

Will Paying the Piper Change the Tune?

Payer le bal permettra-t-il de mener la danse?

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Abstract

Most provincial governments are considering or introducing changes to hospital funding. Ten years of rapidly increasing expenditures have left them still facing complaints of waiting lists and waiting times. Activity-based funding (ABF) would supplement traditional negotiated global budgets, reimbursing a predetermined amount for each case treated – essentially, a “fee schedule” – thus providing incentives and resources to increase throughput of certain “hot button” procedures and services and to improve efficiency.

Maybe. ABF-type systems in other countries date back over 20 years; the results are very mixed. What is clear is that information and reporting requirements are substantial. A host of perverse incentives lurk in ABF. Most Canadian hospitals and provincial governments do not now have the necessary data systems, so are wise to proceed cautiously.

Résumé

La plupart des gouvernements provinciaux entrevoient la possibilité d'apporter des changements au financement des hôpitaux, ou sont déjà en train de le faire. Après dix ans d'accroissement rapide des dépenses, ils font encore face à des plaintes concernant les listes d'attente et les temps d'attente. Le financement à l'activité permettrait de compléter les budgets globaux traditionnellement négociés, et ce, en remboursant un montant prédéterminé pour chaque cas traité – essentiellement, une « grille tarifaire » – offrant ainsi des incitatifs et des ressources pour accroître la vitesse de traitement de certains services ou procédures, dans le but d'améliorer l'efficacité.

C'est possible. Dans d'autres pays, les systèmes de financement à l'activité datent de plus de 20 ans; et les résultats sont très variés. Il est clair que les exigences en matière d'information et de rédaction de rapports y sont considérables. Il existe un lot d'incitatifs pernicieux associés au financement à l'activité. La plupart des hôpitaux canadiens et des gouvernements provinciaux n'ont pas encore les systèmes de données nécessaires, ils doivent donc procéder avec précaution.

Beware of Incentives. Economists and other rationalists restlessly tinker with people's incentives. This is a dangerous game. ... Give doctors incentives to be more efficient and they suddenly seek out healthy patients and spurn sick ones. ... A great many uninvited incentives lurk in each policy change. (Morone 1986)

THERE IS A NEW FLAVOUR BEING SOLD IN HEALTH POLICY SHOPS ACROSS THE country. Global budgeting for hospitals is (on its way) out, activity-based funding (ABF) is (rushing) in. Each province is adding its own subtle ingredients to ensure that its version is unique. This trend affords wonderful opportunities for comparative evaluation research. But we may not need to wait to get a sense of what is afoot; and the likely consequences, based on an examination of the objectives, the mechanisms of action, experiences elsewhere and some of the implementation challenges.

What's It All About?

The way most Canadian hospitals are funded has not changed in decades (Barer 1995). There is a reason; global budgets offer predictability and controllability. When the global amounts are based largely on past experience, however, opportunities to improve efficiency and quality may be lost. Hospitals may have little incentive to innovate (McKillop et al. 2001). Complaints about inflexibility in staffing, rigidity in management, perpetuated inter-hospital inequities, choke-points in wards ("bed blockers") and emergency rooms and the like have become commonplace.

Is ABF the answer? At time of writing, forms of ABF have been adopted or announced in British Columbia, Alberta and Ontario, and most other provinces are using or talking about variants (often with other labels). Ten years ago, this phenomenon was barely on the radar.

The idea is simple – by paying hospitals to do what the funder wants done, rather than simply giving them a fixed budget and letting them decide how to spend it, one can steer them to, say, reduce wait times for particular procedures. The challenge is to identify the sweet spot where the incentives for hospitals to meet target utilization levels are neither too hot (funders over-paying) nor too cold (hospitals not responding).

Roughly, hospitals' costs can be divided into those that are fixed, incurred in order to keep the hospital open, and those that vary with the volume of (particular types of) patients. Reimbursement that covers (slightly more than) the variable costs permits and encourages the hospital to expand its patient load, subject to the overall capacity of the organization. Because variable costs will differ with the types of procedures or services provided, and with the nature (complexity and severity) of the patient's condition, considerable attention must be given to getting the implicit price structure "right." The hotter the incentives, the fewer savings there are for the funder. Indeed, a key way for funders to gauge whether they have the prices right is to observe hospitals' responses to those prices.

If hospitals have the necessary information systems in place, one might expect them to shift their case- and severity mix towards cases with higher margins of payment over variable cost. Hospitals would also be rewarded for changing their input mix in order to reduce costs for any given mix of cases. Thus, we might expect shorter lengths of stay and higher numbers of patients treated per bed-year. From the funder's perspective, advantages include the ability to target funds to areas identified as priorities.

The recent provincial enthusiasm for ABF appears to be a response to political pressures over the past decade, generated by frequent high-profile claims of long wait lists and wait times, particularly for certain hospital-based surgical procedures. To the frustration of provincial governments, these claims have persisted despite large recent increases in hospital funding. Hospital spending forecasts for 2010 are \$55.3 billion, double the \$26.8 billion in 1999. Per capita, adjusted for inflation, this represents a "real" increase of 36.4% in 11 years. In 2004, the federal government contributed \$5.5 billion through the Wait Time Reduction Fund. Yet long wait lists persist, even for the very procedures targeted by that fund. Where did the money go?

The answer, under global budgeting, is "wherever hospitals have chosen to put it." One might at least speculate that since continuous publicity over waiting lists and shortages has placed public pressure on provincial governments to keep the money flowing, their elimination might not be the highest priority for hospital managers and physicians. Certainly, that is where the economic incentive trail leads.

What Can Others' Experiences Tell Us?

Canadian policy makers are not at the leading edge of the ABF movement; they are not starting from a blank sheet of paper. At least three decades of work in other countries, dating back to the development of diagnosis-related-groups (DRGs) in the United States (Fetter et al. 1980), have gone into developing and refining methods of estimating measures of case-specific costs. The American Medicare program (for those 65 and over) introduced the Prospective

Payment System (PPS) in October 1983. Hospitals would henceforth be reimbursed a pre-determined amount for each in-patient case treated, regardless of actual costs. The amount would be determined by the average cost of the DRG to which the case was assigned – in essence, a form of “fee schedule.” ABF variants have since been adopted by the majority of industrialized and newly industrialized countries across the globe. So there are more than two decades of international experience. Has ABF worked?

Well, yes and no. The American PPS system certainly modified hospital behaviour – acute care occupancies and lengths of stay fell sharply. But expenditure (trends) did not. Total DRG-based payments were never “capped” and hospital activities and costs were shifted to other public reimbursement programs outside the PPS constraints, such as nominally “free-standing” diagnostic facilities, long-term care and rehabilitation. An army of consultants sprang up using computer-based models to show hospitals how to “game” the system and maximize reimbursement. If “working” means moderating the escalation of hospital costs, the first major ABF program was a spectacular failure.

By contrast, the Canadian experience with the blunt instrument of budgetary squeeze, applied in the mid-1990s, did work. Hospital costs fell along with in-patient utilization, as efficiencies that had been known for decades were finally forced into use. The political costs were high as everyone in the hospital sector declared that the sky was falling. Cost reductions are, by definition, income (actually, job) reductions as well. But if the objective was cost containment, squeezing global budgets worked.

Beyond North America, ABF-style applications have become commonplace (see, for example, Ettelt et al. 2006; Moreno-Serra and Wagstaff 2009). At certain times and in certain countries and circumstances, they appear to meet at least some of their announced objectives. Appropriately structured ABF has been shown to encourage both a shift of some in-patient procedures to outpatient care, and reduced in-patient lengths of stay. But the evidence is far from unequivocal. Some ABF-funded hospitals have shown declining productivity (Mikkola et al. 2001), increased costs and “up-coding” (re-coding patient complexity/severity to more highly reimbursed DRGs). There appears to be no general conclusion about the effects of ABF (Sutherland 2011), with one exception. Hospitals will figure out the highest margins of reimbursement over cost, and migrate activity there.

Implementation Challenges

There are a number of well-known risks associated with reimbursing institutions based on volumes of specific types of cases treated. First, no matter how precisely the patient groups are defined, there will always be some mix of overpayment for straightforward cases and underpayment for “right-tail” (extraordinarily high-cost) patients. It may be necessary to “trim” the highest- and lowest-cost patients in each group and reimburse them at cost. Second, hospitals may unbundle episodes of care (creating separate acute and rehabilitation episodes), or admit patients for services that can be, and have previously been, offered on an outpatient basis. Third, “case complexity creep,” or up-coding, is a common feature of ABF reimbursement

methods everywhere. Fourth, hospitals can be expected to “cherry-pick” if offered reimbursement in excess of variable costs for dealing with some types of services or procedures but not others, particularly where capacity (e.g., operating rooms) is constrained and shared across multiple procedures. Higher-margin patients will get treated at the expense of lower-margin patients – one wait list is shortened at the expense of growth in others. Fifth, one (reimbursement) size will almost certainly not fit all. Regional variations in input prices will be reflected in regional variations in variable costs, irrespective of the relative efficiency of different institutions. Sixth, absent a global budget for ABF itself, funders take on significant additional financial risk. These negative “side effects” are not just hypothetical; all are logical responses to the incentives embodied in ABF and have emerged in other jurisdictions (Sutherland 2011).

It is also unrealistic to expect that one can move to an ABF system overnight. All jurisdictions adopting such systems have started small and moved forward incrementally. Phase-in periods have tended to run about four to six years. Furthermore, while a funding model involving global budgets for fixed costs and ABF for variable costs is intuitively appealing, there is no gold standard with respect to how far along the blended funding spectrum a jurisdiction should go. One finds quite a range – from about 40% ABF in Norway and parts of Denmark, to 70% in parts of Sweden.

Are Canada’s Hospital Information Systems Up to the Task?

The principal informational challenge with ABF is defining the fee schedule – setting prices for the care of different types of patients. There is an entire cottage research industry dedicated to defining and refining case-mix groups. The more narrowly defined the groups, in terms of diagnoses and other patient characteristics such as age or co-morbidities, the more homogeneous are the patients within them. As the groups become more broadly defined, the “prices” for each are averaged across a more diverse range of case types and the dispersion of actual costs around the reimbursement rate increases. Hospitals will then tend to select those patients within groups likely to provide the largest margins of reimbursement over costs.

The Canadian Institute for Health Information (CIHI) has led the local methodologic effort to develop case mix groupings (CMG+) and estimate “prices” that represent the cost of the “average” patient within each group. But whereas most systems have settled on anywhere from 500 to 1,400 patient groupings, CIHI’s 565 CMG+ groups include additional sub-strata for high-cost procedures, return trips to the operating room, and age groups plus prevalent co-morbidities, leading to thousands of possible combinations. In principle, the case “price” for each group can still be calculated by averaging case costs across all hospitals in the system, but the number of such cases in any one hospital may be very small (or zero). The limit, when each group contains only one (unique) patient, is an elaborate system of cost-based reimbursement!

Any ABF system based on CMG+, irrespective of the number of categories, comes with extensive, complex and detailed information collection and analysis requirements. Having historically been funded by global budgets, Canadian hospitals have not developed systems to estimate the variable costs in each CMG based on a detailed department-by-department analysis

of patient-level cost data, including detailed activity logs of nursing and other staff hours stratified by permanent or contract staff, detailed examination of clinical data derived from the discharge abstract, detailed consumable/materials tracking systems and information gleaned from labour contracts. Thus, many hospitals are not (yet) up to the task of reporting reliable data for estimating locally relevant fixed and variable costs by CMG+ category. Implementing the necessary costing systems will be complex and costly. Hospitals in Ontario and Alberta are partial exceptions, but even there, additional work is required to untangle the costs of salaried physicians and of teaching and research activities within hospitals. Even where the necessary information is (mostly) available, the expertise necessary to convert the data to an ABF payment system is also, at present, scarce in most hospitals, health authorities and ministries of health across the country. The lack of a standardized costing methodology, and of experience in its use, represents very real challenges to any near-term implementation of a finely tuned ABF system. The cautious pace at which funds are currently being distributed through ABF mechanisms in Canada likely reflects the fact that the necessary management tools are simply underdeveloped.

Other Considerations

Among the publicly voiced objectives of ABF variants in some provinces has been “quality improvement” in the sense of encouraging the movement of patients to the most appropriate levels of care – i.e., out of acute care (Vertesi 2011). Global budgets provide no incentive for hospitals to discharge at the earliest possible moment (because bed blockers – those waiting for appropriate discharge – will tend to be lower-cost patients). However, absent significant progress on the development of capacity in alternative institutions and home support programs, which is not currently happening (Chappell and Hollander 2011), where are the bed blockers to go?

It also seems somewhat ironic that, as provinces have moved increasingly away from ABF payment mechanisms for physicians, they are moving towards them from hospitals. There may be important lessons in the most recent agreement negotiated between government and doctors in British Columbia. That agreement contained significant new funding intended to encourage physicians to provide more evidence-informed care.¹ Physicians and hospitals will now both receive funds through two separate tranches – the main negotiated amount (fee schedule, global budget), which remains largely unscrutinized as to appropriateness, and supplementary amounts to promote modes of delivery or types of services that are priorities for funders.

For physicians, this dual-payment arrangement has been associated with both rapidly increasing physician service costs and labour relations peace. Should one not expect the same from the hospital sector in an environment with sufficiently rich ABF “prices”? Yet, senior policy makers and individuals involved in the ABF initiative in British Columbia have identified reducing the rate of cost escalation as a priority for government.

Why Here? Why Now?

If reduced cost escalation is a key objective, is turning the reimbursement system for acute care hospitals inside-out the best place to focus so much attention? Well, yes and no.

Yes, on the Willie Sutton principle. Hospitals account for nearly 30% of total health spending and 40% of provincial government health spending. Their costs have nearly doubled since 2000. Prescription drugs, which were for decades the most rapidly growing sector of health spending, have recently seen their growth cut sharply, and anyway such costs made up less than 10% of provincial government health outlays in 2010. Hospital costs have five times the budgetary impact.

But no, on both “cost driver” and “fastest growth” principles. In the last five years, physician costs have risen by 47%, increasing their share of the healthcare pie to 13.7% (and 20.4% of provincial government outlays). With the rapid projected increase in new graduates who will be entering the medical workforce over the coming decades, hospital cost escalation may soon become a secondary problem for provincial governments.

And consideration of physician costs brings out a curious feature of the whole ABF discussion. ABF seems an attempt to stage Hamlet without the Prince of Denmark. The physician is nowhere – it is all about hospitals. ABF implicitly treats hospital utilization as if it were driven by some wholly impersonal external force – “need,” perhaps. ABF, it is hoped, will improve the efficiency with which hospitals respond to these exogenously determined “needs.” This is fantasy.

In fact, the physician is everywhere, defining patients’ problems, admitting them to hospital and providing or directing their care.² If the criteria that physicians use in referring patients for ABF-reimbursed procedures expand in parallel with new capacity, the system ends up chasing its own tail. No amount of fiddling with reimbursement for hospitals will change that. For the physicians providing the ABF services, doing more means getting more resources. Overall, if you build it – or speed up throughput – they will come.

Unless the doctor is brought into the centre of the picture, ABF initiatives will risk lowering the cost of providing increased numbers of inappropriate procedures. Just how inappropriate services and procedures will be filtered out, or discouraged, has been left, for the most part, to our imagination.

In Closing

A carefully designed system of ABF for Canadian hospitals might address a number of the well-understood weaknesses of global budgeting. But it will bring its own. All systems of funding have their own perverse incentives, and the evidence is unequivocal: Morone (1986) was right. Get the incentives right, or pay the price. If you are not sure what you are doing, healthcare financing can be an expensive place to find out.

ABF reimbursement brings with it much more complex information and analytic needs than does global budgeting. To us, many provinces in Canada seem not yet ABF-ready. While the best should not be the enemy of the good, and Canadian policy makers are surely not entering into this arena with eyes wide shut, ABF for hospitals in Canada does look, at this point, rather like “Fire, aim, ready.”

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NOTES

1. One could be excused for wondering why physicians require extra payment to provide the sort of care that their professional training should have prepared them to provide, and that their ethical code of conduct should require.
2. It used to be said that hospitals do not have patients, they have doctors. Doctors have patients. The balance of authority may have shifted over time, but it is still a balance.

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