Integrated Delivery Systems
Now or ....? ?*

COMMENTARY

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Leatt, Pink and Guerriere provide a comprehensive paper that describes the nature of integrated healthcare, the rationale for it, the Canadian state of the art with respect to integrated healthcare, lessons learned and where we go from here. The reader might conclude from this paper that an integrated delivery system (IDS) is the natural next step that we have to undertake in developing the future of the Canadian healthcare system. The authors of this commentary challenge the supposition that an IDS is the next phase of our health system evolution. Furthermore, we raise some questions regarding the value that IDSs in Canada would provide beyond what could already be attained under regional health authorities (RHAs). We will argue that the next decade needs to be a period of information integration, and of primary health care reform, where organizational structure and corporate decision-making are reformed to reflect partnerships between healthcare providers and managers.

The Integrated Delivery System: Does It Fit the Canadian Reality?
Throughout the 1990s the provinces and territories, with the exception of Ontario and Yukon, developed forms of regionalization. As Leatt, Pink and Guerriere describe in Figure 1 (page 19) of their paper, there are some basic differences between an RHA and an IDS.

* The opinions expressed in this paper are those of the authors and not of Health Canada.
Prior to making a commitment to the notion of an IDS in its fullest, it is important to examine the fit between the basic underpinnings that drive the establishment of an IDS. Leatt et al. compare IDSs to RHAs in eight areas:

1. Membership
2. Consumer choice
3. Funding link to consumer
4. System competition
5. System management
6. System funding
7. Financial incentives
8. Primary care focus

For an IDS, areas 1 and 2 listed above are inextricably linked – membership in IDSs is defined by consumer choice. The evolution of healthcare delivery and membership in IDSs resulted from the heightened role of consumer choice in healthcare delivery. In the United States, IDSs emerged to meet the changing demands of the private payers of the healthcare system – employers, trade unions and individuals. Shortell, Gillies and Anderson (1994:48) cite the new economics of managed care as “the primary driver behind the formation of integrated delivery systems ... The driver predates current and proposed state and national health care reform initiatives as employers and major purchasers ... become more active in managing the growing costs of medical care.” In addition, consumers were becoming more attentive to their individual healthcare needs and were demanding more comprehensive health coverage that focused on preventing illness, rather than treating illnesses, in settings that were close to home and accessible 24 hours a day. The creators of IDSs in the United States realized that they could attract consumers from HMOs and other suppliers of healthcare by offering a more comprehensive package.

Although moving to an IDS may nominally provide Canadians with choice, the minimum size and structure of an IDS necessary to function efficiently may provide only a limited segment of the population with choice. Kronick et al. (1993) estimate that 450,000 enrollees are needed to support a health maintenance organization (HMO) offering referral hospital services and its own staff physicians. They suggest that smaller numbers of enrollees (300,000) would support a 600-bed hospital but some cardiothoracic surgery and neurosurgery would have to be contracted out. Also, in order to offer true choice among providers, they note that there would have to be at least three providers serving each geographic region. Based on these numbers, over 1,000,000 consumers of healthcare would be necessary to support an HMO. Since IDSs provide greater breadth and depth than HMOs, it is not unreasonable to conclude that at least 1,000,000 consumers would be necessary to support the development of efficient IDSs.

The question of critical population is further complicated by international experiences with HMOs and IDSs, such as those cited by Leatt, Pink and Guerriere. The evidence cited suggests that marginal populations – that is, those with chronic conditions, the elderly or the poor – may not be well served by HMOs. This evidence suggests that, in an IDS, alternative arrangements may be needed for these segments of the population. In addition, Leatt, Pink and Naylor (1996) point out that alternative arrangements
may be needed for northern, rural and high-risk populations because serving this segment of the population may generate high costs or high variations in costs. Carving out segments of the population for alternative arrangements further reduces the available population necessary to constitute a critical population mass in Canada. What this suggests is that choice in Canada, under an IDS, may be limited to that segment of the population that is not poor, is not elderly, does not have special health needs and lives in certain urban areas. Such a system would fail to address dominant issues in the delivery of healthcare in Canada — in particular, the distressingly poor health of aboriginal Canadians, the lack of accessible service for those living in rural and remote areas and the impact of the greying of the population on the cost of the healthcare system. For a large segment of the Canadian population choice will not exist and therefore membership in an IDS will in reality be defined by geography.

Another difference between an IDS and an RHA listed by Leatt et al. is the presence of financial incentives that encourage quality of care, increased productivity and consumer satisfaction. For an IDS, the financial incentive that exists is the possibility of attracting more consumers that are willing to pay for better services, and the accompanying increase in revenue. RHAs do not have that built-in financial incentive. They are usually financed under a global budget.

Under an IDS in Canada, the lack of choice for most consumers also means that the market incentives that exist in the United States for the IDS to operate efficiently will not exist in Canada. The primary motivation for integrated systems in the United States was to “capture local and special markets and to attract and hold contracts” (Marriott and Mable 1998). IDSs continually redefine the functions and services they provide so that they can improve their market position. In Canada, without the population mass necessary to support competition among providers, providers will not have to “do things better” to make sure they are always relevant to the consumer.

In Canada, in the geographic areas where there is no competition for the providers, the IDS will effectively operate as a regulated monopoly. Revenues will be limited, based on capitation payments, and the IDS will be required to provide a basic set of services, which reflect the Canada Health Act, to the population they serve. The lack of efficiency incentives in regulated monopolies or crown corporations has always been a concern in Canada.

The final difference between an IDS and an RHA that we would like to focus on is the payment and incentives for practitioners. The pay of the practitioner in the IDS is primarily based on capitation, but other fiscal mechanisms are used to facilitate the effective operation of the system. The practitioner in the RHA receives payment on a fee-for-service basis. Again, it is not clear that in Canada the benefits that come from the form of remuneration for practitioners in an IDS will be an improvement over what could be offered under an RHA.

Capitation payments provide the IDS with a set of funds that can be used to design the optimal mix of functions and services for that system. The practitioners in the integrated system are usually provided a base salary, which is dependent
on the number of people enrolled in the system. The advantage of the base salary dependent on capitation is that the practitioner has no incentive to provide services or referrals that are not necessary. Under the fee-for-service mechanism, the overutilization of services is seen as a problem, especially in areas where there are an excess number of providers. In geographic or service areas where overutilization is a problem, the benefits to capitation-connected payments seem real.

In areas of the country where there is a shortage of providers, the benefits are not as clear. In these areas the problem facing the healthcare system is not usually that the providers are providing unnecessary services to each patient, but rather that providers do not have the time to supply appropriate services to all the patients in the area. In rural and remote areas, burn-out of practitioners is a significant issue. Moving to a capitated system will not alleviate this problem.

Moreover, the salaries of physicians in an IDS are not solely based on a straight proportion of the capitation funding. Many systems also provide incentives that are “above and beyond a base salary contingent on meeting productivity and patient satisfaction objectives” (Shortell et al. 1996:121). Leatt, Pink and Guerriere cite the work of Coddington et al. (1997) when they say a characteristic of a successful integrated health system is that “primary care physicians are economically integrated. A top priority with many integrated health systems is recruitment and retention of primary care physicians through generous compensation, financial incentives, continuing education opportunities and other ways of improving their quality of professional life.” The effectiveness of the financial incentives that Leatt et al. refer to as recruitment and retention tools is based on the assumption that the input of the physician will have an impact on the revenue-generating potential of the IDS. As we have stated earlier, in most cases in Canada IDSs would be functioning in markets that do not have a population size necessary for physician activity to attract or keep clients, thereby mitigating the potential for generating revenue. Without this potential, it is not clear that physicians who have shown a high degree of reluctance to practise under anything but a fee-for-service basis, as is the case throughout most of Canada, would willingly move to a capitated system of payments. An RHA is a legislated monopoly for the provision of care. The RHA is able to guarantee physicians that no other system that could attract patients and revenues away from the RHA would be functioning in that jurisdiction.

Beyond the economics of how incentives would work in controlling costs and providing access to care, there are also moral and legal questions surrounding the issue of physician-led managed care organizations and incentive-based contracts. On February 23 2000, the U.S. Supreme Court was to hear oral arguments in the case of Pegram et al. v. Herdrich. This case raises interesting questions about physician incentives within healthcare maintenance organizations. The case speaks to the conflict of interest that is created by having the same physicians, who use their discretionary authority in determining the nature of treatment, being linked to the system by an incentive contract that may reward them for limiting treatment. The decision
rendered in this case could have a significant impact on the degree to which physicians are linked to the IDS, which Shortell et al. (1996) state is a vital component to the success of the IDS.

**Information Integration and Primary Healthcare Reform**

In the above section we questioned the value that would be obtained from implementing an IDS versus what could be achieved through RHAs. We do not mean to suggest, however, that we do not see merit in some of the strategies that Leatt, Pink and Guerriere propose as the next steps for Canada. In particular, we see real benefit from the increased integration of information in the Canadian healthcare sector and a focus on primary healthcare reform.

The benefit of increased information integration was apparent in 1998 when the federal Minister of Health’s Advisory Council on Health Infrastructure, the Canadian Institute for Health Information (CIHI) and Statistics Canada brought together health administrators, researchers, caregivers, advocacy groups, government officials and others to talk about modernizing health information in Canada. This group recognized the need to:

- *foster harmonized data and technical standards to ensure the consistent and comparable collection, exchange and interpretation of health data; and*
- *address priority gaps in health services and related costs, outcomes, health status, and non-medical determinants of health* (Canadian Institute for Health Information 1998).

In a report submitted to the National Forum on Health in Canada, Black (1998) noted that there was a substantial investment in the development and implementation of information systems across Canada. Initiatives in Canada, such as the Health Evidence and Application Network (HEALNet), the Canadian Telehealth Initiatives (CANARIE) and the Health Infrastructure Support Program (HISP), all recognize the importance of information and the application of technology in the healthcare system.

Shortell et al. (1993:461) note that developing information linkages is one of seven “underlying core capabilities that Organized Delivery Systems will need to acquire requisite levels of integration.” They add that “electronic linkages of clinical and financial data need to be developed that tie patient and providers together across the continuum of care from the patient’s home to the work setting, to the many possible sites of contact within the delivery system.”

This last statement is applicable to what Canadian governments, administrators and researchers are currently seeking to achieve in an effort to create a more efficient and effective healthcare system. There can be no doubt that the integrated information network is vital to an IDS, but decision-makers in Canada have recognized that it is vital to any system, integrated or not. For this reason, we believe that there is benefit in pursuing these initiatives even before questions about the design, structure and applicability of IDSs in Canada are answered.

Leatt, Pink and Guerriere also suggest that primary healthcare is a building block for an IDS. We would carry this one step further and suggest that it is a building block for improving
Integrated Delivery Systems Now or ... ?

...the health of Canadians, and therefore primary healthcare reform should be the focus of Canadians for the next decade. Whether an IDS is necessary for primary healthcare reform depends in part on how primary healthcare is defined. Is the primary healthcare reference to the mode of care, or is it to the approach of care? Does it refer to a gatekeeper model with a generalist as the gatekeeper? These and other questions formed part of the stimulating exchange in the initial volume of Healthcare Papers [Vol.1 No.1] and rather than delve into the debate here, we will defer to the previous issue.

Briefly, however we would like to state our agreement that primary healthcare in the form proposed by Leatt, Pink and Guerriere is necessary to move the centre of healthcare from acute facilities into community settings. But the evolution to primary healthcare will have significant impacts on the different healthcare practitioners in Canada. Before implementing primary healthcare reform we must be confident that appropriate numbers of health professionals exist, and are properly trained, to effectively function under a primary healthcare system. There is sufficient evidence in the literature to support a primary healthcare model that integrates the role of nurse practitioners in the practice of primary healthcare. Gottlieb and Gottlieb (1998) note that an integrated care system that incorporates primary healthcare is particularly suited to the role of nurses since “nurses have traditionally subscribed to an integrated view of the patient.” Whether or not an integrated delivery system built on primary healthcare will expand the role of nurses is not addressed in the paper by Leatt et al. In fact, the authors do not address the topic of organizational structure and the role of the healthcare professional in the context of an RHA or an IDS. We now turn our attention to this issue.

Organizational Structure and the Role of Healthcare Professionals

The 1990s produced significant change in healthcare, in both the area of organizational structure and the role of healthcare professionals. It is important to examine the role of professionals from both the clinical and the organizational management and structure perspectives. The role of healthcare providers in an IDS as it relates to clinical services needs to be described and articulated for each segment of the delivery system and for the system as a whole. Throughout the 1990s, we witnessed a broadening of opportunities for nurses as nurse practitioners, case managers and in other roles. Other professionals also have experienced clinical roles that are different and diversified.

In the area of management, we saw a pull-back of professional administration. Nursing management at the corporate levels almost totally disappeared and many of the other professionals such as social workers and physiotherapists have lost their professional leaders. The regionalization and restructuring of healthcare shifted the decision-making framework from professional administrators in favour of management and physicians. In an attempt to restructure healthcare services, both organizations and RHAs introduced clinical programs, better known as program management. Most forms of program management in Canada have a physician at the helm who is empowered
to make decisions in both financial and clinical arenas.

Leatt, Pink and Guerriere do not define the role of the physician or the nurse within the IDS. Although the full integration of the physician into the system is defined by Shortell and others as being essential to the development of an IDS, Leatt et al. are surprisingly silent on this point in their paper. Physician-system integration is the “extent to which physicians identify with a system, use the system, and actively participate in its planning, management, and governance” (Shortell, Gillies and Anderson 1994). Shortell et al. (1996) continue this theme by stating that “systems require a nucleus of physician leadership at the board level, within the senior management team, and within affiliated physician group practices.” Furthermore, the same authors go on to state that “systems must identify those physician champions who can lead the charge, provide them with the necessary authority and support to succeed, and adequately reward them for their contributions.”

In an earlier paper, Leatt, Pink and Naylor (1996) are not silent on the topic of physicians in IDSs. In that article, they state: “Primary care practitioners and all physician affiliates of a CIDS (Canadian Integrated Delivery System) would have a more explicit gate-keeping role than they do in the current fee-for-service system. A CIDS would, accordingly, develop a close business relationship with a large base of physicians and other practitioners. Physicians would have to feel comfortable with the management practices and priorities of the CIDS, otherwise they would join another CIDS or return to the fee-for-service sector.” The question needs to be asked if the omission in Leatt, Pink and Guerriere’s paper is related to a shift in thinking of the authors or a difference in the target audience.

The role of physicians in an IDS is widely discussed in the American healthcare literature. There are numerous models where physicians alone or physicians and management groups form business units that provide various services including an IDS. The concern often expressed by Canadian policy-makers is that physicians are sorely lacking as partners in the discussion of IDSs in Canada. Physicians and their organizations continue to argue for the protection of the fee-for-service structure and for being independent practitioners. At this time there is little debate about what it would take to get physicians into the system under a different model. In the American literature, articles that describe the structure, function and services often have extensive discussions regarding how to attract physicians and retain them within the fold of the IDS. It is uncommon, however, to find similar discussion regarding other healthcare professionals such as nurses.

If we are truly interested in building IDSs or RHAs, then it is essential to understand how professional systems should be managed. It is our opinion that part of the negative fallout of the restructuring in the 1990s can be directly linked to the misfit of management structures and professional management perspectives. Mintzberg as early as 1979 discussed the issues of organizational structures of professional organizations. Mintzberg describes professional organizations as organs that employ primarily professionals whose knowledge
and skills come from a high level of educational preparation. This means that professionals work relatively independently of their colleagues and closely with the clients they serve. The coordination is handled by standardization of knowledge. The system works because everyone knows what is likely to happen next. Mintzberg cites clinical situations to illustrate the notion of professional autonomy and independence of practice and thought. In determining the administrative structure, Mintzberg (1979: 358) states: “Not only do the professionals control their own work, but they also seek collective control of the administrative decisions that affect them.” The exclusion of nurses and other healthcare providers from the IDS management structure is incongruent with principles of managing professionals. As we examine the next phase of healthcare system revitalization, and as we review the six strategies proposed by Leatt, Pink and Guerriere, it is imperative to consider a seventh strategy, which will examine the desired management structures of IDSs.

The industrial model type restructuring and downsizing we have experienced in the 1990s left healthcare professionals frustrated and feeling devalued. Nurses, physicians and others describe their dissatisfaction with the changes in the system and criticize the lack of involvement of healthcare providers in making decisions that impact their practice (Southon and Braithwaite 1998). Furthermore, the regionalization, restructuring and downsizing of the 1990s left us with the serious crisis of a highly dissatisfied nursing workforce, a nursing exodus and a growing nurse shortage. National studies (Ryten 1997) and provincial findings (Ontario Nursing Task Force 1999) both point towards a growing shortage of nurses in the coming two decades.

It would appear that issues of retention are more serious than recruitment. A recent report commissioned by the Canadian Nurses Association (Canadian Council on Social Development 2000) found that three out of 10 registered nurses who graduated in 1995 had either left the profession or immigrated to the United States within three years of graduation. Nurses report dissatisfaction with their work and burn-out due to workload, lack of valuing and leadership and an inability to participate in organizational decision-making.

Studies and essays by Aiken and Salmon (1994), Aiken, Sochalski and Lake (1997), Mintzberg (1979, 1991, 1997), Covey (1989) and Kanter (1993) can offer some guiding principles in shaping organizational structures and management roles and responsibilities. The work on magnet hospitals that originated in the 1980s and examines nurse retention, satisfaction and clinical contribution sheds light, although only in the hospital sector, on the relationship of independent, collaborative clinical practice and nurses’ satisfaction with their work. Furthermore, the original study and others following point to a clear relationship between corporate valuing of nursing and nurses’ satisfaction. At a later date, using the magnet hospital concept, Aiken and Salmon (1994) showed the difference in clinical outcome (mortality) of institutions that have the magnet hospital characteristics. Findings suggest that magnet hospitals have lower mortality rates than others.
Covey’s (1989) contribution to this thinking comes from his essay on “The 7 Habits of Highly Effective People.” His proposition is that in order to reach a highly effective structure that houses highly effective people, individuals have to go through three main developments. The first stage is a dependent stage where individuals are supported in developing their knowledge, skills and desires. This phase is followed by independence, which allows individuals to gain confidence and competence and mastery of their knowledge, skills and desires. Following the independence phase, individuals are ready to engage in an interdependence phase. Transferring his propositions to nursing and organizational structures, Aiken, Sochalski and Lake (1997) suggest that nurses have to be in a position where they feel their knowledge, skills and desires are understood, valued and integrated in the system. If that is apparent in the organizational structure, organizational behaviour and management practices, nurses will have the confidence to engage in a collaborative, interdependent partnership, which will lead to better clinical outcomes.

Kanter’s (1993) theory of structural organizational power has been tested extensively in the nursing domain. Dr. Heather Laschinger of the University of Western Ontario has been involved in over 25 studies testing Kanter’s theory (Laschinger 1996; Laschinger and Shamian 1994). One of the key findings drawn from these studies as it relates to organizational structure, behaviour and management is that formal and informal power and structural opportunities can lead to increased organizational commitment among nurses, decreased occupational stress and increased job satisfaction. This finding supports the need for a clear, organizational nursing structure, with nurses holding management positions of influence, both formal and informal. Access to resources, both financial and otherwise, is also a factor that nurses observe and use to determine the nature of their empowerment in the system (Laschinger and Shamian 1994).

In summary, these studies and others (for example, Henry and Gilkey 1999) lead to the clear message that in both an RHA and an IDS it is crucial to explicitly and deliberately describe and outline the clinical role, organizational structure, behaviour and management practices of professionals. It is important to keep the balance between organizational administration and professional administration (Halverson 1999). Furthermore, it is paramount to understand that each professional group – physicians, nurses and others – has its own culture and sociology. Assuming that one can represent all would continue to sustain the current problems in the system.

Conclusion

In deciding whether or not we should put resources towards building IDSs in Canada, we must ask whether IDSs would improve our Canadian healthcare system, and if there is the professional, organizational, political, and consumer readiness for them. It is our view that the time has come to develop vertical and horizontal information system integration, build a comprehensive primary healthcare system and reform the management structure of the current system to provide a better balance between professionals and administrators. Once we have accomplished these three
significant reforms we need to take stock of the remaining gaps in the system. It will then be timely to revisit the notion of an IDS and its relevance to the Canadian healthcare system.

References


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