# Horizontal and Vertical Healthcare Integration:

### Lessons Learned from the United States



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LEATT, PINK AND GUERRIERE provide a very rational argument for moving the Canadian healthcare system towards a more integrated model. They suggest that the current system in Canada is a hodgepodge of disconnected parts. The current system is viewed as providing uncoordinated care, with inadequate use of nonmedical practitioners, perverse payment incentives for providers, too much focus on treatment of disease, unacceptable wait times for services and related other problems. The authors provide extensive documentation of vital components of a system they envision for Canada, the rationale for adopting an integrated system of services, and conclude by suggesting strategies for achieving integrated healthcare. Change towards the

new system would concentrate initially on primary care, using virtual coordination networks at the local level. Innovative needs-based funding methods would ensure that individuals throughout Canada receive necessary services for keeping them healthy.

The purpose of this commentary is to examine integration and consolidation activities in the United States. These experiences will be assessed in an attempt to offer insights for the Canadian system envisioned by Leatt, Pink and Guerriere. While numerous differences exist between the delivery systems in the two countries that make direct comparison difficult, it is hoped that movement towards an improved Canadian system will benefit from our mistakes and successes.

#### Experience with Horizontal Integration

Horizontally and vertically integrated delivery systems have been recommended for over two decades as the panacea for numerous problems in the U.S. healthcare delivery system. During the late 1970s and 1980s horizontal consolidation of comparable types of organizations into multi-institutional arrangements was viewed as required for hospitals and other healthcare delivery organizations to remain competitive. The 1970s witnessed the growth of multi-hospital systems and the proliferation of nursing home chains. Hospital systems varied from the larger, national investor-owned hospital chains that stretched across the United States to regional not-for-profit systems that served a more local market comprising a medical trade area. This trend continued into the 1980s with consolidation occurring in specialty hospitals such as psychiatric facilities, physician groups and health maintenance organizations.

The very survival of hospitals was believed to rest upon the ability of these institutions to enter into horizontal relationships with similar facilities (Goldsmith 1981). Several arguments were presented for this consolidation towards larger systems. One was that hospital systems were capable of achieving economies of scale with their large size. The benefits of group purchasing, shared physical plant, shared capital and spreading fixed costs over a larger base of operation would lead to lower costs and eventually lower prices. A second rationale for development of these systems was that economies of scale would result. While these systems were predominantly comparable types of

facilities, a larger network of hospitals suggests that a greater variety of inpatient services would be available for patients using such a system. A third rationale for this development was the expansion of the service delivery network, especially the regional not-for-profit systems. Regional systems were viewed as being organized with a large, central hub facility and smaller facilities in more remote locations. Access to services by patients in more remote locations would be improved under these arrangements. The remote facility would benefit by having access to better management services available across the system, better access to capital, and tying into volume purchasing agreements. Patients would benefit from access to a better-run facility and having ease of entry into the more complex services provided at the core hospital.

Given the significant trend towards consolidation, what outcomes were achieved by this horizontal consolidation? A substantial body of research was conducted on multi-institutional arrangements during the 1970s (Zuckerman 1979). The majority of this research suggests that little evidence exists to support the claim that larger hospital systems achieve economies of scale. No information was found to support the claims that efficiencies are achieved as measured by indicators such as costs per admission. In fact, costs frequently increased as the service mix changed. There was limited evidence of improvement in non-financial outcomes. In some instances (especially rural areas), services to the local community are enhanced by the development of larger systems. Improved availability, access to care

and overall scope of services was found in areas that were previously undeserved. However, these gains were frequently accompanied by increases in the cost of care provided.

This evidence has not deterred health services executives from pursuing this strategy in the face of rising cost pressures. Additional waves of horizontal consolidation occurred during the 1990s among hospital systems, physician groups, health maintenance organizations, rehabilitation hospitals and numerous other health service entities. While some new evidence continues to suggest that service delivery capacity has expanded with this second wave of consolidation, results on economies of scale for hospital operations are mixed, with some studies finding cost savings (Alexander et al. 1995) and others not (Mullner and Andersen 1987). A major reason for these conflicting findings may be that it has not been possible to integrate the clinical side of operations with mergers and consolidation. Most integration activities, and any resulting economies, have occurred on the administrative side and in use of group purchasing. The largest percentage of cost savings are possible on the clinical areas. This is the area in which it has been the most difficult to achieve effective integration in the United States (Gillies et al. 1993; Devers et al. 1994; Shortell et al. 1993).

### **Focus on Vertical Integration**

The call for vertical integration of health service organizations has been a more recent occurrence. Initial discussions of the value of vertical integration began in the late 1980s (Mick and Conrad 1988; Conrad et al. 1988). These early commentaries suggested that vertical

integration is appropriate when market transaction costs become excessive. The obvious attempt is to provide seamless access to healthcare across the continuum of service insurers and providers.

In a seminal work, Shortell and colleagues envision the need to "reinvent" the American hospital (Shortell et al. 1995; Shortell et al. 1996). The drive for restructuring of the healthcare delivery system is fostered by numerous factors pressing healthcare providers. A major impetus for change again relates to the need for cost containment. As in Canada, the costs of providing health services exceeds society's willingness to allocate adequate funding for the current system. Related to this concern is the movement away from fee-for-service reimbursement towards greater use of capitation and fixed-budget contracts in which providers become cost centres rather than revenue centres. The new realities require greater importance to be placed on disease prevention and health promotion rather than provision of medical services. Vertical integration is envisioned to change the role of the tertiary hospital from that of the "hub" of the system to a peripheral back-stopping role when other system components fail. Obviously, such a major shift requires restructuring governance and management structures, significant alteration in organizational values and cultures, redirection of corporate strategy and reallocation of capital funds.

To what extent are efforts underway to increase the level of vertical integration in the United States and to what extend has it been successful? There has been only episodic movement towards vertical integration of regional healthcare systems that has been documented to date.

While efforts towards vertical integration of the major components of the delivery system have been attempted in some areas of the country, such as Minneapolis (Herzlinger 1997), or in academic health science centres (Burns et al. 2000), there have been more failures than success stories. Herzlinger (1997) suggests that vertically integrated providers have trouble achieving desired outcomes when they purchase excess capacity that they cannot use, when they vertically integrate to protect a faltering business and when they lose focus of their primary business activity. This suggests several factors to be considered. First, retained excess capacity in a vertically integrated system adds unnecessary costs that would not otherwise be borne by free-standing components using market mechanisms to coordinate patient services. Second, integration should not be undertaken to save a component of the delivery system that should be re-engineered or significantly altered. Finally, entities should not stretch their managerial competencies into areas in which they have little or no expertise.

Most integration in this country has focused on selected components of the system, rather than the creation of seamless provider networks that encompass all aspects of the delivery system needed by consumers. Early attempts by insurers and health plans to achieve vertical integration have not been successful (Christianson et al. 1995; Gold et al. 1995). More recently, these organizations have practised vertical "disintegration" (Robinson 1999) by moving away from ownership between health plans and provider organizations towards contractual relationships in regional markets.

These insurers are now entering horizontal integration on a national scope so that they can achieve the economies required to offer the multiple products that diverse consumer groups desire. It is not possible to diversify into managed care products, methods of marketing, multiple benefits packages and related items without adequate scale.

The greatest attention has focused on the relationship between hospitals and physicians. Some studies suggest that financial performance is moderately affected by physician integration strategies (Goes and Zhan 1995; Molinari et al. 1995), although other studies have not found significant relationships (Alexander and Morrisey 1988; Morrisey et al. 1990). Most relevant is the finding that physician involvement in hospital board governance positively affects operating margins and occupancy, but not operating costs (Goes and Zhan 1995). Strong forms of integration such as salaried positions are associated with greater physician commitment and loyalty to the system (Burns, Shortell and Andersen 1998). Other research has examined use of structural mechanisms such as contracting mechanisms for handling managed care contracts (physician-hospital organizations and management services organizations), although the presence of these entities has been found to be less than 20% (Devers et al. 1994; Morrisey et al. 1996 Alexander et al. 1996). Healthcare organizations also use processes for achieving integration. These integrative processes include not only involvement of physicians through ownership, employment relationships or governance of hospitals, but also provision of management services, information sharing,

product line integration and clinical guideline utilization by the medical staff. These processes are more prevalent, and more important, than structural mechanisms (Burns et al. 1998), which leads the authors to conclude that tight integration of hospital and physician activities under one organizational umbrella is unlikely. Hospitals can focus on managing traditional internal inpatient activities well, but physician clinical activities are so unique that efficiencies are not gained by their joint operation. This conclusion is supported by the number of hospitals that are divesting themselves of the group practices they have recently purchased.

## Important Lessons and Questions

This review of the U. S. experience with integrated healthcare offers some lessons derived from the mistakes than have been observed. It also offers additional questions that need addressing. These lessons and questions are raised knowing that the health systems of both countries represent distinct histories of idiosyncratic decisions based on different cultural value systems, competing political interests and internal capacities.

Management of integration processes between hospitals and physicians is critical for successful integration to occur. Routine sharing of cost and utilization data with the medical staff, integration of clinical and financial information, development and disseminating of practice guidelines, establishing accountability of clinical department heads for profit/losses of their clinical units and related mechanisms are essential for the system to be successful. Ongoing effort within Canada to develop an information

infrastructure is laudable. Equally important is the use of this information to build linkages among elements of the delivery system.

Because vertical integration might allow underutilized resources to remain and contribute to inefficient operations, excess capacity and duplication must be removed from the system. Normally market forces would eliminate inefficient providers of services. However, a vertically integrated delivery system might operate for extended periods with components of the system containing too many slack resources. It is critical that any excess capacity be removed before structural integration "freezes" system components into place. Much of this effort is well underway in Ontario under the auspices of the Health Services Restructuring Commission and is projected to be completed by 2003.

Movement towards vertical integration must not be viewed as a mechanism for protecting a segment of the system that needs major work. Frequently hospitals have undertaken diversification or vertical integration strategies in an effort to protect their core business, inpatient hospital services. Diversification was attempted with the illusion that profits from new ventures would be channelled back into the main enterprise, while vertical integration was often viewed as a mechanism for ensuring flows of patients into unfilled beds. The fundamental issue may be the need to engage in work redesign or re-engineering of systems and processes within the Canadian healthcare system.

Finally, system elements must not lose focus on the things they do best. Too often, integrated systems try to apply

management principles from one segment of the system to another, with limited success. Most hospital diversification strategies in the United States were unprofitable. Relatedly, too much time may be devoted to the interaction between units rather than the operations within units. Home services, physician office services, inpatient services and other activities should be managed under distinct managerial authority. Integration of health services within Canada should not rely upon uniform management practices and operations to be applied across all units of the delivery system.

Two major questions also need to be addressed. One deals with the singlepayer, uniform benefit package available to consumers, and the other concerns the extent to which clinical services are integrated and coordinated across the functions and activities of the various operating units of the system. Insurance coverage by a single payer within the Canadian system should be a plus because a single payer can direct fundamental change in the system. However, experience in the United States suggests that consumers may differ in needs and preferences depending on their stage in the life cycle, economic condition and numerous other factors. If movement towards integrated healthcare will have as its first premise that the focus is on the needs of individuals and their families, how does a "one size fits all" benefit package align with unique needs of individual Canadians?

The integration of clinical services within an organized delivery system is viewed by some as critical to success of an organized delivery system (Gillies et al. 1993; Shortell et al. 1996). These

experts argue that vertical integration and coordination of functions and activities of operating units at different stages of the healthcare delivery process are necessary for effective and efficient patient care. They envision chronic diseases and social morbidity as demanding close integration of services across the continuum of care. Thus, physician practices and hospital activities should be very closely aligned. Others (Burns et al. 1998) suggest that hospital inpatient services and physician clinical services are so distinct that little is gained by tightly coupling these activities. Thus, hospitals should contract with physicians for clinical services and physicians should contract with hospitals for inpatient support services, and market mechanisms are the best methods of coordination. The question becomes to what extent coordination of patient services should be achieved via control mechanisms of an integrated organization versus market mechanisms that prescribe outcomes to be achieved by individual system components?

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