Better Management, Not More Cash, Prescribed for Canadian Health Care System?

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After the release of last year's federal budget, the news headlines and 15-second TV clips extolled, decried or remained relatively neutral about its directions. All seemed to agree, though, that Finance Minister Paul Martin and, perhaps most importantly, Canadian citizens had reached an important milestone: balanced revenues and expenditures. Although the public-sector debt remains quite high, many groups are pushing hard for increased emphasis in their areas of interest, such as debt reduction, tax decreases and policies in areas such as health care.

Since the early 1990s, health-care systems across Canada have been under stress from:

- The fiscal constraints that have hampered all governments.
- The lack of evidence about links between health-care expenditures and health outcomes.
- Increasing ethical dilemmas resulting from decisions on allocating scarce health care resources.
- Insufficient structural incentives in the system to realize allocative and technical efficiencies.

In the past few years, in response to these pressures, governments have managed to bring the public-sector part of health-care spending under control. This has been achieved primarily by the exercise of monopsony power over the hospital and medical services components (the employer has monopoly buying power). While this is one of the advantages of the single payer system of financing health care, it still only addresses aggregate control of expenditures.

Now the federal deficit is under control and we are realizing surpluses (but, given the current economic environment, how long will this surplus actually remain a surplus?), what do we do with this fiscal dividend? From the health-care perspective I strongly recommend the feds should not increase cash transfers to the provinces now. Here are my reasons.

First, for the first time in quite a while, the public component of health-care expenditures is under control, primarily as a result of the external environment, which forced governments to reduce dramatically the rate of growth in health-care expenditures: growth in health-care costs dropped from an average annual rate of 10-12 per cent in the 1980s and early 1990s to about 1 per cent in the past few years. There is a need to maintain this cap at least for a while longer.

Next, while cash transfers to the provinces have been falling, which conveniently allows the provinces to blame the feds for the current state of health care, this is not a recent phenomenon. Indeed, the cash transfers side of things has been decreasing since the beginning of the 1980s (soon after Established Programmes Financing was struck), while at the same time tax point transfers were increasing — the latter allowed provinces to raise more revenues without increasing the overall tax burden on Canadians. The combined cash-tax transfers have remained relatively flat throughout the 1990s.

In April 1996, the feds replaced the CAP and EPF transfers with the Canada Health & Social Transfer (CHST).

This is a single block fund by which federal funds (cash and tax points) for health, higher education and social programmes combined are transferred to the provinces. The 1995 budget set the level of CHST transfers for 1996-97 and 1997-98. The 1996 budget put in place a stable five-year

funding arrangement for 1998-99 to 2002-03 (Health Canada, 1998).

In April 1997, the feds increased the CHST cash floor from $11 billion to $12.5 billion. Further, in December 1997, they announced the cash floor of $12.5 billion would take effect in 1997-98, a year earlier than originally scheduled, increasing the 1997-98 entitlement by $143 million. For 2000-01, entitlements will grow at 2 per cent less than growth of gross domestic product. The rate of entitlement growth will then accelerate in 2001-02, when growth will be at the GDP growth rate minus 1.5 per cent and in 2002-03, when it will be at 1 per cent less than the growth rate of GDP. Many believe the provinces, through combined cash and tax point transfers, have adequate funding for health care (Health Canada, 1998). In Ontario, even the minister of health declared in writing (Witmer, 1998) "government recognizes that health care is important to all Ontarians and we have responded by investing a *record $18.5 billion* in health care this year" (emphasis added). An important point to understand (Jérome-Forget, 1998) is that while the federal government showed the CHST to be more than $25 billion in 1997-98, cash transfers accounted for $12.5 billion and the imputed value of the tax points was about $12.8 billion. The transfer of tax points to the provinces originated with the 1977 EPF agreement. Furthermore, the federal government projected the value of these tax points would increase to $16 billion by 2002-03 (Health Canada, 1998). Still, the only mechanism that the federal government has to exert leverage in the administration of the Canada Health Act of 1984 is the cash transfers portion of the CHST.

Third, as was pointed out in our analysis of the Canadian health-care sector a few years ago, the system had (and still does have) significant scope for both technical and allocative efficiencies (Angus et al., 1995). Consider for example, the following points (Angus and Turbayne, 1995).

Medical technologies (including pharmaceuticals) have changed how health care can (and will be) delivered:

- In the next few years up to 90 per cent of diagnostic procedures and up to 70 per cent of therapeutic services will be provided outside the hospital.
- Custodial care of the past decades is already less of a necessity.
- More meaningful outcome measures (to replace meaningless ones such as inpatient census or bed utilization) are being developed.
- Smaller and more remote facilities will tend toward outpatient care and limited inpatient holding capacity.
- Larger urban facilities will maintain sophisticated high-tech services.
- Chronic care will be provided in day treatment facilities, and in accessible ambulatory and home care settings.
- Self-care and use of pharmaceuticals will see strong growth.

Aging of the population (which, to date, has had minimal impact on health care) will have major implications in the future, especially if the existing way of delivering services remains the same:

- Health problems that increase with age relate more to achieving tasks of daily living than the need for acute care services.

In the search for cost-effectiveness in health care it has been suggested (Angus et al., 1995) that significant savings are feasible, with no reduction in population health status, by doing the following:

- Shifting to less costly (and equally/more appropriate) modes of delivery, i.e., move patients with less severe health problems from acute to continuing care.
- Making more appropriate use of medical and surgical procedures.
- Substituting outpatient for inpatient care.
- Adopting best practices from other sectors and jurisdictions

The sector is highly fragmented

- There is a need to develop an integrated approach to the delivery of health services.

Fourth, the general problem of shrinking revenues forced policy makers to slam on the brakes. Now that the effect of the fiscal realities is being felt, we need to seriously look inside the system for resources to reallocate to more effective and efficient options, perhaps even to consider further reductions in health-care expenditures, and to introduce structural changes, especially for incentives, to the system. To do this, we need much better information on how interventions, treatments and services affect health outcomes and, very im-

portant, how much it costs to realize these outcomes.

Fifth, in one large sense, Canada is fortunate to have its single payer system that allows effective aggregate control over global budgets in health care. But, as many provinces now realize, this is not enough: we are still not addressing the allocative efficiency issues.

For all the above reasons, pouring more money into the existing health-care system now would seriously undermine the necessary groundwork already achieved.

We would soon forget the lessons of the 1990s, and how much they actually hurt. As was observed in the *Globe & Mail* soon after the release of the 1998 budget (Simpson, 1998), "provinces are painfully restructuring their health systems, and need to keep at it for several years. Only when the restructuring is complete, and only then, should Ottawa enrich the CHST."

What is needed then? How do we begin to realize those allocative and technical efficiencies at the micro level? The U.S.-style health maintenance organization (HMO) concept/model and changes to the financial incentive structures are good starting points. First, let us look at the HMO, which is a special case of managed care, and which often is referred to "integrated delivery system," "GP Fund Holding" and, more recently, as "co-ordinated health care".

The HMO concept, which was developed in California, now exists throughout the United States and covers about 160 million Americans (The Economist, 1998). HMOs have been making a notable difference there and in Britain as well. For example, the fundamental characteristics and structures developed by some of the better American HMOs (e.g., Kaiser Permanente) had been adapted for use in Britain's GP Fundholding system, where a version of managed care has been practised perhaps even more cost-effectively than in the U.S. While the change in government in Britain has resulted in a modification of this concept, preliminary evaluations appear to suggest some version of this model may be worth examining seriously for Canada. Policy makers in Britain, a country which has long had a capitated system for general practitioners (GPs), have shown by developing the GP Fundholding model they were receptive to a HMO approach.

Mistakes will be made under any system of medical care. Do they happen more often under HMOs than under other systems? With the heavy emphasis on savings possible in managed care, the expectation might be that treatment or outcomes would suffer. While there appears to be a large measure of anecdotal evidence suggesting this is the situation, the available information points out that, overall, HMOs not only realize efficiencies, they do so while maintaining (and sometimes improving) the health status of the population and existing health care standards.

For example, it has been shown: HMOs reduce hospital stays by up to 30 per cent; between 1992 and 1996, as enrolment in them increased significantly, inflation in health-care premiums fell from almost 11 per cent to less than 1 per cent, and in 1996 they generated savings of $24 billion to $37 billion; women in HMOs were only two-thirds as likely to be subjected to a Caesarean section, a procedure that is not only more expensive than a normal delivery, but also involves a longer period of recuperation, can cause infection and complications, and is agreed to be unnecessary in at least 50 per cent of cases; and HMOs have greater emphasis on primary care than other forms of health-services delivery (Miller and Luft, 1994; National Committee for Quality Assurance, 1997 & 1998; The Economist, 1998).

Not to oversell the HMO, pessimists argue managed care has already achieved the easiest cost savings, and finding new ways to realize further savings will be more difficult. This is a valid point. There is no doubt medical-specific inflation falls considerably when large numbers of people first enrol in HMOs in a given region. But after a few years it begins to accelerate again, primarily because medical research is constantly developing new and (often) incredibly costly ways of prolonging the lives of very ill patients. As a result, especially given the financial incentives in place, medical care costs likely will continue to outstrip general inflation.

This brings me to the other major area for consideration in trying to realize further allocative efficiencies in health care: incentives of alternative funding mechanisms. The different payment mechanisms outlined in Table 1 (and discussed in greater detail in Jacobs, 1997) create different incentives for providers such as physicians, hospitals, nursing homes, and home care professionals. For example, when considering primary care physicians and when capitation is

Table 1 Supply behaviour indicators and alternative reimbursement systems for major health care sectors

Type of Service	Indicator	Reimbursement Systems
Physician services-primary care	Number of procedures	Fee for service Capitation Salary Mixed salary plus volume adjustment
Physician services-specialty	Number of procedures	Fee for service Salary
Impatient care	Case miz Cost per weighted day Admissions Length of stay	Global budget Case mix adjusted global budget
Outpatient care	Number of cases Cost per weighted case	Global budget Case mix adjusted fee per case
Emergency care	Number of emergency visits	Global budget Flat fee per visit
Outpatient clinics	Number of visits	Global budget Flat fee per visit
Outpatient pharmaceuticals	Number of prescriptions	Price per prescription Price per reference drug
Nursing home care	Number of weighted cases Case weighted days	Flat fee per day Case mix adjusted per day
Home care professional	Number of cases Number of visits Number of hours	Fee per visit Fee per hour
Home care-other	Number of cases Number of visits Number of hours	Fee per visit Fee per hour

Source: Adapted from Jacobs, Philip (1997), "Chapter 14: Congruence of Incentives", in Hollander, M.J. R., Deber & P. Jacobs (Eds.), A Critical Review and Analysis of Health Care Related Models Resource Allocation and Reimbursement in An Ontario Context, (mimeo), CPRN, Ottawa.

compared to fee-for-service and salary, under capitation additional patients will yield a positive marginal revenue to the HMO (or some other form of managed care) as long as their expected unit cost of service does not exceed the capitation rate. Those providers who are on a straight salary arrangement (with no volume-related incentives) have no motivation to increase the volume of service provided. So, while capitation will result in more services than under salary conditions, it will lead to less services than under fee-for-service. The significant aspect of capitation is there is no income incentive to provide more services per person. (For a more in-depth discussion of the effects of fee-for-service, salary, and capitation, see Hollander, Deber and Jacobs, 1997, especially chapters 5 and 15.) Depending on the objectives of ministries of health, some of these incentives may or may not be desirable.

While these intra-sectorial behaviours are informative, it is the system-wide or spillover impacts of the various payment mechanisms (as they mesh with one another) with which policy makers should be concerned. For example, let us examine how incentives in the inpatient sector might be consistent with, or inconsistent with, those in other sectors. These interactions, which are presented in Table 2, depend on two general principles. First, if the price to be paid for a given service is less than the cost of delivering the service, then regardless of the payment system, there will be little incentive to provide the service; of course, if price is greater than the cost, there will be significant incentive to increase the volume of services provided.

Second, each reimbursement mechanism will have its own specific effects on provider behaviour and, perhaps most important, aspects of the latter (i.e., provider behaviour) will produce spillover effects to other providers. Indeed, "the congruency of incentives between sectors [i.e., the degree to which financial incentives are consistent with one another] will therefore depend on whether the incentive effects in the different sectors are congruent with one another" (Jacobs, 1997: 266).

The current case mix global budget system in Ontario hospitals provides strong incentives to increase admissions of more severe case mixes of patients while, at the same time, lowering the length of time patients spend in hospitals. This is exactly the situation in the province's hospitals at the present time. When you add to this situation the fact that fee-for-service funding of physicians influences the expansion of services, this translates into increased hospitalizations. Hence, the two major provider groups in health care have significantly congruent (but not necessarily desirable) incentive mechanisms. With these kinds of pressures, it is not too surprising that hospitals are

dealing with a greater flow-through of sicker patients, and that efforts to restructure the delivery of health care services are, to say the least, difficult. Other spillover effects are presented in Table 2 (and examined in greater depth in Jacobs, 1997).

The purpose of the preceding discussion related to HMOs and incentive mechanisms is to suggest that, if the whole episode of patient care is done in the least-cost setting, there are significant efficiencies to be realized. While it also should be obvious that incentive congruence can either impede or facilitate these processes, efficiency and congruence of incentives are not the same concepts. In fact, congruence of incentive mechanisms can actually lead to inefficiencies.

For example, "if hospitalization is not desirable, but a set of incentives exists such that patients are discouraged from being discharged from hospital, and are discouraged from being admitted to home care, then the wrong set of incentives will be in place" (Jacobs, 1997: 268). Hence, it is critical for health policy analysts and decision makers to take a system-wide approach when examining ways to improve both the quality of care and economic efficiency possibilities in health care.

In Canada, Medicare is really starting to show its age. Indeed, most Canadians hold dearly to this system — I suggest, though, that the principles of the Canada Health Act are more important than what is covered under the act (Angus, 1997). It is not these principles that require work but, rather, the structure, processes and desired outcomes of the system that need to be rethought. While we have control of health-care expenditures, a great opportunity exists whereby we can explore how concepts such as managed care, integrated delivery, and so on, can be implemented within a publicly insured system. It appears all the sectors in health care are experiencing difficulties associated with the lack of integration and inappropriate incentive mechanisms. There are lessons to be learned and adopted from the U.S. and Western Europe. What we really need is for the various sectors to talk to each other — which means setting up the incentive structures for this to occur — and to begin to manage the existing resources in health care much more effectively and efficiently than we have shown to date. Again, for the time being, throwing additional money at the problem will not help, but hinder the process already under way.

Table 2 Spillover effects of alternative combinations of incentives

Type Of Service And Type Of Funding	In Combination With: Case Mix Weighted Funding For Inpatient Hospital Care
Primary care physician - fee for service	Tendency for expansion of weighted hospital cases. Both physicians and hospitals are encouraged to treat more patients under these funding systems.
Outpatient surgery - global budget	Tendency to treat surgical cases on an inpatient rather than an outpatient basis. There is no incentive to expand outpatient surgery service, while inpatient incentive system rewards more cases.
Outpatient surgery - weighted cases	Substitution between inpatient and outpatient will depend on the relative weightings assigned to cases in each of the two types of services. Both funding systems encourage an increase in case volume.
Nursing home care - weighted per diem	Transfer of patients from hospital to nursing home in encouraged. The nursing homes have incentives to treat higher weighted cases, but there is no clear incentive to admit new patients (relative to continuing to treat existing ones).
Home care - flat rate per visit	Early discharge of hospital patient is encouraged, but the home care agency does not have the incentive to admit new patients (as opposed to continuing to treat existing ones)

Source: Jacobs, Philip (1997), "Chapter 14: Congruence of Incentives", in Hollander, M.J. R., Deber & P. Jacobs (Eds.), A Critical Review and Analysis of Health Care Related Models Resource Allocation and Reimbursement in An Ontario Context, (mimeo), CPRN, Ottawa.

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