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Benefactors Lecture, 2011

Therapy or Surgery?
A Prescription for Canada's
Health System

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MATTHEWS FELLOW IN GLOBAL PUBLIC POLICY,
QUEEN'S UNIVERSITY

Toronto, November 17, 2011

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The Institute began life in 1958 when a group of prominent business and labour leaders organized the Private Planning Association of Canada to research and promote educational activities on issues related to public economic and social policy. The PPAC renamed itself the C.D. Howe Research Institute in 1973 following a merger with the C.D. Howe Memorial Foundation, an organization created in 1961 to memorialize the Right Honourable Clarence Decatur Howe. In 1981, the Institute adopted its current name after the Memorial Foundation again became a separate entity in order to focus its work more directly on memorializing C.D. Howe. The C.D. Howe Institute celebrated its 50th Anniversary in 2008. The Chairman of the Institute is William Morneau; William B.P. Robson is President and Chief Executive Officer.



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Foreword

Secure, prosperous countries such as Canada tend to devote an increasing proportion of their resources to healthcare. And why not? With such necessities as protection from violence, food, clothing and shelter largely covered for the vast majority of the population, lengthening and improving the quality of life in other ways becomes a higher priority. As research and technology increase society's scope for interventions that will keep people healthier for longer, moreover, better bang for the buck could justify further, potentially sizeable increases in healthcare's share of Canadian incomes.

How to get that better bang for the buck is the challenge Don Drummond addresses in the C.D. Howe Institute's 2011 Benefactors Lecture. One of Canada's pre-eminent practical economists, with extensive experience in government and business, Mr. Drummond sees the pressures that healthcare spending are currently putting on provincial government budgets – crowding out other programs and forcing tax rates up – as profoundly troubling. He warns against deep across-the-board cuts as a response, seeing them as a recipe for short-term damage followed by a medium-term rebound in costs with no matching improvement in quality. He also judges that radical changes – abolishing the *Canada Health Act*, for instance, or dramatically raising the share and type of private reimbursement – would be so politically inflammatory as to block reforms. The challenge, as he frames it, is to navigate in a world that resembles the one we know, to raise the bang for Canadians' healthcare buck by aligning the interests of providers and patients better through tools already at hand.

As Mr. Drummond makes clear in his diagnosis of the current system's problems, opportunities for getting more for what we spend abound. Among the avenues he explores in his lecture: reallocations toward health promotion; better patient-centred and information-driven care; recalibrated reimbursement for hospitals, doctors and drugs; widening the scope for private provision; and more intense focus on the minority of patients who trigger the bulk of costs. He argues that the provinces should exploit their freedom to experiment and innovate, and that Ottawa should encourage – or at least not impede – provincial efforts to shift resources where they will yield better health outcomes for the labour and capital invested in the system.

Mr. Drummond's focus on incremental improvements from our current arrangements leaves some larger questions unanswered. Even if we succeed in adjusting physician fees to encourage practices to shift toward newer, more efficient treatments, how will we tackle adjustments on a larger scale, such as giving drug therapy to patients who might otherwise end up in the intensive care unit? How can we induce better service from publicly funded institutions without the benchmarks and competitive pressures privately funded ones

would provide? Can a centrally planned system ever put patient interests ahead of those of provider groups?

That his lecture does not attempt to tackle all the deeper issues and disagreements surrounding healthcare is deliberate. Mr. Drummond points out while polls show some awareness of the fiscal pressures created by healthcare spending, and some willingness to contemplate reforms such as social-insurance programs that could alleviate it, popular perceptions of the size of the challenge lag the reality. Furthermore, views that economic growth, higher taxes, or eliminating waste can solve the problem are widespread. In that kind of environment, provincial leaders' task is also one of education and persuasion. Incremental changes that raise the payoff for health spending at the margin are worthwhile in their own right. They can clear away the clutter that impedes our view of larger opportunities – and should make further reforms more politically acceptable as well.

The C.D. Howe Institute's Benefactors Lecture aims to encourage better understanding of major Canadian public policy challenges, and stimulate debate about how best to meet them. Don Drummond ably succeeds in this 2011 version. In addition to thanking Mr. Drummond, I am delighted to acknowledge Briar Foster, whose individual gift supported the dinner at which this lecture was delivered and the publication that followed. Individual philanthropy is vitally important in healthcare services: Mr. Foster's gift demonstrates how it can also promote intelligent debate about how to improve the system in which those services are delivered. Thanks as well to Institute Editor James Fleming, who edited the manuscript, and Yang Zhao, who prepared it for publication.

As with all C.D. Howe Institute publications, earlier drafts of this lecture underwent an extensive review, and my final thanks are to my colleagues and the outside experts who volunteered their comments. In the end, the views expressed here are Mr. Drummond's, not necessarily those of the Institute's members or Board of Directors, or of any individual reviewer. I think everyone concerned with the challenge of improving Canadian healthcare will find useful ideas in this lecture. As Mr. Drummond asks rhetorically in his conclusions: "Why would one want to sustain the status quo?" We have many options for near-term improvement, and he lays his prescriptions out here in clear and compelling fashion.

William B.P. Robson,
President and Chief Executive Officer,
C.D. Howe Institute

Many analysts and healthcare stakeholders have been sounding the alarm: Canada's health system is unsustainable. But their alarms are not being heard by the public, and government action is slow and incremental. The disconnect between the analysis and the public and government responses reflects deficiencies in the diagnosis of the problem, and failure to understand the political context for reform. Having growth in healthcare costs outstrip national income does not necessarily mean the system is unsustainable. When asked, voters respond that they are prepared to pay higher taxes and consume less of other public services in order to preserve healthcare. But it is not clear they understand how severe this squeeze could become.

Nonetheless, economic realities mean that provincial governments will soon be compelled to rein in healthcare cost increases as part of their drive to return to balanced budgets. Given the reluctance to rely on tax increases and the 40 to 50 percent weight of healthcare in total program spending, they will not likely hit their deficit targets if health spending increases by more than 3 to 4 percent per annum over the next several years. In some jurisdictions it will have to increase by less. But many questions surround these budget plans. Can provinces restrain health-spending growth by that much for that long? Will the pressures explode after a few years and return provinces to rapid health spending increases, as happened in the late 1990s? Will the quality of care be jeopardized or will costs be constrained by exploiting efficiency gains? Will the focus be largely on cost-cutting as opposed to moving to a healthcare system design that best fits the needs of today's and tomorrow's population?

One notion floating around is that meaningful reform requires blowing up the *Canada Health Act* (CHA) and its five principles of public administration, comprehensiveness, universality, portability and accessibility. I disagree with this notion. The CHA principles are vague, have already arguably been bent if not broken and hardly seem like obstacles to meaningful and successful reforms. Provinces have plenty of room to act independently or collectively – with or without Ottawa – in the CHA's presence.

The author is currently acting as Chair of the Commission on the Reform of Ontario Public Services. This paper was prepared independently of the Commission process and does not necessarily reflect the views of the Commission or the Ontario Government. I would like to thank Owen Adams, Colin Busby, Bruce Little, John Richards, Leslee Thompson and a few anonymous reviewers for their comments and suggestions on earlier drafts.

With considerable differentiation across provincial healthcare systems, it is not feasible to cover all relevant developments in each jurisdiction – this *Benefactors Lecture* will address pan-Canadian concerns with healthcare, with a particular focus on Ontario. However, much of what is addressed applies to other jurisdictions.

A scan of the current political sensitivities and fiscal pressures suggests healthcare reform must rein in cost growth, but also facilitate the transition to a very different kind of system design that delivers high quality of care in a more efficient manner. Pulling this all off, in an area of unsurpassed public interest and sensitivity, and where stakeholders wield enormous influence, will take new, innovative approaches in public policy. As I go on to argue, the pursuit of such innovative reforms need not immediately look to greater levels of private financing; many new approaches can take place within the large single-payer public model that many Canadians have come to hold dear.

I will first deliver a diagnosis, making the case that Canadians should expect better value for each healthcare dollar spent. Next, before tackling the prescription, I will briefly make a prognosis that the future of our healthcare system, under the status quo, is troubling. Then, I make the case that there are palatable options to improve the system with the general public's support. They include greater emphasis on health promotion; system reorganization to make it patient-centric and more responsive to growing chronic care needs; and payment methods to hospitals and physicians that incent quality care, efficiency and greater use of information. The process to bring about these reforms should exploit the advantages to be gained from experimentation in individual provinces and the sharing of information across regions.

Part I: The Diagnostic

When commentators speak of the troubles facing Canada's healthcare system, they often use the word, "unsustainable," to portray the fact that healthcare expenses have been outpacing government revenue growth year after year. But, one should be cautious when invoking this concept because its application is of limited use: it ignores that many parts of the system can be changed, whether it be with new revenue options or the shifting of costs from the public to private sphere.

The Concept of Sustainability Must Be Used with Care

The focus on healthcare cost increases is easy to understand. Over the past decade, public healthcare spending has risen at an average annual pace of 7.6 percent in Ontario and private spending has been growing at 7.1 percent. National trends are similar. To a degree, these rapid cost increases reflect some re-investment following the

restraint of the 1990s. But recent studies suggest that, on their own accord, cost increases will moderate only modestly. Public healthcare costs, in the absence of significant reform to the system, are projected to grow 6.5 percent per annum in Ontario over the next two decades (Drummond and Burleton 2010). According to another report, which follows a similar methodology, cost increases are estimated at 6.4 percent a year across Canada (Dodge and Dion 2011).

Currently, it seems unlikely that public revenues will grow fast enough to offset rising costs. With productivity growing by less than 1 percent a year, the national labour force growing at around 0.3 percent a year by the end of this decade and assuming a continuation of 2 percent inflation, nominal GDP in Canada may be on a trend rate of only 3 percent annual growth within a few years. With Ontario receiving more than half of all immigrants coming to the country, the labour force growth rate should be somewhat stronger there. Still, Ontario's nominal income growth rate over the longer term is unlikely to average more than 3 ½ percent annually. With unchanged tax rates, provincial and federal total revenues would be expected to increase in line with nominal income growth. So in a status quo environment, healthcare costs would be absorbing an increasing share of tax dollars.

Does the above scenario imply that the healthcare systems across Canada are not sustainable? There is no straightforward answer to this question, because many parts of the sustainability equation can be changed. Stronger productivity growth would facilitate healthcare spending increases, but even doubling productivity growth would leave nominal income expansions at 4 to 5 percent per annum – far short of the projected increases in healthcare spending. And as we have been stuck in a low productivity growth environment for more than a decade and do not seem to have ready answers on how to revive it, assuming a pick-up is little more than wishful thinking – it cannot be at the core of a policy response to the sustainability issue.

Canadians may also be prepared to pay more taxes to preserve healthcare, so tax rates could be increased. But tax rates would have to rise persistently to keep the revenue take above income growth. This might generate voter tax fatigue and would inevitably result in economic losses due to the distortive effects of higher corporate, personal, and other taxes. Other government spending could be restrained to leave more room for healthcare, but healthcare expenditures already risk taking up a growing share of government expenses, with little left to accommodate the current education system, never mind any other public services. Clearly something needs to be done.

Canada's Health System Should Deliver Better Value-for-Money

Before narrowing in on the reasons why costs are increasing, we need to expand the diagnostic and examine how much we spend on health and what we get for the money.

One place to start is to take a hard look at our current system – as a doctor would examine a patient – and try to identify the symptoms and the factors that are driving them. In so doing, we must compare ourselves to our peers, highlight general misconceptions about our system, and underscore areas of the system that can be treated.

Symptom #1: Canada's Health System is Relatively Expensive

Canadians, through both the public purse and their own pocketbooks, spent \$192 billion on healthcare in 2010, or 11.7 percent of GDP. In Ontario, the health-spending share of GDP – 12.2 percent – is slightly higher than the national average. This seems like a bargain compared to the 16 percent share in the United States, but that country has by far the most expensive system in the world. Of the 34 countries covered in the latest OECD health data, Canada had the 7th most expensive system (OECD 2010a). So Canada is in the group of developed countries with the most expensive healthcare systems. Worse, many of the other countries have older populations than does Canada. Other things equal, our system should be less expensive because health spending rises sharply with the age of the population – so on an age-adjusted basis, Canada has one of the most expensive systems among its peers.

One caveat within Canada, however, is that the geographic and demographic dispersion of the population has made the delivery of healthcare in some provinces naturally more expensive than in others. A relatively large proportion of residents in the Atlantic Provinces, for instance, live in rural areas where the costs of delivering health services are higher. Further, many young Easterners have left their home province – be it Newfoundland and Labrador, Prince Edward Island, Nova Scotia or New Brunswick – to search elsewhere for employment, increasing the median age. There are, however, some common precipitating factors across Canada that drive health costs upward. I explore them below.

Precipitating Factor: Canada's Health System Emphasizes the Treatment of Symptoms of Bad Health. Our health system focuses on patching up people when something has gone wrong. Yet, the Senate Subcommittee on Population Health estimated that the healthcare system accounts for only 25 percent of the population's health outcomes. Risks of chronic diseases are highly associated with life stage and exposure to health risks. Half of the variation in risks can be explained by socio-economic factors such as education and income. Another 15 percent relates to biology and genetics, and the physical environment accounts for the remaining 10 percent (Keon 2009). A broader perspective would consider the cost savings possible through improving various lifestyle patterns that have health implications. For example, education

interventions may be more effective in lowering future healthcare costs than investments in hospitals today. Further, improving the levels of key risk factors would deliver cost savings: over the 2005 to 2010 period, the potential cumulative cost savings from reducing the risks from obesity, smoking rates and hypertension were estimated at \$76.4 billion (Browarski et al. 2010).

Precipitating Factor: Little Adoption of Cost-Effective Treatments. A few examples highlight the Canadian healthcare system's inability to incorporate cost-effectiveness considerations in treatment decisions. Despite lack of evidence of benefit, 3,600 therapeutic knee arthroscopies were performed in Canada in 2008/2009 and 1,050 vertebroplasties were done. At 19 percent of all deliveries, Caesarean sections far exceed clinical guidelines, as does the continuing widespread practice of hysterectomies (CIHI 2010). Compared with other countries, Canada does poorly on avoidable hospital admissions for diabetes. Hospitalizations in Canada for diabetes per 100,000 people are above the OECD average (OECD 2010a), and only 32 percent of diabetics reported receiving all four recommended tests in 2007.

Many of the hospital beds in Canada are occupied by patients who no longer need acute care services – they are known as alternate level of care (ALC) patients. In 2008/2009, 5 percent of hospitalizations and 13 percent of all hospital days were ALC. It is understandable to a degree that patients would end up classified as ALC near the end of their hospital stay. But 9 percent of ALC patients were admitted to acute care as ALC and they account for 11 percent of ALC days. The most common reasons for patients being in ALC status is that they seek palliative care (34 percent), are waiting for admission to another adequate facility (27 percent) or seek physical therapy (11 percent). ALC patients tend to stay in that state for a long time: 62 percent of ALC patients stay more than a week and 24 percent more than a month. Five percent stay even longer than 100 days (CIHI 2010). The results of this inefficiency include people in hospital beds who could be better cared for elsewhere, crowding of emergency facilities, cancellations of surgeries because beds are not available and a clogging of ambulance services bringing people to and from hospitals. This is a classic symptom of a system built for acute care at a time when the needs have shifted more to chronic care.

Inefficiencies in our healthcare system are costly. The OECD estimates that if Canada were to become as efficient as the best performing countries – namely, Australia, Japan, Korea and Switzerland – there would be a saving in public healthcare costs of 2.5 percent of GDP in 2017. These data suggest that today, as much as one-quarter or more of all spending is “wasted” through inefficiency (OECD 2010b). Eliminating such efficiency losses would not permanently lower the growth of healthcare costs, but could certainly do so over the transition period. Public health spending in Canada is now around 9 percent of GDP, and might be somewhat higher by 2017. If inefficiencies relative to the

best OECD systems could be removed over the next 10 years it would not seem very heroic to presume public healthcare spending could be restrained to a very low growth rate over the transition. Of course, measuring inefficiency, especially through comparison of differing international systems, is very difficult and we must be cautious in interpreting the OECD figures. Further, it may not be feasible politically to eliminate or even substantially reduce inefficiencies.

Precipitating Factor: Pharmacare Prices. Pharmaceuticals have been the fastest growing component of healthcare costs in recent decades. From 1975 to 2006, inflation-adjusted expenditure per capita on hospitals rose 51 percent, the cost of physician services rose 98 percent and pharmaceutical costs went up 338 percent. The cost of prescription drugs has exceeded overall growth for healthcare spending every year from 1986 to 2007 (Stabile and Greenblatt 2010).

As an example, spending under the Ontario Drug Benefit Program (ODBP) has swollen. Over the past 20 years, the ODBP has grown 9.4 percent per annum, and at \$4.5 billion in 2010, now constitutes 10 percent of Ontario's public health spending (Busby and Robson 2011). About two-thirds of the cost relates to drugs for seniors. They make very low co-payments – singles with income over \$16,018 and couples with income over \$24,175 pay an annual deductible of \$100 and a \$6 dispensing fee per prescription, while seniors with lower incomes pay no deductible and \$2 per prescription.

The OECD noted that Canadian generic drug prices are the highest in the OECD, even higher than in the United States and twice as high as in Finland (OECD 2010a). It is not surprising, then, that Ontario took decisive action in 2010 to lower generic drug prices with the goal being to price them at 25 percent of brand prices. Other provinces are undertaking similar initiatives.

How fast will drug costs grow in future? On the positive, low-growth side, many prescription drugs will soon be coming off patent protection, so some argue that the rate of cost increases will moderate. Indeed, at less than 5 percent annual growth in 2010, drugs costs had one of the lowest rates of increase in many decades. However, drug use is heavily concentrated in the elderly and new drug discoveries could push the cost curve back up. Further, the Europeans will likely press for harmonization of the Canadian regime with the longer terms of European patent protection in any Canada-EU Free Trade Agreement. That would drive up drug costs as lower-cost generics would be kept out of the market longer.

Symptom #2: Limited Access to Quality Care

The above is simply about money and how it is allocated. Canadians consistently report in polls that they don't particularly care much about the cost of healthcare as long as

they receive good access to quality care – in other words, Canadians want value for their money. The costs could perhaps be forgiven if the spending produced superior results. But again, stripping out the US, Canada does not appear in a favourable light on value-for-money relative to other countries. A 2010 report by the Commonwealth Fund ranked the quality of healthcare systems in Australia, Canada, Germany, the Netherlands, New Zealand, the United Kingdom and the United States. Predictably, the United States came last because of limited access for many individuals and what is deemed a largely inequitable system. But Canada was second-to-last in the overall ranking and on efficiency. Canada was dead last on timeliness of care (Davis et al. 2010).

Precipitating Factor: Rationing of Public Care. The primary method to control costs in a large public health system is by rationing services. The consequence of a limited supply of physicians for each Canadian, for example, may be to hinder access to healthcare services. According to the World Health Organization, among the countries in the Commonwealth Fund report only Australia has fewer physicians per capita than Canada. At 19 physicians per 10,000 people, Canada compares unfavourably to the United States at 27 and especially to the continental European G7 countries where most are well into the 30s. Fewer physicians per Canadian “may lend insight into why Canadians continue to report difficulties in accessing healthcare when compared to other countries” (CIHI 2010, 85).¹

In his address to the Canadian Medical Association 2011 annual conference, outgoing Canadian Medical Association President Jeffrey Turnbull described a healthcare system that is “mediocre” at best. He referred to cancelled surgeries due to lack of beds, long waits for beds for people coming through emergency departments, 5 million Canadians without a family doctor and one out of 10 Canadians who cannot afford recommended medication. Backing up his claims are international survey results and research attempts to rank international health outcomes. The Commonwealth Fund found in its 2010 survey of 11 countries that Canadians were most likely to say that they waited six days or more for an appointment the last time they were ill or needed care, waited two months or more for a specialist appointment and waited four months or more for elective surgery.² Further, in 2010, Canada ranked 25th out of 34 when compared against

1 Further, the effectiveness of physicians is constrained in Canada because of limited use of electronic records. The Commonwealth Fund report found that only 37 percent of Canadian physicians used electronic records to serve their patients, the lowest rate among the 11 countries studied.

2 The sometimes painful delays in accessing care culminated with the *Chaoulli v Quebec (Attorney General)* Supreme Court proceedings in 2005. The case, which questioned the controls on individual freedom to purchase health insurance for healthcare services covered under a government plan, resulted in a narrow majority decision that the societal interest to pay for healthcare by the public purse does not override a sick person's right to try to access timely care (Monahan 2006).

European countries on a composite measure of patient rights and information, wait times, outcomes, range and reach of services and access to pharmaceuticals. Canada fares poorly relative to comparable OECD countries on access to technology, such as MRI and CT scanners, and this drives up waiting times for diagnostic services and access to specialists (Eisen and Bjornberg 2010). Of course, this comparison does not preclude the possibility that other countries are using technology ineffectively as well.

Precipitating Factor: Scope of Public Coverage. The level of health services that fall under the public-payer umbrella in Canada is limited to services that are deemed medically necessary. But according to the Canadian Institute for Health Information (CIHI 2010), the public sector covers only 46 percent of prescription drug expenditures; 36 percent are paid for by private insurance and out-of-pocket expenses make up the remaining 18 percent. Only 7 percent of the cost of other professionals' services is publicly covered. Essentially, Canada's Medicare covers medically necessary hospital and physician services and little else. Among the long list of services not covered by Medicare are out-of-hospital drugs, nursing or psychological counselling, community mental health services, nutrition advice, ambulance services, addiction treatment, long-term care, eye care and dental care.

The narrowness of the public health coverage creates access issues in Canada. For example, Senator Sharon Carstairs estimates that while 90 percent of Canadians with a terminal illness can benefit from palliative care, at least 70 percent of the population does not have access to it (Carstairs 2010). Ten percent of Canadian survey respondents had either not filled a prescription or skipped doses because of cost issues (Davis et al. 2010). Keeping in mind the broad range of factors that determine health, it is perhaps not surprising, but nonetheless disturbing, that life expectancy varies closely with income such that the life expectancy at age 25 is 14.1 years longer for a male in the highest income decile than in the lowest and the gap for females is 9.5 years (McIntosh et al. 2009).

The conclusion seems inescapable. The Canadian healthcare system does not deliver great value-for-money when judged from a broader international perspective. We can and should do better: despite the patients' relative satisfaction, the system is showing distinctive signs of ill health today.

The Prognosis

What does tomorrow hold? The relatively simple part is to extrapolate the cost part of the health equation. A standard way of doing this is to break down healthcare costs into: population growth, population ageing, general inflation, extra health-sector inflation and intensity of healthcare use. A status quo healthcare-spending growth profile per year for Ontario is as follows (Drummond and Burleton 2010):

1. 1 percentage point from population growth;
2. 1 percentage point from ageing (up from 0.5 over the past decade);
3. 2 percentage points from general inflation (current Bank of Canada target);
4. 0.5 percentage point from extra inflation in the health sector (consistent with recent patterns);
5. 2 percentage points from an increase in intensity (down from 3 percentage points over the past decade when one percentage point reflected catch-up after the cutbacks of the 1990s), reflecting the greater per-person use of the system from adopting new technologies and information systems, which allow new opportunities for treatment.

This gives 6.5 percent annual growth in Ontario healthcare spending. A notable feature of the cost extrapolation is that in contrast to “conventional wisdom,” population ageing is not the killer disease here. In future, it will add an additional 0.5 percentage point to annual cost growth on top of the recent historical pattern.

Even if we very generously assume 4 percent growth in Ontario nominal GDP, which would require a significant pick-up in productivity growth, these increases in healthcare spending would lift healthcare from 13 to 20 percent of Ontario GDP by 2030. Assuming total program spending and revenues grow at the nominal GDP growth rate of 4 percent, healthcare would comprise 80 percent of the Ontario budget by 2030, up from 46 percent today.

These ratios of healthcare spending to GDP and total program spending seem sufficiently alarming to warrant the question of whether the assumptions are excessively pessimistic. It would not seem so. First, the projected growth rate of health spending in the status quo is lower than over the past 10 years despite the ageing effect. Second, given recent productivity growth, 4 percent annual increases in nominal GDP growth are subject to considerable downside risks. Third, any additional technological progress could actually drive costs up further in that technology often permits additional health interventions so that both the quality and cost of care rise. Increasing frequency of joint replacements is a possible example. Fourth, the mechanical projections may understate future cost increases coming from the interaction of ageing and lifestyle changes. Even though the trend toward obesity is assumed to slow, some estimate that the annual costs of obesity-related diseases in the United States will increase by 13 to 16 percent (Wang et al. 2011). On balance, the projections under the status quo seem sound and may be conservative.

The question is then: is the status quo sustainable or acceptable? There is no straightforward answer. It depends on public attitudes and politicians' reactions.

Part II. The Medicine

What kind of treatment should be recommended given this diagnosis and prognosis? Improving the efficiency and sustainability of the system will require a broad treatment, from organizational and informational improvements, to reforming service delivery incentives and sharpening its main focus. The proposed treatments below can be accommodated under the current public administration or financing model – without modifying the general parameters of the *Canada Health Act* – and thus priority should be given to fixing the health system before we shift our attention to who administers it.

Better Integration and Organization

Better integration of the system around the patient. A critical recommendation is that there should be better integration of patient care, from primary care through physicians, to community care and, likely, public health. For instance, better value for money could be achieved when high-needs patients, such as high-needs diabetic patients, are closely attached to a primary care practice. Cost reductions, in this instance, might be had from a substantial reduction in hospital costs – the greater the attachment to one primary care group the lower the overall costs on the health system. British Columbia is one province that is moving to an integrated system of primary and community care (Hollander et al. 2009). Funding should also be aligned to encourage efficient care. For most provinces, the integration of the segments of healthcare and the co-ordination of a patient's care through the spectrum, should be done through regional healthcare authorities. In Ontario, reconstituted Local Health Integrated Networks could play this role. Consideration could be given to reducing the number from the current 14, with a commensurate reduction in boards. However, the number of LHINs is of secondary importance to granting them the appropriate authorities and resources, and establishing clear accountabilities. Alternatively, the co-ordination could be done through the administrations of the large hospitals in a region. The former has the advantage of being neutral to any particular segment of the sector, whereas the latter has the advantage in that hospitals are where the required management expertise is now typically found.

Care should be shifted closer to the patient such as through home-based care, particularly as health issues shift more towards chronic matters rather than acute ones. New Brunswick runs a relatively unique example of a home-based care system.³ Founded in 1981, the extramural program provides healthcare services to

3 See Chapter 8 of Volume 6 in the Kirby (2004) Senate Report for more details of the extramural program.

residents in their homes. Doctors can refer patients directly into the program, which covers acute, continuing, promotive, preventive and palliative care, without patients having been admitted to a hospital. While not the only provincial example, and perhaps having room for improvement, it nonetheless demonstrates how a province can shift focus towards home-based care. Denmark is another system worth studying. More than a decade ago Danes decided that, despite an ageing population, they would not create more long-term beds but would rather invest in community supports to help people stay in their own homes.

Greater private-sector involvement should be permitted in the delivery of services, under the public-payer umbrella. Ultimately, policy that encourages competition among providers, by emphasizing the important distinction between how we raise money to purchase health services, which should remain largely public, and how we provide services, could result in a more effective system that provides quality care at a low cost (Ruseski 2009). Past reforms in the United Kingdom, which has a much larger public-purchasing envelope than Canada, have emphasized this purchaser-provider split. A carefully designed policy would reward providers based on quality-adjusted price rather than award contracts to the lowest-cost provider. For example, specialized care clinics, such as for cataracts, should also be encouraged as they can enhance quality, promote innovation and lower costs. Special diagnostic clinics should also be encouraged: with coverage under the public-payer model, patients can be sent to the clinics from within a health region. In some cases, clinics could even service patients that come from other regions.

Research and then develop strategies on the heaviest users of the healthcare system. The Ontario Ministry of Health and Long-Term Care has estimated that 1 percent of Ontario's population accounts for almost half of total provincial spending on combined hospital and home-care costs and 5 percent of the population accounts for 85 percent.⁴ We should better understand the characteristics of these heavy users and what could be done to improve the efficiency of their care. Research may reveal the payoffs may lie more in socio-economic or lifestyle approaches than healthcare per se. For example, it may be that the lack of effective co-ordination with community and home care results in frequent re-admissions for people with congestive heart problems. Private-sector management expertise could be brought in to address the problem. In exchange for finding ways to lower the cost of treating the current heaviest users, the private-sector operators could be offered a portion of the savings.

⁴ Data are from Ontario Hospital Association submission to the Commission on the Reform of Ontario Public Services.

Better Information

Better information to improve lifestyles and move health more toward prevention. Such an endeavour, particularly in regards to prevention and the changing of human behaviour, is obviously a long-term project. The emphasis should therefore be placed on young people, such as through increased importance placed on physical education and other activities in schools. It would also be worthwhile to examine the incentives that we have in place to encourage healthier, more active lifestyles, such as the children's fitness tax credit, and find ways to improve them or reform them entirely so that they are more likely to produce the desired behavioural effect. The 2011 federal election campaign saw the winning party propose a fitness tax credit to target adults in 2015/16. But who should be targeted to get it? And how large should it be? Health promotion should largely rely upon better information to allow people to make more informed choices about lifestyle. But that alone will not likely be sufficient. The possible role of further regulatory control in diets, such as for sodium or the contents of soft drinks, should be considered.

Better use of evidence-based analysis. A promising avenue in Canada lies in the relatively new and expanding health quality councils. These health quality councils can, for example, research and document the practices and drugs that are effective. Governments can use this publicly available information to influence practice patterns and to determine what is and isn't covered by provincial health plans. The requisite data to perform the analyses should be produced by care givers and collected by the appropriate authorities. The quality councils must co-operate so as not to overlap and duplicate efforts. They should have advisory committees of international and domestic scientists and appropriate representation from Canadian physicians. Examples abroad that Canada could draw upon include the National Institute for Health and Clinical Excellence in the U.K. (NICE), an independent organization that provides guidance, sets quality standards and manages a national database in an effort to improve people's health.

Better use of information on records to better serve individuals. Recent experience, notably those associated with eHealth Ontario, suggests that massive electronic systems are difficult to implement. A better avenue would be to start locally and then build bridges across the system, always ensuring the pieces use compatible technology. Hospitals and family health teams are logical places to start. The relevant information first needs to be identified so this doesn't end up being another compliance burden. Physicians then need to make greater use of the information in order to provide the best care and to reduce duplications of services such as diagnostic tests and prescriptions.

Better information should be available to citizens on their own care. With the proper information, patients, such as diabetes sufferers or their families, could provide the ongoing care rather than always relying on physicians and hospitals. Greater use could be made of internet and telephone services to provide care. Initiatives such as Telehealth Ontario – which gives patients telephone access to medical opinions as an alternative to the emergency room – could be expanded upon, and the internet can also be better utilized to help individuals find available practitioners. Plus, patients should be shown the cost healthcare services they consume each year to promote better usage of a system that is, contrary to a commonly held view, not free.

Better Alignment of Incentives

Incentives should be changed to reduce costs, for example by moving more healthcare into a team environment. The formation of family practice clinics seems a good idea. But they need to be integrated in the overall system, with clearer objectives and accountability on performance. They should be required to accept anyone within their area who wishes to be looked after by them. In most cases, they need to be larger to create economies of scale, allow them to have the capacity to track patients as they move through the continuum of care and allow them to host the full range of healthcare providers. One example of the possibilities of integration is to enable pharmacists with nearby family clinics an affiliation that allows them to write basic prescriptions. Alberta and New Brunswick have already extended the prescription powers of pharmacists, and others are following their lead.

Other incentives that should be changed to reduce costs include shifting from pay-for-service to pay-for-episode of care in hospitals or to blends of compensation methods for physicians. Blended payment systems are likely best. In the case of hospitals, that would be a mix of base funding with payment for activities. Such a scheme would encourage specialization in that some hospitals would stop offering treatments they could not deliver within the payment schedule whereas more efficient operations could. For physicians, pay-for-service gives an incentive to over serve but strict capitation gives an incentive to under supply. A mix with something like 70 percent weighting to salary and 30 percent on pay-for-services may be appropriate. Going one step further, the incentive payments should be tied to outcomes rather than interventions. For example, there would be an incentive payment for diabetes patients who did not have complications. The use of alternative payment systems – payments that are not fee-for-service – has risen to over 20 percent of all clinical payments in Canada, with a high of 45 percent in Nova Scotia and a low of 12 percent in Alberta in 2005/06 (CIHI 2008).

Where a fees-for-services system is used, the fees need to be adjusted periodically to reflect improvements in the ease with which the service is performed. If productivity improvements, for example due to technology, allow a medical professional to successfully perform a procedure more often in a given amount of time, the fee per procedure should be lowered to allow patients and payors in the system – not only the professional who is able to perform the service more often – to benefit from the improvement. Provincial governments, at regular intervals, negotiate with medical associations to determine how much funds will be available for fee payments each year. In general, reimbursement rates based on historical charges can lead to “excess supply for well-reimbursed services and inadequate delivery and innovation for poorly reimbursed ones” (Kaplan and Porter 2011).

Where feasible and efficient, functions should be shifted among healthcare workers. For example, nurse practitioners or physicians’ assistants could perform some of the tasks now done by physicians and practical nurses could take on some of the tasks now done by registered nurses, leaving doctors more time to perform tasks for which they are uniquely qualified. Payment schedules should reflect incentives to encourage this. Ontario, in 2007, began the development of nurse practitioner-led clinics, supported by registered nurses and physicians, to provide a suite of services to citizens who do not have access to a family physician. Telehealth allows registered nurses, instead of physicians, limited authority to diagnose a patient’s problem over the telephone, thereby helping to reduce emergency room wait lines. It may be necessary to loosen the control of the professions’ various Colleges in determining the scopes of practice.

Containing Drug Costs

Further action will be needed to contain drug costs. One commonly mentioned example is the pursuit of a national entity to purchase drugs in bulk, or establish a common price at which jurisdictions can make their own purchases. A single-purchasing entity – administered either by Ottawa or a council that represents all provinces – would have concentrated purchasing power to negotiate the lowest price; an advantage that must be balanced with adequate rewards for creators of new drugs. Further, Quebec’s, Manitoba’s, and Newfoundland and Labrador’s insistence on getting the best prices on generic pharmaceutical purchases is counterproductive. These demands naturally lead to higher prices in comparator provinces and prevent the development of new, potentially better country-wide pricing strategies (Grootendorst and Hollis 2011). Governments and insurance companies could be more assertive in insisting that lower-cost generics be used where available. Pharmacists typically have the authority to substitute generics even if a physician has prescribed a brand-name drug. Consideration should be given to

allowing therapeutic substitutions where alternative approaches to treatment, in keeping with the physician's intent, might be feasible and more efficient.

Consider higher net payments for drugs where the use seems to be particularly high, such as with Ontario seniors. One way to better position Canadians for rising pharmacare costs that are strongly associated with age is with prefunding. Current contributors could be asked to pay into a pooled fund that would be invested and then drawn down upon in the future. This option would apply well to pharmacare costs, which form a small but significant portion of the health budget (Busby and Robson 2011). Another option is to charge higher copayments for annual coverage under the public plan on a needs-basis.

End-of-Life Care

A discussion needs to be conducted on end-of-life care both on an individual and more aggregated basis. End-of-life care accounts for a disproportionate amount of overall health costs. But that isn't the main issue. Often extraordinary interventions run against the wishes of the patients but they are not in a state to reveal those preferences and have not left instructions. Consideration should be given to development of a common model where people set out their preferences while still cogent. This would be an especially difficult conversation to be led by governments. Other organizations, such as the Canadian Association of Retired People, might be able to facilitate it.

The thinking must become even broader than indicated by the specific items above. Consideration must be extended to giving Canadians more appropriate and equal access to the full spectrum of healthcare, especially long-term care and pharmaceuticals. That may require an expansion of the public health system. But we must keep in mind it is the total cost that is important for efficiency, not some arbitrary split between public and private costs.

Public Attitudes: What We Get vs. What We Want

Stepping back for a second, there is nothing necessarily surprising or alarming about healthcare rising as a percentage of public and private budgets. Healthcare is a classic "luxury" good to which individuals and society wish to allocate a larger share of their rising income. Nobel prize-winning economist Robert W. Fogel estimates the long-run elasticity of health services to income at 1.6 for the United States. That means for every 1 percent increase in income people want to consume 1.6 percent more health services. This is a fundamental element behind Fogel's projection that healthcare will roughly double its weight in US GDP over the next three decades (Fogel 2009). So the issue is not the direction of healthcare as a share of budgets, but rather the extent of the rise in the share.

Citizens, therefore, would seem naturally willing to contribute more to healthcare as their incomes rise. In a 2010 Ontario poll, most people responded that they were prepared to pay more taxes and see other public spending crowded out in order to preserve the healthcare system (Herle 2010). But some skepticism around these findings is warranted. How much weight should be put on them, given that most people who were surveyed substantially underestimated the current cost of the healthcare system and how rapidly it is increasing? Compared to the actual figure of 46 percent, 9 percent of respondents thought healthcare was less than 20 percent of Ontario program spending, 25 percent said between 20 and 30 percent, and 29 percent said between 30 and 40 percent. In short, almost two-thirds of Ontarians wildly underestimated healthcare's share of spending.

The public, however, seems increasingly aware that there is a financing problem. One polling summary indicates that concern over the sustainability of health spending is growing (Major and Verma forthcoming). In 2000, 19 percent of respondents agreed with the statement "health costs will rise gradually, but the increase will be manageable due to growth in the economy." In 2010, that was down to 7 percent. Similarly, confidence has eroded in the view that efficiency gains can help to solve the sustainability problem. In 2000, 29 percent of respondents answered in the affirmative to "the demand for healthcare will increase, but we will be able to contain costs by operating the healthcare system more efficiently" (Major and Verma forthcoming). In 2010, only 14 percent agreed.

There appears to be some acceptance of fiscal action to address sustainability. Two-thirds of Canadians responded they were prepared to accept a savings plan – with benefit levels based on individual contributions – to amass money for future health costs such as long-term care and pharmaceuticals. One-third said they were prepared to accept higher taxes. Less than one-quarter responded they would accept continued squeezing out of other public services. These responses must be qualified, however, with a note that people did not reveal how much taxes could be increased or how much other spending could be cut.

There also appears to be large gaps between healthcare coverage in Canada and what Canadians say they want. The low public coverage of healthcare costs outside of physicians and hospitals is a good example.⁵ The CHSRF polling survey reveals that 94 percent of

5 The latest data show the public sector accounted for 70.5 percent of all healthcare spending in Canada (OECD 2010a). This is much higher than the mere 47.7 percent in the United States, but the other five G7 countries have a higher public share than Canada's. And of the 32 OECD countries, Canada had the 10th lowest share of public spending. Looked at from the other perspective, in 2009, Canada was in 6th place for the amount of per capita out-of-pocket payments for health – amounting to \$636 per capita, in \$US terms, of private health payments. So on a broader international basis, our system is not as dependent on public financing as we often think.

Canadians responded, in 1997, that if a physician prescribes a medication or vaccine it should be covered by a drug plan. In 2006, 91 percent of respondents said that publicly-insured services should be extended to home care, long-term care, mental healthcare and drug benefits. Such moves have been recommended in many healthcare reports, including the 2002 Romanow Commission and the 2004 Kirby Senate committee report.

The Process of Reform: Provincial Autonomy, Cooperation and the Federal Role

In the absence of federal leadership and strong provincial co-ordination, provincial and territorial governments should, as a starting point, issue longer-term health plans. These plans should: 1) describe the health challenges ahead from demographic and lifestyle changes; 2) set objectives; 3) discuss financial matters; and, 4) lay out a plan for meeting the objectives within acceptable financial parameters. The plans should align incentives with patients' interests, putting emphasis on making the health system more efficient in terms of quality and cost. This is a prerequisite for any meaningful reform to be accepted – it is not simply a matter of reining in cost growth.

The federal government walks on eggshells in this provincial domain and will continue to be happy to leave the messy parts to the provinces. Its attitude through the discussion extending the Health Accord that expires March 31, 2014, will likely be that federal politicians did their part by promising to extend the 6 percent escalator for the Canada Health Transfer for another two years. The Romanow Commission was announced 10 years ago but that decade feels like a lifetime in terms of the environment that led the federal government of the day to appoint a commission in an area of largely provincial jurisdiction.

Many elements of Canada's healthcare system would benefit from national plans – it is hard to see how the concept of "portability" under the *Canada Health Act* can be satisfied with the distinct variations in drug insurance plans across provinces and territories (Stabile and Greenblatt 2010). There would be economies of scale in many cases. For example, several provinces are strengthening quality councils to document best practices based on evidence. These councils will inevitably play a stronger role in determining which practices will be covered by public money. Yet the issues are pretty much the same across the country.

Traditionally in Canada, national equates to federal. That won't fly in healthcare, an area of provincial jurisdiction. But national could also be the provinces acting in concert, perhaps facilitated by – or at least with the participation of – the federal government. So far it appears that the six provincial quality councils are working quite

co-operatively, with some federal involvement.⁶ Whether there are national plans or co-operation and co-ordination, provinces will have to act if only to address their fiscal woes.

Provinces do not seem much more likely than the federal government to advance bold reforms. They are already addressing some opportunities for efficiency gains where the public stakes are not high. For example, there has been a significant shift in how physicians are paid. Alternative payment methods which include salary and capitation rather than pure pay-for-service now account for 27 percent of total clinical payments to Canadian physicians (CIHI 2010). But few provincial governments will feel they have a strong enough mandate to risk the public's ire over health. And strangely, the provinces do not seem to act together on healthcare, even though they could draw some cover from collective action.

Little cooperation has been achieved historically among provinces. Opportunities are thus missed to discuss challenges and approaches and to disseminate best practices. They could, for instance, build upon the reference at the last meeting of premiers to build a cross-province agency to bulk purchase drugs. Another option is to encourage a greater sharing of information and innovative policy approaches. This would be an OECD-type structure, which could facilitate discussion, research and dissemination of ideas. It could be housed within the Council of Health Ministers or Deputy Ministers, or function at arm's length.

Of course, if healthcare spending keeps the provinces' backs to the fiscal cliff, they might once again lash out with spending cuts, as they did in the 1990s. But a lesson should be learned from that episode: little was really solved. Health budgets were restrained, or in a few cases even cut for a few years, but because underlying reforms were not implemented the pressures built and spending again took off. The experience left the public even more leery of moves to save money or raise efficiency.

The Health System Needs to Shift from Acute to Chronic Care and Health Promotion

Canadian health systems are designed to focus on patching up people after a health problem has struck rather than taking a broader approach that might have prevented the problem or at least have mitigated the effects. Further, the system is designed to bring the patient to the practitioner, often in a hospital setting. But health matters are switching

⁶ Reports have estimated efficiency gains from further federal involvement. For example, a study by the Canadian Centre for Policy Alternatives (Gagnon and Hubert 2010) estimated savings of between 10 and 42 percent from a national pharmacare plan. Yet, no federal attention has been directed at this. The issue was hardly raised during the 2011 federal election. The same will probably apply as we go through many provincial elections over the remainder of 2011 and into 2012.

to chronic issues, in good part because the population is ageing. It also relates to some lifestyle problems such as obesity that are creating certain health issues such as Adult Type II diabetes. For much of chronic care, focusing on home care is more efficient and provides better quality.

Yet there has been no national intergovernmental approach to home care since the federal-provincial discussions around the Health Accord in 2004. Related to this, there has been no national approach to long-term, facility-based care for the elderly even though this is where the current and future pressures lie. There have been some provincial initiatives, however. For example, in 2007 Ontario launched an Aging at Home Strategy to provide services for seniors and caregivers to enable them to remain in their homes. This entailed an investment of \$1.1 billion over four years through the 14 Local Health Integration Networks (Ontario 2010).⁷

The ideal health system would put more emphasis on preventing poor health. It would be patient-centric and would feature coordination along the complete continuum of care the patient might require. Primary care would be the main point of patient contact, with a good part of the coordination across care taking place through the administration of hospitals or regional health authorities. There would be much less emphasis on patients being in hospitals: they are expensive, expose people to contagious diseases and yield poor patient satisfaction. To a much greater degree, care would be provided by primary care facilities, through better information and in the case of chronic health issues, in the home or longer-term care facilities.

In this ideal system, payment schemes and information gathering would be aligned to support the patient-centric notion. Compensation for hospitals and physicians would be more closely tied to outcomes of health rather than to the inputs or services. Data would be gathered on the actual total cost of looking after a patient rather than the present system of collecting data for separate portions of the system and even then, the data are actually based on government reimbursement rates rather than true costs.⁸

Best to Leave the Public-Payer Model in Place, at Least for Now

The notion of blowing up the single-, or public-payer model is a sharp dividing line for Canadians (Bliss 2010). It is the thing many Canadians most fear. Yet it is a fairly common recommendation among the relatively small circle of people who study healthcare reform. It seems best to simply leave this issue aside for the moment. There

7 The OECD projects that the total public and private cost of long-term care will more than double from an estimated 1.4 percent of GDP in 2006 to 3.3 percent by 2050 (OECD 2011).

8 There is a good discussion of management and data issues in a patient-centric system in Kaplan and Porter (2011).

is a great deal to be done on improving the efficiency of the system before privatization through the funding side need be considered. And at any rate, surely the incentive systems should be corrected first before the system is opened to a two-tier approach.

Another consideration is that introducing more private charges may distract the public and politicians, putting progress on all reform into paralysis. We should be mindful that the objective is surely to contain total public and private healthcare costs not simply to shift the burden from governments to private individuals. They are, after all, one and the same from a funding perspective. Indeed, there are areas such as longer-term care and drugs where it may be more efficient to shift some of the existing private-sector operations into public administration to exploit economies of scale and address some of the access and quality inequities now present. That should not preclude the option of higher co-payments under a system that expands the public presence outside the traditional boundaries of physician and hospital services. For example, co-payments could certainly be raised for the Ontario Drug Plan, provided there is sensitivity to ability-to-pay.⁹

On one hand, we must exploit a benefit of our decentralized system and have various provinces try new schemes that may eventually warrant broader application. On the other hand, we need to encourage cooperation between provinces when there are additional fiscal and political benefits. Future plans should describe the health challenges ahead from demographic and lifestyles changes, and inform the public of the costs and value-for-money from healthcare both today and in the future – putting the emphasis on making the system more efficient in terms of delivering quality.

Critics will argue that because I cannot demonstrate quantifiable savings from the reforms proposed in this paper, governments might prefer to do nothing. Further, critics might note that an emphasis on prevention may simply postpone the timing, not the size, of health costs. I disagree with this stance. Policymakers are rarely allowed to conduct laboratory-style experiments for policy reforms. However, I underscored examples of different provincial approaches to improve the health system's efficiency that are, at a minimum, evidence that experimentation in the pursuit of such reforms is worthwhile. I, like other analysts of the health sector, believe that following the status quo will not lead to a happy ending – the system's organization, distribution and use of information, and the incentives facing key decisionmakers should be realigned to drive a more cost-effective system.

9 British Columbia's public pharmacare program, Fair Pharmacare, has moved towards income-testing, not age, as the basis for qualification.

Conclusion: We Need to Accelerate the Healthcare Reform Process Now

Is Canada's or Ontario's healthcare system sustainable? A legitimate response is another question: Why would one want to sustain the status quo? For the amount of money spent, the system should surely be delivering better results. It needs to shift from an acute-care model to a chronic-care model. It needs to broaden in purview from healthcare to health more generally, which brings in prevention and socio-economic factors. It needs to be centered on the patient, with all parts of the system co-ordinated around patient care. It needs to find mechanisms to ensure more equal access to non-primary care. Things will only get worse as healthcare eats up every other public service like an insatiable Pac Man. I do not believe the public will allow governments to levy ever-increasing taxes to avoid that scenario. So the system must be reformed. It must not only grow less rapidly in cost, but must deliver greater value-for-money.

The process for reform will be as important as the diagnosis, prognosis and perhaps even the medicine. Stakeholders must rise and take the leading part. Governments may find support for reforms with other provinces, without Ottawa's help. Some other stakeholders are taking up the challenge, such as the Canadian Medical Association, the Canadian Nurses Association, the Ontario Hospital Association, a number of drug companies and some research institutes. Broadening and deepening the field of engaged stakeholders is now essential. More private-sector players need to join the discussion, including medical technology companies, IT firms and the corporations seeing their company health plans soar in cost. In many respects, the stars are aligned to see meaningful reform. Governments and companies are no longer willing to tolerate ever-rising healthcare costs that impair their bottom lines. And we know from the experience of the 1990s, simply yanking the money out without fundamental reform does not solve anything.

References

- Bliss, Michael. 2010. "Critical Condition: A Historian's Prognosis on Canada's Aging Health System." 2010 C.D. Howe Institute Benefactors Lecture. Toronto: C.D. Howe Institute. November.
- Browarski, Sabrina, Carole Stonebridge, and Louis Theriault. 2010. "The Canadian Heart Health Strategy: Risk Factors and Future Cost Implications." The Conference Board of Canada. February.
- Busby, Colin, and William B.P. Robson. 2011. *A Social Insurance Model for Pharmacare: Ontario's Options for a More Sustainable, Cost-Effective Drug Program*. Commentary 326. Toronto: C.D. Howe Institute. April.
- Canadian Institute for Health Information (CIHI). 2008. "Physicians In Canada: The Status of Alternative Payment Programs 2005-2006." Ottawa: CIHI.
- . 2010. "Healthcare in Canada." Ottawa: CIHI. December.
- Carstairs, Hon. Sharon. 2010. "Raising the Bar: A Roadmap for the Future of Palliative Care in Canada." The Senate of Canada: Ottawa. June.
- Davis, Karen, Cathy Schoen, and Kristof Stremikis. 2010. "Mirror, Mirror On the Wall: How the Performance of the U.S. Healthcare System Compares Internationally (2010 Update)." Commonwealth Fund No. 1400. June.
- Dodge, David A., Richard Dion. 2011. *Chronic Healthcare Spending Disease: A Macro Diagnosis and Prognosis*. Commentary 327. Toronto: C.D. Howe Institute. April.
- Drummond, Don, and Derek Burleton. 2010. "Charting a Path To Sustainable Healthcare In Ontario: 10 Proposals To Restrain Cost Growth Without Compromising Quality Of Care." TD Economics. May 27.
- Eisen, Ben, and Arne Björnberg. 2010. "Euro-Canada Health Consumer Index 2010." Frontier Center for Public Policy. Policy Series No. 89. May.
- Esmail, Nadeem, Maureen Hazel, and Michael A. Walker. 2008. "Waiting Your Turn: Hospital Waiting Lists in Canada 2008 Report." Fraser Institute. October.
- Fogel, Robert W. 2009. "Forecasting the Cost of U.S. Healthcare in 2040." *Journal of Policy Modelling* 31 (4) July. 482-488.
- Grootendorst, Paul, and Aidan Hollis. 2011. "Managing Pharmaceutical Expenditure: An Overview of Options for Canada." Canadian Health Services Research Foundation (CHSRF) Series on Cost Drivers and Health System Efficiency: Paper 2. CHSRF: Ottawa. February.
- Herle, David. 2010. "The Future of Quality Healthcare in a Deficit Driven World: Quantitative Research for HOOPP." Gandalf Group. November.
- Hollander, Marcus J., Helena Kadlec, Ramsay Hamdi, and Angela Tessaro. 2009. "Increasing Value for Money in the Canadian Healthcare System: New Findings on the Contribution of Primary Care Services." *Healthcare Quarterly* 12 (4). 30-42
- Gagnon, Marc-André, and Guillaume Hébert. 2010. "The Economic Case for Universal Pharmacare: Costs and Benefits of Publicly Funded Drug Coverage for all Canadians." Canadian Centre for Policy Alternatives. September.
- Kaplan, Robert S., and Michael E. Porter. 2011 "How to Solve the Cost Crisis in Healthcare." *Harvard Business Review*. September.

- Keon, Hon. Joseph. 2009. *A Healthy, Productive Canada: A Determinant of Health Approach*. The Standing Committee on Social Affairs, Science and Technology: Final Report of Senate Subcommittee on Population Health. June.
- Kirby, Hon. Michael J.L. 2004. "The Health of Canadians – The Federal Role: Final Report." The Standing Senate Committee on Social Affairs, Science and Technology. The Senate of Canada: Ottawa.
- Major, Jennifer, and Jennifer Verma. Forthcoming. "Putting it in Context: Canadians' Views on the Financial Sustainability, Quality and Accessibility of Healthcare in Canada." Canadian Health Services Research Foundation Survey.
- McIntosh, Cameron N., Phillippe Finès, Russel Wilkins and Michael C. Wolfson. 2009. "Income Disparities and Health-Adjusted Life Expectancy for Canadian Adults, 1991-2001." Health Reports Vol. 21(4). Statistics Canada: Ottawa. December.
- Monahan, Patrick J. 2006. *Chaoulli v Quebec and the Future of Canadian Healthcare: Patient Accountability as the "Sixth Principle" of the Canada Health Act*. 2006 C.D. Howe Benefactors Lecture. Toronto: C.D. Howe Institute. November.
- Ontario. 2010. "Ontario's Aging at Home Strategy." Ontario Ministry of Health and Long-term Care. Information can be found at: http://www.health.gov.on.ca/english/public/program/ltc/33_ontario_strategy.html (Date of Access: September 15, 2011)
- Organisation for Economic Cooperation and Development (OECD). 2010a. "OECD Economic Surveys: Canada 2010." Paris: OECD Publishing.
- OECD. 2010b. "Healthcare Systems: Efficiency and Policy Settings." Paris: OECD Publishing.
- . 2011. "Help Wanted? Providing and Paying for Long-term Care." Paris: OECD Publishing.
- Ruseski, Jane E. 2009. "Competition in Canadian Health Services Provision: Good, Bad, or Indifferent?" School of Public Policy. Calgary: University of Calgary. November.
- Stabile, Mark, and Jacqueline Greenblatt. 2010. "Providing Pharmacare for an Aging Population: Is Prefunding the Solution?" Institute for Research on Public Policy Study No. 2, February.
- Wang, Y Claire, Klim McPherson, Tim Marsh, Steven L. Gortmaker, Martin Brown. 2011 "Health and the Economic Burden of the Projected Obesity Trends in the USA and the UK." *Lancet*. Vol. 338: 815-25.

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