A generative response to palliative service capacity in Canada

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Abstract
Purpose – This paper situates a large-scale learning and service development capacity-building initiative for hospice palliative care services within the current Canadian policy context for use by international readers.

Design/methodology/approach – In 2000 a national initiative using action research as its design was crafted to support continuing professional development and knowledge management in primary-health care environments.

Findings – The Canadian health policy context is complex and requires innovative solutions to achieve desired changes in response to emerging population health demands for quality end-of-life care. Employment of educational and social science constructs, including complexity theory, communities of practice, transformative learning theory, and workplace learning methods, has proven helpful in supporting the creation of national capacity for hospice palliative care.

Research limitations/implications – There is a significant contribution for social scientists to make in aiding a better understanding of the complexity in health systems. At the same time, an aging population in industrial countries demands more active engagement of legal and bioethical scholars in a range of emerging policy and legislative questions about quality end-of-life care. Educational research is also required to understand better and reform curricula to prepare an emerging generation of health science practitioners for the demands of an aging population.

Practical implications – Changing health service delivery environments demand rethinking of the knowledge and skills leaders require to influence desired change. A broader understanding of where and how learning takes place is essential for enhancing the quality of patient care.

Originality/value – The Pallium Project represents a generative response to facilitating learning and building longer-term system capacity. The journey of project development to date illustrates some important lessons that can be adopted from hospice palliative care to inform other primary-health care initiatives, including, potentially, mental health, cardiology, diabetes, geriatrics, where productive change can result from productively linking specialists and primary-care colleagues.

Keywords Carers, Hospices, Canada

Paper type Research paper

Introduction
This article situates a large-scale capacity-building initiative for health services in the current policy context for hospice palliative care (HPC) in Canada. It describes an innovative inter-sectoral community of practice called the Canadian Pallium Project. Key theoretical foundations are presented to illustrate a generative response for building health services capacity within complex public health systems. Model elements and design considerations that may be useful to support longer-term capacity building of services in other health services applications are presented. Finally,
implications for research and practice are made and emerging issues associated with sustainability of public investments in health services innovations are discussed.

The Canadian context
Hospice palliative care (HPC) aims to relieve suffering and improve the quality of living and dying in the face of life-limiting illness. It strives to help patients and families: address physical, psychological, social, spiritual and practical issues; prepare for and manage life closure and the dying process; and cope with loss and grief during illness and bereavement. It aims to treat all active issues, prevent new issues from occurring and promote opportunities for meaningful and valuable experiences, personal and spiritual growth, and self-actualization (Ferris et al., 2002).

The Canadian approach to HPC is based on a national consensus-based model. The contemporary Canadian field of HPC practice is relatively young with roots going back some 30 years. The field’s early leaders were highly influenced by the modern hospice movement reflected by the work of Dame Cicely Saunders in the UK. The Canadian model was ten years in development, was publicly released in March 2002 and is based on a comprehensive set of principles and norms of practice.

The provision of quality care for those facing a life-limiting illness is a growing concern among Canadians. A high-profile report released in 2000 by a committee of Canada’s upper house of parliament, the Senate of Canada, highlighted that approximately only 5 percent of dying people in Canada receive integrated and interdisciplinary palliative care. The Senate report highlighted that approximately 220,000 Canadians die each year of an expected death, 75 percent of all deaths occur in people over 65 years of age and currently, 75 percent of deaths occur in hospitals and long-term care facilities (Government of Canada, 2000).

The number of people dying annually is growing, and is linked to the demographics of Canada’s aging population. There is also a greater incidence of debilitating, difficult and disease-based expected deaths (Northcott and Wilson, 2001). New cancer cases are expected to increase by 70 percent by the year 2015. The current reality is that some 50 percent of those presenting with new cancer cases will perish to cancer-related illness (Canadian Strategy for Cancer Control, 2001). There is also a marked increase in other chronic life-limiting illness including end-stage organ failure (i.e. heart, lung, renal), neurological illness (e.g. Alzheimer’s, Multiple Sclerosis, Amyotrophic Lateral Sclerosis) and immunological illness.

Balancing a fundamentally curative, publicly-funded health care delivery system to provide compassionate care for those experiencing a life-limiting illness represents a profound leadership challenge for those who shape policy for Canada’s health systems. Framed simply, it juxtaposes important social values of dignity, worth of the human person and compassion against practical concerns about affordability and sustainability of publicly-funded health delivery systems (Romanow, 2002).

There has been exciting development at the national level since 2000. Chief among these is a special ministerial portfolio in the federal cabinet to focus and champion hospice palliative care policy and key initiatives (2001-2003); movement towards elements of a national strategy on palliative and end-of-life care; and a six-week compassionate leave benefit program administered through Canada’s employment insurance (EI) system. The latter enables family members who qualify for EI to have some income insurance as they assist in the direct care of a gravely-ill family member.
Movement at the national policy level, however, does not easily translate into intended action at the provincial/territorial health services delivery level. Affecting change in Canadian health delivery systems is confounded by historic constitutional arrangements that create a complex web of funding and service delivery challenges (Maioni, 2002). The structure of Canada’s Constitution creates considerable autonomy in the organization and delivery of health services in Canada’s ten provinces and three northern territories. The principal legislative framework for national health policy is the Canada Health Act. It binds, in theory, provinces and territories to five high-level principles of public administration, comprehensiveness, universality, portability and accessibility (Government of Canada, 2004). In practice, however, the interpretation and implementation of these principles often bears little resemblance to the intent, especially in HPC services across the country (Quality End-of-life Care Coalition, 2004).

The result is that there are, in effect, some 13 major health delivery systems within the purview of Canada’s ten provinces and three northern territories. There are numerous other national sub-systems for which the Government of Canada (e.g. First Nations and Inuit health, military, veterans, corrections, etc.) is directly accountable. At the provincial level, the introduction of delegated authority-based, public managed care organizations called Regional Health Authorities (RHAs) has further fragmented policy development and service provision. There is considerable variation among provinces/territories and from RHA jurisdiction to jurisdiction in the availability, nature and accessibility of publicly-insured services.

Public provision of services is ostensibly through a public-insurance mechanism. Regional health authorities are allocated global budgets based on population health formulas. Primary-care physicians are generally private practitioners who bill a third-party payer (i.e. government) through provincial/territorial global fee schedules negotiated between respective medical associations and provincial/territorial departments of health. Achieving espoused policy goals of coordinated access, seamless and universal service delivery and adhering to the intent of the Canada Health Act is confounded by the complex organization and funding structures of health services.

Seen in this light the Canadian health services policy and delivery context seems at times overwhelmingly complex. Against this complexity the Senate of Canada report reflects the growing expectation of Canadians that quality end-of-life care must become and entrenched core value of Canada’s health systems, with each person entitled to die in relative comfort, as free as possible from physical, emotional, psychosocial and spiritual distress. It is exceedingly difficult, and in some cases arguable contrary to constitutional law, to impose top-down national solutions to emerging HPC service needs.

Quality end-of-life care in Canada is further confounded by “cultural spillover”, largely attributable to the US curative, biomedical culture. Deeply entrenched twentieth-century models of care tend to place disproportionate emphasis on often futile efforts to cure. This serves as a default surrogate for realistic goals of care in circumstances of life-limiting illness. It can drive up costs associated with heroic medicine and confounds delivery of holistic services focusing on comfort, dignity and peace of mind for patient and family. It is also contrary to an emerging understanding about what many patients want in end-of-life care (Kuhl, 2002).
The biomedical culture is further reinforced in North America by contemporary social and cultural expectations about the extent to which technological interventions of modern health science can aid in healing, recovery, or the prolongation of life. False hope is fueled and causes considerable, preventable suffering. The curative orientation leads many health care practitioners (often as an unrecognized attitude or assumption) to view the transition to HPC as an admission of failure, either on the part of the individual practitioner or the health delivery system, to cure.

The Canadian policy and delivery context is further complicated by widespread deficits in knowledge, skills and supportive attitudes towards palliation among primary-health care providers and specialists (Barnabe and Kirk, 2002; Lawlor and Bruera, 2002; Morley-Forster et al., 2003). The majority of health care practitioners currently in practice received little or no HPC training in their health science education programs (Block, 2002; Oneschuk et al., 2004).

Busy practitioners generally lack the educational foundation, and hence the sensitivity and sensibility to adopt current evidence and practice for modern palliation. They are generally not skilled in the management of chronic pain and end-stage disease pain and physical symptoms or psychological suffering. Numerous communication deficits have been demonstrated.

The overall average age of Canada’s direct care providers is increasing. Most practitioners from all disciplines were educated at a time which predates many of the recent advances in managing pain and complicated illness. They are either unaware of, or not responsive to the proactive role health care practitioners can play in mitigating undue pain and suffering and assisting patients and families with important life-closure tasks.

There is hope and emerging action that the status quo will change in Canadian health sciences education. National projects such as the recently announced Educating Future Physicians in End-of-life Care (EFPEC) and forthcoming national companion initiatives in other health science disciplines including nursing, social work and chaplaincy send signals that an emerging generation of providers will receive the foundational education required to provide appropriate and compassionate HPC for an aging population.

There is, nevertheless considerable remedial efforts required to help practitioners. Leadership in health services for HPC is fundamentally about demonstrating how curative and palliative services must evolve to co-exist on a continuum of active care in an integrated and coherent basket of services to ensure genuine cradle-to-grave care as a central tenant of a just and modern civil society.

Failure to effectively address the growing need for safe, ethical and effective HPC services will predictably result in continued challenges to public confidence in health delivery systems. Heightened awareness of medical errors generally (Baker et al., 2004), and patient safety concerns around the safe use of opioids, as well as growth in difficult bioethical, moral and legal dilemmas (e.g. increased requests for practitioner assistance to hasten death) are early warning signs, for reminding health services leaders of predictable HPC policy and practice challenges.

It is from this context that the Pallium Project has emerged as an initiative to support, mobilize and help individuals and organizations navigate the complexity of multiple systems and agents towards the constructive evolution of Canada’s HPC capacity.

A generative response

Leadership in health services is increasingly about finding new ways of defining problems, especially to address long-standing and emerging demands of heavily-stressed and complex systems (Flower, 1993; Glouberman and Zimmerman, 2002). It is also about having the foresight and courage to move beyond established patterns of action and engaging new ways of thinking and acting on our collective abilities and responsibilities (Senge, 1990; Wheatley, 1992).

A poorly understood contribution of the quality movement in health services is about facilitating transformation, including the requisite knowledge and relational skills required to enable transformation (Bontis, 1999; Senge, 1992). It is about harnessing and focusing the passion, knowledge and resources of deeply-committed individuals and teams in ways that can contribute to the collective nourishment and feeding of large systems (Senge, 1990).

In large publicly-funded health systems characterized by rules-based cultures, leadership is also about finding creative ways of enabling practitioners to learn, work and contribute so it is aligned with the vision of what people believe could be if modern health services delivery systems were more generative and less binding (Wenger, 1996).

In this section we describe a response to increasing access, enhancing quality and building longer-term health systems delivery capacity which is fundamentally generative. By generative we mean enabling the internal capacities of existing systems to produce new capacity and capabilities through reframing how individuals and the collective work and relate together, and how they can potentially leverage relatively scarce resources for breakthrough results (Dixon, 1998; Senge, 1990).

The approach is not new, however, the concept is influenced by the ideas Peter Senge (1990) popularized around systems-thinking in *The Fifth Discipline*. In *The Fifth Discipline*, Senge reminds us that by default, we are generally prisoners of our own thinking. Our mental models about how the world works and should work bind us in the status quo. Senge notes systems often cause their own crises and that structure, as the basic relationships that control behavior in systems, can be influenced by new ways of thinking and acting. This requires critical reflection about underlying assumptions that guide our behavior and responses in systems (Argyris, 1976; Marsick, 1988).

A belief in the value of systems-thinking, the potential generative power of leveraging and reorienting ways of thinking, relating and inter-relating among large systems (Senge, 1990, Wheatley, 1992) and the integration of emerging thought around adult, workplace and professional learning (Baskett and Marsick, 1992; Wenger, 1998) are the points of convergence which enable generative responses for facilitating HPC service development.

The Pallium Project was conceived in late 2000 as a demonstration and innovation project in health human resources (HHR). The project is based on the ideas that many hands make light work (i.e. collective, collegial development), that the place of practice is a basic unit of analysis and action for supporting learning and change (i.e. workplace and situated learning), and that practitioners are a legitimate and important source of practice-based knowledge for quality improvement.

The name Pallium finds its roots in Latin where the word *pallium* means a shelter or cloak. It reflects a core set of values in HPC capacity building, namely to shelter an
individual and family from the distress of illness, relieve symptoms and maintain function and comfort.

The project originally supported rural health care practitioners. It was predicated on helping busy and isolated providers begin a journey of personal and professional transformation. This was achieved through innovations in outreach-based, continuing professional development (CPD) and built around instrumental needs required to care for people with life-limiting illness (Barnabe and Kirk, 2002). The early focus was on creating access to relevant education, empowering primary-care practitioners as a valued and legitimate source of professional knowledge (Schön, 1983, 1987), and demonstrating several innovations for information and communications technologies (ICTs) to support workplace learning and bedside decision support at a distance.

The project was designed around a model for integrated continuing professional development (CPD) pioneered within a CPD research and development unit at a prominent Canadian research university (Aherne et al., 2004). The model itself is rooted in a systems-based approach to CPD (Aherne et al., 2001) and seeks to integrate formal instruction and informal and incidental learning (Houle, 1980; Marsick and Watkins, 1990) for enhanced professional competence and performance (Nowlen, 1988).

From 2001 through 2003 the project pioneered several innovations in HHR, including use of occupational analysis-based needs analysis (e.g. DACUM – Developing a Curriculum), telehealth pilots, e-learning including the first online journal club model for isolated rural primary health providers in Canada, and nationally-accredited outreach education. The latter two innovations were developed collaboratively among palliative consultants from academic teaching hospitals and generalist primary-care professionals, based on the emerging practices of university-community engagement (Kellogg Commission, 1999; Walshok, 1995).

The Pallium Project continues to evolve as a key resource for helping build Canada's HPC capacity. It has evolved into a focused-capacity building initiative, which links strategic learning, development, knowledge management and collaborative investments to HPC quality improvement and delivery system capacity building.

The project has evolved to include several hundred practitioners as institution and community-based collaborators. These people, most with a special interest or competence in the area of HPC, are employed by or have practice privileges with organizations which transcend health service delivery, academic, government and voluntary sector agencies in Canada. Collaborators are committed on building on the vision of Quality End-of-life Care as articulated in the 2000 Senate of Canada report.

In late 2003, the Pallium Project was awarded the Government of Canada’s single largest one-time public investment to-date in HPC capacity development. A $4.3 million (2.8 million Euro) conditional funding agreement was awarded under the aegis of the Health Canada’s, Primary Health Care Transition Fund (PHCTF). The PHCTF is a one-time, $800 million ($525 million Euro) strategic investment in health system delivery renewal.

The overall intent of the PHCTF is to invest in large-scale projects that help broaden the scope of primary care to enhance sustainability of health delivery systems. These projects should educate the public about primary health-care renewal, maximize synergy and collaboration among primary-care professionals and specialists, and

create common practical tools, and collaboration to bring about productive change to practice patterns.

The PHCTF investment in the Pallium Project funds outreach education and professional development; knowledge management and workplace learning supports, service enablement and collaboration across paid and informal caregivers (e.g. friends, family and volunteers). A significant emphasis is being placed on improving supports to regional health authorities and community-based, voluntary sector partners.

The project uses an innovation framework adapted from Rogers (1995) to guide its work. Key planning questions around interventions include:

- Can it work?
- Does it work?
- Will it make a difference?
- Does a client system (for example, a local RHA) have the receptor capacity to participate in and implement the desired change/innovation?
- If the client system does not have the current capacity, what critical success factors have to be addressed on the pathway to the desired future?

The project is currently administratively hosted by a community-outreach unit of a major oncology health services delivery, research and education organization on behalf of its 40 partner organizations. The project works through a variety of HPC content and subject-matter experts and other resource people located throughout Canada. Operationally, the project’s development activities are located in several provinces and territories.

**Necessity as a driver for innovation**

It is a common axiom that necessity is the mother of invention. It is equally true that necessity is an important driver for innovation in health services delivery. The Pallium Project’s primary operating catchment is Canada’s four western provinces (British Columbia, Alberta, Saskatchewan and Manitoba) and its three northern territories (Yukon, Northwest Territories and Nunavut). Expansive geography, sparse population, and limited clinical, financial and human resources dictate the innovation drivers for the project’s work.

The surface area of the project’s principal catchment area is 6,827,155 square kilometres with a total population of 8,771,600 residents. The overall population density is 1.28 persons per square kilometre. By comparison, the EU-15 surface area in 2000 was 3,154,000 square kilometers with a combined population of 379,500,000 million residents, resulting in a population density of 120.3 persons per square kilometre. Tremendous geography and low population density create myriad challenges in organizing HPC services outside of major urban centres in western and northern Canada.

On the surface, management’s lack of commitment to investing in traditional forms of human resources development (HRD) in Canada’s publicly-funded health systems further confounds the challenges of geography and population isolation. A national study of nine major economic sectors conducted by the Conference Board of Canada (Harris-Lalonde, 2001) highlights that publicly-funded health care and education trail the nation in total training expenditure per employee.

As Table I illustrates there is tremendous disparity among mean training expenditure per employee in health services at $240 (157 Euro) and other sectors of Canada's economy. It is not surprising to see that the health sector ranks so low. Given the managed care orientation of RHAs, management is preoccupied with cost-containment. A recent study of distance learning provision in continuing health care professional education in Canada indicated cost was a major factor for management when choosing various modalities to support continuing education (Curran et al., 2003). While there are labour contract obligations for some mandatory continuing education, much HRD occurs in the context of the work setting and occurs through informal means.

As a result the project's development team has had to be creative in finding flexible and affordable solutions for improving competence and performance in the workplace. The process to arrive at these solutions is characterized as a mutually-respectful, two-way collaboration among community-based champions who organize much of the palliative care throughout the catchment’s RHAs and the tertiary-level HPC consultants from the major centres.

The project's guiding concept is that "many hands make light work". A strong culture of collective response to individual and communal learning need characterizes the development of western Canada over the last century (Selman and Dampier, 1991; Welton, 1987). This culture finds its roots in the practical responses immigrants developed to survive in breaking the land and building vibrant communities, often with limited resources and under harsh economic and environmental conditions.

The contributions of Donald Schön (1983, 1987) and others (Moon, 1999; Wenger, 1998, 2004) who have normalized practitioners as legitimate sources of valued practice-based, professional knowledge help inform a design element which aspires to engage people who do HPC work in helping to develop and codify the field's knowledge. As contemporary HPC is a relatively young and emerging field, the project's approach to quality assurance is to rely on best evidence where it exists, to use clinical consensus where it currently does not, and to universally invite collegial participation and peer-review. Principles of safe, ethical and effective practices as informed by the CHPCA Model (Ferris et al., 2002) and parameters of regulated health professions practice guide this work. This has been important for leveraging limited human, financial and clinical resources and to ensure that products of the project's activity are relevant and responsive to the needs of primary-care practitioners.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Expenditure (mean) ($)</th>
</tr>
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<tbody>
<tr>
<td>Primary</td>
<td>1,560</td>
</tr>
<tr>
<td>Tech/communications</td>
<td>1,437</td>
</tr>
<tr>
<td>Financial services</td>
<td>1,171</td>
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<tr>
<td>Government</td>
<td>1,057</td>
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<tr>
<td>Manufacturing</td>
<td>677</td>
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<tr>
<td>Transportation/utilities</td>
<td>557</td>
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<tr>
<td>Services (community, business)</td>
<td>336</td>
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<tr>
<td>Wholesale/retail trade</td>
<td>336</td>
</tr>
<tr>
<td>Health/education</td>
<td>240</td>
</tr>
</tbody>
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Table I. Mean training expenditure per employee by industry in Canada (2000)
The result of this collaboration has been multifaceted. It has led to inter-professional education that introduces foundational concepts and skills in HPC clinical management. This Clinical Introduction to Palliative and End-of-life Care course is organized as small group-based, reflective outreach education delivered within the geographic confines of a local RHA. For many practitioners (i.e. medicine, nursing, pharmacy) who work together on a daily basis, it is often the first time they have had protected time and space to learn together. Early evaluation results suggest this particular form of inter-professional CPD can help highlight the respective contributions of various disciplines to quality HPC and help promote interdisciplinary collaboration. The course is also an important starting point for many on a journey of transformation in reflecting on the nature of HPC and how it can enrich the quality of care provided at the rural and remote community-level (Wiessner and Mezirow, 2000).

This outreach education course is also an entry point to a series of interventions at the local-level that supports continuous learning. The formal instruction of the clinical introduction course is supported by a formalized peer-mentoring initiative, linking clinicians with primary-care colleagues. Other interventions include monthly audio teleconferences sessions on special topics for providing HPC in the community. These sessions are supplemented by a variety of web-based e-conferences and courselets.

E-conferences, enabled through web-based computer mediated conferencing (CMC), provide structured and time-limited opportunities for practitioners to probe in greater detail the material that is explored in select monthly audio conference sessions. Courselets are self-directed, problem- and case-guided teaching learning interventions available through a project intranet. They are accessible to participants anywhere they have access to the web and support in-depth problem-based and inquiry-driven (Houle, 1980) learning around particular issues.

Reliable, evidence-informed tools and resources that assist in bedside decision support and case management are also areas of high need. There are several high-quality local resources that have been produced at tertiary-care centres. These tools, many which take the form of copyright-held books have largely been developed from local conceptions of best practice and local interpretations of current evidence, where such evidence exists. They represent early efforts to codify HPC knowledge in particular domains such as palliative nursing, primary-care clinical management and family care-giving. These resources, while highly-valued locally, are generally not subject to broader consensus-based and evidence-based collegial development and peer-review. They are also not readily accessible to practitioners outside the local area due to deficits in national marketing and distribution infrastructure for HPC specialty resources.

The project is currently working to identify several key local tools and resources for national development. The intent is to leverage scarce resources and focus on the “best of” development strategy to ensure several local resources become the basis for peer-reviewed, national resources that are easily accessible through a single-location in Canada. To this end the project has recently completed development of the Palliative Learning Commons, a learning-object brokerage and digital warehouse based on key concepts about the emerging learning object economy (Richards et al., 2002). For those objects such as books or instructional media requiring physical distribution (e.g. video
(tape) a national fulfillment infrastructure is being negotiated in collaboration with the
Canadian Hospice Palliative Care Association (CHPCA).

These knowledge management activities are predicated on an assumption that if
busy practitioners are to adopt better practices for quality improvement in their clinical
work and service development, resources must be developed based on
commonly-accepted quality practices (e.g. peer-review) and readily accessible. That
is, the right information must be available at the right time in the right place and the
right form to maximize opportunities for adoption.

It is also recognized that more than direct caregiver HRD is required to improve
access and quality of care. Leadership and resources are required for investments in
service development that enable health systems to further develop HPC capacity. It
was recognized early in the project’s tenure that HRD investments in primary-care
professionals, without commensurate investments in health delivery system
development would be of limited utility and counterproductive. Empowered
practitioners with the insights, knowledge and skills to improve HPC care would
simply become frustrated and disillusioned without companion strategic investments
in service development at the local and RHA-level. This service development institute
model also helps to facilitate the integration of activities of free-standing,
voluntary-sector hospice organizations within the broader operations of
publicly-funded RHA health services with the same jurisdictional catchment and
leverage opportunities for broader community involvement.

To this end, the Pallium Project is one of the few health system capacity building
initiatives in Canada that gives balanced attention to developing both the knowledge,
skills and affective domains of direct care providers and the requisite awareness
raising and leadership to support sustainable HPC services at the RHA-level. The
project has invested in a Service Development Institute (SDI) model that aims to help
front-line service and program leaders implement the CHCPA Model to Guide Hospice
Palliative Care.

Institutes are hybrid management, organizational and policy development
interventions informed by, and grounded, in Action Learning (Dilworth, 1998;
McGill and Beaty, 1995). Concomitantly, there are policy research investments being
made to understand better RHA senior administrator and board/trustee-level decision
making processes associated with HPC service/program development, resource
allocation and regional governance. Investments are also being made to help better
position the public to participate in service and development decision making through
practical advocacy and public participation.

Theoretical and design influences
To understand the Pallium Project’s model elements and it’s prospective contribution
to informing quality improvement in health services delivery is to understand the
project as an organic and holistic response to navigating complex systems based on
emerging understandings of generative ways that people work and learn together. In
this section we introduce the major theoretical influences which inform the project’s
design.
Systems thinking and complexity theory

When the Pallium Project commenced in February 2001, it was relatively narrow in scope and focus, approaching rural primary-care HPC professional development as a simple HRD problem (Glouberman and Zimmerman, 2002). As the project moved deeper into its HRD remediation efforts, alongside significant parallel HPC developments at the policy-level in Canada, it became increasingly clear to the project leadership that for the project to make an enduring contribution to Canada’s primary-care system, a different approach would be required.

As we reflected on the early efforts and outcomes of the project from 2001 through 2003, it was clear that the propensity to see HPC problems in a technical rationalist, linear cause and effect fashion undervalued a richness of relationships, companion initiatives and multiple processes in the nation. To become catalysts for accelerating meaningful, generative change aligned with emerging demand for HPC, a significantly different approach was required. HPC capacity building had to be considered within a broader, dynamic set of complex health policy frameworks and fluid health care education and delivery systems.

It also requires the humility to acknowledge that creating supports for those who are experiencing life-limiting illness is not solely a health care delivery system accountability, but rather a broader shared family, community and social accountability (McKnight, 1987, 1995). We were compelled to transform our mental models (Senge, 1990) about the place, relationship and prospective contribution of the Pallium Project in Canada’s respective health services, academic, government and voluntary systems. We had to balance our learned incapacity to be reductionist in our thinking and action and balance it with a deep appreciation for the systemic factors that influence the ability to contribute to capacity (Wheatley, 1992).

In the 15 years since Peter Senge (1990) popularized systems-thinking within The Fifth Discipline, there has been gradual acceptance in many quarters that the early models of the planned changed movement of the 1960s (Bennis et al., 1961) are simply insufficient for addressing the complexity of deeply inter-related, modern systems operating in a global society. We learned a profound appreciation of the complexity of social and human systems (Banathy, 1996) is essential for leaders wishing to influence constructive change around emerging social challenges such as HPC.

Glouberman and Zimmerman (2002) suggest a differentiation between simple, complicated and complex problems. They suggest simple problems are much like a cooking recipe. Over time testing and codification of knowledge assures easy replication without the need for any particular expertise. Complicated problems are suggested to be analogous to sending a rocket to the moon. Procedural knowledge and codified checklists are critical but not sufficient, and high levels of expertise in a range of fields, is necessary for success.

Complex problems are differentiated from complicated problems as analogous to effectively raising a child. Because every child is a dynamic, unique and unpredictable entity, and must be understood as an individual, no singular recipe or codification of complicated experiences can assure a desired outcome in rearing a child. Examples of complicated questions in Canadian health systems that are reframed as complex questions would be: “Can we afford increasing care and treatment for an aging population?” reframed as “How can we provide care and treatment that makes...
everyone feel the system will be there should their family need it?" Or, "What do we have to give up to support the most effective and advanced technology/drugs?" as "How can we help health care institutions and professionals enhance the quality of services and innovation in technology and drugs?" (Gloubman and Zimmerman, 2002).

Interestingly, people in health-care talk about The System routinely, however, there is a significant conceptual disconnect use of system language and their understanding of the complexity of modern systems. To increase the generative capacity of an initiative such as the Pallium Project it is essential to understand that innovation in part comes through understanding our relationships and interrelationships among disparate agents and sectors as part of complex systems.

Primary-care and population health orientation
Hospice palliative care and population health are often not top-of-mind connectors for people in the conversation about how to improve and reform primary health-care systems. Beyond the important social justice goals associated with supporting compassionate, quality end-of-life care, there are pragmatic reasons for leading from a health systems orientation which values the overall health of the population within a primary health care paradigm (World Health Organization, 2003).

Well-designed and implemented HPC provides supports not only to patient and family, but to family members. This is especially important for the "at risk" older spouse or family member. Many family members experience a significant burden of care with life-limiting illness such as cancer, congestive heart failure, chronic obstructive pulmonary disorders (COPD) and other forms of expected life-limiting illness. Generative responses to HPC capacity-building see supporting expected death within the broader systems context of population health and seek to find strategies that respond to HPC needs within a family-based, population-health approach.

Workplace learning
Most established models of health CPD find their roots in Tyler's (1950) education model (also referred to as the curriculum or programming model). Accordingly, those who support the ongoing learning of professionals tend to respond to a new need through a formalized instructional experience, such as a seminar or course. Contrary to Tyler's education model, it is critical to realize that practitioners learn to solve problems in a variety of ways, only one of which is participation in formal instruction (Baskett and Marsick, 1992; Day and Baskett, 1982).

Leaders who are designing interventions to support continuous learning for system capacity building are challenged to ask themselves if it is more important to be disposed to the narrower paradigm of providing education or a broader, generative paradigm of facilitating learning? This question has profound implications for strategic direction setting and resource allocation. It opens up the possibility to a broader range of tools for supporting learning and change, many which have little resemblance to classroom forms of formal instruction (Aherne et al., 2001). Providing tools as just-in-time learning supports and reminder references such as labcoat-style handbooks, PDA (personal digital assistant) applications, opportunities for regular collegial networking and access to high-quality peer/specialist consultations are essential supports in this broader paradigm of learning.
There is a growing body of scholarship that suggests the most productive capacity to learn for change and continuous improvement is embedded in systems and among people interacting in dynamic relationship with one another within and among systems (Watkins and Marsick, 1992). Marsick and Watkins (1990) suggested that some 83 per cent of learning in organizations occurs through informal and incidental means. That is, learning by doing, reflective continuous learning for continuous improvement, accidental or incidental learning and self-managed and team learning.

In its most recent efforts as part of the PHCTF initiative, the project has started to incorporate action learning as a core and integrated approach to the work of the project, particularly in its service development and system enabling activities. Action learning is based on structuring time and space for individuals to learn from experience through reflection and action (McGill and Beatty, 1995). It involves structuring groups of people with similar interests in particular problems and issues into sets, supporting the group with requisite resources/resource people and working collectively to address real-world problems in context. Action learning is based on an assumption that human systems must constantly learn to adapt if they are to survive and that, increasingly answers do not exist to an ill-formed problem or problems not previously encountered (Dilworth, 1998).

Notwithstanding the powerful contribution for workplace learning in health services delivery, it remains a poorly understood construct. This is exasperated by a dominant education culture in North America health science. Our experience is that people generally are completely ignorant to or undervalue workplace learning until such time that it is demystified, normalized and explained in the context of their work and experience (Confessore, 1997). Scholars such as a Houle (1980), Cervero (1992) and Jarvis (1994) have much to offer in terms of normalizing and valuing workplace learning for health services.

Transformative learning and critical reflection
Facilitation of personal and professional transformation is embedded in the design of virtually all tools and resources in the project. Transformative theory, as initially proposed and later refined by Mezirow (1991), is based on a three-part approach to critical reflection on experience. It involves reflection on the content of an experience (i.e. what happened?), the process they employed (i.e. how did it happen?) and the very basis of a problem (i.e. what is wrong with what happened and how am I seeing it?).

Transformative learning is often prompted by a disorienting dilemma, an experience that can cause a person to question what has previously been held as unquestionable (Wiessner and Mezirow, 2000). Anecdotally, we are aware that there is usually some type of specific trigger or predisposing experience that begins the journey of transformation towards a more holistic and compassionate response to caring for the dying.

Transformative theory is central to understanding and facilitating learning in HPC. Compassionate and effective HPC requires practitioners to engage patients in a care context with their hearts, minds and soul (Kearney, 1996; Mount and Kearney, 2003). Beyond cognition it must include intuition, feelings, empathy, spirituality and other factors (Taylor, 1997). Without these factors it is simple reflection and will most likely not result in a commitment to the total caring required on the part of the practitioner to

accompany a patient and family on the shared human journey to end-of-life (Elsey, 1996).

Transformative learning is central to the design of outreach education in the project. Structured opportunities for formal outreach education are not seen as ends unto themselves, but rather beginning or early catalysts on a journey of discovery and transformation. For practitioners who are deeply steeped in a tradition of biomedical curing, transformative learning can be a liberating pathway to a more humanistic approach to total caring (Marcus, 1999).

Communities of practice
Communities of practice (CoPs) are a self-organized, deliberate collaboration of people who share common practices, interests or aims and want to advance their specific domain of knowledge (Wenger, 1998). Such communities tend to present as emergent and fluid, as “groups of people informally bound by shared experience and passion for a joint enterprise” (Wenger and Snyder, 2000, p. 139).

Communities of practice represent the social manifestation of individual responses to how we continuously seek to learn and develop knowledge. Wenger (2004) has asserted that CoPs have an important role in nurturing, developing and codifying domains of knowledge and argues this work is fundamentally an accountability of practitioners. He suggests that practitioners, the people who use the knowledge of a domain in their activities, are in the best position to manage their knowledge. In the context of this discussion, knowledge management is understood in a trustee or stewardship capacity to “care for, grow, steward, make more useful” (Wenger, 2004, p. 1). Communities of practice very much illustrate the relational and communal nature of learning and knowledge development. It has been further suggested that individuals change by being exposed to different configurations in community relationships. As individuals interact, they bring meanings from one collective to another and challenge various definitions of reality (Wildemeersch et al., 1998).

The Pallium Project very much continues to evolve and present as a CoP. It connects knowledge and emergent strategies to improved capacity through a focus on knowledge as the development, refinement and adoption of essential capabilities and resources. The informal structure of CoPs, however, raises important questions about mutual interdependence in design of the community and accountability issues for the governance and ownership of communal assets, especially the tangible intellectual property products of collaboration.

That is, the assumption underlying the Pallium Project is that there is a collective responsibility for the development of a domain of knowledge. There must be, however, commensurate mechanisms to that ensure the fair and transparent access to the shared outputs of collaboration. Failure to address these fundamental governance issues in the development and practical application of new, communal knowledge assets risks undermining the core values of CoPs and indeed the very sustainability of the community. This is a fundamental growth and governance issue as more CoPs emerge, move to formalize their collaboration and focus on how to make the products of their collective development more broadly accessible and useful within the parameters of modern intellectual property and product liability legal frameworks.
Implications for practice
The Pallium Project illustrates one model and early-applied experiment of how many actors with shared interests and aspirations can relate and interrelate in pursuit of common goals linked to health system improvement.

A different set of skills are required for leadership success within a changing health services delivery landscape characterized by unprecedented complexity. Relational skills such as the ability to structure and negotiate collaborative enterprise across sectors are important, as are dialogue and conflict resolution skills.

Health services delivery leaders are challenged to remain open to realizing that many issues such as HPC are not solely the domain of narrowly defined health systems, but rather issues encompassing broader community accountability and hence broader participation and contribution from outside the health delivery sector.

How we conceive and support practitioner learning for change and performance improvement is also challenged. A broader understanding of learning and a balanced view of learning as the opportunity to integrate traditional forms of formal education with important opportunities for informal, incidental and just-in-time learning as situated in the context of work is critical to unleash the generative capacity of people and systems.

Broadening perspectives and being open to complexity as the new norm requires fundamentally different ways of thinking, acting and relating. This is increasingly critical for leadership success, system improvement and longer-term capacity and sustainability of modern health delivery systems.

Implications for research
There is a significant contribution to be made by social science in helping to better understand the nuances, organizational and cultural complexity of complex systems. Scholarly contributions to date appear largely theoretical and conceptual in nature. The field of health services would benefit greatly from contributions of in-depth case studies and other forms of health services research, especially that which helps identify the range of levers and options for navigating constructive change amid complexity.

In many industrialized nations our ability to prolong life and engage medical technologies in outstripping our ability to reconcile fundamental moral, ethical and legal concerns involving end-of-life care. Health service delivery leaders are caught in the eye of this storm. Scholarly contributions that serve to enrich the intellectual landscape for informing discourse about profoundly challenging issues such as futile treatment, better advanced care planning and effective engagement of requests to hasten death are desperately required.

Failure to effectively engage scholarship from the broader humanities and social sciences disciplines sets the stage for restricting discourse on these important issues to narrower perspectives of economic rationalism and the pragmatic orientation of service rationing. As practical pressures of system management push up against the challenges of caring for an aging population there is considerable risk of missing important scholarly opportunities to contribute to the fabric of a just and compassionate society.

Initiatives such as the outreach education component of the Pallium Project are inherently remedial in the context of pre-service. They highlight and underscore

important deficits in the nature of contemporary professional education. Further scholarship and educational research is required to understand better and act on curricular reform and change management within health sciences education generally, and medical education in particular. A continued and disproportionate emphasis on the biomedical, curative orientation in health science education robs a new generation of practitioners and their patients of compassionate care and works against the very precepts of health delivery systems which are humane, responsive and sustainable.

**Conclusion**

In this paper we have used a current Canadian case to illustrate the challenges that complex health systems have in challenging traditional ways and means of supporting continuing professional development and system change.

The Pallium Project represents a generative response to facilitating learning and building longer-term system capacity. The journey of project development to date illustrates some important lessons that can be adopted from hospice palliative care to inform other primary-health care initiatives, including potentially, mental health, cardiology, diabetes, geriatrics where productive change can result from productively linking specialists and primary-care colleagues.

**References**


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