

CHARTING A PATH TO SUSTAINABLE HEALTH CARE IN ONTARIO

*10 proposals to restrain cost growth without
compromising quality of care*

TD Economics

Special Reports

May 27, 2010



Bank Financial Group

FOREWORD

Health care is integral to our well-being

Our quality of life and standard of living are inextricably linked to our health and well-being. One cannot overestimate the integral role Ontario's health care system plays in serving both patients and the province.

With our first breath, we become direct beneficiaries of the system. As we age, its role only increases with importance. A healthier society tends to be a wealthier society, enabling a highly educated and productive workforce. Our health care system is not perfect, but it is envied around the world. We have a vested interest to preserve, sustain and enhance it.

This is easier said than done. Sustaining the health care system is the most pressing public policy challenge the province will face this decade. Our future will largely be defined by its success or failure.

The crux of the challenge is simple. The solution is far more complex.

Serious fiscal challenges threaten the system

Ontario is confronted with a serious fiscal issue. Every year, government spending on health care increases more than revenues. As a result the amount available for other government spending decreases. If current trends prevail, health care expenditures would make up 80 per cent of total program spending by 2030, up from 46 per cent today. All other programs, such as education, would be funded out of the remaining 20 per cent. This is not feasible.

Moreover, there are serious consequences if we do not act quickly to address the mounting fiscal pressures. Ultimately, we fear, the government will be forced to make deep cuts that would jeopardize the quality and access of care. Ontarians experienced this first hand, when severe cutbacks in the 1990s drove down the quality of the health care system. We should learn from history, not repeat it.

TD Economics proposals represent significant change to the status quo

Admittedly, there are no easy solutions. Meaningful reform is required but international experiences offer no playbook. Most jurisdictions are faced with similar challenges, edging towards a serious crisis.

Still, TD Economics believes Ontario can break from this pack, set off on a sustainable path and, in turn, stand out as a world leader in health care.

In some regards, the province has already set forth on this journey. We are cautiously optimistic about some of the steps taken. But the province must accelerate the pace, as well as break new ground. The 10 recommendations outlined in the following pages are developed with this in mind. Combined, they represent significant change from the current system. Indeed, the much needed transformation of our current system relies on adopting substantially all of these reforms as a package, rather than taking a piecemeal approach.

Eight proposals are designed to improve the efficiency of the health care system.

This is achieved through a better use of information and incentives. For instance, preventing illness and promoting healthy living are far more affordable than treatment. And altering the way doctors are compensated, hospitals are funded or how governments purchase drugs will influence behaviours. Greater focus must be placed on these and other areas.

These efficiency reforms will go a long way in stabilizing health care spending relative to the province's revenue base. The final two proposals will take us further. They are primarily designed to bring in new revenues, as well as help strengthen the link between the cost of health care and those who benefit directly from using it.

Preserving publicly funded model, promoting private sector involvement

An important message underpins the ten recommendations: meaningful reforms can be achieved within the current publicly-funded system.

However it is worth making a few points about the private sector's role in our health care system.

We urge the expansion of private sector involvement in the provision of health care. As long as the public can use their OHIP card, we believe they would probably support the underlying services being provided in whatever manner is most efficient.

The reality is the private sector already plays an important role in our health care system through the supply of pharmaceuticals, home and long-term facilities, diagnostic equipment, and various contract services. We challenge the government to open the door more widely for private sector involvement, not only to improve efficiencies, but also to capitalize on the huge economic potential in building a vibrant health care sector in Ontario.

Having said that, we are more cautious about increasing options for consumers to purchase health care services outside the publicly-funded system. Our health care system is largely funded through public money to pay for "medically necessary" services. Private financing would allow consumers to pay for the same medical services themselves, perhaps using different providers. A shift to private financing could certainly reduce government spending on healthcare, but lessons abroad show that negative effects could arise. For this reason, this is not a centerpiece of our reform package. Yet, as we point out in the report, there is merit in carrying out limited experimentation under certain restrictions that would minimize risks to access and quality of care.

A healthy debate

Ontarians are rightfully proud of their health care system. But pride has led to a false sense of confidence in the system. The status quo is unsustainable. If the fiscal challenge continues to fester, the system will weaken further, even falter. Access and quality care are at risk. Treatment cannot be put off any longer. Urgent reform is required. This begins with a healthy and vigorous debate on the future of our health care system. Our hope is this report contributes to the debate. We all have much to gain from it.



Don Drummond



Derek Burleton



CHARTING A PATH TO SUSTAINABLE HEALTH CARE IN ONTARIO*

10 proposals to restrain cost growth without compromising quality of care

Executive Summary

With the economic recovery in Ontario becoming more firmly entrenched, the provincial government has started to shift its focus toward gradually wrestling down its large budget deficit. By virtue of its sheer heft in overall program spending, health care will not be immune to restraint. We strongly urge the government to use this challenging period ahead to implement significant reforms to the health care system.

Our key premise for urgent action is straight-forward. The status quo featuring rapid growth in health care spending is not sustainable. If anything, the status quo will see even more rapid growth in expenditures due to the ageing of the population. That is currently being accommodated by squeezing out virtually all other forms of provincial government spending. But there are limits and they are close to being reached. Moves to place the system on a more sustainable footing would help to reduce the potential for fiscal pressures to sow the seeds for even greater cuts in the future, thus jeopardizing the quality of care. And Ontario's residents saw first hand in the 1990s how severe cutbacks in health spending can drive down the quality of – and confidence in – the health care system. It ultimately took more than a decade of massive investments by the Ontario and federal governments to repair much of the damage.

Health care – the Pac Man of provincial budgets

The challenges on the horizon are not confined to the near or even medium term. TD Economics projects that under continuation of the “status quo”, Ontario's public health care spending will increase at least 6.5% annually

well into the future. In contrast, we project longer-term growth in Ontario's nominal GDP and revenues, in the absence of tax rate increases, to be around 4%. Once fiscal balance is restored, Ontario must contain the growth in overall program spending to the pace of revenue collections. If health care spending roars ahead at 6.5% per annum while total spending is contained to 4% growth, then health care would comprise 80% of total program spending by 2030, up from 46% today. Everything else the government does, including providing education for its residents, would have to be squeezed into the remaining one-fifth. Clearly it is not feasible to fulfil the obligations of the province and the aspirations of its people with such a budget.

So something must give. Taxes could be hiked sharply. But the overall tax burden in Ontario is already quite high relative to its history and competing jurisdictions. So there is limited scope there. More promising is the prospect of reducing the rate of growth of health care spending from the projected status quo track. To this end we make 8 recommendations in this paper to improve the efficiency of the health care system and hence reduce cost growth without compromising the quality and access to care. The recommendations involve exploiting better information and creating appropriate incentives for cost minimization. The complexity of the health care system and the fact that there are no precedences in Canada or internationally from which to judge the effectiveness of such changes make it impossible to predict with any precision what the savings might be. These would have to be carefully monitored as the changes are implemented. But it would be wise to be

* Based in part on input supplied by Mark Stabile and Carolyn Hughes Tuohy of the University of Toronto School of Public Policy and Governance. We also greatly appreciate feedback from Tom Closson, Tony Culyer, David Naylor and Sachia Bhatia. Any errors or omissions are the responsibility of the authors.



mindful of the Canadian and international experience that the trend in health care spending tends to be resilient. Substantial savings have been realized in several jurisdictions through various bold budget cuts, but the savings in almost all cases proved to be temporary as the pressures exploded and then the previous trend (or worse) was revisited. So it seems prudent to assume that the efficiency recommendations may not get health care spending all the way down to 4% per annum on a sustained basis.

Still, even realizing a lower spending track of 5% per annum would be a major accomplishment. That would put health care spending growth within 1 percentage point of the 4% objective. And it would make feasible a number of options that seem far-fetched under 6.5% spending increases. First, some revenue-enhancing measures within health care, such as the two we recommend in this paper for consideration, could close the remaining gap. Second, the degree of crowding-out of non-health care spending could be tolerated. For example, instead of soaring to 80% of program spending under the status quo, health care would hit 57% by 2030. Third, any offset through measures to raise revenues more generally would be much less daunting.

If the recommendations to enhance the efficiency of the health care system might not bring the trend growth rate below 5%, then an obvious question is why not be bolder in the recommendations? An alternative way of approaching this is to ask what potential changes are not captured by the recommendations? In our view there is just one major reform prospect that is glaring by its omission. That is much more extensive use of private financing in health care, either on a general basis or as more of a side door entry, through delisting of fairly common treatments. This is not to be confused with use of private sector resources to deliver health care. We do call for that in the name of efficiency. But under our recommendations most interfaces of Ontario residents with the health care system would be under the shield of their OHIP card.

For sure more private financing and delistings would save money for the public purse. But if all they did was shift the cost from the public sector to the private sector then nothing would be accomplished. And they could have negative side effects. There are several reasons why we have not recommended this bolder course.

First, there is little compelling evidence internationally that private financing saves total costs as opposed to just divesting them from the public sector. Second, there are risks to quality if health care providers shift resources away

TD Economics' Top 10 Health Reform Proposals

Improving Information Use to Improve Efficiency:

1. Promote healthier lifestyles;
2. Expand information technology use in the system;
3. Establish Commission on Quality and Value for Health care;

Changing Incentives to Improve Efficiency:

4. Alter the way doctors are compensated;
5. Change approach of funding hospitals from a global budget system to one based on episode of care;
6. Re-allocate functions among health-care providers;
7. Scale back Ontario's Drug Benefit for higher-income seniors;
8. Increase bulk purchases of drugs to lower costs;

Bringing in New Revenues (which at the margin improve efficiency) :

9. Establish pre-funding for drug coverage;
10. Incorporate a health-care benefit tax into the income-tax structure.

from the public portion of the system toward the potentially more lucrative private parts. Third, there is so much public and political resistance to private financing that the controversy could throw off track any potential for other changes that would improve the efficiency of the system. Fourth, one must be respectful of the complexity of the health care system and its inordinate importance to the quality of life of Ontarians. Incremental change is often second best, but not necessarily in this case. It makes more sense, in our view, to first put in place the proper incentives to achieve cost efficiencies. Once the incentive structure has been changed, other, potentially more sweeping reforms, could be considered. In the meantime, the province could experiment in a limited way with private financing. In this paper we describe how this could be done under restrictions that would minimize the risks to quality and access.

Together the 8 recommendations we make in this paper would go a long way toward making Ontario's health care system sustainable without compromising quality. Two ideas for health-related revenue generators could complement the effort toward sustainability.



A more patient-focused and well-integrated system

So while our focus has been on structural reform within the current single-payer system, Ontario would still be home to a very different health care system – one that would be more efficient, patient-focused and well-integrated. Better information throughout the health care system – through increased IT requirements and a newly-established Commission on Quality and Value for Health Care – would go a long way in providing practitioners with the benefits and costs of procedures, further supporting a heightened focus on patient care. The enhanced information flow would not be limited to the health sector, as prevention moves would make residents more knowledgeable about health risks resulting from their choice of lifestyles. Changing the way hospitals and doctors are remunerated under proposals 4 and 5 would incentivize more appropriate, cost-effective care. Combining these new modes of organizing and compensating physician practices with shifting of care to – or sharing with – other providers such as nurses and technologists would increase their scope to capture potential savings. Lastly, proposals 9 and 10 are not just designed to draw in more revenues but to help strengthen the link between the cost of health care and who shoulders the burden. The fact that many proposals are complementary underscores the importance of not just the depth of reforms required but the breadth as well.

Proposals would have varying public impacts

The 10 recommendations would have varying degrees of public impact and hence political sensitivity. Some might fundamentally change the health care system, making it more efficient with at least unchanged quality, but not be very obvious to the public. That would include the changes to hospital and physician budgeting processes as well as the expansion of information technology. Other proposals would be very obvious to the public but should be positively embraced. Health promotion would be an example, although with potential for cynicism regarding previous largely unsuccessful campaigns. Other proposals – notably those on the revenue side – have the potential to elicit a stronger public, and hence, political reaction. This categorization should not in any way be interpreted as a pretense to not proceed in some areas. As we emphasize throughout the report, most if not all of the recommendations will need to be implemented in order to have a reasonable chance at putting health care spending growth on a more sustainable track. It is more a matter that some initiatives will require great care in their introduction not only in substance but in communication of the broader context.

Health care needs to be looked at through a wider lens

Finally, we urge the provincial government and residents to not only champion the need for reform, but to more fully recognize the benefits of health care to the province's social and economic fabric. In this regard, there needs to be some deep thinking on what precisely is the definition of the objective of the health care system and how success can be measured. In our view, the goal should be maximizing the “quality of life” of the residents, or perhaps more specifically, average life expectancy adjusted for the quality of health. Such an approach would broaden the focus of public policy. Preventing illness and promoting healthy living would almost certainly form a cornerstone of a holistic strategy, but also important are areas complementary to improving health and quality of life, such as better early childhood and K-12 education and alleviation of poverty. A multi-faceted public policy focus on the more vulnerable people in society would be an effective way to achieve the quality of life objectives, since enormous returns on investment would be realized. A better educated, more informed population tends to be healthier. Ultimately, the most effective way of lowering costs in the health care system will be to ensure that fewer people are in need of expensive care.

From an economic perspective, all-too-often, governments regard health care as solely a hit to their bottom line. This narrow perspective fails to recognize the enormous economic potential of the sector. Regardless of government efforts to control costs going forward, health care is one industry that is almost sure to expand over the long run. In the context of Ontario, the high-value added health care industry provides tremendous opportunities to diversify Ontario's economic base and to fill some of the gap left over by a structural decline in manufacturing.

The key to building a health care cluster will be to throw the door open more widely to private-sector involvement. Contrary to popular belief, nothing in the Canada Health Act forbids private providers of clinical services. Yet there has been an enduring and confused debate in Canada about private-sector involvement in the delivery of health care. We believe what Canadians consistently register is their preference for a single, public payer model. But in a confused manner this is often extended to the notion the public is against any private sector involvement. As long as the public can use their OHIP card they would probably support the underlying services being provided in whatever manner is most efficient. There should not be any inherent bias against public provision of services. The key is to determine the service model that delivers the best combination



of quality and cost.

The private sector already plays an important role in the provision of health care from the supply of pharmaceuticals, to home and long-term facilities, to diagnostic equipment to all forms of contract services. In addition, the Ontario government has entered into a significant number of public-private-partnerships over the past few years for the finance and construction of hospitals. Yet health care is still not considered one of Ontario's key economic clusters, notwithstanding some impressive pockets of activity and

innovation in cities such as London and Toronto.

As such, the momentum to encourage more private sector investment in health care must be stepped up. Many of the required elements needed to create a world-class health care cluster have been falling into place – including a more competitive business tax environment, investments in research and commercialization and the newly-established Medical School in Sudbury among others. However, a concerted strategy is required to put all the pieces together.

Don Drummond
Economics Advisor
416-982-2556

Derek Burleton
AVP and Director of Economic Analysis
416-982-2514



May 27, 2010

HIGHLIGHTS

- Based on a “status-quo” projection, growth in health care spending would absorb four-fifths of the Ontario budget by 2030, leaving only one-fifth for all other government programs. This situation is clearly not feasible, nor acceptable.
- We also fear that if action is not taken to restrain health spending growth, the government will ultimately be forced to make deep spending cuts to the system that would jeopardize access and quality of care.
- Eight of our proposals are aimed at re-designing the system’s incentives in order to achieve greater efficiency while maintaining (or even improving) the quality of care. Prevention, improving information and changing the way physicians and hospitals are funded top the list.
- Since the 8 proposals might not be enough to bring spending growth down to a more sustainable 4% rate, our list includes two health-related revenue generators that could close the gap.
- There is little evidence globally that privately-funded systems bring cost savings with equivalent access and quality of care.

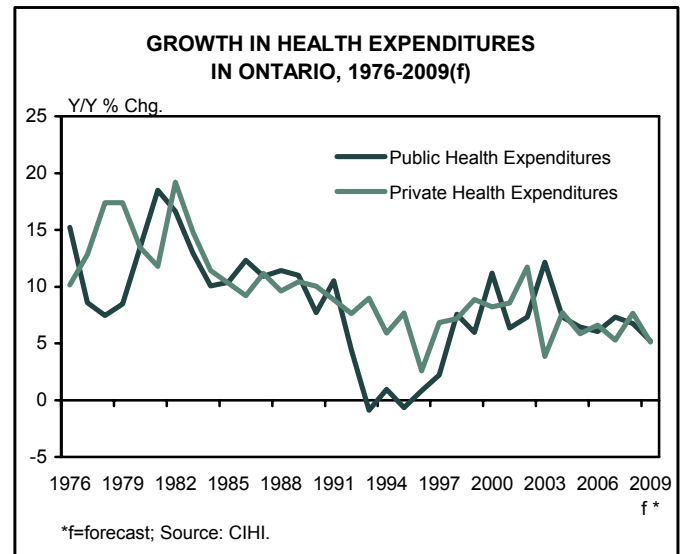
Don Drummond
Economics Advisor
416-982-2556
mailto:don.drummond@td.com

**Derek Burleton, AVP and Director
of Economic Analysis**
416-982-2514
mailto:derek.burleton@td.com

**CHARTING A PATH TO SUSTAINABLE HEALTH CARE
IN ONTARIO***

**10 proposals to restrain cost growth without compromising
quality of care**

With the economic recovery in Ontario becoming more firmly entrenched, the provincial government has started to shift its focus toward gradually reining in its large deficit. Health care – the Pac Man of provincial finances that absorbs almost half of the overall budget – will not be immune to restraint as efforts get underway to bring down program spending growth substantially. During this challenging road ahead, the government is strongly urged to use this window to press ahead with significant reforms to the health care system. Funding cuts unaccompanied by thoughtful program redesign only tend to lead to short-term savings. But even more importantly, moves to place the system on a more sustainable footing would help to reduce the potential for fiscal pressures to sow the seeds for even greater cuts in the future, thus jeopardizing the quality of care. Ontario’s residents saw first hand in the 1990s how severe cut-



backs in health spending can drive down the quality of – and confidence in – the health care system. It ultimately took more than a decade of massive investments by the Ontario and federal governments to repair much of the damage.

After setting the context in the first section of this report, we highlight 10 proposals for reform, most of which have a solid track record internationally in terms of providing bang for the buck. Putting health care on a stronger long-term foundation boils down to achieving success on three fronts: quality/accessibility, efficiency and prevention. Historically, governments in Ontario have put most of their energies into the first ingredient. Going forward, there will need to be considerably more attention paid to both efficiency, or value of care per dollar spent, and prevention. The ultimate aim of the recommendations extends well beyond

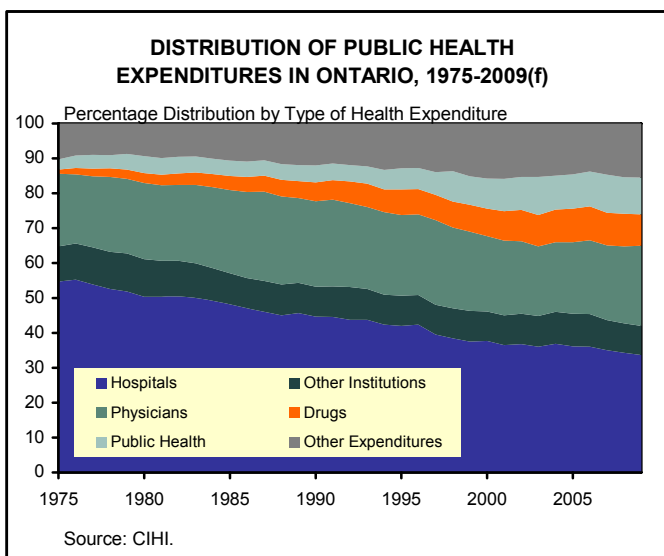
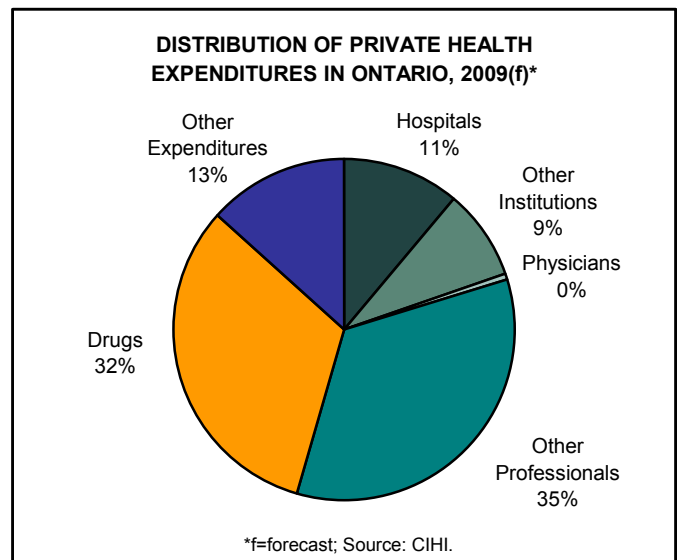
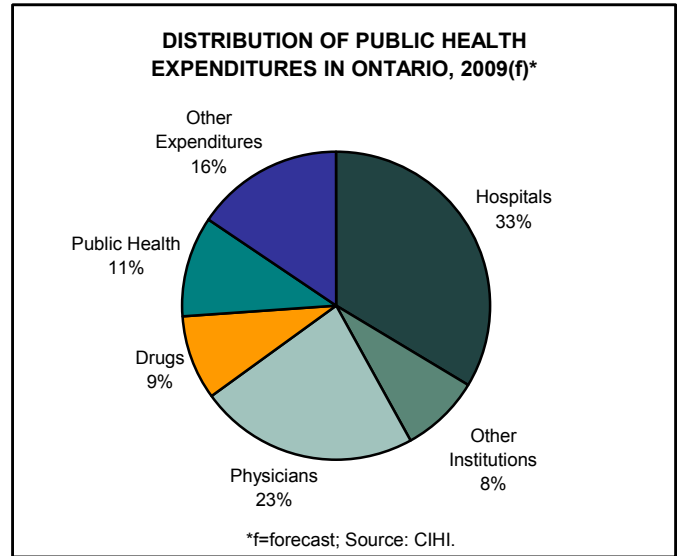
* Based in part on input supplied by Mark Stabile and Carolyn Hughes Tuohy of the University of Toronto School of Public Policy and Governance. We also greatly appreciate feedback from Tom Closson, Tony Culyer, David Naylor and Sachia Bhatia. Any errors or omissions are the responsibility of the authors.

dollars and cents or balancing two sides of a government budget ledger. Rather, successful reform would benefit Ontarians in the form of a higher quality of life. And given the importance of health to all our day-to-day lives, it is imperative that discussions on the future of health care be looked at through this wider lens.

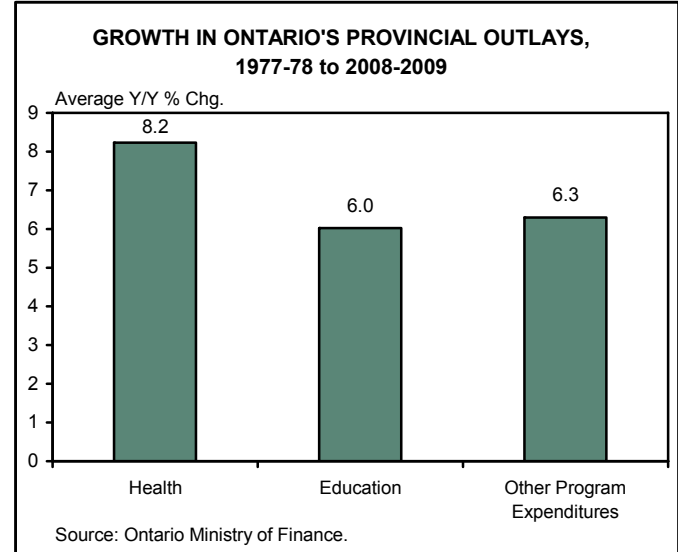
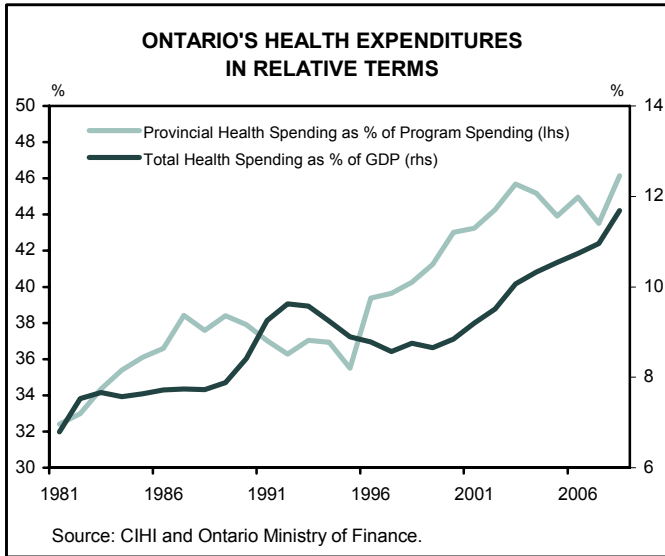
All areas of health spending surge

The escalating cost of health care has been a source of concern in Ontario – and around the world – for more than two decades. According to figures from the Canadian Institute for Health Information (CIHI), national spending on health care briefly stalled during the deficit-cutting period of the mid-1990s after expanding at a double-digit rate in the 1980s and early 1990s. Since the latter part of that decade, however, the amount earmarked towards health care has bounced back with significant punch, with growth averaging about 8% per year.

The enormous funding pressures have been widespread across the health sector. Even funding for hospitals, which had experienced relatively slow growth in the 1980s and 1990s, has rebounded over the 10 years. As a result, after declining from 44 cents in 1976 to just under 30 cents in the late 1990s, hospitals’ share of each total health dollar has since tapered off at just under 30 cents. Given the heavy labour component of most health services, a snap back in compensation rates for health-care professionals from the restraint era of the mid-1990s has been a key driver. Nonetheless, the most rapid spending growth has been tied to areas that are less labour intensive – namely drugs and infrastructure. Recently, drugs overtook physicians as the second largest source of health spending in Ontario.



The uses of public and private funding for health care services in Ontario are different in nature. For example, about three-fifths of public spending is earmarked towards hospitals and physicians, while a similar proportion of private spending is destined for drugs and other professionals, notably dentists. Despite the difference in mix, spending in publicly- and privately-funded areas has been running at roughly the same pace during the past decade, holding the public share of overall health outlays at just under 70%. This picture contrasts with the experience in the 1990s, when government spending cuts resulted in lower public expenditures and higher private sources of funding, with the latter moving to take up the slack. While figures for Ontario are unavailable, Canadian data reveal a persistent uptrend in the proportion of private-sector health expenditures attributable to private insurance over the past two decades (from



30% to 40%), whereas out of pocket has declined (from 60% to 50%). The share of non-consumption expenditure has remained relatively stable.

Health spending has been absorbing a growing share of both provincial GDP and the annual government budget. In 2009, total public and private outlays are expected to reach 13% of Ontario GDP compared to about 8% a quarter century ago. What's more, about 46% of provincial program spending is now dedicated to health care, up from 31% in 1976. The corollary of this expanding health share is that other government programs have been making up a diminishing share of the Ontario budget. In the last decade, Ontario program outlays excluding health have risen at a 5% average annual rate, compared to health's 8% pace. Moreover, stripping away both health care and education (the second largest budget component) would leave provincial program outlays up by only about 4.5% on average.

How does Ontario stack up?

Even though there have not been dramatic variations in average annual growth rates across the provinces, Ontario has been at the upper end of the provincial ranking in terms of percentage increase in overall health spending over the past two decades – ranking third behind only Alberta and British Columbia. Still, similar to Canada's two western-most jurisdictions, an important contributor of Ontario's growth rate has been the province's higher-than-average population gain over the period. Indeed, on a real per-capita basis, the expansion in health spending in Ontario has been lower than most provinces since 1990. This fact is especially evident when the public component of health spending is looked at in isolation.

Some key highlights of Ontario's relative position in terms of Canadian health care spending trends as of 2009 are:

HEALTH SPENDING TRENDS BY PROVINCE, 2009											
	N&L	PEI	NS	NB	Que	Ont	Man	Sask	Alta	BC	Canada
Total Health Spending											
Level (\$, Mlns)	3,029	809	5,490	4,119	38,103	72,260	7,058	5,894	22,013	23,273	183,121
Per capita (\$)											
Public	4,491	4,203	4,055	3,857	3,491	3,712	4,293	4,426	4,416	3,771	3,829
Private	1,479	1,565	1,786	1,649	1,400	1,818	1,520	1,387	1,656	1,483	1,623
Standardized (\$)^	3,570	2,870	3,143	3,141	2,776	3,161	3,379	3,255	3,834	3,119	3,159
As % of GDP											
Public	7.8	12.2	11.2	10.5	9.1	8.5	10.4	7.5	6.0	8.8	8.3
Private	2.6	4.5	4.9	4.5	3.6	4.2	3.7	2.4	2.2	3.5	3.5
Avg. Ann. % Chg. 00-09											
Public	6.2	8.7	7.2	7.0	6.5	7.6	6.8	7.2	10.1	6.4	7.4
Private	8.6	6.5	8.2	7.4	7.0	7.1	6.6	6.9	9.1	7.2	7.3

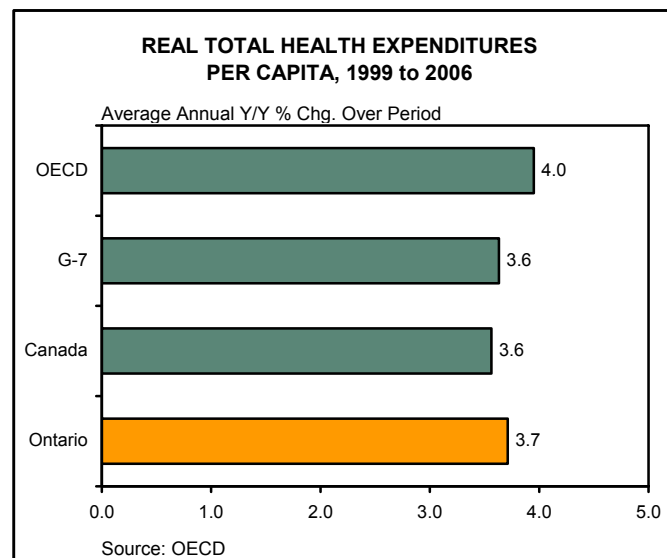
* Includes public and private spending on health care.

^ Total spending per capita adjusted for differences in age and sex composition.

- At an estimated \$5,500 in 2009, per-capita health spending in Ontario was below that of all provinces except Quebec (\$4,900) and British Columbia (\$5,250). Quebec has historically recorded the lowest health spending per capita due to its low relative income level and its reasonably high population density. (In contrast, the relatively poor Atlantic region has struggled with low population density, which has raised the per-capita cost of delivering health services.) However, over the past decade, both B.C. and Ontario have moved from above-average per-capita spending levels within Canada to below average.
- With Ontario more reliant on privately funded health services (33% versus 28% in the rest of Canada), publicly-funded health expenditure per capita in the province is second lowest, after Quebec.
- On an age-adjusted basis, total health expenditure in Ontario is third lowest, after Quebec and P.E.I.
- As a per cent of GDP, Ontario (13%) is in the middle of the pack. Elsewhere, shares range from 8% in Alberta to 17% in P.E.I.
- As a per cent of provincial program spending, health care in Ontario absorbs a larger share of the budget than the all-province average. In other jurisdictions, proportions vary from 36% to 49%. This high share partly reflects the fact that unlike the vast majority of provinces, Ontario residents transfer more money to federal coffers per person than they receive back in federal spending.

Ontario in an international context

In sum, Ontario – like all of its provincial counterparts –

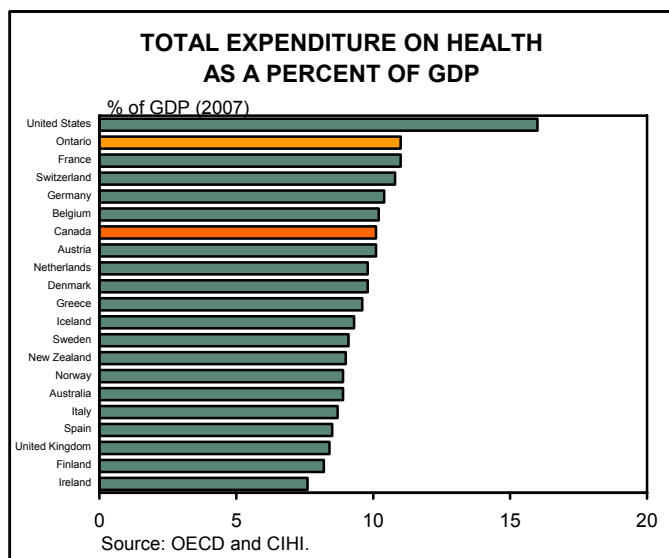


has been ramping up overall and public spending at a hefty rate over the past decade, although its growth rate has been somewhat slower than the all-province average when inflation and population are factored in. Ontario’s per-capita spending level is lower than most other provinces on an absolute basis, but other relative metrics show it either in the middle of the pack (i.e., per cent of GDP) or on the high end (i.e., per cent of program spending).

A comparison across the OECD shows that Ontario and other Canadian provinces have a lot of company in facing the challenges of rising health expenditures. In fact, between 1999 and 2007, total real per-capita health spending growth in Ontario (3.4%) actually trailed behind the averages of the OECD (4.0%) and the G-7 (4.4%). Virtually all developed economies around the globe have witnessed an increase in health spending as a per cent of GDP.

Notwithstanding the broad trend, regional differences in health spending growth remain. In general, trends in health spending growth rates and per-capita spending levels are closely linked to national income. While richer countries allocate more to health care than poorer ones, nations with lower income per head tend to experience faster income growth, and hence, higher per-capita health spending increases. Other factors that determine spending levels are choice of health service delivery model and/or mix of public and private funding by nations. Ontario, which sits close to the middle of the OECD rankings in terms of reliance on public funding for health care, allocates more public and private money to health care (both per capita and as a share of GDP) than most other OECD countries.

Drugs are one notable area where Ontario and other Canadian provinces spend relatively more than other inter-



CONTRIBUTIONS OF 5 KEY DRIVERS TO ONTARIO HEALTH SPENDING GROWTH (PERCENTAGE POINTS - AVERAGE PERIOD)						
	Total Health Spending Growth	Demographics		Inflation		Utilization
		Population Growth	Aging	General	Health Premium*	
1980-89	12.6	1.6	0.4	6.9	1.0	2.7
1990-99	4.9	1.3	0.4	2.2	0.4	0.7
2000-09	7.4	1.3	0.6	1.8	0.6	3.1
Forecast						
2010-30	6.5	1.0	1.0	2.0	0.5	2.0

* Health premium is calculated as the difference between reported total inflation for health care services and core consumer price inflation in Ontario.
Source: Statistics Canada, Ontario Ministry of Finance; Forecast by TD Economics.

national jurisdictions. This trend appears to be due in large part to the relatively high price of generic drugs. In addition, the level of co-payments and deductibles that seniors are required to pay under the provincially-funded Ontario Drug Benefit (ODB) are small in comparative terms. We come back to this issue later.

5 major drivers of health spending growth

In this section, we provide a simple long-term projection of health spending trends in Ontario. In order to carry out this “status-quo” assessment, we take a closer look at the underlying drivers of health spending growth. Health spending growth can be decomposed into the following 5 drivers:

- Demographic drivers (two) – demographics will exert upward pressure on health costs in two ways. First, as the population base expands, health spending can reasonably be expected to grow in lockstep. Second, as the population ages, individuals will move into higher cost categories of health. Indeed, according to CIHI figures, per-capita spending among Canadians over 65 years is about 6 times higher than for those under 65 years.
- Inflation drivers (two) – inflation refers to the persistent rise in the average price of goods and services. It is useful to decompose the overall inflation of health care services into the portion that tracks general price changes for a group of goods and services representative in the economy (i.e., core consumer price inflation) and those driven by relative changes in the prices of health care services. Given the labour intensive nature of health services and absence of strong productivity gains, overall

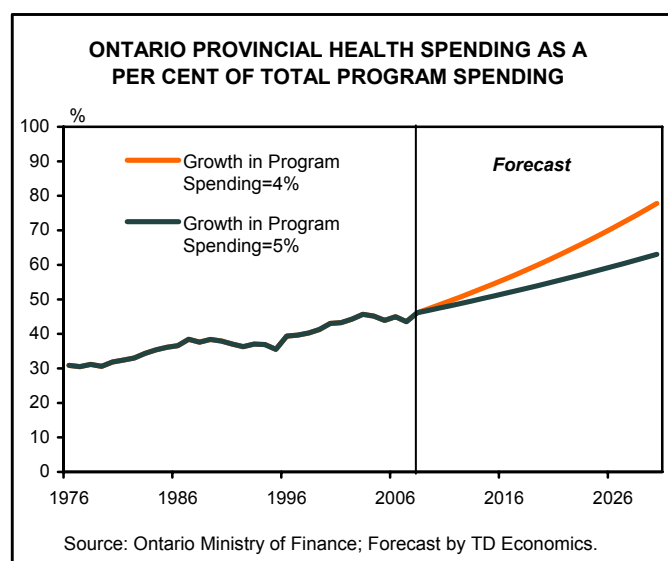
health inflation has tended to grow faster than core CPI historically.

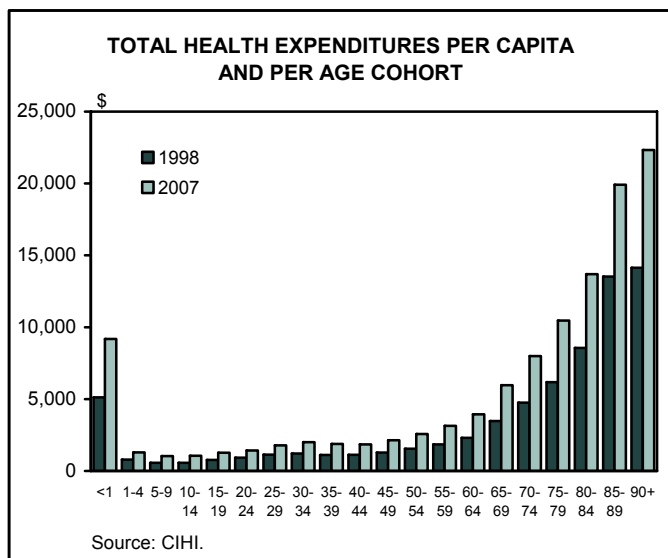
- Utilization or intensity (one) – this category captures all other health spending not tied to demographics or inflation. Put another way, utilization is the quantity of health services used per person on an age-adjusted basis. It is influenced by factors such as advances in medical technology, treatment decisions by physicians and hospitals, the underlying health of the population, information technology and drug coverage. While demand for treatment within a universal health-care system is effectively boundless, utilization is constrained by developments on the supply side, such as productivity growth.

The accompanying table shows the historical decomposition of Ontario total health spending into these five drivers. (A similar analysis with provincial government spending yields the same results). During the 1980s and 1990s, general inflation and population growth accounted for roughly three-quarters of the gains in total spending. The utilization component accounted for most of the remaining one-quarter in the 1980s, whereas this residual was evenly split between utilization and aging in the 1990s. In contrast, in the 2000s, utilization became the number one driver of health spending, while the impacts from population growth and general inflation decelerated.

Status-quo spending growth of nearly 7% through 2030

We can use this simple 5-part composition to project status-quo health spending growth in Ontario over the next two decades. Contributions from each of the drivers are assumed as follows:





- *Population growth of 1% per year* – using Statistics Canada’s long-term population projections, population growth is expected to ease only slightly over the next two decades from its current rate of 1.1% per year.
- *Aging impact of 1% per year* – this driver is calculated by applying per-capita health-spending figures by age cohort to the changing population distribution over time. The status-quo projected result is effectively double its historical impact of about 0.5%.
- *General inflation of 2% per year* – we have assumed the Bank of Canada’s target rate on core CPI inflation.
- *Relative healthcare inflation of 0.5% per year* – we assume a rate on par with the average over the past two “low-inflation” decades.
- *Utilization of 2% per year* – this driver has averaged almost 3% annually in the past decade, but some of that strength marks a rebound from virtually zero in the 1990s. While we have assumed a rate in line with its long-term trend, cost pressures in this area could be heavier than we have extrapolated. For example, tomorrow’s seniors could have higher aspirations for an active lifestyle that would require greater health-care intervention, but simultaneously they might be burdened with more chronic problems such as Alzheimer’s disease or Type II diabetes. Accelerated technological advances may make it possible to reconcile the heightened lifestyle aspirations with the underlying state of health, but only at a growing cost.

Under these assumptions, status-quo health spending growth would be 6.5% per year, which is slightly higher than the 6% assumed by the Ontario Ministry of Finance

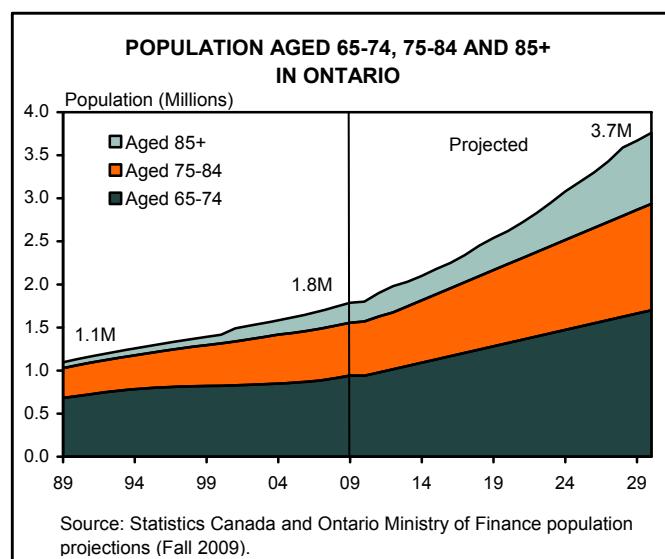
in its long-term fiscal projection. At that rate, total health spending would continue to absorb a growing share of the economy. In its long-term outlook, the Ontario Ministry of Finance assumes annual average nominal GDP growth of 5% per year in the province through 2025. We believe this is on the optimistic side, and instead assume a lower rate of 4% per year. The difference lies in our more pessimistic opinion on labour-force participation rates and long-term employment growth. As well, while the Ministry assumes GDP inflation at 2.2% over the long term, our assumption of 1.8% is more in line with historical trends. Based on our assumptions, total health spending to GDP would rise to 20% by 2030.

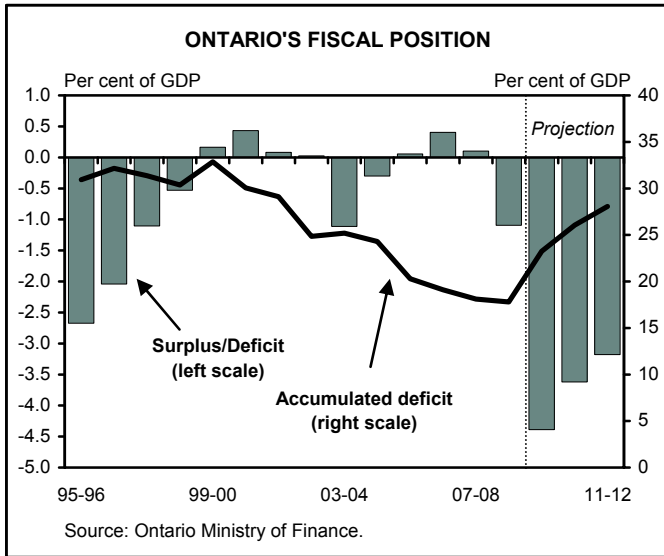
In terms of provincial budget impacts, we have assumed that both revenues and total program spending grow in line with nominal GDP. Accordingly, health care would continue to rise as a per cent of provincial program spending, reaching almost 80% by 2030. Keep in mind that these projections are sensitive to underlying assumptions. If economic growth were to come in at a higher 5% annually, the health share of total program spending would reach close to 65%, still lofty but well down from 80%.

Is the rising trend of health spending acceptable?

There is no simple answer to this question. The acceptability of how an economy divvies up its income share or a government allocates its revenues boils down to choices of its residents. And, similar to their counterparts across the OECD, Ontarians have widely supported health care as a top budget priority. In addition, many view Canada’s system of health care as a key part of their identity.

At the same time, however, it is likely that many Ontar-





ians have not come to grips with the potential risk to their future quality of life from the Health-care Pac Man. The concern does not lie with health care's increasing footprint in the province's economy. Indeed, the high-value added health care industry provides opportunities to diversify Ontario's economic base and to fill some of the gap left over by a structural decline in manufacturing. Rather, the worry is more linked to the sustainability of the provincial budget.

Many economists subscribe to the view that provincial government programs over the long term should grow no faster than the rate of population growth and inflation. However, this profile would mean that program spending would drop relative to GDP to the extent that productivity expands. Since productivity growth – which represents the difference between growth in GDP and the sum of inflation and population gains – makes a nation wealthier, there is nothing wrong with it allocating part of that wealth generation to public services. Such a pace of expansion should be sustainable because revenues should also grow in tandem with GDP.

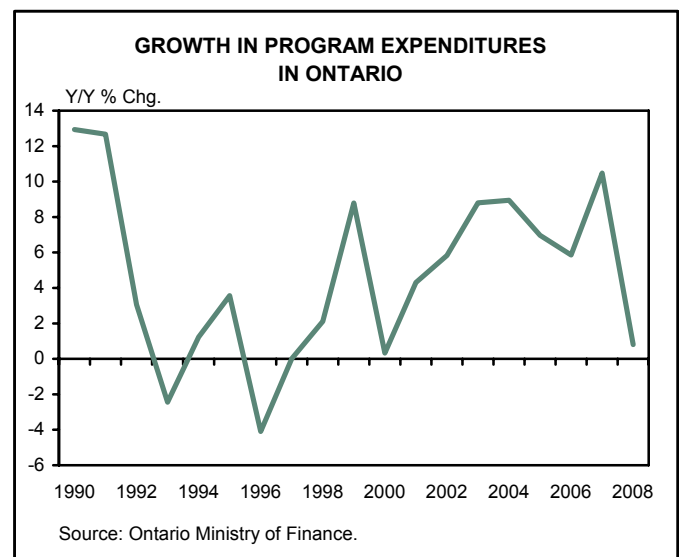
Complications arise if a society chooses – or can't seem to prevent – a major component of program spending from growing more rapidly than GDP. In that event, either other areas of spending will be crowded out or taxes will have to be raised. Alternatively, the government can choose to run future deficits. But running future shortfalls would mean that even larger tax hikes and crowding out would be required down the road.

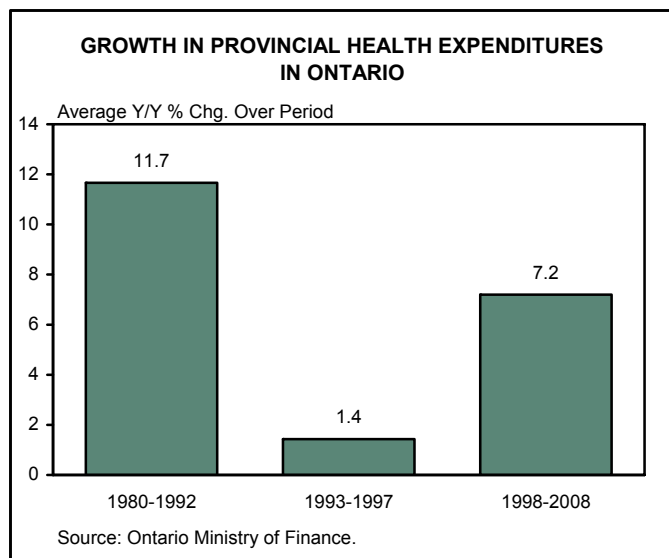
More challenging still, Ontario is not beginning from a position of balance, but from a budget shortfall of 4% of GDP. In its March 2010 budget, the provincial government laid down an eight-year deficit elimination plan that would

reduce program spending growth to an average annual pace of about 2% over the period. While specific departmental budgets were only provided through fiscal 2012-13, the plan includes three-year targets to scale back health spending growth gradually, from 6% this year to a modest 3%. Few details were provided on how that medium-term goal will be attained. Nonetheless, even at that reduced pace, health spending is still set to rise at more than twice the pace of other combined program expenditures. If the government is unsuccessful in maintaining that reduced rate of health spending increase after fiscal 2012-13, other expenditures would have to be cut back substantially in order to keep the 2% overall spending growth objective on track.

What to crowd out?

The prospect of health care spending growing considerably faster than GDP on a longer-term basis raises the question of what areas of government should be crowded out? Just as health care pressures are likely to be sustained by an aging population, other areas might experience the opposite effect, which would help to lessen the longer-term fiscal challenge. But there are limits. For example, while the need to invest in public schools is one area where pressures might subside due to an aging population, post-secondary education (PSE) will require additional funding to fulfill the objective set out in the 2010 Ontario Speech from the Throne to provide that level of education to a significantly larger portion of the province's youth. As such, most long-term projections would still have that component growing by at least 4% per year. Regardless, looking at these projected growth numbers in isolation fails to take into account the positive correlation between education and health. There





is also the issue of intergenerational fairness of current or future crowding out, which needs to be taken into account.

In contemplating which areas to crowd out, society faces a dilemma. The potential for Ontario to grow its productivity and income base – which effectively determine the capacity of the province to fund public services – reflects more than just health and education but a whole host of factors. Also instrumental is research, an efficient and competitive tax system, infrastructure and reliability of electricity supply. The list goes on. In recent years, large fiscal surpluses and growing federal transfers have allowed the provincial government to ramp up health spending and still tackle other priorities. In a post-surplus world, this will be increasingly tough to pull off. As a result, crowding out of non-health services actually poses a threat to the health care system.

Why focus on reforms?

Faced with these realities, the majority of Ontarians would likely support urgent action to improve the efficiency and sustainability of the health care system. Here, we emphasize reforms. Over the next few years, provincial government health care funding will come under pressure as the deficit is addressed. But experience in Ontario and in other Canadian provinces during the deficit-reduction era of the 1990s showed first hand that merely starving programs of funding without fundamental structural reforms fails to generate sustainable savings. In the case of health care, funding would bounce back forcefully once the budget position improved (see box).

As importantly, lowering the growth track of spending does not get to the root of the sustainability issue – that being, the risk of renewed deterioration in the quality of care.

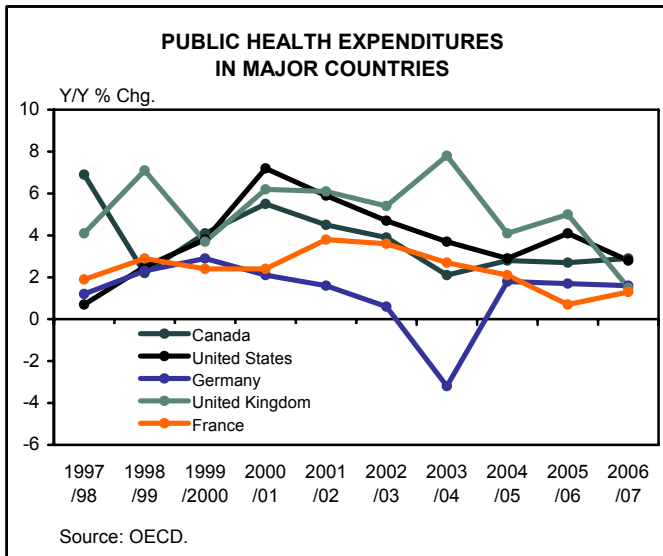
1990s Health-care Restructuring: Short-term Pain; Short-term Gain

There has been one episode of restraint in health care spending in Ontario in recent history which provided only temporary relief. Between 1993 and 1997, two successive governments – the NDP led by Bob Rae and Conservative Mike Harris – managed to slow the rate of spending growth sharply.

The NDP government introduced a budget in 1993 that did not set out to fundamentally reform health care, but to rein in its large deficit through hospital administrative spending cuts and the de-listing of some publicly-funded services. The Conservative government attempted to restructure certain aspects of health care in 1995. The reforms were two pronged: first, the establishment of an independent commission (the Health Services Restructuring Commission) which allowed it to make binding decisions on the future of hospitals, including closure and amalgamation. However, while some restructuring did take place, fierce opposition from unions, opposition parties and citizens groups related to several high profile hospital closures caused the government to interfere with the Commission’s efforts in some cases, leading to reversals from earlier decisions. Second, the government took on physicians by announcing a cancellation in malpractice subsidies and a 10% claw-back in fees provided under fee for service. The government ultimately backed off on this proposal.

In the end, there were few fundamental changes that were put in place in the mid-1990s. As a result, spending pressures would only build and eventually spring back.

Inter-provincial comparisons of health outcomes and system performance show Ontario in a favourable light. But internationally, health outcomes in Ontario are either no better, or in some cases, trail behind other jurisdictions despite the fact that the public and private sectors in the province spend more per capita. Residents in Ontario remain concerned about waiting times and physician shortages. The substantial new public funding for health care has helped to ease wait times since 2004, but progress on this front remains relatively slow, underscoring the fact that spending money is far from a cure-all. Unacceptably long waiting lists was the core reason behind the 2005 decision by the Supreme Court to strike down a Quebec law banning private health insurance. Accordingly, there are concerns – such as those expressed by Senator Kirby in his 2002 report – that without



improved system performance, Canada's universal health-care model will come under increasing pressure.

Lessons from abroad

In this section, we highlight several options for health-care reform in Ontario. In comprising our list of proposals, a comprehensive review of domestic and international research was conducted, with a special eye on the results of past reforms undertaken in other jurisdictions. From the diversity of international experience, some key lessons can be distilled:

Lesson 1: no jurisdiction in the world has all the answers

The structures of health care systems around the world differ widely, as do the scope of reforms that have been undertaken in the past. Despite these variations, there is one major commonality: debate about how best to rein in soaring health care costs. But while Canada cannot look to any specific country as a perfect model on health care, we believe that there are certain elements being applied abroad that deserve a close look.

Lesson 2: elusive cost containment puts emphasis on quality

In general, reforms undertaken around the world have not had a dramatic impact on the rate of increase in health care costs. Changes that have been shown to generate savings are usually long term in nature, and in many cases, reforms were actually accompanied by up-front costs. However, where reforms tended to have a more significant effect was through an improvement in quality and/or an increase in value per dollar of health expenditure. And, as we have noted, building a quality health care system is crucial to long-run

sustainability. Experiences from Kaiser Permanente, an integrated managed care organization based in California, and the U.S. Veteran's Administration (VA) provide some good lessons on how a focus on quality of care can help to put a system on a stronger long-term footing. We feature VA's 1990s reforms in the annex at the end of the report. (Edmonson et al., 2008).

Lesson 3: emphasis on quality may mean drawing in additional revenues

With outright cost savings elusive, the focus internationally has shifted to adding new revenue streams and diversifying funding bases. In general, those relying on tax-based mechanisms have been incorporating elements of social insurance into their funding arsenal. Vice versa for those countries that are more heavily reliant on social insurance (Flood et al., 2008). In addition, several governments around the world have also turned to raising revenues through the imposition of "benefits taxes" – such as user charges – as a way to boost the efficiency in the system and to generate additional revenues. The main objection to user charges relates to the effect they have on poor and disadvantaged populations.

Lesson 4: increased private financing does not lead to huge public savings

In Canada, there have been calls to open up the door more widely to private financing (as distinct from private provision of services) or back door privatization as a means of reducing pressures on the public system. Proponents of a private alternative argue that it would free up public resources, lead to shorter waiting times for both users of the public and private sectors, increase choice and serve as a benchmark against which the public sector could be compared. However, there is little evidence from other countries that privately-funded systems bring cost savings with equivalent access and quality of care.

The lack of empirical support in favour of privately-financed system is revealed in a number of research studies by Light (1996), Richmond (1996), Besley et al. (1998), Hurley (2002), Tuohy, Flood and Stabile (2004) and Lu and Savage (2006). In general, the balance of evidence in those systems that have developed parallel private systems is tilted towards the following:

- The potential for public cost savings is limited by the combination of tax subsidies provided for private insurance and the effects of private systems on health input costs.

TD Economics' Top 10 Health Reform ProposalsImproving Information Use to Improve Efficiency:

1. Promote healthier lifestyles;
2. Expand information technology use in the system;
3. Establish Commission on Quality and Value for Health care;

Changing Incentives to Improve Efficiency:

4. Alter the way doctors are compensated;
5. Change approach of funding hospitals from a global budget system to one based on episode of care;
6. Re-allocate functions among health-care providers;
7. Scale back Ontario's Drug Benefit for higher-income seniors;
8. Increase bulk purchases of drugs to lower costs;

Bringing in New Revenues (which at the margin improve efficiency) :

9. Establish pre-funding for drug coverage;
10. Incorporate a health-care benefit tax into the income-tax structure.

- There have been some signs of “cream skimming” of risks (i.e., the choice to treat only the more profitable patients) by the private system that can result in an increase in per-patient costs of cases remaining in the public system. In addition, the different mix of cases treated suggests that the private system could not serve as an effective benchmark for the public system.
- A parallel private system appears to induce health care resources to shift from the public to private sectors.
- Parallel private systems have failed to reduce wait times in the public system. This is partly because an increase in supply afforded by the private system is equally offset by an increase in demand for publicly-funded health care. As well, private health care may lead to lobbying to divert resources away from areas with long waiting lists toward other areas within the public system.

10 PROPOSALS FOR REFORM

With these lessons in mind, we turn to our top 10 reform proposals. Our main objective is to lay the groundwork for trend growth in health spending to slow from our longer-term status-quo projection of 6.5% per annum to a sustain-

able 4% pace. To this end, we put forward eight recommendations to improve the efficiency of the health care system and hence reduce cost growth without compromising access and quality of care. The recommendations involve exploiting better information and creating appropriate incentives for cost minimization. The complexity of the health care system and the fact that there are no precedences in Canada or internationally from which to judge the effectiveness of such changes make it impossible to predict with any precision what the savings might be. These would have to be carefully monitored as the changes are implemented. But it would be wise to be mindful of the Canadian and international experience that the trend in health care spending tends to be resilient. As we have argued, substantial savings have been realized in several jurisdictions through various bold budget cuts, but the savings in almost all cases proved to be temporary as the pressures exploded and then the previous trend (or worse) was revisited. So it seems prudent to assume that the efficiency recommendations may not get health care spending all the way down to 4% per annum on a sustained basis.

Still, even realizing a lower spending track of 5% per annum would be a major accomplishment. That would put health care spending growth within 1 percentage point of the 4% objective. And it would make feasible a number of options that seem far-fetched under 6.5% spending increases. First, some revenue-enhancing measures within health care, such as the two we recommend in this paper for consideration, could close the remaining gap. Second, the degree of crowding-out of non-health care spending could be tolerated. For example, instead of soaring to 80% of program spending under the status quo, health care would hit 65% by 2030. Third, any offset through measures to raise revenues more generally would be much less daunting.

If the recommendations to enhance the efficiency of the health care system might not bring the trend growth rate below 5 per cent, then an obvious question is why not be bolder in the recommendations? An alternative way of approaching this is to ask what potential changes are not captured by the recommendations? In our view there is just one major reform prospect that is glaring by its omission. That is much more extensive use of private financing in health care, either on a general basis or as more of a side door entry, through delisting of fairly common treatments. This is not to be confused with use of private sector resources to deliver health care. We do call for that in the name of efficiency. But under our recommendations most interfaces of Ontario residents with the health care system would be

under the shield of their OHIP card.

For sure more private financing and delistings would save money for the public purse. But if all they did was shift the cost from the public sector to the private sector

Ontario Could Consider Experimenting with Privately-Funded Care

While international experience does not support a tectonic shift to a parallel privately-funded system of health care, some provinces in Canada – notably, Quebec, British Columbia and Alberta – are either experimenting, or plan to experiment, with a limited private alternative. Quebec, for example, permits privately-funded hip, knee and cataract procedures.

Ontario could consider following suit by introducing a small number of elective procedures along the same line as Quebec. As international research has shown, the private option is no panacea and carries with it certain risks. We have highlighted these potential pitfalls on page 19. As such, Ontario would need to ensure that the conditions are put in place in order to prevent “cream skimming”. Access for those covered under the public plan would need to be protected. And the price charged by private clinics for residents should be capped at the same level as under the public system, although this condition could be waived for non-residents. While prices would not be set by the open market, the private sector would have an incentive to generate return through driving efficiency gains and hopefully those gains would spill over to the public health services sector.

Putting Ontario’s health care system on a sustainable track will require more than implementing a set of reforms and passively watching them take shape. It will involve a fair degree of experimentation, followed by adaptation in order to ensure that any challenges that arise are addressed. A limited and carefully monitored experiment with privately-funded health care would not involve much risk in the short term. Ontarians would ultimately decide in the future if the experiment has been successful enough to warrant a further roll out.

Any experimentation with private financing should not distract the focus on implementing the bulk and potentially all of the ten recommendations we make in this report. Those changes are necessary to instill the proper incentives to ensure quality and efficiency and hence sustainability in health care. As we argue elsewhere, once the system is re-oriented around the proper incentives, other promising reforms will become more apparent and easier to implement.

then nothing would be accomplished. And as lessons from abroad have shown, they could have negative side effects. Incremental change is often second best, but not necessarily in this case. It makes more sense, in our view, to first put in place the proper incentives to achieve cost efficiencies. Once the incentive structure has been changed, other, potentially more sweeping reforms, could be considered. In the meantime, the province could experiment in a limited way with private financing (see text box). This experiment could be done under restrictions that would minimize the risks to quality and access.

Together the 8 recommendations we make in this paper would go a long way toward making Ontario’s health care system sustainable without compromising quality. Two ideas for health-related revenue generators could complement the effort toward sustainability.

Bold departure from the status quo

A few final thoughts before we commence with the discussion of the specific reforms. **First**, the ten options included in our list of proposals represent a bold departure from the status-quo. Under TD Economics’ proposals, the system would become more efficient, patient-focused and well-integrated. Better information throughout the health care system – through increased IT requirements and a newly-established Commission on Quality and Value for Health Care – would go a long way in providing practitioners with the benefits and costs of procedures, further complementing a heightened focus on patient care. The enhanced information flow would not be limited to the health sector, as prevention moves would make residents more knowledgeable about health risks resulting from their choice of lifestyles. By changing the way hospitals and doctors are remunerated, incentives would be put in place to both lower costs and provide more appropriate care to patients. Combining these new modes of organizing and compensating physician practices with shifting (or sharing) care to (with) other providers – such as nurses and technologists – would only increase their scope to capture potential savings. Lastly, proposals 9 and 10 are not just designed to draw in more revenues but to help strengthen the link between the cost of health care and who shoulders the burden. The fact that many proposals complement each other underscores the importance of not just the depth of reforms required but the breadth as well.

Second, the 10 recommendations would have varying degrees of public impact and hence political sensitivity. Some might fundamentally change the health care system,

Why Might TD's Proposals Succeed in Lowering Health Spending Growth When Others Have Failed?

TD Economics is not the first to make recommendations on how to place the health care system on a sustainable track. Over the past 10 years there have been a number of landmark reports that have garnered significant attention across the country. Chief among them include Alberta's Mazankowski Council (Alberta 2001), the Senate's Kirby Commission (Canada, 2002), and the federal government's Romanow Commission (Canada, 2002). In addition, provincially-commissioned studies have been carried out in Saskatchewan and Quebec.

A decade has passed and yet Ontario and other Canadian provinces are still confronting the challenge of sustainability. This raises some important questions.

Why didn't these reports lead to greater cost savings being achieved?

The fact that spending growth has continued to outstrip that of revenues over the past decade has had a lot to do with the fiscal circumstances of the day and the lack of government and public appetite to implement bold change. The commissions were formed in part to address the longer-term unsustainability of health care spending growth. But at the time, surpluses were being recorded at the federal and provincial levels, which meant that the fiscal warnings resonated little with the public. Even the mandates of the commissions largely emphasized finding ways to "meet the needs" of the public, with ensuring "fiscal sustainability" taking a secondary role. In fact, in the Romanow Report, instead of warning the public about the fiscal sustainability issue, it declared health care as being "as sustainable as you want it to be.", which highlighted the low priority he placed on addressing the long-term fiscal challenge (Boothe and Carson, 2003). In the end, federal transfers were ramped up sharply in the 2004 First Ministers Health Care Accord, thus reducing pressure on the provinces to take dramatic action.

How do our top 10 proposals compare to recommendations in the landmark reports of a decade ago?

The lack of success in reforming the system has been more about the lack of urgency than the recommendations themselves. In fact, virtually all of TD's recommended measures to boost efficiency (i.e., reforms of primary care, shifting care towards lower-cost forms such as nurse practitioners, adoption of information technology, better leveraging economies of scale in areas such as

drug purchases and health promotion) featured largely in the three past reports. In some cases, our proposals are shared by some but not by others. For example, the Kirby report was unique among the three in supporting a move to a DRG-based hospital funding structure. On the flip side, while Romanow and Kirby argue to broaden coverage under the publicly-insured system to home care and catastrophic drug coverage, we reject this notion on the grounds of a lack of available government resources. Instead, TD is supporting a move to better target drug spending under the Ontario Drug Benefit (ODB) to seniors in need and higher income seniors who pay more for their drug costs.

In part due to their recognition that efficiency gains alone are unlikely to bring down spending growth dramatically, both Kirby and Mazankowski argued for additional revenue-raising measures. Still, both recommended a somewhat different approach than TD. Kirby supported a move to fund the federal contribution to health care from a share of GST revenues and impose a new federal health-care premium. Mazankowski recommended tying Alberta's dedicated health premium tax to growth in the health-care system. In contrast, TD's recommended path focuses more on inter-generational equity (pre-funding future costs) and adding an element of benefits tax into the income tax structure in order to spur some efficiency gains.

Ultimately, governments have moved forward with a number of the lower-hanging fruit and left some of the bolder, less politically-palatable changes for another day.

Why might our recommendations find success when others didn't?

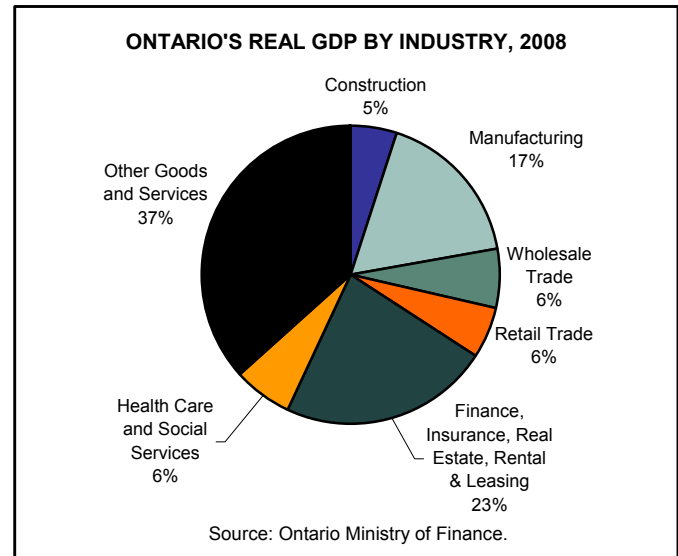
Just as timing was certainly a factor in limiting progress over the past decade, timing will likely work in favour of change in the future. Ten more years of spending growth, greater proximity to the baby boomers becoming seniors and huge deficits across the land should have whetted the appetite for reform. Other sticking points appear to be less of a factor today. The public has likely been gaining a better understanding of the risks that unbridled health spending growth poses to their standard of living. And, with provinces facing the fiscal threat of health care head on, it is more likely that they will take the lead this time around in instituting change, which should increase the chances of success.

making it more efficient with at least unchanged quality, but not be very obvious to the public. That would include the changes to hospital and physician budgeting processes as well as the expansion of information technology. Other proposals would be very obvious to the public but should be positively embraced. Health promotion would be an example, although with potential for cynicism regarding previous largely unsuccessful campaigns. Other proposals – notably those on the revenue side – have the potential to elicit a stronger public, and hence, political reaction. This categorization should not in any way be interpreted as a pretense to not proceed in some areas. As we emphasize throughout the report, most if not all of the recommendations will need to be implemented in order to have a reasonable chance at putting health care spending growth on a more sustainable track. It is more a matter that some initiatives will require great care in their introduction not only in substance but in communication of the broader context.

Third, TD’s proposals designed at reforming the health care system are likely to be met by naysayers and skeptics who will point out – and rightly so – that “we’ve heard this all before”. Indeed, within the past ten years in Canada, there have been a number of high profile commissions (i.e., Romanow, Kirby and Mazankowski) that have sounded the clarion call for health-care reform. Yet the growth in health spending has continued unabated. We address this question of why our reform proposals might help to make the health system sustainable financially when others have failed in the box on the previous page.

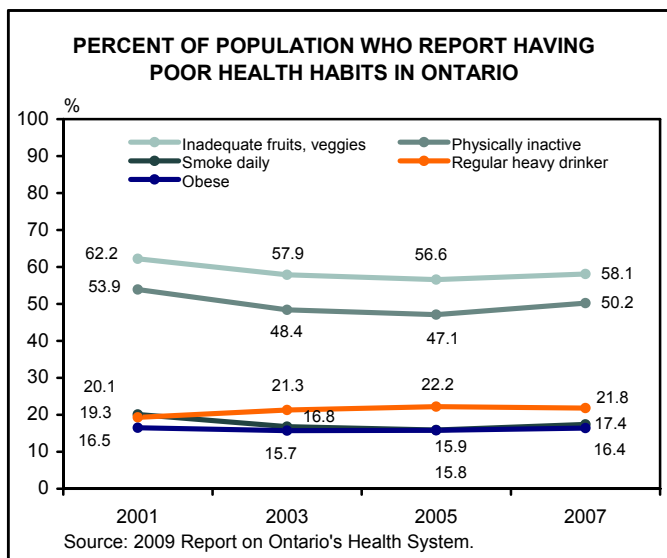
Fourth, other countries and other Canadian provinces will undoubtedly soon apply more aggressive cost savings approaches to health care as they address their huge fiscal imbalances and prepare for an older population. But for the moment, the challenge before Ontario will require it to be a world leader. The limited international success suggests that more than one – and maybe even all – of the most promising options identified will need to be pursued with vigour and intensity. Indeed, Ontario has already implemented some of these reforms. So to a degree, the next step must be to accelerate and intensify the reforms in operation and to complement them with other actions.

Fifth, our list is not an exhaustive one. We have focused on areas that could feasibly be implemented over the next 1-5 years and which would likely deliver the biggest bang for the buck. This is not to say that other areas of reform shouldn’t be boldly pursued. Despite the limitations of delisting, Ontario should still go through an assessment of the health basket it delivers in order to see if some services



currently funded under the public plan aren’t providing a commensurate boost to the health of Ontarians. The current governance structure for the province’s hospitals should also be looked at. Currently, there are three entities in the province that are involved in either the planning or financing of hospitals – the Local Health Integration Networks (LHINS), the Ministry of Health and Long-term Care and Infrastructure Ontario. Yet these institutions tend to operate in silos. Altering the governance structure to have hospital planning and financing all accountable to one individual – perhaps appointed by the Minister of Health and Long Term Care – would mark a step forward.

Last but not least, we urge the provincial government and residents to not only champion the need for reform, but to more fully recognize the wider benefits of health care to the province’s social and economic fabric. In this regard, there needs to be some deep thinking on what precisely is the definition of the objective of the health-care system and how success can be measured. In our view, the goal should be maximizing the “quality of life” of the residents, or perhaps more specifically, average life expectancy adjusted for the quality of health. Such an approach would broaden the focus of public policy. Preventing illness and promoting healthy living would almost certainly form a cornerstone of a holistic strategy, but also important are areas complementary to improving health and quality of life, such as better early childhood and K-12 education and alleviation of poverty. A multi-faceted public policy focus on the more vulnerable people in society would be an effective way to achieve the quality of life objectives, since enormous returns on investment would be realized. A better educated, more informed population tends to be healthier.



BODY COMPOSITION OF TYPICAL 45-YEAR-OLD MALE AND FEMALE, 1981 AND 2007-2009

	Male		Female	
	1981	2007-2009	1981	2007-2009
Body Mass Index	25.7 kg/m ² (overweight)	27.9 kg/m ² (overweight)	24.1 kg/m ² (normal weight)	25.8 kg/m ² (overweight)
Waist Circumference	90.6 cm (35.7") (low risk)	97.0 cm (38.2")* (increased risk)	76.3 cm (30.0") (low risk)	83.4 cm (32.8")* (increased risk)
Hip Circumference	99.0 cm (39.0")	102.7 cm (40.4")*	98.5 cm (38.8")	102.5 cm (40.4")*
Waist-to-hip Ratio	0.91	0.95*	0.77	0.81*

* Significantly different from estimate for 1981 (p<0.05).
Source: 1981 Canada Fitness Survey; 2007-2009 Canadian Health Measures Survey.

Ultimately, the most effective way of lowering costs in the health care system will be to ensure that fewer people are in need of expensive care.

From a pure economic perspective, all-too-often, health care is regarded by governments as solely a hit to their bottom line. Regardless of government efforts to control costs going forward, health care is one industry that is almost sure to expand over the long run. In the context of Ontario, the high-value added health care industry provides tremendous opportunities to diversify Ontario's economic base and to fill some of the gap left over by a structural decline in manufacturing.

The key to building a health care cluster will be to throw the door open more widely to private-sector involvement. Contrary to popular belief, nothing in the Canada Health

Act forbids private providers of clinical services. Yet there has been an enduring and confused debate in Canada about private-sector involvement in the delivery of health care. We believe what Canadians consistently register is their preference for a single, public payer model. But in a confused manner this is often extended to the notion the public is against any private sector involvement. As long as the public can use their OHIP card they would probably support the underlying services being provided in whatever manner is most efficient. There should not be any inherent bias against public provision of services. The key is to determine the service model that delivers the best combination of quality and cost.

The private sector already plays an important role in the provision of health care from the supply of pharmaceuticals to equipment to all forms of contract services. In addition, the Ontario government has entered into a significant number of public-private-partnerships over the past few years for the finance and construction of hospitals. Yet, health care is still not considered one of Ontario's key economic clusters, notwithstanding some impressive pockets of activity and innovation in cities such as London and Toronto.

As such, the momentum to encourage more private sector investment in health care must be stepped up. While many of the required elements needed to create a world-class health care cluster have been falling into place – including a more competitive business tax environment, investments in research and commercialization and a number Medical School in the North among others – a concerted strategy is needed to put all the pieces together. In devising such a strategy, the Ontario government would need to be mindful of the potential impact of health reforms on the investment environment of health-care operators, and take action to mitigate those impacts as best as possible.

A. Improving Information Use to Improve Efficiency

1. Take bold action to promote healthier lifestyles

As we have argued, health care needs to more than simply about healing people once illness strikes, but about boosting their quality of life by promoting health and preventing illness. This is not new. Public health officials have long suggested that healthier lifestyles will lead to better health and therefore reduced health care needs and costs. And Ontario – along with the federal government – has attempted to create healthier lifestyles and influence behaviour in Ontario through information, health promotion and financial incentives such as tax credits. Furthermore, Ontario's goal of lowering the province's high-school drop out rate and



improving access to PSE is a major step forward to achieving success in prevention in view of strong link between education and health outcomes.

Yet the Ontario government needs to do more. Despite its efforts, rates of obesity and diabetes are climbing, threatening to inflict ever-mounting costs on Ontario's health care system in the future. Despite declining tobacco use, about one of five Ontarians still smoke frequently or occasionally and about one in six Ontarians aged 20 and above is obese. The number of new cases of Alzheimer's is estimated to more than double over the next three decades, due to the simple reason that the baby boomers are getting older. Promoting healthy diets and physical activities has the potential to reduce new cases of chronic conditions or, in the case of dementia, delay its onset. And the benefits to Ontario's health-care system would be massive. The Alzheimer's Society has estimated that improved prevention strategies could save the system \$219 billion over the next three decades.

The Institute for Clinical Evaluative Sciences (ICES) provided a benchmark study of jurisdictions in Canada and around the world on health and health behaviour. The ICES report highlighted British Columbia as not only the leading province in terms of overall health and health behaviours, but also in leadership in promoting healthier lifestyles through the launch of ActNow in 2006. The study provided a number of recommendations for the Ontario government aimed at boosting prevention, and which we strongly support:

- Ontario should identify its own specific health imperatives, which should be used as the touchstone for making an extraordinary effort to improve its citizen's health and health behaviours.
- The Premier should proclaim that a major government goal is for Ontario to become the healthiest province in Canada.
- Ontario's health behaviour targets should be no less relevant and ambitious when compared to those of leading provinces within Canada. This means by 2015, we should achieve fewer than 15% of Ontarians using tobacco, more than 73% of Ontarians physically active and fewer than 32% either overweight or obese.
- The Ontario government should have a clear understanding of how Ontarians feel about specific health behaviours and then incorporate that understanding into its population health strategy.
- Allocate more funds towards improving health behaviours related to smoking, physical activity, diet and

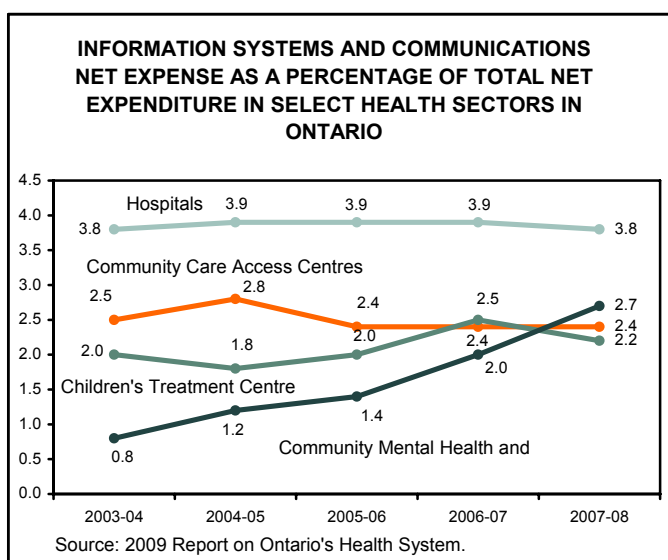
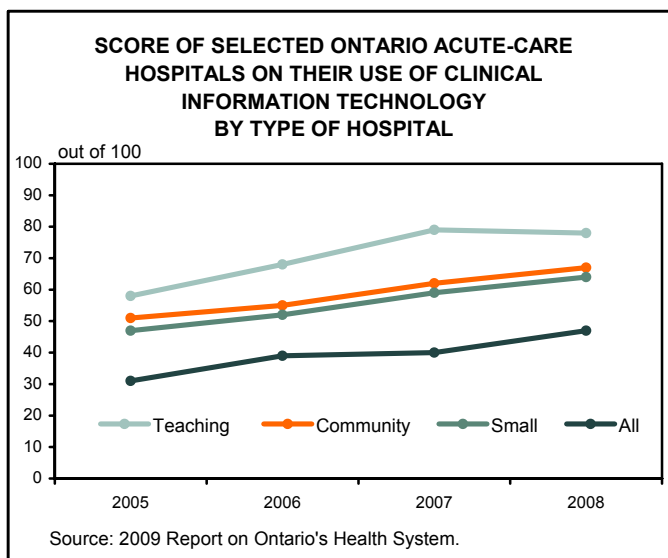
British Telecom – Health Strategy Contributes to Healthy Bottom Line

British Telecom (BT) is often cited as a best practice in the area of corporate promotion of health and wellness. Through a three-part health strategy – i.e., prevention, intervention and rehabilitation – the company has been able to reduce costs by more than \$150 million per year through better health and higher productivity. As a signal of the importance BT places on health and wellness, the organization employs a Chief Medical Officer, Dr. Paul Litchfield, who focuses solely on the promotion of physical and mental health.

The company has forged ahead with a number of innovative health initiatives, including:

- Work Fit is a program that combats and/or staves off mental illness in the workplace by educating staff on the benefits of regular exercise, healthy eating and relaxation techniques. The program also aims at lowering the stigma of mental illness. While the program is optional, an estimated one in four of BT employees is believed to have enrolled in the program.
- A diabetes awareness initiative has been established to convey the message that changes in lifestyle can make a significant difference to an individual's health. An online tool allows employees to assess their risk of developing diabetes, and those that take action to reduce the likelihood of diabetes are entered into a regular contest to win an award.
- About 1,200 employees have enrolled in a program to quit smoking. The program has proved successful with 25-30% of those that have made the attempt have remained off cigarettes for at least a year.
- High-quality telemedicine has been introduced into the day-to-day work life at BT, which has brought especially significant benefits to those employees who reside in rural communities. The program has been beneficial to those who have had difficulty accessing the correct specialist expertise.
- Roughly 11,000 BT workers now telecommute. Supported by an improved work/family balance and reduced stress, productivity among these workers has been measured to be 20% higher on average.
- The estimated savings from the shift to telecommuting (C\$100 million per year) and a 33% reduction in sick leaves (C\$50 million) since 2005 brings the total savings from those two impacts alone to C\$150 million per year.

Sources: BT Sustainable Work Force Assessment Quick Start (available at www.globalservices.bt.com); USA Today, February 8, 2010.



obesity. Ontario currently spends considerably less per capita than B.C. and Quebec on health-care promotion. The report calls for \$165 million per year in additional funding for this purpose.

- Ontarians should become a leader in introducing innovative and effective strategies aimed at achieving broad improvements in health behaviours.
- Ontario should narrow existing disparities in health and health behaviour. Interventions should ensure that people in disadvantaged groups – whose health tends to be poorer – make the first and greatest gains in these areas.

In addition to disadvantaged groups, we see an important need to step up focus on Ontario's youths. A recent Statistics Canada study (Tremblay et al 2010) showed that fitness levels among Canadian children have declined, and

body mass indices increased, measurably since 1981. The solution lies in programs to enhance physical education and information programs as well as improving food and drink choices available in schools. The recent Ontario government's announcement unveiling a new physical education curriculum as well as a ban on a number of foods with high sugar content in schools are positive. The ban on high-sugar foods, which will be effective in the fall of 2011, builds on earlier moves to eliminate the sale of food with trans fat and fast food in elementary school vending machines.

Stateside, the roll-out of the "Let's Move" campaign earlier this year by First Lady Obama highlights the growing importance that is being placed on tackling childhood obesity internationally. The campaign sets a goal to address the problem within a generation. Such a long horizon might not appear ambitious. But it recognizes the extent of the challenge (in the U.S., an estimated one in three children is considered obese) and the fact the problem is a generation in the making.

Efforts to reduce salt in the diets of Ontarians could pay big dividends in terms of reducing the long-term risk of chronic illness. According to a study in the New England Journal of Medicine, "the cardiovascular benefits of reduced salt intake are on par with the benefits of population-wide reductions in tobacco use, obesity and cholesterol levels." (Globe and Mail, January 22, 2000). Meanwhile, the study gives kudos to efforts by a number of countries around the world, including the U.K., Japan, Finland and Portugal, who have raced well ahead of Canadian jurisdictions by limiting salt through a combination of processed-food regulations, better labeling and public education. Experience has revealed that if changes are made gradually, consumers become accustomed to it and industry does not suffer (Globe and Mail).

Large employers also need to be better engaged in healthier lifestyle promotion. Recognizing the benefits to productivity and profitability of healthier lifestyles around the workplace, leading companies around the world have implemented innovative programs, such as providing financial incentives for participating in fitness programs, onsite fitness and health clinics, health coaches and web-based health and fitness tools. British Telecom is one notable example of an organization whose success in promoting health and wellness have generated positive results (see box on page 24). In this country, efforts to foster a healthy workplace are being promoted through programs such as the Canada Awards for Excellence, which are annually granted to companies who best meet the National Qual-

UK's NICE a global best practice in advising government on Health care quality and value

- NICE is a substantial operation, and the focus of much international attention. Established in 1999, by 2008 it had about 270 full- and part-time staff, an annual budget of about £32 million, a broad consultative network comprising about 2000 outside experts and an extensive advisory structure for gathering public input (Steinbrook, 2008).
- As noted above, its mandate is confined to “technologies likely to have major health implications, budgetary impact, or controversy over effectiveness,” a mandate that has effectively meant a focus on new technology.
- NICE decisions are binding upon public purchasers, and while public purchasers may opt to cover treatments not recommended by NICE, they do so only very rarely.
- NICE’s decisions are based on cost-effectiveness analysis employing a QALY technology assessing the comparative effectiveness of the technology under consideration in improving “quality-adjusted life years” (QALYs).
- In addition to technology appraisals, NICE issues clinical guidelines that are not binding (Steinbrook, 2008).

ity Institute’s (NQI) Framework guidelines, and Canada’s Healthy Workplace Month, which challenges companies to participate in an activity based on the NQI’s Healthy Workplace elements (Fit@Work, Support@Work, Green@Work and Champions@Work).

2. Expand information technology use in the system

In order to achieve the desired goals, the health system in Ontario will need to have better data on inputs to care and on outcomes. This will require improved information technology. Ontario has fallen behind many other jurisdictions around the world of adoption of IT structures. According to the 2009 Report on Ontario’s Health System, Alberta is far ahead of Ontario (and other provinces) in the use of electronic medical records. Highlighting how paper-based the health system remains in Ontario and Canada, a 2009 study found that 37% of Canadian primary care doctors in Canada use electronic medical records. In contrast, 99% of primary care doctors in the Netherlands use electronic medical records, 97% in New Zealand, 96% in the UK and 95% in Australia make use of electronic records (Schoen

et al., 2009).

While there is limited evidence that enhanced IT structures alone will reduce costs, they are an essential tool to properly monitoring and rewarding performance in the health system. In the VHA transformation of the last decade electronic sophisticated health records were introduced and made central to the management and monitoring of the system (CBO, 2009). Electronic information management was also a key component of the Intermountain health care successes reported recently in the New York Times (Leonhardt, November 8, 2009).

In proposals 4 and 5, we discuss the need to adopt alternative payment approaches for hospitals and doctors in Ontario. The Ministry could incrementally build IT requirements into these new payment models. For example, enhanced versions of Family Health Networks with stronger “gate-keeper” and coordination roles for both hospital and community services should be established but participation be made contingent on adoption of a province-wide IT system.

3. Establish a Commission on Quality and Value for Health Care

A number of nations have now established quasi-independent bodies to advise on the value of health care procedures. In most cases the focus of these bodies is on new rather than existing technology. The most famous example of this is the National Institute for Health and Clinical Excellence (NICE) in the United Kingdom, which we discuss in the accompanying text box. The attractiveness of such a body is also evidenced by the inclusion of a Medicare Independent Advisory Board (MIAB) as a central pillar of current health care reform legislation in the United States, whose mandate extends to existing procedures.

We recommend that the Ministry establish such a body for Ontario. At least three building blocks, currently in operation in the province, provide a platform upon which a NICE-like body could be established:

- *The Ontario Health Quality Council (OHQC)*: The mandate of the OHQC has been to support continuous quality improvement by monitoring and reporting to the people of Ontario through both an annual public report and other studies required by the Ministry of Health and Long Term Care. This mandate has given the OHQC a purely advisory and persuasive role, with no executive power, in contrast with the ability of NICE and the proposed MIAB to make decisions that are binding unless explicitly overridden by the governmental executive (in the case of NICE) or legislature (in the case of the

MIAB).

- *The Committee to Evaluate Drugs (CED)*: the mandate of the CED is to advise the Executive Officer of Ontario Public Drug Programs and the Minister regarding which drugs to list on the Ontario Drug Benefit Formulary (both new and existing drugs) on the basis of their therapeutic value, cost-effectiveness, and patient impact, and provide reasons for these decisions for public dissemination. The Committee has continued to perform this function even after the establishment of the advisory pan-Canadian Common Drug Review. With regard to cancer drugs, the CED operates in collaboration with Cancer Care Ontario.
- *The Institute for Clinical Evaluative Sciences (ICES)*: The primary role of the ICES – an internationally-recognized institution – is to carry out population-based health services research, train researchers and, increasingly, to develop evidence to improve decision-making in the health care sector. The ICES also plays a role in the development of practice guidelines for physicians through its representation on the Guidelines Advisory Committee. Unlike the OHQC and the CED, ICES does not have a base in specific legislation, nor are the members of its governing board appointed by the Lieutenant-Governor-in Council. Rather, it is an independent, non-profit organization that receives core funding from the Ontario Ministry of Health and Long-Term Care. In addition to the above arm's-length bodies, the Ontario Health Technology Advisory Committee is a hybrid bringing together academic experts, health care professionals and senior officials of the Ministry of Health and Long Term Care ex officio to develop advice to the Ministry and the broader health system on the appropriateness of new and existing technologies. Recommendations are based on analysis conducted by the Medical Advisory Secretariat of the Ministry of Health. One of the principal purposes of this hybrid model is to introduce a greater degree of transparency (and, by implication, legitimacy) to decision-making in this area.

Each of these bodies is advisory, meaning that unlike NICE and MIAB, they cannot make binding decisions.

Recently, the government announced that it would expand the mandate of the OHQC to recommend evidenced-based guidelines to health-care providers, marking a step in the right direction. Still, a stronger model would be to better integrate these three building blocks and establish an arm's-length Commission on Quality and Value in Health Care, with a basis in legislation. A precedent (albeit tempo-

rary) exists in Ontario with the Health Services Restructuring Commission. Such a body could take over the public reporting and quality promotion functions of the OHQC and the advisory role of the CED, and could establish an agreement with ICES to provide research support. The mandate of the Commission should include a review of the continuing quality and value of existing goods and services as well as new procedures, technologies and drugs. The new Commission (like the current OHQC) should also support quality-improvement champions to be identified by each of the new entities established under new hospital and primary care contracts described above.

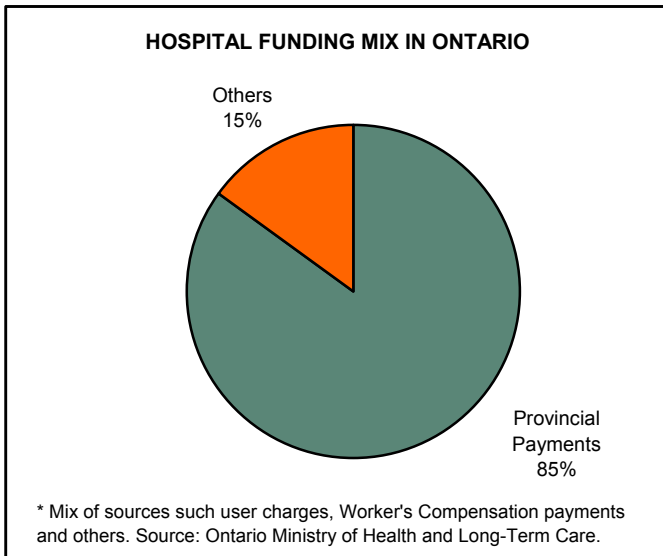
While this recommendation (like others) is targeted at Ontario, it might be more usefully applied at the national level. There would be economies of scale to having the federal government perform such a function. Or, if a federally-run agency were a non-starter due to provincial concerns, it could be national, but driven by the provinces. CIHI and Canada Health Infoway are two examples of institutions that are national in scope but driven by the provinces.

B. Changing Incentives to Improve Efficiency

4. Change the way doctors are compensated

Ontario doctors are currently funded through a variety of payment methods, but two-thirds are still funded through a form of fee-for-service payment, meaning that they bill Ontario Health Insurance Plan (OHIP) for each service they provide to an individual insured under the provincial health plan. Reimbursement rates for services rendered, not episodes of care, are established by the Ontario Ministry of Health and Long Term Care, in negotiation with the Ontario Medical Association. Paying for each service provided by the physician leaves little incentive to appropriately weigh the costs of procedures against their potential benefits. Moreover, the physician has no incentive to consider how his or her actions in providing care for this patient will affect the care other patients receive and there are few mechanisms in place in order to effectively enable physicians to consider the cost-effectiveness of treatment decisions (Stabile, 2001).

Ontario has been moving towards paying doctors through mechanisms that help reduce the incentive for unnecessary treatment. The recent thrust in Ontario towards the development of family health teams, family health networks, and other organizational structures moves doctors away from individual fee-for-service practice towards a group setting where the doctors are paid with some form of adjusted per-capita funding and salary funding per patient. Both capitation and salary systems allow for a more cohesive health



care system and would move the system towards aligning the incentives of physicians with those of the rest of the health care system.

The shift to collaborative health care has been generating international praise. For example, a recent article in the *New England Journal of Medicine* indicated that Family Health Teams in Ontario are having a positive impact on the quality of patient care. So far, only about 700 doctors have signed on to these practices. As such, momentum of this front should be stepped up (Rosser et al., 2010).

Once doctors have moved away from billing for services performed towards a blended per-capita, salary and volume structure, further incentives can be put in place through the payment mechanisms to reward effective practice, increased number of patients, et cetera.

Most other jurisdictions are moving toward blended remuneration models. A major part of the VHA reforms that we discuss in the annex included integrated regional networks for defined populations that were funded on a capitated basis along with placing a strong emphasis on primary care and reducing hospital utilization (CBO, 2009). There is no evidence that these changes reduce overall costs, at least in the short term (in part because of the need to offer enhanced remuneration packages as inducements to physicians to accept the new models). Nonetheless, the prevalence of this approach attests to their strong potential to better align provider incentives with system goals.

As is the case elsewhere, any shift in compensation towards “performance” needs to be defined in process terms (i.e., following clinical guidelines) in order to avoid the incentives for “cream-skimming” inherent in outcome-based reward structures. This will require more and better data,

which we recommended in the first proposal.

5. *Develop a new hospital financing model*

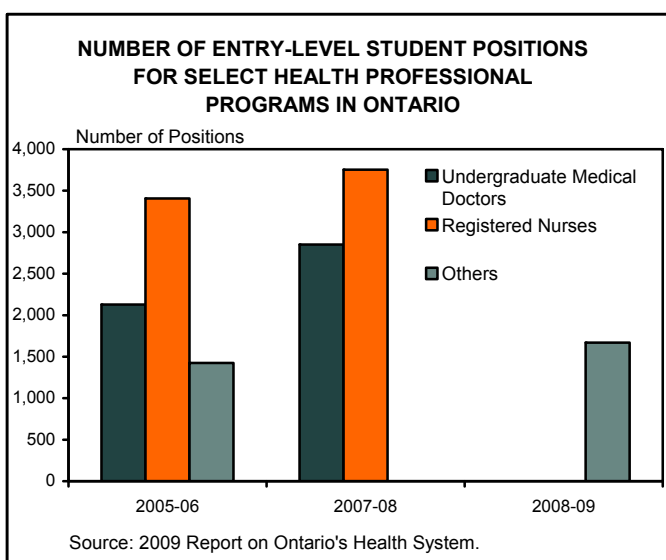
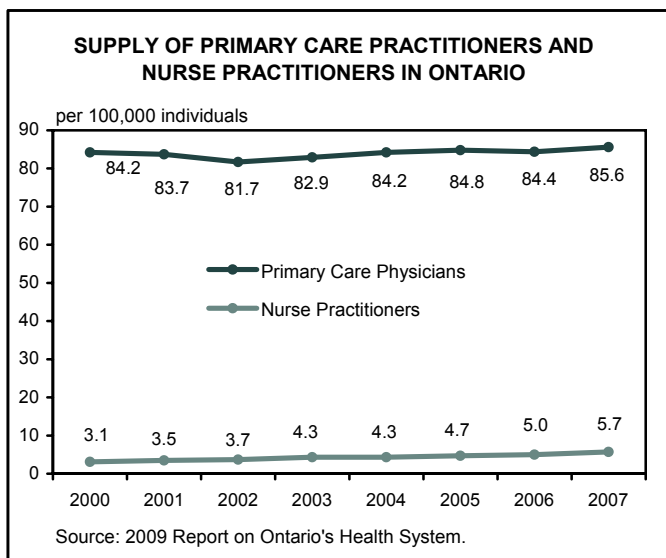
Ontario hospitals are primarily funded from the Ministry of Health and Long Term Care (85% of total hospital funding in Ontario is through provincial payments (MOHLTC, 2009)). Funding is allocated primarily through global or base budgeting. Global budgets have been most recently based on historical funding patterns with marginal year-over-year increases or decreases (Stabile, 2001). In addition, special funding is often made available for priority programs (such as the Ontario Government’s wait times reduction efforts). Hospitals are responsible for the internal allocation of funds.

The incentives inherent in a global budget system “reward technical efficiency, but do not necessarily reward appropriate allocations of services between hospitals” (Stabile, 2001, p25). The global budgeting system also does little for the payer, in this case the government, to capture the return to any technological change that has the potential to reduce costs.

A better approach in our view is a diagnosis-related group-based payment system, as was recommended in the 2002 Kirby report. Under this structure (often referred to as DRG), hospitals are reimbursed for the episode of care with which the patient is admitted and with the rate based on the type of service performed and the estimated cost of treatment per diagnosis fixed in advance. Payment is tied to an evaluation of the appropriate cost of the service and payments are for full episodes of care and not individual services performed. Research on DRG type systems has shown that funding based on patient episode of care, instead of through global budgets, can improve access, efficiency, and transparency (Dranove and Satterwaite, 2000). International evidence also suggests that moving to such a system would increase hospital productivity, and reduce the average cost per admission, but, once again, there is little evidence of reduction in overall system costs (Hurst and Siciliani, 2003).

The Ministry of Health would be responsible for setting and adjusting prices year over year. Importantly, initial price allocations should not become a floor for future pricing or the Ministry will not be able to take advantage of price-reducing technological change. An arms length body established to review evidence and provide advice on pricing would likely be a valuable asset here.

Happily, the government has already started to re-orient the system away from global budgeting towards a “patient-based” system. As part of the 2005 Wait Time Strategy,



additional funding was provided to encourage hospitals to provide certain procedures. And earlier this month, the government confirmed that it would accelerate this shift whereby larger hospitals are reimbursed based on the types and volumes of patients they treat. Prior to developing a multi-year implementation plan the government will carry out consultations with key players in the hospital sector.

6. Re-allocate functions among health care providers

The Canadian and international experience suggests that re-allocating functions from physicians to non-physician health professionals, and notably nurse practitioners, can accomplish the double aim of improving access to health care and increasing patient satisfaction. Since the introduction of nurse practitioners has typically occurred within established physician practices or in remote under-served

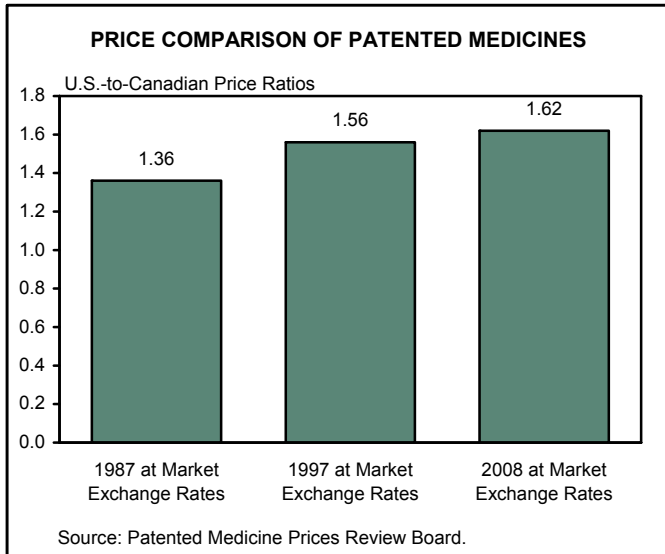
areas, it has not led to lower overall system costs (Carter and Chochinov, 2007; Venning et al., 2000). However, if these changes were made in conjunction with the move to new modes of organizing and remunerating physician practices – as discussed in proposals 4 and 5 – there could be greater scope to capture potential savings. There is somewhat stronger evidence internationally regarding the cost-reducing potential of giving pharmacists a stronger role in prescribing, especially within the context of health care teams (see for example Rodgers et al. 1999; Zermansky et al. 2001). What’s more, there also appears to be significant potential for technologists with special competencies to carve out parts of physicians’ roles and responsibilities. In India, for example, routine cataract surgery is carried out by teams of technicians under ophthalmological supervision.

The potential for Ontario’s health care system to take advantage of so-called “care-shifting” or “care sharing” over the next several years is likely to be constrained by the supply of health-care practitioners. Accelerating recent efforts to lift remaining barriers to immigration and foreign credential recognition as well as supporting programs targeted at immigrant talent could help to increase the health-care workforce fairly quickly. The Province has made headway in addressing the physician side of the equation in recent years by funding increased enrollment at existing medical schools and establishing a new facility in Sudbury.

The passage of Bill 179 (the Regulated Health Professions Act) in Ontario last year marked a significant step towards expanding the scope of certain regulated non-physician health care professions in treating patients. In particular, nurse practitioners will be able to perform ultrasound and other energy diagnostic tests, communicate a diagnosis to a patient and prescribe drugs that are designated in the regulations. Pharmacists will also be permitted to prescribe certain medications, with the definition of “pharmacy” widened to include remote dispensing locations. Still, since the regulations are pending, there remains a question mark as to how far the government will go in re-allocating functions.

7. Scale back Ontario Drug Benefit for higher-income seniors

Benefits provided to seniors under provincially-funded drug programs are a key driver of health cost growth in Canada. In fact, a comparison of age-benefit profiles in 10 countries shows that the level of public health spending per person in Canada rises much faster than eight jurisdictions (all but the United States) for individuals 65 years and over. In particular, Canadians 75-79 years received 5 times the



8. Increase bulk purchases of drugs to lower costs

In Ontario and the rest of Canada, prices of patented medicines are regulated federally by the Patented Medicine Prices Review Board (PMPRB), through consideration of a number of factors including comparison with prices in a basket of seven countries – Germany, France, Italy, Sweden, Switzerland, the United Kingdom and the United States. The inclusion of the United States in this basket dramatically raises the average price (PMPRB 2009: Table 13).

While Canadian patented drug prices have become more competitive vis-à-vis the basket of countries since the late 1980s, they remain high. The PMPRB (2009) reported that in 1987 Canadian prices were, on average, below U.S. prices but substantially above those in all other countries. But by the mid-1990s the situation had changed dramatically, with Canadian prices in the mid-range of the six European countries. In 2008, Canadian prices were, on average, decidedly above prices in Italy and France, much below prices in the United States, but within a margin of plus or minus 10% when compared to prices in Germany, Sweden, Switzerland and the United Kingdom. However, corrected for purchasing power parity, “it appears Canadians incurred a substantially greater consumption-cost for the patented drug products they purchased in 2008 than did residents of every comparator country other than the U.S. and Germany” (PMPRB, 2009).

The high price of generic drugs has captured more attention. By some estimates, Canadians doled out twice as much on average for identical generic products in 2007 (Skinner and Rovere, 2010). In response, the Ontario government has been taking aim at professional allowances, which generic drug manufacturers have been paying pharmacies to stock their products. In 2009, these rebates amounted to \$750 million. Last month, the government announced that it would move to eliminate these allowances effective May 2010, thus reducing the price of generic drugs purchased through the public ODB plan by 50% (to 25% of the cost of the brand name product). What’s more, the cost of generic drugs purchased out-of-pocket or through private plans will be lowered by more than 50% over the next three years. Under the plan, the financial impact on pharmacies will be partially offset by a hike in dispensing fees of at least \$1 per prescription hike in dispensing fees (up to \$4 in rural areas) and \$150 million in compensation for professional services performed by pharmacies. The pharmacy industry has argued that the compensation provided is not sufficient, and that patients will have their health services compromised by the legislation, especially those in smaller rural areas.

benefit levels of those 50-64 years compared to 2-4 times in most other countries (Hagist and Kotlikoff, 2005). Given that use of pharmaceuticals is heavily skewed to seniors, the rapid age-related escalation in public health costs in Canada almost certainly reflects provincial pharmacare programs, and more specifically, in Ontario, where benefits are one of the most generous in the country. As an increasing number of Ontarians move into the 65+ age category, the fiscal pressures will only mount further.

Given that access to drugs in Ontario is not universal, it is worth considering whether the government is properly targeting its drug spending, particularly in light of fiscal constraints. In a 2006 report issued by the Ministry of Health and Long Term Care, it was found that 51% of spending is earmarked to higher income seniors, versus only 15% on lower income seniors (MOHLTC, 2006). While longer term reform to the ODB might take the form of a more universal and pre-funded program (we provide some discussion on this below) a short term savings measure might be to target the ODB to seniors in need and higher income seniors who pay more for their drug costs. This could come through an increase in the co-payment and/or deductible for higher income seniors on a sliding scale, although there are many possible configurations that could improve equity and/or reduce costs here.

Another option that should be looked at is the so-called pecking order of drug coverage in the province. Currently, seniors’ drug benefits are first exhausted under the ODB plan then topped up by benefits available under private insurance plans. Reversing this order would have the effect of shifting the spending burden from the public sector to the private sector.



While the intent of the drug system reform is to slow the growth rate of health care spending, the government must be careful to ensure that the changes don't conflict with its other stated aims, notably re-allocating across health-care providers (proposal 6).

One of the main benefits of the public system of pharmacare and hospitals is that it provides the government with strong purchasing power. Despite this fact, it appears that this power could be more effectively exploited. In the first place, purchasing of in-hospital drugs remains decentralized to the level of the individual hospitals. But more generally, each province is home to its own public drug plan and formulary. In a number of countries, universal programs of drug coverage are administered by central governments, which are able to use their monopsony purchasing power to establish price structures considerably lower than those prevailing in Ontario. Australia and New Zealand are notable examples. Central agencies in both of these countries use "reference-based" pricing to determine the price they are willing to pay for new and existing pharmaceuticals. This price is determined through the assignment of the drug in question to a group of comparable drugs. The standard of comparison selected varies from country to country. Moreover, the reference price is set on the basis of the other drugs in that group – variously the median, the mean or the lowest price. Since this price is the basis for government subsidy, if patients choose a more expensive drug, they are responsible for any excess charge. In New Zealand, only the lowest-priced drug is covered, and patients are fully responsible for the cost if they choose another drug.

C. Develop New Revenue Sources

9. Establish pre-funding of drug coverage

Pre-funding certain aspects of health care – similar to how Canadians currently save for their retirement under the Canada Pension Plan (CPP) system – has significant appeal. Such an approach would help to spread the growing cost of health more evenly among generations, and is thus grounded in fairness. But as well, building on the success and the infrastructure of the CPP-style framework would help to diversify health-care funding sources. Currently Ontarians rely on tax financing for about two-thirds of health care costs. Such a heavy tilt towards a sole source of financing may result in limits on access and quality and is unlikely to be sustainable over the long term. Stabile and Greenblatt (2009) and Robson (2002) have both proposed prefunding parts of health care in Ontario and the discussion below is

IMPACT ON PROVINCIAL FISCAL BALANCES OF APPLYING A COPAYMENT CONTRIBUTION SCHEME THROUGH THE TAX SYSTEM AS DETAILED BY MINTZ ET AL., 2000

Increased Provincial Revenue from Contributions	\$7.4 billion
Reduced Utilization Rates	\$6.6 billion
Total Monetary Benefit	\$14.0 billion

Source: Mintz et al., C.D. Howe Institute.

based on these proposals.

Pre-funding of long-term care could be considered. Since much of home care expenses, for example, are not covered under the Canada Health Act, setting aside funds today for needs tomorrow would help to improve access to those services. However, the best candidate is drug benefits for seniors. Stabile and Greenblatt (2009) note that future drug expenditures are much more predictable and more equally distributed than most health-care expenditures. Consider the fact that for overall health care, 75% of physician and hospital expenditures are concentrated among the top 10% of users. In contrast, less than 40% of drug expenditures for seniors are concentrated in the top 10% of users. Moreover, prefunding drugs would free up the fastest growing portion of most provincial health budgets.

The program could be run at either the federal or provincial level, and many of the features could resemble those of the CPP-QPP. Working age individuals would pay an income scaled premium to partially or fully pre-fund prescription coverage when old. Contributions under this payroll tax scheme could be capped. And while coverage could be partially based on contributions, there would be a need to subsidize low-income and sick elderly (Stabile and Greenblatt, 2010). Under this pre-funding proposal, savings would be aggregated across an age cohort rather than on an individual basis like the CPP.

Like any structural reform, there would be some issues that would need to be addressed. The preferred route would be for other provinces to opt in and the CPP infrastructure could then be used, which would be most administratively efficient. But then there are the issues of varying drug formulary across the provinces. Another potential stumbling block is a preference of Ontario and other provinces to run their respective programs. Then there are the questions of how progressive to make the system and what deductibles would be assigned. Moving in this direction would also entail the regulation of private insurance in order to integrate both private and social insurance into a comprehensive framework, and would thus improve equity in the private insurance market. In order to provide public savings and

decrease public costs, the current ODB would need to be folded into such a plan.

10. Incorporate a health-care benefit tax into income-tax structure

The government currently funds about two-thirds of health care spending primarily through general revenues. Accordingly, money directed at health, education and other public services under the current system is fungible, meaning that taxpayers don't know which tax actually funds these programs. In addition to tax being levied under the usual schedule of progressive tax rates, Ontarians pay a "health premium" which is essentially an income surtax, and has little to do with health itself. The current approach of funding a large share of health care through the income-tax system has its advantages and disadvantages. In contrast to funding through benefits taxes (i.e., user charge), an income-tax based system addresses ability to pay concerns at relatively low administrative cost. However, a key pitfall of the current system is that it fuels over-utilization since there is no direct link between cost and usage.

One innovative reform proposed by Aba, Goodman and Mintz (2002) and discussed by Stabile (2003) recommends incorporating a health care benefit tax into Ontario's existing tax structure. The individual would pay nothing at time of service (therefore not violating the Canada Health Act) but would be issued a receipt. At income tax time, the individual would receive a "T-H" form, outlining his consumption for the year. One version of the proposal would have an individual's contribution based on 40% of the cost of health care services used. A family's maximum payment would be 3% of income over \$10,000. Families with incomes less than \$10,000 pay nothing.

Shifting to a benefit-tax system would help to improve public awareness of the cost of health care services and, along with complementary supply-side measures, would assist in reducing "excessive" utilization. Although Aba, Goodman and Mintz estimated that additional revenues

under the system would have been \$6.6 billion in 2000, total public expenditures would actually have fallen 13.5%, or \$6.3 billion as individuals reduced their utilization over time.

Ontario would not be the first province to contemplate such a move. In its 2010 budget, the Quebec government announced that it would consider the implementation of a \$25 user charge per medical visit up to a maximum of 1% of family income. Under the current structure, the fee (which would be collected through the income tax system) is not expected to be a large revenue generator. As such, Quebec's health benefits tax would be limited in its capacity to raise proceeds for other elements of health-care reform.

While a shift in this direction has significant merit, a number of issues would need to be tackled before such a concept could become reality. For one, Ontario would need federal help in collecting the taxes, pursuant to the Tax Collection Agreements. Furthermore, effective benefit taxes also involve equity compromises which would need to be seriously contemplated. Consideration would need to be given to how a shift towards benefit taxes would impact individuals with chronic disease. As importantly, the design of the system would have to factor in the negative impacts on low-income residents. Although a benefits tax might curb some use of the health care system that is not really necessary, there is certainly a risk it might deter some legitimate use that could jeopardize peoples' health and possibly drive later health interventions that are more expensive. There is a legitimate concern that those who might avoid or postpone a visit to a health care practitioner will disproportionately be in lower-income groups. Aba, Goodman and Mintz estimate that 60% of Ontarian health care users would pay their maximum allowed expenditures – a figure that rises to 95% for low-income (\$10,000-\$30,000) and falls to 4% for high income (\$60,000-\$100,000). The choice of a "modest" benefits tax would help to mitigate these impacts. Research is clear in showing that benefits taxes do not have to be large in order to induce individuals to alter their behaviour.



ANNEX

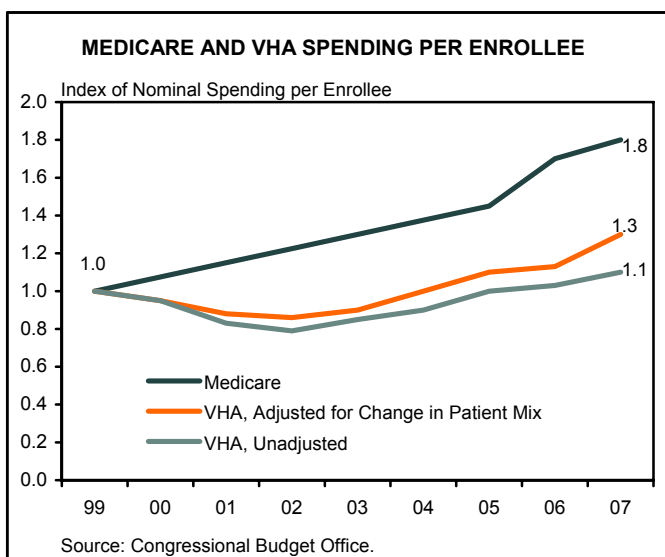
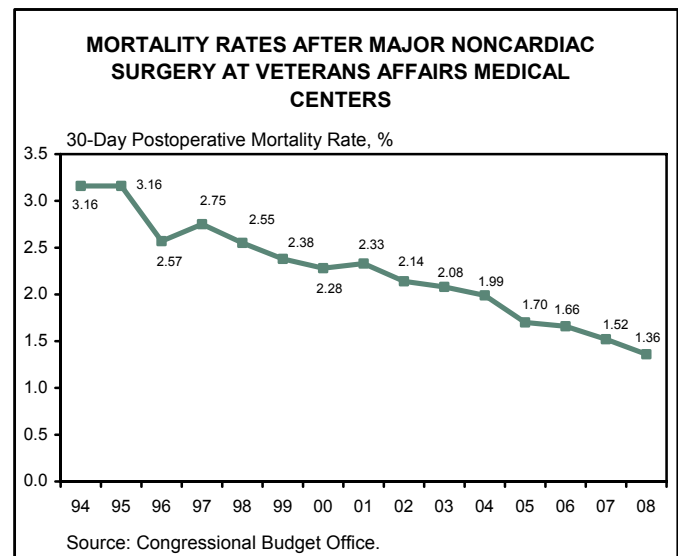
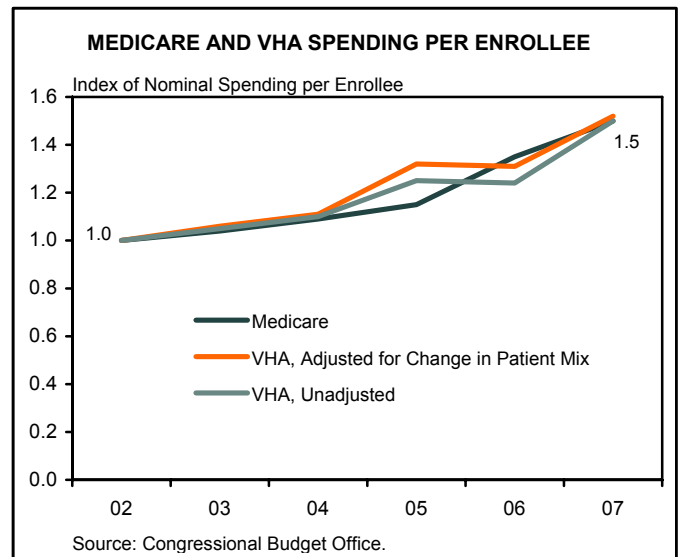
Focus on Quality Helped to Bring U.S. Veterans Health Care System Back from the Brink

The U.S. government's Veterans health care system, which provides care for approximately 5 million veterans in the United States, has secured a reputation for providing high quality care and having high satisfaction levels. There are certainly success stories in the history of the Veterans health care over the past few decades, in particular, the system's embrace of information technology to provide better health care (CBO, 2009; Edmonson et al., 2008).

Structure of the VHA

It is important to understand the structure and scope of the Veterans system before turning to lessons learned. First the Veterans Health Administration (VHA), which is the department that administers the program, is not only the health insurance provider for war veterans. It is also the health care provider. That is, the VHA administers and operates approximately 150 medical centers and over 900 outpatient clinics. The VHA employs its doctors on salary.

- The Department of Veteran Affairs, through the VHA, provides primary care, specialized care and related medical and social support services to enrolled veterans through an integrated delivery system.
- It works differently than Canada's health system in that veterans are assigned to 8 priority groups on the basis of their service-related disabilities, income, assets and other factors. Those in the highest priority groups generally do not pay for care. However, those in lower priority groups pay a user fee.
- Nearly 80% of enrolled veterans have access to other health care coverage, and data from the VHA indicate



that most enrollees with other coverage rely on VHA for only part of their medical care. VHA puts particular emphasis on certain treatments for which veterans might not have private coverage. The CBO suggests that most patients receive ER and inpatient care from other sources. In 2003, the total number of veterans in the US was estimated at more than 25 million, suggesting that only about one-quarter of veterans access the VHA for any of their health care.

- In the 1980s and 1990s, VHA had a reputation for poor quality. VHA's hospitals were at least 20% more likely to fall below quality standards.

Reforms Have Brought Positive Change

- Since the early 1990s, VHA has undergone a transformation that has improved outcomes significantly. Some factors have been highlighted.
 - ◇ VHA's system was completely reorganized on a regional basis: integrated regional networks for defined populations were established and funded on a capitated basis (i.e., based on number and types of patients each network serves rather than on number of medical procedures).
 - ◇ Improving the quality of care was emphasized throughout the process as the over-arching goal: accordingly performance management systems, peer reviews, and incentives for competition and benchmarks were developed.
 - ◇ Strong emphasis was placed on primary care and reducing hospital utilization.
 - ◇ Network leaders were given delegated authority and incentivized to achieve results (and held accountable for the units' results)
 - ◇ Electronic sophisticated health records were introduced and made central to the management and monitoring of the system.
- The entire process was spearheaded by a strong leader (the Under Secretary for Health in the Department of Veterans Affairs, Dr. Ken Kizer) who was solidly identified with the project. Kizer's leadership was integral to the conception and implementation of the project, but was ultimately a political casualty of it. (Footnote 1).
- These measures have improved health outcomes and satisfaction, but have they improved costs? Comparing levels of costs per enrollee is difficult since the VHA provides a set of health benefits that differs from most plans offered in the U.S. Moreover, VHA's administrative data are not equivalent to similar data gathered in the

private sector, for example, because VHA tends to track costs but the private sector tends to report "charges".

- It is possible to compare growth rates in spending. CBO (2009) examined the growth in VHA's budget authority per enrollee since 1999. The measure of VHA's spending per enrollee (up 14%) rose much more slowly than Medicare's spending per enrollee (80%) from 1999 to 2007. However, a straight comparison of spending per enrollee does not take into account the changing mix of patients within the VHA system, which has seen rapid growth in the overall number of patients and in particular by veterans whose care on average is less expensive than that of the previous patients. Adjusting for changing mix of patients would bring the growth in VHA's budget authority to 30% (still quite low). An even closer look shows that this slower pace could be chalked up to the 1999-2002 period, when the VHA's authority grew by 8% but enrollment grew by 18%. Since 2002, the growth rates between the two systems have been about the same.

Key Lessons for Ontario

- From an Ontario perspective, there must be caution taken in drawing conclusions from the impacts of VA's reforms given the differences in the systems' underlying structures. For example, unlike the U.S. VA system, the Ontario government does not own hospitals nor directly employ physicians.
- Still, there are some principal messages for Ontario. Notably, quality of the system can be greatly improved by integrating specific reforms. In this case, the effective use of health-care teams, improvements in funding incentives such as payment per person rather than per procedure and widespread use of information technologies combined to improve the quality of the system.

¹ Kizer's renomination to his position in 1998 was the subject of intense controversy, and was vehemently opposed by various groups who perceived themselves disadvantaged by the cost reductions achieved by the new organizational model. The Paralyzed Veterans of America (PVA) urged that the renomination be rejected, and Senator John Kerry of Massachusetts, after having joined with more than 70 members of Congress to express concerns about the impact of reductions of the VA budget in their home states, placed a hold on Kizer's renomination. Shortly thereafter, Kizer withdrew from consideration. He nonetheless continues to be a sought-after speaker on health care reform.



References

- Aba Shay, Wolf D. Goodman, and Jack M. Mintz, "Funding Public Provision of Private Health: The Case for Copayment Contribution Through the Tax System," C.D. Howe Institute Commentary #163, May 2002.
- Besley Timothy, John Hall, and Ian Preston, "Private and Public Health Insurance in the UK," *European Economic Review* 42 (1998): 491-497.
- Boothe Paul and Mary Carson, "What Happened to Health Care Reform?", CD Howe Institute Commentary 0824-8001, December 2003.
- Booz Allen Hamilton, "Pan-Canadian Electronic Health Records: Projected Costs and Benefits," Report commissioned by Canada Health Infoway March 2005. Accessed Online (19 December 2009): http://www2.infoway-inforoute.ca/Admin/Upload/Dev/Document/VOL3_CHI%20Costs%20&%20Benefits.pdf
- Carter Alix J.E., Alecs H. Chochinov, "A Systematic Review of the Impact of Nurse Practitioners on Cost, Quality of Care, Satisfaction and Wait Times in the Emergency Department. *CJEM* 9 (2007): 286-95.
- Chaudhry Basit, et al., "Systematic Review: Impact of Health Information Technology on Quality, Efficiency, and Costs of Medical Care," *Annals of Internal Medicine* 144 (2006): 742-752.
- Cohen Joshua T., Peter J. Neumann, and Milton C. Weinstein, "Does Preventive Care Save Money? Health Economics and the Presidential Candidates," *N Engl J Med* 358 (2008): 661-3.
- Congressional Budget Office, "Quality Initiatives Undertaken by the Veterans Health Administration," August 2009, Publication No. 3234.
- Dranove David, and Mark Satterthwaite. *The Industrial Organization of Health Care*, In *The Handbook of Health Economics*, eds. Anthony J. Cuyler and Joseph Newhouse. Amsterdam: Elsevier, 2000.
- Edmondson Amy C., Brian R. Golden, and Gary J. Young, "Turnaround at the Veterans Health Administration (A)," Harvard Business School Case 608-061 (2008).
- Ettelt Stefanie et al., "Reimbursing Highly Specialized Hospital Services: The Experience of Activity-Based Funding in Eight Countries," Department of Health report, London School of Hygiene and Tropical Medicine, 2006.
- Fielding Jonathan E., Corrine G. Husten, and Jordan H. Richland, "Does Preventive Care Save Money?," *N Engl J Med* 358 (2008): 2847-8 (Correspondence).
- Flood M. Colleen, Mark Stabile, and Carolyn H. Tuohy, eds. *Exploring Social Insurance: Can a Dose of Europe Cure Canadian Health Care Finance?* Kingston, ON: McGill-Queen's University Press, 2008.
- Forget Evelyn L., Raisa Deber, and Leslie L. Roos, "Medical Savings Accounts: Will They Reduce Costs?" *CMAJ* 167 (2002): 143-147.
- Girosi Federico, Robin Meili, and Richard Scoville, "Extrapolating Evidence of Health Information Technology Savings and Costs," *RAND Health*, 2005. Accessed Online (19 December 2009): http://www.rand.org/pubs/monographs/2005/RAND_MG410.pdf
- Goldzweig Caroline L. et al., "Costs And Benefits Of Health Information Technology: New Trends From The Literature," *Health Affairs Web Exclusive* January 2009.
- Grant Cameron C., Christopher B. Forrest, and Barbara Starfield, "Primary Care and Health Reform in New Zealand," *New Zealand Medical Journal* 110 (1997): 35-9.
- Hagist Christian, Laurence Kotlikoff, "Who's Going Broke? Comparing Healthcare Costs in Ten OECD Countries," NBER Working Paper 11833, December 2005.
- Himmelstein David U., Adam Wright, and Steffie Woolhandler, "Hospital Computing and the Cost and Quality of Care," *The American Journal of Medicine* 123 (2010): 40-46.
- Hurley Jeremiah E. et al., "Parallel Private Health Insurance in Australia: A Cautionary Tale and Lessons for Canada," Institute for the Study of Labor Research Paper Series # 515, June 2002.
- Hurst Jeremy, and Luigi Siciliani, "Tackling Excessive Waiting Times for Elective Surgery: A Comparison of Policies in Twelve OECD Countries," *OECD Health Working Papers* No. 6, 2003.
- Keeler Emmett B. et al., "Can Medical Savings Accounts for the Nonelderly Reduce Health Care Costs?" *JAMA* 27 (1996): 1666-1671.
- Katzmarzyk Peter T., Norman Gledhill, and Roy Shephard, "The Economic Burden of Physical Inactivity in Canada," *CMAJ* 163 (2000): 1435-40.
- Leonhardt David, "Making Health Care Better," *New York Times Magazine*, November 8, 2009. Online: <http://www.nytimes.com/2009/11/08/magazine/08Healthcare-t.html>
- Light Donald W., "Betrayal by the Surgeons," *Lancet* 347 (1996): 812-3.
- Lu Mingshan, and Elizabeth Savage, "Do Financial Incentives For Supplementary Private Health Insurance Reduce Pressure on the Public System? Evidence from Australia," Centre for Health Economics Research and Evaluation Working Paper, August 2006.



- Martin Stephen, and Peter Smith, "Explaining Variations in Inpatient Length of Stay in the National Health Service," *Journal of Health Economics* 15 (1996): 279-304.
- Matisonn Shaun, "Medical Savings Accounts in South Africa," National Center for Policy Analysis Study #234, June 2000.
- McClellan Mark, and Douglas Staiger. Comparing Hospital Quality at For-Profit and Not-For-Profit Hospitals, In *The Changing Hospital Industry*, ed. David Cutler, p. 93-112. . Chicago, IL: University of Chicago Press, 2000.
- Ministry of Health and Long Term Care. Health Services in Your Community: FAQs. Ontario Government, 2009: http://www.health.gov.on.ca/english/public/contact/hosp/hospfaq_dt.html
- Ministry of Health and Long-Term Care, "2005/06 Report Card for the Ontario Drug Benefit Program," Ontario Government, 2006. Online: http://www.health.gov.on.ca/english/providers/pub/pub_menus/pub_drugs.html
- Newhouse Joseph P. *Free For All? Lessons From the RAND Free Health Insurance Experiment*. Cambridge, MA: Harvard University Press, 1993.
- Patented Medicine Prices Review Board (PMPRB). Annual Report 2008: Comparison Of Canadian Prices To Foreign Prices (September 24, 2009). Online: <http://www.pmprb-cepmb.gc.ca/English/view.asp?x=1211&mid=1015>
- Patented Medicine Prices Review Board (PMPRB). *A Study of the Prices of the Top Selling Multiple Source Medicines in Canada*. November, 2002.
- Patented Medicine Prices Review Board (PMPRB). *Top Selling Non-Patented Single Source Drug Products: International Price Comparison*. Federal Provincial and Territorial Working Group On Drug Prices, 1998/99.
- Richmond C., "NHS Waiting Lists Have Been a Boon for Private Medicine in the UK," *CMAJ* 154(1996): 378-81.
- Robson William B.P., "Saving for Health: Pre-Funding Health Care for an Older Canada," *C.D. Howe Institute Commentary* 170. (October 2002) Toronto: C.D. Howe Institute.
- Rodgers Sarah et al., "Controlled Trial of Pharmacist Intervention in General Practice: The Effect on Prescribing Costs," *Br J Gen Pract* 49 (1999): 717-20.
- Rosser Walter W. et al., "Patient-Centered Medical Homes in Ontario," *N Engl J Med Health Care Reform Center*, January 6, 2010. Online: <http://healthcarereform.nejm.org/?p=2612&query=home>
- Schoen Cathy et al., "A Survey Of Primary Care Physicians In Eleven Countries, 2009: Perspectives On Care, Costs, And Experiences," *Health Affairs Web Exclusive* (Nov. 5, 2009): w1171-1183.
- Stabile Mark, "Options for Health Care Reform in Ontario," Report prepared for the Ontario Hospital Association, 2001.
- Stabile Mark, "The Role of Benefit Taxes in the Health Care Sector," University of Toronto mimeo, 2003.
- Stabile Mark, and Jacqueline Greenblatt, "Providing Pharmacare for an Aging Population: Is Prefunding the Solution? <http://www.irpp.org/pubs/IRPPstudy/IRPP_study_no2.pdf>," Institute for Research on Public Policy Study No. 2, February 2010.
- Stabile Mark, and Courtney Ward. *The Effects of Delisting Publicly Funded Health Care Services*" in *Health Services Restructuring in Canada: New Evidence and New Directions*, John Deutsch Institute for the Study of Economic Policy, Beach, Chaykowski, R., Shortt, S., St-Hilaire, F. and Sweetman, A. (eds.), McGill/Queen's University Press, Kingston, 2006: 83-110.
- Steinbrook Robert, "Saying No Isn't NICE - The Travails of Britain's National Institute for Health and Clinical Excellence," *N Engl J Med* 359 (2008): 1977-81.
- Tuohy Carolyn H., Colleen M. Flood, and Mark Stabile, "How Does Private Finance Affect Public Health Care Systems? Marshaling The Evidence From OECD Nations," *Journal of Health Politics, Policy and Law* 29 (2004): 359-96.
- Venning Pamela et al., "Randomised Controlled Trial Comparing Cost Effectiveness of General Practitioners and Nurse Practitioners in Primary Care," *BMJ* 320 (2000): 1048-1063.
- Zermansky Arnold G. et al., "Randomised Controlled Trial of Clinical Medication Review by a Pharmacist of Elderly Patients Receiving Repeat Prescriptions in General Practice," *BMJ* 323 (2001): 1-5.

This report is provided by TD Economics for customers of TD Bank Financial Group. It is for information purposes only and may not be appropriate for other purposes. The report does not provide material information about the business and affairs of TD Bank Financial Group and the members of TD Economics are not spokespersons for TD Bank Financial Group with respect to its business and affairs. The information contained in this report has been drawn from sources believed to be reliable, but is not guaranteed to be accurate or complete. The report contains economic analysis and views, including about future economic and financial markets performance. These are based on certain assumptions and other factors, and are subject to inherent risks and uncertainties. The actual outcome may be materially different. The Toronto-Dominion Bank and its affiliates and related entities that comprise TD Bank Financial Group are not liable for any errors or omissions in the information, analysis or views contained in this report, or for any loss or damage suffered.