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Can We Get Better for Less: Value for Money in Canadian Health Care

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Executive Summary

Over the past decade, Canadian health care expenditures have grown at a rate significantly higher than that of the growth in the economy and the growth in combined federal-provincial tax revenues. The Parliamentary Budget Officer has raised concern about the sustainability of projected health care expenditures in terms of both cash flow and as a percentage of GDP. However, allocating an increasing amount of resources to health care does not necessarily lead to better health care. Despite significant investment in health care, Canadians do not seem to receive sufficient value from the health care system as it clearly ranks at the bottom among other industrialized countries in terms of value-for-money spent. The poor standing in international rankings as documented by authoritative policy advocates such as the Organisation for Economic Co-operation and Development (OECD) shifts focus away from how much we spend on health care to how much value we get for our health care spending. To that end, CGA-Canada has seen it timely to analyze the prospective rationale for re-emphasizing the concept of value-for-money in the largest segment of the Canadian health care system – hospitals. As following pages reveal, it can be reasonably contended that:

A lack of activity-based or patient-based funding historically may have limited hospitals' ability to assess their own effectiveness and efficiency. Block funding may not present hospital management with persuasive incentive to reduce costs (inputs) or improve value (output) in terms of timely access to care, patient health outcomes and other dimensions of quality and quantity of health care.

A focus on outcome measures alone may not be sufficient to assess and evaluate management for the stewardship of resources allocated to them. Per-capita spending seems largely unrelated to outcomes since higher spending on health care services may not always offer overall benefits. One reason for the lack of sufficient correlation between spending and health outcomes is that health care resourcing can often be supply-driven.

Outcome measures may not reflect how much value-for-money results from health care spending. Detecting economic efficiency or sound stewardship of economic resources requires performance metrics that capture output per unit of input (or input per unit of output). Increasing use of pay-for-performance models in hospitals highlights the importance of identifying appropriate metrics on which to reward hospital management.

A number of reasons exist for the slow integration of value measures in health care delivery. Among these are the difficulties in measuring quality and thus value; wide range of severity and complexity of illnesses and thus possible outcomes; non-aligned responsibilities and divergent skill sets among the financial managers and clinicians.

Introducing incentives for improving quality of health care is not sufficient to improve efficiency of health care delivery. Incentives such as pay-for-performance systems, benchmarking for quality and value, and hospital funding based on volume of care will likely influence what gets measured, and therefore managed.

Value measures can offer the possibility of greater decision-making autonomy and flexibility for hospital management and can result in improved resource allocation, planning, and decision making while ensuring that hospital actions are in accordance with the broader social and economic objectives of governments and taxpayers.

Introduction

Total health care expenditures in Canada are estimated to be \$191.6 billion in 2010, or approximately 11.7% of GDP.¹ Statistics Canada reports that health care expenditures have grown at the rate of 7.4% annually over the past decade; significantly higher than the growth in the economy and the growth in combined federal-provincial tax revenues. Factors contributing to the high growth rate of health care expenditures include costly new technologies, an aging population, growth in chronic diseases over longer life expectancies and general inflation. The Parliamentary Budget Officer has raised concern about the sustainability of projected health care expenditures in terms of both cash flow and percentage of GDP.²

Allocating an increasing amount of resources for health care may not necessarily lead to better health care or health outcomes. Canada is the fifth-highest spender on health care on a per capita basis and the sixth-highest in terms of spending as a percentage of GDP among industrialized countries. Despite such investments in health care, Canadians do not seem to receive sufficient value from the health care system. A recent OECD report suggested that “scope for efficiency gains appears at all levels” of the Canadian health system.³ In 2008 and 2009, Canada ranked last out of 30 countries in terms of value-for-money spent as reflected in the Euro-Canada Health Consumer Index. In 2010, Canada’s ranking moved to 25th place out of 34 countries (with the United States excluded from the study).⁴ The scorecard released by the Commonwealth Fund ranked Canada sixth out of six countries on the value-for-money dimension.⁵

1 Measures of health care spending as a percentage of GDP need to be assessed with care. A constant dollar amount of health care spending will be reported as an increasing proportion of GDP during economic downturn as the GDP denominator declines. Conversely, such a measure will appear as improving during the years of economic growth as the GDP denominator grows.

2 The Parliamentary Budget Office (2010), *The Health of Canadians, The Federal Role*.

3 OECD (2010), *OECD Economic Surveys – Canada*, p. 17.

4 Frontier Centre for Public Policy, *Canada Health Consumer Index* (published in 2008 and 2009), and Frontier Centre for Public Policy (2010), *Euro-Canada Health Consumer Index 2010*, Policy Series No. 89.

5 Canada ranked behind the Netherlands, United Kingdom, Australia, Germany and New Zealand in the overall score. Source: The Commonwealth Fund (2010), *Mirror, Mirror on the Wall: How the Performance of the U.S. Health Care System Compares Internationally, 2010 Update*.

The poor standing in international rankings shifts the focus away from how much we spend on health care to how much value we get for our dedicated spending. While the concept of value-for-money is well understood in the health care industry – delivering more health care or better health outcomes at the same or lower costs – implementation has not gained a commensurate traction. We do not currently employ standardized benchmarks for the evaluation of effectiveness and efficiency in health care delivery, making assessments of investments in health care and comprehensive value-for-money analysis difficult. At the same time, the international evidence presented above suggests that while more money can deliver more health care, it does not necessarily deliver better health care.

This paper aims to present a rationale for re-emphasizing the concept of value-for-money in one of the segments of the Canadian health care system – hospitals. The narrow focus on the hospital sector is not driven by perceived relative importance of respective segments of the health care system but motivated by the fact that hospitals make up the largest component of provincial health care spending and have traditionally been the least subjected to patient- or activity-based funding. In contrast, government expenditures for physicians and drugs are largely patient- or activity-based. This paper examines the concept of value-for-money as it pertains to the government, and not to the patient assuming that patients are already driven by value-for-money when making choices regarding medical services (to the extent that they have choices available).

The paper begins with a brief overview of the approach to funding that currently prevails in the hospital sector and its inherent limitations. This is followed by an inquiry into the concept of value-for-money and the reasons for delays in its implementation. The issues related to responsibility for value-for-money are also considered.

Current Approach to Hospital Funding

Generally, hospitals in Canada are private organizations owned by health regions or not-for-profit societies, governed by community boards and funded by provincial governments. They constitute the single largest component of health care spending by provincial governments. In 2010, hospitals received an estimated \$55.3 billion, representing 28.9% of total health care spending.⁶ Historically, most of the hospital funding has been in the form of block grants that are largely based on previous funding levels. One of the main arguments for using block funding is that it protects the patient from becoming a profit centre.⁷ Block funding or global budgets for hospitals

⁶ Canadian Institute for Health Information (2010). *National Health Expenditure Trends, 1975 to 2010*.

⁷ It is argued that Colleges and Universities around the world are increasingly viewing students as profit centers and therefore increasing class sizes, reducing admission standards, and hiring less expensive sessional lecturers.

are useful in establishing spending limits as hospitals are generally not permitted to run a deficit. They also allow provinces to better forecast their aggregate expenditures and deficits/surpluses. However, block funding does not offer hospital management strong incentives to reduce costs (inputs) or improve value (output) in terms of timely access to care, patient health outcomes and other dimensions of quality and quantity of health care. Similarly, block funding may not stimulate plans or incentives that can secure future cost efficiencies. Block funding may even perpetuate cultural spending norms and/or possible past errors as current and future spending is largely based on historical funding levels and behaviours.

Taken together, reliance on block funding and the lack of activity-based or patient-based funding may have limited hospitals' ability to assess their own effectiveness and efficiency. It is difficult for hospitals to decompose cost variances into price and usage variances if the revenues generated are fixed and determined at the beginning of the fiscal year. In some cases, hospitals may in fact not know if they are in the diminishing return phase of earlier health care investments.

A literature review in the area of health care performance measures documents an emphasis on measuring and tracking output measures such as wait times or quality without regard to efficiency and level of resources being expended to achieve these measures. For example, Wallace et al (2007) reviewed the literature on public reporting of health care quality, but opted not to identify measures that link outputs to inputs. Lowe and Chan (2010) examine healthy work environments as an input measure and found that despite their significant and positive impact on quality of care, very few institutions were tracking work environment standards and none of the institutions introduced incentives to raise work environment standards. A Pink et al (2006) synthesis of international experience with pay-for-performance models of funding focused largely on quality of care and other output measures, and not on performance measures that link outputs to inputs. Halparin and Davis (2006) warned against deviating from a focus on quality as an output measure, but did not discuss the relationship between input and output.

It is possible that health outcome measures alone could contribute to efficiency, transparency and accountability by hospitals and governments. For example, hospitals do report that they use wait time outcome measures reported externally to also improve internal efficiencies and decision making related to planning and resource allocation (MacLeod, Hudson, Kramer, and Martin, 2009). However, the use of such outcome measures in resource allocation decisions is likely to be limited. There have been few empirical studies that link output measures and improved decision-making (Radin 2000, GAO 2004) or output measures and budgets (Carlin 2004).⁸

⁸ A recent Canadian Medical Association report claims that "a well-performing hospital emergency room does not receive any additional funding for seeing more patients" (CMA 2010, p. 11).

Why Outcome Measures Are Not Sufficient

While it seems unreasonable to argue against quality health care as a desired output, there are many dimensions to quality. In their major study of Canadian health care, Leatherman and Sutherland (2010) highlight six dimensions within the quality domain: effectiveness, access, capacity, safety, patient-centeredness and equity. The American Medical Association (1986) views quality care as “care that consistently contributes to the improvement or maintenance of quality and/or duration of life.”

There are many reasons why a focus on output measures alone is not sufficient to assess and evaluate management for the stewardship of resources allocated to them. A 2010 study from the Dartmouth Institute for Health Policy & Clinical Practice estimates that up to 30% (or roughly \$700 billion a year) of Medicare dollars in the United States are wasted. If we were to assume that Canada suffers from a similar proportion of ‘wasted’ funds, the loss of funds due to inefficiencies may amount to some \$40 billion a year. The Dartmouth study also shows that some regions in the United States spend twice as much per capita on Medicare than others, and rates of sickness or poverty among the local population explain little of the variation. For example, risk- and price-adjusted patient spending on treating heart attacks in the United States range from under \$20,000 per year to over \$40,000. This and other related studies suggest that per-capita spending is largely unrelated to outcomes, and that higher spending on health care services do not always offer overall benefits.

It is also not clear to what degree successful health care delivery is rewarded with higher budgets. Analyses conducted by the Office of Management and Budget in the United States for fiscal year 2004 demonstrated equivocal results. Programs rated as effective gained a 6.4% increase, while moderate and adequately rated programs enjoyed a 6.6% and 8.1% increase respectively. Ineffective programs gained 0.7%, but programs that failed to demonstrate results gained 4.4%. This evidence from the United States suggests a limited relationship between output measures and budgetary allocations. A number of other U.S.-based studies also conclude that higher spending on health care services does not necessarily offer overall benefits.⁹

One major reason for the lack of sufficient correlation between spending and health outcomes is that the use of health care resources is often supply-driven. The combination of physician autonomy, lack of integrated care and information asymmetry between front line clinicians and financial managers in hospitals make it difficult to detect whether provision of health care services is demand-based or supply-based. Hospitalization rates inadvertently reflect hospital bed supply, with admission rates highly positively correlated with the capacity of acute care beds (e.g., as

9 See, for instance, Weinstein and Skinner (2010), Skinner et al (2010), Fisher et al (2009)

reported in Stukel (2011)). Similarly, clinicians may deliberately or inadvertently make referrals for high-cost technology-based diagnostic services when such diagnostics are available.¹⁰

While supply-based care does yield greater provision of health care services with increased health care spending, these benefits may largely be associated with avoidable care. In such cases, although more care is delivered, it is not necessarily better care. Stukel (2011), for example, shows that higher spending regions in the United States received more health care only for supply sensitive services such as imaging and diagnostic tests. In many other clinical areas (e.g., reperfusion within 12 hours for heart attacks or pap smears in women over the age of 65), higher spending regions did not receive more health care. Stukel (2011) reports that in some essential areas of health care, incremental spending may even yield diminishing health care returns. Fisher et al (2003) show that U.S. regions with higher spending on health care had slightly higher mortality for myocardial infarction and colorectal cancer than regions with lower spending.

Supply sensitive care may also exert some pressure on patients to undergo surgery, even if uninterested. For example, a survey by Hawker et al (2001) revealed that “among those with severe arthritis, no more than 15% were definitely willing to undergo (joint replacement),” suggesting the importance of patients’ preferences in evaluating demand for surgery. Similarly, Gruneir et al (2007) report that despite documented preferences for home death, the majority of patients suffering from terminal illness die in hospitals. More importantly, the area hospital bed supply (and not clinical reasons) was one of the strongest predictors of death in a hospital. Such results caution about the potential for diminishing returns to additional capacity in number of hospital beds and diagnostic technology.

Value for Money

Outcome measures reflect the outcome in a narrow health sense without regard to the input or investment required to achieve that outcome. In short, outcome measures do not reflect how much value-for-money results from spending. If one hospital has a wait time outcome for a particular treatment that is 20% lower (i.e., better) compared to another hospital, it may not necessarily reflect efficiency. The better-performing hospital could have spent twice as much financial and human resource to achieve that 20% improvement. Detecting economic efficiency or sound stewardship of economic resources requires performance metrics that capture output per unit of input (or input per unit of output).

¹⁰ Recent media articles report that excess capacity at some U.S. hospitals due to the flailing economy has resulted in reduced prices for various surgeries. Priest (2011), for example, reports in *The Globe and Mail* that triple bypass surgery in the United States – normally costing around \$100,000 – can now be negotiated for as little as \$16,000. Profit-maximizing hospitals may be willing to negotiate prices that cover their variable costs of surgery, since “a filled bed is better than an empty bed and some revenue is better than no revenue.”

For-profit organizations are evaluated on their returns per dollar invested, and not just on absolute returns. In the health care sector, returns would be analogous to, for example, improvement in wait times whereas return on investment would be analogous to improvement in wait times for a given amount of resources used to achieve that improvement. Two hospitals would be comparable in their wait time performance metric only if they each spent the same amount of financial and human resources in achieving those wait times. Currently, the resources (financial and human) invested in improving health care outcomes do not seem to be simultaneously tracked or compared in reporting of the outcomes themselves.

Value-for-money metrics (as understood in this paper) refer to measures that convey some level of output for a given level of input. In the economic context, input measures are those controlled by management and clinicians, while output measures are those that result from inputs and processes put in place by management and clinicians. In this economic context, wait times are considered to be an output measure as they are not controllable by management and clinicians in the same way as the number of staff and diagnostic equipment are controllable.

Value metrics generally preclude output measures alone (e.g., wait times at hospitals) or input measures alone (e.g., operating budgets). For example, while achievements in hospital wait times are often reported with much fanfare, the cost of achieving them is rarely revealed. As a result, the public as well as the government funding authorities often do not know what was given up (the opportunity cost) in achieving such outcomes. Lack of value-for-money metrics does not allow hospitals and governments to determine whether or not they could have achieved better health outcomes if the same money had been invested elsewhere within the health care system. Value metrics may also provide feedback to society and policy-makers on how much health care they are willing to buy. If successive improvements in wait times require significant investments, then they may be viewed as outcomes for which society or taxpayers may not be prepared to pay.

Funding hospitals based on value-for-money outcomes is especially critical since those entrusted with dispersing government funding often face short-term pressures of election cycles and therefore may be tempted to commit large funds to the health care system for the sake of political expediency. Even regional health authorities¹¹ which implement provincial governments' strategic health care priorities in an arm's length arrangement (without short-term pressures of election cycles and political expediency) may not be using value metrics to inform their resource allocation decisions. As a result, both politicians and bureaucrats may be focusing on health outcome measures such as wait times or financial input measures without linking the two. The lack of value metrics also hinders political debate on health care since citizens are less aware of the range of feasible values for their tax dollars, and therefore cannot exert pressure on politicians to improve them.

11 Examples include Ontario's Local Health Integration Networks (LHINs) and the new Alberta Health Services Board.

Value-for-money measures are important regardless of whether health care is delivered publicly or privately. While medically necessary visits to physicians are funded by the provincial governments, they are delivered privately by physicians who serve as independent contractors. These physicians are paid according to fee schedules negotiated with provincial governments for various services performed. These provincial payment schedules are largely activity- and time-based, and generally designed to reflect the value of services (time) offered by the physicians.

Using value-for-money measures does not imply a move away from publicly funded health care. Performance measures borrowed from outside the health care sector could promote greater efficiency, transparency and accountability by hospitals and governments, allowing the publicly funded health care system to remain viable and sustainable in the context of growing demands.¹²

The OECD report confirms that “the current top-down resource-allocation process ... manages to control costs through waiting lists and expanding gaps in the coverage of service” needs to be accompanied by “bottom-up accountability measures” that can indicate value for money provided.¹³ Like any other public or private endeavour, we cannot evaluate health care by focusing exclusively on inputs or outputs. The Canadian Medical Association also recommends in its recent report putting “uniform requirements and regulations in place for measuring quality”.¹⁴

Other research studies and public sector funding agencies are increasingly calling for value measures on the grounds that improve technical and allocation efficiency (OMB 2001, p. 21). Value measures can offer the possibility of greater decision-making autonomy and flexibility for hospital management and can result in improved resource allocation, planning, and decision making, while ensuring that hospital actions align with the broader social and economic objectives of government and taxpayers.

Why Value Measures Are Not As Prevalent

Value dimensions include quality and quantity dimensions – both current and projected – and are essential to containing future cost increases. However, requiring a breakdown of costs for evaluation purposes can be costly. Like many other organizations, costs incurred by hospitals may not always be allocated to service departments in a precise manner. For example, the cost

12 During an August 2010 presentation to delegates at the Canadian Medical Association general council meeting, Dr. Sheila Fraser reported that she could not ascertain whether Canada’s health care system was providing value-for-money because governments were making little effort to measure performance. Fraser emphasized that “I’m not sure the government of Canada has all the information it needs to answer this important [value-for-money] question.” While she was referring to the federal Canada Health Transfer, her comments contain relevance for hospital funding by the provinces.

13 OECD (2010), *OECD Economic Surveys – Canada*, p. 1

14 Canadian Medical Association (2010), *Health care Transformation in Canada: Change that Works, Care that Lasts*, p. 6.

of achieving lower wait times in an emergency room (ER) may not always be reflected in the ER budget, and therefore reporting ER budgets may not offer sound value-for-money metrics. Hospitals have invested considerable infrastructure to manage ER wait times that is not reflected in ER budgets. Hospitals have hired additional personnel and implemented new information systems that are typically used throughout the hospital since it is widely recognized that ER wait times reflect a series of bottlenecks that extend far beyond the ER.

Value measures would have to take into account the differences in case mix and the environment in which they operate before they could be compared. An inner city hospital with a large number of ER visits from low-income marginalized populations with complex and chronic medical problems would theoretically require more investment than a high-income suburb for example.

One reason for the slow integration of value measures in health care delivery is the difficulty in measuring quality, and therefore value. For example, while wait times are arguably a proxy for both quantity and quality of health care, there is no consensus among health care providers about the trade-offs between quantity and quality, or even whether a certain measure reflects quantity or quality. Many health care providers see wait times as a measure of access, and not as a measure of quantity. In contrast, most lawyers agree that “justice delayed is justice denied” and thus access is a reflection of both quality and quantity. It is easy to see the parallel between health care and legal remedies when we hear of a patient dying while waiting to see a physician in the emergency room: if health care is delayed long enough, it might as well have been denied.

A second reason for the absence of value measures is linked to the fact that output measures alone are complicated enough given the wide range of severity and complexity of illnesses. Furthermore, improvements in output measures do constitute an achievement and therefore the spotlight on outcomes is never really diminished. There is also an overload of output measures. the International Classification of Diseases (ICD) system lists in excess of 16,000 diagnosis codes (and expanding), each with a treatment plan. Treatments to reduce suffering, extend lives and eliminate illnesses include more than 6,000 drugs and 4,000 medical and surgical procedures (Gawande, 2010).

A third reason relates to the fact that select outcome measures such as wait times may also be crowding out other measures of quality. The Wait Times Alliance for Timely Access to Health Care was established in 2004 to develop benchmarks for wait times in various areas, and it quickly received the attention of the public and of politicians. Hospitals responded by re-allocating existing and new financial and human resources to the areas considered politically important.¹⁵ It may take stronger incentives or political directives to re-focus on other dimensions of quality.

¹⁵ All hospitals were asked to set up committees that tracked and reported wait times for various procedures.

A fourth reason for the slow adoption of value-for-money measures is the divergent (and sometimes non-aligned) responsibilities and skill sets among the financial managers and clinicians. The front-line physicians who make many (although not all) of the decisions regarding quantity and quality of health care delivered are often unaware of the total costs (including opportunity costs) of the resources they are using. Front-line physicians are generally concerned with health outcome measures. In contrast, financial managers are generally guided by input measures (financial and human resources) and are often unaware of how much quantity and quality of health care can reasonably be expected for the financial and human resources expended.¹⁶ Output-per-unit-of-input performance measures work optimally when both senior management and front-line health care providers understand both money and medicine, and can control (to a large extent) the link between the inputs and the outputs.

In some research-intensive publicly-traded firms, scientists and financial managers are often kept aligned by offering them employee stock options of an appropriate horizon. This renders the scientists more pragmatic, while retaining the financial managers' interest in research milestones that can drive up stock price.

In the not-for-profit public sector hospitals, incentive alignment between front-line health care providers and financial managers is not always feasible since long-term incentives are harder to design, offer and enforce. While budgets with longer horizons in the public sector hospitals may be feasible, provincial governments are often reluctant to provide such certainty; in part because they themselves do not enjoy the certainty of longer-term federal transfer payments.

The Importance of Aligning Incentives

Public calls to introduce incentives for improving quality of care, to implement pay-for-performance systems to encourage quality of care at both the clinician and facility level, to establish benchmarks for quality and value, and to alter the way hospitals are funded to reflect the volume of care have been fairly vocal recently.¹⁷ However, the link between inputs and outputs that would offer measures such as output-per-unit-of-input are commonly absent within these suggestions.

A well-established finding from the performance measurement literature is that “what gets measured gets managed.” Incentives do not resolve all the shortcomings in the health care

¹⁶ As argued earlier in this paper, clinicians and economists may not even agree whether wait times are input or output measures.

¹⁷ See, for instance, TD Bank Financial Group (2010), *Charting a Path to Sustainable Health Care in Ontario*; Canadian Medical Association (2010), *Health Care Transformation in Canada: Change that Works, Care that Lasts*.

sector. Poorly designed incentives could also create new challenges of their own. For example, physicians' networks who invest in new diagnostic equipment such as an MRI machine may have incentives to prescribe more diagnosis tests to amortize the investment in the new equipment more rapidly.¹⁸ Excess demand in health care manifests in excessive wait times, while excess supply manifests in excessive (and sometimes unnecessary) diagnostic tests in order to keep costly medical equipment fully utilized.

If a hospital gets rewarded with additional budgets for improvement in its wait times, then it may deliver and report a steady improvement in wait time measures – much like how publicly traded companies make an effort to ensure steadily improving performance to attract shareholders' confidence. Once provincial standards for wait times have been achieved, hospitals may hesitate to improve output measures any further and instead allocate resources to other areas for which output measures are explicitly or implicitly incented. Narrow outcome measures (e.g., wait times for one illness) may be improved at the expense or 'neglect' of another measured or unmeasured health-care service.

Pay-for-performance programs have been implemented in a limited manner for some select health care programs in certain provinces, but the extent to which they have been successful is unclear. Ontario has a bonus plan for preventative care that exceeds specified thresholds in the areas of influenza vaccine, pap smear, mammography, childhood immunization and colorectal cancer screening. British Columbia and Nova Scotia offer bonus payments to physicians for monitoring patients with select chronic illnesses. British Columbia has also instituted physician bonuses for elderly patients ("grey bonus") and full-service family practitioner. These bonuses are add-ons to the normal fee schedule and have increased physician expenditure by about 24%. Alberta offers family physicians a Performance and Diligence Indicator (PDI) bonus for meeting specific performance and diligence indicators. Geriatricians are allowed higher fees in several provinces because seniors often require more care, in part because their medication has to be monitored for potential adverse interactions. Finally, Manitoba affords physicians bonuses based on certain quality measures. The costs and benefits of these incentive plans are not yet publicly available for analysis.

While all of the above pay-for-performance plans have been directed at the physician level, plans are underway in several provinces to introduce pay-for-performance schemes at the hospital level.¹⁹ British Columbia has proposed "patient-focused funding" for its 23 largest hospitals.²⁰

18 Such incentives exist not only in the U.S. model of private health care, but also in the Canadian model. For example, a medical center with laboratories and diagnostic equipment that is jointly owned and operated by a team of physicians in Canada has incentives to prescribe more diagnostic tests.

19 It is important to note that pay-for-performance plans that offer hospitals incentive payments for achieving quality targets are not the same as activity-based funding which reimburses hospitals based on the number of patients treated and the complexity of their cases.

20 British Columbia Ministry of Health Services (2010). *B.C. Launches Patient-Focused Funding Province-wide*. April 12, 2010. Available at www2.news.gov.bc.ca/news_release_2009-2013/2010HSERV0020-000403.pdf.

Ontario has announced that it will replace some of its hospital block funding with patient-based payments beginning April 2011,²¹ and Alberta is planning to adopt activity-based funding for hospitals beginning in 2011.²² The implementation and success of these pay-for-performance programs will be an interesting area of future analysis.

Given the increasing use of pay-for-performance models in hospitals, it is important to find appropriate metrics on which to reward hospitals' management. The choice of rewards that reflects both quantity and quality of care will influence how hospitals restrain their growth in costs while still providing high quality care.

Closing Comments

Canadian hospitals are asking for more health care resources to accommodate an aging population, growth in chronic illnesses over longer life expectancies and costly new technologies. While more money can deliver more health care, it does not necessarily deliver better health care. Before committing to investment in additional physician capacity, hospital beds or diagnostic technology, hospitals should establish consistent and transparent value-for-money measures that are monitored and tracked regularly over time and compared across institutions. Furthermore, we need to publicly report uniformly computed value-for-money metrics for all hospitals in a manner that enables comparison, and which can allow sharing of best practices.

Our health care system does not currently provide benchmarks for effectiveness and efficiency of health care delivered. Effectiveness focuses on doing the right thing (delivering the appropriate quantity and quality of health care) while efficiency focuses on doing the thing right (maximizing health outcomes per unit of resource input or minimizing cost per unit of health outcome). Block funding (or a lack of activity-based or patient-based funding) has historically limited hospitals' ability to assess their own effectiveness and efficiency. Furthermore, the lack of benchmarks for effectiveness and efficiency in the quantity and quality of health care provided has limited the scope of incentives. Incentive alignment or pay-for-performance can only be implemented if performance on access, quality, outcomes and cost dimensions can be readily measured in a consistent manner over time and in a uniform way across hospitals.

It is not sufficient to be satisfied with increasing health care outcomes if such outcomes are largely supply-driven. The combination of physician autonomy, lack of integrated care and

21 Ontario Ministry of Health and Long-term Care (2010). *Patient-based Payment for Hospitals*. Backgrounder, May 3, 2010. Available at www.health.gov.on.ca/en/news/release/2010/may/bg_20100503.pdf.

22 Duckett, S. (2009). Thinking Economically in the Health Sector, Presentation to the Economics Society of Northern Alberta, November 13, 2009.

information asymmetry between front line clinicians and financial managers in hospitals make it difficult to detect whether provision of health care services is demand-based or supply-based. Hospitalization rates inadvertently reflect hospital bed supply, with research showing that admission rates are positively correlated with the capacity of acute care beds. Similarly, clinicians may inadvertently make referrals for high-cost, technology-based diagnostic services often because such diagnostics are readily available. While supply based care can yield higher health benefits with increased health care spending, these benefits may be largely avoidable care. In such cases, higher spending on health care is likely to be associated with more but not necessarily better care.

The measures described above can contribute in helping Canadians get better for less and keep the Canadian health care system sustainable.

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