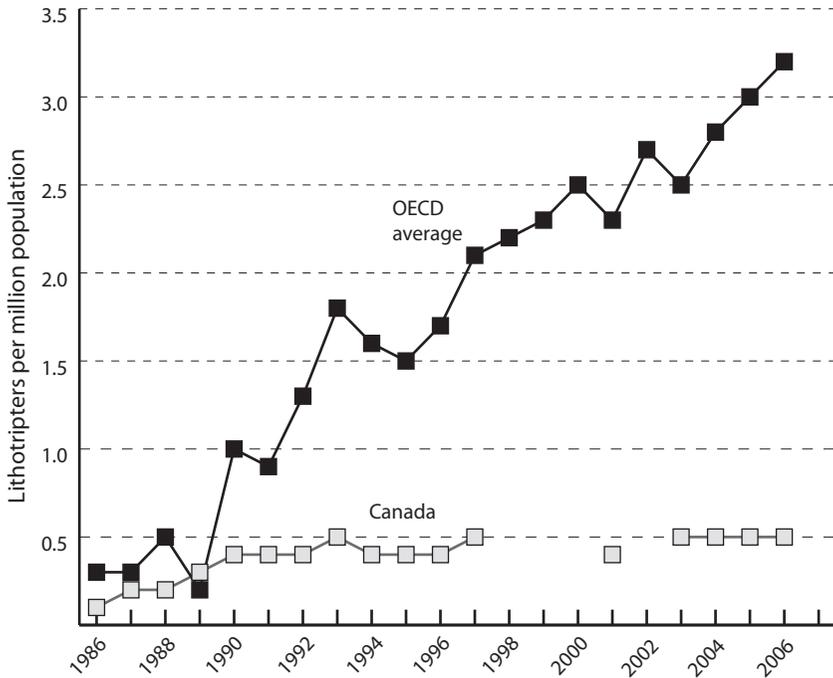


Source: OECD, 2008. Calculations by the author.

Note: Canadian data not reported by the OECD in some years. Time series begins in earliest year reported for Canada. Missing data points in some years.

availability of MRI diagnostic machines, 19th of 21 for lithotripters, and 8th of 21 for mammographs. In their review of the literature, Esmail and Wrona (2008) found a number of analyses suggesting that the Canadian health care system has a relative shortage of important medical technologies. For example, Canada's poor international ranking regarding the availability of medical technology has been verified by a 2006 Canadian Institute for Health Information (CIHI) report which found that Canada ranked below the OECD median in its availability of MRI and CT scanners (CIHI, 2006b). The CIHI survey research also suggested domestic shortages of other select technologies (CIHI, 2005a, 2006c). In another report, the International Network of Agencies for Health Technology Assessment (INAHTA) surveyed its member countries on their provision of PET scanners and found that Canada also ranked near the bottom in terms of availability (Hastings and Adams, 2006). Finally, citing various reports from the Canadian Agency for Drugs and Technology in Health (CADTH), Esmail and Wrona (2008) further found that numerous other leading-edge technologies which are generally available in many other OECD countries are virtually not accessible at all to patients in Canada.

**Figure 9: Number of lithotripters per million population, Canada vs. average for all other OECD countries with available data, 1986–2006**



Source: OECD, 2008. Calculations by the author.

Note: Canadian data not reported by the OECD in some years. Time series begins in earliest year reported for Canada. Missing data points in some years.



## Long waits for medical treatment

One of the more highly publicized complaints about suboptimal performance in the Canadian health system is that there are unnecessarily long delays to accessing publicly insured medical treatment. Unnecessary delays to accessing medical treatment could result from shortages of medical resources. There is no government source of comprehensive, nationally comparable administrative data available with which to measure waits for hospital and physician specialist services in Canada. However, the provinces individually publish official waiting lists using administrative reporting data.<sup>29</sup> Provincial wait times data is based on varying definitions, methods, and scopes of measurement. Provincial ministries of health in all provinces except Newfoundland & Labrador and Prince Edward Island

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29 Available for various provinces and procedures at the following URLs:

|                         |  |
|-------------------------|--|
| <b>British Columbia</b> | <a href="http://www.healthservices.gov.bc.ca/cpa/mediasite/waittimes.html">www.healthservices.gov.bc.ca/cpa/mediasite/waittimes.html</a><br><a href="http://www.health.gov.bc.ca/waitlist">www.health.gov.bc.ca/waitlist</a>   |
| <b>Alberta</b>          | <a href="http://www.ahw.gov.ab.ca/waitlist">www.ahw.gov.ab.ca/waitlist</a>   |
| <b>Saskatchewan</b>     | <a href="http://www.sasksurgery.ca">www.sasksurgery.ca</a>   |
| <b>Manitoba</b>         | <a href="http://www.gov.mb.ca/health/waitlist/index.html">www.gov.mb.ca/health/waitlist/index.html</a>   |
| <b>Ontario</b>          | <a href="http://www.health.gov.on.ca/transformation/wait_times/wait_mn.html">www.health.gov.on.ca/transformation/wait_times/wait_mn.html</a><br><a href="http://www.ccn.on.ca">www.ccn.on.ca</a><br><a href="http://www.cancercare.on.ca/index_waittimesRadiation.asp">www.cancercare.on.ca/index_waittimesRadiation.asp</a><br><a href="http://www.cancercare.on.ca/index_waittimessystemic.asp">www.cancercare.on.ca/index_waittimessystemic.asp</a> |
| <b>Quebec</b>           | <a href="http://wpp01.msss.gouv.qc.ca/appl/g74web/default.asp">http://wpp01.msss.gouv.qc.ca/appl/g74web/default.asp</a>  |
| <b>New Brunswick</b>    | <a href="http://www1.gnb.ca/0217/surgicalwaittimes/index-e.aspx">http://www1.gnb.ca/0217/surgicalwaittimes/index-e.aspx</a>  |
| <b>Nova Scotia</b>      | <a href="http://www.gov.ns.ca/health/waittimes/wt_treatment_service/default.htm">www.gov.ns.ca/health/waittimes/wt_treatment_service/default.htm</a>   |

have websites that publish either the estimated length of wait times by procedure or the estimated number of patients on wait lists by procedure. Newfoundland & Labrador and Prince Edward Island publish occasional reports on wait times. Two provincial agencies focused on cardiac and cancer care also maintain website estimates of wait times for these particular services in Ontario.

The Fraser Institute publishes the only report on wait times that uses a method which allows for reliable interprovincial comparison across Canada (Esmail, Hazel, and Walker, 2008). The report has been updated annually since 1993, allowing for a time series analysis. Data for the report is generated from a national mail survey sent to all physician specialists in 12 important elective treatment areas across all 10 Canadian provinces and typically achieves a response rate of about 30%.<sup>30</sup> The report measures total waiting time, which is defined as the period from referral by a general practitioner to when the patient actually receives specialist treatment. It does not include the time spent waiting for an appointment with a general practitioner. The data are stated as a median statistic averaged across 12 specialties<sup>31</sup> and 10 provinces. According to the most recent edition of the survey, Canadian median wait time, averaged across all specialties and provinces, was 17.3 weeks in 2008. According to the Institute's research, the total aggregate average wait time measured in 2008 was down from a historical high of 18.3 weeks in 2007. Despite the one-year improvement, the average median wait for medical services in 2007 had increased to nearly twice as long as it was in 1993 when the survey indicated that median wait times averaged 9.3 weeks across the same specialties. According to the survey, physician respondents also reported that

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30 One limitation of the survey methodology used in the report is that it might be affected by respondent bias. This limitation would also apply to other national, interprovincially comparable, comprehensive studies of wait times. For instance, while the Fraser Institute surveys physicians, Statistics Canada also uses a survey method for its wait times studies that targets both patient and provider respondents. Nevertheless, the Fraser Institute's survey often produces more cautious estimates of wait times in many specialties than even those published by government reports using administrative data.

31 Data was collected on multiple procedures included in each specialty.

Canadians waited significantly longer than what the respondents deemed clinically reasonable.

According to the Esmail, Hazel, and Walker (2008), a relatively low availability of advanced medical technologies in Canada is suspected to be a key factor in producing long waits for diagnostic procedures. The survey showed that in 2008, the averaged median wait for a CT scan across Canada was 4.9 weeks (roughly equal to the 4.8 weeks recorded in 2007). The averaged median wait for an MRI across Canada was 9.7 weeks (down from 10.1 weeks in 2007). Finally, the averaged median wait for ultrasound was 4.4 weeks (up from 3.9 weeks in 2007) across Canada. To verify the validity of their survey results, Esmail, Hazel, and Walker (2008) compiled data from the provincial wait times websites for comparison. According to the data they collected in the four provinces where matching comparisons could be made with their own survey data, the aggregate average median<sup>32</sup> wait times published by provincial sources were: 6.0 weeks in Alberta; 6.0 weeks in British Columbia; 6.1 weeks in Saskatchewan; and 12.6 weeks in New Brunswick.

Provincial wait time estimates are sometimes lower, and at other times higher than Fraser Institute results, depending on the specialty or procedure being measured. Esmail, Hazel, and Walker (2008) say that differences in data definitions and methodology account for most of the variation in the estimated average median wait times.<sup>33</sup> Esmail, Hazel, and Walker (2008) also reviewed 22 other studies on wait times with results that could be compared to their survey data. According to their analysis of the wait times estimates published in these studies, the authors found that there were 95 independent estimates that could be compared to their own survey results. They calculated that in 62% of the comparisons (59 of 95), other estimates of wait times were higher than their own estimates for the same specialties or procedures studied, covering the same jurisdictions and time periods. In 33% of comparisons (31 of 95), their estimates of wait

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32 Simple average of the medians reported by provincial authorities for each specialty/procedure measured.

33 See Esmail, Hazel, and Walker (2008: 21–30) for detailed explanations.

times exceeded those found in other estimates. And in 5% of comparisons (5 of 95), the estimates matched.<sup>34</sup>

Other research has also examined and confirmed significant wait times for accessing medical care in Canada. The Canadian Institute for Health Information (CIHI) published a 2006 summary report based on data from surveys of physicians and patients as well as a collection of provincial reports and sources of wait times data (CIHI, 2006d). It also referenced international survey results published by other organizations. Unfortunately, none of the data was available for comprehensive analysis of wait times aggregated across treatment areas, averaged across the country, or compared internationally. Nevertheless, based on the available data, the report concluded that wait times for accessing medical diagnosis and treatment in Canada appear to be significant. Moreover, the CIHI study also concluded that where international comparisons are possible, the available data suggested that Canadians tend wait longer than patients in most of the countries used for comparisons.<sup>35</sup> The conclusion that wait times for accessing necessary medical services in Canada tend to be longer than the waits observed in comparable countries has also been confirmed in various other studies using small (usually two to three) comparative samples including Coyte et al. (1994) and Collins-Nakai et al. (1992). A study by Carroll et al. (1995) comparing Canada to the US and Sweden

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34 The comparisons of wait time estimates were done for the same time periods between the studies reviewed and the results collected by the Fraser Institute in earlier editions of their annually updated report.

35 In another report on wait times in emergency departments in Ontario, CIHI found that only half of all visits at high-volume community hospitals were completed under three hours. The median emergency department visit in teaching hospitals was even longer: just under four hours. Further, one in 10 visits to high-volume community hospital emergency departments lasted 7.5 hours or more. This compares to 9.3 hours for teaching hospitals and approximately three hours for low-volume community hospital emergency departments (CIHI, 2007a). A 2007 article cited data from the Vancouver Coastal Health Authority showing that wait times just to be admitted from ER to hospital in three provincial hospitals were reported to be, on average, between 13.4 and 16 hours. According to the report, the target admission time for ER patients is 10 hours and the government wants ERs to hit that target 80% of the time. Coastal Health Authority hospitals actually reach it 70.9% of the time (Bermingham, 2007, June 20).

found mixed results, with waits in Canada being longer for some procedures and shorter for others. On the other hand, at least one study by Jackson et al. (1999) found that wait times in Canada were shorter than in New Zealand for the procedures studied.

An analysis by Stokes and Somerville (2008) estimated the total economic costs to Canada from excessive wait times in Canada's medical system. The study measured only the economic costs incurred by waiting longer than medically recommended for treatment. It considered three types of costs: patient costs, caregiver costs, and medical system costs. According to the study,

- ⌘ Patient costs measured the impact of reduced economic activity as a result of patients being unable to participate in the labor force: that is, loss of production, reduced incomes and spending.
- ⌘ Caregiver costs measured the impact of reduced economic activity as a result of caregivers foregoing paid work to care for family members or relatives: that is, loss of production, reduced incomes and spending.
- ⌘ Health care system costs included the additional costs to the health care system: that is, medical appointments, tests and procedures, and medications that would not have been required had their wait time not exceeded the maximum recommended.

The study examined only four of the five priority areas identified by Canadian governments as having high wait times requiring government action. The study found that the highest economic costs are generated for total joint replacement surgery (an average of around \$26,400 per patient), followed by MRIs (\$20,000) and coronary artery bypass graft (CABG) surgery (\$19,400), with cataract surgery yielding the lowest costs (\$2,900). The cumulative total lost economic output that represents the cost of waiting for treatment across these four priority areas alone in 2007 was an estimated \$14.8 billion. According to the study, "this reduction in economic activity lowered federal and provincial government revenues in 2007 by

an estimated \$4.4 billion below the potential level of revenues that would have accrued to governments in the absence of excess wait times” (Stokes and Somerville, 2008: 1). Table 11 summarizes the data broken down by economic impact on GDP, federal revenue, and provincial revenue. The figures suggest that costs from medical waits in Canada amounted to an approximate one-percent loss to GDP and government revenue.

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**Table 11: Estimated total economic costs (lost GDP and government revenue [or expenditure]) from excess waits for accessing medical services in four priority areas, Canada, 2007**

|                                   | Total CA\$          | Total costs from medical waits, CA\$ |
|-----------------------------------|---------------------|--------------------------------------|
| <b>Gross Domestic Product</b>     | \$1,532,944,000,000 | \$14,817,000,000                     |
| <b>Federal gov't. revenues</b>    | \$250,782,000,000   | \$2,211,000,000                      |
| <b>Provincial gov't. revenues</b> | \$247,021,000,000   | \$2,182,000,000                      |

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Source: Stokes and Somerville, 2008; adapted by author.

# Inflated generic drug prices and wasted spending

One of the central rationales offered for Canadian prescription drug policy is a concern about reducing or controlling the cost of prescription medicines. There is significant variation between Canada's approach to prescription drug policy and the approaches used in other OECD countries. International policy differences could theoretically produce different outcomes on aggregate drug expenditure. Unfortunately, reliable data is not currently available to permit a comparison of prescription drug spending across OECD countries.<sup>36</sup> Alternatively, a comparison of prescription drug spending in a North American context serves to provide some insights into the relative success or failure of Canadian prescription drug policy when compared to more liberal policy environments like that of the United States.

The drug insurance market is structured virtually the same way in both countries. In Canada, federal, provincial, and territorial governments operate publicly funded drug benefit programs acting as insurance

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36 Eight OECD countries, including Canada and the United States, do not report data on total pharmaceutical spending to the OECD. Further, OECD data on total pharmaceutical sales are not reported consistently by other member countries. The wide variation in data definitions is significant and excludes the possibility of reasonable cross-country comparison. According to the OECD, some countries only report drug sales to public programs instead of total sales, only ex-factory or wholesale prices instead of retail prices, and may also exclude sales to hospitals.

payers for prescription drugs for specific subpopulations like seniors, low-income people, or aboriginal populations. But, unlike provincial Medicare, which covers hospital and physician services, public insurance programs for drugs in Canada are not universal.<sup>37</sup> Importantly, while Canadian health policy effectively bans any form of private payment for hospital and physician services insured by the provincial government, such legal prohibitions do not apply to prescription drugs. Through the various federal, provincial, and territorial government drug benefit programs in Canada, government accounts for nearly half (46%) of all expenditures on prescription medicines in Canada (CIHI, 2008). The rest of drug expenditures are paid for through private-sector drug insurance (generally associated with employment benefits) and uninsured personal cash expenditures.

This is an almost identical approach to drug insurance in the United States, where various federal and state programs provide publicly funded drug coverage targeting specific subpopulations through programs like Medicaid, Medicare, and Veterans' Affairs, while the remainder of the population obtains drugs through employment-based private-sector insurance or personal cash payment. However, there are other significant differences to drug policy between the countries. For example, the federal government in Canada imposes price controls on patented medicines and federal, provincial, and territorial governments use health technology assessments and restrictive formularies to exclude many new patented medicines from eligibility for public reimbursement even though the drugs have been approved as safe and effective by Health Canada. By contrast, governments in the United States do not impose price regulation or restrictions on consumer choice.

Using comparable data from government sources, the most recent research on this question has shown that the comparative overall burden of total prescription drug spending is roughly equivalent in Canada and the United States (Skinner and Rovere, 2007c, 2008e). In 2006 and 2007, per-capita prescription drug expenditures made up roughly the same

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37 There is significant variance in the design of provincial drug insurance plans, including eligibility requirements and consumer cost-sharing arrangements (Graham and Tabler, 2005).

percentage of per-capita national income before taxes in both countries. Data shown in figure 10 indicate that per-capita spending on prescription drugs was 1.5% of per-capita GDP for Canadians in both years, compared to 1.6% in 2006 and 1.7% in 2007 for Americans. The data also show that in 2006, per-capita prescription drug expenditures were a slightly higher percentage of after-tax personal income in Canada than they were in the United States: Canadians spent 2.5% of their personal income after taxes on prescription drugs in both years, compared to only 2.2% in 2006 and 2.3% in 2007 for Americans.<sup>38</sup>

These findings are reinforced by Danzon and Furukawa (2006), who compared US drug prices to a group of countries including Canada. They found that while per-capita levels of spending on all types of biopharmaceuticals was significantly higher in the US (up to twice as high as in other countries), “this difference reflects primarily greater availability and use of new, relatively high-price molecules and formulations. Prices for identical formulations are not higher on average in the United States. The broader prices indexes, which do not control formulation, are also not higher in the United States, after adjusting for income” (Danzon and Furukawa, 2006: 1353).

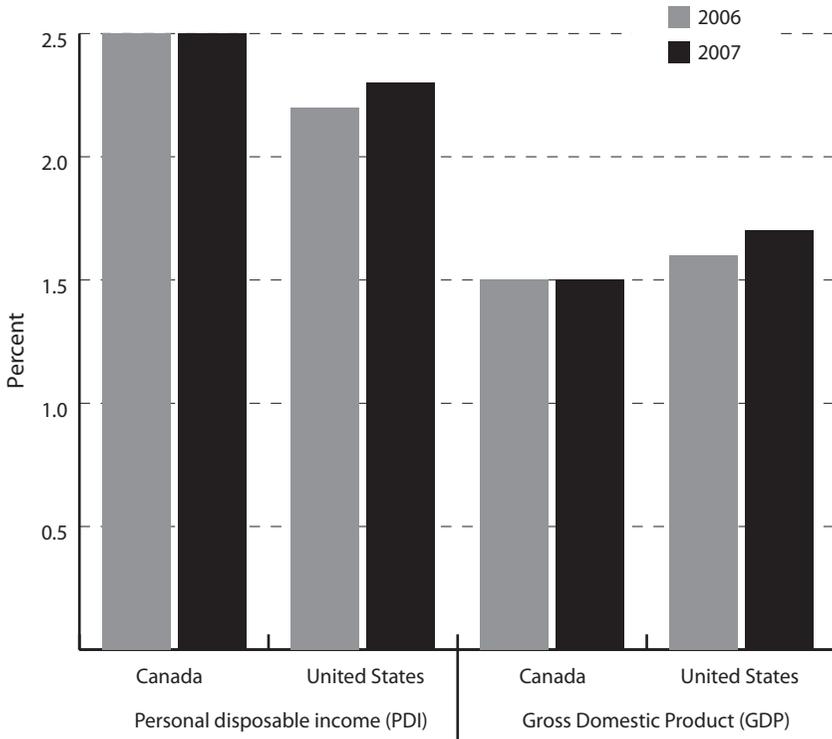
A likely explanation for this finding is the nature of the difference in prices and substitution patterns of patented versus generic drug products between Canada and the United States.<sup>39</sup> A 2004 review of available research comparing drug prices in Canada with drug prices in similar countries (Skinner, 2004a) suggested that Canadian prices for patented drugs were at or below international median prices for identical drugs.

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38 Other data also indicate that utilization is similar in both countries: the number of prescriptions dispensed per capita in each country is approximately the same. In 2006, 13.0 prescriptions were dispensed per person in Canada, versus 12.3 prescriptions per person in the United States (Skinner and Rovere, 2007c). In 2007, the same figures were 13.7 for Canada and 12.6 for the United States (Skinner and Rovere, 2008e). Researchers have noted that the number of extended units (e.g., pills, tablets, etc.) per prescription tends to be significantly larger in the US than in Canada (Skinner, 2006a).

39 For an excellent discussion of the technical and methodological issues surrounding international comparisons of drug prices, see Danzon and Chao (2000) and Danzon and Kim (1998).

**Figure 10: Annual change in the personal prescription drug cost burden in Canada and the United States, 2006 and 2007**



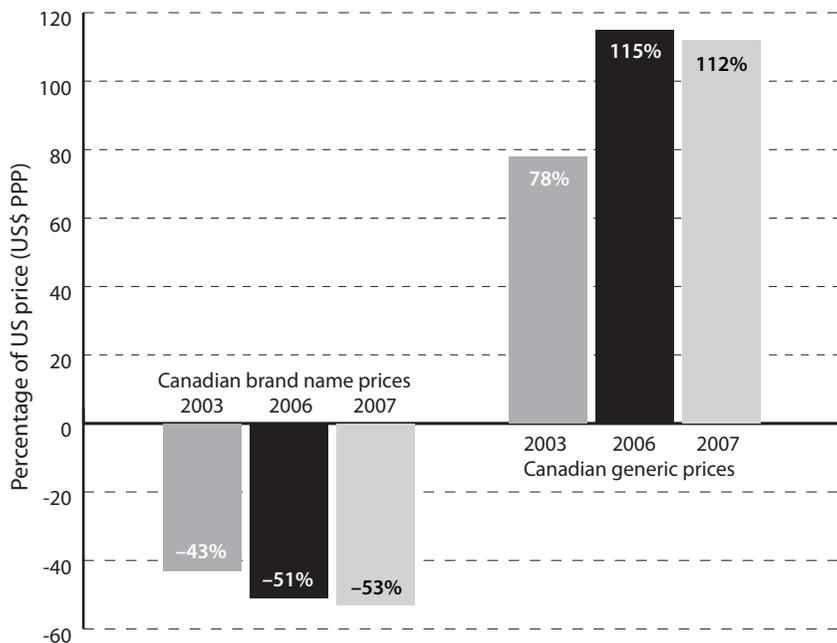
Source: Skinner and Rovere, 2007c, 2008e.

By contrast, the research also indicated that Canadian prices for generic versions of drugs were far above international median prices for identical generic drugs. Later empirical research (Skinner, 2005b; Skinner and Rovere, 2007d, 2008c) compared Canadian and US prices for the 100 most commonly prescribed generic and brand name drug products in 2003, 2006, and 2007—200 products in total for each year of study.<sup>40</sup> The most recent data (figure 11) indicate that in 2007, Canadian prices for brand name drugs averaged 53% lower than commonly available US prices for

<sup>40</sup> All prices adjusted for currency equivalency and calculated per common dosage unit.

identical drugs. In 2003, Canadian prices for brand name drugs were, on average, 43% below US prices. By contrast, the prices of Canadian generic drugs were, on average, much higher than commonly available US prices for identical drugs. Canadian prices for generics averaged 112% higher than US prices in 2007, an increase in the relative cost from 2003 when prices for generic drugs were on average 78% higher in Canada. These Canada-US comparative price findings are generally consistent with the weight of evidence in this area suggested by other research, including Graham and Robson (2000), Palmer D'Angelo Consulting International (PDCI, 2002), the Patented Medicines Price Review Board of Canada

**Figure 11: Differences between prices in Canada and the United States for the 100 most commonly prescribed brand name, and the 100 most commonly prescribed generic, prescription drugs; 2003, 2006, and 2007, stated as a percentage above or below the US price**



Source: Skinner and Rovere, 2008c.

(PMPRB, 2003), the US Food and Drug Administration (FDA, 2003), the Competition Bureau of Canada (2007), and Gooi and Bell (2008).<sup>41</sup>

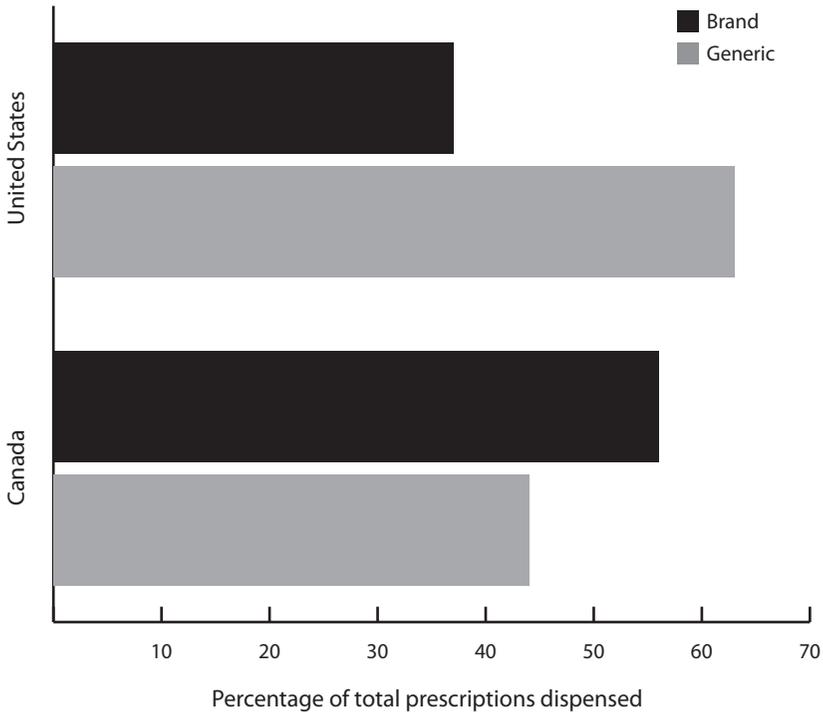
Research also indicates that, relative to the observed outcomes associated with relatively more liberal US prescription drug policies, Canadian approaches to prescription drug policy are also associated with a less economically efficient substitution of lower-cost generic versions of drug products for relatively more expensive brand name (formerly patented) drugs. Skinner and Rovere (2007d) have referenced data from IMS Health Inc. showing that in 2006, the Canadian generic substitution rate was only 44% of all prescriptions dispensed, while in the United States generics accounted for 63% of all prescriptions. Probably due to the higher prices paid for brand name drugs and the much lower prices paid for generic drugs in the US, as well as the higher substitution rate of lower priced generics in the US, Americans end up spending about the same percentage

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41 Only one published study has found that Canadian generic drug prices were, on average, lower than in the United States. The analysis by Danzon and Furukawa (2003) included non-prescription (i.e., over-the-counter) drugs in their data sample and their results are not comparable to the prescription-only prices studied by others. Danzon and Furukawa also used data from the IMS Health Midas set, which is recorded at manufacturer price levels, excluding wholesaler and pharmacy mark-ups, and therefore is not comparable to the data sets of retail prices used in most other research on this topic. Another study by D’Cruz et al. (2005) found parity between a select sample of Canadian and US prices for generic drugs. However, there are methodological concerns with the study. To make Canada-US prices comparable, the authors correctly converted prices to a common dosage unit (e.g., price per mg). This method properly accounts for differences in pack sizes and dosage formulations between Canada and the US, making prices comparable. However, the authors then compared only similar pack sizes in Canada and the United States. This is not standard methodology and defeats the purpose of doing the conversion to a common dosage unit in the first place. It is common to have larger pack sizes at discounted prices in the United States, which reduces the price per unit and results in American consumers essentially getting more for their money. There is no legitimate rationale for excluding these cases. By including only the least economical sales of US generic products, the selection bias skews the results on price comparisons and produces a misleading measurement. Finally, their comparisons were also made using wholesale prices, which makes them irrelevant to consumers, insurers, and public drug programs, which must pay retail prices.

of their incomes on prescription drugs as Canadians. Researchers have argued that Canada's high generic prices, which subsequently contribute to low generic substitution rates, result in lost potential savings on total drug spending totaling between \$2.9 billion and \$7.5 billion in unnecessary spending in 2007 alone (Skinner and Rovere, 2008c). This suggests that Canadian policy is not achieving one of its primary rationales, which is to produce cost savings (at least at the aggregate level) greater than what would be achieved by more economically liberal policy approaches like those in the United States.

**Figure 12: Percentage of total prescriptions dispensed, generic versus brand-name drugs, Canada and the United States, 2006**



Source: Skinner and Rovere, 2007d.



## Lack of access to new drugs

While Canada's approach to prescription drug policy produces no overall cost advantages compared to more economically liberal policies in the United States, there is a real difference in access to new medicines in both countries. Access to new medicines in Canada is affected by the state's dual role in protecting the public health and in socially guaranteeing universal access to necessary medicines. The success or failure of Canadian health policy in achieving these goals is arguably indicated by the performance of Health Canada's regulatory approval process for new drugs and the subsequent reimbursement approval process of federal, provincial, and territorial (FPT) public drug plans for new drugs. Through Health Canada, the federal government certifies both the safety and effectiveness of all newly developed<sup>42</sup> drugs before they can be legally sold. This process is

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42 The most recent analysis indicates that, on a global basis, the process of developing a new drug takes approximately 10 years on average to complete (DiMasi, 2001; DiMasi et al., 1995, 2003; Adams and Brantner, 2003, 2006). The development period for new drugs starts from the date at which a newly discovered drug molecule is patented in any country, including the period of clinical testing, and ends on the date that an application for marketing approval is first submitted to any national government. The longest period within the drug development phase involves clinical testing of a newly invented medicine among volunteer patients. Clinical testing of new drugs involves thousands of patients, often located across international jurisdictions, over many years. No drug is submitted for marketing approval anywhere in the developed world without having first completed successful clinical tests. The costs and time spent in the development of new drugs is affected by universal scientific standards of experimental research. These standards determine, for example, how many patients

a function of Health Canada's mandate to protect public health. Once certified by Health Canada, new drugs must receive additional approvals from FPT governments before they become eligible for reimbursement under publicly funded drug insurance programs. Reimbursement or "coverage" decisions made by FPT drug plans are a necessary part of the state's involvement in medical insurance, which is a function of the second core social goal identified earlier as a rationale for state involvement in health care.

In Canada, post-development access to new medicines is affected in three ways (Skinner et al., 2007; Skinner and Rovere, 2008d): (1) time spent waiting for Health Canada's regulatory process of certifying the safety and effectiveness of new drug products; (2) time spent waiting for public officials to determine whether a new drug should be eligible for public reimbursement under FPT drug programs<sup>43</sup>; and (3) obstacles to

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must be enrolled in the testing of a new drug in order for researchers to have confidence in the statistical results and conclusions. There are also scientific standards for the design and conduct of clinical drug testing in patient populations, as well as ethical standards about the treatment and use of human and animal subjects. These standards have international acceptance and affect the absolute minimum period of time it takes to complete clinical testing of the safety and effectiveness of any new medicine. International scientific standards for clinical trials are established by the World Medical Association Declaration of Helsinki (WMA, 1964). These are generally interpreted as the minimum global standard. Actual standards for demonstrating the safety of drug products are set by national governments through domestic regulation and determine the number, length, and rigor of clinical trials that will be required. For instance, Health Canada's regulations require minimum compliance with international standards for clinical research on new medicines but do not exclude stricter regulations as deemed necessary by the government of Canada. Nevertheless, because of the importance of the American and European markets throughout the world, the actual minimum time spent during drug development is determined by the length of time it takes to satisfy the requirements of the US Food and Drug Administration (US FDA) and the European Medicines Agency (EMA) for clinical testing.

43 The Government of Canada, through various programs, provides prescription drug coverage for about one million Canadians who are members of eligible groups. These groups include First Nations and Inuit, members of the military, veterans, members of the RCMP, and inmates in federal penitentiaries. Provincial and territorial governments operate programs for the general populations of their provinces.

access caused by governments when new drugs that have already been approved as safe and effective by Health Canada are not declared eligible for reimbursement under public drug plans. Health Canada defines marketing approval delay as the period between the date at which the drug manufacturer's application for approval is recorded or filed in the Central Registry (CR) of Health Canada's Therapeutic Products Directorate (TPD) or Biologic and Genetics Therapies Directorate (BGTD) following the completion of clinical testing. The period ends when Health Canada issues an official Notice of Compliance (NOC) certifying that the new drug is safe and effective.<sup>44</sup>

The second segment of the wait for new medicines is the time spent by FPT governments to decide whether to reimburse a new drug under their respective publicly funded drug insurance programs. Researchers (Skinner et al., 2007; Skinner and Rovere, 2008d) have defined this period of delay from the date at which Health Canada issues a NOC for a new drug to the date at which the first public reimbursement (PR) of the same drug is recorded in the formularies of each FPT drug program.<sup>45</sup>

Health Canada annually publishes data measuring its performance in approving applications for new patented drug products. The most recently

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44 These definitions are discussed in Skinner et al. (2007) and Skinner and Rovere (2008d). International systems for drug approval in Europe and the United States measure the same period but use different terminology for describing start and end dates. As of 1999, responsibility for approving both pharmaceutical and biological medicines was centralized for all countries that are members of the European Union in the European Medicines Agency (EMA). As of 2004, the equivalent authority in the United States lies with the Department of Health and Human Services (HHS), Food and Drug Administration (FDA): Center for Drug Evaluation and Research (CDER) for pharmaceutical and biological medicines, and formerly with the Center for Biologics Evaluation and Research (CBER) for biological medicines.

45 In Skinner et al. (2007), (2) above was divided into two sub-segments to account for the time taken by the quasi-national Common Drug Review (CDR) to issue reimbursement recommendations to the provinces. However, the CDR is created, funded, and used by the provinces to assist in reaching decisions on reimbursement and so the ultimate responsibility for any delays rests with the provincial governments. For this reason, the delay caused by the CDR was not measured separately in later editions of this research (Skinner and Rovere, 2008d).

available data published by Health Canada is displayed in table 7. The data show the number of days that elapsed between the manufacturer's submission of an application to Health Canada for approval of a new drug and the issuance of an NOC by Health Canada officially certifying the new drug as safe and effective, and granting marketing approval. The data cover the most recently reported five-year period, 2003 to 2007. Data covers only new patented drugs. Average wait times are calculated in days (rounded) and averages are weighted by drug technology type (i.e., biological/pharmaceutical) and by regulatory application category (i.e., New Drug Submission (NDS)/Supplementary New Drug Submission (SNDS)). NDS applications are comprised of drugs that have never before been sold in Canada (i.e., New Active Substances (NAS)) and new combinations of two or more previously approved active drug ingredients. SNDS applications cover requests for reformulations or changes in dosage strength for previously approved drugs. The relative importance of NDS and SNDS applications might be perceived to be different. Therefore, average wait times for Health Canada approval are shown separately for all new drug submissions, and for all new drug submissions excluding SNDS approvals.

The data in table 12 show that in 2007 it took an estimated 337 days on average for Health Canada to grant marketing approval to new patented drug products. The average wait time for new drug approval was estimated to be as high as 453 days if supplementary new drug submissions are excluded. Both estimates for 2007 were down from the waits estimated in the four previous years. The data suggests steady improvement in the efficiency of Health Canada's approval process over the most recent five-year period. Nevertheless, overall average wait times appear to be long, at between approximately one year for all new patented drugs and 1.3 years if SNDS applications are excluded from the analysis.

Data is available that also allows us to roughly compare Health Canada's performance on drug approval to that of its international regulatory counterparts in the US and Europe.<sup>46</sup> The international comparisons of wait

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46 Comparability limitations: The FDA does report separately by priority and non-priority new drug applications. These are theoretically equivalent to Health Canada's NAS and NDS classifications of new drug applications. The averaged median

**Table 12: Health Canada average approval time (in days) for new drugs, 2003–2007, by drug technology type, by priority review status, by drug submission type; overall averages weighted by number of drug products approved, by category**

| <b>Drug type and review status</b>      | <b>2003</b> | <b>2004</b> | <b>2005</b> | <b>2006</b> | <b>2007</b> |
|---|-------------|-------------|-------------|-------------|-------------|
| Bio-priority NDS [1]                    | 723         | 845         | 876         | 482         | 211         |
| <i>Number of NDS in category</i>        | 3           | 6           | 7           | 6           | 3           |
| Bio-non-priority NDS                    | 866         | 1033        | 1153        | 674         | 472         |
| <i>Number of NDS in category</i>        | 7           | 8           | 10          | 10          | 9           |
| Pharma-priority NDS                     | 351         | 228         | 348         | 304         | 247         |
| <i>Number of NDS in category</i>        | 4           | 3           | 5           | 4           | 5           |
| Pharma-non-priority NDS                 | 665         | 841         | 540         | 456         | 499         |
| <i>Number of NDS in category</i>        | 29          | 35          | 26          | 35          | 34          |
| Bio-priority SNDS                       | 1033        | –           | 466         | 203         | –           |
| <i>Number of SNDS in category</i>       | 2           | 0           | 6           | 5           | 0           |
| Bio-non-priority SNDS [2]               | 527         | 495         | 534         | 355         | 253         |
| <i>Number of SNDS in category</i>       | 33          | 55          | 60          | 96          | 78          |
| Pharma-priority SNDS                    | 396         | 202         | 254         | 191         | 219         |
| <i>Number of SNDS in category</i>       | 2           | 2           | 2           | 3           | 4           |
| Pharma-non-priority SNDS                | 496         | 404         | 362         | 364         | 344         |
| <i>Number of SNDS in category</i>       | 110         | 101         | 91          | 120         | 153         |
| <b>Weighted average for all</b>         | <b>546</b>  | <b>533</b>  | <b>491</b>  | <b>380</b>  | <b>337</b>  |
| <b>Weighted average, excluding SNDS</b> | <b>673</b>  | <b>836</b>  | <b>697</b>  | <b>487</b>  | <b>453</b>  |

Source: Health Canada, 2008a. Calculations by the author.

[1] New Drug Submission (NDS)

[2] Supplementary New Drug Submission (SNDS)

times for new drug marketing approvals require data to be estimated differently between Canada and Europe, and between Canada and the US. This is because Health Canada's counterpart in the European Union, the European Medicines Agency (EMA), reports average wait times consolidated by drug technology type and drug submission type, excluding supplementary new drug submissions.<sup>47</sup> By contrast, Health Canada's counterpart in the US, the Food and Drug Administration (FDA), reports only median figures, consolidated across drug technology type, reported separately by priority review status, excluding supplementary new drug submissions.<sup>48</sup> Fortunately, Health Canada reports both average and median figures, and provides separate breakdowns by drug technology type, drug submission type, and priority review status. The detail provided by Health Canada permits us to define the data to match the same methodology for reporting respectively used by the EMA and the US FDA.

Tables 13 and 14 respectively show the comparative performance of Health Canada versus the EMA and then against the FDA in terms of the length of time (in days) that each agency took to issue an approval decision for drugs that were approved by each agency. Only the two most recent years are shown for the EMA comparison, and only the four most recent years are shown for the FDA comparison due to recent changes in the reporting methodology of the EMA and FDA. Using matching comparisons based on EMA and FDA data definitions for averages and medians, the data show that typical wait times for new drug approvals in Canada took significantly longer than in Europe and the US over the period studied.<sup>49</sup>

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47 Defined by different terminology but conceptually equivalent.

48 Defined by different terminology but conceptually equivalent.

49 The results in tables 8 and 9 cannot be compared to other recent analyses using different data samples. A 2007 study looked more specifically at regulatory approval times for 22 drugs that were all commonly reviewed by the EMA, FDA, and Health Canada between 2000 and 2007. The study found that for these drugs, average approval times were estimated at 499 days in the EU, 433 days in Canada, and 334 days in the US (Wyatt et al., 2007). The same study also looked at a smaller common sample of drugs given priority review in each jurisdiction over the same study period and found that average approval times were 547 days in Canada, 516 days in

**Table 13: Average approval time (days), Health Canada vs. EMEA, consolidated by drug technology type and priority review status, SNDS type applications excluded**

| Year | Canada | European Union |
|------|--------|----------------|
| 2006 | 521    | 302            |
| 2007 | 437    | 282            |

Source: Skinner and Rovere, 2009; Health Canada, 2008a; EMEA, 2008.

**Table 14: Median approval time (days), Health Canada vs. FDA, consolidated by drug technology type, weighted by priority review status, SNDS type applications excluded**

| Year | Canada | United States |
|------|--------|---------------|
| 2004 | 671    | 341           |
| 2005 | 620    | 339           |
| 2006 | 440    | 351           |
| 2007 | 355    | 277           |

Source: Skinner and Rovere, 2009; Health Canada, 2008a; CDER, 2008.

the EU, and 326 days in the US (Wyatt et al., 2007). It is unclear how averages were calculated in the Wyatt et al. (2007) study because the US FDA only reports median figures. Another study using broader data definitions found that when supplementary new drug submissions (SNDS) are included in these estimates of wait times, Health Canada's performance on new drug approvals has been better than the EMEA and the FDA in some recent years (Skinner et al., 2007; Skinner and Rovere, 2008b). The difference between the results presented here and the findings of previous analyses suggest that Health Canada is relatively less efficient in terms of approving access to the newest generation of medicines than either the EMEA or the FDA. On the other hand, Health Canada also appears to be relatively more efficient in the drug approval process affecting less novel drug products. From the perspective of patients, the result suggests that, in general, access to the newest medicines is more limited in Canada than in either Europe or the US over the period studied.

Access to new drugs can also be measured in terms of the wait times for public drug plans to declare new drug products eligible for public reimbursement after they have been certified as safe and effective by Health Canada. In 2003, federal, provincial, and territorial (FPT) governments created a process called the Common Drug Review (CDR) for assessing the comparative effectiveness of new medicines. The CDR “uses Clinical and Pharmacoeconomic Drug Reviews to evaluate the comparative benefits and costs of the drugs under consideration and make common formulary listing recommendations” to public drug plans (CADTH, 2008:1). CDR recommendations are non-binding and FPT governments make separate jurisdictional decisions about final reimbursement. All FPT jurisdictions participate, except the province of Quebec. Under Canada’s reimbursement approval regime, access to new medicines appears to be quite limited. Data presented earlier in table 12 shows that Canadians already waited a year or more on average in 2007 for Health Canada to approve new biopharmaceuticals. In addition, data shown in table 15 suggests that CDR review and the reimbursement approval processes of public drug plans combined to add another 319 days on average to the wait for access to new medicines in 2007.

In addition, the overall generosity of coverage under public drug plans appears to be low. Only a small percentage of the new drugs previously certified as safe and effective by Health Canada actually end up being approved for reimbursement by the provincial drug plans. Data shown in table 16 indicate that as of December 1, 2008, only 20.4% of all drugs that Health Canada approved as safe and effective in 2004 had actually been reimbursed in the provincial drug plans.<sup>50</sup> By contrast, Canada’s private-sector drug insurance market appears to provide much broader and more immediate access to new medicines for privately insured Canadians.<sup>51</sup> According to a survey of private health insurers in Canada in 2006, almost

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50 Many reimbursement approvals by FPT governments are extremely limited in terms of providing full access because they are often restricted to particular circumstances requiring case-by-case approval by government authorities.

51 In Canada, publicly funded drug programs cover about one third of the population and account for about 48% of total (public and private) spending on prescription

**Table 15: Estimated weighted average number of days between Health Canada certification and first recorded payment in the provincial public drug plan for new drugs, organized by year in which Health Canada issued an NOC, by province, 2004–2007, data current to December 1, 2008\***

| Province       | 2004       | 2005       | 2006       | 2007       |
|----------------|------------|------------|------------|------------|
| BC             | 554        | 658        | 547        | 269        |
| AB             | 464        | 628        | 480        | 259        |
| SK             | 432        | 355        | 383        | 331        |
| MN             | 397        | 373        | 515        | 373        |
| ON             | 583        | 408        | 427        | 288        |
| QC             | 372        | 384        | 310        | 285        |
| NB             | 805        | 546        | 481        | 322        |
| PEI            | 882        | 539        | 546        | –          |
| NS             | 382        | 496        | 409        | 404        |
| NL             | 620        | 839        | 473        | 336        |
| <b>Average</b> | <b>549</b> | <b>523</b> | <b>457</b> | <b>319</b> |

Source: Skinner and Rovere, 2009; Brogan, 2008; Health Canada, 2008b.

Note: As of the date of this study, PEI had not approved any new biological or pharmaceutical drugs for public reimbursement in 2007.

\*The data in table 15 excludes SNDS drugs receiving Health Canada certification. Other analyses (Skinner et al., 2007; Skinner and Rovere, 2008d) estimated provincial reimbursement approval waits affecting new drugs, assuming the inclusion of SNDS drugs in the data, and found similar wait times. SNDS drugs are no longer included in the Brogan Inc. source database.

drugs. The rest of the Canadian population obtains drug insurance from the private sector, or pays cash. The eligibility rules for public coverage vary by jurisdiction.

all new drugs are usually eligible for private-sector insurance reimbursement in Canada as soon as they are certified by Health Canada (Skinner et al., 2007).<sup>52</sup> This means that recipients of publicly funded drug plans receive access to less than half as many new drugs as privately insured people, and they must wait up to a year longer to get access to the fewer number of new medicines that are eventually covered by governments.<sup>53</sup>

Primary source data were not readily available for this paper to allow an international comparison of access to new drugs under the public drug plans of other health systems. However, some research has been published which makes such comparisons. A 2006 study examined 50 drugs that were reviewed by the CDR as of October 2006 and were submitted for reimbursement in Canada, France, the United Kingdom, Switzerland, and New Zealand (Rx&D, 2006).<sup>54</sup> The study's results suggested that the CDR recommended significantly fewer of the 50 new drugs for reimbursement than all countries except Australia and New Zealand. A later study by Wyatt et al. (2008) examined reimbursement approvals for 36 drugs that had been reviewed by the CDR and which had been submitted for public reimbursement approval in the 10 Canadian provinces, the federally run Non-Insured Health Benefits (NIHB) program, the Department of National Defense, and 16 other international jurisdictions. The results of the comparison are summarized in table 17, with each jurisdiction ranked

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52 There are some notable exceptions. Drugs formerly perceived as lifestyle drugs (e.g., for the treatment of sexual dysfunctions) were in some cases not reimbursed through private insurance plans. In addition, only outpatient prescription drugs were covered. Due to the provincial bans on private insurance for publicly funded medical care, some drugs were excluded from private insurance coverage because the drugs were administered only in hospital (e.g., IV-administered cancer drugs). Hospital services fall under provincial Medicare coverage, which would in turn make it illegal to privately insure drugs administered in hospital in most provinces.

53 Research by Pacquette et al. (1999) found that, of the 420 new chemical entities (NCEs) approved by Health Canada between 1991 and 1999, positive reimbursement approvals ranged from approximately 39% to 72%, depending on the province. Later research by Tierney et al. (2006) found that 55% (17 of 31) of all decisions made by the CDR as of December 2005 were negative recommendations for reimbursement.

54 Prepared by Wyatt Health Management for Rx&D.

**Table 16: Percentage of new drugs approved by Health Canada that are subsequently approved for public reimbursement, by province, 2004–2007**

|                   | 2004                                   |                                   |  | 2005                              |  |                                   | 2006                                   |                                   |  | 2007                              |  |  |
|-------------------|--|-----------------------------------|--|-----------------------------------|--|-----------------------------------|--|-----------------------------------|--|-----------------------------------|--|--|
|                   | Drug approved for public reimbursement | Approved drugs as % of total NOCs | Drug approved for public reimbursement | Approved drugs as % of total NOCs | Drug approved for public reimbursement | Approved drugs as % of total NOCs | Drug approved for public reimbursement | Approved drugs as % of total NOCs | Drug approved for public reimbursement | Approved drugs as % of total NOCs |  |  |
| AB                | 8                                      | 17.4%                             | 2                                      | 4.8%                              | 9                                      | 20.9%                             | 1                                      | 2.3%                              |  |                                   |  |  |
| BC                | 7                                      | 15.2%                             | 2                                      | 4.8%                              | 5                                      | 11.6%                             | 2                                      | 4.7%                              |  |                                   |  |  |
| MB                | 8                                      | 17.4%                             | 4                                      | 9.5%                              | 7                                      | 16.3%                             | 3                                      | 7.0%                              |  |                                   |  |  |
| NB                | 10                                     | 21.7%                             | 9                                      | 21.4%                             | 16                                     | 37.2%                             | 1                                      | 2.3%                              |  |                                   |  |  |
| NL                | 9                                      | 19.6%                             | 9                                      | 21.4%                             | 13                                     | 30.2%                             | 3                                      | 7.0%                              |  |                                   |  |  |
| NS                | 8                                      | 17.4%                             | 7                                      | 16.7%                             | 14                                     | 32.6%                             | 5                                      | 11.6%                             |  |                                   |  |  |
| ON                | 7                                      | 15.2%                             | 4                                      | 9.5%                              | 7                                      | 16.3%                             | 3                                      | 7.0%                              |  |                                   |  |  |
| PEI               | 8                                      | 17.4%                             | 7                                      | 16.7%                             | 9                                      | 20.9%                             | 0                                      | NA                                |  |                                   |  |  |
| QC                | 17                                     | 37.0%                             | 13                                     | 31.0%                             | 18                                     | 41.9%                             | 19                                     | 44.2%                             |  |                                   |  |  |
| SK                | 12                                     | 26.1%                             | 7                                      | 16.7%                             | 12                                     | 27.9%                             | 2                                      | 4.7%                              |  |                                   |  |  |
| <b>Ave.</b>       |  | <b>20.4%</b>                      |  | <b>15.2%</b>                      |  | <b>25.6%</b>                      |  | <b>10.1%</b>                      |  |                                   |  |  |
| <b>Total NOCs</b> | <b>46</b>                              |                                   | <b>42</b>                              |                                   | <b>43</b>                              |                                   | <b>43</b>                              |                                   | <b>43</b>                              |                                   |  |  |

Source: Skinner and Rovere, 2009; Brogan, 2008; Health Canada, 2008b.

Note: excludes SNDS types of new drug submissions. Other analyses (Skinner et al., 2007; Skinner and Rovere, 2008d) estimated provincial reimbursement approval rates for all new drugs including SNDS drugs and found that, as of October 2007, on average across all provincial public drug plans, reimbursement approval rates were roughly 42% of all drugs approved by Health Canada in 2004, 2005, and 2006.

from the highest public reimbursement approval rates to the lowest. The rankings show that, for this sample of 36 drugs, Canadian jurisdictions tended to have among the lowest public reimbursement approval rates when compared to this group of international jurisdictions. This suggests that coverage for new drugs under Canada's public drug plans tends to be less generous than the coverage provided under the public drug plans of most of the countries that have been studied.

**Table 17: Public reimbursement approval of 36 drugs reviewed by the Canadian CDR in 2007 and submitted for public reimbursement approval in 16 international and 12 Canadian jurisdictions, as of April 30, 2008; ranked highest to lowest**

| Jurisdiction            | Number of drugs approved | Percentage of sample approved |
|-------------------------|--------------------------|-------------------------------|
| Germany                 | 36                       | 100.0%                        |
| Switzerland             | 36                       | 100.0%                        |
| Finland                 | 36                       | 100.0%                        |
| Denmark                 | 36                       | 100.0%                        |
| United Kingdom          | 35                       | 97.2%                         |
| France                  | 34                       | 94.4%                         |
| Norway                  | 34                       | 94.4%                         |
| Spain                   | 34                       | 94.4%                         |
| Portugal                | 34                       | 94.4%                         |
| Ireland                 | 31                       | 86.1%                         |
| Belgium                 | 31                       | 86.1%                         |
| Italy                   | 30                       | 83.3%                         |
| Quebec                  | 28                       | 77.8%                         |
| Scotland                | 27                       | 75.0%                         |
| Sweden                  | 27                       | 75.0%                         |
| Canada CDR              | 22                       | 61.1%                         |
| Canada NIHB             | 21                       | 58.3%                         |
| Australia               | 21                       | 58.3%                         |
| Alberta                 | 20                       | 55.6%                         |
| British Columbia        | 20                       | 55.6%                         |
| New Brunswick           | 20                       | 55.6%                         |
| Saskatchewan            | 20                       | 55.6%                         |
| Nova Scotia             | 19                       | 52.8%                         |
| Newfoundland & Labrador | 18                       | 50.0%                         |
| Ontario                 | 17                       | 47.2%                         |
| Manitoba                | 15                       | 41.7%                         |
| Canada DND              | 12                       | 33.3%                         |
| Price Edward Island     | 11                       | 30.6%                         |
| New Zealand             | 8                        | 22.2%                         |

Source: Wyatt et al., 2008.



## Who gets hurt?

In the preceding chapters, I briefly presented the main economic arguments and supporting evidence that strongly suggest Canadian health policy is failing at a system-wide level. The health policy failures identified not only have macroeconomic consequences, but they also have personal consequences for patients. Quantitative social sciences, including macroeconomic analyses of health policy, are concerned with measuring the impact of public policy on aggregate social welfare. Such analytical approaches are often, by definition, measuring “the greatest good for the greatest number,” which is a collective-utilitarian notion. Unfortunately, these kinds of analyses can implicitly ignore individuals who are harmed, as long as the aggregate outcome improves. To redress this particular methodological limitation of quantitative social sciences, this book references some of the personal stories of patients whose lives and health have been harmed or jeopardized because of misguided policies in Canada. Personal anecdotes are not used here as evidence that can be generalized across the experience of the entire population, but as illustrations of the effect that bad policies have on individuals. There are too many examples of patients who have been injured because of government policies that limit their health care options to include all of them here. Nevertheless, it is important to provide at least a few of these stories to emphasize the point that policy ideas and government decisions about how to finance and deliver health care have serious consequences for real people, and that these impacts are not always visible in aggregate economic statistics.

## Patient experiences in the Canadian health care system

The Canadian media regularly and increasingly report stories of people impacted by doctor shortages, lengthy wait times, and a lack of access to medical technology and new medicines. These stories help to illustrate the way in which individuals are personally affected by government health policies. Below, I summarize just a few examples which have been documented by Canadian journalists and reporters:

- Twenty-seven-year-old Margaryta Marion miscarried in a crowded emergency room area at a hospital in Calgary while waiting for over six hours to see a doctor. Marion was one of three women to have miscarried while waiting to see a doctor in a Calgary hospital emergency room over the three months prior to the report (Stevenson, 2006, October 4).
- Fifty-nine-year-old Edith Paulus searched for two years in the city of Barrie, near Toronto, to find a family physician before she finally discovered a general practitioner's advertisement for new patients in her local newspaper. However, after responding to the ad, she was told she was too old to be accepted to the clinic's patient roster. According to the journalist who investigated the case, the doctor's office chose to limit new patients to those under 55 because of a high volume of patients and a physician shortage in the local area (Avery, 2006, March 17).
- Betty Lou Palko had to travel from the city of Prince Albert to Saskatoon for needle localization after finding a lump in her breast because there were no radiologists available in her area. However, once in Saskatoon, only half the procedure could be completed due to the unavailability of physicians with a full range of specialist skills. Palko had a needle and wire inserted approximately three and a half inches into one of her breasts in Saskatoon and then traveled an hour and a half back to Prince Albert for a surgeon there to complete the procedure. The report indicated that Palko should

have been able to have the entire procedure done in Saskatoon because the service is provided there, but that would have meant a wait time of at least two months because of local physician shortages and high patient volumes (Cowan, 2006, October 13).<sup>55</sup>

‖ Laurie Warbis was personally affected by the wait at one Saskatoon cancer clinic. At the time of the report, the average wait time at the clinic was nine to 10 weeks from referral to first treatment for chemotherapy and radiation. According to the report, when Warbis’s cancer spread, she was told by the clinic that she would need a CT scan but would likely have to wait six weeks, followed by another two months before she could see an oncologist. She developed complications, and her health was quickly deteriorating. Knowing she couldn’t wait that long, Warbis contacted a clinic in the city of Calgary to arrange a CT scan. When the Saskatoon cancer clinic found out about her decision to go to Calgary, it called Warbis and told her she could receive the same test in Saskatoon immediately. However, it was seven weeks before Warbis finally started her treatment and, by this point, her complications were very serious and she needed to be admitted into a hospital. The report suggested that Warbis’s complications would not likely have become as severe if she did not have to wait seven weeks to receive treatment (Saccone, 2006, July 10).

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55 Specialists are often also in short supply and this requires patients, even those who live in medium-sized Canadian cities, to travel long distances to obtain needed procedures. This, of course, is not necessarily a problem. It is true that some degree of geographic centralization for specialist physician services might also be expected to result from market forces. However, market-driven centralization would be a response to the forces of supply and demand and this could be expected to produce efficiencies if price signals were present to encourage the rational allocation of resources. However, under a system like Canadian Medicare, such decisions are made by central planners instead of market forces, and this often results in oversupply in one area and shortages in others. In fact, actual experience with Medicare suggests that the central-planning approach to allocating specialist physicians and a shortage of resources has caused patients to endure rather extreme inconveniences.

- ‡ Dr. John Mathieson, chief of radiology for the Capital Health Region in Victoria, had a young athlete with an injured knee who was in great need of an MRI scan. According to the report, he had to wait four months for the MRI, and by then the knee was inoperable, which resulted in the loss of his full athletic scholarship (Shaw, 2002).
  
- ‡ In November 2004, Glenn Scarr was informed that a CT scan had detected a mass on his adrenal gland. He was told the mass was non-operable and that the cancer had spread throughout his body. Scarr understood that he had a couple of years to live. Yet, he and his wife heard of the benefits of PET scanning and decided they wanted to obtain a PET scan. However, the government of Ontario had not yet approved PET scanning for use in cases such as Scarr's. Scarr decided to spend \$2,350 and get the PET scan at a private clinic. The next day he got a call explaining that the cancer had not spread throughout his body after all and that the tumor appeared operable. Scarr was able to have the mass removed. The PET scan that Scarr received could have been responsible for saving his life (Wente, 2005, March 24).
  
- ‡ In a 2005 story, four-year-old Ryan Oldford from Newfoundland & Labrador, who had already lost one kidney to cancer, was, at the time of the report, facing a two-and-a-half-year wait for a scan of his other kidney on the province's only MRI scanner. Oldford was one of many residents put on long wait lists as a result of technology shortage. According to Geoffrey Higgins, clinical chief of diagnostic imaging at the Health Care Corporation of St. John's, as many as 100 children in Newfoundland & Labrador were facing 30-month waits for high-tech scans (Priest, 2005, January 13).
  
- ‡ In 2004, Arcangelo Zanatta arrived at the Royal Columbian Hospital in New Westminster with chest pains. Zanatta waited eight hours in the ER during which time he suffered a heart attack.

He is alleged to have incurred fatal heart damage while waiting in the emergency room and died two weeks later from heart-related complications (CBC, 2004, February 27).

- ‡ In April 2006, 88-year-old George Cook was taken to the emergency department of Nanaimo Regional General Hospital. He was suffering from pneumonia. Cook spent seven hours on a cot in a doorway without being treated before he died (Times Colonist, 2006, May 7).
- ‡ In 2006, Lindsay McCreith was suffering from unexplained headaches and seizures. His doctor suspected they were caused by a brain tumor and McCreith would need an immediate MRI to diagnose the problem. However, there was a four-month waiting period in Ontario's public health care system. Concerned for his health, McCreith opted to go to the US, where he received the MRI on the next day. The American doctors found a tumor in his brain. The early diagnosis likely saved his life (Caswell, 2006, December 8).
- ‡ Shirley Healey, a 70-year-old BC resident, was waiting for several months for a surgery to repair a 90%-blocked artery. Media reported that Dr. Robert Ellett, a BC surgeon, urged Healey to have the procedure done in the US because she wouldn't get access to surgery in time in BC. Healey had her procedure done in a hospital in Bellingham, Washington within only a few days of making an appointment, by which time her condition had in fact deteriorated to a near complete blockage (Solomon, 2007; Timely Medical, 2006).
- ‡ In 2004, Branislav Djukic traveled to the former Yugoslavia to receive the lifesaving operations he could not receive quickly enough in Canada. Djukic was facing a wait of 14 weeks to remove a cancer on his kidney. Unable to wait that long without further sacrificing his health, Djukic paid \$5,000 to have the procedure done in Yugoslavia (Priest, 2007, January 31).

- ‡ Jennifer McLeod had to travel to the US to undergo a Gamma Knife radio-surgery to treat a pituitary tumor. Even though Gamma Knife technology has been widely used around the world for decades, it only became available in Canada in 2003. McLeod's doctors did not even mention the Gamma Knife possibility to her; instead, the only option she was presented with was tumor-suppressing medication (at a cost of \$2,000 a month) for the rest of her life. McLeod opted instead to travel to Minnesota, where she underwent the procedure at the Mayo Clinic in Rochester. At the time her story was published, she had been off the drug and in remission for 18 months (Blatchford, 2005, April 5).
  
- ‡ In 2006, a Montreal woman with an aggressive form of colorectal cancer was denied public insurance coverage for a drug that was keeping her alive. According to the news report, the woman, 46 years old and mother of two girls, had a deadly, inoperable colon cancer that had spread to her liver. About 5,000 such cases were diagnosed in Canada in 2005. Her oncologist recommended the best therapy available at the time, Avastin. The drug works by choking off a tumor's blood supply. Research showed the drug significantly prolonged survival in people with advanced colorectal cancer by an average of five months, yet there are examples of longer-than-average survival rates. One oncologist interviewed at the time said one of his patients on Avastin was in complete remission. Health Canada approved the drug as safe and effective in September 2005. But, according to the report, by the end of March 2006, the woman was still waiting for access to the drug in Canada because provincial health ministries were withholding public funding for Avastin, which cost \$7,000 per treatment. As the reporter on the story observed at the time, the provinces were still weighing the costs and benefits of the treatment while the woman was demonstrably benefiting from its use (Fidelman, 2006, March 27).

- ⌘ A 2007 media report highlighted how Ontario cancer patients are spending tens of thousands of dollars out-of-pocket to gain access to new and effective drugs that the provincial government does not fund, and how even spending their own money on their own health might be prohibited by government. The drugs are delivered in hospital and so should normally be covered under the provincial public health insurance plan. However, the provincial health minister did not recognize that the drugs are medically necessary, even though they are recommended and prescribed by the patients' physicians. The minister therefore declared the drugs to be ineligible for provincial Medicare coverage because the Canada Health Act only requires the province to publicly insure "medically necessary" health care. So patients started paying privately instead. Media reports suggested that the minister was not comfortable with allowing publicly funded hospitals to charge cancer patients directly for the unfunded drugs. As of April 2007, the minister's spokesperson said the freedom of patients to pay privately was under review because some said it violated the Canada Health Act. Bizarrely, provincial refusal to fund the drug meant that doctors were recommending life-extending and perhaps life-saving treatments that their patients might not be able to afford without insurance, and even when they could, the hospitals might be forbidden to sell it to them (Priest, 2007, April 26).
  
- ⌘ In 2006, media reported the case of two-year-old Isaac McFadyen who suffered from a rare disease called Maroteaux-Lamy syndrome. Isaac was missing an enzyme needed to break down carbohydrates in his cells. Effects of the disease include breathing problems, poor mobility, and deformed facial features. Patients often require heart valve surgery. Isaac had a piece of his skull and vertebrae in his neck surgically removed. His eyesight was affected and his face suffered deformities, among other problems. At the time, Ontario was refusing to cover the drug treatment through the provincial health program. The only drug available costs \$300,000 to \$1 million annually and can reportedly reverse some of the problems of the

disease and may even prevent them altogether. Despite the high price of the drug, the disease it treats is very rare, so the overall impact on total public health spending is quite small. According to reports, less than 10 Canadians in total out of the entire population have Maroteaux-Lamy syndrome. Yet, Ontario's minister of health said he did not think the province should be covering the enzyme replacement therapy used to treat Isaac's condition until a national policy is in place. In statements to the media, the minister seemed to suggest he was more concerned about the impact of the drug's cost on the public health system. "This is one of the more difficult circumstances that can be encountered by a family, of course, and by the challenges that it presents for a public health care system," he was quoted as saying. According to the report, governments in the European Union covered the drug's cost, and in the United States it was commonly funded through private insurance. In Canada, however, there was no public or private coverage. Governments like Ontario's were refusing to publicly fund it, and, because such drugs are delivered in hospitals, they have historically been considered to be under the jurisdiction of Medicare and therefore not legally eligible for private payment. Therefore, they have been excluded from private drug insurance coverage (Priest, 2006, May 11).

- ⌘ In 2008, media reported statistics from only two Canadian provinces showing that more than 100 women with high-risk pregnancies had been sent to the United States for medical care. Representatives of Canada's Society of Obstetricians and Gynaecologists blame the problem on too few medical staff and government decisions to close hospital beds in Canada a decade ago. One of the women affected by a shortage of neo-natal care in Canada was Jade Pascoe of British Columbia. According to media reports, she went into labor 15 weeks before her due date and was sent to the US because the hospital where she gave birth did not have a neo-natal intensive care unit (NICU). In fact, an additional NICU bed for Jade could not be located in the entire province of

BC (population 4.1 million in 2006: Statistics Canada, 2008b) or in the neighboring province of Alberta (population 3.3 million in 2006: Statistics Canada, 2008b) (Priest, 2008, May 5).

- ⌘ In another story, Debbie Trelenberg of Alberta was diagnosed in Canada with high-grade ovarian cancer. She was told by Canadian authorities that she would have to wait four weeks to have a cancerous tumor removed. After a couple weeks of waiting in pain, Debbie traveled to Texas and paid cash for the surgery. According to the media report on her story, Debbie's American gynecologic oncologist operated on her on the next day after examining her. By that time, Debbie had waited two weeks and the cancerous tumor had grown in size from 13 centimeters to 25 centimeters. Both her American specialist and her family doctor in Canada credit the quick access to surgery in the US with saving her life (Priest, 2008, August 9).
  
- ⌘ To date, the policies implemented by Canadian governments to fix the problem of shortages have been inadequate. In some cases, efforts by local health-system officials to deal with physician shortages in particular are tragically comical. Media has reported that in southern Nova Scotia, the physician shortage is so severe that the South West Nova District Health Authority set up a patient lottery for those who lack a family doctor. Approximately 8,000 out of the 60,000 residents (13.3%) in the area do not have a general practitioner. According to the plan, 1,500 lucky lottery winners will gain a family physician at a new clinic opening in the area. According to media accounts, the authorities decided on the lottery because they knew opening of a new clinic in such an underserved area could be a "chaotic affair" (Sylvain, 2006, February 3). Blaise MacNeil, South West Nova's president and chief executive officer, was quoted as saying, "the lottery ... lets patients join the clinic in a sane and equitable manner: The authority will use a computer program to randomly pull up the 'winning' names" (Sylvain, 2006, February 3).

The plan is to hold additional lotteries in the future to replenish the clinic's roster (Sylvain, 2006, February 3).

- ⌘ Lotteries have also been used in Canada to “cull” people from the patient lists of physicians' clinical practices. According to one media report, due to shortages of medical doctors in northern Ontario, one family physician who was overwhelmed with an enormous patient caseload used a lottery system to select which patients would no longer be able to obtain his services. A hundred patients were “culled” from his practice using this method. Similar stories occurred in other provinces with one doctor removing 500 patients from his roster using a lottery (Blackwell, 2008, August 6).

Cases like the ones above beg the following questions: (1) What good are public health and drug insurance plans that cover affordable medical care for everyone but will not reimburse expensive, life-saving or life-improving treatments for the desperately ill? (2) What good are public health and drug insurance plans that provide care only after such long delays that, in practical effect, the patients affected by these waits are no better off than being uninsured? (3) What good is the promise of universal publicly funded health insurance in Canada if, in practice, many Canadians have to travel to the US and pay cash to get the medical treatment they need?

Canada's various publicly funded health care programs are simply not delivering what insurance should: guaranteed, timely access to and protection from the unexpected financial burden of expensive but necessary medical goods and services. Instead, access to publicly insured medical goods and services is delayed and public health and drug insurance plans pay for individually affordable basic services for all Canadians (e.g., primary care visits, generic drugs, low-tech diagnostics), while central planners effectively reduce access to the catastrophically expensive life-saving and life-improving treatments that should be covered. The end result is unnecessary pain, suffering, and possibly even death for those who could have been treated if newer and commonly accepted medical processes and technologies were available to Canadians on an affordable and timely

basis through appropriately designed health insurance—something that would be expected from the private-sector alternatives in the absence of misguided government intervention in health care.



# Problematic Canadian health policies

## Direct state provision of health insurance

In an international context, probably the most distinguishing feature of the Canadian health care system is that the state is a direct provider of health insurance and has a de facto monopoly over the market for medical (hospital and physician services) insurance in particular. Overall, government spending on health accounts for about 70% of total annual health expenditures in Canada. The remaining 30% of total health spending is paid for by either private-sector health insurance (mostly employer-based insurance benefits for outpatient drugs, dental, vision care, etc.) or personal direct spending. However, the 70/30 public/private split to aggregate health spending disguises the important fact that government funds virtually 100% of all health services legally defined as “medically necessary” by the state, which in practice usually means all hospital and physician services. Through the Canada Health Act (CHA), federal law requires medical insurance to be both funded by and administered by the state in Canada. The CHA also specifically prohibits any cost sharing by patients or any extra billing by providers for services that are eligible for public coverage under provincial-territorial Medicare programs. In Canada, provincial and territorial governments act as single payers within their jurisdictions, and effectively prohibit private payment or private-sector insurance for

hospital and physician services. All legal residents of each province are universally eligible for publicly funded medical insurance coverage. There is, in effect, no monetary price mechanism to allocate the supply of hospital and physician services in Canada, and overall demand for publicly funded health care is not affected by any direct price attached to consumption. Generally speaking, provincial health insurance programs act like traditional indemnity insurers when they pay for physician services. In practice, most physicians operate as self-employed professionals who bill the provincial single-payer insurance plan retroactively on a fee-for-service (FFS) basis. By contrast, hospitals do not bill the provinces for services provided to insured patients. Instead, provincial governments provide global budgets to regional public authorities, who then provide global budgets to hospitals within their region. Hospitals are expected to meet the medical needs of patients who are admitted to their facilities within the scope of the budgeted resources provided.

Governments at the provincial level also operate large drug benefit programs, acting as insurance payers for prescription drugs for specific subpopulations like seniors and low-income people. There is significant variance in the design of provincial drug insurance plans, including eligibility requirements and consumer cost-sharing arrangements (Graham and Tabler, 2005). Importantly, while Canadian health policy effectively bans any form of private payment for hospital and physician services insured by the provincial government, such legal prohibitions have not been deemed to apply to prescription drugs. This means that publicly funded drug programs impose various kinds and degrees of consumer cost sharing, including dispensing fees, fixed co-payments, percentage co-insurance, etc. However, almost all of the costs of prescription drugs under these programs are paid from general government revenues. Through the various federal, provincial, and territorial government drug benefit programs in Canada, government accounts for nearly half (46%) of all expenditures on prescription medicines in Canada (CIHI, 2008a).<sup>56</sup>

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56 In Canada in 2008, total expenditure on prescription drugs was CA\$25.14 billion, private expenditure on prescription drugs was CA\$13.96 billion, and government spending on prescription drugs was CA\$11.18 billion—the government portion

Total Canadian health spending is broken down in more specific detail in table 18, which shows the percentage of total health spending that is, in practical terms, under the monopoly control of government, versus the percentage that is accounted for by a mix of public and private spending. In 2006, public-sector spending on hospitals and other institutions (including capital expenditures), physicians, and the direct administrative expenses of running government health insurance accounted for approximately 58.9% of total health spending in Canada (table 13). The rest of health spending is accounted for by government funding for “public health” (e.g., infectious disease control) and “other” areas (12.8%), which can arguably be classified as natural public goods and which are not contested by private-sector insurers; as well as goods and services for which there is a mix of public and private funding (28.3%).

The policy structure of Canadian health insurance presents potential problems. One key disadvantage associated with the state acting as a health insurance provider is that decisions on access, coverage, spending, pricing, funding, and investment are influenced by political incentives and these can often conflict with rational economic considerations. This can mean that politically unpopular policies are not adopted, regardless of their economic value as reforms. Mitchell and Simmons (1994) theoretically explained how economic decisions become politicized when governments become involved in allocating goods and services, or directly providing goods and services. Evidence for this theoretical argument has been reflected in actual practice in Canadian health policy decisions. For instance, Deber et al, (1998: 487–88) have detailed a number of empirical examples of government attempts to centrally restructure the hospital system in Canada, and have discussed the political controversies that ensued and influenced those policy decisions. Other recent examples show that political considerations often trump economic rationality in health policy decisions in Canada. For instance, in 2004, Ontario’s health minister

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therefore being equivalent to approximately 46% of the total (CIHI, 2008a: Table A.3.2.1 Private-Sector Health Expenditure by Use of Funds, Canada, 1975 to 2008—Current Dollars; and Table A.3.3.1 Public-Sector Health Expenditure by Use of Funds, Canada, 1975 to 2008—Current Dollars).



banned a US company from operating a mobile ultrasound clinic in the province. The company had planned to offer one-day diagnostic clinics (charging seniors \$60 for each test) in the Hamilton-Niagara area, southwest of Toronto. Despite lengthy delays for such services in the province, Ontario's government rushed through legislation banning the firm's operations. The province argued that the firm was violating the Canada Health Act by operating on a for-profit basis, despite the fact that the act requires only the public funding and administration of health insurance covering medically necessary care, and says nothing at all about the permissibility of for-profit health services (CTV News, 2004, September 25). In a similar move, Ontario decided to buy several existing for-profit MRI clinics in order to turn them into non-profit operations. Reports suggested that the move to bring the for-profit clinics into the public sector would cost taxpayers about \$14 million (Bueckert, 2004, July 18; 2004, September 24). But Ontario's policy was a waste of resources. The for-profit providers who owned the equipment had already paid for it. Ontario could have spent the money that was required to buy these machines to simply purchase thousands of MRI scans from the private-sector providers. This would have helped a large number of patients. Instead, the MRI machines were paid for twice; once by the health providers who owned them, and again by the province, and still the province had to pay for MRI scans to be performed. Such policy choices could be interpreted as the willingness of political officials to reduce potential access for Ontario patients in order to protect the popular political symbolism of the state's de facto monopoly over medical services.

## **Scale of government health insurance programs**

Due to the large scale of government health insurance programs, even micro-policy decisions made within these programs have the potential to create unintended negative externalities beyond the program itself. These potential problems are theoretically more acute under Canada's medical insurance policy, which establishes the state as a monopoly provider of medical insurance (i.e., hospital and physician services). Negative

externalities caused by health policy decisions in a single-payer system can affect the entire system at once. Such problems are less frequently associated with pluralistic insurance systems because the impact of internal program decisions is not dispersed across the entire system; instead, it is contained in the same way (i.e., analogously) that systemic damage to a communications network is contained by having a web structure consisting of pluralistic connecting nodes. Even non-universal health insurance programs like Canada's publicly funded drug benefit plans are of a large enough scale to create unintended economic distortions with potentially negative consequences. For example, the refusal to extend public reimbursement to certain approved drug products can amount to a barrier to market access for some drug makers. Canada represents only two percent of the global market for drugs (IMS Health, 2006) and public drug programs account for almost half the market for prescription drugs in the country. Therefore, when a province decides not to extend eligibility for reimbursement to particular drug products, it essentially blocks access for those products to the government's half of an already small market. Doing so might reduce the size of the market to the point where it is not feasible to incur the costs of introducing a product to the market, especially if other public policies might also be making the market unattractive. For example, lengthy drug safety approvals can further delay market access, reducing the effective patent period left on a new drug, and price controls might reduce the profit potential once a drug finally makes it to market. In this way, market distortions caused by the reimbursement decisions of large, public drug programs can have the indirect effect of reducing access for everyone, not just the recipients of public drug benefits.

## **Ban on cost sharing**

The lack of price mechanisms in Canadian public health insurance programs is also a result of the politicized nature of decision making when government is involved as a direct provider of insurance—governments are reluctant to impose cost sharing for political reasons. The absence of price signals is theoretically associated with several economic problems.

Esmail (2006), for instance, has argued that standard liberal economic theory suggests that shortages occur when prices are not permitted to adjust to supply and demand. Specifically, “prices will normally rise in any functioning market where goods or services are in short supply relative to demand, thus encouraging new supply and reducing demand simultaneously. The outcome is equilibrium of supply and demand (no shortage or excess). In the Canadian health care marketplace, such adjustment is impossible because of restrictions on both the prices and supply of medical services” (Esmail, 2006: 6). The absence of price mechanisms in health insurance also means that consumers face no economic incentives (other than inconvenience or risks associated with unnecessary treatment) to constrain their marginal demand for more health care or to encourage cost-efficient tradeoffs among substitutable treatment technologies (Newhouse et al., 1993). Many public drug plans also fully reimburse 100% of the cost of prescription medications (Graham and Tabler, 2005). The lack of consumer exposure to a part of the cost of their prescriptions (through copayments, for example) removes a price signal that would incentivize consumers to put downward pressure on drug prices, including generic products. While some jurisdictions in Canada impose copayments on beneficiaries of their public drug plans, the copayments are usually not structured appropriately. In order for a copayment to be effective, it must be calculated as a percentage of the price. Unfortunately, where copayments actually exist in Canadian public drug plans, they are ineffective as price signals because they are usually set at capped dollar amounts (e.g., consumers pay the pharmacy dispensing fee) (Graham and Tabler, 2005).

## **Separate policy treatment of medical and drug insurance**

The separate policy treatment of medical insurance and prescription drug insurance in Canada also brings associated problems related to supply and demand incentives. Government insurance covers 100% of the cost of medical services delivered by hospitals and physicians but does not generally cover the cost of outpatient goods and services, except for certain

subpopulations like seniors, the disabled, and social welfare recipients. And when government insurance does cover outpatient health care, it does not pay 100% of the costs. This lack of comprehensive coverage and the lack of equivalent reimbursement rates makes the out-of-pocket cost of competing health care options much different and can therefore create inappropriate incentives to consume inefficient combinations of medical care. Under the Canadian system, there is an incentive for patients to utilize goods and services that receive a government subsidy rather than use potentially more efficient combinations of care that do not receive the same level of subsidy. Drugs are one example of a medical technology that is demonstrably more efficient at improving health outcomes but which, as a result of the lack of comprehensive insurance coverage offered under government programs, is made comparatively more expensive. This creates a disincentive for both patients and physicians to substitute drugs for less efficient treatment technologies. By maintaining separate programs for drug insurance, administrators are also encouraged to see drug expenditures separately from overall health spending. Yet research suggests that when health spending is considered in aggregate, drugs can be shown to be a cost-effective medical technology.<sup>57</sup> Drugs are often a technological substitute or technological complement for older, less effective or less efficient ways of treating illness, and this can produce cost savings on overall health expenditures (Frech and Miller, 1999; Lichtenberg, 2001, 2002a, 2002b, 2002c; Lichtenberg and Virabhak, 2002<sup>58</sup>; Han and Wang, 2005; Cremieux and Ouellette, 2002; Cremieux et al., 2005).

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57 There are various ways of defining cost and benefit in the context of drug treatments. A cost-effective drug produces a marginal benefit that is equal to, or better than, any alternative treatment at a fixed cost (Weimer and Vining, 1999: 274). A cost-efficient drug produces a marginal benefit that is equal to, or greater than, its own marginal cost (Danzon, 1993). A cost-saving drug is one that, when used, substitutes for alternative medical treatments, leading to lower overall spending than would have occurred if it had not been used (Han and Wang, 2005).

58 Skinner and Rovere (2007b, 2008b) discuss that, in contrast to Lichtenberg and Virabhak's (2002) findings on the cost-saving benefits of newer drugs, opposing research suggests that drugs, and specifically new drugs, do not present a reduction in costs for non-drug expenditures. Miller et al. (2005) argue that the number or

## Centrally planned allocation of medical resources

There are two ways to balance the supply and demand for medical resources: by relying on market forces, or by employing state-directed allocation. Despite the well-known limitations of central planning (Hayek, 1945), Canadian health policy has increasingly relied more heavily on such approaches to determine the supply of medical resources. Government efforts to manage the supply of physicians are a good example of the

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mix of drugs used is an important indicator in determining the association between drug age and non-drug expenditure. Miller et al. (2005) first replicated Lichtenberg's work and confirmed the validity of Lichtenberg's findings. Afterward, using a different method, they analyzed only patterns of use for new cardiovascular drugs and the association of this with non-drug health expenditures. They controlled for the drug quantity and the mix of newer and older drugs as a proxy for controlling severity of illness. They found, unsurprisingly, that the net cost-savings effect of cardiovascular drugs did not apply to the sickest patients. In a study similar to that of Miller et al., Duggan investigated the effects of new drugs focusing solely on one therapeutic class. The objective was to determine if new antipsychotics reduce spending on other types of medical care such as the demand for hospitalization and other health care services (Duggan, 2005). Duggan's study suggested that new antipsychotic drugs increase the prevalence of diabetes and related illnesses among schizophrenia patients, thus having a negative effect on health outcomes. However, he also found that while antipsychotics increased the prevalence of diabetes among schizophrenia patients, the drugs reduced the occurrence of "extra-pyramidal symptoms," although he failed to estimate the savings from this. The studies by Miller et al. and Duggan are interesting but not useful for analyzing the overall impact of drugs on health budgets. Despite claims to the contrary, these studies do not contradict Lichtenberg and Virabhak (2002), who analyzed the effects of new drugs averaged across all patients and all illness conditions. The conclusions of the study by Miller et al., in particular, were skewed because it focused upon the sickest group of patients instead of on all patients. Also, while specific illnesses such as cardiovascular-related diseases and antipsychotic ailments may cover a large portion of pharmaceutical spending, drug expenditures are fairly divided among other therapeutic classes. The Patented Medicine Price Review Board's annual report for 2006 indicates that, in Canada, there is not one therapeutic class that represents more than 25.6% of the share of sales for patented drugs (PMPRB, 2007). Therefore, a general analysis of all medical conditions and all drugs related to those conditions should be included in order to effectively analyze the bona fide effects of overall pharmaceutical spending.

central-planning approach that increasingly characterizes Canadian health policy. There is fairly substantial evidence of government-directed central planning over the supply of physicians in Canada (Ryten et al., 1998; Task Force Two, 2005; Esmail, 2006). One of the more complete analyses of the various policies that have affected the supply of physicians is contained in a paper published by CIHI in 2002. The paper (Chan, 2002) identified various government policies that had measurable impacts on reducing the net supply of practicing physicians in Canada during the 1990s, whether directly or indirectly, including: restrictions on medical school (Chan, 2002: 34), restrictions on physician remuneration (Chan, 2002: 37), central management of the supply of primary care versus specialist physicians (Chan, 2002: 36), policies to induce physician retirements (Chan, 2002: 35), restrictions on the entry into Canada of international medical graduates (Chan, 2002: 35), and decisions to lengthen the required period of primary-care physician training (Chan, 2002: 36).

Government control over both medical insurance and funding for medical education has provided the state with the ability to directly determine the supply of health professionals. Provincial governments have an effective monopoly over the training of health professionals at publicly funded universities. Universities can only train as many physicians as they have financial resources to accommodate. At the same time, university tuitions are regulated such that the full cost of medical education cannot be charged directly to students. Instead, universities rely on public subsidies from the provinces. Therefore, if the provinces reduce funding for medical education, they can effectively limit the supply of health professionals. Furthermore, governments can limit the issuance of licenses to bill the public health insurance system for medical services provided. Moreover, because governments also have an effective monopoly over medical insurance in Canada, they are virtually the only buyer of medical labor. Licensed health professionals bargain collectively with provincial governments, which set their fee schedules. Governments can use their superior bargaining position to suppress the wages of health professionals below rates that would be paid in a competitive market. Evidence presented earlier suggests that Canada's central-planning approach to managing the supply of physicians has produced suboptimal outcomes. This

is consistent with research (Simoens and Hurst, 2006) which has found that “countries that have relied to a larger degree on market forces to determine the number of domestically trained physicians have enjoyed greater access to doctors than countries that have tried to actively manage physician supply” (Esmail, 2006: 7).

The supply of medical technologies like diagnostic and surgical devices is also influenced indirectly by the state in Canada. Most medical technology is employed in hospital settings in Canada. Canadian hospitals operate on a non-profit basis, and operating financing is structured on the basis of publicly funded, regionally administered global budgets which are typically provided with automatic annual incremental increases from provincial authorities. Economic incentives for hospitals to invest in technologies that are more cost efficient over the long run are inhibited and distorted because any cost savings generated from doing so accrue to the public treasury and are not captured by the hospital itself. The effective ban on private payment and the global budgeting approach to hospital finance also tend to restrict the total capital resource base available for such investments. As Esmail and Wrona (2008: 70) describe it, “Canadian hospitals are in effect and in practice public entities: they are governed largely by a political process, given wage schedules for staff, are told when investment can be undertaken, denied the ability to borrow privately for investment, told which investments will be funded for operation, and forcibly merged or closed by provincial governments.” This situation, in practical effect, means that hospitals are owned by the state, and this gives the state a monopoly over the purchase and utilization of medical technology in the health care system. State control over the supply of medical technology has been shown to be associated with shortages of certain medical technologies in several countries and by several studies reviewed by Esmail and Wrona (2008: 71–72).

For large percentages of the population, access to new drugs is also controlled by the state through the public reimbursement approval processes of federal-provincial-territorial governments. In 2003, the federal-provincial-territorial (FPT) governments established the Common Drug Review (CDR). The CDR is tasked with reviewing drugs that are approved by Health Canada and making recommendations on whether new drugs

should be publicly funded by FPT drug plans. The CDR's decisions are meant to be based on objective scientific evaluations about the pharmacoeconomic value of new medicines. Its goal is to determine whether the benefits of new medicines are worth their expense. The rationale behind the CDR was to reduce bureaucratic redundancy by replacing the various provincial agencies for approving reimbursement with a new, centralized national process. However, the provinces have not eliminated their reimbursement approval processes. Governments now wait for a decision to be issued by the CDR, and then conduct their own reimbursement decision processes. This central-planning approach used by federal-provincial-territorial governments influences the availability and utilization of new medicines for recipients of public drug plans. The available evidence reviewed earlier shows that only a small percentage of new drugs submitted for reimbursement approval are successful in obtaining the CDR's positive recommendation. Notably, Quebec is the only province that does not participate in the CDR process. Yet research shows that Quebec reimburses more drugs than are recommended for reimbursement by the CDR. By contrast, all other provinces accept fewer drugs for reimbursement than are actually recommended by the CDR. Importantly, there is wide variation in the reimbursement approval rates for new medicines in the provinces, despite the introduction of the Common Drug Review in 2003. As discussed earlier, if the CDR's reviews were based on objective scientific considerations of the pharmacoeconomic value of new drugs and not on centrally planned rationing decisions driven by costs alone, then there should not be such variation in reimbursement decisions among the provinces. The evidence suggests that budget cost pressures are encouraging provincial governments to restrict their drug expenditures through policies that control and influence the availability and use of new medications. Because budget pressures are different in each province, there are large variations in the number of drugs declared eligible for reimbursement as well as the time taken to approve new medications for reimbursement. The reimbursement approval behavior of the provincial drug plans is consistent with research suggesting that the centralization of regulatory review commonly fosters rationing in the decision-making process (Morgan et al., 2006). This can be seen not only in

Canada but also with the Pharmaceutical Benefits Scheme in Australia, the Pharmaceutical Management Agency in New Zealand, and the National Institute for Clinical Excellence in the United Kingdom (Pollard, 2006; Sundakov, 2005).

## Price controls

Governments in Canada intervene directly in health care by imposing price and wage (i.e., price of labor) controls to constrain the cost of medical goods and services. Several problems have been identified with state-imposed price controls. Frech (2000: 360), for instance, has explained the economics of price controls, concluding that “governmental price controls at any level create major problems and impose large hidden costs, mostly on consumers, through subtle nonprice rationing and changes in quality.” Esmail, Hazel, and Walker (2008) have argued that estimates of wait times for access to medical services in Canada are theoretically equivalent to measurements of excess demand or a shortage of supply, and are evidence of non-price rationing in the Canadian health system. They have identified the lack of market prices as a contributing factor. Giacotta et al. (2005), Santerre and Vernon (2004), Vernon (2005), Santerre et al. (2006), and Gannon et al. (2006) have argued that pharmaceutical price controls have several negative economic effects, including reducing incentives for innovation and reducing the consumer availability of medicines.

Canadian governments effectively control the price of medical labor by suppressing the incomes of medical professionals below normal market levels. At first glance, the international comparative data on the issue is mixed. Comparisons with OECD data tend to show that Canadian physicians are fairly well paid compared to the countries for which data is available. Table 19 shows the coefficient of physician remuneration to the per-capita GDP for each OECD country for which data was available for the years 2003–2005. The data indicates that Canada ranks in the middle of the OECD in terms of its relative compensation of GPs, whereas Canada’s rank rises into the top third of OECD countries in terms of its relative compensation of physician specialists. Yet in most, if not

all, of these countries, the state regulates physician earnings in one form or another, and so comparisons are not capturing the results of significant policy differences between international jurisdictions. Comparing Canadian physician compensation with the US would better illustrate state suppression of physician incomes because American governments do not directly intervene to affect physician incomes through health policy. Notably, US data was not available from the OECD for the period of study. However, data was available to allow a direct comparison between Canadian and US data. Table 20 displays data from Skinner et al. (2008) research on aggregate spending on physicians and nurses in Canada and the United States for the most recent year available. The data shows that, on average, Canadian physicians earn only 40% as much as American physicians who are not subject to government-imposed fee structures. The analysis suggests that the incomes of Canadian health professionals have indeed been suppressed by Canadian health policy, as they have been (by implication) in other health systems where the state has intervened to regulate incomes. Other research comparing domestic physician earnings within Canada over time provides further evidence of the state's suppression of medical incomes. Mullins (2004b) has shown, for instance, that after adjusting for inflation, average incomes for all physicians in Ontario declined in real terms over the 30 years between 1974 and 2004. By 2004, average physician income in the province was roughly three quarters of its peak 1972 level after adjusting for inflation.

Income differentials between Canadian and American physicians are probably contributing to incentives for Canadian physicians to emigrate to the United States, and this, in turn, is partly contributing to physician shortages in Canada. Skinner (2001, 2002b) conducted focused, qualitative personal interviews with Canadian-trained physicians who had emigrated to the US. The respondents consistently identified US-Canadian income differentials as a key incentive driving physician emigration to the US. Research has confirmed that since the early 1990s, many Canadian-trained physicians have, in fact, left Canada to practice in the United States (Task Force Two, 2005). Research by Skinner (2001, 2002b) using government data sources suggests that there was a net outflow of physicians from Canada between 1992 and 2002. Table 21 shows the estimated

**Table 19: Ratio of average physician remuneration to per-capita GDP, OECD countries reporting data, 2003–2005, by GP and specialists, ranked highest to lowest**

| Average remuneration of GPs / per-capita GDP |      |      |      |                                   | Average remuneration of specialists / per-capita GDP |      |      |      |                                   |
|--|------|------|------|-----------------------------------|--|------|------|------|-----------------------------------|
| Country                                      | 2003 | 2004 | 2005 | Average available data, 2003–2005 | Country  | 2003 | 2004 | 2005 | Average available data, 2003–2005 |
| UK   | 3.6  | 3.8  |      | 3.7                               | Belgium  | 7.4  | 7.8  |      | 7.6                               |
| Germany                                      |      | 3.7  |      | 3.7                               | Netherlands*   | 6    | 6.3  | 6.2  | 6.2                               |
| Netherlands                                  | 3.6  | 3.6  | 3.5  | 3.6                               | Austria  | 5.6  |      |      | 5.6                               |
| New Zealand                                  | 3    | 3.5  | 4    | 3.5                               | Australia  | 5.3  | 5.3  |      | 5.3                               |
| Austria                                      | 3.4  |      |      | 3.4                               | Canada   | 5    | 4.9  |      | 5.0                               |
| Ireland                                      |      |      | 3.4  | 3.4                               | UK   |      | 4.8  |      | 4.8                               |
| Canada                                       | 3.3  | 3.3  |      | 3.3                               | Ireland  |      | 3.9  | 4    | 4.0                               |
| Switzerland                                  | 3.2  |      |      | 3.2                               | Switzerland  | 3.7  |      |      | 3.7                               |
| Iceland                                      |      |      | 3    | 3.0                               | New Zealand  | 3.7  | 3.6  | 3.7  | 3.7                               |
| Belgium                                      | 2.2  | 2.3  |      | 2.3                               | Portugal   | 3.4  | 3.3  | 3.3  | 3.3                               |
| Mexico                                       | 2.2  | 2.1  | 2.1  | 2.1                               | Luxembourg*  | 3    |      |      | 3.0                               |
| Australia                                    | 2    | 2.1  |      | 2.1                               | Iceland  |      |      | 2.9  | 2.9                               |
| Czech Rep.                                   | 2.1  | 2    | 1.8  | 2.0                               | Denmark  | 2.9  | 2.9  | 2.8  | 2.9                               |
| Finland                                      | 1.9  | 1.9  | 1.9  | 1.9                               | Germany  |      | 2.7  |      | 2.7                               |
| Hungary                                      | 1.7  | 1.6  | 1.7  | 1.7                               | Finland  | 2.6  | 2.5  | 2.5  | 2.5                               |
| Luxembourg*                                  | 1.6  |      |      | 1.6                               | Mexico   | 2.6  | 2.4  | 2.4  | 2.5                               |
|  |      |      |      |                                   | Greece   | 2.7  | 2.4  | 2.3  | 2.5                               |
|  |      |      |      |                                   | Czech Rep.*  | 2    | 1.9  | 1.95 | 2.0                               |
|  |      |      |      |                                   | Norway   | 2    | 1.8  | 1.6  | 1.8                               |
|  |      |      |      |                                   | Hungary  | 1.7  | 1.7  | 1.7  | 1.7                               |

Source: OECD, 2007. Calculations by the author.

\*Physicians paid on salary and self-employed blended.

**Table 20: Average total expenditure on physicians and nurses, Canada and the United States, 2004**

|  | 2005 data         | Data sources                  |
|--|-------------------|-------------------------------|
| <b>PHYSICIANS</b>  |                   |                               |
| <b>United States:</b>  |                   |                               |
| Total national health expenditure on physicians                                  | \$421,200,000,000 | US NCHS (2007)                |
| Number of professionally active physicians                                       | 762,438           | US NCHS (2007)                |
| Average expenditure on physicians  | \$552,438.36      | Authors' calculations         |
| <b>Canada:</b>   |                   |                               |
| Total national health expenditure on physicians                                  | \$18,536,100,000  | CIHI (2007a)                  |
| Number of professionally active physicians                                       | 69,619            | CIHI (2007b)                  |
| Average expenditure on physicians  | \$266,250.59      | Authors' calculations         |
| Canada-United States 2005 purchasing power parity (PPP) currency conversion rate | 1.21              | OECD (2008b)                  |
| Average expenditure on physicians at 2005 US\$ PPP                               | \$220,041.81      | Authors' calculations         |
| Average Canadian physician's earnings as a percentage of US physician's earnings | 40%               | Authors' calculations         |
| <b>NURSES</b>  |                   |                               |
| Canada (CA\$)  | \$48,768*         | Statistics Canada (2008b)     |
| United States (US\$)   | \$56,880*         | US Department of Labor (2008) |
| Canada-United States 2005 PPP currency conversion rate                           | 1.21              | OECD (2008b)                  |
| Canada (US\$ PPP)  | \$40,304.13       | Authors' calculations         |
| United States (US\$ PPP)   | \$56,880.00       |                               |
| Average Canadian nurse's earnings as a percentage of US nurse's earnings         | 71%               | Authors' calculations         |

Source: Skinner et al., 2008.

\*Though preferable, data for total expenditures on nurses were not available either in Canada or the United States. Data for reported taxable income are used here as an alternative comparison for expenditures on nurses.

net migration of physicians in Canada for the 10-year period 1990–1999 reproduced from Skinner (2001, 2002b).

The estimates of net migration in each year are based on a calculation that counts total emigration losses of physicians from Canada, offset by Canadian doctors returning from abroad and total immigration to Canada of acceptably qualified foreign-trained physicians. It is important to count only equally qualified migrants in this estimate. The requirement for equal qualifications is justifiable because, according to research published at the time (Gray, C 1999), only 21% of foreign-trained graduates were able to pass Canadian qualifying exams on their first attempt. For Canadian-trained graduates, the corresponding figure was 95%. Therefore, counting raw immigration data toward the final calculation of the net flow of doctors in Canada would overstate the replacement effect of foreign immigrants. To be accurate, only those immigrants who can immediately replace the doctors who leave should be counted. One way to obtain comparable data for foreign-trained immigrants is to count only those who arrive in Canada with arranged employment. CIHI has formerly published data on this type of immigration. It should be noted that this approach assumes that those immigrants arriving in Canada without arranged employment do not have the qualifications to meet Canadian certification standards. Another assumption, of course, is that all emigrants from Canada are qualified to meet Canadian medical standards because they were active when they left.

In any case, the annual average number of immigrants with arranged employment as a percentage of the average total annual number of immigrant doctors for the five most recent years of available data spanning 1995–1999 is 20.9%, approximately equal to the 21% figure cited by Gray C. (1999) of those foreign-trained graduates who pass Canadian qualifying exams on their first attempt. Table 21 shows the numbers of immigrant and emigrant doctors in Canada with adjustments made for equal qualifications. In summary, the total scope of the brain drain among doctors for the 10-year period 1990–1999 was a net loss of 2,488 Canadian physicians. The national trend has indicated slower emigration in recent years. Nevertheless, based on data covering the 10 years from 1996–2005, it has been estimated that one in 12 Canadian-born physicians educated

during this period ended up practicing in the United States (Phillips et al., 2007). Collectively, researchers (Phillips et al., 2007) have estimated that “this is equivalent to having two average-sized Canadian medical schools dedicated solely to producing physicians for the United States.”

Another likely result of the government’s holding medical incomes below market prices is that it has created disincentives for professionals to enter lower paid physician practice areas in Canada like family medicine. Evidence shows that fewer medical students are seeking admission to family medicine specialties (CARMS, 2006). According to a report by the Canadian Medical Association (Sullivan, 2003a, 2003b), the proportion of medical students making family medicine their first residency choice dropped to 24% in 2003, down from 30% in 2000. In 2003, 29% of the training positions in family medicine remained unfilled, with one third of the 36 programs filling 50% or less of their openings. In these specialties, the negative incentives from below-market income opportunities are likely a significant part of the explanation for shortages.<sup>59</sup>

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59 The lack of positive economic incentives to practice medicine in Canada is probably contributing to regional doctor shortages within provinces. Many rural areas are underserved as a result. Governments have resisted introducing market-based solutions to incentivize doctors to move to these regions. Some governments have reacted to regional shortages by attempting to force doctors into public service through legislation. For instance, in 2002, the province of Quebec virtually conscripted physicians to practice in geographic locations and under wage and work conditions set by the provincial government. Bill 114 required physicians to surrender professional autonomy in exchange for Medicare billing rights. The bill eliminated choice in location of practice and required physicians to sign contracts to provide specific services for their first 20 years after graduation (Benady, 2002). Reports in the Canadian Medical Association Journal from 2002 documented that bailiffs, operating under new authority created by Bill 114, had actually ordered about a dozen physicians to report for 14 emergency room shifts at hospitals in three underserved communities (Pengelley, 2002). In 2003, the Ontario government introduced Bill 8 (Ontario Bill 8, 2003). The first draft of the bill proposed dramatically increasing the province’s central-planning control over private medical practice. According to Section 21 of the initial bill proposal, health providers and “any other prescribed person, agency or entity” could be ordered to accept a binding contract with the minister of health and with “any one or more persons, agencies or entities as directed by the Minister”. Physicians have since

**Table 21: Net migration of physicians in Canada, 1990–1999, adjusted for qualifications**

| Year         | (1)<br>Total<br>emigration<br>from<br>Canada | (2)<br>Total foreign<br>immigration<br>to Canada of<br>doctors<br>with arranged<br>employment | (3)<br>Total<br>number<br>of Canadian<br>emigrants<br>returning from<br>abroad | (1) + (2) + (3) =<br>Net loss/gain of<br>physicians to/<br>from Canada |
|--------------|--|---|--|--|
| 1990         | -478   | 107   | 263  | -108   |
| 1991         | -479   | 123   | 256  | -100   |
| 1992         | -689   | 158   | 259  | -272   |
| 1993         | -635   | 184   | 278  | -173   |
| 1994         | -777   | 98  | 296  | -383   |
| 1995         | -674   | 93  | 256  | -325   |
| 1996         | -731   | 61  | 218  | -452   |
| 1997         | -658   | 57  | 227  | -374   |
| 1998         | -568   | 125   | 319  | -124   |
| 1999         | -584   | 67  | 340  | -177   |
| <b>Total</b> | <b>-6,273</b>                                | <b>1,073</b>  | <b>2,712</b>   | <b>-2,488</b>  |

Source: Skinner, 2001, 2002b.

been excluded from the provision, following resistance by professionals. However, the original intentions of the law were clearly to force private practice physicians into conditions that were not unlike being directly employed by the government. These compulsory contracts would have compelled health professionals to meet clinical objectives defined and evaluated solely by the minister. The minister was to have the power to issue directives to correct any perceived deficiencies. The penalties for non-compliance were quite severe: \$100,000 for every incidence of refusing to enter into an agreement or failure to obey a ministerial directive. The intention was that the minister would be able to directly interfere in the organization of clinical practice, including the assignment of professional “roles and responsibilities” and related human resources. It also made individual health providers responsible to the minister for their “collective responsibilities for health outcomes” and population health status.

Price controls also create unintended economic distortions. For example, Canada's federal government directly imposes price controls on patented medicines. The agency responsible for enforcing drug price regulations is called the Patented Medicine Prices Review Board (PMPRB). The PMPRB was established in 1987 under the Patent Act with a mandate to regulate the prices for all patented medicines sold in Canada. To determine if the Canadian price of a patented drug is excessive, the PMPRB considers the following criteria (PMPRB, 2008): (1) The price must be no higher than the cost of therapy for existing drugs sold in Canada used to treat the same disease; (2) New breakthrough drug prices must be limited to the median of the prices for the same drugs charged in other specified industrialized countries that are set out in the Patented Medicines Regulations (France, Germany, Italy, Sweden, Switzerland, the UK, and the US); (3) Existing patented drug prices must not increase by more than the Consumer Price Index (CPI); and (4) Canadian prices of patented medicines must never be the highest in the world. Paradoxically, researchers (Graham, 2000; Skinner, 2004b, 2005b; Skinner and Rovere, 2007d, 2008c) have argued that federal price-control rules on patented drugs actually distort pricing in drug markets and partially contribute to the high prices for generic drugs observed in Canada. For example, under PMPRB rules, for drugs that treat the same health condition, the highest existing price is used by the federal government as a reference for establishing the maximum allowable price for new patent-protected drugs entering the market. When patents expire on brand name drugs, generic drugs enter the market to compete for sales of those products. Yet, despite these competitive pressures, manufacturers do not typically reduce the prices of post-patent brand name drugs. This is because doing so will lower the maximum allowable entry price permitted by federal regulations for any new drugs they develop. The price control rules therefore act to fix brand name drug prices at their introductory levels even in the face of competitive market pressures that would normally encourage price reductions. And because generics are reimbursed at a percentage of the brand name price, the prices of generics end up being higher than they would be if the price control rules did not prevent the brand name reference price from moving downward.

## Government control of hospital services

Hospitals can be organized either as private-sector (non-profit or for-profit) enterprises or as government-owned public-sector entities. Kornai (1979, 1986) and Kornai et al. (2003: 1095) have argued that organizations that face the possibility of financial failure (i.e., “hard budget constraints”) have stronger economic incentives for efficiency, innovation, and quality improvement than organizations which can rely on public subsidies to prevent bankruptcy (i.e., “soft budget constraints”). A key distinction between the comparative performance of private- (either non-profit or for-profit) and public-sector organizations is that the former face hard budget constraints, whereas the latter have soft budget constraints due to the politicization of funding for such entities.

Theoretically, this presents a potential problem for the Canadian health system because the competitive involvement of private-sector enterprises in the delivery of publicly funded hospital services is severely restricted. Deber et al. (1998: 482) have described the technical ownership of Canadian hospitals as mixed, with some being owned by voluntary organizations and religious orders, others by municipal or provincial authorities. Nevertheless, all hospitals are directly governed by regional boards appointed by provincial governments or elected by voters. The authors indicate that, in total, less than 5% of hospitals are privately owned and governed in Canada and even these often depend on public funding. According to Deber et al. (1998: 488), governments, “have taken on greater involvement in the management and planning of the hospital system. Although resources in the past were allocated within a command-and-control model, the degree of state involvement was limited in large part to deciding the overall amount to spend on hospital care each year. Indeed, by the mid-1980s, most provinces had replaced line-by-line hospital budgeting with global budgets to increase hospital flexibility and planning capability, achieving cost control through enforcement of global limits. Over time, there has been a change from this loose command-and-control model, with many provincial governments becoming more activist and using such levers as altered hospital reimbursement systems, mandated hospital closings and mergers, and reallocation of resources from

institutional to community-based care.” This policy structure has politicized the operation of Canadian hospitals (Deber et al., 1998: 487–88).

## **Government restrictions on consumer choice**

Governments across the world regulate access to new medical technologies like drugs on the basis of product safety because it is argued that the market fails to adequately protect consumers from potential health risks. In order to ensure that consumers are not harmed by the use of new medical technologies, Canada restricts consumer choice at the federal level through Health Canada’s licensing requirements for all new medical technologies. Data shown earlier suggests that this process delays access to new medicines by up to approximately one year after clinical testing is complete.

Federal-provincial-territorial (FPT) health and drug insurance plans also further restrict consumer choice through the use of health technology assessments (HTAs) to determine whether a particular new technology should be eligible for public reimbursement. Again, data shown earlier suggests that for those dependent on publicly funded drug plans, this process adds approximately an additional year to the total delay that consumers experience before they can access a new drug.

British Columbia has gone further by enacting reference-based drug reimbursement policies which set the maximum reimbursement limit to the price of lowest cost of approved products in the same therapeutic class. In at least one class of drugs, BC has implemented therapeutic substitution policies which further restrict public funding only to the lowest cost drug product in a therapeutic class, even though the available drugs are of dissimilar chemical structures. Therapeutic substitution was implemented for a group of patented drugs called proton pump inhibitors (PPIs) in 2003. The policy required patients using a PPI to switch from their current prescription product to the least expensive patented PPI comprised of a different chemical molecule for medically unnecessary reasons.

Schneeweiss et al. (2006) studied the impact of therapeutic substitution among seniors for this class of drugs in BC and found savings from

price substitution of roughly \$2.9 million for the provincial PharmaCare program in the first six months of the policy. More recent research studied the impact of BC's therapeutic substitution policy on the entire population of PPI consumers, accounting for net overall health utilization, and found approximately \$43.5 million in avoidable health expenditures for public and private payers caused by the policy in its first three full years (Skinner, Gray, and Attara 2009). The costs identified by Skinner, Gray, and Attara (2009) are theoretically explained by unnecessary transaction costs incurred by patients as they complied with the systemic requirements associated with switching to the government-approved drug, and/or from possible negative health impacts due to discontinued or interrupted drug therapy or adverse reactions associated with the biochemical dissimilarity of the reference drug. The results of Skinner, Gray, and Attara (2009) are consistent with other research by Gaebel, Toeg, and Levine (2008), who studied therapeutic substitution under federal drug plans for the same class of drugs among aboriginal populations in Canada, finding evidence of negative health impacts.



# Economically liberal solutions

## Socioeconomic limitations of markets and governments

The ability of markets to optimally achieve certain social outcomes is limited. The socioeconomic limitations of markets have been theoretically framed as “market failures,” thus implying the need for government intervention (Baumol, 1952; Bator, 1958; Arrow, 1963). More specifically, a number of “market failures” have been cited to justify state intervention in the provision of medical services and medical insurance (Arrow, 1963; Evans, 1984, 1997, 2002a, 2002b; Rice, 1997).

On the other hand, there are also significant economic and social problems associated with government intervention in markets which have been conceived as “government failures” (Hayek, 1945; Friedman, 1962; Buchanan and Tullock, 1975; Schultze, 1977; Wolf, 1979, 1988; Becker, 1983, 1985; Mueller, 1979, 1989, 1997; Le Grand, 1991; Mitchell and Simmons, 1994; Stiglitz, 1998; Tullock, Seldon, and Brady 2002).

Applying this thinking more specifically to health care policy, Pauly (1968, 1984, 1986, 1987, 1988, 1997), Gaynor and Voigt (1997), and others have argued that many of the theoretical allegations of market failures in health care are misconceived, are equally applicable to government-based approaches to health policy, and that there are many additional theoretical limitations unique to government involvement in health care which are not associated with market-based approaches. In particular, government failures have been specifically identified when the state becomes a direct provider of

medical insurance or medical services. This was demonstrated, for instance, in Buchanan's (1965) paper which identified and analyzed some of the failures of the state-based approach to health policy under the United Kingdom's national health system.

In practice, there are no working examples of health care systems that are based on an absolute reliance on either markets or government. An obvious tension between political preferences for social equity and economic efficiency is reflected in the policy structures of all OECD countries. It seems that the practical policy challenge is to identify the most appropriate balance of scope for both markets and government intervention.<sup>60</sup> Determining the appropriate scope of markets and governments depends on the nature of the policy goals, and these, in turn, depend both on political values and economic constraints. Nevertheless, if goals are specified clearly and appropriate information is available, then it would seem that standard cost-benefit analysis can be used to determine the best combination of market-based and government-based policy approaches that will most optimally achieve stated policy goals.<sup>61</sup> With this in mind, the following sections discuss the uniqueness of Canada's health policy structure in an international context, and some of the key aspects of Canadian health policy that might be considered problematic. It also examines the merit of several economically liberal policy reforms that

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60 As Pauly (1997: 470–71) says, in reality, policy makers can choose between “imperfect markets versus imperfect governments.” Pauly suggests that theory and empirical evidence favor the proposition that the market, not government intervention, should be the base assumption for policy; that state action should be minimized when it is deemed to be necessary; and that justification for state action should require a demonstration that a non-market approach would produce better outcomes than the market.

61 Le Grand (1991: 442) has argued, for instance, that “it is important to re-emphasize that a study of government failure does not imply that governments always fail, still less that markets always succeed. Whether a particular form of government intervention creates more inefficiency or more inequity than if that intervention had not taken place is ultimately an empirical question and one that is by no means always supported by the evidence. Governments sometimes succeed, a fact that should not be lost to view in the current glare of the market's bright lights.”

offer the potential to improve the performance of the Canadian health system, but which have not been adopted by Canadian policy makers.

## **Commonality of economically liberal health policies**

There are several economically liberal approaches to health and prescription drug policy that, in a global context, represent moderate or incremental movements from the status quo in Canada. Economic theory, experimental economic research, applied economic analysis, and international experience strongly suggest that the policies discussed in this chapter could improve the availability of medical resources and introduce allocative efficiencies without undermining the fundamental social goals that serve as the explicit rationale for Canada's health policy.

In general, economically liberal types of policies are increasingly common in most other OECD countries with social goals for health care that are similar to Canada's (Ovretveit, 2001; Scott, C, 2001; McKee and Healy, 2002; Mossialos et al., 2002; Irvine, Hjertqvist, and Gratzner 2002; Esmail and Walker, 2008a). Annual research by Esmail and Walker (2008) has shown that many OECD countries currently employ versions of such policies showing that there are alternative, often more efficient ways to achieve Canada's social goal of universal health insurance coverage. Indeed, research published by the World Health Organization (Mossialos et al., 2002; McKee and Healy, 2002), Sweden's Nordic School of Public Health's Faculty of Medicine (Ovretveit, 2001), and others (Scott, C., 2001) confirms that the policy trend in OECD countries since the 1990s has been toward the introduction of economically liberal health policy reforms.

Table 22 compares the use of economically liberal health policies among OECD countries (among the 27 for which data are available) that attempt to socially guarantee universal health insurance coverage. According to Esmail and Walker (2008), as of 2006, Canada was one of only five OECD countries that did not require cost sharing for publicly funded hospital or physician services. All 21 other OECD countries have some type of consumer/patient cost sharing for the use of publicly funded hospital care, general practitioner care, and/or specialist care.

**Table 22: Parallel private medical insurance and patient cost sharing for publicly funded health care in OECD countries, as of 2005**

| Country     | Consumer/patient cost sharing required for publicly funded health care goods/services |     |             |                    | Private for-profit hospitals billing public insurer | Private comprehensive medical insurance available |
|-------------|---|-----|-------------|--------------------|---|---|
|             | Hospitals   | GPs | Specialists | Prescription drugs |   |   |
| Australia   |   | YES | YES         | YES                | –   | YES   |
| Austria     | YES   | YES | YES         | YES                | YES   | YES   |
| Belgium     | YES   | YES | YES         | YES                | YES   | YES   |
| Canada      | –   | –   | –           | YES                | –   | –   |
| Czech Rep.  | –   | –   | –           | –                  | YES   | YES   |
| Denmark     | –   | –   | –           | YES                | –   | YES   |
| Finland     | YES   | YES | YES         | YES                | –   | YES   |
| France      | YES   | YES | YES         | YES                | YES   | YES   |
| Germany     | YES   | YES | YES         | YES                | YES   | YES   |
| Greece      | YES   | YES | YES         | YES                | YES   | YES   |
| Hungary     | YES   | YES | YES         | –                  | –   | YES   |
| Iceland     | –   | YES | YES         | YES                | –   | YES   |
| Ireland     | YES   | YES | YES         | YES                | –   | YES   |
| Italy       | –   | –   | YES         | YES                | YES   | YES   |
| Japan       | YES   | YES | YES         | YES                | YES   | YES   |
| Korea       | YES   | YES | YES         | YES                | YES   | YES   |
| Luxembourg  | YES   | YES | YES         | YES                | YES   | YES   |
| Netherlands | YES   | YES | YES         | YES                | YES   | YES   |
| New Zealand | –   | YES | YES         | YES                | –   | YES   |
| Norway      | –   | YES | YES         | YES                | –   | YES   |
| Poland      | YES   | YES | YES         | YES                | –   | YES   |
| Portugal    | YES   | YES | YES         | YES                | YES   | YES   |
| Slovak Rep. | –   | –   | –           | YES                | –   | YES   |
| Spain       | –   | –   | –           | YES                | YES   | YES   |
| Sweden      | YES   | YES | YES         | YES                | –   | YES   |
| Switzerland | YES   | YES | YES         | YES                | YES   | YES   |
| UK          | –   | –   | –           | YES                | –   | YES   |

Source: Esmail and Walker, 2008.

Table 22 also shows that among the 27 OECD countries, Canada was also the only country where private insurance for hospital and physician services was not available.

## Price mechanisms

Flat percentage copayments, user fees, extra billing, and flat-rated premium-based financing are price mechanisms that would theoretically be expected to make government health insurance more sustainable and introduce incentives that would more efficiently allocate medical resources. Price mechanisms would also mitigate the need for central-planning mechanisms to control costs. Price mechanisms could also allow costs to be shifted off the public system, taking the pressure off of public finances.

Some experts have cautioned against the introduction of user fees for publicly funded health care (Barer, Evans, and Stoddart 1979; Beck and Horne, 1980; Barer, Bhatia, Stoddart, and Evans, 1993). However, such policies are increasingly common in other countries' health systems (Blomqvist, 1994b; Robinson, 2002; Irvine and Gratzner, 2002; Esmail and Walker, 2008). In fact, within Canada, user fees are currently commonly charged for things like ambulance services and publicly funded drug benefits.<sup>62</sup> Cost sharing is widely acknowledged as an effective way to counter incentives for overutilization that result from the cross-subsidy associated with risk pooling under insurance. Insurance subsidization reduces the effective price of consuming the insured goods or services and thereby creates an incentive for increased demand for those goods and services; this can lead to overutilization or inefficient substitution choices (Feldstein, 1973). This problem is theoretically worse under health insurance systems that offer first-dollar coverage of health expenses. This is referred to as “zero-deductible” or “full” insurance, and the Canadian Medicare system is an example of this type of insurance system. In addition, because health

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62 In his proposal for a publicly funded national catastrophic drug insurance program, Roy Romanow also recommended that patients should pay the first \$1,500 in drug expenses out-of-pocket before being eligible for public drug coverage (Romanow, 2002).

care is paid for mostly through progressively adjusted income taxes in Canada, the subsidization effect is even stronger than under premium-financed full-insurance schemes.<sup>63</sup>

The problem of excessive, inefficient demand in the absence of a price has been empirically demonstrated (Keeler et al., 1977; Newhouse et al., 1980; Manning et al., 1987; Keeler et al., 1988; Keeler, 1992; Buchanan et al., 1991; Newhouse et al., 1993). The RAND Health Insurance Experiment (HIE) (Newhouse et al., 1993) confirmed that consumers will overutilize health care when insurance covers too much of the cost of medical goods and services. The RAND HIE remains the largest and longest running tests of health insurance designs. The experiment essentially set up a health insurance company and attracted customers who signed onto plans that ranged from a zero deductible to a 95% copayment with varying levels of benefits coverage. The experiment spanned over five years and included more than 2,000 non-elderly participating families—over 5,600 participants in total.

The results showed that demand for medical services was indeed affected by deductibles and other forms of consumer copayments. The study showed that the more families paid out-of-pocket, the fewer medical services they used. In fact, for all types of service, including physician visits, hospital admissions, prescriptions, dental visits, and mental health, use fell with cost sharing. Access to some health services is dependent on physician referral, so there was a multiplier effect that resulted from the reduction of demand for physician services. Most importantly,

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63 As many others have pointed out, medical overutilization has natural limits. For example, Canadian health insurance pays for brain surgery, yet the demand for this service is hardly out of control. Clearly, the value to the consumer is to avoid such a procedure unless it is necessary to restore good health. But aside from such serious procedures, there are many health services which people demand more of than are necessary. Examples include using emergency rooms instead of walk-in or family clinics, making unnecessary visits to a physician for minor routine illnesses, for illnesses which will resolve themselves naturally, or for which home remedies would be just as effective, unnecessary overconsumption of prescription drugs and diagnostics, and a lack of incentives to encourage efficient substitutions and trade-offs between competing treatment options with lower costs and adequate effectiveness.

the reduced utilization under the cost-sharing plans had little or no net adverse effect on health for the average person. According to the results of the study, the only exception was health among small, identifiable sub-populations. Utilization among the six percent of the population with the lowest incomes was most sensitive to cost-sharing plans, and some negative health effects were noticed. But importantly, within this group, the negative health effects of reduced utilization were limited to specific conditions. For example, the study found that those with pre-existing high blood pressure saw their blood pressure lowered more under the zero copayment plan versus the cost-sharing plans, presumably because there were no disincentives to receiving preventative care. Similarly, those with no copayments fared better than those who had a copayment for vision correction, gum disease, tooth decay, and anemia in poor children (Newhouse et al., 1993).

Overall, the study concluded that there was some specific, relatively minor health consequences from cost sharing concentrated among the sick poor, but that the vast majority of the population was neither sick nor poor and there were no substantial adverse health effects from cost sharing for this group. Therefore, according to the findings, health benefits among the sick and poor could be achieved at substantially lower cost than through a universal system of free care (like Medicare) for all services. In other words, a targeted insurance benefit offering full insurance reimbursement only for specific medical services for the poor can obtain better health gains overall without incurring the costs and inefficiencies of fully covering medical services for everyone (Newhouse et al., 1993).

In summary, the RAND experiment showed that there is a significant difference in the amount of health care demanded under Medicare-style health insurance and the demand for health care under systems with some type of consumer copayment. The results indicated that up to 30% of the demand for health services is unnecessary because there are no adverse health effects for those who reduce demand under copayment plans. The weight of available evidence strongly suggests that in the absence of con-

sumer copayments, there is a significant problem of excess and inefficient demand.<sup>64</sup>

## **Competitive private-sector delivery of medical goods and services**

Competitive private-sector delivery of publicly funded medical services might also be expected to produce improvements to Canadian health care. Traditional economic theory holds that competition produces an optimal combination of quality and costs, and most efficiently allocates resources to satisfy the unique needs and preferences of individual consumers. The weight of empirical economic evidence about hospital performance under private versus public ownership also suggests that permitting competitive private-sector delivery of publicly funded hospital services would help to optimize access to medical care in Canada.

Deber et al. (1998) have argued that international experience recommends the value of private-sector delivery of medical goods and services. Indeed, private-sector hospital services, delivered either by non-profit or for-profit enterprises, are commonplace in many OECD countries with similar social goals as Canada. For-profit hospitals are far less common than non-profit private-sector hospitals in all OECD health systems, but data shown earlier indicate that at least 14 OECD countries permitted for-profit hospitals to deliver publicly funded health care services.

Most of the applied economic research on hospital performance under private versus public ownership has studied the US hospital system. The US hospital system is characterized by a mix of private (non-profit or for-profit) and public hospital ownership structures, and a mix of private and public sources of funding. According to data provided by the American Hospital Association (Health Forum LLC, 2008), as of 2007, about 77.3% of all community hospitals in the US are categorized as private-sector hospitals: for-profit hospitals make up only 17.8% of all community hospitals

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64 Irvine and Gratzner (2002) published a detailed review of the literature on this topic and reached the same conclusion.

in the US, whereas non-profit private-sector hospitals account for 59.5%. Government hospitals account for the remaining 22.7% of community hospitals. Unfortunately, the research on public versus private hospital ownership is often confused with other studies which focus on the comparative performance of non-profit and for-profit hospitals, which are mostly all private organizations in the US. Furthermore, the literature on the comparative performance of non-profit and for-profit hospitals is mixed.<sup>65</sup>

For example, Woolhandler and Himmelstein (1997) found that the total cost of care at for-profit hospitals in the US were higher than at non-profit hospitals. Woolhandler and Himmelstein (1999) later reviewed some of the literature concluding that no peer-reviewed studies showed that costs were lower in for-profit hospitals. Devereaux et al. (2004) published a meta-analysis<sup>66</sup> concluding that for-profit hospitals were associated with higher payments for services delivered compared to non-profits. Devereaux et al. (2002) conducted an earlier meta-analysis of studies comparing mortality rates in non-profit and for-profit hospitals in the US, concluding that there was higher patient mortality rates associated with for-profit hospitals. Guyatt et al. (2007: E27) used a similar approach to study health outcomes of hospital patients in Canada (described as having exclusively non-profit hospitals) and the US (described as having

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65 Comparing the performance of hospitals requires complex adjustments. Horwitz (2005), for instance, has found that ownership structure influences the mix of services offered by a hospital, and hence the types of patients admitted. Her findings suggest that cases with high potential profitability are more likely to be treated in a for-profit facility. It is unclear from her research whether these cases would represent higher or lower risks. Complex cases might represent higher costs of care, but this might be offset by higher marginal revenues; therefore, more profitable cases might be more complex. The reverse could also be true. Either could skew comparisons between for-profit and other hospital ownership types.

66 Meta-analysis attempts to quantitatively aggregate the results of independent studies which have used similar methodology. However, the studies aggregated in the Devereaux et al. (2002) and Devereaux et al. (2004) papers did not all use the same methodology or data criteria, and therefore it was not scientifically valid to pool the results in a meta-analysis.

mixed non-profit and for-profit hospitals), concluding that health outcomes “may be superior” in Canada, though the authors acknowledged that their results were inconclusive.

This body of research has drawn significant criticism from other researchers. For example, the methodology of the Devereaux et al. (2002) study has been criticized by Deber (2002) and Gratzner and Seeman (2002).<sup>67</sup> Naylor (2002) has also been critical of the methodology used

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67 Among the problems identified by others, Devereaux et al. (2002) probably also misinterpreted two studies included in their meta-analysis. The authors interpreted McClellan and Staiger (1999) as favoring the performance of non-profit hospitals when that study appears to show the opposite results—that mortality outcomes at for-profit hospitals were better than at non-profit hospitals once other factors were accounted for. The abstract from McClellan and Staiger (1999) states, “do not-for-profit hospitals provide better care than for-profit hospitals? We compare patient outcomes in for-profit and not-for-profit hospitals between 1984 and 1994 using a new method for estimating differences across hospitals that yields far more accurate estimates of hospital quality than previously available. We find that, on average, for-profit hospitals have higher mortality among elderly patients with heart disease, and that this difference has grown over the last decade. However, much of the difference appears to be associated with the location of for-profit hospitals. Within specific markets, for-profit ownership appears if anything to be associated with better quality care. Moreover, the small average difference in mortality between for-profit and not-for-profit hospitals masks an enormous amount of variation in mortality within each of these ownership types. Overall, these results suggest that factors other than for-profit status per se may be the main determinants of quality of care in hospitals” (McClellan and Staiger 1999: 1). Another study (Pitterle et al., 1994) that was interpreted by Devereaux et al. (2002) as favoring the performance of non-profit hospitals also appears to have reached the opposite conclusion. The study presented its results in a series of tables statistically showing the relationship between a set of variables and mortality outcomes for patients. One of the key variables was hospital ownership structure, which was described according to three types: public, private for-profit, and private non-profit. A statistic showing the slope of the relationship for each variable was presented. The slope indicated the variable’s direction of association with the observed outcomes, in this case patient mortality rates. The study stated that “a negative slope showed an inverse relationship for a variable, and was associated with a reduction in mortality, whereas a positive slope was associated with an increase” (Pitterle et al., 1994: 624). The study’s results show that both types of privately owned hospitals (for-profit and non-profit) had statistically significant negative slopes, meaning that

by Devereaux et al. (2002), but argued that the findings were nevertheless consistent with the overall literature. This is supported by claims made by Woolhandler and Himmelstein (1999) that the literature supports the view that for-profit hospitals do not perform better than non-profit hospitals.

However, Ferguson (2002b) has directly challenged the conclusions drawn by Woolhandler and Himmelstein (1999). Ferguson conducted a detailed, comprehensive review of the literature and found that one previous review alone had cited at least five peer-reviewed studies which found lower costs associated with for-profit hospitals. Ferguson also separately identified eight studies which favored for-profit hospital performance using measures of efficiency or some type of quality-adjusted cost. Ferguson further cites three other comprehensive reviews of the literature including Sloan (2000), Donaldson and Currie (2000), and Marstellar, Bovbjerg, and Nichols (1998), concluding that “all three reviews find, in the peer-reviewed literature, some articles which find for-profits to be more efficient, some which find not-for-profits to be more efficient, and a lot of articles which find no difference in efficiency” (Ferguson, 2002b: 6).

This conclusion is supported by Sloan and Vraciu’s (1983: 34) study of Florida hospitals, which found that “ownership (investor-owned versus not-for-profit) is a poor predictor of a hospital’s willingness to treat low-income patients, costs to the community and profitability.” Ferguson’s conclusion is also consistent with research by Duggan (2000), which found that non-profit and for-profit hospitals have similar performance outcomes because they operate under similar economic incentives within “hard budget” constraints. According to Duggan (2000: 1,371), “the critical difference between private for-profit, private not-for-profit, and publicly owned firms in the hospital industry is caused by the soft budget constraint of government-owned institutions. Public hospitals were unresponsive to

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reduced mortality rates were associated with a private ownership structure for hospitals. By contrast, the study found no statistically significant relationship between publicly owned hospitals and mortality rates. This meant that private hospitals were comparatively superior to public hospitals. Notably, the statistical link between ownership structure and reduced mortality was stronger for private for-profits than it was for private non-profits.

financial incentives because any increases in their revenues were taken by the local governments that own them.”

## **Pluralistic, competitive social health insurance**

Canada could also achieve its basic social goals for health care by replacing its single-payer health insurance system with a more economically liberal system of pluralistic, competitive social health insurance. This is not as radical a policy departure from the status quo as it might initially appear to be. Table 23 displays OECD data for health spending by source of finance. The data is ranked in ascending order according to the degree to which a country relies on pluralistic social insurance approaches in order to achieve universal health insurance coverage for its population. The data indicate that pluralistic social health insurance approaches are common among OECD countries, something confirmed by several analyses in the literature (e.g., Blomqvist, 1979; Deber et al., 1998; Ovreteit, 2001; Ramsay, 2001; Scott C., 2001; Mossialos et al., 2002; Esmail and Walker, 2008).

Unlike the Canadian approach, pluralistic social insurance policy structures do not rely on the state to be a direct provider of either health insurance or health services. Instead, pluralistic social health insurance is based on a regulatory and redistributive function for the state. Experience shows such insurance approaches can achieve universal coverage without the state being involved as a direct provider of medical insurance or medical goods and services. Normand and Busse (2002) describe social insurance as having several general characteristics: (1) health insurance coverage is universally mandatory; (2) this is achieved through group insurance for the working population, where health insurance is funded through employer/employee-based contributions, or it is achieved by making individual purchase compulsory; (3) insurance provision is pluralistic: there are multiple quasi-public insurance funds (e.g., Austria, Belgium, France, Germany, Luxembourg) or multiple competitive private-sector (non-profit or for-profit) providers (e.g., Switzerland, Netherlands); (4) there are significant government subsidies for non-employed and low-income

**Table 23: Health care financing, by source, percentage of total health expenditure (THEX), OECD, 2006**

| OECD country  | Social health insurance, % of THEX | Public health and gov't insurance, % of THEX | Private insurance, % of THEX | Personal payment, % of THEX |
|---------------|------------------------------------|--|------------------------------|-----------------------------|
| Sweden        | –                                  | 81.7   | –                            | –                           |
| Australia     | 0.0                                | 67.7   | 7.5                          | 18.2                        |
| Denmark       | 0.0                                | 80.0   | 1.5                          | 14.3                        |
| Italy         | 0.1                                | 77.1   | 0.9                          | 20.2                        |
| Ireland       | 0.7                                | 77.6   | 8.4                          | 12.4                        |
| Portugal      | 0.8                                | 69.7   | 4.1                          | 22.8                        |
| Canada        | 1.4                                | 69.0   | 12.6                         | 14.5                        |
| Spain         | 5.2                                | 66.1   | 6.0                          | 21.5                        |
| Norway        | 12.5                               | 71.1   | –                            | 15.6                        |
| United States | 13.1                               | 32.7   | 36.0                         | 12.8                        |
| Finland       | 14.9                               | 61.1   | 2.2                          | 18.7                        |
| Mexico        | 26.6                               | 17.6   | 3.4                          | 52.4                        |
| Iceland       | 27.4                               | 54.5   | 0.0                          | 18.0                        |
| Switzerland   | 43.0                               | 17.2   | 8.5                          | 30.3                        |
| Korea         | 43.1                               | 12.6   | 3.4                          | 35.9                        |
| Austria       | 44.7                               | 31.5   | 4.7                          | 16.5                        |
| Belgium       | 56.8                               | 12.8   | 4.9                          | 20.9                        |
| Poland        | 58.6                               | 11.3   | 0.6                          | 25.6                        |
| Hungary       | 60.1                               | 10.8   | 1.3                          | 22.6                        |
| Slovak Rep.   | 61.2                               | 7.1  | –                            | 25.9                        |
| Japan         | 64.0                               | 15.4   | 2.6                          | 15.1                        |
| Germany       | 67.5                               | 9.3  | 9.2                          | 13.2                        |
| Luxembourg    | 70.3                               | 20.6   | 1.7                          | 6.5                         |
| France        | 74.6                               | 5.1  | 12.8                         | 6.7                         |
| Czech Rep.    | 78.8                               | 9.2  | 0.2                          | 11.5                        |

Source: OECD, 2008.

Notes: Other sources of health spending (e.g., direct spending by non-governmental organizations and companies) not shown, therefore percentages may not total 100%. Incomplete data reported for Sweden, Norway, and Slovak Republic. Some countries among the OECD 30 not shown due to missing data.

people, and sometimes a degree of direct government insurance provision through programs targeting specific subpopulations; and (5) there is significant regulation of the insurance product and insurance market conduct.

Among universal, pluralistic social health insurance systems, Switzerland and the Netherlands have limited the scope of direct government involvement in medical insurance and medical services the most. Both countries have a system of compulsory individual purchase of private<sup>68</sup> health insurance, coupled with publicly funded subsidies for low-income people to achieve universal coverage. Government's role is mostly limited to redistributing income subsidies to individuals and regulating the market to achieve defined social goals (Enthoven and Wynand, 2007; Frank and Lamiraud, 2008; Glied, Hartz, and Giorgi 2007; Van Kleef et al., 2008). For Canada, moving to a regulated, competitive, pluralistic private market for health insurance, generally similar in principle to that in Switzerland or the Netherlands, could introduce the benefits of market dynamics while ensuring universal coverage for the population on acceptable social terms. Such a health insurance model would also likely be more comprehensive (including drugs, for instance) than Canada's current patchwork of public programs and would largely remove the incentives for governments to centrally ration access to medical goods and services.<sup>69</sup>

Some researchers have argued against the introduction of any type of private-sector health insurance, citing problems associated with the ability of competitive markets to achieve certain social outcomes, cost control and administrative efficiency, and ideological concerns about redistributive impacts (Evans, 1984, 2002a; Deber et al., 1998; Wilson, 2000; Hurley et al., 2001; Tuohy, Flood, and Stabile, 2002). Others have argued that it is unrealistic to take absolutist positions in favor or against either wholly state-based or market-based approaches to health insurance as no such system exists and few serious researchers recommend either approach

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68 Mostly non-profit insurance organizations; however, for-profit insurance providers also offer coverage.

69 Under such a model, there would be no need for central agencies to make rationing choices on behalf of the population.

(Pauly, 1997; Gaynor and Vogt, 1997). Many experts also argue that the weight of theory, applied economic research, and international experience show that a mixed approach characterized by a pluralistic insurance system with appropriate government regulation and subsidization (similar in principle to the Swiss or Dutch social insurance systems) can achieve essential social goals while better encouraging sustainable demand for, and allocation of, health technology and capturing overall efficiency gains (Newhouse, Phelps, and Schwartz, 1974; Blomqvist, 1979; Pauly, Danzon, Feldstein, and Hoff, 1991; Newhouse et al., 1993; Feldman, Escribano, and Pellise, 1998; Feldstein, 2005; Gruber, 2008). According to Pauly, Danzon, Feldstein, and Hoff (1991), economists have advocated this approach to achieving universal health insurance coverage in the United States as early as Feldstein (1971). To my knowledge, the earliest published reference to a proposal for reform of this nature for Canada was Blomqvist (1979). However, Taylor (1978) makes reference to similar proposals by the Canadian Medical Association (CMA) during the early development of the current health care system in Canada. As far as can be ascertained from Taylor's account, these proposals seemed to resemble the pluralistic social insurance models of modern day Switzerland and the Netherlands.

## **Patient/consumer choice**

Finally, there might also be room for increasing the scope of consumer choice in health care, especially regarding the assessment of risk associated with innovative medical technology. As mentioned earlier, one of the ways that governments restrict consumer choice in health care is through policies that are designed to reduce the risk of harm from unsafe medical technology. For example, part of the rationale used to justify pre-market regulation of drug safety is that the market is not as effective as government regulators at reducing the harm that might be caused by unsafe drug products due to imperfect and “asymmetric” (or unequal) information between sellers (medicine producers) and buyers (patients) (Arrow, 1963). Specifically, consumers face an information deficit about the qualities of new drugs which leaves them exposed to potential harm. At the same time,

it is alleged that drug companies might have a profit incentive to carry out insufficient clinical testing or overemphasize their product's benefits while downplaying its adverse effects. An additional assumption is that the information asymmetry facing consumers is not adequately mitigated by the presence of a physician acting as an expert agent. There is also an assumed absence of other market mechanisms—like non-governmental organizations which promote consumer product safety or publish various consumer reports—that could resolve this issue in the absence of government intervention. Therefore, it is reasoned, individuals cannot be left to use their own judgment when obtaining new medicines and a centralized government regulator should limit individual choice about the use of drugs to protect the public health. The potential harm that can be caused by an unsafe drug rises to a level of seriousness that demands pre-emptive risk reduction strategies.

Skinner (2007a) has argued that this criticism of the market is too extreme and overestimates the capacity of the state to produce better outcomes than the market. First, generally speaking, firms (especially drug companies, given the seriousness of the consequences for human health) have a strong incentive not to misrepresent the safety of their products because doing so could damage their reputation in the market and ultimately destroy demand for their products altogether. Further, penalties for unethical corporate behavior can be enforced through the legal system via tort and sometimes even criminal charges if harm comes to consumers from unsafe products. Patients can also rely on the expertise of their physician to partially close the information gap about drug products. The requirement for consumers to obtain an expert opinion via an examination and prescription from a physician already makes the consumption of drugs uniquely more controlled than the consumption of other goods and services which could also be dangerous. The availability of expert agents that can be contracted to act on behalf of consumers is a way for the market to reduce information asymmetry. Obviously, the relationship between consumers and expert agents can be distorted if the expert has a conflicting financial interest in the advice given. For instance, if a physician were to receive a financial benefit from prescribing a given type of treatment, this could create a conflict of incentives between serving the

interests of the patient and gaining financially from prescribing something that might not necessarily benefit the patient. But again, expert agents face strong disincentives for unethical behavior because their reputations can be damaged and they are also subject to tort and legal liabilities from malpractice, as well as penalties applied by their professional associations. And again, the professional relationship between physicians and patients is uniquely more regulated and affected by disincentives for bad behavior than virtually any other comparable societal transaction.

Second, the capacity of the state to do better than these market-based incentives is questionable. Approving a new drug requires regulators to make decisions with imperfect knowledge. There are significant limitations to the information that can be generated by pre-market clinical trials as well as post-market drug surveillance. Imperfect information leaves regulators in a position of uncertainty, yet there are diminishing returns from increased drug testing designed to further reduce uncertainty.<sup>70</sup> Excessive caution can lead to the loss of potential health benefits from obtaining new medicines sooner. These losses are not obvious to the public but they are real nonetheless. Paradoxically, regulatory safety review of new medical technologies is a time consuming and imperfect process that comes at the cost of promoting public health. Delaying or denying access to important new medicines can negatively affect patients' health outcomes. That there are trade-offs between increased safety and lost health benefits is confirmed by recent research which found that faster reviews of new drugs by the US FDA have been associated with higher counts of serious adverse reactions in the US (Olson MK, 2008). On the other hand, it has been estimated that earlier access to new drugs because of faster drug reviews by the FDA saved hundreds of thousands of life-years (Philipson et al., 2005). Slower drug approvals can also produce other unintended outcomes. For instance, the longer a new drug is kept off the market while

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70 To make matters worse, not only do regulators operate in an environment of uncertainty, they also face conflicting incentives when trying to reduce the potential for errors in drug-approval decisions that might encourage them to be excessively cautious. The burden of error does not affect regulators in the same way that it affects patients. This is discussed further in chapter 12.

waiting for government's safety approval, the shorter the effective period under which a drug can be sold with patent protection. The resulting loss of profitable returns for the drug's inventor can negatively affect the capacity and incentives for developing new medicines (Vernon, 2005). This, in turn, could conceivably harm future generations of patients.

Skinner (2007a) has identified and classified five underappreciated concepts that might help with assessing risk in a broader context. A new context for assessing risk might create a rationale for expanding for consumer choice in health care by incrementally relaxing regulatory safety standards. These five concepts complement the regulatory process by offering a greater degree of objectivity in determining whether a drug should or should not be available to patients and in minimizing the negative externalities associated with regulatory decisions. Applying this conceptual framework to the assessment of drug risk might help optimize patient/consumer choice and access to new medicines. The five concepts suggest that risk should be evaluated with regard to: (1) the net risk that a drug represents after accounting for its potential health benefits; (2) the weighted risk and benefit of alternative treatments; (3) the alternative risk that a drug represents relative to available therapeutic alternatives, including the possibility that there are no existing alternatives; (4) the universal risk that a drug represents relative to the risk already accepted by the public in using many other types of regulated and non-regulated goods, services, and activities—even those that are not directly comparable to drugs; and (5) the identifiable risk, or whether there are particular patient characteristics that make only certain people susceptible to the risk statistically associated with the drug's use. These concepts are explained in more detail below:

### *Net risk*

A drug's risk cannot be assessed in isolation from its benefits. For instance, if clinical evidence showed that 10 in 1,000 patients showed an increased health risk statistically associated with the use of a particular drug, would this be unacceptable? If it were also known that health conditions improved in 500 of 1,000 patients treated with the same drug, would the risk assessment change? In general, research strongly supports the view

that the public health benefits of new drugs tend to far outweigh the risks. For instance, as discussed earlier in this chapter, it has been estimated that the human health costs of government-imposed delays in giving safety approval to drugs in the United States were far greater than the health benefits derived from avoiding the side effects of new drugs.

#### *Weighted risk and benefit*<sup>71</sup>

Accurately assessing the net risk of a new drug depends on the qualitative difference between the severity of the risks and the value of the benefits being compared; or, in other words, what are the weighted risks and benefits? The adverse events statistically associated with new drug products can be more serious relative to the benefits, thus making the potential risks weigh much heavier in any regulatory decision. In some cases, preventing serious adverse events statistically associated with a drug affecting few people might be more important than capturing the benefits experienced by many people if the benefits are not directly related to the prevention of equally serious health risks. For example, a pain reliever might bring comfort and relief to millions, but this particular benefit might be less important than saving a small number of people from heart failure statistically associated with the use of a drug.

#### *Alternative risk*

While the use of medicines for treating illness and disease is sometimes statistically associated with degree of risk, this risk must also be assessed against the degree of risk inherent in any alternative treatments that would have to be used in the absence of a new drug. The risks associated with a drug might also be compared to the risks associated with other non-drug comparators like invasive surgery, which as an alternative treatment for the same health condition may or may not be worse. When drugs are substituted for such procedures, the alternative risks must be weighed. Previous research (Skinner, 2007a) has discussed specific examples where

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71 In Skinner (2007a), I included an explanation of the concept of “weighted risk and benefit” under the discussion of net risk. I have separated the idea to make the distinction more prominent here.

drug therapy is used as an alternative to a number of invasive surgical procedures. In weighing the risk of a particular drug, we must also consider that the risk of a surgical alternative might be higher. The risk of using the new drug must also be weighed against the risk of not using it and leaving the underlying disease condition untreated—often the default alternative. In other words, what is the alternative when a new drug is withdrawn? In many cases, withdrawing a drug may leave no alternatives and this might carry its own risks.

### *Universal risk*

The risk statistically associated with the use of any drug must also be considered in the context of the already accepted risk statistically associated with both the use of medicinal and non-medical products in general. For instance, the public already accepts the risks associated with many common over-the-counter (OTC) drugs, which do not require a prescription and have been on the market for decades. Previous research (Skinner, 2007a) has reviewed specific cases where the risks of OTC drugs have been shown to be equal to those of newer prescription drugs that have been withdrawn from the market because of perceived safety risks. This suggests that both public and regulatory perceptions of risk are often not based on objective standards. Similarly, the public is allowed relatively less regulated access to products that are associated with known significant health risks (e.g., tobacco, alcohol) yet offer no counterbalancing health benefits. One might ask how we can justify a higher standard for safety expectations on drugs, especially if those standards prevent or significantly delay access to new medicines with both measurable risks and benefits? Assessing whether the risk associated with drugs is acceptable should depend at least partially on a comparison of the risk accepted from less-regulated consumption goods. We are constantly exposed to risk in our daily lives even through the most mundane activities and we actually accept significant risk regularly. In many instances, the risks associated with these activities are significant and yet we do not see governments banning or regulating these activities in the same way that they apply to prescription drugs that affect much smaller percentages of the population.

*Identifiable risk*

When a risk is found to be statistically associated with the use of a drug, it is still incumbent on researchers to ask whether there are particular patient characteristics that are statistically associated with the risk so that a warning can be added to the product monograph. If the patient group at a higher risk from a specific drug can be detected, a drug can still be approved for those who face lower risks and the potential loss of health benefits reduced. If the risk characteristics of patients that are associated with adverse reactions linked to the use of a drug can be identified, then a drug can still be safely released to the market with warnings and labels to reduce the risk to particular patients without giving up the potential health benefits for everyone else.



# Why nothing changes: Ideology and information

## Information asymmetry

Policy makers are not usually policy experts and consequently face an information deficit with regard to the performance of current health policy, the causes of health policy problems, and the feasibility of policy options. In order to reduce this information deficit, policy makers rely heavily on the advice of experts in the research community. This advice is communicated either through direct consultation with policy experts or through intermediaries in the bureaucracy. In economic terminology, there is an “information asymmetry” between policy makers and researchers—that is, researchers usually know more about policy than the decision makers know. Lindblom (1968) observed that policy makers are usually faced with extremely complex public policy problems but almost always lack adequate information about these problems and potential solutions. Lindblom also argued that when good information was potentially available, it was also very expensive to obtain. Lindblom (1968) also recognized that there are limits to the human capacity for reason even when adequate information is present. He further observed that it was very difficult for policy makers to agree on values and goals. Finally, Lindblom identified the incentives for organizations to resist information that may adversely affect the interests of the organization or its members. This could lead

policy makers to ignore certain policy options or to reject problem definitions that might lead to certain policy options, even when it would serve the general public interest. Therefore, according to Lindblom (1968), it would be more accurate to see the policy process not as rational decision making, but more like “muddling through.” Information asymmetry also affects the media and public opinion regarding health policy issues. The media depend on the research community to help them define what should constitute a public policy problem, to gauge whether problems are important enough to deserve space on the current media agenda, and to provide authoritative shortcuts to assessing the value and credibility of proposals for reform. The public in turn relies on the media to draw attention to significant health policy issues, explain the causes of problems and the range of feasible alternatives, and to facilitate accountability by identifying the political actors associated with various policy options.

The probability that information asymmetry will cause policy failure increases when the quality of information supplied by the research community could conceivably be distorted by ideological (also referred to as “normative”) biases that develop status quo positions in the discipline, thereby reducing the flow of alternative information and opinion. Ideological bias could create incentives for the research community to discount, dismiss, or ignore empirical evidence that suggests Canadian health policy is failing, or that liberal policies could improve outcomes in the public interest. Ideological bias could also create incentives for the research community to defend their investments in past policy recommendations that produced the status quo in order to avoid admitting error that might undermine the logic of broader ideological values. Finally, ideological bias might tend to encourage “mission creep”—that is, redefining and expanding the minimalist social goals that served as the original justification for state intervention in the health care sector in order to achieve broader ideological goals.<sup>72</sup> This chapter argues that a fairly obvious social-democratic ideological value bias is reflected in the Canadian health policy research literature. There is comparatively little

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72 The earliest published reference to the term and concept that I could find is Einhorn, Jessica (2001).

Canadian health policy research that reflects an identifiable liberal ideological value bias. In general, it is observed that Canadian health policy research tends to categorically reject economically liberal health policies. One explanation for this is that such policies are inconsistent with the dominant ideological bias in the research community.<sup>73</sup>

Researchers have noted the importance of ideological values as a determinant of Canadian health policy. Burke and Stevenson (1998), for instance, have argued that there is a ideological context for understanding Canadian health care policy outcomes. They argue that the issue of reform has always been highly charged with political-ideological struggle. However, a review of the Canadian health policy literature suggests that when the impact of ideological values on health policy reform has been studied, researchers tend to focus on liberal ideological values as a barrier to the expansion of the state in health care (e.g., Tuohy, 1988; Buchanan, 1995; Armstrong, 1997; Burke and Stevenson, 1998). Social-democratic ideological values are not typically discussed as a barrier to health policy liberalization. Bhatia and Coleman (2003) have found that relatively little research has been done on the link between ideas and resistance to reforms that challenge the dominant health policy discourse. They have noted that the dominant policy rhetoric in Canada supports an increased role for the state in health care and this ideological perspective has been surprisingly resilient in the context of significant pressures on provincial health insurance systems. According to Bhatia and Coleman, “from the birth of Canadian Medicare in the 1960s through the late 1980s, a rhetorical discourse dominated Canadian health policy. It focused almost exclusively on the merit of the normative principles of publicly funded, universal and accessible medical and hospital care, and on how to protect and enforce this system better. Beginning in the 1980s and climaxing in the mid-1990s, a challenging discourse framed around the idea of greater

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73 Pauly (2002) has hinted at a similar explanation for resistance to liberal reforms of the British National Health Service.

private financing gained prominence and currency, but failed to take hold” (Bhatia and Coleman, 2003: 729–30).<sup>74</sup>

## Social determinants of health

Evidence that ideological values might be an important influence among Canada’s health policy research community is also apparent from a qualitative analysis of the theoretical frameworks and rhetorical language found in the Canadian literature. For example, one substantial school of thought within the Canadian health policy research community has been collectively referred to as “sociological perspectives” on health (Coburn, D’Arcy, and Torrance, 1998). The literature on sociological perspectives of health policy is characterized by two main themes of study. The first of these themes is concerned with the dominant concepts that define health and health care. This theme identifies a conflict between traditional views of health care and the sociological view. The traditional view is represented by the medical model of western health systems, which is individualistic in its emphasis on the treatment of illness as well as the reduction of negative externalities caused by epidemic threats to the public health. By contrast, the sociological perspective is collectivistic and emphasizes the improvement of population health as a statistical aggregate. The sociological perspective stresses the importance of what is termed the “social determinants” of health. These social determinants include variables such as income, employment, education, housing, and nutrition, as well as access to health care services as major factors statistically correlated with population health outcomes. It is also influenced by a dominant concept of health and health care which views the goals of health policy in broadly egalitarian socioeconomic terms. Researchers from the sociological perspective on health care tend to advocate that governments should ensure not just that health insurance coverage is equally available to everyone, but

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74 Herzlinger (2007) has also identified ideological values as an explanation for resistance to economically liberal health policy reform in the American research community. See chapter six in Herzlinger (2007).

also that personal health outcomes are equal for everyone too. The rationale for this view is based on research suggesting a statistical correlation between differences in various indicators of wealth and population health outcomes (Mhatre and Deber, 1992). Such analyses imply that massive increases in state involvement in the economy to redistribute wealth are justified on the grounds of achieving “equitable access to health,” not just equal access to health care (Mhatre and Deber, 1992: 645)—a policy goal laden with socially egalitarian, ideological norms that are inconsistent with the socially minimalist rationale originally offered for state involvement in medical insurance and medical services.<sup>75</sup>

The view that Medicare was originally intended to be based on socially minimalist goals has been confirmed by Quebec’s Clair Commission report, which noted that “the notion underlying our health and social services system is that there should be public insurance to protect against the serious risks related to illness, that is, mainly ‘curing’ and ‘caring.’ When the system was first established, the aim was to provide every person with access to hospital services, and later to medical services, regardless of ability to pay. This is why the two primary pillars of the current system were called ‘hospital insurance’ and ‘health insurance’” (Clair, 2000: 128). Despite the socially minimalist rationale originally used to justify Canada’s current health policy structure in its beginning, the dominant focus of the Canadian health policy research community has evolved toward policies that promote socioeconomic egalitarian outcomes. This evolution has been facilitated by the introduction of a new socioeconomic political discourse focused on redefining the predominant concepts of health and health care. This discourse argues that the goal of health policy is to improve aggregate “population health.” Population health views of “health” are opposed to the traditional medical model of health care. The population health school of thought sees the determinants of health

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75 It could also be argued that conclusions drawn from such analyses suffer from the logical error of assuming causality between two variables that just happen to be statistically correlated by coincidence. The analyses also imply (however implausibly) that it is possible for the state to equalize health outcomes among all people at the level of the healthiest people in society.

in broad socioeconomic and environmental terms and proscribes a collective response to prevention as a solution. The population health view implies that individuals have a “positive” right to a publicly guaranteed health status. The traditional view sees health as the absence of illness and employs medical science to treat and cure illness if and when it arises. The traditional medical model assumes that health is an individual responsibility and does not prescribe state intervention except to prevent negative externalities like contagious epidemic disease.

## **Class-based analyses**

Another less common but parallel perspective in the Canadian health policy literature is neo-Marxist class theory. This approach attempts to explain health policy outcomes in terms of the interests of a “dominant capitalist class” in the policy-making process. According to this view, the dominant capitalist class actively and consciously instituted a publicly financed health insurance program, but left the medical profession in a dominant and semiautonomous position within the system in order to offload to the public the costs of providing a healthy pool of labor for industry. This was done to forestall the outright nationalization and socialization of the health industry altogether.

Torrance (1998), for instance, offers an analytical framework that is a mix of the medical dominance approach and Marxist class-based analysis. Torrance offers a sociological and historical review of the development of the Canadian health system. He employs a comparative analysis of the evolution of Canadian health policy relative to other western countries over the same time period. Overall, the analysis is approached from a class-based perspective. Changes in Canadian health policy are seen to be the result of the conflict among competing social classes. However, doctors in particular are seen to have been a crucial obstacle to the creation of a fully socialized medical system in Canada. According to Torrance, the result was the preservation of the medical model with the maintenance of the monopoly position of doctors as professional elite in health policy-making and the management of the system. This, in turn, led to the public finance/

private operation model of health care, or government health insurance instead of government health care.

Some works cited in the Canadian health policy literature explicitly view policy outcomes and process in terms of societal class interest and apply neo-Marxist analytical frameworks. In *State, Capital, and Labour: The Introduction of Federal-Provincial Insurance for Physician Care in Canada*, Walters (1982) examines the origins of public insurance for physician care in Canada. Walters's perspective remains explicitly Marxist in orientation in that events that occurred throughout the development of Canadian health policy are characterized in terms of class conflict and other socialist theoretical concepts like the surplus value of labor and the state as an agent of capitalism. Walters argues that the capitalist class was in control of the state at the introduction of Medicare in Canada. Therefore, according to Walters, by nationalizing health insurance, the state was acting in the long-term interests of the capitalist class by shifting the economic costs of illness borne by business<sup>76</sup> onto the public purse, while at the same time increasing the productive capacity of labor.

Swartz (1993) also employs a class-based analytical framework toward the study of Canadian health care policy. Swartz argues that Canada's public health system resulted from a "protracted industrial and political struggle by the labour class." According to Swartz, governments acquiesced to demands from the labor class for public health insurance due to their fear that a refusal would engender labor hostility and increase the potential for the success of socialist political parties and ideas. However, according to Swartz, instead of introducing a socialized system of medicine that would have meant the nationalization of hospitals and clinics and the salaried employment of physicians, the governments opted for a system limited to public health insurance only. This meant that health insurance was brought in without changing the privileged position of

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76 The costs of health insurance are not ultimately borne by business, but by employees in the form of opportunity costs because their potential cash wages are supplanted by health insurance benefits. Consumers also ultimately bear all business costs, which are eventually transferred into the prices of goods and services.

physicians as a professional group or abolishing the private ownership and operation of hospitals.

Navarro (1994) is also explicitly identified with Marxist approaches to the analysis of health policy and widely cited in the Canadian literature. Navarro attributes the absence of a national government-run universal health insurance program in the United States to a weak and fragmented labor movement and the lack of a national social-democratic political party. Navarro argues that there is a link between states with strong labor movements and powerful socialist political parties and the development of public health insurance schemes. According to his view, “corporatist” health schemes like those of the US are the result of alliances between “feudal elites and the capitalist classes and seek to divide the loyalty of labour by imposing employment based health benefit schemes.”<sup>77</sup> Therefore, the collective will for a nationalized system of health care is undermined and Navarro believes that the working classes end up settling for less than an ideal system.

Another view that seems to borrow from the Marxist perspective is provided by Renaud (1987). Renaud attempts to explain why the social-democratic philosophy that was used as the rationale for the increase in state authority over health care in Quebec was not fully attained in policy outcomes. To explain why the results failed to match the ideals

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77 Despite Navarro’s ideologically charged, historically constructionist explanation for the structure of US health insurance, the simplest explanation is that it is just an accident of history. During the Second World War, the US government imposed wage and price controls on the national economy. Employers faced shortages of labor due to conscription, but the shortages could not be addressed by raising wages due to federal regulations. Employers discovered that they could substitute health insurance benefits for cash income without violating the wage control laws. These benefits were attractive because they were not taxed like cash income. This made the actual economic value of the insurance benefits higher than if the cost of insurance was simply paid out as cash income. The tax advantages remained in place after the war because proposals to tax these benefits like income were highly unpopular. This has created a distortional effect on insurance coverage. Self-employed Americans must pay for insurance with after-tax income, making the effective price much higher for them. This might explain why self-employed Americans make up such a large percentage of the uninsured population in the US despite having high average incomes.

of reform, Renaud explains the actual outcomes as resulting from class conflict between the “new technocrats” and the “professional monopolists” (health professionals). According to Renaud, this conflict “prevented the imposition of a full social vision for health care and instead left an element of private practice in place.” Additionally, Renaud believes that in a capitalist society the state itself serves to prevent revolutionary changes. Therefore, the Quebec state prevented the complete nationalization of the health sector because it represented the interests of the dominant class and their resistance to socialized medicine.

## Ideologically charged rhetoric

Canadian health policy experts frequently criticize the private sector in ideological terms and use ideological rationales for advocating government control of the health care sector.<sup>78</sup> For example, some have argued that the profit motive is an ethically negative force in health care (e.g., Evans, 1997a, 2005a, 2005b), that profits earned in the health care sector are “excessive” (e.g., Evans, 1997, 2005a, 2005b; Morgan, 1998),<sup>79</sup> and that government intervention in health care is preferred on the basis of redistributive rationales (e.g., Maynard, 1981; Evans, 1984, 1997a, 2000, 2002a, 2002b, 2005a, 2005b; Mhatre and Deber, 1992).<sup>80</sup> Nationalistic

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78 In one published exchange, Pauly (1997: 469) and Gaynor and Vogt (1997: 489, 491) explicitly alleged that anti-liberal ideological bias is a motivating influence in the work of prominent Canadian health economist Evans (1997a, 1997b). Blomqvist (1994: 17, note 16) has observed that “Evans and his coworkers have had a profound influence on health policy in Canada over the years.”

79 These analyses do not acknowledge that the salaries and wages paid to health professionals, health policy experts, or health ministry employees are also “profits” from the sale of labor services; they do not define how much profit is “too much” profit; and they fail to explain how to incentivize the innovation and production of medical goods and services without a profit motive, the alternatives to which are altruism (unrealistic) and force (unjust).

80 Wealth redistribution is not supposed to be the purpose of a health insurance program. Wealth disparity can be solved more efficiently and more honestly by simply

rhetoric has also been frequently used to oppose health policy liberalization. Advocates of economically liberal policies are often accused of wanting to “Americanize” health care (e.g., Evans, 2005a)<sup>81</sup> or the status quo is advocated on the basis of nationalistic symbolism associated with Canada’s particular approach to health policy (e.g., Marmor et al., 2002). A ideologically charged negative view of the patented prescription drug industry in particular is frequently expressed by health policy experts in Canada (e.g., Lexchin, 1998, 1999, 2001a, 2001b). In some cases, Canadian health policy experts have used quite extreme ideological language (e.g., Evans, 2000, 2006; Cassels, 2003; Maynard, 2005).<sup>82</sup>

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transferring income directly between individuals.

81 Fears of Americanization are not empirically based. The few researchers in Canada that advocate market-based policy alternatives tend to point to policy trends observed in other countries (mostly European) that have similar social goals to Canada regarding universal health insurance, but also increasingly rely on more liberal policies to achieve those goals. The direction of reform in most of these countries is toward liberalization and away from state-based central-planning approaches. The problems with US health care also have much to do with government intervention. For example, the US tax code distorts the health insurance market by giving tax preference to health insurance paid for by employers. This means that when people change jobs in the US they often temporarily lose health insurance benefits. The self-employed also pay an effectively higher price for insurance because they must buy it from after-tax income. This discourages them from buying it. These two groups of people explain a large percentage of the population without health insurance in the US (Mays and Brenner, 2004; BCBS, 2005). US federal and state governments also heavily regulate health insurance markets, and nearly half of all health spending in the US is publicly funded. In fact, the most recent internationally comparable data show that in the United States government’s spending on health care was the same percentage of GDP (6.9%) in 2004 as government spending on health care was in Canada (6.9%) (OECD, 2006).

82 Examples of ideologically charged rhetoric directed at the patented drug industry include the following published statements: “Would Astra-Zeneca, if they thought it would work, hire someone to go out and smash Anne Holbrook’s kneecaps? Probably not, but not because it would be wrong, but rather because it would be unprofitable. It will not be profitable because it is unlawful and all kinds of bad things could happen. But should we as a research community not now regard and treat the people who work for Bristol-Myers Squibb or the people who work for Astra-Zeneca as if they were members of the Mafia, as if they were people who hire thugs to intimidate members

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of our community in their own interests? To date, we do not and have not. But why not? Is it because they simply have too many resources at their disposal?" (Evans, 2000: 12). "In other words, individuals who choose to work for organizations that hire thugs to go out and kneecap people, or that hire firms such as Smart & Biggar to go out and do the kneecapping financially and legally, must be ostracized in ways that make it increasingly difficult for the corporations behind them to find willing footsoldiers for their sordid agendas. We must label those folks and treat them as what they are, which is a brand of white-collar mafia. But that is very rude language; that probably makes people wiggle uncomfortably. These are, after all, folks that look like us, that are clean and well-dressed and support research (indeed, some even do research) and make all the right noises. These are not people who look like Edward G. Robinson in the bath with his cigar. But regardless of what they look like, the tactics amount to thuggery, and are undertaken because they are profitable and for no other reason" (Evans, 2000: 20). "Of course, companies are made up of people and most of the people who work in companies, including drug companies, are in fact moral beings. People do things and believe in what they do, and the people who work with drug companies probably believe that they're doing something important, too. And, of course, to some extent they are. There's no question about the benefits that we derive from drugs. So what you have is an amoral, profit-driven organization absorbing more or less moral people who have to spend time shutting their eyes" (Evans, 2006: 35). "Large companies, fiercely fighting for customers, are constantly seeking to expand the definition of depression and so increase the numbers who need treatment. In such a milieu, tragic events like 11 September, 2001 are seen as marketing opportunities, as excuses to flog more treatments for 'post traumatic stress disorder'" (Cassels, 2003: 362). "Government action to redistribute and protect the disadvantaged has political and social benefits. A nice present day example of this is China. Since the adoption of the 'capitalist path' in China, economic growth has created large inequalities in the distribution of income and wealth, particularly between urban and rural areas. Furthermore, the Maoist system of public health with efficient monitoring of disease and the provision of basic programmes of prevention and care ensured both the control of infectious diseases and a reduction in relative and absolute mortality rates. Come economic liberalisation since 1989 in China, come the collapse of this system and the development of major public health challenges (e.g., SARS, HIV-AIDS, and TB) and inequalities in health care provision that challenge the survival of the Communist Party. This challenge is now being met by redistributive policies to restore rural health care, improve public health surveillance and control and mitigate the political consequence of gross inequality" (Maynard, 2005: 239).

## **Balance of information commissioned by governments**

Canadian policy makers might also be affected by an imbalance of information when governments have surveyed expert opinion. The information that has comprised the basis for government-commissioned health policy reports has tended to heavily favor the status quo or advocate greater state intervention in health care. At the same time, expert opinion surveyed in official reports has also tended to ignore or oppose economically liberal problem definitions or policy reforms. The bulk of expert opinion regarding health policy is also expressed using overtly ideological political language. In order to demonstrate this proposition, a comprehensive, detailed review of the research base and expert opinion that has informed two recent federal government-commissioned health policy studies was conducted. Studying the content of health policy reports at the federal level is important because the Canada Health Act remains a significant federally imposed institutional barrier to liberal health policy reform in the provinces.

The influence of social-democratic ideological values on government-commissioned health policy reports is evident from the beginnings of Medicare. Vaughan (1972) has argued that Justice Emmett Hall, who chaired the 1964 federal Royal Commission on Health and the 1979 federally commissioned Health Services Review, was heavily influenced by social-democratic ideological values. The 1964 Hall Commission recommended federal-provincial cost sharing to encourage the nationwide adoption of publicly administered and funded universal health insurance programs covering hospital and physician services, which was fully achieved in all provinces by 1971. According to Health Canada (2004), the 1964 commission “held 67 days of public hearings in all provinces and in Yukon, visited and studied health care systems in several other countries, received submissions, heard individuals and delegates from 406 organizations, and commissioned 26 research studies.” Taylor (1978: 338) mentions more specifically that of the more than 400 submissions received by the 1964 commission, there were “thirty-five briefs submitted by the CMA and each of its divisions, by all the prepayment plans, and by spokesmen for the insurance industry and the chambers of commerce.” Taylor also indicates

that almost all of the recommendations of the CMA, prepayment plans, insurance industry, and chambers of commerce were rejected by the Hall Commission in its final report. The background reports to the 1964 and 1979 Hall Commissions were not examined for this analysis. However, the policy outcomes suggest that liberal economic views (based on Taylor's account of the substance of the policy positions of the aforementioned groups) were not as numerous, and not as persuasive to the 1964 Hall Commission, as the remainder of the submissions. This observation is probably also true regarding the base of expert opinion surveyed by the 1979 Hall Commission which produced recommendations that were later legislated in the Canada Health Act (1984).

The two more recent federal commissions examined in this paper are the National Forum on Health (1998) and the Commission on the Future of Health Care in Canada (2002), commonly referred to as the "Romanow Commission" after the name of its chair, former Saskatchewan NDP premier Roy Romanow. According to the report of the National Forum on Health, "in October 1994, the Prime Minister of Canada, The Right Honourable Jean Chretien, launched the National Forum on Health to involve Canadians and advise the federal government on innovative ways to improve the health system and the health of Canada's people. The Forum was set up as an advisory body with the Prime Minister as Chair, the federal Minister of Health as Vice Chair, and 24 volunteer members who contributed a wide range of knowledge founded on involvement in the health system as professionals, consumers and volunteers" (National Forum on Health, 1998: vii). The forum produced a five-volume report comprised of 51<sup>83</sup> background papers solicited from "the most eminent specialists in the field" by the forum's membership panel (National Forum on Health, 1998: vii). According to the final report of the Romanow Commission, "in April 2001, the Prime Minister established the Commission on the Future of Health Care in Canada ... [its] mandate was to review medicare, engage Canadians in a national dialogue on its future,

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83 On page vii in the foreword to the National Forum on Health volumes, the report states "The Forum based its recommendations on 42 research papers written by the most eminent specialists in the field." However, I counted 51 studies in the five volumes.

and make recommendations to enhance the system's quality and sustainability" (Romanow, 2002: xv). The commission "organized expert roundtable sessions"; "commissioned independent experts to conduct original research"; and "met directly with Canada's foremost health policy experts" (Romanow, 2002: xv). The Commission's final report was a synthesis of a series of cross-country public consultations and 40 background papers submitted by selected experts.

Skinner (2009) conducted a content analysis in order to summarize, describe, and categorize each of the background papers submitted by the experts selected by the two commissions. The results showed that none of the 51 background papers solicited by the National Forum on Health emphasized private-sector, economically liberal reforms in its principles or recommendations. In most cases, the recommended policy approaches advocated a greater role for the state in the health care sector and the further curtailment of any existing role for the private sector or for economically liberal policies. The qualitative content of the language used in these papers was frequently ideological. An analysis of the Romanow Commission background papers returned similar findings. Only one of these papers explicitly recommended economically liberal approaches to health policy reform. The language and analytical focus again tended to be politically ideological, and implicitly or explicitly opposed to economically liberal health policy reforms. Overall, out of a total of 91 expert reports accepted by these two commissions, 76 emphasized, assumed, or preferred state-based approaches to health policy; one emphasized, assumed, or preferred economically liberal approaches to health policy; and 14 were either neutral, not addressing policy options, or did not indicate a preference for either state-based or economically liberal approaches to health policy.

The policy themes reflected in the reports submitted to these two recent federal commissions are mirrored in the background research informing several provincial health commissions, and this in turn has been reflected in recommendations produced at the provincial level. Mhatre and Deber (1992) published a detailed study of provincial health commission reports issued during the period 1987–1992 in Alberta, Saskatchewan, Quebec, New Brunswick, Nova Scotia, and Ontario. They concluded that

there were several “recurring themes” (Mhatre and Deber, 1992: 655) including (among other things): (1) adopting the social determinants of health framework for policy and “broadening the definition of health”; (2) further efforts at reorganizing central-planning approaches and models through “establishment of councils, coordinating bodies, and secretariats”; (3) efforts to make central rationing decisions more efficient through “technology assessment”; and (4) moving physicians from fee-for-service (a characteristic of professional autonomy) to salary or capitation arrangements (more closely analogous to direct employment in civil service) with “emphasis on alternative methods for remuneration of physicians” (Mhatre and Deber, 1992: 655).

Ideological values probably contribute to creating an information deficit for health policy-makers in Canada. The practical effect of this information deficit is to discourage health policy liberalization in Canada. A review of the literature suggests that social-democratic ideological values have a significant influence on health policy research in Canada. The Canadian health policy research community has displayed a tendency to ignore or dismiss empirical evidence that suggests Canadian health policy is failing in any significant way. The research community also tends to restrict its discussion of feasible policy alternatives to a range of options that entirely excludes economically liberal approaches—even incremental or moderate reforms of this type. As evidence of current policy failures has mounted, the tendency has been to redefine the rationale that sets the boundaries for state involvement in health care in Canada. Minimalist social goals that once served as the original rationale for state intervention in the health care sector have evolved to include social equity, which then justifies greater state control. The result is that Canadian health policy shows signs of what organizational theorists might call “mission creep.” As Mhatre and Deber (1992: 645–46) observed, “formerly, the objective of Canada’s health care system was equality of access to medical care. This objective has largely been achieved. However, class disparities in health remain, although these have been substantially reduced from the pre-Medicare period. The policy success has forced Canadian policymakers to recognize the limits of medical care in achieving health. Consequently, a ‘new’ policy goal has been proposed: achieving equity of access to health.”



# Why nothing changes: Interest group incentives

## Rational choice theory

This chapter applies a rational choice (aka “public choice” or “political economy”) theoretical framework to understand health and prescription drug policy outcomes in Canada. Rational choice theory starts with the assumption that people are motivated as much by their own self-interest in political actions as they are in economic decisions.<sup>84</sup> Or as Becker (1983: 371) has put it, “the economic approach to political behaviour assumes that actual political choices are determined by the efforts of individuals and groups to further their own interests.” The theory proposes that politics and public policy outcomes can best be understood and explained by analyzing the particular set of incentives faced by political actors in much the same way as the science of economics attempts to explain and predict the behavior of firms and consumers in a market (Tullock et al., 2002). This chapter applies the assumptions of rational choice theory to analyze the influence of special interest groups on the health policy process in Canada. More specifically, this study applies the rational choice

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84 For an explanation of the fundamentals of the theory of rational choice (aka public choice), its history and development, see Mueller (1997).

theoretical concept of “rent seeking” to offer a potential explanation for resistance to health policy liberalization in Canada.

Democratic governments are routinely lobbied by special interests attempting to influence the outcomes of public policy. Most observers would see this as a normal and healthy part of democratic politics. However, when special interests seek to use the legislative and regulatory power of the state to benefit themselves at the expense of, or to the exclusion of, others, the results are often economically less efficient. The self-serving influence of special interests is also often deemed to be ethically illegitimate. Rational choice theory labels such undesirable political behavior “rent seeking.” In the simplest terms, rent seeking is the pursuit of state-imposed wealth transfers or other political favoritism by special interest groups. Rational choice theory uses the concept of rent seeking to explain why public policy outcomes in liberal-democratic societies often contradict classical liberal political and economic ideals regarding fairness (equal treatment of individuals under the law), economic rights (respect for private property rights, voluntary transactions, and free markets), and socioeconomic rationality (maximizing net benefits for the general welfare of the population over the long run). Examples of rent-seeking accommodations include policies that publicly redistribute privately held wealth or property, policies that establish special privileges that are denied to the rest of the population, or policies that create artificial advantages or barriers against competing economic interests. Rent seeking is the rational choice concept describing the political behavior of interest groups who pursue state policy favoritism.<sup>85</sup>

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85 In economic terms, “rent” is defined simply as profit. However, when used in the context of rational choice theory, rent has by implication come to mean not simply profit, but more accurately “unearned profit.” Tollison (1997) originally defined rent seeking simply as “the socially costly pursuit of wealth transfers.” Tullock (1980) argued that expenditures made to capture a wealth transfer also carried a social cost. The social cost occurs because the resources used to pursue transfers have a positive opportunity cost somewhere else in the economy. That is, the money, effort, time, or other resources could have been used in pursuit of more profitable activities. Therefore, the opportunity cost of rent seeking results in net losses to wealth if calculated on a society-wide basis. Using economic resources to lobby for tariff protection

It is important to note that there are political factors that facilitate rent-seeking behavior among special interests. One factor is the incentives facing political decision makers. According to rational choice theory, it is simply more expedient for election-oriented politicians to accommodate special interests instead of implementing public policies that improve general welfare. This is because organized special interest groups are more successful at attracting members if they offer some benefit that is unavailable to non-members. Thus, interest groups have an incentive to seek wealth transfers and other special privileges from governments. Since interest group members personally benefit from, and are better informed about, the impact of a public policy on their particular interest, they have a greater incentive to vote (Riker, 1962; Olson, 1965). Politicians are aware of this and have a short-term electoral incentive to offer public transfers and special privileges in exchange for interest group efforts to mobilize

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against competition from imports is an example of rent-seeking behavior. According to Tullock's definition, rent seeking is undesirable only if it results in net social costs. However, Tullock's definition is perhaps too limited in the context of the traditional liberal political values that inform rational choice theory. Classifying special interest political behavior as rent seeking does not require evidence of net social economic costs from such transactions. Rational choice grew out of the academic discipline and traditions of liberal economics. It is built on an ideological framework which holds that the ideal function of democratic government is to make choices on behalf of the public interest, and to select policies that improve the general welfare of society while protecting individual rights (Buchanan and Tullock, 1962). The ideological framework of rational choice is therefore identifiable as classical liberalism (Dunleavy, 1991). The phrase "wealth transfers" implies the use of force (by the state through legislation, regulation, taxation, etc.) and is conceptually distinct from voluntary exchange, which is the ideological ideal for liberal conceptions of markets. Therefore, by definition, wealth transfers are achieved by state restrictions on or violations of voluntary exchange. Rational choice is therefore best described as a theory which uses the concepts of economics to explain why public policy often diverges from liberal-democratic ideological ideals for governance. By implication, rational choice theory considers rent-seeking undesirable not just because it is economically costly, but also because it is morally illegitimate—or has a justice cost. However, in the analysis presented in this paper, rent seeking is defined simply as the self-interested pursuit of government-enforced transfers of wealth, grants of special privileges, or the unequal imposition of advantages and disadvantages.

the support of their members. Similarly, organizations with small memberships, but which represent wealthy special interests (like trade associations), can offer financial support to political parties and candidates in exchange for favorable policy treatment. Information asymmetry can also increase the influence of special interests on the policy process. Tullock (2002), for instance, has argued that there is often information asymmetry between the general public and relatively more knowledgeable policy makers and this makes it easy for politicians to ignore the public interest. At the same time, special interest groups develop an expertise in health policy areas that affect them, and as a group they are not as vulnerable to the same information asymmetry as the general public. As a result, the knowledge balance often favors special interests in their relations with policy makers. According to Tullock, this increases the incentives for policy makers to pay attention to the demands of special interest groups, and hence raises the influence of these groups in the policy process.

Finally, it is important to acknowledge that state policy favoritism toward rent-seeking interests is not always obvious. Regulations that nominally seem to restrict the economic freedom of some interest groups may actually work to their economic advantage. Stigler (1971) has observed that regulation often, counterintuitively, serves the rent-seeking interests of the regulated and that such groups have incentives to demand that they be regulated. Regulations that are advocated on the basis of public interest concerns can create arbitrary advantages for special economic interests and raise the cost of competition for their economic rivals. According to Stigler, a widely held view “is that regulation is instituted primarily for the protection and benefit of the public at large or some large subclass of the public” (Stigler, 1971: 3). However, “regulation may be actively sought by an industry ... as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit” (Stigler, 1971: 3). The case study presented below borrows from the analytical approach used by Stigler (1971) to demonstrate his “theory of economic regulation.” Stigler’s approach was to “assume that political systems are rationally devised and rationally employed, which is to say that they are appropriate instruments for the fulfillment of desires of members of the society. This is not to say that the state will serve any person’s concept of the public interest: indeed

the problem of regulation is the problem of discovering when and why an industry (or other group of like-minded people) is able to use the state for its purposes, or is singled out by the state to be used for alien purposes” (Stigler, 1971: 4).

The following sections discuss how various special interests might benefit economically from government intervention in health care markets in Canada. The special interests identified below therefore have potentially significant economic incentives to resist economically liberal health policy reforms.

## **Patented versus generic drug interests**

There are a variety of federal and provincial public policies that have been previously identified as contributing to inflated prices for generic drugs in Canada (Skinner, 2004a, 2005a; Skinner and Rovere, 2007d; Skinner and Rovere, 2008d). The aggregate impact of these public policies has been to inhibit the downward pressure on the retail prices of generic drug products that would occur under competitive market conditions. The most recent analysis estimates that inflated generic prices in Canada directly cost the Canadian market \$2.9 billion annually (2007 estimate) in unnecessary spending on generic drugs (Skinner and Rovere, 2008d), or about 14% of total retail expenditures of \$20.9 billion in 2007 on all prescription drugs (IMS Health Canada Inc., 2008). Research (Skinner, 2009) strongly suggests that various prescription drug policies in Canada have worked to uniquely advantage or benefit the domestic Canadian generic drug industry, which likely provides incentives for the generic industry to support government intervention in prescription drug markets.

For instance, previous research (Graham, 2000; Skinner, 2004a, 2005a; Skinner and Rovere, 2007d, 2008d) has explained how, paradoxically, federal price-control rules on patented drugs contribute to high generic prices in Canada. For drugs that treat the same health condition, the highest existing price is used by the federal government as a reference for establishing the maximum allowable price for new patent-protected drug formulations entering the market. When patents expire on

brand-name drugs, generic drugs enter the market to compete for sales of those products. Yet despite these competitive pressures, manufacturers do not typically reduce the prices of post-patent brand-name drugs. This is because doing so will lower the maximum allowable entry price allowed by federal regulations for any new drugs they develop. The price-control rules therefore act to fix brand-name drug prices at their introductory patented levels even in the face of competitive market pressures that would normally encourage price reductions after patents expire. And because generics are reimbursed at a percentage of the brand-name price, the prices of generics end up being higher than they would be if the price-control rules did not discourage the post-patent brand-name price from moving downward.

For another example, in Canada there are no federal price controls on non-patented drugs. However, there is indirect state intervention in generic drug pricing that occurs, for example, in the listing of drugs for public reimbursement through the Ontario Drug Benefit (ODB) Formulary. Until 2007, the rules that the province applied to the formulary required first-entry generic drugs to be priced no higher than 70% of the price of the original patented drug, while subsequent generic market entries were limited to 90% of the price of the first generic. As of 2007, reimbursement of all generics has been reduced to 50% of the original patented drug price. While Ontario's public reimbursement rules seem to be a form of price control on generic prices, the actual effect of the rules is to create a higher price ceiling for generics than that which would occur if competitive market forces were not inhibited from affecting drug prices. This is because of the interaction of several aspects of public reimbursement approaches. Public drug programs in Canada direct the reimbursement of prescriptions to pharmacies instead of consumers, and most public drug plans do not require a proportional coinsurance payment to be paid by the program's beneficiaries whenever they purchase a prescription drug.<sup>86</sup> This insulates consumers from the cost and removes incentives

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86 Alternatively, public drug plans could be restructured to directly and retroactively reimburse the program's beneficiaries, and only at a partial percentage (e.g., 75%) of the total cost of their prescription. While some jurisdictions in Canada impose

for comparative shopping that would put downward pressure on prices. Public drug programs (like the Ontario Drug Benefit plan) also reimburse generics at a fixed percentage of the patented original drug. Under this policy, there is no price competition between generic drug makers for sales to the public drug plan because the buyer (government) offers every seller the same price and the price is known in advance, so every generic manufacturer sets their list price to the maximum reimbursement allowable. There are few generic competitors in Canada, and the larger established companies exploit this reimbursement system to offer pharmacies rebates that are bundled across many products in exchange for exclusive distribution rights. Yet, because pharmacies are reimbursed directly, the bulk discounts are not passed on to consumers. Finally, any reduction in the reimbursement rates offered by government payers can be offset by inflating retail prices charged to private payers (Skinner, 2004a, 2005a; Skinner and Rovere, 2007d, 2008d; Canada, Competition Bureau, 2007). Current and previous legal actions by the provinces of Ontario (Canadian Press, 2009, April 27) and Quebec (Bueckert, 2003, February 28) confirm this analysis.

## Medical professionals

It is also useful to consider the incentives that might encourage health professionals to oppose economically liberal health policy reforms in Canada. As discussed in the previous chapter, many analyses in the Canadian health policy literature hold the view that physicians are resistant to a greater role for the state in health care because doctors benefit as a group from the status quo (e.g., Coburn, 1998). It is true that physicians collectively opposed the introduction of single-payer government health insurance in Canada

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copayments on beneficiaries of their public drug plans, the copayments are usually not structured appropriately. In order for a copayment to be effective it must be calculated as a percentage of the price. Where copayments exist in public drug plans, they are usually set at capped dollar amounts (e.g., consumers pay the pharmacy dispensing fee) (Graham and Tabler, 2005).

(Taylor, 1978). It would therefore seem natural to assume that physicians would support health policy liberalization in Canada. However, the historical evidence suggests that physicians have consistently supported the status quo both before and after Medicare was introduced. Naylor (1986), for instance, examined the major determinants of the Canadian medical profession's perspectives, policies, and pressure group activities in the field of state health insurance between 1911 and 1966. According to Naylor (1986), before the introduction of state health insurance, physicians welcomed government involvement, but only on a limited basis. This limited role for the state involved the institutionalization of professional autonomy as well as the enforcement of a monopoly (through medical licensing) in the medical services market for doctors. Naylor (1986) argues that during the development of Canadian Medicare, medical doctors tended to endorse policies that maintained these privileges. This resulted in a pattern of practice where doctors remained self-employed, self-regulated providers of medical services operating on a fee-for-service basis. Therefore, Naylor (1986) suggests that the main obstacle to the creation of fully government-run health care, as opposed to government-funded health insurance, was the resistance of physicians acting as a professional group. Naylor (1986) suggests that the professional opposition of physicians was not motivated only by material self-interest. He attributes the resistance to government involvement largely to the culture of doctors that valued professional autonomy. Nonetheless, he argues that support among physicians for public health insurance increased as they discovered the material benefits of the Medicare system. These benefits involved guaranteed payment, lower administrative costs, and the entrenchment of the licensing monopoly of doctors and the medical model of delivering health care.

The historical resistance of physicians to state involvement in health care followed by support for state involvement is not necessarily a contradiction if viewed from the perspective of physician perceptions of relative benefit under the status quo. Recall that, in chapter one, evidence was presented suggesting that physician earnings have actually declined since the early 1970s (in real terms after adjusting for inflation) compared to average domestic wages (Mullins, 2004), and in absolute terms compared to US physician earnings (Skinner and Rovere, 2007a). Yet, it is also true that

physicians have tended to earn above-average incomes relative to referent groups within and outside the health care system, both before and since the introduction of Medicare. It is therefore probably most accurate to see health professionals as being conservative about policy change because, relative to other income-referent groups, they perceive a relative benefit from their professional designation and associate this with the status quo policy regime. The lost potential for increased earnings that could come from health policy liberalization in Canada are “opportunity costs,” and therefore are not as obvious to physicians as the measurable differences between doctors’ incomes and the incomes of other health professionals or occupations outside the health care system. Policy stability is therefore highly valued by physicians and this is a likely explanation for their historical resistance to any policy change, including economically liberal reforms.

Historically, as a professional group, nurses have consistently tended to support government involvement in health care. As a group, physicians have probably been proportionally more inclined to support health policy liberalization than nurses because the self-employed entrepreneurial structure of physician practice makes it possible to take advantage of the economic opportunities that a more liberal health policy environment might provide. By contrast, despite their increasing professionalization, nursing associations have historically faced economic incentives to act more like labor unions because the work of nurses is structured on the basis of dependent employment within large hospitals. Nurses lack the self-employment autonomy associated with private professional practice. Not being entrepreneurial by practice model, nurses are probably not inclined to see health policy liberalization as providing any greater economic opportunities than the status quo. Nursing associations might assume that they exercise far more leverage to negotiate with policy makers in a politicized environment at a centralized provincial level than would local associations or unions in collective bargaining with individual hospitals. Despite the fact that nursing wages in the United States (where nurses do not organize on a state-wide basis) have tended to be higher than rates paid in Canada, information asymmetry about potential wage gains under private-sector financing might prevent nurses from being aware of the opportunity costs they incur under the status quo. As

a professional group, nurses have incentives to resist the liberalization of health policy. Instead of advocating fundamental reforms to the financing of health care in Canada, nursing leaders have tended to focus on affecting the balance of power within the current policy environment between physicians and other health professionals, especially regarding the scope of practice.

Physicians and nurses are also incentivized to be rival interests because, under the current health policy regime, professional wage rates are centrally determined by provincial policy makers and the allocation of spending under provincial health budgets is perceived as a zero-sum game. That is, if policy makers decide to increase the earnings of physicians, there is necessarily less left over to accommodate wage increases for nurses and vice versa. Under the current policy regime, any observed competition for policy-making power between physicians and nurses could be interpreted as a professionally self-interested struggle for scarce resources in a zero-sum game. Similarly, the interests of physicians and pharmacists are also incentivized to be competitive within the prescription drug policy community. Physicians have exclusive legal authority to prescribe controlled medications. This gives them the unique power to act as gatekeepers for consumer access to drugs. Pharmacists have recently begun mobilizing significant political efforts to encourage governments to grant them some limited prescribing authority. The province of Alberta has recently enacted such a policy and other jurisdictions already allow pharmacists to override a physician's prescription to substitute not only generic versions of a prescribed patented drug, but also generic versions of drugs deemed by the state to be therapeutic substitutes for a prescribed patented drug. These policy changes have important implications for the economic interests of pharmacists because, as explained in the case study of the competing interests of the patented and generic drug industries, pharmacists disproportionately benefit financially from the sale of generic drug products at the retail level and therefore have an economic incentive to seek control over what kind of drugs are ultimately dispensed to consumers.

## Private-sector health insurers

The public/private split of the Canadian health system has excluded private insurers from covering medical services like hospitals and physicians. However, even though government drug programs insure about one third of the population, private insurance coverage for outpatient prescription drugs has historically been permitted by the state and most of the working-age population obtains such coverage for outpatient drugs through insurance provided by their employers. This public/private split is an important influence on how health insurers view economically liberal approaches to prescription drug policy. Due to the public/private split of Canada's health system, Canadian health insurers have no economic incentive to view the cost of their drug insurance claims in terms of total health expenditures. Private health insurers are incentivized to view the cost of prescription drugs in a "silo"—that is, separate from other health expenditures, despite evidence suggesting that efficiencies can be gained for total health spending when drug treatments substitute for, or complement other, non-drug methods of treating disease. In turn, this means that private health insurers might also have an incentive to support government-imposed restrictions on consumer choice regarding medicines. Currently, most public policies that restrict consumer choice of medicines do not affect the bottom line of private health insurers because such policies only apply to recipients of public drug programs. However, based on the hypothetical incentives, it would not be surprising if in the future one were to observe that the Canadian health insurance industry quietly invited state regulation of private-sector drug benefits or other anti-liberal prescription drug policies that tend to restrict consumer choice. It would also not be surprising if one were to see the Canadian health insurance industry supporting the state's efforts to centralize and bureaucratize a process of assessing the pharmacoeconomic value (after these drugs have already been approved of as safe and effective by Health Canada) of new drugs before declaring such drugs eligible for reimbursement under public drug plans. Currently, competition between health insurers on the basis of the scope of benefit coverage constrains such centralized restrictions on consumer choice, but the health insurance industry might be expected

to request government regulation that would impose these supply-side decisions on the private sector so as to level the competitive playing field in a way that is not as obvious to consumers as a regulatory standard for co-insurance would be. Pharmacoeconomic evaluation of medicines is an emerging public policy issue and there is no hard evidence to suggest that the Canadian health insurance industry is currently advocating for government-imposed restrictions on consumer choice, but the incentives to do so are in place.

## **Business and labor**

For similar reasons, business might also be expected to support government restrictions on consumer choice when it comes to accessing new medicines. Due to the public/private split of the health care system, the kind of health insurance provided through employment benefits covers outpatient drugs, but does not cover other medical expenditures that could be reduced by increased access to drugs. Therefore, Canadian business faces similar economic incentives to those described above for the health insurance industry. As a result, it would not be surprising if Canadian business opposed economically liberal prescription drug policies regarding consumer choice, despite their location in the private sector. Canadian business might also face economic incentives to oppose other types of economically liberal health policies.

For instance, business groups might perceive that the presence of a private health insurance system would impose costs that are currently borne by taxpayers on employers. This perception is probably caused by the false but commonly heard notion that the only alternative to Canadian health policy is the American system. In the United States, most people who have private health insurance coverage obtain it as a benefit of employment. As a result, American employers appear to bear a significant cost burden in providing health insurance benefits for their employees. This situation has developed in the US because such benefits are not taxable like wages, even though they represent “income” in the form of non-cash payment. The preference for employer-paid health insurance created by the unequal

tax treatment of income and benefits in the US means that employers end up administering and bearing the direct costs of providing health insurance. While theory suggests that this cost is ultimately borne by employees in the form of lower cash wages and by consumers in higher prices, the hidden nature of the cost and the “stickiness”<sup>87</sup> of wages means that employers probably would not be able to immediately transfer the entire burden onto employees in the form of lower wages and would therefore suffer temporary transitional costs. Canadian employers who believe that the only alternative to Canadian health policy is the American system might therefore conclude that moving from the status quo in Canada would transfer the costs of health insurance from taxpayers to employers.

Therefore, the incentives for Canadian business are to support the status quo because they perceive that it represents a subsidy paid by taxpayers to business. Similarly, due to the false assumption that the US system is the only alternative to Canada’s health policies, labor unions probably also think that the presence of private health insurance would shift costs onto employers. The fear that this cost is eventually passed on to employees in the form of lower wages creates incentives for unions to view the introduction of private insurance options as a potential impediment to future wage gains.<sup>88</sup>

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87 Economists have argued that market prices are responsive to changes in supply and demand. However, economists have observed that the price of labor (i.e., wages) is not as downwardly responsive as the prices of other goods and services are to declining demand. Wages rise more quickly than they decline and are therefore referred to as being “sticky.”

88 It is important to point out, however, that liberalization need not shift the cost burden of health insurance onto business. For example, if there was a legal requirement for people to individually buy health insurance with their own after-tax incomes, or if employment-provided health insurance benefits were simply taxed at the same rate as cash income, then there would be no advantage to obtaining such benefits from employers. Individuals would face no disincentives to buy insurance on their own. Health insurance would be purchased in the same way as automobile, home, and life insurance—none of which are obtained from employment benefits. This policy approach would eliminate the insurance cost impediment to future wage gains and one of labor’s economic incentives to resist health policy liberalization.



# Why nothing changes: Political incentives

## Rational choice and political incentives

As mentioned earlier, rational choice theory starts with the assumption that people are motivated as much by their own self-interest in political actions as they are in economic decisions. The theory proposes that politics and public policy outcomes can best be understood and explained by analyzing the particular set of incentives faced by political actors in much the same way that the science of economics attempts to explain and predict the behavior of firms and consumers in a market. According to Tullock (2002), the assumption that political actors are motivated by rational self-interest leads immediately to the obvious conclusion that the primary motivation of politicians in a democratic society is to win elections. While politicians are sometimes willing to risk losing voter support in order to do something they believe in principle to be correct, on the whole they can be expected to act in such a way that maximizes their own well-being in terms of re-election prospects. As Tullock points out, this is often interpreted to mean that because a plurality (sometimes a majority, depending on the type of electoral system) of the public decides election outcomes, policy decisions in a democracy should generally align with the public interest. However, Tullock goes on to describe the ways in which various factors can intervene to distort elections and produce policy

outcomes that are not rationally aligned with the public interest, including the impact of information asymmetry discussed in an earlier chapter. Working under rational choice assumptions, it is easy to see the incentives that could encourage the majority of voters to resist policy reforms that serve the public interest. For instance, public policy outcomes that seem irrational from a public interest point of view can often be preferred by a plurality of the electorate because the distribution of the costs and benefits of public policies is not equal across the population of voters. The unequal distribution of benefits and costs can influence voters to prefer public policies that do not necessarily serve universal public interests.

More specifically in regard to the thesis of this paper, the unequal distribution of the costs of failed health policies often means that a majority of voters are insulated from the negative impacts of economically irrational policy approaches, and this potentially explains the reluctance of the electorate to demand certain kinds of reforms. This chapter examines the distributional impact of Canadian health policy failures to show that the electoral incentives facing policy makers are counter to the adoption of economically liberal health policy reforms—even when the current policy regime is producing suboptimal outcomes. Specifically, the electoral incentives produced by the distribution of the tax burden and of illness are barriers to the introduction of economically liberal health policy reforms. Buchanan (1965) observed a similar dynamic in the British National Health System (NHS). Buchanan noted several fairly obvious and significant systemic failures that had accumulated between the introduction of the NHS in 1948 and the writing of his paper in 1965. He observed that “governmental decision-makers have not expanded investment in supplying health services to the levels of expressed individual demands. The inefficiencies that have arisen are clearly not in the form of excessive total outlay on the health services. The British experience strongly suggests that rather than responding to ‘needs’ through increases in aggregate supply, governments have chosen to allow the quality of services to deteriorate rapidly, both in some appropriate, physically-measurable sense and in terms of congestion costs imposed on prospective consumers” (Buchanan, 1965: 9). Similar observations about the Canadian system have been empirically demonstrated in this paper. Buchanan could

have indeed predicted Canadian health policy failures because the structure of the Canadian health system took its inspiration from the policy structure of the NHS. According to Buchanan,

the observed failures of the NHS can be explained by the structure of the institutions ... In models that approximate to the British structure, I shall explain the observed results by showing that in their private or individual choice behaviour as potential users or demanders of health-medical services, individuals are inconsistent with their public or collective choice behaviour as voters-taxpayers who make decisions on supplying these same services. The individuals who are the demanders and those who are the suppliers are, of course, basically the same persons acting in two separate roles, and the facts themselves suggest the inconsistency. My central point is that this inconsistency does not in any way reflect irrationality on the part of individual decision-makers, but that it arises exclusively from the institutional setting for choice on the two sides of the account. Once this relatively simple point is recognised and accepted, the directions for possible constructive reforms become clear. (Buchanan, 1965: 4–5)

According to Buchanan, the problem is that these two roles represent conflicting sets of interests, based on the underlying economic incentives. As he explains,

If the price elasticity of individual demand, i.e. the responsiveness to a (small) change in price, is significantly higher than zero over the applicable range, governments cannot efficiently 'give away' goods or services ... If government tries to supply goods or services that are privately divisible among separate persons at zero prices to users, the quantity demanded by all individuals in the aggregate will be significantly larger than the quantity that would be demanded at prices set by (marginal) cost, except where the price elasticity approaches zero. For some goods and services, this required elasticity condition is satisfied. For example, government

could, without undue losses in efficiency, provide ‘free’ funeral services, for the very simple reason that each person dies only once; a zero price does produce a larger demand for funerals than a high (or even a low) price. For other goods and services, ‘free’ provision would obviously be impossible, for example, beefsteaks, motor cars, and minks. Between such extremes as these, various goods and services may be arrayed in terms of predicted elasticity coefficients over the relevant range of prices ... Medical-health services clearly fall somewhere along the spectrum ... for certain types of medical care, price elasticity may be low indeed; there should be approximately the same number of broken legs treated under zero and under marginal-cost prices. For other types of health service, however, price elasticity may be relatively high. The British experience suggests that the demands for drugs and for consultation by general practitioners and possibly for hospital care fall into this category. For medical-health services taken as an undifferentiated whole, individuals will be led to demand significantly larger quantities at zero user prices than they would demand at positive prices. (Buchanan, 1965: 5–6)

Buchanan argues that as consumers, individuals will demand more services privately than they are willing to supply publicly as taxpayers. According to Buchanan, “this is the kernel of the internal conflict in the National Health Service” (Buchanan, 1965: 12). Buchanan reasons that suboptimal outcomes in single-payer health insurance systems like the NHS and Canadian Medicare can be explained by the fact that the health policy choices of governments are driven by the perverse political incentives that result when resources are centrally allocated through collective decision processes. According to Buchanan,

In responding to ‘needs’ criteria at zero user prices, governments would have been predicted to devote relatively too much public outlay to the provision of such divisible, personal services as medical care, ‘too much’ being measured against the standard criteria for allocating resource use of consumer preferences as expressed

in the market. The alternative response that governments might make in such situations seems rarely to have been considered. They may make decisions on the supply of the service independently of the demands for the service, and on the basis of quite different considerations. As a result, the inefficiencies may take the form of deterioration in the quality of the services themselves, including congestion of available facilities. (Buchanan, 1965: 7)

Buchanan focused his analysis on the perverse incentives facing consumers/taxpayers/voters on the demand side of political decisions. Mitchell and Simmons (1994) also identify perverse political incentives facing policy makers/politicians on the supply side of collective decision-making processes. They argue that political incentives also encourage the adoption of policies that are suboptimal. According to their view,

Some spending is politically more profitable than others. Perhaps the basic consideration is this: Spend money on private benefits that are not only highly visible but also sufficiently large to make a difference for recipients ... In short, the politician asks two questions: (1) How many additional votes will I receive for each additional dollar spent? (2) How many additional votes will I lose for advancing the welfare of some groups at the expense of others? In choosing among alternative spending projects, politicians attempt to compare the added votes from each added dollar of spending per project and determine the mix that guarantees the maximization of votes. Minimizing votes lost from increasing taxes is assured by the same logic, that is, when choosing among alternative taxes, it is best to match the marginal votes lost from each tax. (Mitchell and Simmons, 1994: 52)

The demand-side and supply-side incentives identified by Buchanan, and Mitchell and Simmons might encourage perverse decisions about how to allocate public health spending. For instance, the purpose of health insurance is to collectively share the risk of medical expenses that are individually unaffordable and which occur infrequently across

a population. Yet there is an observed tendency in the Canadian public health insurance system to extend coverage for services that are frequently used by most people, but which are individually affordable without insurance, such as physician office visits, generic drugs, pregnancy-labor-delivery hospital services, and obsolete diagnostic technologies. At the same time, Canadian governments increasingly restrict coverage for (or spending on) advanced surgical services, newer medicines, and advanced diagnostic technologies, as well as the goods and services utilized by so-called “orphan” patient groups with rare diseases. This policy approach is, of course, precisely the opposite of what insurance is supposed to do, which is to collectively share the risk of infrequent but catastrophic expenses.

## **Distribution of the tax burden and the burden of illness**

The demand-side and supply-side incentives identified above can be theoretically illustrated by examining the distribution of the tax burden in Canada. This paper has argued that there are some fairly obvious and persistent failures of Canadian health policy that are related to Medicare’s publicly funded, single-payer, full insurance structure. Yet Canadian governments have resisted introducing economically liberal policy reforms like user fees and other private payment options. One potential reason for this is that it has been politically more expedient to instead rely on taxes because the people who carry most of the tax burden in Canada represent a minority of voters. This situation occurs because taxation and public spending in Canada are highly redistributive. Figure 13 shows the distribution of the tax burden by family income deciles in Canada in 2005. Income deciles are grouped into the lowest income 30%, middle income 40%, and upper income 30% of Canadian families. The graph indicates that less than one third of the population pays two thirds of all personal

taxes in Canada. The 30% of families with the highest incomes in Canada pay roughly 66% of all personal taxes collected by governments.<sup>89</sup>

Ontario's 2004 introduction of a new income surtax, labeled a "health premium" by the province, also illustrates the unbalanced distribution of the tax burden to pay for health care in Canada. Table 24 displays the amounts of surtaxes applying to individuals under the new health premium for 2004, 2005, and subsequent taxation years, by designated income categories. Table 25 shows the estimated number of Ontario tax filers in 2004 in each of the ranges of taxable income used to apply the new health surtax. The data indicate that nearly four million Ontario tax filers, or 43% of all tax filers in 2004, were exempt from paying for the new surtax and were therefore shielded entirely from the costs of this particular health policy decision. The distribution of the total tax burden to pay for government health spending is heavily skewed toward the highest income earners.<sup>90</sup> The data illustrate the way in which the costs of health care are borne most acutely by a relative minority of the population, and therefore also a minority of voters.

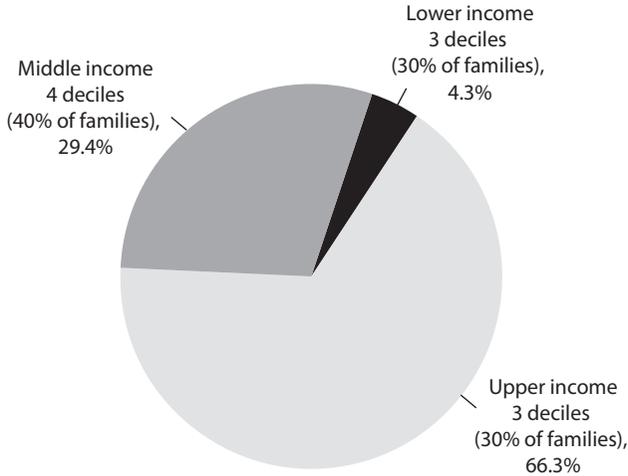
The data shown above illustrate how the political incentives under tax-funded government-run health insurance are not favorable to the introduction of consumer cost sharing as an approach to financing medical care. The unequal distribution of the tax burden means that policy makers face fewer political risks from raising taxes to fund health care than from introducing new price mechanisms that are paid by everyone on the basis of their own consumption of medical goods and services—though this is exactly the kind of policy that could make public health expenditures more sustainable, improve the value for money spent on health care, and preserve consumer choice. Politically, it is easier to impose disproportionate

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89 According to Statistics Canada, in 2005 the top 30% (approximately) of Canadian families with the highest incomes had gross annual family incomes from all sources starting at \$90,000 before taxes (Statistics Canada, 2007). Looked at on the basis of cash income after taxes, it has been estimated that in 2005 a Canadian family is included in the highest income 30% when its annual net cash income after taxes exceeds \$76,939 (Veldhuis and Walker, 2006).

90 This is also confirmed by table 7 in chapter one.

**Figure 13: Percentage of the burden of paying all personal taxes, by income decile group, 2005**



Source: Veldhuis and Walker, 2006; calculations by the author.

**Table 24: Surtax assessments under Ontario’s 2004 “Health Premium”**

| Taxable income      | Surtax payable in 2004 taxation year | Surtax payable in 2005 and subsequent taxation years |
|---------------------|--------------------------------------|--|
| Up to \$20,000      | \$0                                  | \$0  |
| \$20,000–\$36,000   | \$150                                | \$300  |
| \$36,000–\$48,000   | \$225                                | \$450  |
| \$48,000–\$72,000   | \$300                                | \$600  |
| \$72,000–\$200,000  | \$375                                | \$750  |
| More than \$200,000 | \$450                                | \$900  |

Source: Skinner, 2004a; Ontario Ministry of Finance, 2004.

tax increases on a minority of voters instead. By extension, the unequal distribution of the tax burden also means most people are disproportionately insulated from the cost or “price” of public health insurance programs. Therefore, the majority of voters have significantly reduced financial incentives to make cost-benefit calculations about the performance of the health system.

Similarly, the distribution of the burden of illness in Canada reinforces the proposition that perverse demand-side and supply-side incentives could theoretically be part of the explanation for resistance to health policy liberalization in Canada. Centrally planned rationing of access to health care is obviously not a sustainable policy option for controlling the annual growth in public health spending. It is certain that patients will experience increasing medical risks from waiting if centrally imposed rationing is used to hold down the growth in public health spending indefinitely. Yet Canadian governments routinely use such policy approaches to control public health expenditures. A natural question then is how are policy makers still able to maintain support for a public health insurance monopoly when the system is increasingly characterized by declining value for money and inadequate access? A big part of the answer is that

**Table 25: Number of Ontario tax filers in selected income categories, 2004 taxation year**

| Taxable income      | Estimated number of tax filers |
|---------------------|--------------------------------|
| Up to \$20,000      | 3,995,000                      |
| \$20,000–\$36,000   | 2,125,000                      |
| \$36,000–\$48,000   | 1,195,000                      |
| \$48,000–\$72,000   | 1,295,000                      |
| \$72,000–\$200,000  | 650,000                        |
| More than \$200,000 | 85,000                         |
| <b>Total</b>        | <b>9,345,000</b>               |

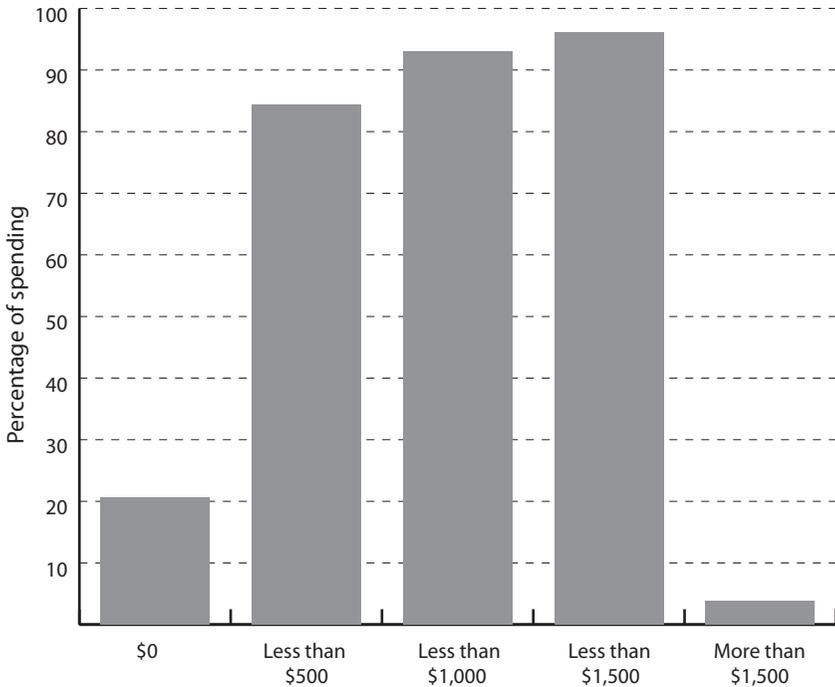
Source: Skinner, 2004a; Ontario Ministry of Finance, 2004.

those most directly and intensely harmed by a lack of access to medical care make up an extremely small percentage of the population, and therefore represent too few votes to have a decisive influence on policy makers about declining access and coverage under Medicare.

Skinner (2005c) examined individual-level data on Medicare utilization covering the entire population of Nova Scotia over a seven-year period. Figure 14 shows the individual distribution of the use of physician services in the province for the year 2001. Physician services are used as proxy for access to Medicare services in general. The data show that the distribution of physician utilization is heavily skewed toward a small percentage of the population who are intensely ill. In this example, serious expenditure on illness was defined with reference to expenditure levels identified as “catastrophic” in the 2002 report by the parliamentary Commission on the Future of Health care in Canada led by Roy Romanow. The Romanow Commission defined a catastrophic expenditure on drugs at \$1,500 per person annually (Romanow, 2002). Romanow’s catastrophic threshold seems reasonable given that Statistics Canada data from the same year shows that the average Canadian household spent \$3,537 on recreation, \$1,478 on tobacco and alcohol, and \$1,444 on charitable donations (Statistics Canada, 2004b). The same level of expenditure is used here as a proxy for catastrophic expenditures on medical services in general. The Nova Scotia data (figure 14) show that less than 4% of the population used more than \$1,500 worth of physician services annually. This distribution was typical in any given year. Similarly, using data from Manitoba, Romanow found in 2002 that only 3% of the population had annual prescription drug costs above the commission’s catastrophic threshold of \$1,500 per person (Romanow, 2002). Finally, data on hospitalization across Canada indicates that less than 10% of the population is admitted to hospital annually (CIHI, 2007c). This means that at any given time, only a very small percentage of the public uses health care intensely. By contrast, the vast majority of the population is relatively healthy and makes comparatively little use of medical goods and services. In fact, nearly 21% of the Nova Scotia population never used a physician’s services at all in 2001 (figure 9). What such statistics show is that seriously ill people—those who are most directly affected by government

policies that restrict access to publicly funded medical care—represent a very small minority of voters.<sup>91</sup>

**Figure 14: Distribution of annual individual spending on physician services, Nova Scotia, 2001**



Source: Skinner, 2005c; PHRU, 2002.

<sup>91</sup> Evans (2005b: 19) has also observed, “the fact that at any one point in time a majority of the population is very little touched by health care costs, means that most people would not immediately be hurt by a reduction in public funding. Some would be hurt a great deal, but they are a minority.”

It is possible that politicians are not merely ignoring the ill segment of the population. Elected officials may just be less acutely aware of how the failures of Canadian health policy are affecting these people. Moreover, poor health conditions prevent the ill from being politically active enough to register their plight with elected officials. However, these factors are countered by the presence of patient advocacy organizations who have given ill Canadians a voice in the political process. The media is also paying increasing attention to the failures of access in Canada's health care system. Nevertheless, even when politicians are aware of how Canada's health policy failures are affecting ill people, they face a general population that is mostly unaware of the failings of the health care system. Most Canadians believe the health care system will be there for them when they need it, even if the evidence suggests it fails when people need it most. This is because most people are healthy, and healthy people don't use much health care. Most people assume the system is working fine because they very rarely need health care or very rarely make more than marginal use of medical goods and services. Politically, this simply means that it is more expedient for elected officials to declare that the system is working fine instead of drawing attention to the failures of government health policies and making an otherwise satisfied population become discontent.

## **Unequal burden of policy failure**

It has also been argued (Skinner, 2007a) that it is important to consider that policy makers have interests of their own and that the costs of policy failures do not affect the interests of the policy makers and the public to the same degree or in the same way. The implication of this observation is that the political incentives that drive policy makers are often in conflict with the public interest or in conflict with special interests in the policy community. Some kinds of policy failures may also be perceived as more important by policy makers because the impact on the interests of policy makers is more acute than the effect on either the public or special interests. The implication of this observation is that the political incentives that drive policy makers are often in conflict with the public interest or

other special interests in the policy community. These conflicting political incentives can lead to policy failures.

A good example of this concept is observed in the regulation of drug safety. Approving a new drug requires regulators to make decisions with imperfect knowledge. There are significant limitations to the information that can be generated by pre-market clinical trials as well as post-market drug surveillance. Data obtained from clinical testing is not necessarily a reliable reflection of the expected effect of a drug in the general population. The results obtained from pre-marketing clinical trials for a new medicine sometimes do not reveal effects that later become apparent when the drug is used by a larger patient population. The safety of new agents cannot really be known with certainty until a drug has been on the market for many years (Lasser et al., 2002). For example, a large clinical trial involving 5,000 patients might not reveal an adverse reaction that occurs at the rate of one in 10,000 patients. Participants in a clinical trial are required to be assessed against a number of inclusion and exclusion criteria necessary for the clinical assessment of the drug. These criteria might not completely reflect the characteristics of the broader population of patients. Additionally, to isolate the effect of one specific medication, patients in clinical trials usually do not receive other medications and do not suffer other known disease conditions (Lasagna, 1998). This situation is hardly ever true for the patients who will take the drug after it is released to the market. This means that pre-release clinical trials may provide little insight into interactions and adverse reactions in populations with a number of medical conditions and prescriptions.

Yet there are also limitations to the use of data obtained from the post-market surveillance of a drug's effects on the general population. There is usually little agreement among clinical pharmacologists on what causes an adverse drug reaction. And a direct link between a drug and the adverse reaction is almost impossible to establish with certainty. For patients who take several drugs at the same time, it is hard to isolate which drug or what combination of drugs caused the underlying reaction. Often the side effects caused by drugs do not have any uniquely attributable characteristics and anything that can be caused by an adverse reaction to a drug could also occur independently (Lasagna, 1998). Furthermore, patients do

not always receive prescribed drugs as directed and non-compliance can lead to harmful consequences for human health (Lasagna, 1998). In fact, it is estimated that 30% to 50% of the adverse drug reactions are preventable because they result from over- or under-dosage and non-compliance (Sjoqvist, 2000). In addition, from a statistical standpoint, there is a high degree of variability in the rate of adverse drug reactions (ADRs) reported to health agencies. The change in the number of ADRs reported to health agencies is used to justify the withdrawal of a new drug from the market. However, the change in reported ADRs often represents only a single year of data and thus does not rule out the possibility that it was merely a result of statistical chance. Without the drug remaining on the market long enough to show a pattern, there is just no way to know if the number of reported ADRs might have returned to the previously observed lower rates (or even below them) in following years. Without further years of data, it is simply impossible to know whether the observed results in any of these cases represented real risks or statistical anomalies.

The cost of increasing post-market surveillance must also be considered. Imperfect information leaves regulators in a position of uncertainty. Yet there are diminishing returns from imposing increased drug testing in order to further reduce uncertainty. Post-market surveillance can be an important part of a drug's safety and efficacy assessment. It can corroborate the findings of previous clinical studies and add new information that can only be obtained after the product has been used by the larger patient population (Lasser et al., 2002). However, pre-market regulation of drug safety already involves a significant trade-off: assurance of product safety at the cost of lengthy delays before the health benefits associated with a new drug are available to patients. Increasing the rigor or scale of pre-market clinical testing would worsen this trade-off and add additional costs to drug development, which is already expensive. In economic terms, the additional information on drug safety and efficacy that can be obtained from more rigorous or frequent testing is subject to diminishing returns. In other words, the additional amount of reassurance of drug safety that comes with more testing gets smaller as more trials are conducted. At some point, both the direct and indirect costs of more testing outweigh the benefits that can be gained from it.

Inadequate or imperfect knowledge can lead to errors in regulatory decisions. To make matters worse, not only do regulators operate in an environment of uncertainty, they also face conflicting incentives when trying to reduce the potential for errors in drug-approval decisions that might encourage them to be excessively cautious. A drug-approval regulator can make two types of decision errors.<sup>92</sup> Table 26 displays a regulatory decision matrix showing the two types of errors. The first decision error, commonly called type 1, is that of mistakenly allowing an unsafe drug into the market (Grabowski and Vernon, 1983). A type-2 error is the opposite: mistakenly rejecting a new drug that is safe and effective (Grabowski and Vernon, 1983). The regulator faces unbalanced incentives to reduce these two kinds of errors (Grabowski and Vernon, 1983). The burden of a type-2 error is borne directly by consumers, who suffer harm because they are denied access to a potentially beneficial treatment that they may have been willing to risk much earlier. Type-2 errors also directly affect drug makers. When a regulator mistakenly refuses to allow a new, effective medicine to enter the market, the innovative drug firm loses the opportunity to earn the revenue that could have been gained from sales of the unapproved drug. The loss of revenue could affect decisions to invest in the development of new medicines in the future.

Conversely, regulators face very few potential negative outcomes from making a type-2 error. The lost health benefits caused by a regulator who mistakenly rejects a safe and effective drug are hidden from the public. The public may never become aware of the lost potential health gains since the drug never becomes available on the market. By contrast, a type-1 error is very obvious to the public. Adverse drug reactions are monitored and reported by health professionals and researchers and vigorously publicized by the media. Type-1 errors, therefore, expose regulators to far greater public-relations repercussions than type-2 errors. Grabowski and Vernon (1983), Higgs (1994), and Graham (2005) have all argued that the unbalanced incentives upon the regulator to avoid type-2 errors can lead to excessive caution in the approval process for drug products. Excessive

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92 The classification of these errors is frequently referenced and explained throughout the economics literature.

caution minimizes the risk that the regulator will be held responsible for any errors but does not necessarily minimize the net health risk to the public as a whole that is caused by the loss of unrealized potential health benefits.

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**Table 26: Drug safety decision matrix**

| Regulator's decision | Quality of drug  |                  |
|----------------------|------------------|------------------|
|                      | Drug is safe     | Drug is unsafe   |
| <i>Approve</i>       | Correct decision | Type 1 error     |
| <i>Reject</i>        | Type 2 error     | Correct decision |

Source: Skinner, 2007a.

# Prospects for reform in Canada

## Room to move within the CHA

The formal structure of Canadian federalism, centralized parliamentary government, and the country's electoral system should theoretically facilitate any type of health policy innovation, including liberalization. Specifically, the constitutional division of powers grants the provinces independent legislative authority for medical insurance and medical services policy, and so provincial policy makers are empowered to adopt reform if they choose to. The tendency of the single member, simple plurality electoral system to produce majority governments for parties with a plurality, but a minority, of the vote should also make it easier for provincial parties that favor reform to win elections and adopt major changes in health policy. And finally, the centralized nature of political power resulting from party discipline should also make it easier for governments to introduce policies that deviate significantly from the status quo.

Despite this, provincial governments have not pursued health policy liberalization. Part of the reason is that the actual practice of federalism is not consistent with the formal constitutional division of powers. The national government's policy of making federal transfers conditional on compliance with the Canada Health Act (CHA) significantly reduces the degrees of freedom for health policy options in the provinces. The conditional use of federal spending power has produced a de facto institutional barrier to health policy liberalization.

Yet, two paradoxes remain. First, despite its significant constraints on provincial policy freedom, the actual degree of policy freedom that the CHA allows is still greater than most people assume. Second, the economic incentives produced by the universal publicly funded design of provincial health insurance would act as a barrier to health policy liberalization even in the absence of the CHA.

The CHA is not as restrictive of provincial health policy choices as many believe. For instance, the act does not specify what “medically necessary” means in terms that are equally recognized and implemented across the provinces. The actual provisions of the CHA define “medically necessary” to include physician and hospital/surgical care and further defines these terms as follows:

“hospital services” means any of the following services provided to in-patients or out-patients at a hospital, if the services are medically necessary for the purpose of maintaining health, preventing disease or diagnosing or treating an injury, illness or disability, namely, (a) accommodation and meals at the standard or public ward level and preferred accommodation if medically required, (b) nursing service, (c) laboratory, radiological and other diagnostic procedures, together with the necessary interpretations, (d) drugs, biologicals and related preparations when administered in the hospital, (e) use of operating room, case room and anaesthetic facilities, including necessary equipment and supplies, (f) medical and surgical equipment and supplies, (g) use of radiotherapy facilities, (h) use of physiotherapy facilities, and (i) services provided by persons who receive remuneration therefor from the hospital, but does not include services that are excluded by the regulations.

“insured health services” means hospital services, physician services and surgical-dental services provided to insured persons, but does not include any health services that a person is entitled to and eligible for under any other Act of Parliament or under any Act of the legislature of a province that relates to workers’ or workmen’s compensation.” (Canada Health Act, R.S., 1985, c. C-6)

However, in practice, the type and range of medical goods and services insured in each province varies. It has come to be accepted that if something is funded by a province, this means it has been deemed by that province to be “medically necessary.” If it is not publicly funded, it is by default considered to be medically unnecessary by that province. It is conceivable that the provinces could game this definitional lack of clarity in the CHA to privatize many insurable goods and services. This could be achieved by introducing a deductible and defining (by default) expenses below the deductible to not be “medically unnecessary” for the purposes of insurance coverage eligibility. There is precedent for this in government decisions to withdraw coverage for previously insured goods and services under provincial health insurance programs.

Furthermore, despite commonly held beliefs, the CHA does not prohibit private insurance for medical services—even those covered by provincial health plans (Flood and Archibald, 2001; Giorno, 2005; Boychuk, 2008). While six out of 10 provinces have their own laws prohibiting private health insurance, the prohibition is not actually required by the provisions of the CHA. In addition, in the six provinces that do ban private health insurance, the ban extends only to the purchase of health insurance for services provided within the province. In all 10 Canadian provinces, people are free to buy health insurance that covers access to hospital and physician services outside the province they reside in, and in four of 10 provinces there is no ban on private health insurance at all. Legal experts have also noted that the CHA

does not control what individuals or businesses can or cannot do regarding health insurance. In fact, courts have consistently held that they cannot rule on whether a province has complied with the CHA. Courts have held this is a political rather than a legal matter, and that the ramifications of non-compliance with the CHA must be determined by the federal cabinet and Minister of Health, by possibly withholding cash transfers. (Bridge, 2006)

Yet despite the actual limitations of the CHA, the fact remains that, in practical terms, private health insurance has not actually been available

in Canada for any medical service covered under provincial health insurance plans. There are three main reasons for the lack of available insurance coverage for core medical services in the private sector in Canada.

First, universal eligibility for public health insurance reduces the demand for private insurance coverage to the point where there is no viable market. People are not incentivized to pay privately for insurance coverage that they believe they already have paid for through taxes.<sup>93</sup> The lack of adequate market demand for health insurance covering hospital and physician services means it has not been economically feasible for the private sector to offer medical insurance in Canada. Under the current system, the demand for private insurance increases with the realization that government health insurance does not provide adequate or timely access to medical care. People only discover the failings of the government health insurance system when they are sick and can't get access to publicly funded treatment. At that point, they have a pre-existing condition and therefore cannot be insured by private plans even if they wish to pay for it.

Second, some provinces prohibit parallel billing by health care providers. In these provinces, hospitals and physicians are not allowed to accept private payment or private insurance reimbursement while also accepting public payment from provincially insured patients. Health care providers must choose to work either for private payment or public payment but cannot elect both. Because the market for private payment is small when everyone is eligible for public insurance coverage, most doctors are not willing to surrender their billing rights in the public system, and therefore do not even make their services available for private payment.

Third, the federal government has interpreted the CHA more broadly than its actual provisions and threatened to reduce federal transfers where private payment is allowed. It is possible for the federal government to do this because the provinces do not have a legal claim to federal funding for health care. Federal health transfers are discretionary spending of the national government and can be withheld for any reason, whether it is an actual violation of the CHA or a violation of the government's own

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93 This might help to explain Boychuk's (2008) finding that public opinion does not favor the introduction of private financing.

particular interpretation of the CHA. When political demands to limit the involvement of the private sector are on the rise, the spirit, if not the letter of the CHA can be cited to enforce an effective ban on private payment for health care in Canada through the threat of withdrawing federal funding.

## Public opinion

Based on the analysis presented in this paper, the political factors that act as barriers to health policy liberalization in Canada appear formidable. Additionally, public opinion is often perceived to be solidly opposed to economically liberal reforms (e.g., Boychuk 2008). However, interpreting public opinion is often a subjective enterprise. As pollsters know, the kinds of responses reported by survey participants can be heavily influenced by the kinds of questions asked in the survey. The real trade-offs between policy choices, and the real alternative policy approaches are not always presented to survey respondents. Public opinion surveys have the potential to produce a picture of public opinion that is not reflective of actual views, and this in turn could lead policy makers to incorrectly interpret the results of opinion polls on health care reform. In other words, research on public opinion has the potential to create information asymmetry for policy makers, leading them to believe that Canadians are more (or less) opposed to economically liberal reforms than they actually are. In fact, there is some polling evidence that suggests that economically rational health policies could be successfully adopted in Canada.

In 2002, just prior to the publication of the final report of the federal parliamentary Commission on the Future of Health Care in Canada led by Roy Romanow, I examined the state of Canadian public opinion regarding health policy reform. Research at the time suggested that, at the core, many Canadians simply wanted a health care system that provided high-quality medical services and was financially sustainable at an acceptable economic price, without excluding lower income people from access to medically necessary services. In their typically pragmatic way, Canadians were not worried about whether it was the private sector or the public sector that achieved this goal; they just wanted results. Yet, when Canadians

did express a preference for either private or public approaches to health reform, the majority was willing to fund many of their future medical needs themselves rather than pay higher taxes to expand the single-payer model of health care.

According to a 2002 Environics poll entitled *The National Pulse on Health Strategy* (Environics, 2002), 80% of Canadians at the time wanted major reforms to the health care system. Additionally, two thirds of Canadians (66%) tended to be supportive, more or less, of a host of new models of financing in order to reduce stress on the system—for example, where everyone (except those with low incomes) pays a small amount for health care services out of their own pocket. Just under half (45%) tended to be supportive of market-oriented reforms built on concepts like greater efficiency, accountability, and customer service, including private-sector companies delivering health care services. The same poll found that fewer than half of respondents would support increasing taxes to pay for health reforms. However, only 10% of Canadians would accept a health care system that excludes those who cannot afford to pay for services. These results need not be seen as a contradiction. As Jane Armstrong, senior vice president of Environics Research Group says, “Canadians, ever-constant champions of fair play and equity, are devoted to maintaining a system that ensures access to quality health care for all ... they’re willing to make changes, even if this includes new and varied ways of financing the system as well as a greater dependence on market forces such as private companies delivering certain health services” (Environics, 2002).

A 2002 Decima Research poll also found that more than half (55%) of Canadians were opposed to paying higher personal income taxes even if these funds were designated to pay for health care. An even larger majority of respondents (67%) also believed that they would have to rely on their own personal savings to pay to use health services in the future (Lawlor, 2002). Similarly, a POLLARA poll taken between March and April of 2002 (POLLARA, 2002) found that 76% of respondents believed that any solution to fix health care sustainability would require more money either through taxes or out-of-pocket payments by consumers, 56% were willing to pay more to maintain the current level of health care, and 69% were willing to pay more to increase the range of services or improve the

timeliness of care. But, when asked specifically about how they would prefer to pay for future health care costs, 70% of respondents were opposed to using taxes to cover future expenses, and the majority of this group (37% of all respondents) favored out-of-pocket payments or private insurance while the rest (33% of all respondents) favored budget reallocations from existing tax revenues. These polling data suggest that there might be potentially significant but latent political support for economically liberal health reform in Canada.

A review of the direction of health policy reforms in the rest of the world indicates that Canadians are not alone in preferring pragmatic approaches to health policy. Chernichovsky (1995) identified an emerging set of values that is commonly influencing international approaches to health policy reform. Essentially, a functioning market in health care, regulated by the state to achieve certain minimum societal goals, increasingly characterizes the direction of health policy in advanced industrial democratic societies. The public consensus that is emerging is concerned with ensuring universal access to a core package of medically necessary services while maximizing consumer choice, controlling cost pressures on public budgets, and satisfying consumer demands for timely access to high quality health care services (Eriksson et al., 2002; Musgrove, 1996). The result is an evolving convergence among health system designs. There is a wide scope for consumer empowerment, competition, and private-sector involvement in the arrangement and provision of health care within this set of values. There are also many lingering criticisms of an expanded role for the private sector in health care. Yet, for every criticism there seems to be an answer somewhere between a theoretical free market in health care (which doesn't actually exist anywhere) and the virtual government-monopoly health system in Canada. A private competitive market for health insurance and medical services, combined with a regulatory-subsidization role for the state, could ensure that everyone has access to medically necessary services while still allowing Canadians the advantages of consumer empowerment and competition among insurers and providers.

## Health reform as an electoral strategy

The formal institutional effects of Canadian parliamentary democracy should also, theoretically, create opportunities for health policy innovation of any type, including economically liberal reforms (Maioni, 1997). The first-past-the-post (simple-plurality) single-member-constituency design of the Canadian parliamentary electoral system, coupled with multi-party competition, creates institutional dynamics that are favorable to non-centrist reform platforms. Canada's electoral system makes it possible for a party with a minority level of popular support to win a majority of the seats in Parliament, depending on how the opposition parties split the remainder of the vote. If a party happens to support health policy liberalization, then it is much easier for that party to form a government under Canada's electoral system than would be possible under a two party system where politics is, by necessity, fought around the center of public opinion. In a parliamentary system, with single-member, simple-plurality electoral representation and three or more parties, radical policy issues can become election wedges that can split the opposition into separate party interests collectively representing a minority of seats in Parliament.

The adoption of the Canada-US free trade agreement is an empirical example of a radical policy change that, while not supported by a majority of popular opinion at the time, can nevertheless be implemented by a party that wins a minority of the popular vote in an election, but a majority of parliamentary seats. In the 1988 federal election, the Conservative party made free trade with the United States a primary issue. It is widely believed that by doing so, it forced the Liberal and New Democratic parties to split the portion of the popular vote that opposed the agreement. This left Conservative candidates with the plurality of votes in many electoral districts, and this translated into a disproportionate number of seats for the party. In the end, the Conservatives won a majority of seats in the House of Commons, while capturing a minority of the popular vote (table 27). This is not at all an unusual result in Canadian elections at either the national or provincial level. Majority governments are almost never formed by parties that win more than 50% of the popular vote in Canada. But the electoral dynamic of Canadian parliamentary democracy has implications

for radical policy innovation when an election becomes a referendum on a single issue. The single-member, simple-plurality electoral system made it possible for the Conservatives to achieve enough seats in Parliament to legislate a free trade policy into action, even when it was not supported by most of the public at the time. The executive-centered nature of Canadian parliamentary democracy (Savoie, 1999) subsequently made it possible for the governing party to ensure passage of the controversial piece of legislation enshrining the policy. This electoral dynamic could allow an enlightened federal government to repeal the provisions of the Canada Health Act that are barriers to health policy liberalization in the provinces. Alternatively, reform-minded federal governments might choose simply not to enforce the provisions of the CHA, but this would make for an unpredictable policy environment which could reduce the expected benefits that could be achieved by more explicit liberalization of health policy in Canada.

**Table 27: 1988 Canadian national general election results**

| Political party          | Elected members | Number of valid votes | Percentage of popular vote |
|--------------------------|-----------------|-----------------------|----------------------------|
| Progressive Conservative | 169             | 5,667,563             | 42.67%                     |
| Liberal                  | 83              | 4,205,072             | 31.66%                     |
| New Democratic           | 43              | 2,685,308             | 20.22%                     |
| Other                    | 0               | 719,841               | 5.42%                      |
| Social Credit            | 0               | 3,407                 | 0.03%                      |
| <b>Total</b>             | <b>295</b>      | <b>13,281,191</b>     | <b>100%</b>                |

Source: Library of Parliament, 2007.



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