Lessons from Abroad
A Series on Health Care Reform

Health Care Lessons from Sweden
by Nadeem Esmail
Lessons from Abroad
A Series on Health Care Reform

May 2013

Health Care Lessons from Sweden

by Nadeem Esmail
Contents

Executive summary / iii

Introduction / 1

Health system performance—Canada compared to Sweden / 3

Sweden’s health policy framework / 13

Lessons for Canada / 23

References / 31

About the author & Acknowledgments / 37

Publishing information / 38

Supporting the Fraser Institute / 39

Purpose, funding, & independence / 40

About the Fraser Institute / 41

Editorial Advisory Board / 42
Executive summary

This paper is part of a series that examines the way health services are funded and delivered in other nations. The nations profiled all aim to achieve the noble goal of Canada’s health care system: access to high quality care regardless of ability to pay. How they organize to achieve that goal differs markedly from the Canadian approach. So do their performances and results.

The Swedish health care system provides some of the best outcomes when compared with other developed nations that maintain universal approaches to health care insurance. Long considered a mecca of socialist thought, it is valuable to examine how the Swedes have structured their universal access health care system to help inform the Canadian debate over the future of Medicare.

Health system performance—Canada compared to Sweden

Health care expenditures in Canada are considerably higher than in both Sweden and the average universal access nation. In 2009, Canada’s health expenditures (age-adjusted) were 36% higher than Sweden’s, and were 26% higher than in the average universal access nation. In fact, in 2009 Canada’s health expenditures, as an age-adjusted (as older people require more care) share of GDP, were the highest among universal access developed nations.

Unfortunately, the performance of Canada’s health care system does not reflect this level of expenditure.

With respect to access to health care services, the Canadian system outperforms that of Sweden in two of seven measures examined: nurse to population ratio and hospital beds to population ratio. Conversely, the Swedish health care system outperforms the Canadian health care system in four: physician to population ratio and wait times for emergency care, primary care, and specialist care.¹

¹ Canadians were slightly more likely than Swedes to report relatively short waits for elective surgery, but were also more likely to report relatively long ones. On balance, this suggests Swedish access to elective surgery is similar or superior to that in Canada.
Looking at factors such as the ability of the health care system to provide healthy longevity, low levels of mortality from disease, and effective treatment for both chronic and terminal illnesses, it seems the Swedish health care system broadly performs at a level similar to if not superior to that in Canada. Specifically, the Canadian health care system outperforms the Swedish health care system in six of 17 measures examined: one of three cancer survival rates, two of three measures of primary care performance, and three of six measures of patient safety. Conversely, the Swedish health care system outperforms the Canadian health care system in nine measures: infant mortality, mortality amenable to health care, all three measures of in-hospital mortality, one of three measures of primary care performance, and three of six measures of patient safety.

Sweden's health policy framework

The Swedish health care system is federally and structurally organized in a manner broadly similar to that in Canada. Like Canada, the Swedish health care system is funded primarily through general taxation. Sweden’s national government is responsible for overall health policy and provides grants in support of health care to regional and municipal governments. Regional governments (county councils) are responsible for ensuring universal access to good care and have considerable freedom to determine the organization of health care services and allocation of resources. Municipal governments are responsible for long term care and care of the elderly and disabled. Within these broad similarities lie marked differences between Canadian and Swedish health care policies.

Typical of a Nordic approach to universal access health care, universally insured health care services in Sweden are subject to patient cost-sharing/copayment. While the requirement of cost sharing is uniform across Sweden, county councils do set varying rates of cost sharing for their residents. For example, the primary care user fee varies from $15 to $30 (SEK100-200) and, for specialist consultation, varies from $35 to $49 (SEK230-320). Cost sharing for health care services in Sweden is subject to both exemptions for specific populations and annual limits to patient payments.

Sweden maintains a “0-7-90-90” wait-times guarantee for primary care, specialist care, and elective surgery. The guarantee requires county councils to ensure zero delay with the health care system for contact with primary health care, and a GP visit within seven days. Further, county councils must ensure specialist consultation in 90 days and elective treatment within 90 days of diagnosis.
## Health system performance—Canada compared to Sweden

<table>
<thead>
<tr>
<th>Indicator*</th>
<th>Canada</th>
<th>Sweden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total health expenditures (age-adjusted, % of GDP)</td>
<td>12.5</td>
<td>9.2</td>
</tr>
<tr>
<td>Physicians (age-adjusted, per 1,000 pop.)</td>
<td>2.6</td>
<td>3.4</td>
</tr>
<tr>
<td>Nurses (age-adjusted, per 1,000 pop.)</td>
<td>10.3</td>
<td>10.1</td>
</tr>
<tr>
<td>Hospital beds (age-adjusted, per 1,000 pop).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3.6</td>
<td>2.6</td>
</tr>
<tr>
<td>Curative care beds</td>
<td>2.0</td>
<td>1.8</td>
</tr>
<tr>
<td>Waited less than 30 minutes in emergency room before being treated</td>
<td>20%</td>
<td>29%</td>
</tr>
<tr>
<td>Same- or next-day appointment with doctor or nurse when sick or needed care</td>
<td>45%</td>
<td>57%</td>
</tr>
<tr>
<td>Waited less than one month for specialist appointment</td>
<td>41%</td>
<td>45%</td>
</tr>
<tr>
<td>Waited less than one month for elective surgery</td>
<td>35%</td>
<td>34%</td>
</tr>
<tr>
<td>Waited four hours or more in emergency room before being treated</td>
<td>31%</td>
<td>20%</td>
</tr>
<tr>
<td>Waited six days or more for access to doctor or nurse when sick or needed care</td>
<td>33%</td>
<td>25%</td>
</tr>
<tr>
<td>Waited two months or more for specialist appointment</td>
<td>41%</td>
<td>31%</td>
</tr>
<tr>
<td>Waited four months or more for elective surgery</td>
<td>25%</td>
<td>22%</td>
</tr>
<tr>
<td>Infant mortality rate (per 1,000 live births)</td>
<td>5.1</td>
<td>2.5</td>
</tr>
<tr>
<td>Mortality amenable to health care (per 100,000 pop. 2007)</td>
<td>74</td>
<td>68</td>
</tr>
<tr>
<td>Five year relative survival rate for breast cancer</td>
<td>86.6</td>
<td>86.0</td>
</tr>
<tr>
<td>Five year relative survival rate for cervical cancer</td>
<td>64.9</td>
<td>68.1</td>
</tr>
<tr>
<td>Five year relative survival rate for colorectal cancer**</td>
<td>63.4</td>
<td>60.7</td>
</tr>
<tr>
<td>In-hospital case-fatality rates within 30 days, AMI**</td>
<td>3.8</td>
<td>2.9</td>
</tr>
<tr>
<td>In-hospital case-fatality rates within 30 days, hemorrhagic stroke**</td>
<td>20.6</td>
<td>12.8</td>
</tr>
<tr>
<td>In-hospital case-fatality rates within 30 days, ischemic stroke**</td>
<td>6.3</td>
<td>3.9</td>
</tr>
<tr>
<td>Uncontrolled diabetes hospital admission rate (per 100,000 pop.)**</td>
<td>15.2</td>
<td>66.0</td>
</tr>
<tr>
<td>COPD hospital admission rate (per 100,000 pop.)**</td>
<td>183.3</td>
<td>137.5</td>
</tr>
<tr>
<td>Asthma hospital admission rate (per 100,000 pop.)**</td>
<td>15.7</td>
<td>19.3</td>
</tr>
<tr>
<td>Obstetric trauma, vaginal delivery w/ instrument (per 100 patients)</td>
<td>13.7</td>
<td>11.1</td>
</tr>
<tr>
<td>Obstetric trauma, vaginal delivery w/out instrument (per 100 patients)</td>
<td>2.7</td>
<td>3.1</td>
</tr>
<tr>
<td>Foreign body left in during procedure (per 100,000 hospital discharges)</td>
<td>9.7</td>
<td>2.6</td>
</tr>
<tr>
<td>Accidental puncture or laceration (per 100,000 hospital discharges)</td>
<td>525</td>
<td>205</td>
</tr>
<tr>
<td>Postoperative pulmonary embolism or deep vein thrombosis (per 100,000 hospital discharges)</td>
<td>566</td>
<td>749</td>
</tr>
<tr>
<td>Postoperative sepsis (per 100,000 hospital discharges)</td>
<td>769</td>
<td>926</td>
</tr>
</tbody>
</table>

Notes: * 2009 or nearest year, 2004-2009 or nearest year for cancer survival rates, unless otherwise noted.  ** The difference for this indicator is statistically significant (95% confidence interval). Note that confidence intervals apply to cancer survival rates, in-hospital case-fatality rates, and hospital admission rates.

Sources: OECD, 2011; Commonwealth Fund, 2010; Gay et al., 2011; calculations by author.
Primary care

Most primary care in Sweden is delivered through team-based facilities with four to six general practitioners alongside other types of medical staff (including nurses, midwives, physiotherapists, psychologists, and gynaecologists) with solo-GP private practices being rare. The health care system in Sweden also relies on nurses for primary care services to a greater extent than Canada. Sweden’s nurses are often responsible for first contact with the health care system and work both in primary care facilities and provide home visits, especially to older people. Patients in Sweden have free choice of primary care provider, whether public or private, while those who do not freely choose a provider will in most cases be automatically registered with one by the county council.

Generally, there are two principal models for paying primary care providers in Sweden. Both are based on a blend of per registered patient payments (capitation), fee-for-service, and performance-based payment, and apply equally to public and private providers within a county council. Stockholm county council bases approximately 40% of primary care compensation on capitation with more than 55% based on visits by both registered and non-registered patients. Another 3% of the payments are performance based for meeting targets (such as patient satisfaction rates, compliance with governmental treatment recommendations, etc.). In all other county councils, payment is predominated by capitation funding (80-98%) with the remainder consisting of payments for visits primarily for non-registered patients and a small performance-based payment for meeting targets.

Unlike in Canada, primary care providers in Sweden do not have a formal gate-keeping role whereby patients must access specialist care through primary care providers. In most county councils, patients are free to contact specialists directly if they so choose.

Specialized, hospital, and surgical care

While health care is generally organized at the county council level, there is extensive collaboration with respect to highly specialised health services and certain investments in high technology health care. One example of this is the organization of hospital care in Sweden, where seven regional/university hospitals provide highly specialized and advanced medical care for six medical regions. This regionalization is an effort to maintain high levels of clinical competence through higher volumes.

In addition to these seven regional/university hospitals are 70 county council hospitals, two-thirds of which are acute care hospitals, with the remaining third categorized as local hospitals. Relative to local hospitals,
acute care hospitals provide care 24 hours per day, 365 days per year, and maintain a larger range of competencies. In addition, since the mid-1990s, several local hospitals have been transformed into specialized hospitals that offer elective treatments to a wider geographic area but offer no general acute care services.

Six of Sweden’s hospitals are privately operated. Sophiahemmet, Ersta, and Red Cross (Röda Korset) hospital in Stockholm are not-for-profit organizations that have contracts with Stockholm county council to provide care for a certain number of patients annually. St. Goran in Stockholm, Lundby in Gothenburg, and Simrishamn in the south of Sweden are for-profit hospitals that are fully financed by county councils on a contract basis. St. Goran is the only private acute care hospital in Sweden.²

As is the case with primary care providers, patients in Sweden have free choice of hospital both within and outside their county council. This applies to both public and private hospitals as long as the hospital maintains a contract with the county council.

As is the case with primary care, methods of paying for hospital care vary across Sweden. Activity-based funding, whereby hospitals are paid on the basis of services provided, is common. In Sweden, activity-based funding is typically done on a diagnosis related group-type (DRG-type) basis, where hospitals receive payment for each individual cared for based on the expected costs of dealing with their case (including significant co-morbidities). For outlier cases, such as complicated cases that are grossly more costly than the average cost per case, per-diem payments (payment per day of hospitalization) may be used by county councils as a supplement to activity-based funding.

While activity-based funding is common, global budgets (whereby hospitals receive an annual budget for the provision of care) are still employed by some councils and are also used to supplement activity-based funding. Hospitals in some Swedish county councils also receive pay-for-performance compensation in addition to activity-based funding, comprising up to 4% of hospital payment. Generally, pay-for-performance programs in Sweden withhold payment if certain targets (for example wait times, patient safety, or clinical indicators) are not met.

 Physicians in Sweden are predominantly salaried employees of the care provider (hospital, primary care organization, etc.). This is true across health care sectors (primary care, hospital care, etc.) for both public and private providers. Salaries in Sweden are negotiated by professional unions. The

² St. Goran is a particularly interesting hospital from the Canadian reform perspective. Run by a publicly traded company, Capio, St. Goran is recognized to be the most efficient hospital in Stockholm (Lofgren, 2002). Further, both patient and staff surveys support the view that St. Goran is not only efficient but provides an excellent quality of care (Lofgren, 2002).
Swedish Medical Association serves as the union and professional organization for physicians with some 90% of doctors enrolled as members in 2011.

**Privately funded options/alternatives**

The universal access health care system in Sweden does not operate as a monopoly. Patients have the ability to purchase medically necessary health care if they so choose and approximately 4% of the population has voluntary health insurance (Glenngård, 2012). The primary focus of voluntary health insurance in Sweden is to expedite access to specialists and to avoid waiting lists for elective treatment.

Sweden’s privately-funded health care sector shares medical resources with the universal sector. Physicians in Sweden are permitted to practice in both the public/universal sector and the privately funded/insured sector (a policy construct known as dual practice). However, specialists in Sweden cannot in any case visit or treat private patients in public hospitals.

**Lessons for Canada**

The combination of similar if not superior access to health care and similar if not superior outcomes from the health care process with 26% fewer resources committed to health care suggests there is much Canadians can learn from the Swedish health care system. A Swedish-style approach to health care in Canada would primarily require important changes to financial flows within provincial tax-funded systems and a greater reliance on competition and private ownership. It would not require a marked departure from the current tax-funded, provincially managed, federally supported health care system in Canada.

The Swedish health care system departs from the Canadian model in the following important ways:

- Cost sharing for all forms of medical services
- Salary payment for physicians
- Some private provision of acute care hospital services
- Activity-based funding for hospital care
- Broad private parallel health care sector with dual practice

In addition to these differences in core health policy are differences in the application of multi-provider teams and a larger use of nurses for primary
care in Sweden (under physician supervision). As both these policies are slowly being adopted in Canada, though the details vary considerably both within Canada and between Canada and Sweden, the discussion of these policies is left for another paper exploring this particular topic in greater detail.

Of course, some policy differences between Canada and Sweden would violate the letter of the Canada Health Act (CHA), while others might be interpreted to do so by the federal government. This said, interference or compliance with the CHA neither validates nor invalidates policy reforms. It is critical to recognize that many of the health policy constructs pursued throughout the developed world would violate the CHA and past federal interpretations of the CHA. Yet these reforms have been shown to provide superior access to and outcomes from the health care process. Thus, the recommendations below set aside the CHA discussion and focus only on the policy changes that would need to take place if Canada were to more closely emulate the Swedish approach to health care.

**Recommendation 1:** Activity-based funding models—possibly with competitive benchmarking employed to set fees—and private provision of hospital and surgical services.

**Recommendation 2:** Private health care and health care insurance for medically necessary care; dual practice for physicians to maximize the volume of services provided to patients in both public and private settings.

**Recommendation 3:** Cost-sharing regimes for universally accessible health care with reasonable annual limits and automated exemptions for low income populations.

**Recommendation 4:** Salary payments for physicians will not work in Canada due to a lack of physicians and an independent practitioner model of delivery. A blended funding approach for primary care with a large fee-for-service component might be considered.
Introduction

Every government of a developed nation provides some manner of health insurance for its populace. In some cases, comprehensive health care coverage is provided by a government-run insurance scheme on a universal basis; in others, it is provided by government only for specifically identified population groups while the bulk of the population obtains coverage through a private insurance system. In between these two extremes fall various types of mixed insurance systems, including those where comprehensive private insurance is mandatory and those where government provides both a tax-funded universal insurance product and tax-funded supports for private insurance premiums. Some systems even allow consumers to choose between comprehensive private and universal health insurance.

Each of these approaches to health insurance is built around a set of policies that determines how health services will be financed, who will be permitted to provide those health services, how physicians and hospitals will be paid, what responsibilities patients will have for payment of services, and whether or not patients can opt to finance all of their care privately. Ultimately, the types of policies that governments choose will affect the quantity and quality of care that is provided to their populations. Health policy choices must therefore be assessed on the basis of value for money—in other words, how good is the health system at making sick and injured people better, at making health services available, and at what economic cost? One way of assessing health policy choices is to examine the choices of other developed nations and the performance that has resulted from those choices.

This paper is part of a series that examines the way health services are funded and delivered in other nations. The nations studied all aim to achieve the noble goal of Canada’s health care system: access to high quality care

---

3 This is a contested statement in the Canadian health policy debate. Some in the Canadian debate see outcomes as secondary to the justice of the structures and processes by which they are achieved. Still others consider “Canadian values” to be the primary determinant of health policy choices. This analysis seeks however to determine what health policies may be the most beneficial for those in need of care and those who are funding that care within a universal framework.
regardless of ability to pay. How they go about achieving that goal however differs markedly from the Canadian approach. And, as suggested above, so do their performances in achieving that goal.

Sweden is the focus of this paper. The Swedish health care system has previously been identified as a system that provides some of the best outcomes from the health care process on an aggregate basis when compared with other developed nations that maintain universal approaches to health care insurance (Esmail and Walker, 2008). Long considered a mecca of socialist thought, it is valuable to examine how the Swedes have structured their universal access health care system to help inform the Canadian debate over the future of Medicare.

The next section examines the performances of the Canadian and Swedish health care systems across a broad range of measures. A detailed examination of Swedish health care policy is undertaken in the third section. A section considering what lessons can be taken from the Swedish experience for Canadians interested in improving the state of Medicare follows.
Health system performance—Canada compared to Sweden

The comparisons below look at the health care systems of both Canada and Sweden as well as the average performance of health care systems in other developed nations\(^4\) that also maintain universal approaches to health care insurance.

Health care expenditures in Canada are considerably higher than in both Sweden and the average universal access nation (Chart 1). In 2009, Canada’s health expenditures (age-adjusted, as older people require more care) were 36% higher than Sweden’s, and were 26% higher than in the average universal access nation. In fact, in 2009 Canada’s health expenditures, as an age-adjusted\(^5\) share of GDP, were the highest among universal access developed nations that year.\(^6\)

Access

Unfortunately, access to health care services in Canada does not reflect this level of expenditure.\(^7\) The Swedish health care system seems to offer a better balance between cost and access than does Canada’s.

---

\(^4\) Defined here as member nations of the Organisation for Economic Cooperation and Development, OECD, in 2009.

\(^5\) The age-adjustment methodology used here is from Esmail and Walker (2008). Age-adjustment is based on the percent of population over age 65 in a given country relative to the average of OECD nations that maintain universal access. A complete description of the methodology is available in Esmail and Walker (2008) on pages 17 through 22, with a mathematical example shown in “Box 2” on page 21.

\(^6\) Note that Turkey was not included in age-adjusted averages due to a low proportion of population over the age of 65 that was not conducive to meaningful adjustment.

\(^7\) It should be noted that we cannot directly measure access, but rather are measuring here the quantity of medical goods and services available to individuals in these countries and the wait times for receiving medical care, to provide insight into the availability of medical services for individuals in these countries.
Chart 1: Total health expenditures, age-adjusted share of GDP, 2009 or nearest year

Note: The number of universal-access member nations of the OECD in 2009 for whom data was available to create the average is shown in parentheses.
Source: OECD, 2011; calculations by author.

Chart 2: Physicians per 1,000 population, age-adjusted, 2009 or nearest year

Note: The number of universal-access member nations of the OECD in 2009 for whom data was available to create the average is shown in parentheses.
Source: OECD, 2011; calculations by author.

Chart 3: Nurses per 1,000 population, age-adjusted, 2009 or nearest year

Note: The number of universal-access member nations of the OECD in 2009 for whom data was available to create the average is shown in parentheses.
Source: OECD, 2011; calculations by author.
With respect to physicians, Canada performs relatively poorly compared to both the universal-access average and Sweden (Chart 2). In 2009, Canada had 2.6 physicians per 1,000 population (age-adjusted). That compares to an average of 3.3 and Sweden’s 3.4 per 1,000 population.

Canada’s nurse to population ratio standing is more positive (Chart 3). Both Canada (10.3) and Sweden (10.1) have more nurses per 1,000 population (age-adjusted) than the average universal access nation (9.6).

Unfortunately, data on the numbers of MRI machines and CT scanners were not available for comparison for Sweden.

The supply of hospital beds in both the Canadian and Swedish health care systems is well below the universal-access average. In 2009, Canada had 3.6 hospital beds for every 1,000 population (age-adjusted), of which 2.0 were curative care beds.\(^8\) This is more than were available in Sweden, where 1.8 of a total of 2.6 hospital beds were present per 1,000 population. Canada also maintained more long-term care beds than Sweden (0.7 and 0.2 respectively). Both nations however lagged the universal access nation average of 5.6 total beds per 1,000 population (age-adjusted), of which 3.8 were curative care beds.

Siciliani and Hurst (2003) find that acute care bed to population ratios are negatively related to waiting times. This suggests that Canada may be better able to deliver health care in a timely fashion than Sweden. The wait times data below, however, find that Swedes are generally treated more promptly than Canadians.

According to the Commonwealth Fund’s 2010 International Health Policy Survey, Canadians were less likely than Swedes to experience a relatively short waiting time for access to emergency care, primary care, and specialist care. Twenty percent of Canadians reported waiting less than 30 minutes in the emergency room compared to 29% of Swedes, and 45% of Canadians reported a same- or next-day appointment for primary care when ill compared to 57% of Swedes. Roughly the same percentage of Swedes and Canadians reported a relatively short wait for elective surgery (35% versus 34%) while 41% of Canadians and 45% of Swedes reported relatively short waits for specialist appointments. (Chart 5).

---

\(^8\) Curative care beds are beds specifically for accommodating patients for the purposes of providing non-mental illness health care (excluding palliative care) including childbirth, treatment for health conditions, recovery from health conditions or surgery, and for diagnostic or therapeutic procedures.

\(^9\) The OECD’s definitions of “acute care” (OECD, 2013) and “curative care” (OECD, 2011) are similar with the notable exception that the term “non-mental illness” appears in the definition given in OECD (2011). However, the term “curative care” is used above following OECD (2011) while term acute care is used here following Siciliani and Hurst (2003).
Chart 4: Hospital beds per 1,000 population, age-adjusted, 2009 or nearest year

Note: The number of universal-access member nations of the OECD in 2009 for whom data was available to create the average is shown in parentheses.
Source: OECD, 2011; calculations by author.

Chart 5: Wait times, seen or treated in relatively short time frame

Source: Commonwealth Fund, 2010

Chart 6: Wait times, seen or treated in relatively long time frame

Source: Commonwealth Fund, 2010
Looking at long waits, again according to the Commonwealth Fund survey (2010), Canadian access to health care was poorer than experienced by Swedes (Chart 6). Thirty-one percent of Canadians reported waiting four hours or more in emergency compared to 20% of Swedes. The proportion of respondents reporting a wait of six-days or more for primary care in Canada was 33%, compared to 25% in Sweden. Forty-one percent of Canadians reported waiting two months or more for a specialist appointment compared to 31% of Swedes. Finally, one quarter of Canadian respondents reported waiting four months or more for elective surgery compared to 22% of Swedes.

Overall, it seems the Swedish health care system is able to provide more timely access to health care services and a more abundant supply of physicians for 26% less expenditure as an age-adjusted share of GDP.

Outcomes

Looking at factors such as the ability of the health care system to provide healthy longevity,\(^\text{10}\) low levels of mortality from disease, and effective treatment for both chronic and terminal illnesses,\(^\text{11}\) it seems the Swedish health care system broadly performs at a level similar, if not superior, to that in Canada.

One of the most basic measures of mortality commonly used to compare health status is infant mortality rates. It should be noted that infant mortality rates can be affected by immigration from poor countries, unhealthy outlier populations, and other population demographics (Seeman, 2003). However, they can also serve as indicators of a well-functioning health care system, in particular the health care system’s capacity to prevent death at the youngest ages and the effectiveness of health care interventions during pregnancy and childbirth. For example, Or (2001) found that OECD countries with higher physician-to-population ratios (used as a proxy measure for health care resources) had lower infant mortality rates.

Sweden’s performance in preventing death at the youngest ages appears to be far superior to Canada’s (Chart 7). In 2009, Swedes experienced an

\(^{10}\) Life expectancy, one of the more common measures of longevity, is not included in the measures below principally because factors outside of the health care system can be significant drivers of overall longevity. This exclusion does not affect the analysis however: Sweden’s life expectancy is 81.4 years compared to Canada’s 80.7 (OECD, 2011).

\(^{11}\) It is important to recognize that data on the quality of health care may capture more than the effects of the health care system. Though a high performing health care system may provide an essential component, health outcomes are ultimately determined as a result of several processes of which the health care system is only one (Busse, 2002). With this in mind, the indicators used for comparison here were selected for their ability to measure as directly as possible the performance of the health care system and for their ability to be affected as little as possible by factors external to the application of health care.
infant mortality rate of 2.5 per 1,000 live births. The average universal access nation experienced a rate of 4.0. Canada’s rate that year was 5.1. It is important to recognize that this was not an outlier year—Canada has long lagged in comparisons of infant mortality rates as well as perinatal mortality rates (28 weeks gestation to first week of life) (Esmail and Walker, 2008). Another way of looking at mortality is to examine deaths that were likely preventable with the application of appropriate health care, or deaths that should not occur if effective health care is applied in a timely fashion. Gay et al. (2011) provide estimates of mortality amenable to health care that can be used to examine how the Canadian and Swedish health care systems perform in saving lives that should, in the presence of timely and effective
health care, not be lost. This calculation relies on counting the number of deaths for specific conditions/diseases in specific age ranges for which there is evidence that timely, effective health care can prevent mortality. In this comparison (Chart 8), both Canada (74 per 100,000 population) and Sweden (68 per 100,000 population) outperform the universal access health care system average. However, Sweden’s rate of mortality amenable to health care is roughly 8% lower than Canada’s.

Survival rates for cancers of the breast, cervix, and colon can provide some insight into the health care systems’ ability to detect disease early and treat disease effectively. With respect to survival rates for breast cancer, both Sweden and Canada perform better than the universal access average though similarly to one another. For cervical cancer, both Canada and Sweden manage performances that are similar to the universal access average. For colorectal cancer, Canada’s survival rate is superior to both the universal access average and Sweden’s performance (Chart 9).

It is also possible to look at indicators that can provide insight into a health care system’s ability to provide effective medical interventions quickly. Chart 10 examines in-hospital case fatality rates within 30 days of admission.

---

12 Gay et al. (2011) provide calculations of mortality amenable to health care using two widely used lists of causes amenable to health care: the list published by Tobias and Yeh, and the list published by Nolte and McKee. For consistency with comparisons published by Esmail and Walker (2008), this series uses calculations based on the Nolte and McKee list of causes.
for acute myocardial infarction (AMI or heart attack), and ischemic (obstruction) and haemorrhagic (rupture) stroke. For AMI, both Canada and Sweden perform better than the universal access average, with Sweden having a lower rate of mortality than Canada. For in-hospital mortality from both forms of stroke, Sweden’s performance is superior to both the universal access average and to Canada’s performance, with Canada lagging the average for both measures.

Insight into the quality of primary care services in a health care system, and in particular the ability of the primary care sector to successfully manage (including co-ordination and care continuity) chronic illness, can be gleaned from measures such as hospital admission rates for chronic obstructive pulmonary disease (COPD), uncontrolled diabetes, and asthma. The rates shown in chart 11 suggest a mixed performance for both Canada and Sweden. Canada’s performance is superior to Sweden’s and the universal access average in uncontrolled diabetes. Canada and Sweden both outperform the average, with Canada outperforming Sweden, in asthma. For COPD, the ranking for the two nations is reversed with both Sweden and Canada outperforming the average and Sweden outperforming Canada.

The final set of measures examined here in the comparison of Swedish and Canadian health care relate to patient safety when undergoing treatment in the health care system. As shown in charts 12 and 13, Sweden outperforms Canada and the universal access average in foreign bodies left in during procedure and accidental punctures or lacerations. Sweden outperforms Canada and...
Chart 11: Hospital admission rates per 100,000 population aged 15 and over (age-, sex-adjusted) for select conditions, 2009 or nearest year

Note: The number of universal-access member nations of the OECD in 2009 for whom data was available to create the average is shown in parentheses.
Source: OECD, 2011; calculations by author.

Chart 12: Patient safety (obstetric trauma, foreign body), Canada, OECD, and Sweden, 2009 or nearest year

Note: The number of universal-access member nations of the OECD in 2009 for whom data was available to create the average is shown in parentheses.
Source: OECD, 2011; calculations by author.
but not the average in obstetric trauma with instrument. On the other hand, Canada outperforms Sweden but not the average in obstetric trauma without instrument and both Sweden and the average in postoperative pulmonary embolism or deep vein thrombosis, and postoperative sepsis.

In summary, the Canadian health care system outperforms the Swedish health care system in: nurse to population ratio, hospital beds to population ratio, slightly in one of eight measures of wait times, one of three cancer survival rates, two of three measures of primary care performance, and three of six measures of patient safety.

On the other hand, the Swedish health care system outperforms the Canadian health care system in: physician to population ratio, seven of eight measures of wait times, infant mortality, mortality amenable to health care, all three measures of in-hospital mortality, one of three measures of primary care performance, and three of six measures of patient safety.

Importantly, Sweden's similar to superior performance across measures of outcomes from the health care process and superior physician supply and wait times performances come at markedly reduced cost compared to Canada. The superior value for money provided by the Swedish health care model suggests it is well worth examining if lessons are to be learned for effective, positive reform of the Canadian health care system.
Sweden’s health policy framework

General overview

The Swedish health care system is federally organized in a manner broadly similar to that in Canada (figures 1 and 2). The Swedish national government is responsible for overall health policy and provides grants in support of health care to regional and municipal governments. According to the Swedish Health and Medical Services Act of 1982, county councils (Sweden’s equivalent to Canada’s provinces) and municipalities are responsible for ensuring universal access to good health care (Anell et al., 2012), and oversee both the financing and delivery of publicly funded/universally accessible health care. Unlike in Canada, responsibility for long term care and care of the elderly and disabled falls to municipalities, though Canadian provinces are able to delegate responsibilities.

Within national oversight of health care policy, county councils have considerable freedom to determine the organization of health care services for their citizens. Generally, the majority of resource-allocation decisions regarding health services are undertaken by the county councils. There is however extensive collaboration with respect to highly specialized health services and certain investments in high technology health care. The national government also provides evidence-based guidelines for the treatment of patients through various bodies [including the Swedish Council on

---

13 The description of the Swedish health care system in this section is based on information found in: Anell et al., 2012; Glenngård, 2012; Larson, 2008; Lofgren, 2002; Magnussen et al., 2009; Paris et al., 2010; and Wright, 2004.

14 County councils in Sweden are democratically elected directly by citizens of the county, have the right to levy taxes, and are responsible for specified public services (most notably health care and public transport). County councils are Sweden’s regional governments, falling (geographically) between the national government and municipalities.
Technology Assessment in Health Care (SBU), Dental and Pharmaceutical Benefits Agency (TLV), and the National Board of Health and Welfare) and has in more recent years provided grants to support national health care “action plans” (Anell et al., 2012).

As is the case throughout the developed world, Sweden’s health care system is in a constant state of reform as governments seek to improve quality and access while controlling costs. Much of this reform has taken place at the county council level, resulting in both differences in detail between county councils but also learning and adoption of successful policies. Broadly, the focus of reform in recent years has been increasing the private sector’s role in delivering universally accessible health care (particularly in primary care and pharmacy services), increasing patient choice and competition among providers in primary care, a greater focus on comparisons of indicators of quality and efficiency, improvements to care coordination, and specialization and concentration of hospital services. These more recent reforms follow a 1990s reform period during which many of Sweden’s county councils undertook a purchaser-provider split (separating the function of providing health care from the function of paying for it) with increased choice for patients. In spite of this continuous reform process, many of the core health policy characteristics of the Swedish model have remained constant since at least the early 1990s, if not much longer.
Figure 2: Financial flows in the Swedish health system

Source: Anell et al. (2012).
Fiscal/financing arrangements

Sweden’s health care system is, like Canada’s, funded primarily through general taxation. The public/private mix in Sweden is, however, markedly different from Canada both in raw numbers and in detail (discussed further below). Of the total health expenditure in Sweden, 81% is from public sources. The remaining 19% of total health expenditure comes from private sources, most of which is user charges. From an expenditures perspective, about 70% of publicly financed health care was funded by county councils, about 8% was funded by municipalities, and about 2% funded by the national government (Glenngård, 2012).

Of total County Council revenue in 2009, taxes were the source of 71% and general state grants the source of 17%, with sales and other revenues, user charges and other charges, subsidies, and other sources of finance making up the rest of the balance (Anell et al., 2012). General state grants in Sweden are similar to federal transfers in Canada in that they are designed to equalize spending power across regional and local governments. As in Canada, there is no direct link between particular sources of revenue and health care expenditure.

Sweden’s universal access health care system offers broad coverage encompassing primary care, specialist care, hospital care, pharmaceutical care, and dental care. However, typical of a Nordic approach to universal access health care, these services are subject to patient cost-sharing/co-payment (figure 2 and table 1). While the requirement of cost sharing is uniform across Sweden, county councils do set varying rates of cost sharing for their residents.

Delivery of primary care

Sweden’s approach to primary care is somewhat different to that in Canada. Most primary care practices in Sweden are team-based facilities with four to six general practitioners alongside other types of medical staff (including nurses, midwives, physiotherapists, psychologists, and gynaecologists) with solo-GP private practices being rare. The health care system in Sweden also

---

15 Canada’s total health expenditures break down as approximately 70% public and 30% private. Public expenditures cover 91% of all spending on hospitals and 99% of all spending on physicians, while covering less than half (46%) of prescribed drug expenditures. On the other hand, nearly half (46%) of private expenditures on health care in Canada are for drugs (both prescribed and non-prescribed) and dental care (CIHI, 2012).

16 The team-based nature of primary care in Sweden may allow for the realization of economics of scale and scope that are less likely to be captured by solo physician practice.
relies on nurses for primary care services to a greater extent than Canada. Specifically, district nurses work both in primary care facilities and provide home visits, especially for older people, and are often responsible for the first contact with the health care system. Importantly, district nurses do not have independent medical authority and operate under the supervision of physicians.

Also unlike in Canada, primary care providers in Sweden do not have a formal gate-keeping role whereby patients must access specialist care through primary care providers. In most county councils, patients are free to contact specialists directly if they so choose. Relative to the Canadian experience, this does not seem to have negatively impacted wait times: Swedes were more likely than Canadians in 2010 to experience a relatively short wait for specialist

<table>
<thead>
<tr>
<th>Health service</th>
<th>User charge</th>
<th>Exemptions/reduced rates</th>
<th>Annual limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary care</td>
<td>SEK100-200 (CAN$15-30), determined by each county council</td>
<td>Those under 20 exempt in most county councils. Regular check ups are also provided with no cost sharing at specialized clinics during pregnancy.</td>
<td>SEK1,100 (CAN$168)</td>
</tr>
<tr>
<td>Outpatient specialist visit</td>
<td>SEK230-320 (CAN$35-49), determined by each county council</td>
<td>Those under 20 exempt in most county councils.</td>
<td>SEK1,100 (CAN$168)</td>
</tr>
<tr>
<td>Inpatient stay</td>
<td>SEK80 (CAN$12) per day, determined by each county council</td>
<td>Those under 20 exempt.</td>
<td>Limits/reductions vary across county councils. Fee reductions are based on income, age (65+ years old), or length of stay in nine county councils</td>
</tr>
<tr>
<td>Outpatient prescription drugs</td>
<td>SEK 1,100 (CAN$168) deductible. 50% co-pay SEK1,1000-2,100 (CAN$168); 25% co-pay SEK2,100-3,900 (CAN$320); 10% co-pay SEK3,900-5,400 (CAN$323). Uniform across Sweden</td>
<td>Those under 20 exempt in most county councils.</td>
<td>SEK2,200 (CAN$335)</td>
</tr>
<tr>
<td>Dental care</td>
<td>Fixed annual subsidy for preventive care and general examination. SEK3,000 (CAN$457) deductible for high-cost protection scheme. 50% co-pay SEK3,000-15,000 (CAN$52,287); 15% co-pay from SEK15,000. Uniform across Sweden</td>
<td>Those under 20 exempt in most county councils.</td>
<td>No annual limit</td>
</tr>
</tbody>
</table>

Note: Canadian dollar conversions are based on the average currency conversion for 2011 provided by the Bank of Canada at http://www.bankofcanada.ca/rates/exchange/10-year-converter/. Converted dollar values are rounded to the nearest dollar for inclusion in the table.

Source: Anell et al., 2012; calculations by author.
consult and less likely to endure a relatively long one (Commonwealth Fund, 2010).17

Primary health care services in Sweden are delivered by both public and private providers. Private primary care providers must have an agreement with the county council in order to be publicly reimbursed for services provided. Importantly, county councils cannot prevent the establishment of a private practice, and can only create a single set of conditions under which providers (both public and private) can be accredited.

While private provision of primary care is permitted in Sweden, the number of private providers does vary across county councils: in some urban councils (including Stockholm), up to 60% of primary care providers may be private while in other councils only a few private providers can be found. Overall, approximately one third of all primary care units are privately owned (Anell et al., 2012).

Patients are free to register with any accredited primary care provider, whether public or private. The Health and Medical Services Act, passed by the parliament in January 2010, made it mandatory for county councils to allow choice of primary care provider and freedom of establishment for primary care providers who are accredited by the county council. Prior to the passing of this national legislation, the patient’s right to choose a provider was not formally legislated, and county councils were left to adopt this approach on a voluntary basis (Anell et al., 2012). Patient choice of provider is supported by a biennial National Patient Survey coordinated by the Swedish Association of Local Authorities and Regions (SALAR) that allows patients to compare primary care providers. Private initiatives that provide comparative information about providers also exist in Sweden.

In most cases, county councils will automatically register patients who have not made an active choice with the primary care provider they last visited or to the primary care provider who is geographically most proximate.

Access to primary care services falls under Sweden’s “0-7-90-90” elective wait times guarantee18 which requires county councils to ensure zero delay with the health care system for primary care and a GP visit within seven days. According to the Commonwealth Fund’s International Health Policy Survey, allowing patients to access specialists directly without the need for a GP consultation would be expected to increase efficiency in the allocation of medical resources to the extent informational barriers (knowing which specialist to see) are not a problem. Of course, Swedes can still see a primary care provider for referral if they feel they have insufficient information.

---

17 Allowing patients to access specialists directly without the need for a GP consultation would be expected to increase efficiency in the allocation of medical resources to the extent informational barriers (knowing which specialist to see) are not a problem. Of course, Swedes can still see a primary care provider for referral if they feel they have insufficient information.

18 The guarantee was introduced in 2005 and incorporated into national legislation in 2010 (Health and Medical Services Act). County councils are responsible for providing alternatives, either publicly or privately provided but funded under the terms of the universal scheme, for patients whose wait exceeds the guaranteed time.
57% of Swedes reported being able to get a same- or next-day appointment with a doctor or nurse when they were sick or needed care in 2010, with only 25% reporting having to wait six days or more. In Canada, where physicians are fewer in number (per 1,000 population) and health spending higher, those numbers were 45% and 33%, respectively (Commonwealth Fund, 2010).

As is the case with other aspects of the allocation of health care resources, county councils are able to determine the mechanisms by which primary care providers will be paid. Across Sweden, a blend of capitation (fixed prospective payment for registered patients), fee-for-service, and performance-based payment has arisen in recent years. Generally, there are two principal models for paying for primary care. Stockholm county council bases approximately 40% of primary care compensation on capitation with more than 55% based on visits by both registered and non-registered patients. Another 3% of the payment is performance based for meeting targets (such as patient satisfaction rates, compliance with governmental treatment recommendations, etc.). In all other county councils, payment is predominated by capitation funding (80-98%) with the remainder consisting of payments for visits primarily for non-registered patients and a small performance-based payment for meeting targets (Anell et al., 2012). The method of funding universally accessible primary care is the same for both public and private providers within a county council.19

Like Canada, Sweden is experiencing a primary care physician shortage (insufficient supply of primary care relative to the demand for it). This in spite of the fact that Sweden has roughly 29% more physicians in total (both general practitioners and specialists) per 1,000 population than Canada. In some cases, physicians providing services on a temporary basis (known in Sweden as hyrläkare) have been employed to ensure services continue to be available for residents. This appears, however, to have negatively impacted continuity of care for patients.

**Delivery of specialized, hospital, and surgical care**

Swedish hospitals fall into three categories: regional/university hospitals, acute care county council hospitals, and local county council hospitals. There are seven regional/university hospitals in Sweden. Of the 70 county council hospitals, approximately two-thirds are acute care hospitals.

Relative to local hospitals, acute care hospitals provide care 24 hours per day, 365 days per year, and maintain a larger range of competencies. In addition, since the mid-1990s, several local hospitals have been transformed

---

19 In several county councils, primary care providers are responsible for prescription costs as well as costs of direct care (Glennård, 2012).
into specialized hospitals that offer elective treatments to a wider geographic area but offer no general acute care services.

The seven regional/university hospitals cover six medical care regions\(^{20}\) and provide highly specialized and advanced medical care. This regionalization is undertaken in an effort to maintain high levels of clinical competence through higher patient volumes.\(^{21}\)

Six of Sweden’s hospitals are privately operated. Sophiahemmet, Ersta, and Red Cross (Röda Korset) hospital in Stockholm are not-for-profit organizations that have contracts with Stockholm county council to provide care for a certain number of patients annually. St. Goran in Stockholm, Lundby in Gothenburg, and Simrishamn in the south of Sweden are for-profit hospitals that are fully financed by county councils on a contract basis. St. Goran is the only private acute care hospital in Sweden.

St. Goran is a particularly interesting hospital from the Canadian reform perspective. Run by a publicly traded company, Capio, St. Goran is recognized to be the most efficient hospital in Stockholm (Lofgren, 2002). Further, both patient and staff surveys support the view that St. Goran is not only efficient but provides an excellent quality of care (Lofgren, 2002).

Patients in Sweden have free choice of hospital, both within and outside their county council, whether public or private as long as the hospital maintains a contract with the county council. Their choice of provider is supported by a biennial National Patient Survey coordinated by the Swedish Association of Local Authorities and Regions (SALAR) that allows patients to compare hospitals. Private initiatives that provide comparative information about providers also exist in Sweden. National comparable information on hospitals across some 50 indicators is also available as part of a collaboration between the National Board of Health and Welfare and SALAR.

Access to specialist and hospital services on an elective basis fall under Sweden’s “0-7-90-90” elective wait times guarantee\(^{22}\) which requires county councils to ensure specialist consultation in 90 days and elective treatment within 90 days of diagnosis. According to the Commonwealth Fund’s International Health Policy Survey, 45% of Swedes reported waiting less than one month for a specialist appointment in 2010, while 31% reported waiting two months or more. For elective surgery, 34% of Swedes reported waiting less than one month in 2010 and 22% reported waiting four months or

---

\(^{20}\) On average, each medical care region covers a population of 1 million or more Swedes.

\(^{21}\) Future health care reforms in Sweden may include further concentrations of highly specialized health care in national health centres.

\(^{22}\) The guarantee was introduced in 2005 and incorporated into national legislation in 2010 (Health and Medical Services Act). County councils are responsible for providing alternatives, either publicly or privately provided but funded under the terms of the universal scheme, for patients whose wait exceeds the guaranteed time.
more. In both cases, Swedish wait times are similar to if slightly shorter than those in Canada with the exception of slightly more Canadians reporting relatively short waits for elective surgery (41%, 41%, 35%, and 25%, respectively) (Commonwealth Fund, 2010).

As is the case with primary care, methods of paying for hospital care vary across Sweden. Activity-based funding, whereby hospitals are paid on the basis of services provided, is common across Sweden, having been introduced in the early 1990s in a number of county councils. In Sweden, activity-based funding is typically done on a diagnosis related group (DRG-type) basis, where hospitals receive payment for each individual cared for based on the expected costs of dealing with their case (including significant co-morbidities). For outlier cases, such as complicated cases that are grossly more costly than the average cost per case, per-diem payments (payment per day of hospitalization) may be used by county councils as a supplement to activity-based funding. While activity-based funding is common, global budgets (whereby hospitals receive an annual budget for the provision of care) are still employed by some councils and are also used to supplement activity-based funding. Hospitals in some Swedish county councils also receive pay-for-performance compensation in addition to activity-based funding, comprising up to 4% of hospital payment (Anell et al., 2012). Generally, pay-for-performance programs in Sweden withhold payment if certain targets (for example wait times, patient safety, or clinical indicators) are not met.

The move to DRG-type or activity-based funding in Sweden from global budget financing models in the 1990s is responsible for considerable gains in efficiency and cost effectiveness. For example, Gerdtham et al. (1999) found that Swedish county councils that moved to activity-based funding enjoyed potential cost savings of approximately 13%. Looking at Stockholm county council in particular, Håkansson (2000) measured an 8% increase in inpatient care, a 50% increase in day surgeries, and a 15% increase in outpatient visits as a result of reform. Overall, Stockholm county council experienced an 11% increase in activity while costs fell 1% due both to a reduction in hospital employment and a 10% price decrease. Equally important, Håkansson (2000) found no evidence of a negative effect on patients (in terms of re-admissions to hospital) or discrimination against elderly patients, while Svensson and Garelius (1994; cited in Håkansson, 2000) found no evidence of providers giving treatment only to the simplest or most profitable cases.

Unlike in Canada, where physicians are most commonly independent practitioners paid on a fee-for-service basis, physicians in Sweden are

23 As opposed to budgetary models which pre-fund patient care in bulk.
24 This might also be referred to as a prospective fee-for-service funding model.
25 Payments under the activity-based funding scheme usually fall once a specified volume of activity has been reached (Glenngård, 2012).
predominantly salaried employees of the care provider (hospital, primary care organization, etc.). This is true across health care sectors (primary care, hospital care, etc.) for both public and private providers. Salaries in Sweden are negotiated by professional unions. The Swedish Medical Association serves as the union and professional organization for physicians with some 90% of doctors enrolled as members in 2011 (Anell et al., 2012). In 2010, the average monthly salary\textsuperscript{26} for physicians employed by county councils was SEK56,600 (CAN$8,629) and SEK29,000 (CAN$4,421) for specialist nurses (Anell et al., 2012; calculations by author).\textsuperscript{27}

**Privately funded options/alternatives**

Sweden’s approach to private parallel health care represents a significant departure from the Canadian model. The universal access health care system in Sweden does not operate as a monopoly, and patients have the ability to purchase health care if they so choose. Approximately 4% of the population has voluntary health insurance (Glenngård, 2012).

The primary focus of voluntary health insurance in Sweden is to expedite access to specialists and to avoid waiting lists for elective treatment. In 2010, more than 80% of all voluntary health insurance was paid for by employers. Another 12% was employees paying for coverage through group plans, while 6% was individual private insurance (Anell et al., 2012). Voluntary health insurance in Sweden is a non-deductible expense for employers and a non-taxable benefit for employees.

Sweden’s privately-funded health care sector shares medical resources with the universal sector. Physicians in Sweden are permitted to practice in both the public/universal sector and the privately funded/insured sector (a policy construct known as dual practice). However, specialists in Sweden cannot in any case visit or treat private patients in public hospitals (Hurst and Siciliani, 2003).

\textsuperscript{26} Including compensation for work during non-regular working hours.

\textsuperscript{27} Canadian dollar conversions are based on the average currency conversion for 2011 provided by the Bank of Canada at \url{http://www.bankofcanada.ca/rates/exchange/10-year-converter/}. Converted dollar values are rounded to the nearest dollar.
Lessons for Canada

The combination of similar if not superior access to health care and similar if not superior outcomes from the health care process for substantially lower cost, suggests there is much Canadians can learn from the Swedish health care system. Importantly, emulating the Swedish health care system would not require a marked departure from the current tax-funded, provincially managed, federally supported Canadian health care system. A Swedish style approach to health care in Canada would primarily require important changes to financial flows within provincial tax-funded systems and a greater reliance on competition and private ownership.

The Swedish health care system departs from the Canadian model in the following important ways:

- Cost sharing for all forms of medical services
- Salary payment for physicians
- Some private provision of acute care hospital services
- Activity-based funding for hospital care
- Broad private parallel health care sector with dual practice

In addition to these differences in core health policy are differences in the application of multi-provider teams and a larger use of nurses for primary care in Sweden (under physician supervision). As both these policies are slowly being adopted in Canada, though the details vary considerably both within Canada and between Canada and Sweden, the discussion of these policies is left for another paper exploring this particular topic in greater detail.
Of the five core policy differences, the last four can be implemented by Canada’s provinces without violating the letter of the Canada Health Act (CHA). As noted by Clemens and Esmail (2012), however, a federal interpretation of the term reasonable access in section 12 of the CHA could be used to disallow a broad range of policies at the sole discretion of the federal government, in particular the last two policies in the list. Given these reforms are emulating a more successful approach to universal access to health care, and thus cannot be reasonably opposed in a factual manner, this restrictive feature of the Act is not considered here.28

The first policy difference, cost sharing, does clearly violate the CHA and would result in required reductions in federal transfers for health and social services under sections 19 and 20 of the CHA.29 This policy choice either requires a federal change to the CHA, which may be undertaken unilaterally by the federal government (Clemens and Esmail, 2012; Boychuk, 2008), or requires a province to accept dollar-for-dollar reductions in federal cash transfers to implement this policy. Setting aside concerns about the politics of doing so, this latter option may not necessarily be against the province’s financial interest depending on the savings that may accrue from such a policy decision (Esmail, 2006).

This said, interference or compliance with the CHA neither validates nor invalidates these policies. It is critical to recognize that many of the health policy constructs pursued throughout the developed world would violate the CHA and past federal interpretations of the CHA. Yet these constructs have been shown to provide superior access to and outcomes from the health care process (see for example Esmail and Walker, 2008). The Canada Health Act has clearly not produced superior access and outcomes for Canadians. Thus, the discussion of reforms below sets aside the CHA discussion and focuses only on the policy changes that would need to take place if Canada were to more closely emulate the Swedish approach to health care.

28 Of course, the argument against these policies by a federal government could be purely ideological in nature, as so many discussions of allowable health policy have been in the past. As it is difficult to predict the outcome of such ideological opposition, and in the interests of objectivity, such an argument is not entertained here.

29 Clemens and Esmail (2012) also note that the CHA, partly through limitation on cost sharing, effectively discourages the inclusion of pharmaceuticals under the taxpayer-funded universal health insurance scheme. Clemens and Esmail argue that “free” physician and hospital care required by the CHA encourages patients to forego pharmaceutical care unless the province sets deductibles/co-payments to zero and bears the full cost. This either harms the health of patients and decreases cost-effectiveness, or forces provincial policy decisions regarding pharmaceutical coverage. Clemens and Esmail further note that this distortion under the CHA relates to many areas of health care in addition to pharmaceuticals, including home care and long-term care.
Principal policy differences three and four are very much intertwined and relate strongly to the efficiency of hospital and surgical care. Importantly, the economic literature generally finds that private businesses (both for- and not-for-profit) operate more efficiently and at higher quality with a greater consumer focus than their public counterparts. Reviews of the literature focused on hospital care are generally supportive of the conclusion for businesses in general (Esmail and Walker, 2008). Indeed, a recent survey of the literature on hospitals and surgical clinics finds that competition, and a blend of public and private (both for- and not-for-profit) delivery will likely have a positive impact on some measures of health care, little impact on others, and is unlikely to have a negative impact (Ruseski, 2009). That survey concludes: “... a carefully crafted policy that encourages competition among non-profit, for-profit, and public providers can result in a health care system that is fiscally sustainable, ensures access to quality health care, and results in better health outcomes” (Ruseski, 2009: 42). Further, reviews of hospital funding mechanisms have generally found that activity-based funding is markedly superior to budget-based funding in terms of efficiency and output, with additional potential benefits created by private competition (Esmail, 2007).

Neither result is surprising when one considers the incentives associated with the various approaches to ownership and financing.

Kornai (1992) identified budget constraints as one of the major and unchangeable differences between private-sector businesses and government. Government budget constraints are “soft”, since it is effectively impossible for government to be de-capitalized. Private-sector businesses, on the other hand, face “hard” budget constraints: if they incur sustained losses, or even a few large losses, the decline of capital can push them into bankruptcy. Kornai argued that this central difference between the two types of entities can result in extraordinary differences in operations. Private-sector businesses must provide consumers with the goods and services they demand in a timely manner and at affordable prices that are consistent with their quality. Government Business Enterprises (GBEs) do not face the same constraints. They can consistently lose money by offering goods and services whose prices do not reflect their quality or timeliness. Put more simply, private businesses face the risk of going under if they fail to provide good value, and thus will usually behave differently from their public sector counterparts who do not. Further, Megginson and Netter (2001) found that GBEs tend to develop with less capital and are therefore more labour intensive than their private-sector counterparts. That GBEs do not incorporate an optimal amount of capital has negative implications for both labour and total factor productivity.

Global budgets or block grants (the dominant form of hospital funding in Canada) disconnect funding from the provision of services. As a result, incentives to provide a higher or superior quality of care to patients are weak, as are incentives to function efficiently, especially in the presence of “soft”
budget constraints (Gerdtham et al., 1999). Conversely, administrators working under global budgets have an incentive to discharge patients quickly, avoid admitting costly patients, and shift patients to other outside institutions as a means of controlling expenditures (Leonard et al., 2003). Activity-based funding on the other hand creates incentives for hospitals to treat more patients and to provide the types of services that patients desire while still maintaining an incentive for cost-efficiency by paying only for the average cost of treatment and not for all services actually delivered.

Studies have shown that activity-based funding can lead to a greater volume of services delivered using existing health care infrastructure, reductions in waiting time, reductions in excessive hospital stays, improved quality of care, more rapid diffusion of medical technologies and best practice methods, and the elimination of waste (see for example, OECD-DFEACC, 2006; Bibbee and Padrini, 2006; Biørn et al., 2003; and Siciliani and Hurst, 2003). In addition, studies have also shown a positive benefit to including private providers within an activity-based funding model, particularly if a competitive bidding process is employed to determine compensation rates under the activity-based funding model. For example, OECD-DFEACC notes the “presence of for-profit hospitals can be associated with 2.4 percent lower hospital payments in a geographic area,” that “[p]rice competition between selectively contracted hospitals can lead to price reductions of 7 percent or more,” and that “[b]enchmarking of payment levels against most efficient hospitals can lead to a 6 percent reduction in costs at less efficient hospitals” (2006: 25). An OECD economic survey of the UK has also noted that “[i]nvolving a broader mix of providers can stimulate productivity as public and private providers learn from each other’s innovations...” (2004: 5).

It is valuable to reiterate the benefits created by combining activity-based funding and competition with private provision of services. Vitally, when it comes to efficiency, ownership (though an important factor) may be less important than the extent of competition. Both public and private providers are likely to be less efficient in the absence of competition, while both are likely to operate more efficiently in the presence of competition. The key advantage of introducing more private provision in health care is that it would provide greater competition, putting pressure on all providers (whether public or private) to operate more efficiently.30

Clearly there are significant benefits that can accrue from shifting from global budgets to activity-based funding and including private providers under the universal access health insurance scheme.

---

30 Further, as noted above, there may be differences between public and private providers in their responsiveness to competition and to financial incentives.
**Recommendation 1:** Activity-based funding models—possibly with competitive benchmarking employed to set fees—and private provision of hospital and surgical services.

Many in the Canadian health care debate have argued that allowing a private parallel health care sector is tantamount to abandoning the ideal of universality or that it will put Canada on a slippery slope to abandoning universality. Yet the Swedish health care system allows such private activity and manages to provide similar if not superior universal access care at less cost. What may come as a surprise to many Canadians is that part of Sweden’s superior health care performance is the result of a private parallel health care sector.

A private parallel health care sector plays several important roles. First, it provides individuals an option to return to normal life more rapidly than might be possible through the universal system. This has private benefits for those who opt to not wait including reduced financial loss if unable to work while waiting and fewer limitations on personal activities. This also has potential benefits for worker productivity in terms of increased work effort and productivity for those who opt to not wait for care. Second, when patients exit the universal system and use the private parallel health care sector they free up resources in the universal system for patients who have opted to not seek private care. Third, a private parallel health care sector provides a safety valve for the public system in the event of a capacity limitation or sudden increase in demand. Fourth, a private parallel health care sector creates incentives for better service in the public system through competition.

These benefits are not only theoretical but have been borne out in practice in studies of health care systems in other developed nations. In Australia, for example, where government policy has been organized to encourage private insurance uptake, patient use of the private sector has helped to keep the cost of the public hospital system down over time (Harper, 2005). In another broader example, Siciliani and Hurst found, in a review of policies to tackle waiting times in 12 developed nations, preliminary evidence supporting the conclusion that wait times may be reduced by an increase in private health insurance coverage (Siciliani and Hurst, 2005).

Sweden also allows physicians to work in both the public and private health care sectors rather than requiring them to opt out of the universal system (as some Canadian provinces do). This has the benefit of making more efficient use of highly skilled medical resources. Importantly, under dual practice, any spare physician time that may be available due to limitations in practice under the universal scheme and/or restricted access to operating

---

31 Sweden has maintained a private parallel health care system throughout the history of its universal health insurance scheme, limiting study of introduction/expansion of a private parallel health care system there.
time can be employed to treat patients in private settings thus increasing the total volume of services provided. Even in the absence of such “free time”, physicians may be encouraged to take less leisure time and work additional hours in return for supplementary private compensation.

Importantly, dual practice for physicians is not an unusual practice in the developed world. Dual practice for physicians can be found in Denmark, England, Ireland, New Zealand, Norway, Spain, Sweden, Australia, Finland, and Italy. In Australia, Denmark, England, and Ireland specialists working in public hospitals can also visit or treat private patients within the same institution. This said, restrictions may be imposed either in terms of earnings (England), authorizations (Finland), restrictions on the use of public hospitals (Spain, Sweden, Netherlands), or by other regulations. Put differently, allowing dual practice in an effort to more efficiently employ valuable medical resources is not uncommon, and various regulations that work to avoid potential negative consequences are available to be studied and adopted as well.

**Recommendation 2:** Private health care and health care insurance for medically necessary care; dual practice for physicians to maximize the volume of services provided to patients in both public and private settings.

A lack of cost sharing for medical services in Canada has resulted in excessive demand and wasted resources. By encouraging patients to make a more informed decision about when and where it is best to access the health care system, cost sharing both increases cost efficiency of health care (ultimately reducing total spending) and improves access to practitioners for those in need of care as demand for services is reduced through a nominal out-of-

---

32 There are some who disagree with this view in the Canadian debate, often citing studies by Forget et al. (2002) and Roos et al. (2004). However, neither demonstrates that low income users and high demanders of health care aren’t wasteful. Nor do these studies demonstrate that use of health care among those of higher income or among those who are low demanders isn’t wasteful. They show clearly that the majority of health spending is driven by a small portion of the population and that use of health care increases with income (while sensitivity to cost sharing falls as income rises). But this is true in health care systems of all developed nations—it is not unique to the Canadian experience.

Thus, to the extent we can rely on international experience, we can rely on studies of the implementation of cost sharing in other nations (including the RAND Health Insurance Experiment) to inform thinking on cost sharing in Canada. Such studies typically show not insignificant reductions in total expenditures from low levels of cost sharing.

Further, even if we accept that there is no excess demand for health care services on the part of patients, cost sharing can act as a brake on excess supply of services by practitioners, a point made by both Newhouse (1993) and Tussing (1983).
pocket charge. This is borne out in the economic literature showing the value of cost sharing in an insurance scheme (see, for example, Ramsay, 1998; Newhouse et al., 1993). Further, cost sharing policies have also been shown to not have an adverse impact on health outcomes as long as specific populations are exempt (Newhouse et al., 1993; Esmail and Walker, 2008).

On this latter point, work on the effects of cost sharing in Nordic countries (Denmark, Finland, Iceland, Norway, and Sweden) emphasizes the need for appropriate and effective exemptions for low-income individuals in order to ensure that these individuals are able to access the health care system in times of need (Øvretveit, 2001). Also, the process by which these exemptions are granted should be proactively administered and automated as much as possible in order to ensure that all who qualify for an exemption receive it, since a lack of knowledge of exemptions, social stigmas, and the need to complete special forms (increasing the cost of getting subsidies) can result in many individuals not receiving appropriate assistance or protection (Warburton, 2005; Øvretveit, 2001).

**Recommendation 3:** Cost-sharing regimes for universally accessible health care with reasonable annual limits and automated exemptions for low income populations.

Sweden’s reliance on salaried physicians is at odds with the approach employed in the majority of universal access developed nations (Esmail and Walker, 2008). There are sound economic reasons that can explain why this is so. Importantly, salaried payments relative to fee-for-service compensation lack incentives to increase the volume or quality of services delivered beyond a minimal standard. Numerous studies have shown that physicians paid under a fee-for-service model (the dominant model in Canada, though other funding models are increasingly common) provide a greater volume of services, and potentially a greater quality of services, than physicians paid a salary (see Esmail and Walker, 2008).

Some have argued that capitation models are superior to both salaries and fee-for-service funding for primary care. However, capitation payments are not necessarily an optimal funding model and create problematic incentives including over-registering and under-servicing patients and preferring healthier patients to higher-risk patients (Esmail and Walker, 2008).

The reality that salaried physicians, and even those paid under capitation models, may tend to provide fewer services than fee-for-service physicians is all the more important in the presence of a lack of physicians in Canada. Further, Canada’s independent practitioner model offers fewer

---

33 Canada’s shortage of physicians can also be expected to persist into the future in the absence of a large inflow of foreign-trained physicians (Esmail, 2011).
opportunities for management and oversight of practitioners compared to Sweden’s employee model where positions under salary payment can be better supervised to maintain output and quality. The economic literature, international experience, and Canada’s physician supply and independent practitioner model support not adopting this feature of the Swedish health care model.

While this discussion focuses principally on provider compensation, Sweden’s use of a blended payment model for primary care services, including both capitation and fee-for-service, may be worth further examination. Blended funding models such as Sweden’s combining multiple methods of funding may capture the positive effects of each payment methodology while mitigating the negative. While Canada’s physician shortage and independent practitioner model would preclude salary based funding, there may be value in examining a blended funding model for Canadian primary care providers that included a large fee-for-service component to ensure the consequences of Canada’s physician shortage were not exacerbated by the change in funding approach.

**Recommendation 4:** Salary payments for physicians will not work in Canada due to a lack of physicians and an independent practitioner model of delivery. A blended funding approach for primary care with a large fee-for-service component might be considered.

34 This is not to say that one model is necessarily superior to another. However, the independent practitioner model in Canada does impose limitations on other policy variables.
References


About the author

Nadeem Esmail
Nadeem Esmail is the Director of Health Policy Studies at the Fraser Institute. He first joined the Fraser Institute in 2001, served as Director of Health System Performance Studies from 2006 to 2009, and was a Senior Fellow with the Fraser Institute from 2009 to 2012. Mr Esmail has spearheaded critical Fraser Institute research including the annual *Waiting Your Turn* survey of wait times for medical care across Canada and *How Good Is Canadian Health Care?*, an international comparison of health care systems. In addition, he has been the author or co-author of more than 30 comprehensive studies and more than 150 articles on a wide range of topics including the cost of public health care insurance, international comparisons of health care systems, hospital performance, medical technology, and physician shortages. A frequent commentator on radio and TV, Mr. Esmail’s articles have appeared in newspapers across North America. He completed his B.A. (Honours) in Economics at the University of Calgary and received an M.A. in Economics from the University of British Columbia.

Acknowledgments

The author would like to acknowledge Marc Law and Herb Emery, who reviewed this paper. Any remaining errors and omissions are the sole responsibility of the author. The views expressed in this study do not necessarily represent the views of the trustees, supporters, or other staff of the Fraser Institute.
Publishing information

Distribution
These publications are available from <http://www.fraserinstitute.org> in Portable Document Format (PDF) and can be read with Adobe Acrobat® 7 or Adobe Reader®, versions 7 or later. Adobe Reader® XI, the most recent version, is available free of charge from Adobe Systems Inc. at <http://get.adobe.com/reader/>. Readers who have trouble viewing or printing our PDF files using applications from other manufacturers (e.g., Apple’s Preview) should use Reader® or Acrobat®.

Ordering publications
For information about ordering the printed publications of the Fraser Institute, please contact the publications coordinator:

• e-mail: sales@fraserinstitute.org
• telephone: 604.688.0221 ext. 580 or, toll free, 1.800.665.3558 ext. 580
• fax: 604.688.8539.

Media
For media enquiries, please contact our Communications Department:

• 604.714.4582
• e-mail: communications@fraserinstitute.org.

Copyright
Copyright © 2013 by the Fraser Institute. All rights reserved. No part of this publication may be reproduced in any manner whatsoever without written permission except in the case of brief passages quoted in critical articles and reviews.

Date of issue
2013

Citation

Cover design
Bill Ray

Cover images
©Scanrail, Bigstock (Panorama of Stockholm, Sweden)
©Marmion, Bigstock (group of doctors)
©zurijeta, Bigstock (African American man)
Supporting the Fraser Institute

To learn how to support the Fraser Institute, please contact

- Development Department, Fraser Institute
  Fourth Floor, 1770 Burrard Street
  Vancouver, British Columbia, V6J 3G7  Canada

- telephone, toll-free: 1.800.665.3558 ext. 586

- e-mail: development@fraserinstitute.org

Lifetime patrons
For their long-standing and valuable support contributing to the success of
the Fraser Institute, the following people have been recognized and inducted
as Lifetime Patrons of the Fraser Institute.

Sonja Bata        Serge Darkazanli        Fred Mannix
Charles Barlow    John Dobson            Jack Pirie
Ev Berg           Raymond Heung           Con Riley
Art Grunder       Bill Korol             Catherine Windels
Jim Chaplin       Bill Mackness
Purpose, funding, & independence

The Fraser Institute provides a useful public service. We report objective information about the economic and social effects of current public policies, and we offer evidence-based research and education about policy options that can improve the quality of life.

The Institute is a non-profit organization. Our activities are funded by charitable donations, unrestricted grants, ticket sales, and sponsorships from events, the licensing of products for public distribution, and the sale of publications.

All research is subject to rigorous review by external experts, and is conducted and published separately from the Institute’s Board of Trustees and its donors.

The opinions expressed by the authors are those of the individuals themselves, and do not necessarily reflect those of the Institute, its Board of Trustees, its donors and supporters, or its staff. This publication in no way implies that the Fraser Institute, its trustees, or staff are in favour of, or oppose the passage of, any bill; or that they support or oppose any particular political party or candidate.

As a healthy part of public discussion among fellow citizens who desire to improve the lives of people through better public policy, the Institute welcomes evidence-focused scrutiny of the research we publish, including verification of data sources, replication of analytical methods, and intelligent debate about the practical effects of policy recommendations.
About the Fraser Institute

Our vision is a free and prosperous world where individuals benefit from greater choice, competitive markets, and personal responsibility. Our mission is to measure, study, and communicate the impact of competitive markets and government interventions on the welfare of individuals.

Founded in 1974, we are an independent Canadian research and educational organization with locations throughout North America and international partners in over 85 countries. Our work is financed by tax-deductible contributions from thousands of individuals, organizations, and foundations. In order to protect its independence, the Institute does not accept grants from government or contracts for research.

Nous envisageons un monde libre et prospère, où chaque personne bénéficie d’un plus grand choix, de marchés concurrentiels et de responsabilités individuelles. Notre mission consiste à mesurer, à étudier et à communiquer l’effet des marchés concurrentiels et des interventions gouvernementales sur le bien-être des individus.

Peer review—validating the accuracy of our research

The Fraser Institute maintains a rigorous peer review process for its research. New research, major research projects, and substantively modified research conducted by the Fraser Institute are reviewed by experts with a recognized expertise in the topic area being addressed. Whenever possible, external review is a blind process. Updates to previously reviewed research or new editions of previously reviewed research are not reviewed unless the update includes substantive or material changes in the methodology.

The review process is overseen by the directors of the Institute’s research departments who are responsible for ensuring all research published by the Institute passes through the appropriate peer review. If a dispute about the recommendations of the reviewers should arise during the Institute’s peer review process, the Institute has an Editorial Advisory Board, a panel of scholars from Canada, the United States, and Europe to whom it can turn for help in resolving the dispute.
Editorial Advisory Board

Members

Prof. Terry L. Anderson  Prof. Herbert G. Grubel
Prof. Robert Barro  Prof. James Gwartney
Prof. Michael Bliss  Prof. Ronald W. Jones
Prof. Jean-Pierre Centi  Dr. Jerry Jordan
Prof. John Chant  Prof. Ross McKitrick
Prof. Bev Dahlby  Prof. Michael Parkin
Prof. Erwin Diewert  Prof. Friedrich Schneider
Prof. Stephen Easton  Prof. Lawrence B. Smith
Prof. J.C. Herbert Emery  Dr. Vito Tanzi
Prof. Jack L. Granatstein

Past members

Prof. Armen Alchian*  Prof. F.G. Pennance*
Prof. James M. Buchanan*†  Prof. George Stigler* †
Prof. Friedrich A. Hayek* †  Sir Alan Walters*
Prof. H.G. Johnson*  Prof. Edwin G. West*

* deceased; † Nobel Laureate