Hospice Palliative Care System Design Framework
for developing regional systems of hospice palliative care: a provincial framework

Knowledge Synthesis Report
June 2009

Palliative Care Strategy Development Workshop
Pre-reading: document 1
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Special thanks to members of the Erie St. Clair End of Life Care Network (ESC EOLCN). The report presented here is based on the System Design Framework developed by the members of the ESC EOLCN over the course of many months. (1)

This report acknowledges the collective wisdom of the many members of the regional Networks. The Networks are made up of individuals and organizations many of whom are members of The Hospice Association of Ontario and/or the Ontario Palliative Care Association as well as being involved with Cancer Care Ontario, Ontario Hospital Association and numerous other associations and organizations. Additionally, the Networks and the Palliative Pain and Symptom Management Consultation Programs have a symbiotic advisory relationship. As such, significant ‘collective wisdom’ is brought to bear on any development processes undertaken by the Regional Networks and the Provincial End-of-Life Care Network (PEOLCN).

**Limitations / Scope of the Report**

This report is narrowly focused on System Design. It does not provide an extensive preamble of information relating to: definitions, models of care, importance of Hospice Palliative Care (HPC), nor does it seek to review all aspects of HPC service delivery. Key considerations are listed but not described or explained.

Many issues are intentionally not addressed, in the interest of presenting a framework that is specific to system design.

The initial focus of this work is on developing a Regional System Design Framework with provincial consistency in approach and intent. The regional systems work together to form the provincial “system”. Significant synergies can be realized as we work together at a provincial level.

**Previous Work**

Much previous work is acknowledged; work which informs this report and provides the necessary backdrop of knowledge and information that allows us to move forward. Of particular importance is the Canadian Hospice Palliative Care Association (CHPCA) Model to Guide Hospice Palliative Care (2). The values and guiding principles underpin every aspect of this framework. The assumptions and descriptions, domains of issues etc. articulated in the CHPCA Model are used as a foundation for this system design framework.

The report titled Foundational Concepts and Definitions Relating to Hospice Palliative Care Service Delivery (ESC March 2009) (3) provides important background information about the provision of HPC.
System Design Framework Development Process

**Purpose and Scope of this Report** - This System Design Framework describes and categorizes elements of an integrated system of HPC. It gives details of a desired future state. We used this framework to evaluate where we are currently relative to this desired future state (We used this framework when we conducted the preliminary inventory of the HPC system in Ontario (5)). The elements in this system design framework have helped us with our gap analysis. Recommendations and action plans can be organized around the framework.

This System Design Framework provides us with a “way to further organize our thinking and our work” as we develop regional systems of care. This report presents the first stages of a flexible HPC “system design framework that can be adapted to each region’s unique geographic area, context of care provision and available and / or relevant services”. (6)

**Network Role** - System design is one of the designated roles for Ontario’s Regional End of Life Care/Hospice Palliative Care Networks (EOLCN/HPCN). (7). A strategic priority of the Provincial End of Life Care Network (PEOLCN) is to create a system design framework ‘synthesis document’ (8). The mission of the PEOLCN is to champion an integrated quality of life strategy of end of life care for all individuals, through collaboration and best practice. (9)

**Need for Systematic Approach** - Over the past year, several Networks have produced reports relating to HPC service delivery in their respective regions within the context of system design (4) (10) (11) (12) (13) (14). In producing these reports it became apparent that the ‘next step’ involved creation of a ‘systematic approach’ to guide ongoing development of regional HPC systems across Ontario.

**Working Group** - A working group of the PEOLCN, in concert with The Seniors Health Research Transfer Network (SHRTN) End of Life Care Community of Practice (CoP) was formed to explore the creation of this ‘systematic approach’ (Refer to Acknowledgement page for listing of members).

**Source Document Review** - Source documents were reviewed with many common elements of an “integrated system” emerging from this review (refer to listing of source documents at end of report). It became clear that there is a high level of consensus around what elements contribute to an integrated system and many listings and descriptions of these elements have been compiled. (15) (16) (17) (18) (19) One region used a composite listing of key elements to review current status of its regional system. (4 p. 84)

**Sorting / Categorizing / Understanding Linkages** - Since there was already much consensus on key elements, the task of this working group became not so much identifying new elements, but building on previous work by “sorting”, “categorizing” and “linking” these elements into a functional, practical framework that would facilitate not only description of the system but development of a new system.

**Plan / Do / Study / Act Cycles** - Several iterations of a system design framework were reviewed. The thinking of this subcommittee, coalesced around work done in the Erie St. Clair Region by the End of Life Care Network (ESC EOLCN) (1). A summary version of the ESC EOLCN work was presented and revised at a recent meeting of the Provincial EOLCN (Spring 2009). The ESC EOLCN work was then redefined within a provincial context and is presented here, as a work in progress, for further review.

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This knowledge synthesis report is based on the System Design Framework developed by members of the Erie St Clair End-of-Life Care Network over the course of many months and acknowledges the collective wisdom of many members of regional Networks. It is a work in progress and may not capture all the elements; however, is a start point to facilitate further discussion at the strategy development workshop, Improving the Quality of Hospice Palliative Care Across Ontario (June 2009), concerning what the key elements are and how to develop a strong system in support of hospice palliative care across Ontario. Each section includes a set of “Questions for further discussion”, which provides us with an impetus to further advance our thinking.

The report is focused on System Design. It does not provide extensive preamble information relating to definitions, models of care, importance of Hospice Palliative Care (HPC), nor does it seek to review all aspects of service delivery. Key considerations are listed but not described or explained. Many issues are intentionally not addressed in the interests of presenting a framework that is specific to system design.

Introduction

“Each ‘regional system’ of Hospice Palliative Care (HPC) in Ontario is really a ‘system of systems’. Health care in Ontario is delivered by sectors and by independent service providers, each with its own Board of Directors, individual mandate, operational imperatives and strategic directions. For most HPC providers, Palliative Care is but one of many services they deliver. The system design framework, described in this document, seeks to articulate and categorize ‘key considerations’ related to developing a Regional System of Hospice Palliative Care within the context of our ‘system of systems’.”

To move from our current system of sector-specific service provision to a true regional system of palliative care service provision requires that:

1. A full continuum of care settings and services is in place;
2. In each care setting where patients die, there is a clearly defined Palliative Care Program developed;
3. Sectors and services are linked by common practice, processes, and structures;
4. Adequate numbers of trained professionals are available;
5. System level accountability is clearly defined and communicated; and
6. Funding models, guidelines and policy directions support an integrated system.

These six “requirements/standards” are the foundational pillars around which the system design framework is constructed. Developing a regional system of Hospice Palliative Care, within Ontario’s complex healthcare environment requires a system design framework that is multifactoral and multidimensional. Such a framework simultaneously focuses attention and activity on several realms of system development.

Care Settings and Services: We must understand what the component parts of a “Service Delivery System” are before we can address system development in any manner. So what are the sectors & services (component parts), which comprise a “Regional System of HPC”? Preliminary findings, related to Care Settings and Services include:

- 24/7 Care Settings
- Ambulatory Care / Day Programs
- Community Support Services / Programs
- Expert Palliative Care Consultation Teams / Services serving patients in the 24/7 care settings, Ambulatory care / Day programs etc.

Programs within Care Settings and Services: As we seek to build “the whole” we need to consider the component parts of “the whole”. Therefore, as we are developing a “whole system” attention must be given to key elements of service delivery within each of the component parts. The system as a whole is only as strong as the weakest of its component parts. So what are the basic elements indicating that a HPC program exists within a specific care setting and what are the basic elements of a ‘clear mandate’ for HPC community services and education services? Preliminary findings related to Programs Within Care Settings include:

- Clearly articulated model of care
- Clear processes to access specialist level expertise
- Key organizational contact
- Admission Criteria

Integration / Linkages: Transitions between sectors are important to patients and families. The patients’ and families’ perspective of the coordination, seamlessness and integration of our HPC care system, is directly proportional to our success (or lack thereof) at integration and linkages between / among sectors. So how do we in the HPC system address integration and what are the fundamental integration essentials? Preliminary findings, related to regional integration essentials include:

- Common practice and processes
- Collaborative structures
- Common understanding of service delivery models
- System Level Data collection and evaluation
- Connections with broad system of health care
- Region–wide strategies and blueprints
- Provincial level leadership and consistency

Executive Summary
**Human Resources**: Compassionate, skilled people are at the very core of Hospice Palliative Care. Equipment is important, medication is vital, but without the people the right care does not reach the patient. Shortages of HPC personnel are reportedly endemic across Ontario. So what are the key categories of professionals that make up a HPC team, what training is required at what level, what are “adequate numbers” and what innovative care models can we recommend to maximize Human Resource expertise? Preliminary findings, related to human resources include:

- Team composition - listing of Key HPC professionals
- Delineation of education and training at primary and specialist levels for various professional categories (undergraduate training requirements for all providers; post-graduate courses, in-service training)
- Development of population based guidelines to help determine needs and a resultant HPC Human Resource Plan for the region/province
- Enhancement of innovative care models

**System Accountability**: If we are to develop a functioning cross sector Regional System of Hospice Palliative Care we need to develop “regional HPC program accountability models” that support and advance the care of patients across sectors, while aligning with operational accountabilities within each sector/service. So what are key considerations related to System Accountability? Preliminary findings relate to:

- Key functions of system level accountability
- Key mechanisms which facilitate system level accountability
- Fundamental principles that should be followed to advance system level accountability

**Policies, Guidelines and Funding**: Policies, guidelines and funding directly impact not only patient care but system design and development. Awareness of these issues is necessary to alert the LHIN to any shortfalls and to create “temporary work around” solutions to offset the negative impact of these issues on patient care. So what are the current policy and funding issues which negatively impact the “regional system of HPC” and is there a need for provincial level strategies / guidelines / initiatives to advance system level HPC delivery? Preliminary findings relate to:

- Consistent and adequate funding
- Full scope opportunities
- Population based planning guidelines
- Standardized accessible data sets with performance data linked to quality indicators

**Hospice Palliative Care defined**
Hospice palliative care is a holistic, interdisciplinary approach to care that aims to relieve physical, psychosocial, and spiritual suffering associated with living with a progressive life-threatening illness. It can be provided at home, in hospitals, nursing homes or free-standing hospices. It is most effectively delivered by an interdisciplinary team of health care providers. It is more than end-of-life care. In fact, hospice palliative care can (and often should) be initiated at the same time that a patient is receiving treatment to modify his or her disease(s). As such, it can be seen as a key element of any chronic disease management strategy. It assists patients to make informed choices by discussing disease status, prognosis, etiology of symptoms, assessment of risks, and benefits of treatment choices.

_Cavanagh P. (2009) adapted from the CHPCA Model to Guide Hospice Palliative Care (2002) and the South West End-of-Life Care Network 06-07 Annual Report._

**Next Steps**
As new money is invested in HPC services, a system level framework will enhance our ability to plan and review how these new investments impact the system as a whole, not just one piece of the system.

This framework is a work in progress and will continue to evolve as we assess its value related to the creation of regional systems of Hospice Palliative Care.

**Document Overview**
For each realm:

- a desired standard is articulated;
- rationale for inclusion is highlighted;
- key search questions are posed and preliminary findings addressed;
- limitations are cited; and
- questions for further discussion are included to foster ongoing development of the framework.
Introduction

“Each ‘regional system’ of Hospice Palliative Care (HPC) in Ontario is really a ‘system of systems’. Health care in Ontario is delivered by sectors and by independent service providers, each with its own Board of Directors, individual mandate, operational imperatives and strategic directions. For most HPC providers, Palliative Care is but one of many services they deliver. The system design framework, described here, seeks to describe and categorize ‘key considerations’ related to developing a Regional System of Hospice Palliative Care within the context of our ‘system of systems’.” (1 p. 1) As new money is invested in HPC services, a system level framework will enhance our ability to plan and review how these new investments impact the system as a whole, not just one piece of the system.

These six “requirements / standards” are the foundational pillars around which the system design framework is constructed.

(Foundational concepts / assumptions relating to provision of HPC are summarized in Appendix 5 and are fundamental to this framework (3))

Hospice Palliative Care defined: In conceptualizing the system design framework, we anchored our thinking in the CHPCA Model to Guide Hospice Palliative Care (2002); a definition of hospice palliative care with national consensus.

Hospice palliative care (HPC) aims to relieve suffering and improve the quality of living and dying. It strives to help patients and families:
- address physical, psychological, social, spiritual and practical issues, and their associated expectations, needs, hopes and fears
- prepare for and manage self-determined life closure and the dying process
- cope with loss and grief during the illness and bereavement.

HPC aims to:
- treat all active issues
- prevent new issues from occurring
- promote opportunities for meaningful and valuable experiences, personal and spiritual growth, and self-actualization.

HPC is appropriate for any patient and / or family living with, or at risk of developing, a life-threatening illness due to any diagnosis, with any prognosis, regardless of age, and at any time they have unmet expectations and/or needs, and are prepared to accept care. It may complement and enhance disease-modifying therapy or it may become the total focus of care.

It is most effectively delivered by an interdisciplinary team of healthcare providers who are both knowledgeable and skilled in all aspects of the caring process related to their discipline of practice. These providers are typically trained by schools or organizations that are governed by educational standards. Once licensed, providers are accountable to standards of professional conduct that are set by licensing bodies and/or professional associations.

While hospice palliative care has grown out of and includes care for patients at the end of life, today it should be available to patients and families throughout the illness and bereavement experiences. Figure 2 illustrates the typical shift in focus of care over time.

The top line represents the total ‘quantity’ of concurrent therapies. The dashed line distinguishes therapies intended to modify disease from therapies intended to relieve suffering and/or improve quality of life (labeled hospice palliative care). The lines are straight for simplicity. In reality, the total ‘quantity’ of therapy and the mix of concurrent therapies will fluctuate based on the patient’s and family’s issues, their goals for care and treatment priorities. At times, there may not be any therapy in use at all.
Developing a regional system of Hospice Palliative Care, within Ontario’s complex healthcare environment requires a system design framework that is multifactoral and multidimensional. Such a framework simultaneously focuses attention and activity on several realms of system development. (1 p. 2)

The system design framework presented here, embraces six realms of system development. These realms are:

- Care settings and Services
- Programs within care settings and services
- Integration / Linkages
- Human Resources
- System Accountability
- Policies, Guidelines and Funding

**Figure 1 illustrates these six realms of System Design and System Development**

In addition to depicting the realms of system design / development, Figure 1 attempts to illustrate the following key concepts of HPC system design and system development:

- Centrality of patient and family
- Provision of direct clinical care surrounding the patient and family - A system design framework does not directly address clinical practice. However the fundamental purpose of the framework is to enhance the milieu in which direct patient care is provided, thereby enhancing care for the patient and family. Much excellent work is available to guide processes related to direct patient care, including the Canadian Hospice Palliative Care Association (CHPCA) Model to Guide Hospice Palliative Care. (2)
  - Dynamic nature of System Design and System Development - The arrows indicate that this model is not intended to serve as a framework for static description but rather is intended to provide a template for action.
  - Interrelatedness of all realms – The relationship between each realm is not linear. All realms converge in the centre and simultaneous focus and activity is required in all 6 realms.
  - Based on CHPCA Model to Guide Hospice Palliative Care (2002) (2) - The values and guiding principles articulated in the CHPCA Model underpin every aspect of this framework. (1 p. 3)

In the report, each of the 6 realms is described in more detail. For each realm:

- a desired standard is articulated;
- rationale for inclusion is highlighted;
- key search questions are posed and preliminary findings addressed;
- limitations are cited; and
- questions for further discussion are included to foster ongoing development of the framework (1 p. 1).
Desired Standard >>

A full continuum of care settings / services is in place as per population based needs.

Rationale

We must understand what the component parts of a “Service Delivery System” are before we can address system development in any manner. Once we understand the component parts we then can determine sector / service gaps that may exist and develop inclusive system level indicators and evaluation processes. Patients requiring palliative care have fluctuating and complex needs which are rarely completely met by any one facility / service / provider. Many care settings and services are required. (1 p. 5)

Criteria for inclusion

For the purposes of this initial review the following inclusion criteria are used:

- Sectors and Services that have an explicit mandate &/or dedicated funding for HPC service delivery
- Settings of care where a significant number of patients die
- Settings and services that have specific data codes related to HPC
- Services that are supported as essential components of a HPC program even if no data is available (e.g. Grief and bereavement services) (1 p. 5)

Limitations

The preliminary findings related to care settings and services simply name a number of sectors and services to be considered in our “system of HPC”. This serves as a beginning point. It is acknowledged that many valuable services may not be included in this initial listing of the component parts of the system. Each sector / service is described in greater detail in various regional reports. (4) (12).

The need for numerous sector / services is supported by the CHPCA Model to Guide Hospice Palliative Care. (2 pp. 68, 72)

Population based guidelines in Ontario are under development (Refer to Appendix 4 for examples)
Search Questions >>

What are the sectors & services (component parts) which comprise a “Regional System of HPC”? What volumes of each service would comprise a “full continuum”?

Preliminary findings related to care settings and services

1. Component parts of the System
   a. 24/7 Care Settings
      - Hospitals
        » Acute Care (including Tertiary Care and host hospitals for Regional Cancer Programs)
        » Complex Continuing Care
      - Long Term Care Homes
      - Residential Hospices
      - Patients’ Home (CCAC & Direct Care Service Providers) - note “patients’ home” in this context includes: community living homes and the many other settings where patients live
   
   b. Ambulatory Care / Day Programs
      - Regional Cancer Centres including Palliative Care Clinics in the Centre or host hospital
      - Clinics in other locations
      - Day Programs (including those run by volunteers)
      - Physician’s offices, Community Health Centres, Family Health Teams etc.
   
   c. Community Support Services / Programs
      - Palliative Pain & Symptom Management Consultation Program
      - Education Programs
      - Volunteer Hospice Programs
      - Grief and Bereavement Services
   
   d. Expert Palliative Care Consultation Teams / Services serving patients in the 24/7 care settings, Ambulatory care / Day programs etc.
      - Teams serving only one care setting
      - Teams serving across several sectors

2. Use of population based guidelines to help determine “full continuum” (under development) (1 pp. 5,6)

Questions for further discussion

- Is this the right listing of services? What is missing? What should be added? Is categorization right?
- Can we endorse the need for a “population based” calculation approach for recommending bed / service requirements? – (refer to Australia work, adapted by Fraser Health and applied to Ontario’s population in several recent reports [i.e. Erie St. Clair and Southeast – refer to appendix 4 for example from one region]).
- If this is the basic listing of services, can we use this list in a gap analysis manner to identify key sectors / services that are “missing” in specific regions and start to make recommendations related to augmenting these sectors/services?
- If accurate data is an important component related to developing a system of HPC service delivery, how do we start gathering the right data? (consider CIHI / ICIS / other study / report)
Desired Standard >>

In each care setting where patients die, there is a clearly defined Palliative Care Program developed. (I.e. 24/7 care settings)

All HPC Services (e.g. Day Programs, Clinics, Consultation Services, Volunteer Services and Education Services) articulate a clear mandate and service specific criteria.

Rationale

As we seek to build “the whole” we need to consider the component parts of “the whole”. Therefore as we are developing a “whole system” attention must be given to key elements of service delivery within each of the component parts. The system as a whole is only as strong as the weakest of its component parts. (‘Component parts’ are cited above under ‘Care Settings and Services’)

The concept of integration presupposes the presence of several functioning independent programs linking across sectors. We cannot link to something that does not exist. Thus we must have some basic understanding of (and some way to define) what constitutes a HPC program within each sector.

Additionally we must have a sense of the mandate of all HPC services as they provide support to patients, families and care providers in a variety of care settings. A clear understanding of this mandate will prevent duplication and will maximize access to these services. (1 p. 7)

As we continue to refine programming within each of the component parts and strengthen linkages between and among providers it is our vision that a “gestalt” will emerge in which “the whole” becomes greater than the sum of its component parts.

Acknowledgement: The CHPCA Model to Guide Hospice Palliative Care (2) and its “Guide to Organizational Development & Function”: Mission & Vision, Square of Organization, Principles and Norms of Practice provide significant guidance for organizations as they develop a HPC program. Various models of care are cited including consultation models and specialized environments (2 pp. 68,72)

Limitations

This highlighting of these “program elements” and “clear mandates” does not seek to replace or summarize the many excellent: accreditation processes (20), gold standard documents, (21) best practice reviews etc. that exist to provide comprehensive guidance to provision of high quality of care and internal functioning of an organization/service. It is assumed that general principles of safe and effective care are in place in each care setting/service. (1 p. 8)
Search Questions >>

What are the basic elements indicating that a HPC program exists within a specific care setting?
- A listing of these key elements will help specific sectors/facilities answer the question “Do we have a Hospice Palliative Care program in our setting?”

What are the basic elements of a ‘clear mandate’ for HPC community services and education services? (1 p. 8)

Preliminary findings related to programs within care settings and services

1. Basic elements indicating that a HPC program exists within a specific care setting include:
   - A model of care is articulated
   - Processes, to access specialist level expertise, are clearly defined (including 24/7 access)
   - Clear admission criteria
   - Education about HPC is offered to primary level providers (to enable them to address basic HPC needs and to know when the patient requires a referral to specialist level care providers)
   - Key organizational contact is identified
   - Access to Interdisciplinary expertise is available
   - Linkages with partners is evident
   - Reporting, evaluation, CQI and data accountability occurs

2. Basic elements of a ‘clear mandate’ for HPC community services and education services involve answers to specific questions including:
   - “What populations do we serve / not serve?”
   - “What is our scope?”
   - “How do we report our work (data, accountability, evaluation)?”
   - “How do we integrate with our partners?” (1 p. 8)

Questions for further discussion

- Is it important to have some way to define a “program” of HPC within each setting or can we assume that if patients are requiring HPC then they are receiving it?
- Is it important to have a clear mandate for HPC services?
- Are these the minimal key elements to defining a program within care settings?
- If “access to specialist level expertise” is agreed upon as a key element, can we begin to recommend best practice approaches to this access? (e.g. Consultation Teams using a shared care approach?)
Desired Standard >>

Sectors and services are linked by common practice, processes, and structures and possess a common understanding of service delivery models.

Rationale

Transitions between sectors are important to patients and families. The patients’ and families’ perspective of the coordination, seamlessness and integration, of our HPC care system, is directly proportional to our success (or lack thereof) at integration and linkages between / among sectors. Integration is a key focus in health care in Ontario. (1 p. 9)

Acknowledgement: Much work has been done related to listings of key integration elements. The listing of “integration essentials” cited below is a distillation of much previous work (15) (2) (16) (17) (21) (18).

Search Questions >>

How do we in the HPC system address integration?
What are the fundamental integration essentials?

Limitations

As with all aspects of this system design / system development framework, there is much more that could be said and done. This current report serves as a starting point by providing examples and is not meant to be all inclusive. (1 p. 10) Next steps will benefit from provincial level leadership.
Preliminary findings related to integration / linkages

Regional Integration Essentials

1. Common practice and processes:
   - Clear criteria differentiating roles of various sectors and services within a given geographic area
   - Clear access points/processes for admission and discharge to/from sectors/services
   - Clear transition processes (hand-offs) between sectors/services
   - Use of Common tools

2. Collaborative structures include:
   - Venues for integrated care planning (cross sector patient specific rounds, team meetings)
   - Venues for collaborative process development (EOLCN tables etc.)
   - Shared communication/IT with accessible patient records between sectors/services
   - Defined access to specialist expertise/expert consultation teams-with cross sector “connections” and identified human “connectors” from each care location/service
   - Cross sector registry of HPC patients

3. Common understanding of service delivery models including:
   - Common understanding of how specialist level expertise/consultation teams function including:
     » Type of “Shared Care Model” used in each sector
     » How specialists/teams link with Primary Care
     » How specialists in each care setting link with each other

4. System Level Data collection and evaluation
   - Development of system level indicators, evaluation framework and CQI activities using balanced scorecard approach with quadrants that address:
     > patient/family perspectives > financial
     > utilization > innovation

5. Connections with broad system of health care including:
   - Shared approaches to Health Care Consent and Advance Care Planning
   - Connections with Provincial, National & International bodies
   - Connections with broader Health Care system regionally and provincially

6. Region-wide strategies and blueprints for:
   - Education
   - Communication

7. Provincial level leadership and consistency:
   - Continued advancement of use of common tools (e.g. Ontario Cancer Symptom Management Collaborative)
   - Development of provincial balanced scorecard etc.
   - Ongoing provincial level venue to continue collaborative cross sector system development. (1 pp. 9, 10)

Questions for further discussion

- Is it important to include “Integration/Linkages” in our consideration of system design/system development?

- Is the listing of “integration essentials” a good starting point? If no, where should we start?

- What is missing from the list? What is on the list but should not be?

- How would we better evaluate “current state of integration”?

- What provincial level leadership is required?
Compassionate, skilled people are at the very core of Hospice Palliative Care. Equipment is important, medication is vital, but without the people the right care does not reach the patient. Shortages of HPC personnel are reportedly endemic across Ontario. Addressing Human Resource issues is fundamental to developing a functioning system of HPC.

**Desired Standard >>**

* Adequate numbers of trained professionals are available as per population based needs assessment.

**Rationale**

Compassionate, skilled people are at the very core of Hospice Palliative Care. Equipment is important, medication is vital, but without the people the right care does not reach the patient. Shortages of HPC personnel are reportedly endemic across Ontario. Addressing Human Resource issues is fundamental to developing a functioning system of HPC.

**Search Questions >>**

* What are the key categories of professionals that make up a HPC team?
* What training is required at what level?
* What are “adequate numbers”?
  * What are population based calculations?
* What innovative care models can we recommend to maximize Human Resource expertise? (1 p. 11)

**Limitations**

Many limitations exist as we explore the Human Resources realm of system design / system development. We will “touch the surface” by including a list of a professionals involved with HPC service delivery. Next steps categories of work are cited and are suggested as inclusion for work at the provincial level.
Preliminary findings related to human resources

1. **Team composition - Listing of key HPC professionals**

   HPC is by definition an interdisciplinary / collaborative care and shared care process Therefore a broad spectrum of care providers is required.

   **Specialist /Tertiary Level Providers include:**
   - HPC Physicians
   - Nurse Practitioners trained in HPC, Expert HPC Nurses,
   - HPC Specialists in all other relevant professions including:
     - Social Work
     - Psychologists
     - Volunteers, etc
     - Allied Health (e.g. Pharmacists, Rehabilitation Therapies, Respiratory Therapy, Dietician, etc.)

   **Primary Care Providers**
   - Physicians including:
     - Family Physicians
     - Family Health Teams
     - Community Health Centres
     - Specialists in other non-palliative fields (Surgeons etc)
     - Other physicians not trained in HPC
   - Nurses
   - Primary Care providers in all other relevant professions including:
     - Social Work
     - Psychologists
     - Volunteers and others
     - Allied Health (e.g. Pharmacists, Rehabilitation Therapies Respiratory Therapy, Dietician, etc.)

2. **Delineation of education and training at primary and specialist levels for various professional categories (undergraduate training requirements for all providers; post-graduate courses, in-service training).**

3. **Development of population based guidelines to help determine needs and a resultant HPC Human Resource Plan for the region/province.**

4. **Enhancement of innovative care models including:**
   - Shared care between primary care and specialist levels (with capacity building intent)
   - Enhanced team roles – collaborative care
   - Development of trans-discipline consultation models (1 pp. 11,12)

---

**Questions for further discussion**

*note - these questions are best addressed at the provincial level:*

- What work has been done to define and develop criteria for “specialist” level training for key professions? (e.g. Refer to recent work done by CCO, etc.) Should more work be done?
- What core curriculum elements should be part of health care professionals’ basic training?
- How do we start to identify “population based needs”? (Refer to Australia work, adapted by Fraser Health etc).
- What innovative care models can we adapt to accommodate for our current Human Resource shortages in specific professions?
- What will encourage more physicians to become involved with HPC? (Refer to discussion under policy / funding realm).
- Is this the right listing of HPC team members? Do we expect that all of these professionals should be able to develop specialist level expertise within their scope of practice, or are there some of these professions that would not be expected to develop such expertise?
Desired Standard >>
System level accountability is clearly defined and communicated.

Rationale
In as much as a regional system of care is really a “system of systems”, system level accountability is shared accountability. System level accountability is “vested accountability”; vested by those with funding and accountability authority (e.g. the Local Health Integration Network [LHIN]), operational responsibility (e.g. hospitals, etc.) and oversight and coordinating roles (e.g. Cancer Care Ontario etc.).

If we are to develop a functioning cross sector Regional System of Hospice Palliative Care we need to develop “regional HPC program accountability models” that support and advance the care of patients across sectors, while aligning with operational accountabilities within each sector/service. As new money is provided for HPC initiatives (e.g. Aging at Home Funding) it is increasingly important that relative accountabilities be clearly defined.

The LHINs are key in defining the parameters of this regional accountability. Provincial consistency is important, in terms of high level expectations of structures, processes and outcomes related to regional system level accountability models. (1 p. 13)

Limitations
The discussion, which follows is preliminary work related to system level accountability and requires further refinement.
Search Questions >>

What are key functions of system level accountability?
What are key mechanisms which facilitate system level accountability?
What fundamental principles should be followed to advance system level accountability? (1 p. 13)

Preliminary findings related to system level accountability

1. **Key Functions of system level accountability include:**
   - evaluation of HPC outcomes at a system level
   - broad system design
   - system level integration of services
   - promotion of service innovations
   - developing a system level communication strategy
   - monitoring and assessment of community needs

2. **Key Mechanisms which facilitate regional system level accountability are listed below:**
   - A ‘regional accountability structure’ is established. The role and accountability mechanism for this accountability structure:
     » is endorsed by the LHIN & aligns with MOHLTC policies / directions
     » aligns with system-wide cancer plan and system plans from other relevant disease specific initiatives
     » aligns with sector-specific accountability agreements / reporting requirements
     » includes clear accountability agreements in terms of operational roles, advisory roles and evaluation roles as vested by the LHIN and other relevant operational sectors / services
   - System level indicators and CQI activities are developed, monitored and reported
   - Regular reporting to the LHIN from this ‘regional accountability structure’ occurs
   - Provincial consistency in terms of accountability expectations is developed (1 pp. 13, 14)

3. **Fundamental Principles to advance system level accountability are based on principles of effective accountability** (as outlined in the December 2002 Report of the Auditor General of Canada (22)) and include:
   - clear roles and responsibilities
   - clear performance expectations
   - balanced expectations and capacities
   - credible reporting
   - responsible communication
   - reasonable review and adjustment.

Questions for further discussion

- What other successful models exist in Ontario for system level accountability?
  What can we learn from these models?

- Can we develop a provincial guideline for regional system level accountability?
Desired Standard >>

Funding models, guidelines and policy directions support an integrated system.

Rationale

Remediation of policy and funding issues may be beyond the scope of an individual region. However such issues are included in a regional framework because they directly impact not only patient care but system design and development. Work on these issues is incorporated into regional work plans as local providers work collectively with provincial partners to begin to address these issues. Awareness of these issues is necessary to alert the LHIN to such shortfalls and to create “temporary work around” solutions to offset the negative impact of these issues on patient care. The suggestions are starting points for collective work at the provincial level. (1 p. 15)

Limitations

The preliminary details below will list a number of key issues without providing details on why these are seen to be important. Many of these issues are addressed in more detail in regional reports on services.
Search Questions >>

What are current policy and funding issues which negatively impact the “regional system of HPC”?

Is there a need for provincial level strategies/guidelines/initiatives to advance system level HPC delivery?
• If “yes” – what are these?

Preliminary findings related to policy and funding:

1. Policy and funding issues:
   • Consistent and adequate funding for:
     » Physicians
     » Programming (including residential hospices) and supplies (medication etc.)
     » Regional accountability structures and Provincial level support structure
   • Full scope opportunities for Nurse Practitioners and others

2. Provincial level guidelines/strategy for:
   • System design
   • Population based ratios for:
     » specialist consultation teams/services,
     » dedicated beds including residential hospices
     » profession specific ratios (Refer to Australia work (18))
   • Reporting – standardized accessible data sets with performance data linked to quality indicators
   • CQI and research activities
   • Education – basic and advanced. (1 p. 16)

Questions for further discussion
• Are the suggestions related to development of provincial guidelines / strategy worth consideration?
• If yes, how do begin to address these issues?
THE SYSTEM DESIGN FRAMEWORK discussed here provides us with a way to organize our thinking and our work. It directs our activity to six realms of system development and provides preliminary details related to categories and topics for consideration in each realm. System level development requires simultaneous focus on these interrelated realms. (1 p. 1)

As new money is invested in HPC services, a system level framework will enhance our ability to plan and review how these new investments impact the system as a whole, not just one piece of the system.

(Refer to Appendix 1 for a Summary Table of: Framework Realms, Standard Statements and Key Considerations)
(Refer to Appendix Two for an Expanded Schematic of the System Design Framework including Realms, Standard Statements and Highlights of Key Considerations)

Currently, the usefulness of this framework is being tested in one region where it is being used as a structure around which to systematically structure EOLCN activities such as:
- Strategic priorities
- Goals / objectives
- Work plans
- Inventories
- Evaluation approaches
- Status / update reports (Refer to Appendix 3 for an example of a very rudimentary attempt at presenting a multifactorial review of system level activities – based on this framework). (1 p. 16)

This System Design Framework has been used by the PEOCN to structure a “Preliminary Inventory / Review of the HPC System” (5)

NEXT STEPS include bringing this work to the Palliative Care Strategy Development Workshop (June 2009), as a stimulus for further discussion related to development of regional systems of hospice palliative care delivery in Ontario and leveraging these regional systems to advance a province-wide system.

This framework is a work in progress and will continue to evolve as we assess its value related to the creation of regional systems of Hospice Palliative Care.
WORKS CITED

5. Provincial End of Life Care Network. Preliminary Inventory of Hospice Palliative Care Services in Ontario. 2009.
10. HNHB HPCN (Darnay J). HNHB HPC Network Assessment and Analysis of Palliative Care Needs in Hamilton Niagara Haldimand Brant . s.l. : Hamilton Haldiman Niagara Brant Hospice Palliative Care Network, 2008.
17. Cancer Care Ontario. Improving the Quality of Palliative Care Services for Cancer Patients in Ontario. 2006.
System Design Framework – Summary Table of: Framework Realms, Standard Statements and Key Considerations

### Care Settings and Services

**Desired Standard:** A full continuum of care settings / services is in place as per population based needs

A full continuum of Care Settings and Services for Hospice Palliative Care includes the following:

1. **Component parts of the System**
   a. **24/7 Care Settings**
      - Hospitals
        - Acute Care (including Tertiary Care and host hospitals for Regional Cancer Programs)
        - Complex Continuing Care
      - Long Term Care Homes
      - Residential Hospices
      - Patients’ Home (CCAC & Direct Care Service Providers) - note “patients’ home” in this context includes: community living homes and the many other settings where patients live
   b. **Ambulatory Care / Day Programs**
      - Regional Cancer Centres including Palliative Care Clinics in the Centre or host hospital
      - Clinics in other locations
      - Day Programs (including those run by volunteers)
      - Physician's offices, Community Health Centres, Family Health Teams etc.
   c. **Community Support Services / Programs**
      - Palliative Pain & Symptom Management Consultation Program
      - Education Programs
      - Volunteer Hospice Programs
      - Grief and Bereavement Services
   d. **Expert Palliative Care Consultation Teams / Services serving patients in the 24/7 care settings, Ambulatory care / Day programs etc.**
      - Teams serving only one care setting
      - Teams serving across several sectors

2. **Use of population based guidelines to help determine “full continuum” (under development) (1 pp. 5,6)**

### Programs within Care Settings and Services

**Desired Standard:**

In each care setting where patients die, there is a clearly defined Palliative Care Program developed. (i.e. 24/7 care settings)

All HPC Services (e.g. Day Programs, Clinics, Consultation Services, Volunteer Services and Education Services) articulate a clear mandate and service specific criteria.

1. **Basic elements indicating that a HPC program exists within a specific care setting include:**
   - A model of care is articulated
   - Processes, to access specialist level expertise, are clearly defined (including 24/7 access)
   - Clear admission criteria
   - Education about HPC is offered to primary level providers (to enable them to address basic HPC needs and to know when the patient requires a referral to specialist level care providers)
   - Key organizational contact is identified
   - Access to Interdisciplinary expertise is available
   - Linkages with partners is evident
   - Reporting, evaluation, CQI and data accountability occurs

2. **Basic elements of a ‘clear mandate’ for HPC community services and education services involve answers to specific questions including:**
   - “What populations do we serve / not serve?”
   - “What is our scope?”
   - “How do we report our work (data, accountability, evaluation)?”
   - “How do we integrate with our partners?” (1 p. 8)
Regional Integration Essentials

1. **Common practice and processes:**
   - Clear criteria differentiating roles of various sectors and services within a given geographic area
   - Clear access points/processes for admission and discharge to/from sectors/services
   - Clear transition processes (hand-offs) between sectors/services
   - Use of Common tools

2. **Collaborative structures include:**
   - Venues for integrated care planning (cross sector patient specific rounds, team meetings)
   - Venues for collaborative process development (EOLCN tables etc.)
   - Shared communication/IT with accessible patient records between sectors/services
   - Defined access to specialist expertise/expert consultation teams with cross sector “connections” and identified human “connectors” from each care location/service
   - Cross sector registry of HPC patients

3. **Common understanding of service delivery models including:**
   - Common understanding of how specialist level expertise/consultation teams function including:
     - Type of “Shared Care Model” used in each sector
     - How specialists/teams link with Primary Care
     - How specialists in each care setting link with each other

4. **System Level Data collection and evaluation**
   - Development of system level indicators, evaluation framework and CQI activities using balanced scorecard approach with quadrants that address:
     > patient/family perspectives > financial
     > utilization > innovation

5. **Connections with broad system of health care including:**
   - Shared approaches to Health Care Consent and Advance Care Planning
   - Connections with Provincial, National & International bodies
   - Connections with broader Health Care system regionally and provincially

6. **Region-wide strategies and blueprints for:**
   - Education
   - Communication (1)

7. **Provincial level leadership and consistency:**
   - Continued advancement of use of common tools (e.g. Ontario Cancer Symptom Management Collaborative)
   - Development of provincial balanced scorecard etc.
   - Ongoing provincial level venue to continue collaborative cross sector system development. (1 pp. 9,10)
Human Resources

Desired standard: Adequate numbers of trained professionals are available as per population based needs assessment.

1. **Team composition - Listing of key HPC professionals**
   HPC is by definition an interdisciplinary / collaborative care and shared care process Therefore a broad spectrum of care providers is required.
   *Specialist /Tertiary Level Providers include:*
   - HPC Physicians
   - Nurse Practitioners trained in HPC, Expert HPC Nurses,
   - HPC Specialists in all other relevant professions including:
     - Social Work
     - Psychologists
     - Volunteers, etc
     - Allied Health (e.g. Pharmacists, Rehabilitation Therapies, Respiratory Therapy, Dietician, etc.)
   *Primary Care Providers*
   - Physicians including:
     - Family Physicians
     - Family Health Teams
     - Community Health Centres
     - Specialists in other non-palliative fields (Surgeons etc)
   - Other physicians not trained in HPC
   - Nurses
   - Primary Care providers in all other relevant professions including:
     - Social Work
     - Psychologists
     - Volunteers and others
     - Allied Health (e.g. Pharmacists, Rehabilitation Therapies Respiratory Therapy, Dietician, etc.)

2. **Delineation of education and training at primary and specialist levels for various professional categories (undergraduate training requirements for all providers; post-graduate courses, in-service training).**

3. **Development of population based guidelines to help determine needs and a resultant HPC Human Resource Plan for the region/province.**

4. **Enhancement of innovative care models including:**
   - Shared care between primary care and specialist levels (with capacity building intent)
   - Enhanced team roles – collaborative care
   - Development of trans-discipline consultation models (1 pp. 11,12)

Accountability

Desired standard: System level accountability is clearly defined and communicated.

1. **Key Functions of system level accountability include:**
   - evaluation of HPC outcomes at a system level
   - broad system design
   - system level integration of services
   - promotion of service innovations
   - developing a system level communication strategy
   - monitoring and assessment of community needs

2. **Key Mechanisms which facilitate regional system level accountability are listed below:**
   - A ‘regional accountability structure’ is established. The role and accountability mechanism for this accountability structure:
     - is endorsed by the LHIN & aligns with MOHLTC policies / directions
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   - System level indicators and CQI activities are developed, monitored and reported
   - Regular reporting to the LHIN from this ‘regional accountability structure’ occurs
   - Provincial consistency in terms of accountability expectations is developed (1 pp. 13, 14)

3. **Fundamental Principles to advance system level accountability are based on principles of effective accountability** (as outlined in the December 2002 Report of the Auditor General of Canada (22)) and include:
   - clear roles and responsibilities
   - clear performance expectations
   - balanced expectations and capacities
   - credible reporting
   - responsible communication
   - reasonable review and adjustment.
1. **Policy and funding issues:**
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   - Population based ratios for:
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     - profession specific ratios (Refer to Australia work (18))
   - Reporting – standardized accessible data sets with performance data linked to quality indicators
   - CQI and research activities
   - Education – basic and advanced (1 p. 16)
System Design Framework for Hospice Palliative Care

Realms, Standard Statements and Highlights of Key Considerations

1. Basic elements indicating that a HPC program exists within a specific care setting.
2. Basic elements of a 'clear mandate' for HPC community services and education services.

Programs within Care Settings and Services
- In each care setting where patients die, a Palliative Care Program is developed.
- All HPC Services articulate a clear mandate.

Care Settings and Services
- A Full Continuum of Care Settings/Services is in place as per population based needs.

Policies, Guidelines and Funding
- Funding models, guidelines and policy directions support an integrated system.

Integration/Linkages
- Sectors and services are linked by common practice, processes, and structures and possess a common understanding of service delivery models.

Human Resources
- Adequate numbers of trained professionals are available as per population based needs/assessment.

Accountability
- System level accountability is clearly defined and communicated.

1. Common practice, processes and structures
2. Common understanding of service delivery models
3. System level data collection and evaluation
4. Connections with a broad system of health care

1. Team composition Key HPC professionals
2. Delineation of education and training
3. Population based guidelines
4. Enhancement of innovative care models


CPCA Model to Guide Hospice Palliative Care (2002) underpins this framework: Direct Care based on Square of Care; Organizational Development based on Square of Organization; Principles include: Patient/Family Focused, High Quality, Safe REFFective, Accessible, Adequately Resourced, Collaborative, Knowledge-Based, Advocacy Based, Research Based.
Appendix 3

Rudimentary Example of a Multifactoral Review of Current Status of a Regional System of Hospice Palliative Care

*Based on System Design Framework*
### Table A - Projected Need
#### Acute Care Bed Equivalents
(Assumes ongoing development of Community Based Programs Residential Hospice, CCC & LTC Palliative Care Programs)

<table>
<thead>
<tr>
<th></th>
<th>Australia</th>
<th>Fraser Health</th>
<th>Recommendation for LHIN Region 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beds/ 100,000 Population</strong></td>
<td>6.7</td>
<td>7.66</td>
<td>7</td>
</tr>
<tr>
<td><strong>Projected Number of Beds</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using Planning Area 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population of 109,000</td>
<td>6.7 x 109,000</td>
<td>7.66 x 109,000</td>
<td>7 x 109,000</td>
</tr>
<tr>
<td></td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td></td>
<td>=7.3</td>
<td>=8.34</td>
<td>= 7.63</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Includes 2.18 tertiary beds</td>
<td></td>
</tr>
<tr>
<td><strong>Projected Number of Beds</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using Planning Area 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population of 132,000</td>
<td>6.7 x 132,000</td>
<td>7.66 x 132,000</td>
<td>7 x 132,000</td>
</tr>
<tr>
<td></td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td></td>
<td>=8.8</td>
<td>=10.11</td>
<td>= 9.24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Includes 2.64 tertiary beds</td>
<td></td>
</tr>
<tr>
<td><strong>Projected Number of Beds</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using Planning Area 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population of 410,000</td>
<td>6.7 x 410,000</td>
<td>7.66 x 410,000</td>
<td>7 x 410,000</td>
</tr>
<tr>
<td></td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td></td>
<td>=27</td>
<td>=31.4</td>
<td>= 28.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Includes 8.2 tertiary beds</td>
<td></td>
</tr>
<tr>
<td><strong>Projected Number of Beds</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using Total LHIN Region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population of 651,000</td>
<td>6.7 x 651,000</td>
<td>7.66 x 651,000</td>
<td>7 x 651,000</td>
</tr>
<tr>
<td></td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td></td>
<td>=43</td>
<td>=49.86</td>
<td>= 45.57</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Includes 13.02 tertiary beds</td>
<td></td>
</tr>
</tbody>
</table>

#### Explanation of Methodology

Australian recommendation is for specialist palliative care inpatient beds.

F H projects the following (2010) needs for a population of 1.5 million,
- 30 Tertiary beds, or 2 per 100,000
- 85 Acute care beds
Total of 115 beds (plus Hospice beds)

Difficult to evaluate current PC Acute Care levels due to under coding in hospitals.

Current coded numbers show:
- 6 bed equivalents in Planning Area 1
- 9.6 in Planning Area 2
- 16.4 in Planning Area 3
# Table B - Population based calculation and current status

## Residential Hospice beds – LHIN Region example

<table>
<thead>
<tr>
<th></th>
<th>Calculations for LHIN Region 2009 Based on Fraser Health numbers</th>
<th>Current status LHIN Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beds/ 100,000 Population</td>
<td>7</td>
<td>No ratio used</td>
</tr>
<tr>
<td>Number of Beds Using Planning Area 1</td>
<td>7 x 109,000 &lt;br&gt;Population of 109,000 &lt;br&gt;100,000 =7.63</td>
<td>0</td>
</tr>
<tr>
<td>Number of Beds Using Planning Area 2</td>
<td>7 x 132,000 &lt;br&gt;Population of 132,000 &lt;br&gt;100,000 =9.24</td>
<td>10 beds approved – currently under construction</td>
</tr>
<tr>
<td>Number of Beds Using Planning Area 3</td>
<td>7 x 410,000 &lt;br&gt;Population of 410,000 &lt;br&gt;100,000 =28.7</td>
<td>8 beds approved and open</td>
</tr>
<tr>
<td>Number of Beds Using Total Region</td>
<td>7x 651,000 &lt;br&gt;Population of 651,000 &lt;br&gt;100,000 =45.57</td>
<td>18</td>
</tr>
</tbody>
</table>

### Explanation of Methodology

FH estimated the need for 7 beds per 100,000 population based on the assumption that one third of patients registered on the HPC program would die in hospice. This assumption has been validated. Using the currently approved number of beds and the population of each county, the following is the number of approved beds per 100,000 population:

- Planning Area 1 has no approved beds
- Planning Area 2 the ratio would be 7.57 beds/100,000 population
- Planning Area 3 the ratio would be 1.95 /100,000

The residential hospice sector is evolving in Ontario. No defined population based recommendations are yet available.
### Table C - Target Volumes – LHIN Region HPC Program Volumes by Program Category

Referrals for assessment / Ongoing consultation/ Direct Care

Based on Methodology from Australia Planning Guide (pg 21), used by Fraser Health:

**Cancer patients:**
- Assessment for, 90% of patients within the region that die of cancer
- Ongoing consultation for 70% of cancer patients
- Direct care for 20% of cancer patients

**Non Cancer Patients:**
- Assessment of 50% of patients expected to die from non-malignant diseases
- Ongoing consultation for 30%
- Direct care for 10%

<table>
<thead>
<tr>
<th>Diagnosis Group</th>
<th>Actual deaths (2005)</th>
<th>Referrals for Assessment</th>
<th>Ongoing Consultation</th>
<th>Direct Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>1,411</td>
<td>1,270 (90%)</td>
<td>988 (70%)</td>
<td>282 (20%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1508</td>
</tr>
<tr>
<td>Non-cancer</td>
<td>3,700</td>
<td>1850 (50%)</td>
<td>1110 (30%)</td>
<td>370 (10%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3830</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,111</strong></td>
<td><strong>3,120</strong></td>
<td><strong>2,098</strong></td>
<td><strong>552</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diagnosis Group</th>
<th>Projected Need (2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>1,508 (90%)</td>
</tr>
<tr>
<td></td>
<td>1,056 (70%)</td>
</tr>
<tr>
<td></td>
<td>301 (20%)</td>
</tr>
<tr>
<td>Non-cancer</td>
<td>3,830 (50%)</td>
</tr>
<tr>
<td></td>
<td>1,149 (30%)</td>
</tr>
<tr>
<td></td>
<td>383 (10%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,338</strong></td>
</tr>
<tr>
<td></td>
<td><strong>3,272</strong></td>
</tr>
<tr>
<td></td>
<td><strong>2205</strong></td>
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<td><strong>684</strong></td>
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</tbody>
</table>

### Table D – Target volumes LHIN REGION HPC Needs – Current & Projected

Application of Predictive Methodologies

<table>
<thead>
<tr>
<th>Methodology</th>
<th>Current Needs</th>
<th>Projected 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Romanow Report:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td># of deaths due to cancer per year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>plus 20% to include other diagnoses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>requiring palliative care (PC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It was assumed that only 67% of those</td>
<td></td>
<td></td>
</tr>
<tr>
<td>requiring PC would actually utilize</td>
<td></td>
<td></td>
</tr>
<tr>
<td>services. Some discussion of these</td>
<td></td>
<td></td>
</tr>
<tr>
<td>numbers being for home care services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>only</td>
<td></td>
<td></td>
</tr>
<tr>
<td># of cancer deaths 2007 + 20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1,411* + 282) x 67%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>= 1,134 patients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>requiring palliative home care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note – LHIN REGION CCAC cited a</td>
<td></td>
<td></td>
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<tr>
<td>caseload for PC of 1,076 clients in 2007</td>
<td></td>
<td></td>
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<tr>
<td><strong>Kirby Report:</strong></td>
<td></td>
<td></td>
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<tr>
<td>Total # of deaths per year multiplied by 73%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total # of deaths 2005 x 73%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>= 3,731</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Palliative Care Australia:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Planning Guide (pg21) Methodology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>adapted by Fraser Health (in British Columbia)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 90% of cancer deaths</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 50% of other deaths</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,411 x 90% + 3700 x 50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>= 1,270 + 1850</td>
<td></td>
<td></td>
</tr>
<tr>
<td>= 3,120</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Projected # of deaths</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,508 x 90% + 3830 x 50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>= 1,357 + 1915</td>
<td></td>
<td></td>
</tr>
<tr>
<td>= 3,272</td>
<td></td>
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</tr>
</tbody>
</table>

* Data Source: Ontario Mortality database; Ontario Population Projections, Ontario Ministry of Finance, Deaths from Cancer by LHIN
** Data source – LHIN staff – from Vital Stats for 2005
*** Projected # of deaths based on 2005 death rate/population (5111/646,360 + 790.7/100,000 population) and projected for 2011 population of 675,070 (Population # from Health System Monitoring Report.)
Foundational Assumptions related to HPC Service Provision

Four foundational assumptions/concepts, relating to HPC Service Provision, form the backdrop for the System Design Framework. (3)

These are:

1. Many care settings and services are required.

2. Both Specialists and Primary Level Providers are needed (Specialist care is typically subdivided into two levels – Secondary and Tertiary).
   2.1 Shared care is an approach to link different levels of expertise.
   2.2 The majority of HPC needs are met by Primary Care providers.

3. Every care setting/service, caring for dying patients requires access to Specialist Level Hospice Palliative Care expertise (in addition to Primary Level Providers).
   3.1 Access to expertise may be “in-house” or external.

4. Teamwork is essential - Collaborative Care / Interdisciplinary Care involves more than one profession. (teamwork is important within the primary care team and within the specialist level team).
   4.1 Palliative Care Consultation Teams (PCCT) are a preferred approach to delivering HPC.
   4.2 Trans-discipline consultation occurs when a HPC specialist from one profession provides consultation to a primary level professional from another profession. (3)

(Diagram below summarizes a number of these concepts. Diagram is from ESC Report (4))
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