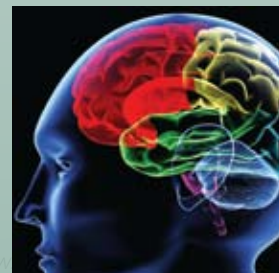
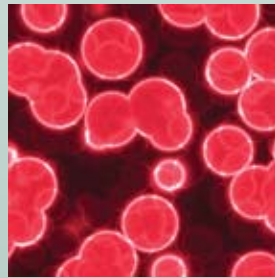


September 2008

## The Hidden Costs of Single Payer Health Insurance

A Comparison of the United States and Canada

by Brett Skinner, Mark Rovere, and Marisha Warrington







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Health Care Policy**

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## Executive summary

When comparing Canada's single-payer health insurance system with the pluralistic system in the United States, many people mistakenly assume that Canadians enjoy universal coverage while receiving the same quality and quantity of medical goods and services as Americans, but at lower costs. The reality is that, on average, Americans spend more of their incomes on health care, but get faster access to more and better medical resources in return for the money spent.

In truth, the Canadian health insurance system is not cheap at all: it is actually among the most expensive in the world. Recent statistics show that only three other comparable countries (United States, Iceland, and Switzerland [1]) spend more of their national income on health care than Canada. More importantly, Canadians do not get good value for money from their health system. There are many hidden costs in Canadian health care that are ignored by advocates of single-payer systems.

On a comparable basis, Canadians have fewer doctors and less high-tech equipment than Americans. Canadians also have older hospitals and have access to fewer advanced medicines than Americans. Health care appears to cost less in Canada than in the United States partly because Canadian government health insurance does not cover many advanced medical treatments and technologies that are commonly available to Americans. If Canadians had access to the same quality and quantity of health care resources that American patients enjoy, the government health insurance monopoly in Canada would cost a lot more than it currently does.

Not only do Canadians have fewer health care resources than Americans, experience also shows that the Canadian health system is not financially sustainable in the long run. Ever since the single-payer system was established in Canada in the early 1970s, government spending on health care has grown faster than the ability of governments to pay for it. In Ontario, Canada's largest and most populated province, health spending will soon consume close to half of all government revenues.

Another false economy of the Canadian health system is the money saved by delaying access to necessary medical care. Canadian patients wait much longer than Americans for access to medical care. In fact, Canadian patients wait much longer than what their own doctors say is clinically reasonable (Esmail and Walker, 2007b). Many Canadian patients wait so long

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1 See Nadeem Esmail and Michael Walker, *How Good Is Canadian Health Care? 2007 Report: An International Comparison of Health Care Systems* (Esmail and Walker, 2007a).

for treatment that, in practical terms, they are no better off than uninsured Americans. In Canada, the government promises everyone that they have health insurance coverage for all medically necessary goods and services; but, in reality, access to treatment is often severely limited or restricted altogether. It is important to remember that having access to a waiting list is not the same thing as having access to health care.

Canadian patients who want to escape the delays in the public system are also 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 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. Therefore, 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 this: Canadian patients are not allowed to spend their own money on medical care provided at home, so the economic benefit of this spending is lost for their province, and sometimes for Canada altogether, as Canadians are left to purchase health care in foreign economies.

Finally, Canadian courts have seen the evidence and ruled that Canada's single-payer health insurance monopoly makes people wait too long to get medically necessary care. In a 2005 case challenging the province of Quebec's government-run health insurance program, the Supreme Court of Canada struck down the single-payer system as a violation of a person's right to preserve his or her own health. A similar case is currently underway in two other Canadian provinces where the plaintiffs are seeking to expand the Quebec precedent on the basis of nationally applicable constitutional rights.

The Canadian single-payer system is an example of what not to do in health care. The fact is that single-payer systems are probably the worst way to achieve universal health insurance coverage. If Canada is currently witnessing the failure of its own single-payer health insurance system, why would Americans want to adopt such a system for themselves?

Table 1 highlights key comparisons between the health insurance systems in Canada and the United States.



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

Select measures of system-wide health insurance benefit, coverage, and choice	United States	Canada	Data sources
Number of practicing physicians per million population in 2006	2,400	2,100	OECD (2008a)
Number of practicing nurses per million population in 2006	10,500	8,800	OECD (2008a); authors' calculations
Number of MRI units per million population in 2006	26.5	6.2	OECD (2008a)
Number of MRI exams per million population in 2004/05	83,200	25,500	CIHI (2006); authors' calculations
Number of CT Scanners per million population in 2006	33.9	12	OECD (2008a)
Number of CT exams per million population in 2004/05	172,500	87,300	CIHI (2006); authors' calculations
Number of inpatient surgical procedures per million population in 2004	89,900	44,700	OECD (2008a); authors' calculations
Acute care hospital staff ratio—average number of staff per bed in 2005	5.3	4.3	OECD (2008a)
Average age (years) of hospital facilities in 2003 (Ontario as proxy for Canada)	9	40	OHA (2003)
Estimated percentage of the population with insurance or the “promise” of insurance for non-emergency, necessary medical care	92.1%	100.0%	U.S. Census Bureau (2007a; 2007b); Herrick (2007); Graham (2006); Flood and Archibald (2001)
Estimated percentage of the population uninsured or “effectively” uninsured for non-emergency, necessary medical services	7.9%	6.0% <sup>1</sup>	U.S. Census Bureau (2007a; 2007b); Herrick (2007); Graham (2006); Statistics Canada (2008c)
Estimated percentage of the population legally prohibited from directly buying local, necessary medical services when uninsured or “effectively” uninsured	0.0%	83.5% <sup>2</sup>	Flood and Archibald (2001); Statistics Canada (2007)
Estimated percentage of the population legally prohibited from buying private insurance for necessary medical services	0.0%	89.8% <sup>3</sup>	Flood and Archibald (2001); Statistics Canada (2007)

1 In 2007, an estimated 1.7 million Canadians (6% of the population aged 12 and older) were unable to access a regular family physician.

2 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).

3 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).

Note: Measures of output selected based on availability of comparable data.

## **Other facts about the single-payer health system in Canada**

- ❧ In 1993, Canadian patients waited on average 9.3 weeks between the time they saw their family physician and the time they actually received the specialist treatment they needed. By 2007, wait times had almost doubled to 18.3 weeks.
- ❧ Median wait times in Canada are also almost double the wait that physicians consider clinically reasonable (Esmail and Walker, 2007b).
- ❧ The Canadian single-payer system does not cover prescription drugs on a universal basis. Only about one third of the Canadian population is eligible for various government-financed drug programs. The remainder of the population has private-sector drug insurance coverage or pays cash for outpatient drugs.
- ❧ Government-financed drug programs in Canada often refuse to cover many new drugs at all. On average, only 44% of all new drugs that were approved safe and effective by Health Canada in 2004 were actually eligible for coverage under government drug-insurance programs by October 2007.
- ❧ Even for the small percentage of new drugs that are actually covered by public drug programs, patients have to wait nearly one year on average after Health Canada's approval to get public insurance coverage for these new drugs.
- ❧ Consumers in Canada and the United States spend roughly the same proportion of their per-capita gross domestic product (GDP) on prescription drugs (1.5% in Canada; 1.7% in the United States). As a percentage of per-capita, after-tax income, the cost burden of prescription drug spending is slightly higher in Canada (2.5% in Canada; 2.3% in the United States).
- ❧ In 2007, brand-name drugs in Canada were 53% less expensive on average than in the United States, but generic drugs in Canada were about 112% more expensive on average than in the United States.
- ❧ Between the fiscal years 1997/98 and 2006/07, government spending on health care grew on average across all 10 Canadian provinces at a rate of 7.3% annually, compared to 5.9% for total available provincial revenue, and 5.6% for provincial economic growth (GDP). This means that the Canadian government's spending on health care is growing faster than the government's ability to pay for it.

- ❧ Not accounting for the increased cost burden of the aging population, it is estimated that in six out of the 10 Canadian provinces public health spending is on pace to consume more than half of total revenue from all sources by the year 2035.
- ❧ As of 2004, the unfunded liabilities of future government funding obligations for health care in Canada reached CA\$364 billion (or US\$296 billion at purchasing power parity [PPP]), equaling 28% of the country's total economic output (GDP) of CA\$1.2 trillion (or US\$1 trillion at PPP) for 2004. Unfunded liabilities for health care continue to increase steadily, rising 20.7% between the years 2000 and 2004.
- ❧ Canada's single-payer monopoly exploits the services of medical labor. After adjusting for the purchasing power of the currencies, Canadian physicians earned on average only 40% as much as their American counterparts in 2005. In the same year, Canadian nurses earned only 71% as much as American nurses on average. Inflation-adjusted figures for the year 2004 show that the average income for all physicians in Ontario was three quarters of its peak 1972 level. Since 1972, physician pay has dropped by half compared to average Ontario incomes.
- ❧ Many Canadian-trained and previously active physicians have left Canada for better opportunities and working conditions in the United States. American doctors, however, are not moving to Canada for better opportunities or working conditions. As of 2002, there were 8,990 Canadian-trained physicians (a number equal to 13% of the Canadian physician workforce) actively practicing in the United States. By contrast, only 519 American-trained physicians (equal to less than 1% of the American physician workforce) were working in Canada.
- ❧ In June 2005, the Supreme Court of Canada struck down the province of Quebec's single-payer health insurance monopoly, ruling that long waiting times violate individuals' right to preserve their own health. In two other provinces, patients are challenging Canada's government monopoly on health insurance in court on constitutional grounds.



# The hidden costs of cheap Canadian health insurance

It is often assumed that Canada achieves lower levels of health care spending than the United States and that Canadians get the same quality and quantity of health care goods and services as Americans. These assumptions could not be further from the truth. Canadian single-payer health insurance costs less than American health insurance partly because the Canadian government restricts the supply of health professionals and medical technologies, neglects the modernization of hospitals, and holds the wages of health professionals as well as the prices for other medical goods and services below market prices. Thus, while it is true that Canadians have lower health costs than Americans, they also have fewer medical resources and restricted access to health care.

## Waiting times

The most obvious problem with Canadian health care is wait times for medical services. In 1993, Canadian patients waited on average 9.3 weeks between the time they saw their family physician and the time they actually received specialist treatment. By 2007, that wait had increased to 18.3 weeks. Moreover, wait times in Canada are almost double the length that physicians consider clinically reasonable (Esmail and Walker, 2007b).

Canadian governments do not publish the number of patients who are seeking health care but are unable to access it. However, Statistics Canada surveys those patients who do finally get access to necessary medical treatment each year. In 2005, of those patients surveyed who finally did get access to health care services within the year, 11% waited longer than three months to see a specialist, 17% waited longer than three months to get necessary non-emergency surgery, and 12% waited longer than three months to get necessary diagnostic tests (Statistics Canada, 2006, January 31).

A 2005 survey compared the wait times experienced by health patients in six countries, including Canada and the United States. When asked how long patients had waited to be seen in the ER, 24% of Canadian respondents answered “four hours or more,” compared to 12% of American respondents answering the same way. The difference between wait times to obtain a specialist appointment was even greater: more than half—57%—of Canadian respondents claimed that they had to wait more than four weeks for an appointment with a specialist, compared to 23% of their American counterparts (Schoen et al., 2005).

## Supply of physicians and nurses

In general, Canadians also have access to fewer health care professionals than Americans. For example, in 2006, Canada had on average 2.1 practicing physicians per 1,000 population, compared to 2.4 per 1,000 population in the United States (OECD, 2008a). Similar shortages are evident when looking at the number of practicing nurses in Canada. In 2006, the country averaged 8.8 practicing nurses per 1,000 population, compared to 10.5 per 1,000 population in the United States (OECD, 2008a).

Thus, in 2006, there were 300 fewer physicians and 1,700 fewer nurses available per million people in Canada than in the United States.

## “Effective” health insurance coverage

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 insured access to medical care. Access to a wait list is not the same thing as access to health care.

Recent Statistics Canada survey findings indicate that an estimated 1.7 million Canadians (more than 6% of the population) were unable to find a primary-care physician in 2007 (Statistics Canada, 2008, June 18). 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 no better off than uninsured Americans.

Consider also that other research shows that the actual number of “effectively” uninsured Americans is less than half of the figure usually reported, and that being uninsured is usually only a temporary condition (Herrick, 2007; Graham, 2006). According to the US Census Bureau’s most recent Current Population Survey (CPS), 47 million Americans lacked health insurance in 2006 (DeNavas-Walt et al., 2007). However, estimating the number of people without health insurance in the United States is the subject of much debate. Because of the way in which the US Census Bureau collects data on the issue, the government’s survey questionnaires cannot be relied upon to accurately reflect reality. Table 2 illustrates the problems with the CPS. 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):

- ⌘ 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;
- ⌘ 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.

Based on these figures, the estimated percentage of the population that was “effectively” uninsured for non-emergency, necessary medical services at any given time during 2007 was roughly the same in both countries: 7.9% in the United States, versus 6.0% in Canada.

Additionally, 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

**Table 2: Inaccuracies in the 2006 US Current Population Survey 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

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

Sources: US Census Bureau, 2007b; DeNavas-Walt et al., 2007.

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 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 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. Therefore, 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 this: Canadian patients are not allowed to spend their own money on medical care provided at home, so the economic benefit of this spending is lost for their province, and sometimes for Canada altogether, as Canadians are left to purchase health care in foreign economies.

## **Supply of surgical and diagnostic services**

Americans also have better access to surgical services than Canadians. In 2004, inpatient surgeries per 1,000 inhabitants totaled 45 in Canada, compared to 90 in the United States (OECD, 2008a).

Additionally, patient access to diagnostics in the United States is far better than in Canada. In 2004, Canada averaged 25.5 Magnetic Resonance Imaging (MRI) examinations per 1,000 inhabitants, compared to 83.2 in the United States. Canada also averaged 87.3 Computed Tomography (CT) examinations per 1,000 inhabitants in 2004, compared to 172.5 in the United States (CIHI, 2006).

## **Hospital modernization**

Government control over hospital financing has also resulted in the capital deterioration of these facilities in Canada. Research has shown that in 2003 the average age of a hospital in Ontario (Canada's largest province) was 40 years, which nearly matches the length of time that Canadian



single-payer health insurance has been in place. By comparison, the same research found that the average age of an American hospital in 2003 was only nine years (OHA, 2003).

The Canadian health insurance system is not designed with appropriate incentives to modernize and recapitalize the nation's health care infrastructure. In Canada, it takes central planners and bureaucrats years to realize that shortages of equipment or health professionals are occurring, or that hospitals are in need of repair and renewal. Government central planners are simply not able to make timely decisions to modernize the health care infrastructure. By contrast, consumer choice and private-sector competition within American health care forces hospitals to constantly modernize and invest in new technologies.

## **Access to new medicines**

Access to the most advanced medicines is also limited under Canada's government-run health insurance monopoly. The single-payer system in Canada does not cover prescription drug expenses on a universal basis. Only about one third of the population is eligible for various government-financed drug programs in Canada. The rest of the population is covered through private drug insurance or pays cash for outpatient drugs.

However, it must be noted that governments often refuse to cover many new drugs at all under Canada's various public drug programs. In fact, on average only 44% of all new drugs that were approved safe and effective by Health Canada in 2004 were actually eligible for coverage under government drug insurance programs by October 2007 (Skinner and Rovere, 2008b).

To make matters worse, even for the small percentage of new drugs that are actually covered by public drug programs, patients have to wait nearly one year on average after Health Canada approval to get public insurance coverage for these new drugs (Skinner and Rovere, 2008b).

By contrast, Canadians with private-sector drug insurance are covered for 100% of all new drugs approved by Health Canada without delay (Skinner and Rovere, 2008b).

## **Cost of prescription drugs**

There is a common misconception that American prices for prescription medications are excessive compared to those in Canada. This leads some people to suggest that the overall cost burden of spending on prescription drugs in the United States is unfair. However, the fact is that the

relative burden of prescription drug spending is roughly equivalent in both countries.

Research has shown (Skinner and Rovere, 2007a) that consumers in Canada and the United States spend roughly the same proportion of their per-capita gross domestic product (GDP) on prescription drugs (1.5% in Canada; 1.7% in the United States). As a percentage of per-capita, after-tax income, the cost burden of prescription drug spending is slightly higher in Canada (2.5% in Canada; 2.3% in the United States).

This finding cannot be explained away by the number of prescriptions dispensed per capita in both countries because this number is roughly equal (13.7 in Canada; 12.6 in the United States).

The findings are mainly explained by the fact that brand-name drugs in Canada are about 53% less expensive on average than in the United States, but generic drugs in Canada are about 112% more expensive on average than the same generic drugs in the United States.

Lower brand-name drug prices in Canada are a result of strategies used by patented drug makers to match prices to local market conditions, particularly lower Canadian incomes. American incomes are significantly higher than Canadian incomes, so it is not surprising that Americans pay higher prices for brand-name drugs.

High prices for generic drugs in Canada are due to Canadian government policies that shield retail pharmacies and generic drug manufacturers from competitive market forces that would put downward pressure on the prices of generic drugs.

Americans also substitute generic drugs for brand-name drugs at much higher rates than Canadians. The most recent data show that in 2007, 48% of all prescriptions dispensed in Canada were for generic drugs, while 52% were for patented drugs. By contrast, in the same year in the United States, 67% of all prescriptions were generic and 33% were for patented drugs (IMS Health Inc. Canada, 2008; IMS Health Inc., 2008).

## **Single-payer health insurance is not financially sustainable**

Not only does Canada's government-run health insurance monopoly produce low value for money, the evidence also suggests that the system is not financially sustainable.

Between the fiscal years 1997/98 and 2006/07, government health spending averaged across all 10 Canadian provinces grew at a rate of 7.3% annually, compared to 5.9% for total available provincial revenue, and 5.6% for economic growth (provincial GDP) (Skinner and Rovere, 2007). This

means that, in Canada, government spending on health care is growing faster than the ability of the governments to pay for it.

Whether one looks at the most recent 10 years of data—or at over 30 years of data—the trends are all the same (Skinner, 2007). This has resulted in health care taking up an increasing share of provincial revenue over time (Skinner and Rovere, 2007b).

Based on the most recent 10-year trends (1997/98–2006/07), and not accounting for Canada’s aging population, it is estimated that in six out of 10 Canadian provinces public-health spending is on pace to consume more than half of total revenue from all sources by the year 2035 (Skinner and Rovere, 2007). As these projections do not adjust for Canada’s aging population, the growth of provincial health spending as a percentage of total revenue will occur much sooner than expected. If provincial governments continue to cling stubbornly to the single-payer approach to funding health care, the costs will soon exceed their capacity to pay for it.

Using Statistics Canada’s own micro-simulation model and detailed data from Statistics Canada and the Canadian Institute for Health Information (CIHI), researchers have also generated estimates of the unfunded liability of Canada’s single-payer health insurance system (Palacios and Veldhuis, 2008). As of 2004, Canadian governments faced future funding obligations for health care that exceeded expected future revenues by CA\$364 billion (or US\$296 billion at PPP), or 28% of Canada’s total economic output (GDP) for 2004 of just over CA\$1.2 trillion (or US\$1 trillion at PPP) (Statistics Canada 2008a). Most worrisome is that this unfunded liability grew by 20.7% between 2000 and 2004, from CA\$301.5 billion (or US\$245 billion at PPP) to CA\$364.0 billion (or US\$296 billion at PPP).

## Single-payer systems exploit medical labor

Health professionals in the United States should beware that whenever Canadian health care has been able to achieve savings, it has usually come from restricting access to publicly insured medical goods and services, not paying the full costs of innovation in medicines [2] and technology, under-investing in new hospitals and equipment, and holding down the wages paid to health professionals.

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2 The Canadian federal government imposes price controls on patented medicines. Research suggests that the policy has probably failed to produce prices that are significantly below where market prices would be in the absence of government intervention (Skinner and Rovere, 2008a).

For example, after adjusting for the purchasing-power-parity differences between the Canadian and US currencies, Canadian physicians earned on average only 40% as much as American physicians did in 2005 (table 3). [3] Similarly, additional data (table 2) indicate that for the same year (2005), Canadian nurses earned on average only 71% as much as American nurses. [4]

American health professionals earn comparatively more on average than their Canadian counterparts because the monopoly power of Canada's single-payer health insurance system allows governments to exploit the services of medical labor by keeping wage rates below what they would be in a more pluralistic insurance market.

Evidence shows that the incomes of Canadian physicians have actually declined in real terms since the country's single-payer system was imposed. After adjusting for inflation, average income for all physicians in Ontario (Canada's most populated province) declined significantly over the 30-year period between 1974 and 2004, with average income in 2004 at three quarters of peak 1972 levels (Mullins, 2004).

The exploitation of medical labor in Canada has encouraged many doctors to leave for the United States. Importantly, the converse is not true: American doctors are not moving to Canada. As of 2002, there were 8,990 Canadian-trained physicians (a number equal to 13% of the Canadian physician workforce) actively practicing in the United States (Mullan, 2005). By contrast, only 519 American-trained physicians (equal to less than 1% of the American physician workforce) were working in Canada (Mullan, 2005). Other research also confirms that the exodus of physicians from Canada is a recent phenomenon. During the period 1990 to 2001, 7,302 Canadian-trained active physicians left Canada to practice elsewhere (Skinner, 2002). Research also shows that most of them left Canada for better opportunities and working conditions in the United States (Skinner, 2002). The evidence is clear that American doctors are not moving to Canada for better opportunities or working conditions.

Based on data covering the 10 years from 1996 to 2005, it has been estimated that one in 12 Canadian-born and educated physicians practiced in the United States. Collectively, this is equivalent to having two average-sized Canadian medical schools dedicated solely to producing physicians for the

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- 3 This figure is computed by dividing the total spending on physicians in the United States and Canada in 2005 by the total active physician populations in each country in the same year and adjusting for the purchasing power parity of the currencies in 2005.
  - 4 This figure is computed by dividing the average employment income for Canadian nurses in 2005 current dollars (adjusting for the purchasing power parity of the currencies in 2005) by the annual US nurses wages for 2005 (US Department of Labor, 2008; Statistics Canada, 2008b; OECD, 2008b; author's calculations).

**Table 3: Average American and Canadian expenditure on physicians and average annual income for Canadian and American nurses, 2005**

	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 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

\*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.

United States. Coincidentally, the number of Canadian emigrant physicians to the United States during this period is approximately equal to the current physician shortage in all Canadian provinces (Phillips et al., 2007).

## **Canada's Supreme Court: Single-payer system violates individual rights**

In June 2005, the Supreme Court of Canada struck down the province of Quebec's single-payer health insurance monopoly. [5] The Court ruled that long waiting times violate an individual's right to preserve one's own health. Policy makers are now attempting to deal with the realization that Canada's single-payer health insurance monopoly is in legal jeopardy.

In the province of Alberta, another patient is challenging Canada's government monopoly on health insurance in court on the basis of constitutional rights (Cameron and Evans, 2006). The Alberta case could expand the 2005 ruling to apply in all 10 Canadian provinces.

Most recently, another case has been launched in Ontario that is challenging the province's single-payer health insurance monopoly as a violation of constitutionally protected rights (CCF, 2007). In this case, an Ontario resident risked permanent blindness when denied timely access to specialist treatment after prior diagnostic tests revealed the presence of a malignant brain tumor (Carpay, 2007, September 7).

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5 *Chaoulli v. Quebec (Attorney General)*, [2005] 1 S.C.R. 791, 2005 SCC 35.

## **A rational alternative to single-payer: Universal private-sector health insurance**

In a pluralistic insurance market like the one in the United States, there will always be some people who lack the income to purchase health insurance. Just as importantly, there will also be many who are unwilling to make the purchase of health insurance a priority, even when their income is sufficient to afford it. This can be perceived as a problem if policy makers believe that a government-sponsored guarantee of universal health insurance coverage is considered to be a social and political necessity. Indeed, the demand for universal coverage has unrelenting political appeal. There is a very real political risk that if American policy makers do not address the demands for universal coverage soon, some state could end up making the same mistakes Canada made by imposing a single-payer health system. [6]

However, making everyone eligible for government-administered medical benefits that are fully (100%) subsidized by taxpayers is the worst way to achieve universal health insurance coverage. It is absolutely crucial for the reader to understand that achieving universal health insurance coverage does not require a publicly funded, government-run, single-payer health insurance monopoly. There are better ways to achieve universal health insurance coverage that minimize harmful government intrusion.

The Canadian experience is illustrative of the fact that universal, tax-funded health insurance is not even necessary. Research (Skinner, 2005) using Canadian data on the individual-level distribution of illness and income in the population indicates that:

- ❧ Only about 4% of the population has health expenses that can be considered catastrophic (even when generously defined) compared to other kinds of expenses; and
- ❧ Less than 1% of the population has catastrophic health expenses (even when generously defined) and also lacks the income to pay directly or buy private insurance for their health care needs if it were available.

Even though so few Canadians actually need public financial assistance in paying their medical expenses, the Canadian system publicly

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6 California has recently come close to making this potentially disastrous legislative decision.

subsidizes all medical expenses on a universal basis. The politicization of eligibility and coverage decisions under a tax-funded, universal, single-payer health insurance monopoly creates pressures upon policy makers to agree to first-dollar coverage for everything. However, taxpayers should not be paying the cost of affordable medical care for the nearly 99% of the population who do not need a public subsidy. A more rational approach would be to provide public financial assistance only for those few people who are truly in need by supplementing their incomes on the basis of an income-and-assets-means test so they can afford to buy private health insurance.

If, however, universal health insurance coverage is considered politically necessary, then the least intrusive approach is to require the population to privately and individually purchase mandatory, basic health insurance in a regulated, competitive market, and to directly subsidize those who are too poor to pay for it on their own.

This is not a radical departure from other types of insurance regulation in the United States and Canada. In most states and provinces, motorists are already familiar with legislated, compulsory purchase of auto insurance. Scandlen (2006) and Graham (2007) have both rejected health insurance mandates, arguing that a percentage of drivers ignore such mandates for auto insurance. However, health insurance mandates could be enforced through the income-tax-return system on a means-tested basis, something not done with auto insurance mandates. There could also be exemptions from the mandate for those who can demonstrate financial capacity instead of insurance—similar to auto insurance in many states. Finally, the important practical point is that, once a person refuses to obey the mandate, he or she has revealed his or her preference and has thus surrendered any moral claim on the state to provide health insurance. Therefore, even if a mandate did not actually achieve universal coverage, it would eliminate the real need for it. The mandate would also de-legitimize any political demands for a single-payer system.

An individual mandate with a low-income subsidy is the fairest way to impose a government guarantee of universal health insurance coverage for those who need it. It is simply better to require everyone to prioritize the allocation of their own income toward the purchase of their own health insurance before obligating taxpayers to subsidize anyone else's health care. Taxpayers should have some reasonable assurance that the recipients of public subsidies are truly unable to afford health insurance and are not simply spending their disposable income on unnecessary items and later demanding free health care from the government if they become ill.

This is similar to the way health insurance works in Switzerland, where individuals are required by law to purchase private health insurance



policies for which the premiums are “community rated,” that is, the same for each person in a particular region or municipality taking out insurance with a particular company or non-profit organization, regardless of individual risk ratings. People are guaranteed a free choice of insurance provider and can change their compulsory health insurance provider up to twice a year. Insurance providers are not allowed to refuse an individual’s application for a compulsory health insurance policy, and high-risk insurers are cross-subsidized by the entire insurance sector acting as a single cooperative risk pool through a government-controlled mechanism. The insurance providers compete based on the level of the premium, and price competition works. To reduce the social impact of premium costs on low-income people, taxpayers partially subsidize compulsory health insurance premiums through a means-tested subsidy that varies according to the income and assets of the insured person (FOPH, 2007).

It is important to note that according to Graham (2007), there are some advantages to Swiss health policy that could already be adopted in the United States without even changing the current basic system of health insurance:

- ❧ The Swiss tax code does not punish people for buying health insurance directly as individuals. By contrast, in the United States health insurance is taxable if purchased directly, but not if received as part of employment benefits. The Swiss each have personal ownership of their health insurance and therefore do not lose coverage if they switch jobs. [7]
- ❧ The Swiss government also does not order its people to give up private insurance and go into a government program at age 65 like the United States does with its Medicare policies.
- ❧ Swiss insurers also have far more freedom to make individuals more responsible for the health care that they consume. They do this by introducing a price at the point of consumption through co-payments and deductibles. These strategies are very successful, but American laws and regulations have historically inhibited such approaches to controlling the cost of health insurance.

In Canada, a similar approach to health care policy would permit enormous reductions in the tax burden for Canadians and encourage the rationalization of health care costs and benefits. Canadian policy makers are not serving either patients or taxpayers very well by stubbornly clinging to a failing single-payer health insurance monopoly when they

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7 There may also be better cost recognition because consumers pay the whole bill themselves.

could achieve the same policy goals with much greater benefit to their population by adopting a universal, compulsory, private health insurance system.

For Americans, something like the Swiss health insurance model—tailored to the US setting—would solve contentious political demands for universal health insurance coverage without requiring a harmful and wasteful single-payer health insurance monopoly. [8,9]

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- 8 Recently, Massachusetts implemented a limited type of individual health insurance mandate. By July 1, 2007, all residents were required to obtain private coverage or risk losing a personal tax deduction if they were not otherwise covered by an employer, Medicare, Medicaid, or other programs directed at subsidizing coverage. This federal- and state-funded initiative allows for assistance with premium payments to low-income families/individuals who are able to demonstrate eligibility, based on a comparison of individual income ratios to current federal poverty scales (CHICA, 2008). Though the Massachusetts model has adopted some lessons from the Swiss, other pre-existing parallel programs and policies were not replaced by the new policy. This resulted in redundant, unnecessary additional costs and greater state involvement in the provision of health insurance, preventing a truly competitive and sustainable method of health care financing.
  - 9 There are also some aspects of the Swiss system that might be an improvement when moving from the status quo in Canada but which might not be optimal when moving from the status quo in the United States. For instance, the regulatory requirements for flat, community-rated premiums under the Swiss system could raise the cost of insurance for healthy people in the United States (Herrick, 2007).

## Conclusion

Canada's single-payer health insurance monopoly is failing. The Canadian experience shows that such a system is not financially sustainable in the long run. Canadian patients do not get the same timely availability of medical care as American patients. In Canada, single-payer health insurance does not provide timely access to the most advanced medical treatments and technologies. Millions of Canadian patients wait so long for treatment that, in many ways, they are no better off than uninsured Americans. Access to a waiting list is not the same thing as access to health care.

Even worse, Canadian patients are practically prohibited from paying privately (above what they pay in taxes for the public system) to escape the delays in the public system. Canadians are quite literally trapped in a failing system. This makes them even worse off than the uninsured in America, who can at least gain access to health care by paying cash or credit for it.

The Supreme Court of Canada also recently struck down the government health insurance monopoly in one province as a violation of patients' right to preserve their own health. The court has seen the evidence that Canada's single-payer health insurance system delays or denies access to medical treatments and makes people wait too long to get medically necessary care.

Canada is currently witnessing the failure of its own single-payer health insurance system. Why would Americans want to adopt such a disastrous system for themselves?

Nevertheless, the problem of the uninsured needs to be solved before a "tipping point" is reached and Americans have a Canadian-style health policy disaster foisted upon them by single-payer advocates who are not fully disclosing all the facts about health care in Canada. There are better alternatives that should be considered if universal health insurance coverage is deemed a political necessity. The Swiss health insurance system is probably the best real-world model for how to achieve universal health insurance coverage on a sustainable basis. Americans should consider adopting, and improving, the best parts of Swiss health policy.

In a private market, there will inevitably be a few people who lack the income to purchase health insurance and there will also be some who are unwilling to make the purchase of health insurance a priority, even when their income is sufficient to do so. Instead of an unnecessary, single-payer health insurance monopoly, Americans should simply demand that everyone be legally required to show individual proof of purchase for health insurance coverage or demonstrate the personal financial means to go without

insurance coverage. Low-income people could be subsidized to help them buy private insurance. Such a system should completely replace existing public programs like Medicare and Medicaid.

The evidence indicates that the best approach to achieving universal health insurance coverage is to make people prioritize their own income toward the purchase of their own health insurance, not to make some taxpayers buy health insurance for everyone through a redistributive, government health insurance monopoly.

## References

BlueCross BlueShield [BCBS] (2005). *The Uninsured in America*. BCBS.

Cameron, David, and Megan Evans (2006). *Alberta Resident Brings Class Action Law Suit to Challenge Prohibition on Private Health Care Insurance*. Cassels Brock & Blackwell LLP. <<http://casselsbrock.com/publicationdetail.asp?aid=1165>>, as of September 16, 2008.

Canadian Constitution Foundation [CCF] (2007). *Ontario's Healthcare Monopoly Challenged in Court: Brain Cancer Would Have Killed Lindsay McCreith*. <<http://www.canadianconstitutionfoundation.ca/>>, as of September 16, 2008.

Canadian Institute for Health Information [CIHI] (2006). *MRI Scanners in Canada Used More Intensively than those in the United States and England*. News release (February 8). CIHI. <[http://secure.cihi.ca/cihiweb/dispPage.jsp?cw\\_page=media\\_08feb2006\\_e](http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=media_08feb2006_e)>, as of September 16, 2008.

Canadian Institute for Health Information [CIHI] (2007a). *National Health Expenditure Trends, 1975–2007*. Table A.3.1.1—Part 1: Total Health Expenditure by Use of Funds, Canada, 1975 to 2006. CIHI. <[http://secure.cihi.ca/cihiweb/dispPage.jsp?cw\\_page=PG\\_876\\_E&cw\\_topic=876&cw\\_rel=AR\\_31\\_E](http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_876_E&cw_topic=876&cw_rel=AR_31_E)>, as of September 16, 2008.

Canadian Institute for Health Information [CIHI] (2007b). *Supply, Distribution and Migration of Canadian Physicians 2006, Revised November 2007*. Table D.1: Number of Physicians, Including Interns and Residents, Canada, the Provinces and Territories, 1961 to 2006. CIHI. <[http://secure.cihi.ca/cihiweb/dispPage.jsp?cw\\_page=PG\\_870\\_E&cw\\_topic=870&cw\\_rel=AR\\_14\\_E](http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_870_E&cw_topic=870&cw_rel=AR_14_E)>, as of September 16, 2008.

Carpay, John (2007, September 7). Suing the Government for the Right to See and Live. *National Post*. <[http://www.canadianconstitutionfoundation.ca/main/page.php?page\\_id=10](http://www.canadianconstitutionfoundation.ca/main/page.php?page_id=10)>, as of September 16, 2008.

Commonwealth Health Insurance Connector Authority [CHICA] (2008). *Health Care Reform*. <<http://www.mahealthconnector.org/portal/site/connector/menuitem.d7b34e88a23468a2dbef6f47d7468aoc?fiShown=default>>, as of September 18, 2008.

DeNavas-Walt, Carmen, Bernadette D. Proctor, and Jessica Smith (2007). *Income, Poverty, and Health Insurance Coverage in the United States: 2006*. Table C-2. US Census Bureau. <<http://www.census.gov/prod/2007pubs/p60-233.pdf>>, as of September 16, 2008.

Esmail, Nadeem, and Michael Walker (2007a). *How Good Is Canadian Health Care? 2007 Report: An International Comparison of Health Care Systems*. Fraser Institute.

Esmail, Nadeem, and Michael Walker (2007b). *Waiting Your Turn: Hospital Waiting Lists in Canada* (17th ed.). Fraser Institute.

Federal Office of Public Health [FOPH] (2007). *The Compulsory Health Insurance in Switzerland: Your Questions, Our Answers*. Federal Department of Home Affairs, Swiss Confederation. <<http://www.bag.admin.ch/themen/krankenversicherung/00263/00264/index.html?lang=en>>, as of September 16, 2008.

Flood, Colleen M., and Tom Archibald (2001). The Illegality of Private Health Care in Canada. *Canadian Medical Association Journal* 164,6: 825–30.

Graham, John R. (2006). *California's Uninsured: Crisis, Conundrum, or Chronic Condition?* Pacific Research Institute.

Graham, John R. (2007). Swiss Lessons for American Health Care: More Cheese with Fewer Holes. *Fraser Forum* (February): 15–17.

Herrick, Devon M. (2007). *Crisis of the Uninsured: 2007 Update*. Brief Analysis 595 (September 28). National Center for Policy Analysis [NCPA].

IMS Health Inc. (2008). IMS Health Reports US Prescription Sales Grew 3.8 Percent in 2007, to \$286.5 Billion. News release (March 12). IMS Health Inc. <<http://www.imshealth.com/portal/site/imshealth/menuitem.a46c6d4df3db4b3d88f611019418c22a/?vgnnextoid=280c1d3be7a29110VgnVCM10000071812ca2RCRD&vgnnextfmt=default>>, as of September 26, 2008.

IMS Health Inc. Canada (2008). CompuScript database description. Special data request.

Mullan, F. (2005). The Metrics of the Physician Brain Drain. *New England Journal of Medicine* 353, 17: 1810–1818.

Mullins, Mark (2004). *Where Does the Money Go? A Study of Worker Pay in Ontario's Hospitals*. Ontario Policy Series Alert (September). Fraser Institute.

Ontario Hospital Association [OHA] (2003). *Capital Planning and Investment in Ontario's Hospitals: A Sustainable and Comprehensive Approach to Meeting Patient Care Needs*. A Report from the Ontario Hospital Association Capital Investment Working Group (November).

Organization for Economic Co-operation and Development [OECD] (2008a). *OECD Health Data 2008: Statistics and Indicators for 30 Countries*. CD-ROM. OECD.

Organization for Economic Co-operation and Development [OECD] (2008b). Purchasing Power Parities (PPPs) for OECD Countries since 1980. OECD. <[http://www.oecd.org/document/47/0,3343,en\\_2649\\_34357\\_36202863\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/47/0,3343,en_2649_34357_36202863_1_1_1_1,00.html)>, as of September 16, 2008.

Palacios, Milagros, and Niels Veldhuis (2008). *Canadian Government Debt 2008: A Guide to the Indebtedness of Canada and the Provinces*. Fraser Institute.

Phillips, Robert L. Jr., Stephen Petterson, George E. Fryer Jr., and Walter Rosser (2007). The Canadian Contribution to the US Physician Workforce. *Canadian Medical Association Journal* 176, 8 (April): 1083–87.

Scandlen, Greg (2006). *Will Mandatory Health Insurance Work?* Brief Analysis 569 (September 6). National Center for Policy Analysis [NCPA].

Schoen, Cathy, Robin Osborn, Phuong Trang Huynh, Michelle Doty, Kinga Zapert, Jordan Peugh, and Karen Davis (2005). *Taking the Pulse of Health Care Systems: Experiences of Patients with Health Problems in Six Countries*. Web Exclusive (W5 509-525). *Health Affairs*. <<http://content.healthaffairs.org/cgi/reprint/hlthaff.w5.509v3>>, as of September 16, 2008.

Skinner, Brett J. (2002). *Medicare, the Medical Brain Drain and Human Resource Shortages in Health Care*. Atlantic Institute for Market Studies.

Skinner, Brett J. (2005). Why Medicare Fails to Provide Access to Medically Necessary Health Care. *Fraser Forum* (October): 10–13.

Skinner, Brett J. (2007). *Long-term or Short-term, Public Health Insurance Is Not Sustainable: A Reply to CUPE about Health Spending Trends in Canada*. Fraser Institute.

Skinner, Brett J., and Mark Rovere (2007a). *Cost Burden of Prescription Drug Spending in Canada and the United States*. Fraser Institute.

Skinner, Brett J., and Mark Rovere (2007b). *Paying More, Getting Less 2007: Measuring the Sustainability of Public Health Expenditure in Canada*. Fraser Institute.

Skinner, Brett J., and Mark Rovere (2008a). *Canada's Drug Price Paradox*. 2008. Fraser Institute.

Skinner, Brett J., and Mark Rovere (2008b). *Access Delayed, Access Denied 2008: Waiting for Medicines in Canada*. Fraser Institute.

Statistics Canada (2006, January 31). Access to Health Care Services. *The Daily*. <<http://www.statcan.ca/Daily/English/060131/do60131b.htm>>, as of September 16, 2008.

Statistics Canada (2007). *Population and Dwelling Counts, for Canada, Provinces and Territories, 2006 and 2001 Censuses - 100% Data*. Catalogue No. 97-550-XWE2006002.

Statistics Canada (2008a). *Gross Domestic Product, Income-Based*. CANSIM Table 380-0001. Catalogue No. 13-001-X.

Statistics Canada (2008b). *Employment Income Statistics, Registered Nurses Occupational Class D112*.

Statistics Canada (2008c). Canadian Community Health Survey, 2007. *The Daily* (June 18). <<http://www.statcan.ca/Daily/English/080618/do80618a.htm>>, as of September 16, 2008.

Steinbrook, Robert (2006). Health Care Reform in Massachusetts: A Work in Progress. *New England Journal of Medicine* 354, 20: 2095–98.

US Census Bureau (2007a). *Annual Estimates of the Population for the United States, Regions, States, and Puerto Rico: April 1, 2000 to July 1, 2007*. Population Division, US Census Bureau. <<http://www.census.gov/popest/states/tables/NST-EST2007-01.xls>>, as of September 16, 2008.

US Census Bureau (2007b). *Annual Demographic Survey* (August Supplement). Table HI01.: Health Insurance Coverage Status and Type of Coverage by Selected Characteristics:2006. <[http://pubdb3.census.gov/macro/032007/health/h01\\_001.htm](http://pubdb3.census.gov/macro/032007/health/h01_001.htm)>, as of November 18, 2008.



US National Center for Health Statistics [US NCHS] (2007). *Health, United States, 2007: With Chartbook on Trends in the Health of Americans*. Table 124: National Health Expenditures, Average Annual Percent Change, and Percent Distribution, by Type of Expenditure, United States, Selected Years 1960–2005; Table 107: Doctors of Medicine, by Activity and Place of Medical Education, United States and Outlying US areas, Selected Years 1975–2005. NCHS. <<http://www.cdc.gov/nchs/products/pubs/pubd/hsu/healthexpenditures.htm>>, as of September 18, 2008.



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