



Lessons from Abroad

A Series on Health Care Reform



Health Care
Lessons from the
Netherlands
by Nadeem Esmail

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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 Netherlands is the focus of this paper. The Dutch health care system is recognized as a high performing system from the perspective of the consumer (patient), in which wait times are not considered to be a problem (having been reduced in recent years), and with a relatively low level of health disparities/high equity (Daley et al., 2013; Leu et al., 2009; OECD, 2012; Schut and Varkevisser, 2013). A careful examination of the Dutch health care system may provide insights and information to help inform the Canadian debate over the future of Medicare.

Health system performance—Canada compared to the Netherlands

Health care expenditures in Canada are comparable to those in the Netherlands and are considerably higher than in the average universal access nation. In 2009, Canada's health expenditures (age-adjusted) were 2% higher than in the Netherlands, and 26% higher than in the average universal access nation. In fact, Canada's 2009 health expenditures, as an age-adjusted share of GDP, were the highest among developed nations with universal access health insurance schemes. The Netherlands ranked second.

Unfortunately, the availability of medical professionals, technologies, and services generally in Canada's health care system does not reflect this level of expenditure. With respect to health care inputs, the Canadian system has higher ratios of nurses to population and CT scanners to population than the Dutch health care system. On the other hand, the Dutch health care system has higher ratios of physicians to population, MRI machines to

population, and hospital beds to population. With respect to timeliness, the Dutch experience shorter wait times for emergency care, primary care, specialist care, and elective surgery than Canadians.

Looking at factors such as the health care systems' ability to successfully manage and treat chronic and critical illnesses, and provide protection from medically avoidable mortality, it seems the Dutch health care system broadly performs at a level similar or superior to that in Canada. Specifically, the Canadian health care system outperforms the Dutch system in four of twelve measures examined: one of three measures of in-hospital mortality, two of three measures of cancer survival, and one of two measures of primary care performance. Conversely, the Dutch health care system outperforms Canada's in five measures: infant mortality, mortality amenable to health care, one of two measures of primary care performance, and both measures of patient safety.

The Netherlands' health policy framework

The basis of the Dutch health insurance system is markedly different from Canada's approach. Rather than relying on a tax-funded monopoly government insurer, the Dutch system provides universal coverage in an insurance premium-funded system characterized by competition between private insurers and competition between providers, alongside personal financial responsibility for patients. Though government plays an important role in terms of funding, regulation, and oversight, the operation of the health care system is largely left to private competing insurers and providers.

All Dutch residents must purchase standard or basic health insurance coverage in the regulated Social Health Insurance (SHI) market from, and pay premiums to, a private insurance company of their choice. Insurance companies must accept all applications and must charge community-rated (the same for all applicants, but insurer specific) premiums. Financial assistance is available to ensure lower-income families and individuals have access to insurance. Premiums and insurance deductibles account for some 44% of insurer funding, with the other 56% coming from income-dependent contributions that provide for prospective risk equalization between insurers. Under the risk-equalization scheme, insurance companies with more costly risk profiles receive higher income than those with less costly profiles.

A standard deductible is required in the standard insurance plan for all health costs except GP visits and children's health care. In 2012, the deductible was €220 (CAD\$283) and increased to €350 (CAD\$450) in 2013.¹ The

1 All Canadian dollar conversions in this study are based on the average Euro to Canadian dollar conversion rate for 2012 from the Bank of Canada's 10-year currency converter.

Health system performance—Canada compared to the Netherlands

Indicator*	Canada	Netherlands
Total health expenditures (age-adjusted, % of GDP)	12.5	12.3
Physicians (age-adjusted, per 1,000 pop.)	2.6	3.0
Nurses (age-adjusted, per 1,000 pop.)	10.3	8.6
MRI machines (age-adjusted, per million pop.)	8.8	11.3
CT scanners (age-adjusted, per million pop.)	15.2	11.6
Hospital beds (age-adjusted, per 1,000 pop.)		
<i>Total</i>	3.6	4.8
<i>Curative care beds</i>	2.0	3.2
Waited less than 30 minutes in emergency room before being treated**	20%	52%
Same- or next-day appointment with doctor or nurse when sick or needed care**	45%	72%
Waited less than one month for specialist appointment**	41%	70%
Waited less than one month for elective surgery**	35%	59%
Waited four hours or more in emergency room before being treated**	31%	3%
Waited six days or more for access to doctor or nurse when sick or needed care**	33%	5%
Waited two months or more for specialist appointment**	41%	16%
Waited four months or more for elective surgery**	25%	5%
Infant mortality rate (per 1,000 live births)	5.1	3.8
Mortality amenable to health care (per 100,000 pop. 2007)	74	68
Five year relative survival rate for breast cancer***	86.6	84.4
Five year relative survival rate for cervical cancer	64.9	67.0
Five year relative survival rate for colorectal cancer***	63.4	61.0
In-hospital case-fatality rates within 30 days, AMI***	3.8	5.3
In-hospital case-fatality rates within 30 days, hemorrhagic stroke	20.6	22.4
In-hospital case-fatality rates within 30 days, ischemic stroke	6.3	5.7
COPD hospital admission rate (per 100,000 pop.)***	183.3	152.3
Asthma hospital admission rate (per 100,000 pop.)***	15.7	27.5
Obstetric trauma, vaginal delivery w/ instrument (per 100 patients)	13.7	3.6
Obstetric trauma, vaginal delivery w/out instrument (per 100 patients)	2.7	2.1

* 2009 or nearest year, unless otherwise noted. ** % of patients, 2010. *** 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.

deductible is generally paid to the health insurer.² Insurers may also choose to not charge the deductible if patients use preferred providers, preferred pharmaceuticals or medical aids, or follow select preventive programs. Cost sharing under the statutory scheme beyond the deductible is limited.

Insurance companies compete on the basis of direct premium and quality, and are able to selectively contract with providers. Beyond choice of insurer, members may also affect their premium through two variable plan characteristics: choosing between reimbursement and direct provider payment policies; and voluntarily selecting additional deductibles (beyond the mandatory deductible) between €100 (CAD\$128) and €500 (CAD\$642). Premiums may also be reduced by enrolling through a collective or group contract (for example an employer or patient organization).

Primary care

The delivery of primary care, and outpatient services generally, is centred around independent private general practitioners (GPs). About 51% of physicians can be found in group practices with three to seven GPs. Some 29% of GPs are in two-doctor practices, while 20% are in solo practice. Most GPs are independent or working in partnership with other doctors, with a small number of GPs employed in practices owned by another GP.

Unlike most countries with a social health insurance construct (Germany, Switzerland, and Japan, for example), GPs play a mandatory gate-keeping role for access to specialist and hospital services. All individuals are to be registered with a GP of their choosing and are free to switch GPs without restriction. GPs are, however, able to refuse patients if their practice is full or if the patient lives too far from the practice.

While primary care services are centred on GP practices, nurses play a role in their delivery. Practice nurses are often employed by physicians to provide services to patients, with a focus on those with chronic conditions. Specialized nurses are also able to write prescriptions for patients, with GP diagnosis. Nurses are generally paid a salary by the GP or practice, with the GP billing insurance companies for services provided.

Primary care GP services are compensated through a combination of capitation (per registered patient) payments, fee-for-service payments, and bundled payments for care of those with select chronic illnesses. GPs and insurers may also negotiate compensation for providing specific services or

2 The insured member is responsible for reimbursing the insurance company for eligible health services up to the deductible each year before first-dollar insurance cover is provided (the first €220 in 2012, and the first €350 in 2013).

programs, while insurers may provide incentives for integrated/coordinated care including risk-sharing/bonuses.

Specialized, hospital, and surgical care

The private sector plays a large role in hospital care in the Netherlands. In 2010, the Netherlands had 151 hospital sites and 52 outpatient specialty clinics, operated by 93 organizations. Eight of these organizations were university medical centres and the remainder were private corporations operating on a not-for-profit basis. In addition, some 150 independent treatment centres (both for-profit and not-for-profit) provided same-day elective services such as orthopaedic surgeries and ophthalmological treatments.

Hospital and surgical care is remunerated on an activity-funded basis using a system of diagnosis-treatment combinations known as Diagnose Behandel Combinaties (DBC). The DBC system is separated into two groups: non-negotiable and collectively contracted A-segment DBCs that are derived from a global hospital budget and determined by the Dutch Health Care Authority; and B-segment DBCs that are freely negotiable between insurers and providers. In 2012, the share of DBCs that were negotiable was about 70% of hospital revenues.

Specialists in the Netherlands work either as salaried employees of the hospital or are independent and working as members of a partnership in a hospital on a fee-for-service basis. Some 65-70% of specialists are independent, though this varies widely across medical specialties. Salaried physicians are more common in university hospitals.

Privately funded options and alternatives

Voluntary private health insurance (VHI) in the Netherlands provides coverage for services that are not covered or only partially covered by the statutory insurance scheme. VHI does not cover faster access to care (this is instead done through the competitive universal insurance system where insurers do offer such services) or the mandatory deductible. VHI is offered by health insurers on a risk-rated basis and insurers are able to refuse applicants. Insurance companies are, however, not permitted to deny VHI cover if members decide to take out statutory policies with another insurance company. In 2011, some 89% of the population purchased a VHI policy, commonly from their SHI insurers.

Lessons for Canada

The combination of superior access to health care and similar, if not superior, outcomes from the health care process with similar financial resources suggests there is much Canadians can learn from the Dutch approach. It must be recognized that emulating the Dutch approach to health care would

require substantial reform of the Canadian system including, most significantly, a shift from a tax-funded government insurance scheme to a system of independent competitive insurers within a statutory enrollment framework. While that may be a large undertaking, the evidence presented above suggests there may be significant benefits to doing so.

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

- ◆ Cost sharing for non-primary medical services
- ◆ Private (both for-profit and not-for-profit) provision of acute care hospital and surgical services
- ◆ Activity-based funding for hospital care
- ◆ Permissibility of direct private purchasing of health care and contracting for more rapid access to care
- ◆ A system of statutory independent private (both not-for-profit and for-profit) insurers providing universal services to their insured populations on a largely premium-funded basis (commonly known as a social insurance system), with individual choice of insurers and some personalization of insurance cover

Of these core policy differences, three can be implemented without violating the letter of the Canada Health Act (CHA): private hospital services and surgical facilities, activity-based funding, and privately funded parallel health care. Of course, some Dutch policies would violate the 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 policies 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 discussion of the CHA and focus only on the policy changes that would have to take place if Canada were to more closely emulate the Dutch approach to health care.

Recommendation 1: *Activity-based funding models for hospital/surgical care, potentially with competitive benchmarking employed to set fees; private provision of hospital and surgical services.*

Recommendation 2: *Private health care and health care insurance for medically necessary care and 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: *A social insurance construct with premium funding and taxpayer supports for those who cannot afford insurance, choice of insurer, and personalization of insurance policies.*

HEALTH SYSTEM COMPARISON BETWEEN



Canada and Netherlands



Type of Insurance

UNIVERSAL
(Government Run)

UNIVERSAL
(Mandatory Private)

Financing

Mostly General
Taxation

Insurance Premiums
and Taxation

Total Health Spending as a Share of GDP
age adjusted

12.5

12.3



PHYSICIANS
(age-adjusted, per 1,000 pop.)
CANADA 2.6
NETHERLANDS 3.0



NURSES
(age-adjusted, per 1,000 pop.)
CANADA 10.3
NETHERLANDS 8.6



CURATIVE-CARE BEDS
(age-adjusted, per 1,000 pop.)
CANADA 2.0
NETHERLANDS 3.2



CT SCANNERS
(age-adjusted, per million pop.)
CANADA 15.2
NETHERLANDS 11.6



MRI MACHINES
(age-adjusted, per million pop.)
CANADA 8.8
NETHERLANDS 11.3

31%

Waited 4+ hours
in emergency room before
being treated
(% of patients, 2010)

3%

33%

Waited 6+ days
for access to doctor or nurse
when sick or needed care
(% of patients, 2010)

5%

41%

Waited 2+ months
for specialist appointment
(% of patients, 2010)

16%

25%

Waited 4+ months
for elective surgery
(% of patients, 2010)

5%

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, what will be covered, 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?³ One way of assessing health policy choices is to

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

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 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.

The focus of this paper is the health care system in the Netherlands. The Dutch health care system is recognized as a high performing system from the perspective of the consumer (patient), in which wait times are not considered to be a problem (having been reduced in recent years), and with a relatively low level of health disparities/high equity (Daley et al., 2013; Leu et al., 2009; OECD, 2012; Schut and Varkevisser, 2013). A careful examination of the Dutch health care system may provide useful insights and information to help inform the Canadian debate over the future of Medicare.

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

may be the most beneficial for those in need of care and those who are funding that care within a universal framework.

Health System Performance—Canada compared to the Netherlands

The comparisons below look at the health care systems of both Canada and the Netherlands as well as the average performance of health care systems in other developed nations⁴ that also maintain universal approaches to health care insurance. Measures of spending and access have been age-adjusted using the methodology from Esmail and Walker (2008).⁵ Outcomes measures are available on an age- and sex-adjusted basis where appropriate.

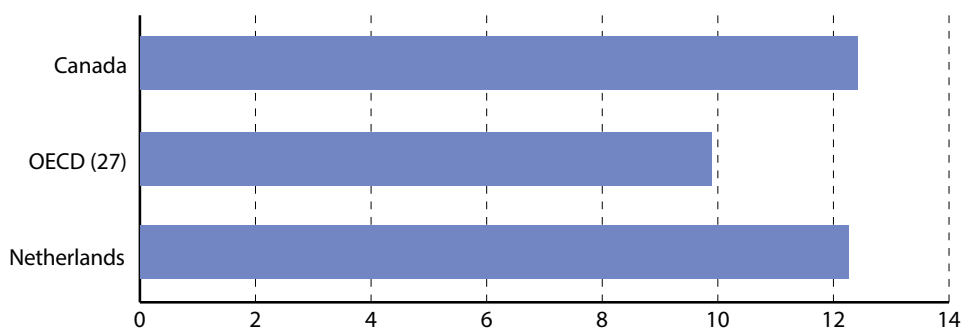
Health care expenditures in Canada are similar to those in the Netherlands⁶ and considerably higher than in the average universal access nation (figure 1). In 2009, Canada's health expenditures (age-adjusted, as older people require more care) were 2% higher than in the Netherlands, and 26% higher than in the average universal access nation. In fact, in 2009 Canada's health expenditures, as an age-adjusted share of GDP, were the highest among developed nations with universal access health insurance schemes. The Netherlands ranked second.

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

5 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: 17- 22, with a mathematical example shown in Box 2 on page 21. Note that Turkey is not included in the age-adjusted averages due to a low proportion of population over the age of 65 that was not conducive to meaningful adjustment.

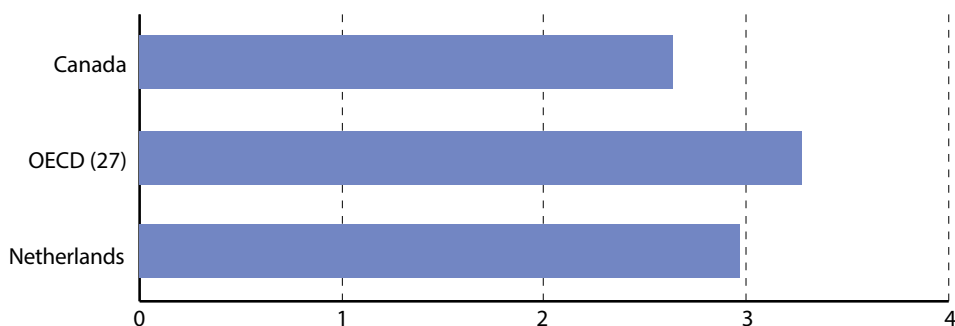
6 The OECD (2012) suggests that the relatively high level of spending in the Netherlands is driven by relatively high spending on long term care, while the Netherlands spends less on curative care than nations like Belgium, Canada, France, Germany, and Switzerland.

Figure 1: Total health expenditures, age-adjusted share (%) of GDP, 2009 or nearest year



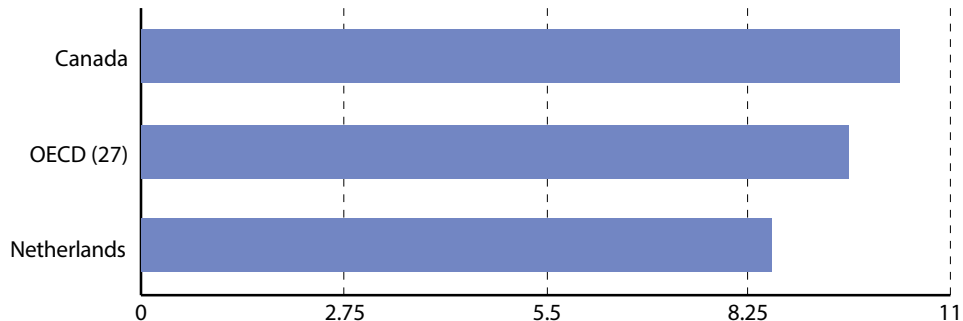
Note: The number of universal-access member nations of the OECD in 2009 for whom data was available to create the average is shown in parentheses.
Source: OECD, 2011; calculations by author.

Figure 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.

Figure 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.

Access

Unfortunately, access to health care services in Canada does not reflect this level of expenditure.⁷ The Dutch health care system seems to offer a better balance between cost and access to health care than does Canada's.

With respect to physicians, Canada has fewer physicians per thousand population than both the average universal-access nation and the Netherlands (figure 2). In 2009, Canada had 2.6 physicians per 1,000 population (age-adjusted). That compares to an OECD average of 3.3 and the Netherlands' 3.0 per 1,000 population.

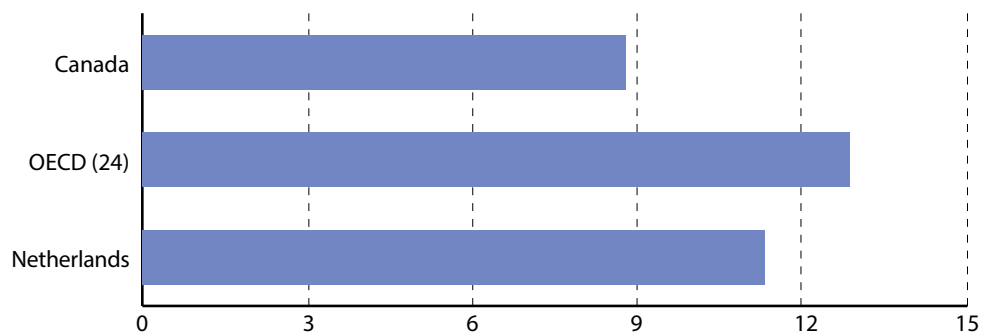
Conversely, Canada (10.3) has more nurses per 1,000 population (age-adjusted) than both the average universal access nation (9.6) and the Netherlands (8.6) (figure 3).

Access to medical technologies is notably better in the average universal access nation than in Canada, while Canada and the Netherlands enjoy a similar overall level of access with respect to the medical technologies examined in this study. With respect to MRI machines per million population (age-adjusted), Canada's 8.8 machines per million population compares with 12.9 in the average universal-access nation and 11.3 in the Netherlands (figure 4). With respect to CT scanners per million population (age-adjusted), Canada (15.2) performs relatively poorly in comparison with the OECD average (23.9) but outperforms the Netherlands (11.6) (figure 5). It should be noted that CT scanners and MRI machines can to some extent act as substitutes for one another, suggesting that Canada's performance in stocks of these medical technologies may be similar to the Netherlands' in aggregate.

The supply of hospital beds in the Canadian health care system is below both the universal access average and that in the Netherlands (figure 6). 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 many fewer than were available in the Netherlands where 3.2 curative care beds of a total of 4.8 hospital beds were present per 1,000 population. The average universal access health care nation maintained 5.6 total beds per 1,000 population (age-adjusted), of which 3.8 were curative care beds.

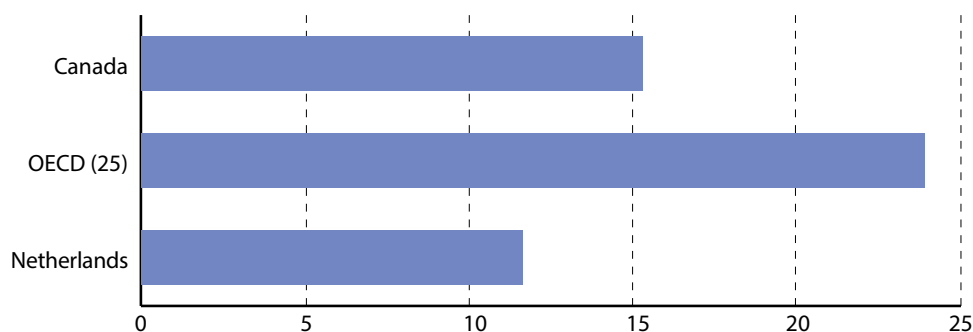
-
- 7 It should be noted of course that we cannot directly measure access, but rather are measuring here the quantity of medical goods and services available to individuals in these countries and the wait times for receiving medical care to provide insight into the availability of medical services for individuals in these countries.
 - 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.

Figure 4: MRI machines per million population, age-adjusted, 2009 or nearest year



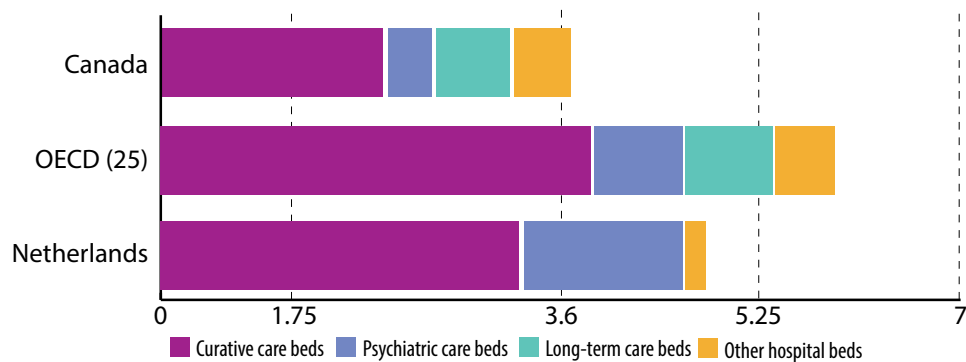
Note: The number of universal-access member nations of the OECD in 2009 for whom data was available to create the average is shown in parentheses.
Source: OECD, 2011; calculations by author.

Figure 5: CT scanners per million 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.

Figure 6: 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.

Siciliani and Hurst (2003) find that acute care bed⁹ to population ratios are negatively related to wait times. This suggests that the Dutch health care system may be better able to deliver health care in a timely fashion than Canada's. Both wait times data from the Commonwealth Fund (2010) and examinations of wait times in the Netherlands confirm this is the case (Schut and Varkevisser, 2013).

According to the Commonwealth Fund 2010 International Health Policy Survey, Canadians were less likely than Dutch respondents to experience a reasonably short waiting time for access to emergency care, primary care, and specialist care. In all cases these differences were sizeable: 20% of Canadians reported waiting less than 30 minutes in the emergency room compared to 52% of Dutch respondents. Further, only 45% of Canadians reported a same- or next-day appointment for primary care when ill compared to 72% in the Netherlands. Canadians (41% and 35%, respectively) were also much less likely to report relatively short wait times to see specialists and receive elective surgery than those in the Netherlands (70% and 59%) (figure 7).

Looking at long waits, again according to the Commonwealth Fund Survey (2010), Canadian access to health care was poorer than experienced by Dutch respondents (figure 8). Canadians reporting waits of four hours or more in emergency was 31%, compared to just 3% of Dutch respondents. The proportion of respondents reporting waits of six-days or more for primary care in Canada was 33%, compared to 5% in the Netherlands. Canadians reporting waiting two months or more for a specialist appointment was 41%, compared to only 16% of Dutch respondents. Finally, 25% of Canadian respondents reported waiting four months or more for elective surgery compared to 5% in the Netherlands.

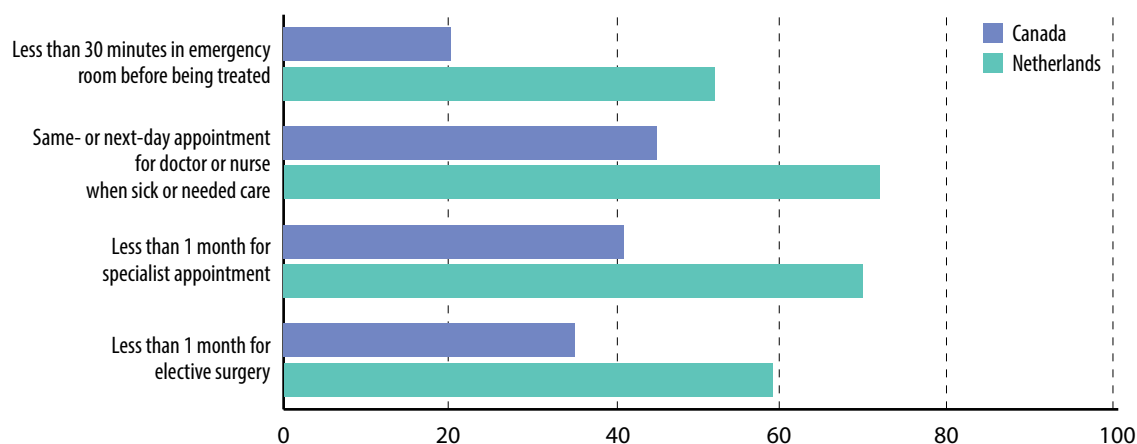
Overall, it seems that the Dutch health care system is able to provide more timely access to health care services and a more abundant supply of physicians for similar expenditure as an age-adjusted share of GDP.

Outcomes

Looking at measures of the health care systems' ability to successfully manage and treat chronic and critical illnesses, and provide protection from medically

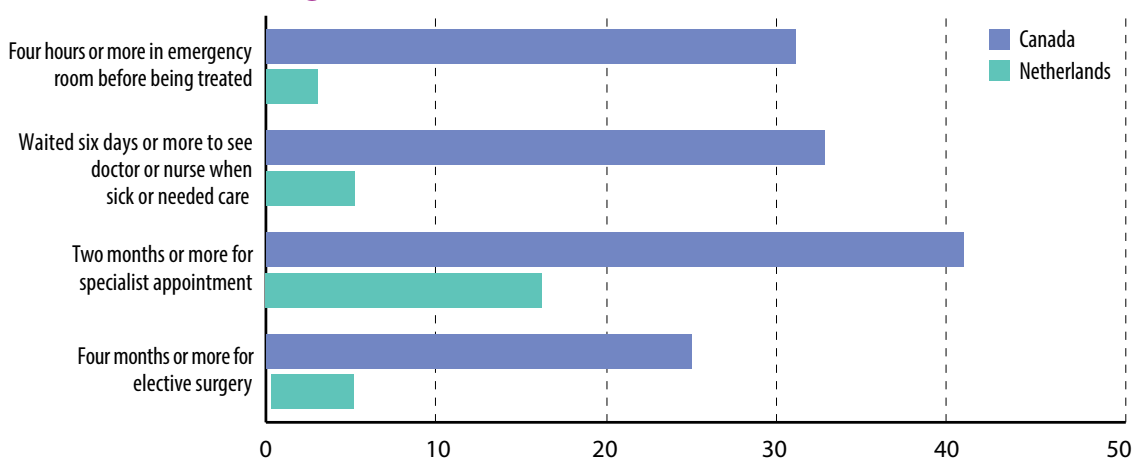
9 The OECD's definitions of "acute care" (OECD, 2013) and "curative care" (OECD, 2011) are similar with the notable exception that the term "non-mental illness" appears in the definition given in OECD, 2011. However, the term "curative care" is used above following OECD, 2011 while the term acute care is used here following Siciliani and Hurst, 2003.

Figure 7: Wait times, percentage seen or treated in relatively short time frame



Source: Commonwealth Fund, 2010.

Figure 8: Wait times, percentage seen or treated in relatively long time frame



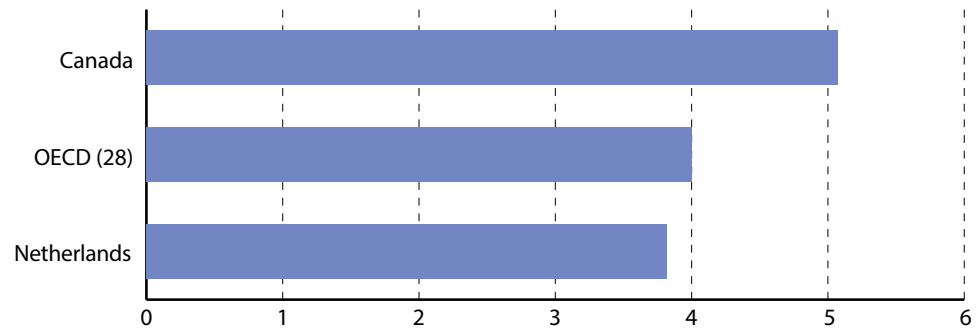
Source: Commonwealth Fund, 2010.

avoidable mortality,¹⁰ it seems the Dutch health care system broadly performs at a level similar to if not superior to that in Canada.¹¹

¹⁰ Life expectancy, one of the more common measures of longevity, is not included here primarily because factors outside of the health care system can be significant drivers of overall longevity. This exclusion does not affect the analysis, however: life expectancy in the Netherlands is 80.6 years [with notable gains in life expectancy for the elderly having occurred after the relaxation of budgetary constraints in health care (Schut and Varkevisser, 2013)] compared to 80.7 in Canada (OECD, 2011).

¹¹ Health outcomes data, including measures of mortality, morbidity, and longevity, may reflect both the performance of the health care system and factors external to it. The choice of indicators for the comparison of the Dutch and Canadian health care systems here seeks to minimize to the extent possible the effect of external factors.

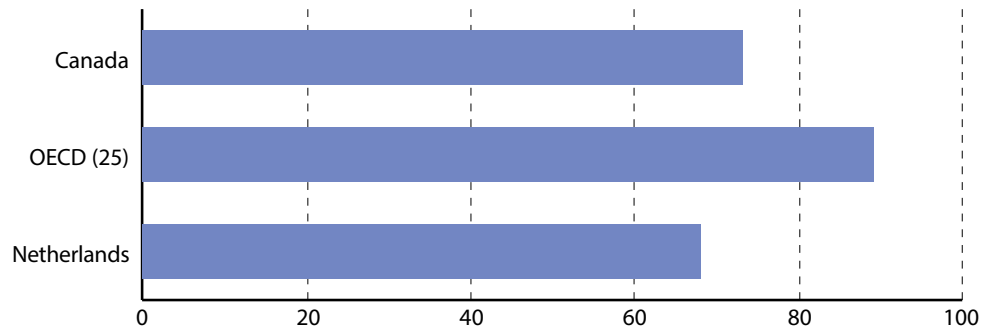
Figure 9: Infant mortality rate, per 1,000 live births, 2009 or nearest year



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.

Figure 10: Mortality amenable to health care, per 100,000 population, 2007 or latest year available



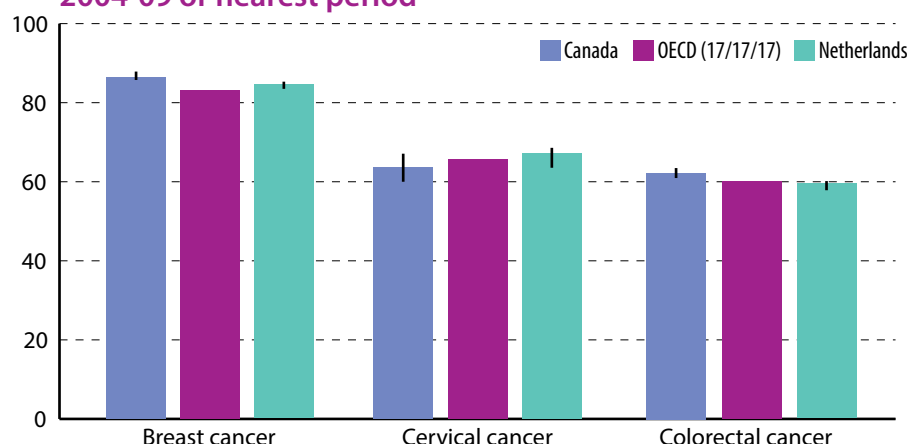
Note: The number of universal-access member nations of the OECD in 2009 for whom data was available to create the average is shown in parentheses.

Source: Gay et al., 2011; calculations by author

Infant mortality rates are commonly used to compare population health status, and can provide information on the performance of the health care system as well. In particular, infant mortality rates may provide insight into the effectiveness of care during pregnancy and childbirth as well as the ability to prevent death early in life (OECD, 2011). Indeed, a 2001 OECD study found that countries with higher physician-to-population ratios had lower rates of infant mortality (Or, 2001).¹² On the other hand, it should be noted that infant mortality rates can be affected by population characteristics such as immigration from poor countries, population subgroups in poor health, lifestyle factors, as well as social and economic conditions generally, and so should be interpreted with caution (Seeman, 2003; OECD, 2011).

¹² Physician-to-population ratios were used as a proxy measure for health care resources in the study.

Figure 11: Five-year relative survival rates for select cancers, 2004-09 or nearest period



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.

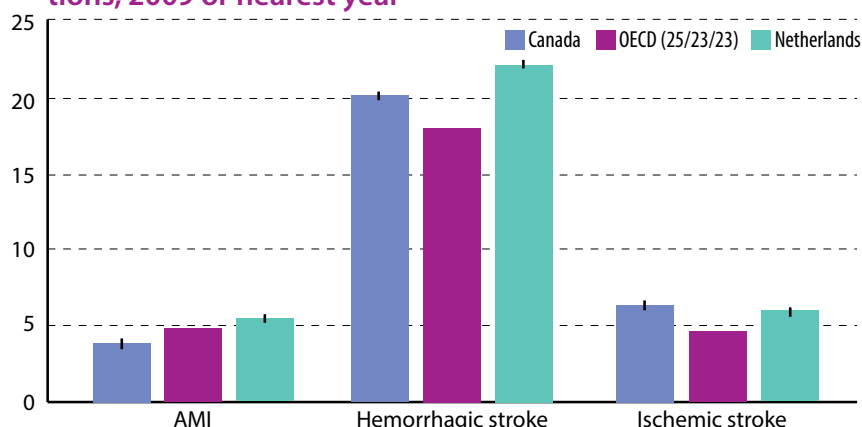
The Netherlands' performance in preventing death at the youngest ages appears to be superior to Canada's (figure 9). In 2009, the Netherlands experienced an infant mortality rate of 3.8 per 1,000 live births. The average universal access nation experienced a rate of 4.0. Canada's rate that year was 5.1. 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 examining health system performance is to measure the number of deaths from specific conditions or diseases in specific age ranges for which there is evidence that timely, effective, and appropriate health care can prevent mortality. This can be done using a measure called mortality amenable to health care.¹³ In this comparison (figure 10), both the Netherlands (68 per 100,000 population) and Canada (74 per 100,000 population) outperform the universal access health care system average. The Netherlands' rate of mortality amenable to health care is, however, 8% lower than Canada's.

Insight into a health care system's ability to diagnose illness and provide effective treatment can be gained from measures of survival from cancers of the breast, colon, and cervix (figure 11). Canada outperforms both

13 Two widely used lists of causes amenable to health care are available for the calculation of this indicator: the list published by Nolte and McKee and the list published by Tobias and Yeh. Gay et al. (2011) provide estimates for both lists. This comparison uses calculations based on the Nolte and McKee list of causes, following comparisons previously published by Esmail and Walker (2008).

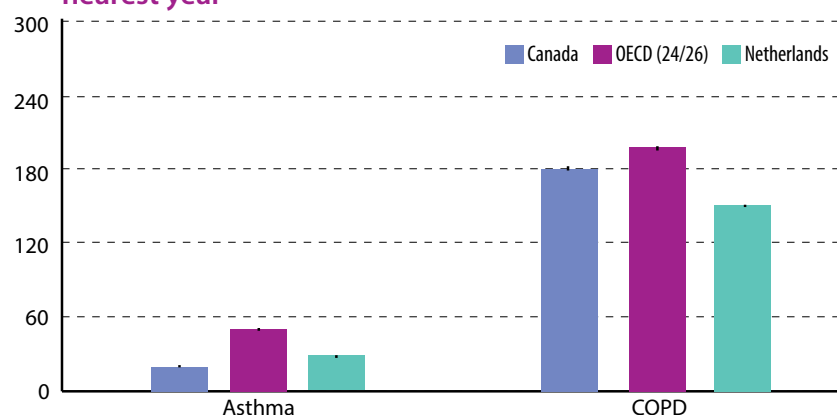
Figure 12: In-hospital case-fatality rates (age-, sex-standardized) within 30 days after admission for select conditions, 2009 or nearest year



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.

Figure 13: Hospital admission rates per 100,000 population aged 15 and over (age-, sex-adjusted) for select conditions, 2009 or nearest year



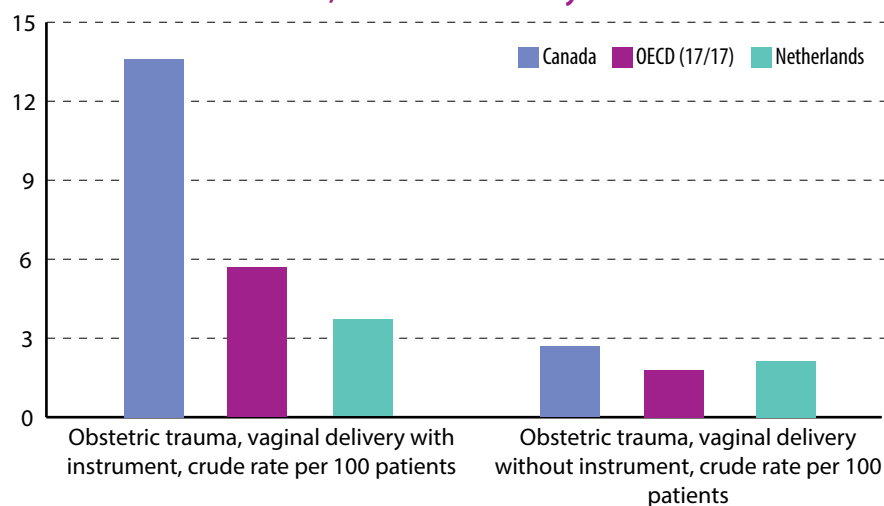
Note: The number of universal-access member nations of the OECD in 2009 for whom data was available to create the average is shown in parentheses.

Source: OECD, 2011; calculations by author.

the universal access country average and the Netherlands in breast cancer survival,¹⁴ while the Netherlands' survival rate is not statistically different from the average. For cervical cancer, neither Canada nor the Netherlands are statistically different from the universal access country average or each other. For colorectal cancer, Canada's survival rate is again superior to both the

¹⁴ This difference may be hard to see in figure 11, with the upper 95% CI of the Netherlands' survival rate being 85.558 and the lower 95% CI of the Canadian survival rate being 85.62 (OECD, 2011).

Figure 14: Patient safety (obstetric trauma), Canada, OECD, and the Netherlands, 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.

Netherlands' and the universal access country average, with the Netherlands' rate again being not different from the average.

In-hospital mortality rates following Acute Myocardial Infarction (AMI, or heart attack), and ischemic (obstruction), and haemorrhagic (rupture) stroke can provide insight into the quality of acute care (figure 12). For AMI, Canada performs better than both the Netherlands and the universal access average, with the Netherlands having a rate that is worse than the average. With respect to both measures of in-hospital mortality following stroke, both Canada and the Netherlands lag the universal access nation average and are not statistically different from each other.

Insight into the quality of primary care services, and in particular the ability of the primary care sector to successfully manage chronic illness, can be gleaned from measures such as hospital admission rates for Chronic Obstructive Pulmonary Disease (COPD) and asthma.¹⁵ The rates shown in figure 13 suggest that both Canada and the Netherlands maintain high performing primary care sectors. Specifically, both Canada and the Netherlands outperform the universal access average, with Canada outperforming the Netherlands in asthma, while the Netherlands outperforms Canada in COPD.

¹⁵ The rate for uncontrolled diabetes, which appeared in other papers in this comparative series, was not available for the Netherlands in OECD, 2011.

The final set of measures examined here relate to patient safety when undergoing treatment in the health care system.¹⁶ As shown in figure 14, the Netherlands outperforms Canada and the average in obstetric trauma with instrument and outperforms Canada but not the average in obstetric trauma without instrument.

In summary, the Canadian health care system outperforms the Dutch health care system in:

- ◆ ratio of nurses to population
- ◆ ratio of CT scanners to population
- ◆ two of three measures of cancer survival
- ◆ one of three measures of in-hospital mortality
- ◆ one of two measures of primary care performance

Conversely, the Dutch system outperforms the Canadian system in:

- ◆ ratio of physicians to population
- ◆ ratio of MRI machines to population
- ◆ ratio of hospital beds to population
- ◆ wait times (emergency care, primary care, specialist consultations, elective surgery)
- ◆ infant mortality rate
- ◆ mortality amenable to health care
- ◆ one of two measures of primary care performance
- ◆ two of two measures of patient safety

Importantly, the Netherlands' superior wait times performance and similar-to-superior performance in outcomes from the health care process come at similar cost compared to Canada. The superior value for money provided by the Dutch 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.

¹⁶ Other measures of patient safety that appeared in other papers in this comparative series (including the rates of foreign body left in during procedure, accidental puncture or laceration, postoperative pulmonary embolism/DVT, and postoperative sepsis) were not available for the Netherlands in OECD, 2011.

The Netherlands' health policy framework¹⁷

General overview

The Dutch health care system, following substantial reform of its organization and structure in 2006, provides universal access to health insurance through mandatory enrollment with competing premium-funded private (for-profit and not-for-profit) health insurance companies. Competition between insurance providers is, however, regulated to ensure that Dutch residents have access to insurance regardless of age, medical history, or ability to pay. The system is overseen and regulated by the central government.

The Dutch universal health care system finds its origins in the Sickness Fund Decree, introduced during the German occupation in 1941, that introduced a three market system with statutory social insurance for those earning less than a specified income threshold, voluntary enrollment in social insurance for select others, and private health insurance for the remainder.¹⁸ This general structure persisted until 2006 when

17 The description of the Dutch health care system in this section is based on information found in: Daley et al., 2013; Klazinga, 2008; Leu et al., 2009; Maarse, 2011; OECD, 2012; Paris et al., 2010; Schäfer et al., 2010; Schut and Varkevisser, 2013; Schut et al., 2013; Tan et al., 2011; van de Ven and Schut, 2008; and Westert, 2012.

18 There are obvious parallels here between the German system of statutory SHI for those below a set income threshold, and voluntary SHI or PHI for the remainder and the prior Dutch system created under German occupation.

significant reforms created a uniform insurance system for all Dutch residents. Prior to 1941, attempts at creating a statutory health insurance system failed, while reforms from 1941 to the early-2000s served to make adjustments to the three-market scheme including the creation of a separate scheme for exceptional medical expenses (including long term care and hospitalization) and efforts towards cost containment.

The 2006 reforms, known as the Health Insurance Act or *Zvw* (*Zorgverzekeringswet*), substantially altered the structure of the Dutch health care system¹⁹ by replacing the prior three-market system that was statutory only for those below an income threshold (some 2/3 of the population) with a single statutory competitive private insurance market covering all Dutch residents.²⁰ The 2006 reforms find their root in a 1987 report by the government-appointed Dekker Committee which recommended a market-oriented health care reform along the lines of a health care system based on managed private sector competition.²¹ Starting in the early-1990s, a number of market-oriented reforms were undertaken ultimately building to the large reform in 2006.²² According to Daley et al. the 2006 reforms were ultimately introduced in response to: “a two-tier system of private health insurance for the rich and state coverage for the rest; inefficient and complex bureaucracy; lengthy waiting lists and a lack of patient focus” (2013: 2). Importantly, the Dutch health care system is still in a process of reform and thus must be considered a work in progress. Since 2006, a number of additional reforms have been introduced including disallowing no-claims bonuses in the statutory insurance scheme, adjustments to the risk-adjustment model for premium distribution, a shift towards a greater reliance on insurer-provider negotiations

19 The Dutch health care system is considered to have three compartments: a compulsory social insurance scheme (financed through income-based contributions) that covers long term care, extended hospital stays, and other health events that have large financial consequences such as care for the disabled under The Exceptional Medical Expenses Act or *AWBZ* (*Algemene Wet Bijzondere Ziektekosten*); the compulsory insurance scheme for curative care regulated under *Zvw* (*Zorgverzekeringswet*); and the voluntary complementary/supplementary private insurance sector (VHI). This study, which seeks to study potential lessons for reform of Canada’s publicly funded universal access health care system, focuses on the latter two (*Zvw* and VHI).

20 Prior to 2006, those earning more than approximately €30,000 (CAD\$38,549) and their dependants were excluded from the statutory social health insurance system and could purchase private health insurance (Klazinga, 2008).

21 Van de Ven and Schut (2008) note that the Netherlands is the first country to consistently implement the model of managed private sector competition for a national health insurance system proposed by Professor Alain Einthoven in 1978.

22 An attempt to create a single mandatory scheme in the early-1990s was not successful (Schäfer et al, 2010).

for hospital funding, and a move away from government funding of provider capital expenditures.

The path taken between 1987 and 2006, reforms made since the 2006 overhaul, and likely future reforms, reflect an ever shifting balance between the goal of a greater reliance on market mechanisms and a desire for government control and management (Maarse, 2011). As a result, while many gains in access and consumer focus have been made in recent years there is a risk that coming reforms may lead to an increase in rationing and wait times (Maarse, 2011; Schut and Varkevisser, 2013; OECD, 2012). Nevertheless, the Dutch system's central structure and reliance on competing statutory private health insurers and competing private providers is reflective of the origins of the system in 1941, and the changes, until recently, are in many ways entirely in keeping with the path of reform taken by other statutory insurance countries such as Germany and Switzerland. It's high performance, and the recent elimination of concerns about delays in accessing health care (Schut and Varkevisser, 2013), suggest that it could serve as a model for those interested in positive reform of the Canadian system.

Fiscal/financing arrangements

Since 2006, all Dutch residents must buy standard or basic health insurance coverage in the regulated Social Health Insurance (SHI) market (under *Zvw*) from a private insurance company of their choice. Two groups are exempt from the requirement to purchase basic insurance: members of the armed forces who receive care from the Ministry of Defence, and those who object to the insurance on the basis of religious belief or philosophy of life (*gemoedsbezwaarden*). The latter group is required by government to pay an income-based contribution equal to that for SHI which is deposited into a personal account (without pooling). These accounts are managed by the Health Care Insurance Board and are used to cover health care expenses for the individual, with the individual responsible for expenses beyond the funds in the account. The Ministry of Defence organizes and finances health care for members of the armed forces.

Like the Swiss health insurance system, the Dutch market for statutory health insurance is probably best considered a market with managed competition. In addition to the statutory requirement to purchase insurance are a series of government interventions that seek to achieve competition between insurance companies on price and quality as opposed to risk

selection.²³ Government interventions also seek to ensure that everyone has access to health care insurance regardless of medical history or personal characteristics including a requirement that insurance companies accept all applications²⁴ and not charge individually risk-rated premiums.

These aims are achieved through regulations, limitations, and a risk-equalization funding model that are common to all insurance companies.

Insurance companies receive funds for the standard statutory insurance product from two sources: direct community-rated premium payments from members and payments from the tax-funded Dutch Health Insurance Fund (*Zorgverzekeringsfonds*). The premiums from members are flat rate and insurer-specific (not related to income and independent of individual risk), while payments from the Health Insurance Fund provide prospective risk equalization between insurers. The risk equalization is intended to support the charging of community-rated premiums as opposed to individually risk-rated premiums to plan members, and to prevent risk selection by insurance providers in the statutory market.²⁵ The government's aim is to have 50% of funding for care in the statutory system come from the Health Insurance Fund, with the other half to be funded through member premiums. In 2008, 44% of funding was from direct premiums (4% from the mandatory deductible, discussed below), and 56% from the Fund (Schäfer, 2010).

Income-dependent contributions for employees are made by employers through the payroll tax system. In 2013 the contribution rate was 7.75% of income (with an assessed income cap of €50,853 (CAD\$65,344)²⁶ making the annual contribution limit €3,941 (CAD\$5,064)). This is in effect an employer contribution as employers are legally obliged to reimburse employees and the reimbursement is taxable income for the employee. The rate is lower for those without an employer and not receiving unemployment benefits, at 5.65% (with the same assessed income cap making the annual contribution a maximum of €2,873 (CAD\$3,692)) in 2013, with the contributions individually assessed by the Tax Department (Westert, 2012; Schäfer et al., 2010; PwC, 2013).²⁷

23 Van de Ven and Schut (2008) note that insurers have access to a number of mechanisms through which they could undertake risk selection including: provider networks, risk-rated VHI coverage, and treatment of insurance groups (including benefits and discounts).

24 Insurance companies cannot cancel insurance policies unless the insured member fails to meet their legal obligations.

25 The risk-adjustment system predated the 2006 reform, having been a part of the previous SHI system. It has, however, become more sophisticated over time as governments work to minimize incentives for risk selection.

26 All Canadian dollar conversions in this study are based on the average Euro to Canadian dollar conversion rate for 2012 from the Bank of Canada's 10-year currency converter.

27 Income-based contributions have increased considerably. In 2010 for example, the contribution rates were 6.9% and 4.8% respectively with a contribution ceiling of €32,369 (CAD\$41,593) (Westert, 2012). Between 2006 and 2011, the income based contributions

Funds collected from these income-dependent contributions by the Tax Department are transferred to the Dutch Health Insurance Fund. There is also a state contribution to the Fund, in part to pay for insurance coverage (premiums) for children. These pooled funds are then paid to insurance companies on a risk-adjusted basis that accounts for risks on an individual member basis. Risk adjustments are administered by the Health Care Insurance Board (*College voor Zorgverzekeringen*, or CVZ).

The basic principle behind risk equalization is to provide additional financial compensation to insurance companies for insured individuals with less favourable (from an insurance perspective) risk profiles. Risk equalization is intended to replace the higher premiums that would be imposed in an individually risk-rated insurance marketplace, since insurance companies are only permitted community-rated (based on the average risk of the entire community served) premiums in the statutory insurance marketplace.

The Dutch risk equalization system bases contributions from the Fund on the difference between an insurer's expected health expenditures (based on their member risk profile) and the income that would be earned by that insurer if it charged the governmentally determined calculation premium (*rekenpremie*). The calculation premium, which is also used for governmental budgeting, is used instead of the insurer's actual member premium in order to avoid the incentive for insurers to set their own premiums too low in order to generate higher revenues from the Fund. In addition, while only approximately 50% of funding is supposed to be from Fund payments, the use of total insurer revenues including premiums for the calculation means the risk equalization is calculated on 100% of statutory insurer revenues.

The estimated risk-adjusted expenditure is based on several member factors:

- ◆ Age: older persons are expected to be more costly to care for
- ◆ Gender: Females between the ages of 20 and 40 are expected to be more costly to care for than males
- ◆ Socio-economic status including employment type and social security status
- ◆ Region: those living in areas with relatively high numbers of non-Western immigrants, below average income, and above-average risk of mortality are expected to be more costly to care for
- ◆ Past pharmaceutical use based on 20 cost groups or FKGs (*Farmaceutische kosten groepen*)²⁸
- ◆ Chronic conditions based on 13 diagnostic groups or DKGs (*Diagnose kosetn groepen*)²⁹

for employees rose from 6.5% to 7.7% and for the self-employed rose from 4.4% to 5.65% (Maarse, 2011).

28 Risk adjustment for an FKG may result in a Fund payment of €20,000 (CAD\$25,699) to the insurance company (Schäfer, 2010).

29 Risk adjustment for a DKG may result in a Fund payment of more than €50,000 (CAD\$64,248) to the insurance company (Schäfer, 2010).

A series of retrospective compensation programs are also in place to assist insurers with costs in areas of expenditure on which they could exert little influence. Compensations include sharing of the risk of hospital care costs, outlier risk sharing for high cost patients, risk sharing for average cost deviations from the national average, and macro development expenditure correction. Some of these programs, in particular the average cost deviation compensation and macro compensation, work in both directions where in cases of lower than expected expenditures insurers would be asked to pay back funds to government. The current plan is for retrospective or ex post compensations to be phased out between 2012 and 2015.³⁰

The broad set of benefits to be covered by statutory insurance policies is set by government, based on input from the Health Care Insurance Board. Statutory insurance cover includes: GP and specialist care, hospital care, midwife care, dental care up to age 18, specialist dental care and dentures after age 18, medical aids and devices, prescription drugs, maternity care, ambulance and patient transport services, five sessions with a primary care psychologist, outpatient and inpatient mental care up to a year, a limited group of health improvement programs (such as quitting smoking), and limited coverage for allied health services including physical therapy, speech therapy, occupational therapy, and dietary advice. There are also explicit exclusions (for cosmetic plastic surgery and antacids, for example) and defined limitations for some medical services (only the first three in vitro fertilization attempts are included, for example). Insurance policies must provide this standard set of benefits, though insurance companies can provide additional benefits.

The standard insurance plan includes cost sharing for a broad range of health services through a mandatory annual deductible. The deductible is set by government, and is required for all health costs except GP visits and children's health care. In 2012, the deductible was €220 (CAD\$283) and increased to €350 (CAD\$450) for 2013 (Westert, 2012). Health insurers manage the deductible payment, with the plan member generally responsible for reimbursing the insurance company for eligible health services up to the deductible each year. Insurers may also choose to not charge the deductible if patients use preferred providers, preferred pharmaceuticals or medical aids, or follow preventive programs for diabetes, depression, cardiovascular conditions, chronic obstructive pulmonary disease (COPD), or overweight. Cost sharing under the statutory scheme beyond the deductible is limited. A €10 (CAD\$13) co-payment applies for each outpatient mental health care session (8 sessions are covered in the standard plan), while a €15.60 (CAD\$20) co-payment applies for each secondary mental care consultation (there is no

30 Schut et al. (2013) note that this phasing out may increase incentives for insurer efficiency. However, it may also increase incentives for risk selection and underinvestment in care for conditions that are undercompensated by prospective risk equalization.

limit to the number of sessions). Patients do not face cost sharing for prescription drugs as long as their drug is included in the Medicine Reimbursement System (Geneesmiddelen Vergoedings Systeem, or GVS) and comply with the therapeutic equivalent substitution scheme. They must pay the excess if they exercise choice of a GVS listed drug (unless their physician decides the more costly drug is clinically relevant) and pay for the prescription of their unlisted drug. High-risk patient groups are also entitled to partial compensation of out-of-pocket payments.

While the Dutch Health Insurance Fund's risk equalization approach, benefits under the standard plan, and basic levels of required cost sharing are common among health insurance companies, from the consumer's perspective the system is characterized by choice of statutory insurer and choice of a limited range of insurance plan characteristics. As noted above, residents of the Netherlands are required to enrol with an insurance company, and pay a direct premium to that insurance company for coverage. Insurance policies are for the individual member after age 18, while those under age 18 are included in a parent's policy at no additional charge to the member (their premiums are paid from tax revenues through the Dutch Health Insurance Fund). Dutch residents are able to change insurance plans at the start of every year.

To ensure lower-income individuals and families have access to the premium-funded insurance system, an allowance (*zorgtoeslag*) funded from general taxation [under the Health Care Allowance Act (*Wzt* or *Wet op de zorgtoeslag*)] is provided to assist those for whom the cost of health care premiums exceeds 5% of household income.³¹ The allowance is based on the estimated average premiums offered by health insurers plus the deductible,³² with the forecast entitlement paid monthly either directly to the insured person or the health insurer. Any difference between the final entitlement and payments made are settled with the individual. Allowances are provided to some 2/3 of households and account for some 6% of health expenditures (Schut et al., 2013).

In 2011, some 27 health insurance companies and brands provided standard insurance policies in the regulated marketplace. A number of these 27 are part of larger health insurer conglomerates meaning the market was served by 9 conglomerates/insurers. Of those nine, the four largest held a combined market share of over 90% (OECD, 2012). While insurance companies under *Zvw* can be for-profit and pay dividends to shareholders, the market is dominated by not-for-profit organizations. Of the four largest conglomerates/insurers, the largest (Achmea) is for profit while the other three

31 In addition, the premium requirement is accounted for in both the level of welfare payments and the legal minimum wage.

32 By using the estimated average premium, the allowance does not penalize those who choose more cost-effective plans.

(UVIT, CZ, and Menzis) are not-for-profit.³³ For the most part, insurance companies operate on a national basis.³⁴

Insurance companies are expected to compete for all subscribers on the basis of the direct premium and quality. With respect to quality, insurance companies are able to contract with providers, thus varying quality (including maximum wait times) and access for insured members. Further, prices are to some extent negotiable (see the sections on physician and hospital compensation below) giving insurers some control over costs as well. Insurance companies can also negotiate with pharmaceutical companies and vary preferred drug lists, and selectively contract with pharmacies. Thus insurance companies determine competitive premiums for the standard set of benefits with some ability to control provider networks (including using financial incentives to encourage the use of preferred providers) and negotiate price discounts, and with the ability to restrict care pathways and provide additional insurance benefits.

Beyond choice of insurer (trading off quality and cost) plan members are able to affect their premiums through two plan characteristics. The first of these relates to the way health services will be paid for, where insurers may offer members a choice between direct compensation to care providers (benefits-in-kind or *natura* policies) and member reimbursement (*restitutie*). Direct provider compensation policies may permit insurers more control over provider networks (though plan members are to have access to non-preferred providers at reasonable cost). Reimbursement policies, where insured individuals pay for care directly out-of-pocket and are reimbursed by the insurance company afterwards, generally have freer choice of provider. Plans are not allowed to limit reimbursements, but also have the ability to not reimburse more than a reasonable amount. In practice, reimbursement plans act more like a hybrid of the two approaches and will typically pay for more costly services directly. Hybrid or combination policies, where select providers will be paid directly, are also offered. Direct payment policies tend to be less costly than reimbursement policies, and that difference is expected to increase with the growth of selective contracting by insurers. In 2009, reimbursement policies made up roughly 25% of insurance policies, approximately 75% were hybrid/combination policies, and some 40% of policies had direct provider payment (Schäfer, 2010).

The second plan characteristic that can be varied to reduce premiums is the ability to choose additional deductibles beyond the deductible required in the standard plan. Members may select additional deductibles between

33 Achmea held a 32% market share in 2011. The market shares for the other three companies were 26%, 20%, and 13% respectively (OECD, 2011).

34 The Dutch system is a national/federal system, though insurance companies may choose to operate in only some provinces.

€100 (CAD\$128) and €500 (CAD\$642). The same exemptions that apply to the statutory deductible apply to optional deductibles.

Members may also reduce their premiums by enrolling through a collective or group contract, where insurers may offer a discount of up to 10% for large groups. Groups can be either “closed” (for employees of a particular company, for example) or “open” and available to all that qualify (a patient organization group, for example). Groups in the late 2000s included those organized by employers, patient organizations, sport associations, labour unions, cooperative banks (for clients), and other independently organized groups. In 2007, some 57% of policies were under a group discount, with the discount averaging 7% (van de Ven and Schut, 2008). 77% of these discounts were through employer groups (Leu et al., 2009).

Member choice of insurer is supported by data published by insurance companies, government authorities, and private organizations. From these sources, members can get information on premiums/contributions, benefits covered, and the performance of insurers (on consumer satisfaction for example).

The average annual adult premium in 2011 was €1,256 (CAD\$1,614) (Westert, 2012).³⁵ The 2006 reforms have led, particularly in the early years, to substantial premium competition between insurers. Between 2006 and 2008, insurance companies generated losses on the statutory product potentially hoping to gain market share and a more dominant market position in the long term.³⁶ In 2007 and 2008 these losses were (at least in aggregate) offset by profits on voluntary health insurance products. Competition has also led to consolidation in the insurance market, in part leading to high market shares for the largest conglomerates, but also allowing greater economies of scale in administration and increasing insurer buying power.³⁷ Financial results from 2009 and 2010 show that insurers made surpluses/profits (2.6% and 0.8% of total revenues respectively) on the statutory health insurance product, reversing the past trend (Schut et al., 2013).

35 Premiums in the Netherlands (beyond serving as a source of funding) are considerably different from health care premiums in Canada. Dutch premiums provide a substantial portion of funding for health services (~40%) and are paid directly to competing health insurance companies. Canadian health care premiums do not (or, for Alberta, did not) comprise a large portion of health care funding and are paid to general revenues from which health care insurance provided directly by government is funded.

36 Losses were 1.5%, 0.5%, and 0.9% of total revenues in 2006, 2007, and 2008, respectively (Schut et al., 2013).

37 While further consolidation, and indeed a single monopoly insurer or government insurer, may exhaust economies of scale while minimizing administration costs and obviating the need for risk-equalization, there are consequences to such consolidation/monopolization including the loss of consumer choice, and increased inefficiency and lack of focus on consumers from the resulting lack of competition.

While all insured are able to change their insurer annually, the rate of switching since 2006 has remained below 6%. Specifically, some 18% of the population changed insurers in 2006. That rate fell to 3.6% for 2008 and 2009, and rose to 3.9% in 2010. Insurer mobility increased to 5.5% in 2011, potentially in response to an average premium increase of approximately 10% (Maarse, 2011).³⁸

Despite the statutory requirement for health insurance roughly 1% of the population was uninsured in 2010 (Westert, 2012). Many of the uninsured are immigrants; though some 35,000 children were also uninsured in 2008 despite the premium-free cover available to them (premiums for children are paid from the Health Insurance Fund by government from general taxation) (Leu et al., 2009; Schäfer, 2010). For the uninsured, the guaranteed issue requirement for insurers means insurance can be purchased at the time of need and providers can also arrange insurance enrollment prior to treatment. However, a penalty of 130% of the premium for the period they were uninsured is imposed.

In addition to a small portion of uninsured, 2% of the population failed to pay their premium for at least six months in 2010 (Westert, 2012). Previously, insurance companies were permitted to drop these individuals from cover for having failed to meet their obligations. Under the guaranteed issue requirement, however, non-payers could simply switch insurance companies and again fail to pay premiums. Since the end of 2007, defaulters are not allowed to switch insurance companies until they have paid outstanding premiums to the company. Since September 2009, in response to a continued increase in non-payment, those defaulting on payments receive a proposal for settlement after two months of non-payment, a warning letter after four months, and pay a €130 (CAD\$167) administrative fee monthly after six months of non-payment until the insurer is paid premiums owed.³⁹

In 2007, public sources accounted for 81% of health expenditures. These broke down into 14% of total expenditures coming from government, 36% from health insurance/Zvw, and 31% from the exceptional medical expenses system/AWBZ. Private funds accounted for 19% of total spending, with 4% from VHI, 10% from out-of-pocket payments, and 5% from other sources (Schäfer et al., 2010).⁴⁰

38 While these rates of switching may signal a tendency to not change, limited competition, or impediments to change, they might also signal satisfaction with insurers and strong competitive responses to keep plan members.

39 There have also been discussions/proposals around garnishing wages, unemployment, or disability benefits at a level higher than premiums in the market.

40 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

Delivery of primary care

The delivery of primary care, and outpatient services generally, is centred around independent private general practitioners (GPs) in the Netherlands. About 51% of physicians can be found in group practices with three to seven GPs. Some 29% of GPs are in two-doctor practices, while 20% are in solo practice. Most of these GPs are independent or working in partnership with other doctors, with a small number of GPs employed in practices owned by another GP (Westert, 2012). Insurance companies are able to integrate with providers, and some have begun setting up primary health care centres for their members. GPs are also able to participate in primary care groups to offer integrated care to those with specified chronic diseases, with some 80% doing so in 2010 (Schut et al., 2013).

Unlike most countries with a social health insurance construct (Germany, Switzerland, and Japan, for example), GPs play a mandatory gate-keeping role for access to specialist and hospital services. Patients can access physiotherapists, remedial therapists, midwives, and dentists without referral. All individuals are to be registered/listed with a GP of their choosing and are free to switch GPs without restriction. GPs are however able to refuse patients if their practice is full or if the patient lives too far from the practice. Some 4% of contacts with general practitioners result in referrals to specialist/hospital care (Schäfer, 2010).

Patients are also expected to call GPs on their dedicated emergency phone line for urgent conditions that do not require an ambulance or are not life-threatening, from which point the GP will either see the patient immediately or refer them to the hospital or ambulance service. To support this system, after-hours services are provided by centrally located GP posts. GP posts are typically run by nearby hospitals, and employ specially trained assistants to answer calls and provide triage services. Patients may be asked to visit the GP post or the GP may visit the patient at home. Patients are able to go directly to the emergency department if they wish, and 60% of patients seeking emergency care come without a GP referral (Paris et al., 2010).

While primary care services are centred on GP practices, nurses play a role in their delivery. Practice nurses are often employed by physicians to provide services to patients, with a focus on those with chronic conditions. Specialized nurses are also able to write prescriptions for patients, with GP

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).

diagnosis. Nurses are generally paid a salary by the GP or practice, with the GP billing insurance companies for services provided.⁴¹

Patient choice of provider is supported by data published by insurers and the media. Information is available for clinical outcomes, application of specific processes, patient experience, and patient satisfaction. Health care providers also publish information on their own performance.

Primary care GP services are compensated through a combination of capitation (per registered patient) payments, fee-for-service payments, and bundled payments for care of those with select chronic illnesses. Primary care groups may negotiate for bundled payments from insurers. Maximum fees for GP services (and for nurse services provided in GP practices) are set by negotiations between national associations of GPs, health insurers, and the federal government with the outcome of negotiations being a maximum fee schedule set by the Dutch Health Care Authority. While insurance companies are permitted to selectively contract for services, and to negotiate prices below the maximum (or above it for select patients), in practice the maximum price is generally the price charged for GP services. Further, GPs are able to bill insurers even if there is no contract with that insurer. GPs and insurers may also negotiate compensation for providing specific services or programs, while insurers may provide incentives for integrated/coordinated care including risk-sharing/bonuses.

Delivery of specialized, hospital, and surgical care

The private sector plays a large role in hospital care in the Netherlands. In 2010, the Netherlands had 151 hospital sites and 52 outpatient specialty clinics, operated by 93 organizations. Eight of these organizations were university medical centres (but still private not-for-profits) and the remainder were private corporations operating on a not-for-profit basis (for-profit operations are presently not permitted in the hospital sector). In addition, some 150 independent treatment centres (known as *Zelfstandige Behandel Centra*, or ZBCs) provided same-day elective services such as orthopaedic surgeries and ophthalmological treatments.⁴² Unlike hospitals, ZBCs can operate on a for-profit basis (Westert, 2012; Schut and Varkevisser, 2013).

There is debate in the Netherlands about whether the restriction on for-profit hospital operations should continue. Discussions about and proposals

41 Specific maximum consultation fees apply to services delivered by nurses, though these may not be different from those that would be paid to a GP.

42 Some 2.3% of medical specialist care is delivered in these clinics (Schut and Varkevisser, 2013). Most ZBCs are tied to hospitals (Westert, 2012).

to remove the restriction are ongoing, with discussions also considering the extent of regulation that might be imposed on for-profit hospitals. The OECD has recommended that for-profit hospitals be permitted in order to improve efficiency and competition in the health sector (OECD, 2012).

Dutch hospitals provide both outpatient and inpatient specialist services. Hospitals also provide pre- and post-hospitalization services through outpatient departments. Nearly all specialists are hospital-based, though a small shift of specialists to non-hospital settings (such as ZBCs) has recently been observed.

Patients have free choice of hospital with referral. However, insurance companies may selectively contract with hospitals and restrict choice for members, either in search of lower costs or higher quality, or both. Patients seeking care from a non-contracted hospital are charged the published “walk-in tariff,” and may be charged by their insurer the difference between this rate and the rate the insurer has negotiated with contracted hospitals. In 2007, 3% of charges were billed as “walk-in” though no information was available on the extent these were charged to patients (Schäfer, 2010).

Patient choice of hospital is supported by data published by government, insurers, and other non-government groups. Information is available for clinical outcomes, application of specific processes, patient experience, and patient satisfaction.

The present system of funding hospital care is in part the result of actions taken to reduce wait times, which led to a move towards activity-based funding in 2001. It is also in part the result of a focus in the mid-2000s on efficiency and competition. Reforms from 2012 through 2015 are focused on maintaining incentives for efficiency while seeking to contain costs, and have the potential to undo some of the improvements in waiting times experienced earlier.

Waiting lists became a major policy issue in the 1990s (though they may have been shorter than in other developed nations where waiting was not a policy issue); with government interventions targeted at reducing wait times starting in 1997. In 2001, following an apparent lack of success in reducing wait times, the government moved towards activity-based funding (away from the fixed budget system) under the “cash on the nail” scheme that allowed insurers to reimburse hospital production beyond the initially agreed annual production. This move towards activity-based funding came at the same time as restrictions on the number of medical specialist positions in hospitals were removed.

These changes resulted in a substantial reduction in wait times, perhaps by as much as 50% by 2006, with further gradual decreases since then (Schut and Varkevisser, 2013). Presently, wait times are no longer a significant policy concern, though insurance companies offer services that seek to reduce wait times to the minimum possible with some treatments available

in as little as five working days.⁴³ There is evidence that the increased hospital production also had a positive impact on life expectancy among the elderly (Schut and Varkevisser, 2013).⁴⁴

In 2005, this funding system expanded to allow negotiation of prices, volumes, and quality between insurance companies and hospitals using the *Diagnose Behandel Combinaties* (DBC) system. The Dutch DBC system is inspired by the Diagnosis Related Group (DRG) funding approach used elsewhere (in Germany, Switzerland, Sweden, and Australia, for example) but operates somewhat differently in practice. DRG funding is a model that prospectively funds the cost of services delivered to a patient based on their medical condition (including significant co-morbidities). Most relevant to this discussion: DRGs are diagnosis based and each patient will typically be assigned a single DRG for each health care admission or contact. The DBC system on the other hand funds each diagnosis-treatment combination from first contact to completion of treatment, even if that combination requires several admissions and outpatient contacts over a year.⁴⁵ If a patient requires additional unrelated services during the time a DBC is active, they may be assigned an additional DBC. This means that a single patient may have more than one DBC at any given time in any given facility. Like DRGs, DBCs include all hospital activities and services for a given patient and, since 2008, include capital investments.

The DBC system is separated into two groups: non-negotiable and collectively contracted A-segment DBCs that are derived from a global hospital budget and determined by the Dutch Health Care Authority; and B-segment DBCs that are freely negotiable between insurers and providers. B-DBC (and DBCs moving from the A to B segment) tend to focus on higher-incidence/volume cases that are spread across providers, involve predictable non-acute care, and have relatively similar resource requirements from case to case.

In 2005, the negotiable share of DBCs was about 10% of hospital revenues. This share has been expanded over time to 20% in 2008, to 33-34% between 2009 and 2011, and to 70% in 2012 (Maarse, 2011; Schut and Varkevisser, 2013; Schut et al., 2013). The gradual expansion from 2005 was intended to develop experience with competition and free-pricing but is also reflective of political realities, with the large increase between 2011 and 2012 the result of a reform seeking to increase efficiency and control costs (Maarse, 2011; Schut et al., 2013).

43 Four health insurers (including three large ones) guarantee treatment within five days for select treatments, with another insurer guaranteeing no more than several weeks wait for hip and laparoscopic operations (Schut and Varkevisser, 2013).

44 In a 2011 study, hospital productivity increased by 15% since 2003, in part due to a 35% improvement in nursing personnel labour productivity (Schut et al., 2013).

45 DBCs are replaced with “continuation” DBCs when treatment exceeds one year.

The introduction of competition and free pricing for B-DBC services has had a positive impact on both price growth and service delivery. Prices for B-DBC services have increased at a lower rate (and even fallen after adjustments for inflation) in comparison with budgeted and regulated A-DBC services. Conversely, the production of B-DBC services has increased more rapidly than A-DBC services (Schut and Varkevisser, 2013).⁴⁶ There are sizable B-DBC price variations between providers, with ZBC prices being 14% lower than average and university hospital prices being 7.5% higher (Schut et al., 2013).⁴⁷ These price differences may be the result of differences in efficiency or in case-mix where ZBCs may concentrate on less complicated cases.

A 2010 government commission report concluded that the health care system was “stuck in the middle between a centrally planned and a market oriented system, preventing the government from controlling costs and insurers from being cost effective purchasers of care” (Schut et al., 2013: 21). Following this, the government announced a substantial reform of hospital and physician compensation starting in 2012. The goals were to resolve the limited incentives for efficiency among health insurers created by ex post risk adjustments (discussed above) and restricted ability to seek efficiency due to government regulations, and to address the recent high rate of growth in health expenditures. The reforms seek to both strengthen market forces and secure cost containment, reflecting the difficult balance between markets and central control mentioned in this section’s introduction. Key measures in this reform include: the expansion of freely negotiable B-DBCs to some 70% of revenues, replacing the A-DBC budgetary system with maximum prices for some complex hospital services and fixed prices for others (such as emergency, trauma, and burn units), the phasing out of ex post risk compensation (discussed above), reducing the number of DBCs from some 30,000 to approximately 4,400 to increase transparency and manageability, and limiting aggregate revenue growth for hospitals to a government-defined limit with a repayment requirement if hospitals exceed the budget in aggregate (making a given hospital’s revenues and repayments dependent on the actions of other hospitals). Schut et al. (2013) and Schut and Varkevisser (2013) note that this set of reforms may lead to increased incentives for risk selection for both insurers and providers, an incentive to increase both prices and production as much as possible for hospitals, and longer wait times for services in the A-DBC segment (including more complex procedures).

Specialists in the Netherlands work either as salaried employees of the hospital or are independent and members of a partnership (*maatschap*) in a

46 In total, despite the reduction in inflation-adjusted B-DBC prices, inflation-adjusted hospital expenditures have increased by some 4% annually (Schut et al., 2013).

47 Schäfer et al. (2010) find that ZBC prices are some 20% lower on average than in other hospitals.

hospital on a fee-for-service basis. Some 65-70% of specialists are independent, though this varies widely across medical specialties (Westert, 2012; Schut and Varkevisser, 2013). Salaried physicians are more common in university hospitals.

As with hospital funding, compensation for physicians has changed considerably since the 1990s and is set to undergo further reforms from 2012 to 2015. In the early part of the 1990s, physicians were paid on a fee-for-service basis under an annual budget limit. If billings exceeded the budget, fees of all specialists would be reduced in order to meet the aggregate billing limit. Fixed budget funding for specialists in hospitals (effectively creating salaries in most cases based on past production) replaced this global-budgeted fee-for-service system in 1995 (paired with limits on specialist positions in hospitals in 1996) which led to reduced production and increasing waiting times.

The current funding approach dates to the 2005 introduction of DBCs and negotiations between hospitals and insurance companies. From 2005 to 2008, specialists were paid per DBC for B-DBC services with lump sum payments for A-DBC services. From 2008, physicians have been paid per DBC for both A-DBCs and B-DBCs. Payment per DBC is based on a time-per-DBC calculation established by the Dutch Health Care Authority, with hospitals and medical specialists free to negotiate the hourly rate that is applied within a range that was agreed to in negotiations between the government and Association of Medical Specialists.⁴⁸ By 2015, under the reforms discussed above, specialist services (for self-employed specialists) must be fully integrated into a provider's DBC price either through negotiation for B-DBCs or through government-set prices for A-DBCs.

Privately funded options/alternatives

Voluntary Private Health Insurance (VHI) in the Netherlands provides both complementary and supplementary coverage. Mirroring Zwv coverage, this may be either on an individual basis or through a group contract. Coverage may include: dental care for adults, glasses, complementary and alternative medicines, and coverage for some co-payments. VHI does not cover faster access to care (this is instead done through the Zvw scheme where insurers do offer such services) or the mandatory deductible.

VHI is offered by health insurers on a risk-rated basis and insurers are able to refuse applicants. Insurance companies are, however, not permitted to deny VHI cover if members decide to take out Zvw policies with another insurance company. In 2011, some 89% of the population purchased a VHI

48 Schut et al. note that some of these “prices” were “substantially miscalculated” (2013: 18).

policy, commonly from their SHI insurers (Maarse, 2011; van de Ven and Schut, 2008).

As discussed above, patients are free to contract directly with providers for health care, with free access to providers of care. Patients may seek at least partial compensation for such direct contracting if they hold a restitution Zvw policy.

Lessons for Canada

The combination of a superior wait times performance and similar to superior performance in outcomes from the health care process with similar resources suggests there is much Canadians can learn from the Dutch approach. It must be recognized that emulating the Dutch approach to health care would require substantial reform of the Canadian system including, most significantly, a shift from a tax-funded government insurance scheme to a system of independent competitive insurers within a statutory enrolment framework. While that may be a large undertaking, the evidence presented above suggests there may be significant benefits to doing so.

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

- ◆ Cost sharing for non-primary medical services
- ◆ Private (both for-profit and not-for-profit) provision of acute care hospital and surgical services⁴⁹
- ◆ Activity-based funding for hospital care⁵⁰
- ◆ Permissibility of direct private purchasing of health care and contracting for more rapid access to care
- ◆ A system of statutory independent private (both not-for-profit and for-profit) insurers providing universal services to their insured populations with a substantial share of funding (~40%) coming from direct premium payments to insurers by plan members (commonly known as a social insurance system), with individual choice of insurers and some personalization of insurance cover.

49 Beyond a small private surgical clinic sector, Canada's health care system generally relies on public hospitals for acute and surgical care (Detsky and Naylor, 2003).

50 Payment based on services provided, as opposed to budgetary models which pre-fund patient care in bulk.

Of these core policy differences, three can be implemented by Canada's provinces without violating the letter of the Canada Health Act (CHA): private acute care and surgical services, activity-based funding, and private parallel health care. 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 discourage (through the reduction or withdrawal of cash transfers) a broad range of policies at the sole discretion of the federal government including in particular private acute care providers and private parallel health care. Given these reforms are emulating a more successful approach to universal access health care however, and thus cannot be reasonably opposed in a factual manner, this restrictive feature of the Act is not considered here.⁵¹

The first policy difference, cost sharing, does clearly violate the CHA⁵² and would result in required reductions in federal transfers for health and social services under sections 19 and 20 of the CHA.⁵³ This policy change 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 a province's financial interest depending on the savings that may accrue from such a policy decision (Esmail, 2006).

The Netherlands' social insurance construct with multiple insurers and choice of policy options also violates the CHA. Importantly, section 8 of the Act disallows multiple insurer social-insurance constructs, though monopoly social insurance constructs are permitted. Further, both sections 10 and 12 of the CHA require that provinces offer insurance for physician and hospital services on "uniform terms and conditions" making the Dutch policy of

51 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.

52 The Canada Health Act defines a user charge (cost sharing) as: "any charge for an insured health service that is authorized or permitted by a provincial health care insurance plan that is not payable, directly or indirectly, by a provincial health care insurance plan," (2014: 4).

53 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.

allowing personalized health insurance agreements not permissible. By violating “principles” of the Canada Health Act, a province undertaking these policy approaches would put its entire cash transfers for health and social services at risk. Implementing these policy choices without putting cash transfers at risk would require a federal change to the CHA.

This said, interference or compliance with the CHA neither validates nor invalidates these policy approaches. 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 Dutch approach to health care.

Principal policy differences two and three 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 that “... 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 (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, public enterprises tend to employ less capital and more labour intensive processes than their private sector counterparts (Megginson and Netter, 2001). That GBEs do not incorporate an optimal amount of capital has negative implications for both labour and total factor productivity.

With respect to funding, a key problem with global budgets or block grants (the dominant form of hospital funding in Canada) is the lack of connection between receipt of funding and delivery of services. This leads to weak incentives for efficiency (particularly where budgetary limits are flexible) and weak incentives for the provision of higher quality and more timely services, while generating incentives for adverse risk selection (avoiding more costly cases) and shifting the delivery of services to other levels of care or other providers (Leonard et al., 2003; Gerdtham et al., 1999). Activity-based funding, by more directly connecting funding with the provision of services (commonly referred to as money following the patient), generates incentives to increase service volumes as well as provide higher quality and shorter delays (attracting patients to the facility), while still maintaining incentives for efficiency by paying only for the average cost of treatment and not for all services delivered.

Studies have shown that activity-based funding can lead to a greater volume of services being delivered using existing health care infrastructure, reductions in wait times, 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, the 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.⁵⁴

The distribution of surgical services in the Netherlands, where freestanding and independent clinics (ZBCs) may be focusing on less complex surgeries, does not negate these conclusions. Indeed, allowing specialization and the creation of smaller clinics focused on less complex cases may in fact provide additional benefits. Allowing acute-care hospitals (public or private) to focus on more medically difficult cases while leaving medically easier cases to specialty clinics may be a superior outcome to having all patients (no matter their level of medical complexity) treated in full-service facilities (Ruseski, 2009). Competition between the two for patients can also be beneficial. A central challenge for governments and insurers, however, is to ensure that the care provided to more complex patients is remunerated appropriately so that full-service hospitals do not need to rely on financial cross-subsidization from care provided to less complex patients, and that remuneration for less complex patients appropriately reflects the lower cost of caring for them (particularly in specialized clinics focused on routine and less risky procedures with lower capital costs).⁵⁵ Clearly there are significant benefits that can accrue from shifting from global budgets to activity-based funding and inclusion of private providers under the universal access health insurance scheme.

Recommendation 1: *Activity-based funding models for hospital/surgical care, potentially with competitive benchmarking employed to set fees; private provision of hospital and surgical services.*

54 Further, as noted above, there may be differences between public and private providers in their responsiveness to competition and to financial incentives.

55 It is important to reiterate that specialized clinics are not merely taking advantage of less complex cases, but rather are employing more efficient, less risky, less complex, and more standardized approaches to care in a focused setting. This has a positive impact on both efficiency and the patient experience. To the extent specialized clinics are contributing to advances in standardization and decreasing complexity, they further contribute to quality and efficiency. On the other hand, specialized clinics should not be able to impose costs of readmissions, complications, or error on acute-care hospitals or other providers.

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 Dutch health care system not only relies on private competition for both insurance and delivery but also allows direct private contracting, as well as Zvw insurance-company led expedited access programs and manages to provide superior universal access to care.

From the Canadian perspective, 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 not to wait including reduced financial losses 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 not to wait for care (Day, 2013; Globerman, 2013). 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.

Allowing physicians to work in both the public and private health care sectors rather than requiring them to opt out of the universal system 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 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 time as leisure 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 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, for example), authorizations (Finland, for example), restrictions on the use of public hospitals (Spain and Sweden, for example), or by other regulations (Hurst and Siciliani, 2003). 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 parallel health care and health care insurance for medically necessary care, and 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.⁵⁶ Having patients face a limited but positive price for health care 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-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). Studies of experiences in Nordic countries and Canada also point to the importance of proactive administration and automatic provision of exemptions in order to ensure that lower income individuals are not faced with potentially harmful barriers or limitations when accessing services (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.*

56 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 Forget et al. (2002) nor Roos et al. (2004) demonstrate that low income users and high demanders of health care aren't wasteful. Nor do they 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 all developed nation's health care systems—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).

The final major policy difference between the Netherlands and Canada is the use of a social insurance construct (with taxpayer support) including choice of insurer and tailoring of insurance policy rather than a one size fits all taxpayer-funded government insurance scheme. A social insurance construct is primarily premium funded and relies on an independent insurer or operator of the insurance scheme, as opposed to a tax-funded scheme like Canada's where government plays the role of insurer and services are funded primarily through taxation (either general or much less commonly hypothecated). Social insurance schemes in practice are often multiple-payer (insurer) and virtually always multiple provider models, and insurance companies (as in the Netherlands) are often not only independent but private companies.

One of the central differences between a social insurance construct and a government insurance system is the de-politicization of decision making. This occurs through a clearer connection between the payment of premiums (to an insurer) and the receipt of services (funded by the insurer). The independence of providers from government makes politically-motivated intervention much less likely, and creates a greater focus on the needs of funders and consumers as opposed to administrators and providers.⁵⁷

A number of examinations of the relative performance of health care systems confirm that social insurance or statutory insurance models tend to outperform government-run tax-funded approaches. For example, Esmail and Wrona (2008), in a review of access to medical technologies, note superior access to advanced medical technologies in social insurance models. Recently, Matthews et al. undertook a broad review of health systems performance analyses including those by the World Health Organization, the Health Consumer Powerhouse, Canada's Frontier Centre for Public Policy, and the Commonwealth Fund. They find that social insurance models consistently outperform their tax-funded government-run counterparts, delivering "quality care with minimal delays at a reasonable price" (2012: 111)

The high level of respect for individual preferences and consumer choice in the Netherlands, combined with individual financial responsibilities, further enhances these characteristics while adding a dimension of personalization to a mandatory scheme. Importantly, the competition between

57 An ancillary benefit is that premium-funded universal access health care insurance can more easily be adjusted to include risk-adjustment for controllable personal behaviours and choices such as smoking and obesity (to the extent they are the result of individual decision making/behaviours) that increase health expenditures (imposed on other funders through the universal scheme) as compared with tax-funded schemes. Such an approach is more direct (and less distortionary) than the current approach to tobacco (consumption taxes paid to general revenues) and proposed approaches to obesity (taxes on certain foods, subsidies for certain activities, bans and restrictions in certain places, etc.) which are far less direct and do not provide individuals with a clear link between their choices and the cost of those choices.

insurance companies that results from choice may serve to further enhance efficiency and quality as well as consumer focus and responsiveness. Allowing individuals to tailor their insurance plan (within certain bounds) to their preferences may help to increase satisfaction with a mandatory scheme. It may also lead to a universal health insurance system that is more closely reflective of the preferences of the public, and may serve to improve efficiency in both the health insurance marketplace and in the broader economy. Finally, this construct may also result in a closer relationship between total health expenditures and the demands/desires of the public (both upwards and downwards) than is the case in centrally-managed/planned systems as individuals trade off cost sharing and care management for lower health insurance expenditures/premiums and react to changes in premiums over time individually. These benefits are, of course, subject to constraints imposed by other health policies such as compensation approaches and limiting the supply of physicians.

Recommendation 4: *A social insurance construct with premium funding and taxpayer supports for those who cannot afford insurance, choice of insurer, and personalization of insurance policies.*

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