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Paying for Hospital Services: A Hard Look at the Options

The dismal performance of Canada relative to other OECD countries on measures of wait times and access to hospitals suggests this is an area with huge room for improvement across provinces. Activity-based funding (ABF) would have a good chance of driving meaningful change.

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The Study In Brief

Hospitals hold a special place in the hearts of Canadians as the most visible representation of provinces' commitment to publicly funded healthcare. As pillars of medicare and the centrepieces of provincial healthcare systems, hospitals are expected to be accessible when Canadians have healthcare crises, illnesses or injuries, irrespective of a patient's ability to pay.

Hospitals are also the most costly form of care, to the tune of over $58 billion per year across Canada. Provincial governments routinely dedicate a greater share of their budgets to hospitals than to many of their entire ministries. But in all provinces, there are many examples to be found of the inefficient or ineffective use of hospitals, including the continued use of obsolete procedures and the prevalence of beds filled by patients ready for discharge to the community.

With all this money going to hospitals, provincial governments have historically paid little attention to how this money has flowed to hospitals and how it affects hospital behaviour. This *Commentary* draws attention to the strengths and weaknesses of alternate methods for funding hospital-based care in Canada. It examines both the funding models currently in use, such as global budgeting and fixed annual lump-sum transfers, and the methods that some provinces are contemplating for future reform efforts. The report then discusses the policy experiments currently underway in British Columbia and Ontario that are changing the financial incentives for hospitals in those provinces.

While the appropriate reforms will vary by province, the status quo of near total reliance on global budgets for funding hospitals is not well aligned with the current policy imperatives of improving access stated by many provincial governments. Activity-based funding (ABF) – hospital payments based on the volume of care provided – is a viable complement to global budgets for rebalancing the financial incentives for Canadian hospitals. The dismal performance of Canada relative to other OECD countries on measures of access suggests this is an area with huge room for improvement across provinces, and where the introduction of ABF for partial funding of hospitals would have a good chance of driving meaningful change. Further, ABF for acute care should be complemented with funding policies for other sectors to align incentives across settings, and to promote the delivery of care in the most appropriate place, capturing as broad a range of activity as possible.

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Hospitals play a central role in the Canadian healthcare system. In fact, many have argued that hospitals play too central a role. They and physicians are the only healthcare providers enshrined within the *Canada Health Act* (1984) that provincial governments are required to reimburse for medically necessary services.

Being able to access hospital care free of charge is fundamental to many Canadians' perceptions of medicare and continues to frame national discussions on the future of our publicly funded healthcare services (Romanow 2012, Grenier 2012).

With their highly trained staff, sophisticated drugs and technologies, and ever-increasing intensity of care, hospitals are expensive to operate. In 2011, hospitals accounted for over $58 billion in public spending, the largest healthcare expenditure by a significant margin and nearly equal to the combined costs of both drugs and physicians – $32 and $28 billion, respectively (CIHI 2011).

Not surprisingly, this large and growing slice of public spending has led provincial governments to focus their attention on hospitals during times of fiscal duress (CIHI 2011, World Bank 2011). Past cost-containment efforts have included hospital closures and mergers, funding reductions and the integration of hospitals within regional health governance structures. Today, as provinces find themselves in the midst of yet another period of fiscal restraint, they are again examining their policy levers in the hospital sector. This time around, however, there is a new element – provinces are beginning to fundamentally rethink how they pay for hospital services. These changes mark a significant policy shift in Canada, where hospital services have largely been funded the same way for decades.

Studies of Canadian hospital data consistently show an ineffective use of hospital resources. These findings, plus the inability of provincial governments to constrain hospital spending through current lump-sum global budgets, have created a strong case to consider alternative funding arrangements. As governments consider options for reshaping their hospital funding landscapes, some of the larger provinces appear to have adopted elements of activity-based funding (ABF) – or payments per admission – as their preferred approach.

However, as our examination of the international experience clearly shows, ABF is not a panacea. As with any funding approach, its inherent strengths and weaknesses, as well as the options for the design of an ABF policy, need to be carefully considered in the context of a province's objectives. That said, ABF could be a viable element within global budgets for rebalancing hospitals' financial incentives while improving efficiency and access. In this way, ABF would improve hospital funding transparency and create incentives for high-quality care.

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Leading this sea change are the health ministries of British Columba (B.C.) and Ontario, both of which have begun to roll out major new hospital funding policies over the past two years. Branding these initiatives with similar-sounding labels like "Patient-focused Funding" and "Patient-based Payment," both provincial governments are communicating a similar message: We are introducing new ways to fund our hospitals and these new ways will be better for patients than the old ways. Augmenting this core theme are laundry lists of promises around better access to services, better quality of care and better value for money (BC 2010a, 2010b; Ontario 2009).

This *Commentary* begins by assessing whether the provinces' traditional hospital funding methods are well aligned with Canadians' expectations for their hospital care. We then turn to examine the B.C. and Ontario hospital-funding reform objectives and assess whether their policies support these objectives. Despite sharing similar branding, the two provincial strategies are different from one another in their expressed objectives, policy design and implementation approaches. In the case of British Columbia, which is further along in its implementation efforts, we also examine some of the emerging evidence related to the expected effects of the funding changes.

Looking beyond Canada, we consider how the two provinces' nascent policies might benefit from the experience of other countries that have been using similar funding systems for decades. We look at how these countries' funding policies are moving in new directions, some of which (in an important note to Canadian policymakers) are in response to the perceived limitations of their current funding systems. Finally, we propose a number of options for how British Columbia and Ontario might achieve better alignment between their policies and objectives, and how they might consider enhancing their approaches in the future. We believe that other provinces contemplating similar reforms will also benefit from many of these same considerations.

This *Commentary* is anchored by a fundamental question: "What do we expect from our hospitals?" Answers to this question may look very different to governments, healthcare professionals, patients and the public. We likely will need to trade off some expectations against others and accept a compromise solution. Only once we are ready to do this can we begin to ask: "How do we align the way we pay our hospitals with what we expect from them?" A clear understanding of both policy priorities and the funding mechanisms most likely to achieve them is crucial. Current reforms have the potential to bring about fundamental shifts of funds, skills and resources, not only for hospitals but across the entire healthcare system. If these policies are not well aligned with Canadian healthcare expectations, we risk moving toward a system that few of us want and even fewer of us can afford.

How Canadian Hospitals are Currently Funded: the Legacy of Global Budgeting

A well-worn adage in health services research is that there is no perfect model for funding healthcare providers. Each approach has its own strengths and weaknesses, incentives and disincentives and policymakers must carefully weigh the trade-offs (Deber et al. 2008, Robinson 2001).

Provinces employ different structures to flow money from ministries to hospitals – some fund directly from the ministry while others have devolved funding responsibility to regional health authorities. But the primary method for paying hospitals has been the same across Canada for almost 30 years – the global budget system (McKillop et al. 2001). In a nutshell, global budgets are lump sums provided to individual hospitals to cover their operating expenses for a fixed period of time, typically for one year. A hospital's lump sum is most often based on historical spending and provided irrespective of the number of patients treated or the intensity of the demands on its resources.

Internationally, global budgets are primarily associated with the policy objective of restraining hospital expenditure growth. They allow governments to shift nearly all of the financial risk for hospital care to the hospitals themselves by providing a straightforward mechanism for capping funding – that is, if governments are able to resist pressures to bail out organizations in financial distress (Antioch and Walsh 2004, Wolfe and Moran 1993).

Global budgets are relatively hands-off for governments or health authorities. They free hospitals to exercise discretion around the types and volume of services they provide, so long as they balance their budgets. From this perspective, global budgets are presumed to provide hospital managers and physicians with the flexibility to respond to local pressures.

Important aspects favouring global budgets are that they: i) are administratively simple, ii) tend to be relatively inexpensive to operate (relative to other hospital funding approaches), and iii) provide a degree of predictability and stability for both hospitals and governments (Marini and Street 2007).

Notwithstanding these advantages, global budget policies suffer from a number of commonly cited shortcomings. In Canada, hospitals' global budgets tend to be products of historical legacy, driven by factors such as the revenues hospitals can generate from donors or by past successes in negotiating funding increases from ministries or health regions. This creates a situation where hospital funding is not clearly connected with the volume, type or quality of care delivered. Funding inequities are perpetuated whereby different hospitals are reimbursed at different rates for the same level of work.

Some provinces have attempted to mitigate these problems by introducing more objective, formula-based approaches. This often involves tying at least some portion of new funding to factors such as population growth, changes in patient severity and increases in the costs of inputs such as wages and equipment. However, the inherent rigidity of global budgets presents a serious challenge to payers' abilities (and their political stomach) to adjust funding rapidly enough to keep up with fast-growing communities and changing patient mixes.

These characteristics can also incent undesirable behaviours. Because budgets are fixed, regardless of services delivered, hospitals may respond to fiscal pressures by reducing the volume of services they provide (Street and Duckett 1996, Deber et al. 2004). Similarly, hospitals may restrict services earlier in the year to minimize the risk of incurring a deficit at year end. Service reductions can lead to delays or cancellations for elective procedures and result in longer emergency department wait times for non-elective admissions (Deber et al. 2004).

One serious limitation in global budgeting is the lack of incentives to improve efficiency. Since there is no opportunity to generate more revenue by increasing patient throughput, hospitals face little impetus to shorten patient lengths of stay or discharge lower acuity patients to less expensive settings such as outpatient or home-based care (Sutherland 2011; Hurst 1991; Dredge 2004). These financial forces are compounded by Canada's bed occupancy rates, which are among the highest in the OECD; Ontario's average rate was estimated at 97.8 percent in 2011 (Babbage 2011). Because hospitals face pressures to immediately fill any bed emptied with a new patient, there are financial incentives to engage in rationing or risk selection, preferentially filling beds with lower acuity patients who have lower costs for care.

Moreover, Canadian hospitals demonstrate substantial differences across measures of efficiency and utilization, suggesting that there is room to improve (Dredge 2004; Moreno-Serra and Wagstaff 2010; CIHI 2010; Street et al. 2011). Many Canadian hospitals regularly have more than 12 percent of their acute beds occupied by non-acute – or Alternate Level of Care (ALC) – patients waiting to be discharged. Although these patients typically cost the hospital significantly less for each day of their prolonged stay than newly admitted patients (Taheri et al. 2000), they are put at increased risk of incurring hospital-acquired adverse events and create bottlenecks for other

patients waiting to be admitted from the emergency department (Brien-pallas et al. 2004; Forster et al. 2003; Baker et al. 2004). In Ontario, the ALC problem is particularly severe, regularly exceeding 15 percent of acute beds (OHA 2012).

Furthermore, Canadians wait longer than residents of nearly any other western country to access elective hospital care. Among 11 OECD countries, Canada had the highest proportion (25 percent) who waited four or more months for elective surgery, despite a number of expensive efforts, at both federal and provincial levels, to reduce hospital wait times (Schoen 2010).

Are Global Budgets Consistent with Canadians' Expectations?

Given the strengths and weaknesses of global budgets, we ask: Is our current primary method of funding hospitals aligned with Canadians' expectations for hospital care? For provincial governments, untangling the highest priorities for hospitals from among sometimes competing objectives of accessibility, quality, efficiency and effectiveness is difficult. For example, the B.C. Ministry of Health's strategic plan lays out performance measures for hospitals in multiple domains; reducing the amount of ineffective care, improving access and quality, while expanding incentives for efficiency (BC 2012).

According to media reports, ready and timely access to high-quality care is extremely valued by Canadians. As well, quality of care and efficiency are of public concern. Recent examples of premature deaths in B.C. (Fowlie 2012) and unnecessary surgeries in Ontario (Oved 2012) have garnered high public attention. In addition, media reports regarding outbreaks of hospital-acquired infections such as *Clostridium difficile and Methicillin-resistant Staphylococcus aureus* (Hunter 2012) have attracted mainstream attention and spurred the province of Ontario to mandate public reporting by hospitals on a range of quality indicators (Daneman et al. 2012; Ontario 2012a).

While expenditure control may frequently take a back seat to access and quality of care in the court of Canadian public opinion, governments nevertheless have a responsibility to pursue cost containment to ensure the healthcare system's long-term financial viability. However, the recent 5.9 percent average annual growth in Canadian hospital expenditures suggests that the global budget approach has fared rather poorly in achieving this objective.

Taken as a whole, the Canadian experience suggests that global budgets have been ineffective in bending the hospital cost curve and at promoting improved access and quality of care. Over the past decade, there have been a number of high-profile, and unheeded, calls for governments to re-consider global budget funding. Notably, the 2002 federal Kirby Commission report, two reports by the Ontario Hospital Association (OHA 2004; 2007), the 2008 Castonguay Commission in Quebec, the 2012 Drummond Commission in Ontario (Ontario 2012b) and the OECD (2010) have all proposed that Canada shift from global budget policies toward approaches that put a stronger emphasis on encouraging hospital efficiency and improving access.

Activity-Based Funding: A Common Formulary for a Range of Diagnoses?

Something of a rarity in the health policy world, nearly all the critics of Canada's reliance on global budgets tend to agree on a preferred alternative – funding based on the types and volume of hospital patients. This general consensus is not surprising when one considers that over the past three decades, nearly all OECD countries have adopted this approach. Known by a range of labels internationally, including prospective payment, Diagnosis Related Group (DRG)-based funding and Payment by Results (in England), we adopt the generic term activity-based funding (ABF).

ABF systems around the world are diverse, each designed to accommodate a country's healthcare

structures and policy objectives. Differences aside, all ABF systems share a few common core elements. Primarily, they remunerate hospitals by a set of fixed prices assigned to different clinical conditions or procedures. ABF systems are built on patient classification algorithms that use statistical methods to cluster different types of diagnoses and procedures based on their expected cost. Additional factors such as patients' age, length of stay and use of high-cost devices may also be considered in this complex process.

Essentially, ABF works by categorizing and attaching a price to every hospitalization. In application, most countries base ABF prices on the historical average cost recorded for each patient group. Sometimes this funding is then adjusted upwards or downwards for factors outside the hospital's control. Examples include inflation, facility characteristics such as teaching and research activities, and special hospital roles such as pediatric specialties or serving small and rural communities.

ABF policies encourage hospitals to generate surpluses (or profits) that can be directed to hiring staff or purchasing equipment in order to improve access or expand marketshare. They can create surpluses by reducing costs to create a margin between the expense and revenue they receive for each patient. In theory, hospitals will seek to provide a higher volume of services in clinical areas where they are able to generate a surplus (Deber et al. 2008). Thus, ABF has been advocated as a policy lever to create incentives for hospitals to reduce lengths of stay, reduce the cost of each admission and increase the volume of admissions where it is profitable for them to do so. In doing so, it follows that hospitals will also decrease their wait lists for elective treatments for conditions that they expect to generate surpluses.

These attractive design features have propelled the adoption of ABF policies for some portion of hospital funding by the majority of the developed world over the past three-and-a-half decades. The origins of ABF began with the development of the Diagnosis Related Groups (DRGs) acute inpatient classification system at Yale University in the late 1970s.[1] DRGs were first adopted for the purposes of reimbursement in 1980 in New Jersey hospitals and subsequently implemented broadly across the United Sates through the federal Medicare program, primarily as a cost-containment policy. In the following decades, much of the developed world followed suit.

Expectations of Activity-based Funding

While global ABF implementation efforts provide a rich experience base for Canadian provinces to draw on, there is little high-quality evidence on their impact. They tend to be introduced as large, wide-scale policy changes and as part of a suite of policy reforms. Few studies have the benefit of control groups for comparison to evaluate the new policies' impact. There are also enormous differences among jurisdictions in the structure of their healthcare systems and their incumbent funding approaches. Thus, depending on a jurisdiction's previous mix of financial incentives (as well as hospitals' financial performances), both the direction and magnitude of ABF incentives may vary. Consequently, the observed impacts, and estimates of effects, need to be interpreted with caution and within the broader context of the particular healthcare system.

Still, some common effects have been observed across the range of ABF system designs and policy objectives. Foremost is creating increased transparency in the determination of hospital funding allocations (Busse et al. 2011; Street

1 See Fetter et al. (1980) and Goldfield (2010) for more.

and Maynard 2007). Through linking a hospital's funding to its activities in a consistent, rules-based approach, the basis for payment is made clear to hospitals, communities, governments and other stakeholders.

Meanwhile, significant reductions in hospital stays have shown up in many ABF evaluations. One study of 28 countries linked ABF policies with an overall 3.5 percent decrease in average length of stay (Morreno-Serra and Wagstaff 2010). Findings in England estimated average length-of-stay reductions over five years of 2.5 percent for elective care and 1.7 percent for non-elective care (Farrar et al. 2010). Other countries where similar associations have been found include Denmark, Sweden, Norway, Germany and Australia (Victoria).[2]

While lengths of stays seem to decrease under ABF, findings regarding the cost per admission (or technical efficiency) are mixed. A higher intensity of services (or equipment) tends to be used during shorter stays. A large study of 729 hospitals in the Nordic countries associated ABF with a 3 percent to 4 percent improvement in hospital efficiency. No impact on technical efficiency was observed in the United States (Street et al. 2011; Kittelson et al. 2008), while other studies have been inconclusive regarding the link between ABF and cost efficiency (Bjorn et al. 2003, Linna et al. 2002).

Another outcome associated with ABF policies is improvement in patient satisfaction because of reductions in wait times due primarily to increased admission volumes (OECD 2004).

Access and Risk Selection

While ABF implementation has seemingly increased the volume of hospital services, changes in hospital activity may not be uniform. Findings from the US indicate that increases in volume tend to occur in clinical areas with the highest potential to generate surpluses and are not necessarily related to the needs of patients.[3] The proliferation of specialized hospitals for cardiac and orthopedic care in the US are examples of that outcome (Mitchell 2008, 2010; Stensland and Winter 2006). In the Netherlands, implementation of volume-based hospital funding brought about not only the desired increase in elective procedures associated with long waiting lists, but also led to substantial increases in admission rates for emergency medical conditions and patients admitted for observation. These findings suggest that hospitals changed their practices to admit patients that previously would have been treated and discharged from the emergency department (Vijsel et al. 2011).

Unless carefully managed, ABF hospitals may try to preferentially provide services to patients whose care costs are expected to be less than the funding amount or limit access for patients whose costs are expected to exceed that amount, undermining the objective of improving equity of access.

Finally, ABF may induce changes in geographic access to hospital care. In order to capitalize on economies of scale and increase efficiency, hospitals may concentrate services and locate them in areas with the greatest utilization, primarily urban centres. These concentrations may be desirable if they lead to improved clinical outcomes, as has been found in many studies. However, centralization in urban centres may also result in decreased equity of access (Street et al. 2010).[4]

2 See Street and Maynard (2007), Audit Commission (2005) and Ettelt et al. (2006) for more.

3 See Hayes et al. (2007) and Ginsburg (2006) for more.

4 See Audit Commission (2008), Sutherland (2011), Maynard (2012) Birkmeyer et al. (2001) for a comprehensive review of the literature.

Financial Risk and Activity-Based Funding

Funding hospitals solely on the basis of their activity transfers a larger share of the financial burden of patient care from hospitals to provincial governments (or health regions). That is, as the number (or severity) of patients increases, the government is responsible for bolstering hospital spending. Consequently, many countries have developed different policy responses to sharing the financial risk between the funder and hospitals, policies that move these countries away from funding hospitals entirely on a prospective basis.

The most common approach is to base hospitals' funding on a blend of ABF and global budgets. For example, in Norway 40 percent of hospital funding is allocated on the basis of activity, while the balance is based on a global budget. In Denmark, between 39 percent and 52 percent (varies by region) of hospital funding is allocated according to activity. In contrast, Victoria (Australia) restrains growth in expenditures (and activity) by incrementally funding increases in hospital volume only beyond a pre-determined threshold (Duckett 1995).

Moving ABF Beyond Acute Care

Originally, ABF was used by the US Medicare program to prospectively fund acute care. Post-acute care Medicare providers (such as long-term care and hospital-based rehabilitation and mental health services) were remunerated on a per-diem basis. This misalignment of incentives across care settings led to widespread cost shifting and potentially inappropriate substitution of one setting for another (Lin et al. 2006). In response, the federal government enacted significant reforms for funding post-acute care. Since then, DRG-like prospective funding methods have been adapted to other settings and are now used by Medicare for day surgery, skilled nursing facility care, home care, in-patient rehabilitation and long-term care.

These reforms have produced mixed results. Cost growth slowed without compromising quality, access got better for many, but improvements in effectiveness remain elusive, partially owing to the weak evidence regarding appropriate post-acute care.[5] A growing number of other countries have similarly expanded their ABF approaches beyond acute care to fund care in other settings, strengthening financial incentives for both technical efficiency within each setting and allocative efficiency across settings.

Integrating Quality into ABF

As we have noted, ABF can create incentives for hospitals to discharge patients more quickly. This has caused some stakeholders to charge that ABF causes patients to be discharged "quicker and sicker." However, evidence from the US, as well as from the United Kingdom and other European countries, has shown no clear association between ABF policies and increased mortality. In some cases, there have been reports of lower mortality (Kittlesen et al. 2008, Forgione et al. 2004).

While quality has historically taken a back seat in ABF systems to improving productivity and access, a growing number of countries have begun to embed explicit quality incentives into their ABF policies. Leading the way is the US Medicare system, which announced in 2008 that it would cease additional hospital payments for a defined list of hospital-acquired complications such as surgical site infections, pressure ulcers and foreign objects left in patients during surgery. England followed suit with a similar non-payment policy and has also introduced Best Practice Tariffs for

5 See Sutherland and Crump (2011) for more.

a number of procedures and diagnoses where the prices for treating particular types of patients are modified (from average cost) to incentivize evidence-based practice.

Recognizing that volume-based methods for funding hospitals inherently do little to encourage reductions in the number of admissions, countries including Germany, the United States and England have all introduced policies to reduce payments for unplanned readmissions or, in England, to reduce payment for emergency admissions in excess of a hospital's historical threshold volume.

Incentives for Coordination of Care

While jurisdictions continue to modify ABF systems to strengthen incentives for quality within hospital walls, there is mounting criticism that hospital-focused payment systems are insufficient for incentivizing improvements in care coordination or to promote higher-quality care for complex patients with multiple chronic conditions. Well-recognized voices across countries that once led the way in ABF implementation have now concluded that more transformative advances in care will require new payment models that span multiple settings and providers, creating incentives for improving coordination and providing financial flexibility to develop innovative new care models.

Indeed, the US Medicare Payment Advisory Commission (MedPAC 2008) and the *Patient Protection and Affordable Care Act* (the so-called Obamacare) have similarly advocated that Medicare shift from the existing à la carte and sector-based funding models toward paying for broader packages of care across multiple providers and time periods. Known as bundled or episode-of-care payments, this emerging approach combines payments for multiple providers or services into a single, integrated payment such as a single payment for a hip replacement hospitalization plus 30 days of post-acute care (Welch 2012; Duckett 1999). This approach has been advocated as a means to create incentives for coordinating inpatient and post-acute care providers, improving care to reduce unnecessary emergency department visits or re-hospitalizations and expanding the potential for enhanced quality and outcome measures (Hackbarth et al. 2008).[6]

Other varieties of integrated payment models are drawing considerable attention for their attempts to bring hospitals, physicians and community providers under shared funding incentives. For example, Medicare in the United States recently invested heavily in the introduction of several hundred Accountable Care Organization (ACO) demonstration sites where each ACO brings together one or more hospitals with primary-care physicians, specialists and community providers to assume financial and clinical responsibility for the care (and cost) of a defined population. Under these arrangements, all providers share in the cost savings (and, in some cases, the downside risks as well). In theory, these new models reverse some of the financial incentives of previously volume-driven providers like hospitals and physicians, making it financially attractive for them to reduce preventable admissions and unnecessary tests and procedures.

While these models appear to show promise, owing to their recent emergence there is little empirical evidence to guide Canadian policymakers.

Is ABF the Right Prescription for Canada?

As provincial governments consider options for shaping their future hospital funding landscapes, a number of the larger provinces appear to have

6 See Mechanic (2011) and Mechanic and Altman (2009) for more.

concluded that introducing ABF to some extent is desirable. As our examination of the international experience clearly shows, ABF is not a panacea. Its strengths and weaknesses need to be carefully considered in the context of a province's desired objectives. The high-profile proposals for ABF-driven hospital payment reform may be correct that at least some ABF is preferable to the global budget status quo, but they require qualification on several important fronts.

Geography

Canadian provinces face a very different set of geographic challenges in organizing their hospital systems than do most healthcare systems in Europe or even in the United States. Long distances between hospitals in large urban centres challenge potential ABF-driven policies to encourage competition for patient volumes or quality of the sort implemented in England and much of Europe.

Canada's large expanses of rural and isolated areas also mean that many provinces have a large number of small hospitals that care for small numbers of patients, potentially exposing these facilities to unstable revenues if they are funded under a volume-based system. The tiny chunk of total spending that small hospitals account for likely does not justify the hassle (and accompanying controversy) for policymakers in rolling out ABF to these organizations. In British Columbia and Ontario, the smallest 50 percent of hospital institutions ranked by acute inpatient costs account for less than 5 percent of total acute inpatient costs and fewer than 6 percent of total inpatient admissions (CIHI 2012). Countries with large numbers of small hospitals, such as Australia and the United States, have generally opted to exempt small or remote hospitals from their ABF policies, continuing to fund them through global budgets or cost-plus reimbursement policies.

Finally, while the most populous provinces – Ontario, Quebec and British Columbia – have a large enough number of hospitals to support an ABF system, less populous provinces may lack the critical hospital mass to justify a large-scale ABF program. With its eight hospitals, Prince Edward Island is probably not a good candidate to undertake an ABF policy. In these smaller provinces, centrally planned global budgets likely make more sense.

Structure of Provincial Healthcare Systems

All provincial healthcare systems share some structural characteristics. Chief among these is that they are single, public-payer, tax-financed systems. This structure gives provinces (or health regions) more control over the proportion of total hospital funding provided through different funding methods, such as where ABF and global budgets are blended, for example.

Most provincial healthcare systems have devolved some responsibility for funding hospitals and planning to regional health authorities and other agencies. The resulting joint control over hospital funding policies raises additional challenges. British Columbia, for example, has five regional health authorities organized with responsibility for defined geographic areas, a Provincial Health Services Authority that operates nine agencies that provide province-wide services for particular diseases or populations and a Health Services Purchasing Organization charged with implementing ABF policies (discussed in additional detail later). These authorities all operate in varying degrees as payers of hospital services and whose priorities need to be considered in the design of ABF systems. For example, what is the purchasing role of the ministry of health versus regional authorities? Who defines the hospitals' products? Who sets the prices and who allocates volumes of services? How are regional authorities funded versus how hospitals are funded?

Experiences from Australia and England suggest that a two-step funding approach may be helpful in achieving a number of objectives. First, regional authorities are allocated funding on the basis

of their population (using a capitation formula adjusted for age, sex, morbidity and other factors) and they then, using a centrally designed ABF system, purchase care from hospitals. This mix of activity-based funding and population-based funding – which provides regional authorities the flexibility and incentives to reallocate expenditures to, for example, disease management, prevention and health promotion activities – may help shift funding policy away from a hospital-centric approach.

Hospitals' Relationships with Other Healthcare Providers

In considering changes to the way we fund hospitals, we need to remember they act as only one, albeit a very expensive, part of a larger healthcare system. Changes to the way hospital services are funded and organized will also have impacts on physicians, home-care and community-care organizations, long-term care homes and other healthcare providers. It follows that how these other providers are funded and organized will also have implications for potential hospital reforms.

A key piece of the Canadian hospital policy landscape is the relationship between physicians and hospitals. Only a very small fraction of hospital-based Canadian doctors, mainly specialties such as pathologists, are paid by hospitals themselves. The vast majority are reimbursed directly by provincial governments, primarily on a fee-for-service basis (McKillop et al. 2001). This is similar to the US Medicare and Medicaid structure, but stands in contrast to the majority of European nations, where hospital-based physicians tend to be salaried employees of the hospitals and whose economic success is inexorably linked to their hospital's financial performance (WHO 1996).

Some point to global budgets as a countervailing force to the volume-based incentives under fee-for-service, acting as a safety valve on hospital resources such as operating time, diagnostic imaging, and implants and devices. While this arrangement may help control expenditures, it can also make for strained relations between physicians and hospital management, with each group facing different financial incentives.

Provincial governments face an additional complication resulting from the separation of hospital and physician payments. If the introduction of ABF is effective in promoting increased hospital productivity, governments may face pressure for increasing physician expenditures since fee-for-service payments increase with hospital service volumes. Thus, even if hospitals become more efficient within current funding levels, this may not translate to overall cost savings without careful planning of expenditures in each sector.

Moving beyond institutional walls, Canadian hospitals also have critical, yet very often fractured, relationships with post-acute care and community-care providers such as long-term care homes, specialized inpatient rehabilitation hospitals and home-care providers. Hospitals are heavily dependent on the availability of community-based resources in order to discharge patients in a timely and safe fashion. The continuing problem of ALC patients is largely attributable to the lack of appropriate capacity in post-acute settings, inappropriate use of this capacity (such as long-term care homes admitting low acuity patients) and the failure of hospitals and these providers to effectively coordinate care (Sutherland 2011).

From the perspective of facilitating effective ABF in hospitals, some promising developments in the post-acute care sector include Ontario's and Alberta's recent shift toward an ABF approach for funding long-term care homes, which should help generate a pull incentive in the long-term care setting by linking funding to a patient's clinical needs while complementing hospitals push incentive through ABF. Implementing an ABF-type approach for inpatient rehabilitation and home-care providers would similarly help align incentives across providers to minimize use of the more expensive hospital settings.

Overall, Canada's fragmented healthcare provider payment structure is an important factor when considering reforms to hospital funding policy. Changes to the funding method for one provider will have implications for others.

Information Management Infrastructure

In comparison with global budgets, ABF systems require a much richer, more time-sensitive stream of data from hospitals that may challenge current information infrastructure in some provinces. For instance, comprehensive information regarding hospitals' clinical and financial activity must be submitted to payers on a timely basis in order to calculate hospitals' funding (Jackson 2001).

The overall costs of information technology to support ABF can be substantial. In the United Kingdom, additional costs included monitoring changes in hospital activity, collecting patient-level cost data, surveillance of data quality, development and management of service contracts for hospitals and a renewed focus on clinical engagement. Early adopting organizations each spent approximately £100,000 implementing Payment by Results, equating to an estimated £50 million nationally (Audit Commission 2005; Allen 2009). Similar costs should be expected in Canada, though some provinces, like Ontario, have already invested in comprehensive data and reporting mechanisms.

Finally, implementation of ABF is almost certain to lead to incidents of upcoding, whereby clinical data is manipulated to increase a patient's classification to one associated with a higher funding amount. Provinces should develop processes to monitor and enforce clinical data quality and codify penalties for hospitals that succumb to the temptations of additional revenue in exchange for manipulated data.

Moving to ABF in the Current Canadian Fiscal Environment

In the past experiences of both Canadian provinces and international jurisdictions, ABF-type approaches have more often been implemented in environments of hospital spending growth than during times of fiscal restraint. For example, Ontario implemented its ABF-style Wait Time Strategy hospital funding initiative commensurate with significant investments in increased hospital activity in order to improve access to elective procedures. In England, Payment by Results was introduced during the greatest expansion of the National Health Service's funding in its history, with the objective of ensuring that these massive spending increases were transparently linked to measurable increases in healthcare services.

By contrast, most provinces are now experiencing some degree of fiscal duress. Given this context, the Australian state of Victoria may provide a helpful model. In the early 1990s, Victoria was faced with a large public-sector deficit, a government imperative to reduce hospital spending and a hospital funding system based largely on historical global budgets. Victoria phased in an ABF system in tandem with hospital spending cuts. This ABF implementation is credited with playing a large role in achieving spending reductions while simultaneously improving patient access to elective surgeries. However, it should be noted that Victoria also had substantial excess hospital bed capacity at the time. In contrast, Canada's per capita hospital admissions and beds is among the lowest in the OECD, suggesting that provinces may not have much excess capacity to shed.

Irrespective of the fiscal context, nearly all jurisdictions phase in their ABF systems over a multi-year timeline in order to smooth out funding fluctuations for individual hospitals. This ABF transition period typically spans about four years, but was eight or more years in France.

Regardless of the timeline selected, it is critical for provincial governments to provide their hospitals with a clear policy framework and methodology for the end state system in order to allow hospitals to plan and adjust. More often than not, troubled ABF implementation efforts are frequently associated

with governments that put forward unclear policy frameworks or that make major shifts in their plans or timelines along the way.

Learning from Earlier Canadian Funding Experiments

While Canadian healthcare policymakers have, until recently, been largely content with the hospital funding status quo, some provincial governments – notably Ontario – have taken incremental steps over the years to introduce ABF elements through enhancements and adjustments to basic global budgets. In the early 1990s, Ontario introduced Transitional Funding, a methodology for distributing new hospital global funding increases according to criteria based on hospitals' patient volumes and relative cost efficiency compared with other hospitals. Transitional Funding was followed by the now-defunct Integrated Population-Based Allocation method and the current Health-Based Allocation Model. These newer models included additional adjustors for hospital characteristics such as the proportion of patients living in rural areas and historical utilization patterns (JPPC 2001).

Ontario's allocation models enabled the province to retain its traditional global budget policy framework while introducing incentives for volume and efficiency increases through a partially performance-based distribution of new annual funding. As it turns out, these models also introduced incentives of an altogether different sort when a number of hospitals were found to have manipulated their coding of clinical data in order to increase revenues (CIHI 2003; Preyra 2004).

In the 1990s, Ontario also introduced targeted volume-based funding for some high-cost specialized procedures such as dialysis, transplants and cardiac surgery. These payments were provided to hospitals for incremental volumes over and above their base global budgets. Known as Priority Services Funding, this marked the first application by Canadian provincial governments of an ABF-style approach, albeit only for a relatively small slice of hospital activity.

Beyond Ontario, the federal government in 2004 responded to Canadians' concerns over hospital wait lists by implementing a 10-year strategy to reduce wait times in five priority areas: cancer care, cardiac care, diagnostic imaging, joint replacement and sight restoration. Under this program, billions of dollars were transferred to the provinces, and eventually to hospitals, to purchase additional surgical care. While this strategy saw some initial success, few provinces have reached or maintained wait times at established benchmarks, outside of cancer care (Health Canada 2006). In fact, within the past three years, the proportion of patients receiving care within benchmarks has remained largely unchanged (CIHI 2012). However, some of the successes of this funding initiative are more subtle, as provinces now have clearly defined measures and protocols for measuring wait times, whereas, before the initiative, there was little evidence upon which to direct resources (Ontario 2012c).

The federal Wait Time Strategy also raised important, but unanswered, questions regarding equity. First, the increased funding targeted only a small number of surgeries, while other surgeries remained cost drivers. This policy created an incentive for hospitals to preferentially expedite or substitute surgeries based on a procedure's capacity to generate revenue (and enrich some intervention-based physicians). While a 2007 Ontario review by the Institute for Clinical Evaluative Sciences found that the Wait Time Strategy's targeted funding had no adverse effects on non-funded services, the media has highlighted the plight of surgeons specializing in other procedures not linked to revenue (Priest 2011, Patterson et al. 2007).

As well, if one ignored the potential for substitution, the initiative assumed that there was unused surgical capacity in the hospital system that could be re-directed to reduce wait times, a basis that is belied by high bed occupancy rates.

In addition, these initiatives proceeded with little discussion regarding the allocation of operating room time among surgical specialties or measuring the marginal value (or gain in health) of additional surgeries.

Emerging ABF Initiatives in Canada: Objectives and Expectations

Despite these early experiments with case-mix allocation models and ABF-style volume-based funding for targeted services, Canadian provinces remain among the last developed world jurisdictions to adopt broadly based ABF systems as their primary hospital funding approach. While several provinces have made policy statements or floated trial balloons flirting about future ABF reforms, tangible progress has been slow. Currently, British Columbia and Ontario are the only two provinces in some stage of implementing ABF, both in limited forms.

British Columbia

To paint a complete picture of the organization, delivery and funding of B.C. healthcare, it is important to first note that many responsibilities have devolved to regional health authorities. In a complex process, health funding flows to the authorities that, in turn, allocate money to particular sectors, such as acute care, and then within sectors to specific facilities or other healthcare providers. Thus, financial incentives are aimed at regional health authorities, which are then responsible for communicating them to hospitals.

In April 2010, the province introduced Patient-Focused Funding under the leadership of the newly created Health Services Purchasing Organization (HSPO). The government gave HSPO a three-year mandate to create and implement financial incentives for effective, efficient and high-quality healthcare. More details of the program can be found in Box 1.

Expectations and Outcomes

ABF has been in place to provide partial funding for the largest B.C. hospitals for over two years. The government expected the change would reduce the average length of hospital stays over time, following international experience. However, since other countries experienced a significant lag between ABF implementation and change, several years may be needed before B.C. hospitals adjust to the new funding method and begin showing the intended improvements (Farrar et al. 2010, Sutherland et al. 2012a).

Since hospital volumes do not yet appear to be increasing, it raises questions regarding whether the policies are having the desired effect on hospital behaviour. As well, some may question whether the procedural care program is no more than additional spending on hospitals and, even worse, whether substitution effects are occurring with hospitals fast-tracking surgical care that results in incremental funding.

It is also likely inevitable that some manipulation of B.C.'s hospital data (expenditure or case mix) will take place to maximize hospitals' revenue. In spite of this, neither the HSPO nor the Ministry of Health has developed a codified process or structure for measuring inaccurate data, or implementing penalties when it occurs.

Moving Forward

While the overall B.C. objectives are multidimensional, the ABF policy levers take clear aim at access and efficiency. Competing strategic initiatives, such as reducing hospital occupancy by keeping people at home through better managing of chronic conditions or through emergency department diversion initiatives, make it challenging to evaluate the policies' effects. Though much remains to be seen, the B.C. experience to date leaves several important questions unanswered.

First, the short duration of the program to date leaves open the issue of whether a longer-term

Box 1: B.C. Funding Reform

Patient-Focused Funding has several components: ABF, as a percentage of total hospital budgets, the Emergency Department Pay-for-Performance Program, the Procedural Care Program to reduce wait times for certain surgeries, community-based projects and Care Model Redesign and Quality Improvement.

The B.C. Ministry of Health has publicly committed to partially funding health authorities for their hospitals' medical and surgical activity using ABF methods. Since fiscal 2010/2011, the ministry has been allocating approximately 15 percent of its budget to regional health authorities for acute care based on their hospitals' activity, an amount slated to increase over time (BC HSPO 2010a).

At the program's onset, there were exceptions to ABF funding for certain procedures and care already funded under other volume and price mechanisms. In addition, the smallest hospitals were excluded, leaving 23 hospitals for the initiative (BC HSPO 2010b). Additional funding to health authorities is available through the component programs, but no additional incentives were provided to physicians, who continue to be remunerated on a fee-for-service basis directly from the province.

For the procedural care program, which remunerates health authorities for incremental amounts above threshold volumes, the HSPO determines the price it is willing to pay for additional surgical care. The amounts for fiscal 2010/2011 were $3,040 per same-day surgery and $1,520 per acute hospitalization (BC HSPO 2010b). Relative to the estimated marginal costs of providing day surgery and in-patient care, these prices provide a much stronger incentive for hospitals to increase the volume of day surgeries (Sutherland et al. 2012a, 2012b).

commitment is necessary to derive the expected benefits, an effect that is hampered by year-to-year based funding policies rather than multi-year financing. Secondly, given the HSPO's emphasis on hospital-based care, with little additional funding available for community-based care, that sector may be unable to accommodate hospitals' desire to discharge patients earlier.

Another potential problematic factor is the price at which the HSPO's procedural care program purchases additional hospital care. The HSPO price may have been below a hospital's marginal cost, and hospitals may have had little incentive to hire staff or buy additional equipment and supplies in order to increase surgical volume (Sutherland 2012; Sutherland et al. 2012b).[7]

In addition, the measures used to estimate hospital costs are based largely on data from acute care hospitals in Ontario and Alberta. To maintain credibility with hospitals in the future, the province may have to generate its own cost data to support ABF.

Finally, the policy targets only acute care funding and does not address coordination between

7 The authors note that while a more generous price may have induced hospitals to increase surgical volume, the strategy would have quickly depleted the HSPO's meagre budget.

hospitals and physicians or with community providers. Broadening the financial incentives to care delivered outside the hospital would have the effect of driving incentives for high quality, coordinated care between providers.

ONTARIO

Similar to the B.C. approach, Ontario's reform strategy is not a single policy, but rather a combination of two hospital funding approaches, each building on similar methods used previously in the province. The Health-Based Allocation Model (HBAM) is the latest iteration in a series of global budget allocation schemes used over the past two decades, while Quality-Based Procedures are an expanded version of earlier procedure-specific, price-times-volume funding approaches. Both new approaches are part of a broader Health System Funding Reform (HSFR) strategy with a multi-year rollout plan. HSFR's objectives include aligning hospital funding with the specific needs of populations served, rewarding care providers for better outcomes, reimbursing providers based on the evidence-based quality of their services, driving standardization of care across the province and improving value for money. Details of the two approaches are in Box 2.

Expectations and Outcomes

Ontario's hospital funding landscape is complex and challenges the observer to form a coherent picture of policy objectives and incentives. The new funding models have been implemented on top of a multitude of existing lines, including hospitals' base global budgets, and different funding methodologies associated with the province's Wait Time Strategy, Priority Services and the Post-Construction Operating Plan (volume-linked funding for capital expansions). The health ministry has communicated a long list of goals for the new HSFR policies, some of which – increasing volumes of services, decreasing healthcare spending and promoting more appropriate utilization – may be potentially conflicting in actual practice. It is not unreasonable to wonder whether any hospital funding-reform strategy can manage to achieve all the communicated goals simultaneously.

By itself, the HBAM creates incentives for hospitals to manage overall activity and improve their unit-cost efficiency. The model is driven by historical utilization. Thus, reallocations between hospitals will reward those that expand their market share. If effective at motivating change within hospitals, this policy may be successful at improving access by increasing activity, but leaves complementary goals unaddressed. Its retrospective nature also implicitly assumes that historical hospital utilization is appropriate, potentially creating disincentives for new models of care. Finally, the two-year lag time between hospital activity and corresponding funding limits the model's usefulness in responding to changes in service delivery, while its complexity does little to demystify hospital funding.

On the other side of the HSFR strategy, Ontario's Quality-Based Procedures are built on the principle of going deep into targeted areas of activity, with the objective of incentivizing improvements in quality through linking prices paid to the expected cost of best practice. This approach relies heavily on hospitals' cost data to determine both the appropriate amount of global funding to be carved out of hospital budgets and determining best practices. While Ontario hospitals have relatively high-quality costing data, there are no known international examples of such detailed use of hospital data and linkage with clinical information defining best practices. Thus, while conceptually ambitious, there is little evidence or experience to support either the feasibility of Ontario's proposed pricing approach or its potential effectiveness.

The implementation structure for Quality-Based Procedures may also perpetuate some of the same drawbacks of past procedure-specific funding initiatives. Certain procedures attain coveted

Box 2: Ontario Funding Reform

While not an ABF system, the Health-Based Allocation Model shares similar building blocks in its use of case-mix methodologies to divvy up a fixed pot across hospitals, based on their relative performance vis-à-vis other hospitals with respect to utilization and efficiency measures. Using regression models incorporating hospital characteristics, the Health-Based Allocation Model determines an expected value, based on the provincial average, for every hospital's unit cost and utilization measures for five areas: acute care, emergency care, inpatient rehabilitation, complex continuing care and inpatient mental health. Then, each hospital's share of the funding pie – which is actually comprised of several pies, one for each care sector – is determined based on how its performance compares to these expected values and is adjusted for expected demographic changes.

Quality-Based Procedures, the second group of funding initiatives, are somewhat more intuitive to understand. Each such procedure involves a price-times-volume approach to funding a specific procedure or patient cohort. For the first year, fiscal 2012/2013, four service areas were targeted: unilateral hip replacements, unilateral knee replacements, cataract extractions and dialysis. While similar to previous procedure-specific funding efforts, the Quality-Based Procedures expand the scope of funding beyond marginal volumes to consider a hospital's total procedures. This involves a two-step methodology whereby a hospital's estimated costs for their projected volumes in each procedure are first carved out of their global budget (so that they are not paid twice) and then re-paid, based on standard QBP prices.

In marked contrast to the international practice of determining ABF prices based on the expected cost of treating patients, Ontario plans to price Quality-Based Procedures according to the "cost of evidence-based best practice" for these services. Initially, for example, the prices for joint replacement and cataract surgery were established based on the 40th percentile of case costs for each procedure, extracted from Ontario's database of patient-level costing data. The health ministry has described this as a "stretch" price intended to encourage system efficiency as best practices are incorporated into future prices (Ontario 2012d).

While largely an extension of historical funding models, what differentiates the HSFR from past efforts (aside from grander messaging) is the additional degree of downside risk for hospitals. Ontario's previous funding initiatives were nearly exclusively applied to new incremental funding, maintaining a "no hospital loses money" principle. In contrast, the Health-Based Allocation Model was applied in 2012 to reallocate a portion of existing funding across hospital global budgets, while the Quality-Based Procedures "carve out" a significant portion of existing hospital funding, estimated at 6 percent of hospital spending for fiscal 2012/2013, expanding to 30 percent by 2014/2015 (Dhalla and Born 2012; Benzie 2012).

revenue-generating status while others are doomed to remain cost drivers within global budgets. Compared to the across-the-board ABF systems used in most of the developed world, Ontario's procedure-specific approach brings a greater risk of creating winners and losers in particular service areas and generating substitution effects due to differing funding mechanisms.

In addition, the limited set of revenue-generating Quality-Based Procedures may tie the hands of hospital administrators in creating an effective organization-wide response to the new funding

incentives. Instead, they are likely to reconfigure their service mix and specialize in services that are reimbursed through QBPs.

Lastly, the complicated methodology for carving out hospitals' estimated costs for each procedure might also create problems due to the distributed nature of hospital costs (i.e., carved-out funding will also include the costs of non-procedure-specific expenses such as equipment and overhead). As with the proposed pricing methodology, there is little in prior international experience to support the viability of the carve-out approach or to give a clear picture of the potential behavioural incentives created.

Moving Forward

Amid the variety of its funding policy objectives, Ontario also is attempting to limit expenditure growth in healthcare costs to an average of 2 percent annually over the next three years (Ontario 2012f). Given this aggressive target, Ontario has put forward an ambitious plan to reshape hospital funding with many moving pieces and an innovative emphasis on using ABF as a vehicle to drive improved quality of care through evidence-based practice. However, while potentially transformative inside selected slices of clinical activity, the majority of hospital activity remains within the province's traditional global budget paradigm, annually re-adjusted with the HBAM.

For many Ontario hospital administrators and decision-makers, the combination of initiatives paints a byzantine picture of revenues, costs and activity that make it challenging to discern the key financial signals and respond with the intended behavioural changes (Dhalla and Born 2012). Thus, it remains to be seen how effective the basket of reforms will be at promoting the communicated objectives.

The key question is whether Ontario eventually moves to consolidate its collection of disparate funding approaches into a single, comprehensive ABF system similar to those employed in other countries. The relative simplicity and increased clarity of incentives achievable through such consolidation may well be refreshing for hospital administrators and policymakers alike.[8]

What are Lessons and Options for Canadian Provinces?

Studies of Canadian hospital data persistently show an ineffective use of hospital resources. These findings, plus the inability of provincial governments to constrain hospital spending through global budgets, have created a strong case for policymakers to consider alternative funding arrangements. The status quo does not seem to be an adequate option and both British Columbia and Ontario are starting down a path that other provinces are sure to consider.

These emerging reforms are a long time coming and are still in a very tenative stage. British Columbia was very conservative when it started changing its hospital funding approach. Though the jury is still out regarding the efficacy of its initiatives, the gains to date appear modest at best. Relative to

8 It is worth noting that Ontario has a significant advantage over other provinces considering ABF reforms due to its comprehensive capture of data on services and costs across multiple settings. Beyond acute in-patient care, Ontario requires hospitals to submit standardized reporting on activity in in-patient rehabilitation, continuing care and in-patient mental health. Ontario also has an ABF-style funding system in place for partially funding long-term care homes (on the basis of resident case mix) and is collecting similar standardized assessment information in home care. This expansive information and reporting infrastructure allows Ontario to contemplate implementation of a broader, more system-wide ABF strategy than is possible in most other provinces. A multi-sector approach could instill push incentives to safely discharge patients from acute care and pull incentives in post-acute rehabilitation and continuing care settings.

British Columbia's reforms, Ontario's strategy is conceptually ambitious and logistically complex. But it remains to be seen how the province will fare in translating its unique vision into an operational reality.

The choice of methods for funding hospitals is a story of competing policy objectives. While ABF is associated with increases in hospital activity and shortening of wait lists, it cannot be expected to resolve all of a province's healthcare funding, access and quality issues. Rather, ABF can replace some of the known hospital challenges, such as lengthy wait lists, with other challenges, such as pressure for growth in spending and equity of access. At the minimum, provinces can use ABF to re-size hospitals' global budgets to appropriately reflect their patients' case mix. However, this approach can be politically controversial since it pits richly funded hospitals against poorly funded ones.

Our examination of alternative options for funding hospitals at home and abroad brings us back to our original two questions. If what provincial governments and Canadians value most is overall policy clarity and preservation of the status quo, then global budgets offer an excellent response. They are simple, hands-off and, best of all, they are already in place. Theoretically, global budgets should also be effective tools for managing down hospital expenditure increases, if provincial governments have the will to keep their purse strings tight.

However, if Canadians put considerable value on timely access to hospital care, Canada's dismal performance compared to other OECD countries suggests that this is both an area with huge room for improvement and where ABF would have a good chance of driving such positive change. Hospitals would be incentivized to increase their volumes of elective procedures and reduce lengths of stay and wait times in the process. In doing so, however, provincial governments should also be prepared for hospital expenditures to rise with increased throughput, in the absence of any strategies to achieve countervailing price decreases.

As many healthcare systems around the world are discovering, however, the access issue is a relatively easy one to solve in comparison with the 21st century challenge of improving chronic disease management and better coordinating the care of complex frail and multi-morbid patients. Assuming Canadians desire meaningful improvement in the quality and efficiency of care for these complex populations, neither ABF nor global funding will do the job if governments continue to pay organizations in silos.

Recent payment innovations in the United States and the Netherlands provide a showcase for effective new policies and methods. Oriented toward creating incentives for reducing ineffective care and addressing gaps between sectors of the healthcare system, bundled payments and integrated delivery systems are potentially legitimate approaches for aligning the interests of different providers, especially between hospitals and physicians. While the applicability of bundled payments is uncertain in the Canadian context, recent research has demonstrated their technical feasibility for a number of conditions in Ontario, as well as the technical and legal feasibility of implementing ACO-style arrangements.[9]

To be truly effective, such shared-savings models require vertical integration of primary-care and hospital-care providers, with shared accountability for a defined geographic area or population. In this respect, newly established B.C. and Alberta regional primary-care structures show some promise as a geographical unit for vertical integration. In Ontario, the much-publicized creation of 19 new

9 See Brown (2012) and Sutherland, Hellsten and Yu (2012).

Health Links – designed as networks of providers with accountability for a defined population of complex patients and intended to improve coordination of care – provides an opportunity to pilot integrated payment arrangements and shared savings models on a regional level. While some physicians may be concerned with a potential loss of autonomy through participating in new integrated funding models, US commentators have described bundled funding arrangements as providing physicians with a potential escape from the treadmill of frozen or decreasing fee-for-service prices, allowing them to financially benefit from quality and efficiency improvements.[10]

Optimistically, as models of care evolve in response to different ways of caring for complex conditions and patients, policymakers have the responsibility to develop parallel methods to align funding to support these developments. Provinces' current approaches to funding healthcare are based largely on antiquated methods, and none of the current options being considered include incentives for reducing silo-based care or how to manage complex chronic conditions across the continuum.

Nonetheless, as the impact of new hospital funding policies unfold in British Columbia and Ontario, this provides other provinces an excellent opportunity to observe the changes in action and develop a hospital funding system that works for them.

Recommendations and Conclusions

The Canadian status quo of near total reliance on global budgets for funding hospitals is not well aligned with the current policy imperatives of most provinces. Shifting a substantial portion of hospitals' funding toward an activity-based funding approach – funding that is based on the activities they perform and the intensity of care they provide – may introduce incentives that are more consistent with advancing provincial priorities.

However, the evidence and experience presented in this *Commentary* indicates clearly that ABF policies are not a silver bullet for all problems related to cost, access and quality. While evidence suggests that ABF policies can have a significant impact on access and hospital length of stay, they may not be as well suited to improve quality or coordination of care. There are trade-offs to implementing ABF; for one, ABF is more complex to administer than global budgets and often leads to increases in overall hospital spending. Nonetheless, appropriately designed ABF policies may provide useful tools to achieve specific policy objectives such as improving access to elective procedures or incentivizing more appropriate use of hospital capacity.

Given the provinces' broad range of healthcare policy objectives, there is scope for policymakers to alter the way they fund hospitals to reduce glaring examples of inefficient and ineffective care. Our recommendations and conclusions are directed at provincial policy objectives, recognizing that a number of them may not suit all provinces.

1. Policymakers should prioritize their objectives

Funding policies cannot be all things to all people. They inevitably require trade-offs among policy objectives. Based on an examination of the burning issues currently facing provinces and the areas where Canadian hospitals perform poorly vis-à-vis other OECD nations, provincial governments should consider prioritizing the following objectives in their hospital funding reform plans: improving access to elective hospital services, ensuring care is

10 See Chernew (2011) for more information about the siloing of payments in relation to integrated care.

provided in the most appropriate and cost-effective setting, and improving hospital efficiency and quality of care. Evidence suggests that ABF may be an effective tool for driving improvements in these first three areas, while the evidence for its impacts on quality is mixed. Funding policies, such as global budgets, that drive hospitals to ration resources and result in longer wait lists should be scaled back.

Provinces should note that, based on international experience, funding policies directed at reducing hospital wait lists have succeeded by incentivizing increases in elective admissions but, in so doing, have often produced corresponding increases in hospital and physician expenditures.

2. ABF complements global budgeting

Adhering to provinces' traditional global budget approach for hospital funding appears to create barriers to healthcare improvement. If access to hospital care remains a policy imperative, current global budgeting methods should be complemented by ABF policies to strengthen hospitals' incentives for improving access to elective care, improving efficiency and incentivizing the provision of care in the most appropriate, cost-effective setting.

At the same time, some portion of global budgets should remain in order to provide some element of stable fixed funding and to counterbalance ABF incentives for increasing admissions.

ABF policies should fine tune volume incentives by establishing thresholds for overall hospital activity and by using marginal pricing (i.e., less than the full cost per case) for activity delivered in excess of this threshold.

Small and remote hospitals may not be suitable for ABF-type policies which depend on higher volumes of patients to achieve economies of scale or robust community-based care (to accept discharged patients sooner).

3. ABF enhances transparency

Many healthcare systems report that ABF brought about a welcomed new transparency in hospital funding. These reported outcomes have reduced hospital complaints of inequities or underfunding. Governments benefit from the increased clarity around knowing what services they are paying for. Provinces may be able to reduce hospital lobbying and special pleading by introducing rules-based ABF systems that tie the prospect of new funding to hospital performance.

4. Hospital funding should create incentives for high-quality care

Any new funding policies should ensure that high-quality care is rewarded, while creating incentives for reducing or eliminating the causes of unsafe or inappropriate care. Under current payment mechanisms, poor-quality care is remunerated at the same rate as high-quality care. While the evidence on ABF's impact on quality of care is mixed, recent quality-oriented modifications introduced by some countries to their ABF systems, such as excluding payments for preventable adverse events and incorporating pay-for-performance elements, show promise.

5. ABF for acute care should be complemented with funding policies that drive system-wide integration

Every province is struggling with the challenge of better integrating its fragmented healthcare delivery systems, including providing better acute and post-acute care. In order to align incentives and promote the delivery of care in the most appropriate places, provinces should introduce ABF mechanisms to capture as broad a range of activities as possible, especially acute care, rehabilitation, continuing care and community-based services. Funding policies should be designed to safely push patients from hospitals and pull them into rehabilitation and community-based care. Adequately resourcing post-acute care is critical to ensuring that hospital patients are supported in the community to allow

earlier hospital discharge. Funding for newly vacated ALC beds should be directed to expanding post-acute care.

Canadian policymakers should take note that several countries that led in the development and implementation of ABF are now recognizing the limitations of sector-focused funding policies. As a result, they are reshaping ABF systems to incentivize improved care coordination and better management of complex patients. Provinces should take advantage of their late ABF adopter status to pursue new funding mechanisms such as bundled payments and shared savings arrangements that align the incentives of hospitals, physicians and community providers around episodes of care and managing high-cost patient populations.

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