2 Clinical Services Programs

In 2007, the Central East LHIN conducted a 1-day retreat with key stakeholders to explore inpatient issues and challenges that persistently emerge within the LHIN population. At the conclusion of this retreat, the following hospital programs of focus were confirmed for the clinical services plan project:

1. Cardiac Services
2. Paediatrics, which evolved into Maternal-Child-Youth Services
3. Mental Health and Addiction Services
4. Thoracic Surgery
5. Vascular Surgery

After establishing the Steering Committee to lead this project, Advisory Groups were formed for each of the clinical programs. These groups were comprised of physicians, clinical and administrative leadership from across the LHIN for each of the respective clinical program areas. The role of the Advisory Groups was:

- To provide guidance and advice to the CSP Steering Committee concerning service issues;
- To identify unique factors that need to be considered in developing service model options;
- To engage in facilitated dialogue to discuss various viable clinical service delivery model options; and
- To provide a recommendation to the Steering Committee on the preferred future state delivery model for the respective clinical program areas, outlining the roles that various hospitals will play, and the associated implications of the recommended model across a number of dimensions, e.g. health human resource requirements, transportation, cost, physical plant/infrastructure.

To fulfill its mandate as summarized above, each Advisory Group participated in a number of facilitated working sessions. During the course of these sessions each group worked to accomplish the following:

1. Define the scope of clinical area
2. Review current and projected future service utilization patterns
3. Explore potential program service model options
4. Engage in discussions to identify a recommended model(s) to forward to the CSP Steering Committee

Defining Each Hospitals' Role within the Clinical Program Service Delivery Model

As part of the process of exploring and evaluating various service delivery model options, it was critical for the Advisory Groups to understand and define the various roles that each hospital could play within a LHIN-wide clinical program context. With this in mind, as various model options were discussed, the following key organizational roles were defined and applied to ensure that all stakeholders were provided with clear and consistent messages regarding the future role of each hospital within the LHIN as it relates to the five clinical areas in scope for this project. The key hospital role types included:

Role 1: Local Centre

- Services needed by the local population, access through the Local facility and utilization of resources and expertise pertinent to the patient needs
- Ability to provide core, emergency-driven services as they relate to the respective clinical programs

Role 2: District Centre

- Services are located at one institution for populations with several or many surrounding communities
- Hospitals will capture a large proportion of residents who may require certain types of subspecialty programs, yet do not need to travel to a LHIN-wide Centre

Role 3: LHIN-wide Centre

- Specialized services that will promote access LHIN-wide
- Programs may be located at 1 or 2 sites
- These site(s) will have the critical mass required to sustain quality standards of care and clinical efficiencies

With these role descriptions, the term 'Centre' refers to a hospital, site, facility or campus and is used interchangeably throughout the report.

Evaluating Service Delivery Model Options

Directed by the project Steering Committee, Advisory Groups applied a consistent decision-making framework in order to evaluate the various service delivery model options that were presented to them for discussion. Based on the attributes of a high performing health system as defined by the Ontario Health Quality Council, the project used the Central East LHIN decision-making framework to ensure groups applied a consistent approach to their discussions and that key considerations such as program access, quality of care, sustainability and patient safety were factored into the model evaluation process. The following list summarizes the assessment dimensions of the decision-making framework:

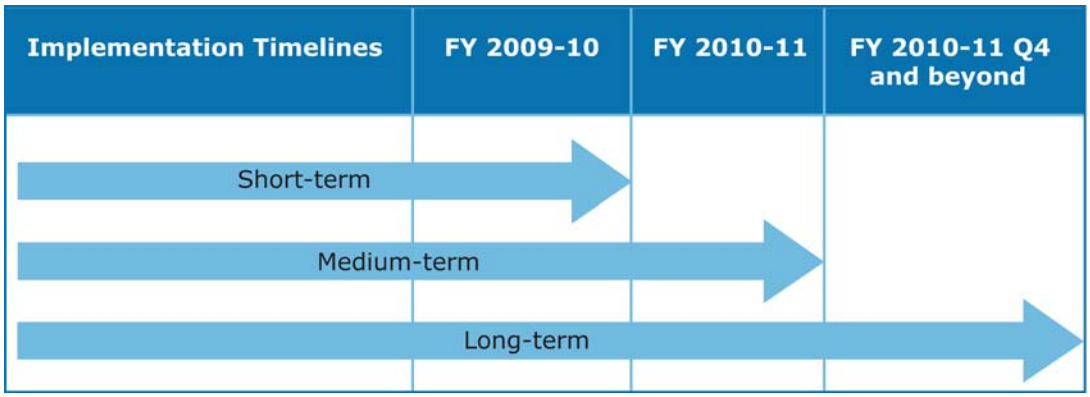
- Alignment and Accountability
- Accessibility*
- Effectiveness*
- Safety
- Person-Centered
- Focus on Population Health
- Equitable
- Integrated*
- Appropriately Resourced*

The decision-making framework is further defined in greater detail within Appendix C.

It should be noted that, while each dimension listed above is considered to be an important consideration in the design of clinical services for the LHIN, a determination was made that those dimensions denoted with an asterisk would be considered to have twice the value as compared to others in an effort to reinforce the relative importance of selected dimensions. In addition, this framework intrinsically ensures that any model deemed to have a patient safety concern is to be excluded for future consideration.

Implementation Plan Timelines

For each of the recommended service models, estimated high-level timelines have been developed to indicate the timeframe in which to realize full implementation of associated activities. The table below illustrates the definition of short-, medium-, and long-term timelines that were applied.



Overview of Clinical Service Models

The subsequent sections provide details of the process undertaken by each Advisory Group and the ultimate service delivery model recommendations for each of the clinical program areas. Specifically, for each of the five clinical areas, sections include:

1) Current State
2) Future State Needs
3) Clinical Program Principles
4) Service Model Options Discussed
5) Recommended Future State Model
6) Benefits to be Realized
7) Intended Outcomes and Key Considerations
8) Implementation Plan and Change Management

Overarching Recommendations for Each Clinical Service Model

To develop the future state models, the Advisory Groups proposed a number of common principles and rationale from which to inform their decisions. Overarching recommendations, arising from these principles and rationale, are illustrated in the table below:

Recommendation	Source	Timelines
1. Build upon the clinical expertise residing in the Central East LHIN	Advisory Group	Short-term
2. Deliver clinical services via geographic clusters, which will vary between the five clinical models • Clusters are comprised of the following Planning Zones (see page 2): o North East cluster – zones 1, 2, 3, 4 o Durham cluster – zones 5, 6, 7 o Scarborough cluster – zones 8, 9	Advisory Group	Medium-term
3. Develop overarching leadership structures for the following groups: 1. Medical Leadership Group (MLG) 2. Maternal-Child-Youth Services (MCY) 3. Mental Health and Addiction Services 4. Cardiac Services 5. Vascular Surgery Services 6. Thoracic Surgery Services Direct each overarching leadership structure to: • Be accountable for addressing integration, quality, efficiency, development of standardized protocols and common care standards, recruitment and retention of specialized health human resources and establishment of performance monitoring and evaluation systems/processes. • Establish mechanisms to support the planning for and implementation of the CSP Steering Committee recommendations based on the cluster service delivery models.	Advisory Group	Short-term
4. Immediate opportunities to support access to service relationships established during the Advisory Group process: • Implementation of the three MLG frameworks that support/enable clinical integration. • Creation of a Centralized Bed Registry for all services. • A 'single point of entry' will be established and/or enhanced to serve as the primary access channel for emergent services in each of these program areas. • Confirmation and/or development of referral point(s) of entry for elective and/or community based services for each program area.	Steering Committee Advisory Group	Short-term
Evidence or Rationale		
1. Sites with experience in delivery of each of the clinical services possess the specialized medical and clinical resources, appropriate clinical support staff and required infrastructure to effectively and efficiently manage the unique patient populations. 2. Critical mass, related to volumes of cases impacts the quality of patient outcomes. The delivery of clinical services through geographic clusters is effective for the Central East LHIN due to the population distribution across the region. 3. Leadership structures ensure accountability and responsibility over program direction with regards to delivering standardized services across the LHIN and planning for the future.		

These overarching recommendations are inherent in all subsequent recommended clinical service delivery models. Although the elements may not be articulated explicitly in the following sections, they may be highlighted again for several service models, in the event that they vary slightly due to the uniqueness of service delivery.

2.1 Cardiac Services

Cardiac-related admissions to Central East LHIN hospitals accounted for 10% of total volumes LHIN-wide in FY 2006-07. Healthcare providers offered a wide variety of services to manage cardiac cases such as myocardial infarctions, arrhythmias, cardiac pacemaker, and endocarditis. Though Cardiology has traditionally managed these types of cases, a proportion of medically managed volumes have been assumed by Internal Medicine. Therefore, the scope for Cardiac Services is clearly outlined in the following sections.

2.1.1 Current State

In FY 2006-07, there was a total of 10,029 cardiac separations across all sites. Separations are defined as the number of in-patients who leave hospital through discharge or death. RVHS-Centenary, LHC-Oshawa, and PRHC managed the largest proportion of these patients. While two-thirds of LHIN residents were admitted to Central East LHIN hospitals, a proportion of residents were admitted outside the LHIN (outflow). Of this outflow, 76% of residents were admitted to Toronto Central LHIN* hospitals for treatment.

In addition, within this program a number of residents from outside the LHIN were admitted to Central East LHIN hospitals (inflow). The highest proportion of patient inflow resulted from Central LHIN* residents at 53%. These findings are likely attributed to the close proximity of these patients to the Central East LHIN.

Currently, each facility plays a role in caring for inpatients with cardiac disease, however, specialized service delivery revolves around two primary sites: RVHS-Centenary and PRHC. These sites both possess cardiac catheterization capabilities, with RVHS-Centenary providing Primary Percutaneous Coronary Intervention (PCI) and other specialized interventions, such as Electrophysiology (EP) procedures. These cardiac procedures drive the essence of the LHIN's cardiac services and define the key features of the model overall. Despite the cardiac service inventory available to the Central East LHIN population, the Advisory Group acknowledges a number of challenges within the model.

Key Issues:

The following issues represent the central concerns that the majority of providers experience in their environment:

- Because of the inherent regional differences that exist within the Central East LHIN, there are often challenges related to the following:
  - Variation in the population specific cardiac-related needs depending on where people live
  - Limited availability of specialized resources across the LHIN
  - Lack of standardization of treatment for cardiac patients among sites
- Proportion of patients obtain care outside the LHIN, despite quality services offered within Central East LHIN hospitals and existing service capacity availability
- Unequal access for patients with regards to access to specialists and procedures among all LHIN residents
- Transportation challenges across the LHIN are particularly salient with this program, as emergent cases often require timely access to a specialist or treatment, such as PCI
- Confusion as to what constitutes core cardiac services versus LHIN-wide services

Given the current issues and barriers, the group identified characteristics that would enhance the provision of cardiac services.

**For a map outlining the geography of each LHIN, please go to* www.lhins.on.ca.

2.1.2 Future State Needs

Key elements must be integrated in building a future model that will address the service gaps in the current cardiac model.

- More than one LHIN-wide cardiac program, with PCI capabilities, strategically sited within the LHIN to create the most appropriate, equitable access for all LHIN residents
- Effective communication channels between hospital providers
- Enhanced transportation
- LHIN-wide clinical leadership to support the ability to progressively address the following gaps:
  - Understanding of scope of services required within the LHIN overall
  - Quality, standardized protocols
  - Recruitment and retention of specialized health human resources

With these future state needs in mind, the following clinical program principles act as the foundation upon which to build potential cardiac service models.

2.1.3 Clinical Program Principles

The following principles provide the foundation in developing key program characteristics that will best serve LHIN residents in the future:

1) For patients with ST-segment Elevation Myocardial Infarctions (STEMI), access to primary angiography and revascularization treatment will be provided within 90 minutes.
2) To meet this objective, angiography services need to be enhanced in the Scarborough and North East clusters of the LHIN

2.1.4 Service Model Options Discussed

With the key clinical program principles and decision-making framework guiding the process, the Advisory Group reviewed two feasible service models:

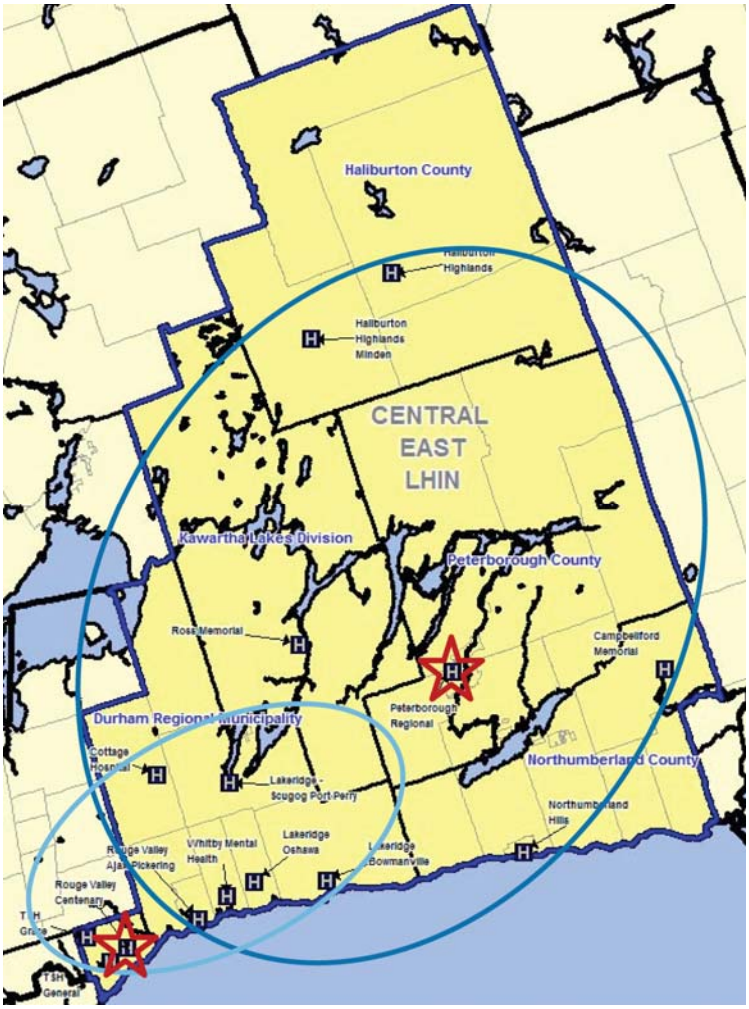
Option A: LHIN-wide Centre	Option B: Two-site Model
Concentration of specialty services located at one site LHIN-wide centre will care for all residents who require various specialized services and will transfer patients to home community when specialized acute phase is over	The delivery of LHIN-wide cardiac services in 2 separate areas – the southern and North East regions of the LHIN

Summary of Model Option Evaluation

Discussions concluded that one LHIN-wide Centre could not effectively serve the entire LHIN given the natural distribution of its population and unique culture differences that reside within the LHIN. Moreover, the emergent nature of a significant proportion of cardiac-related cases and the inherent transportation challenges that the LHIN's geography poses does not lend itself to a single centre's ability to deliver effective, quality care for patients, particularly for those cases requiring Primary PCI procedures. Therefore, the LHIN requires two cardiac sites to provide specialized interventions for the Central East LHIN.

2.1.5 Recommended Future State Model

The service clusters and the description of the cardiac service delivery model are depicted below:



Recommendation	Source	Timelines
1. Cardiac services across the LHIN should be organized to reflect two clusters – North East/Durham and Scarborough/Durham. Percutaneous Coronary Intervention (PCI) services should be located at PRHC and RVHS-Centenary to serve the Central East LHIN.	Advisory Group	Short-term
2. Inherent in this model is the role that the other sites will continue to play in the overall delivery of care; Local facilities will continue to provide core, emergency-related cardiac services with Local and District sites offering general cardiac consults, and non-interventional diagnostics.	Advisory Group	Short-term
3. This option will also weave in an integrated approach to delivering cardiac rehabilitation services, similar to a hub-and-spoke manner.	Advisory Group	Medium-term

Evidence or Rationale
1. Builds upon the cardiac expertise at RVHS-Centenary and PRHC sites, and enhances the networks between the other hospital corporations. Critical mass and quality of service is best delivered through two LHIN-wide centres. 2. Continuum of care for cardiac patients ranges from highly specialized to follow-up primary care, where all other sites will play key roles in delivering services to LHIN residents as close to home as possible. 3. With respect to patients recovering from cardiac-related issues, these recommendations will ensure equal distribution of rehabilitation services across the LHIN to ensure 'local' access to supportive care services.

2.1.6 Benefits to be Realized

Through the implementation of this service model, the LHIN will realize the following objectives:

Program Benefits
✓ LHIN residents receive the most appropriate cardiac services as close to home as possible ✓ Integrated program delivery through effective communication channels and appropriate transfer/repatriation agreements ✓ Leverage established cardiac expertise, infrastructure, and resources at PRHC and RVHS-Centenary ✓ Strategic decision-making to minimize service duplication and effectively plan for program expansion

2.1.7 Intended Outcomes and Key Considerations

The following table offers additional insights with regards to future implications to consider when integrating the recommended service model.

Opportunity Name	Enhance cardiac service delivery at two LHIN-wide centres and provide other hospitals equitable access to these services.
Integration Type	• Clinical Integration
Intended Outcomes	• Equitable, timely access • Increased collaboration within a LHIN-wide network and strengthened relationships between clinicians • Enhanced quality of care and adoption of evidence-based practice • Sharing of expertise throughout the LHIN • Clear definition of each hospital's role as part of an overall LHIN-wide cardiac program; enables sites other than PRHC and RVHS-Centenary, to define their niche role within the cardiac service model • As rehabilitation services are not physician-based programs, clusters are able to lead program through multi-disciplinary rehabilitation roles equitably distributed across the LHIN

Key Integration Enablers	• Effective communication channels to strengthen relationships between sites • Recruitment of additional physician to RVHS-Centenary who specializes in providing electrophysiology (EP) services • Recruitment of 2 interventionalists to PRHC when PCI is added and continued partnership with UHN cardiac interventionalists • Accountability agreements between sites regarding acceptance/transfer of patients and repatriation across the LHIN. These agreements should be based on the appropriate delivery of care for patients • Definition of scope of services delivered at each of the sites – other sites will explore the sustainable niche services they can deliver within this model • Development of appropriate standards of care and across sites. For example, defining the parameters around Primary PCI for myocardial infarction cases, where patients are greater than 90 minutes away from a PCI lab • Engagement of Emergency Medical Services (EMS) in discussion and planning with regards to service integration to proactively develop strategies and an operational model to address patient transportation issues
Barriers to Integration	• HHR challenges with recruitment of cardiologists to Central East LHIN • Encouraging referral patterns within Central East LHIN, where appropriate
Implementation Considerations	• RVHS-Centenary will require different resources than PRHC, as a result of their ICD and EP services • RVHS-Centenary has additional capacity with their EP program, further discussions are required on how best to utilize this capacity within the LHIN • Kawartha Cardiology/PRHC model offers Pacemaker implantation and follow-up on-site, and ICD follow-up on site. EP consultation on-site is provided through an established partnership with Queens University

2.1.8 Implementation Plan and Change Management

The following plan articulates the initial steps that should be taken to facilitate implementation in the early stages:

Action Plan	
Key Activities: 1. Identification of a LHIN-wide program lead 2. Formation of a LHIN-wide cardiac leadership structure to provide clinical leadership across sites 3. Development of project team charter, terms of reference and high-level project plan, which should include policies on access and moving patients between facilities in each cluster 4. Development of high-level project plan with appropriate community engagement, which will include development of referral policies (single point of entry at each site) and integrating infrastructure and capacity required at LHIN-wide centres 5. Presentation of implementation plan to Hospital Boards and LHIN Board for approval 6. Implementation of approved project plan	
Leadership: • Cardiac program lead • Newly formed cardiac leadership structure	Stakeholder Involvement, including: • Cardiac Program Chiefs • Chief Nursing Executives • Program Directors • Clinical Educators • Cardiac Care Network • Emergency Medical Services • Communities • Staff

Implementation Consideration

Key enablers:
- Commitment of hospital boards
- Funding for program lead position
- Effective facilitation of committee meetings
- Quality data collection to provide baseline information
- Information technology tools to share documents and policies amongst the team

Key practice and operational implications that must be considered:
- Upon successful operation of programs at RVHS-Centenary and PRHC, other sites, such as LHC, will transfer inpatient services (Catheterization/PCI and/or EP) to one of these LHIN-wide sites

Key risks to mitigate or manage:
- Inability to develop informed project plan

2.2 Maternal-Child-Youth Services

The Maternal-Child-Youth (MCY) program is comprised of three separate areas: obstetrics, neonates and paediatrics. Boundaries between these programs may overlap in relation to service delivery, which must be considered when understanding the issues and future service needs. The MCY program encompasses all cases for patients aged 18 years and below.

2.2.1 Current State

Obstetrics:
Nearly all hospitals played a role in caring for the 15,228 cases within Central East LHIN sites in FY2006-07. Collectively, the TSH facilities admitted the greatest share of all cases (33%), with the RVHS sites jointly caring for the second highest proportion (27%). The LHIN admitted 85% of its own residents, with the highest proportion of outflow admitted to the Central LHIN (10%). Of the 2,380 non-resident separations admitted to Central East LHIN hospitals, 60% of cases were residents from the Central LHIN.

Neonates (normal birthweight):
As the highest volumes were reported for neonate separations of normal birthweight, this section provides the analysis for this category. Details for low/very low birthweights can be reviewed in the Data Summary Report. In FY 2006-07, Central East LHIN hospitals admitted 13,670 cases, 85% of which were attributed to those living within LHIN borders. Total volume of cases admitted to the LHIN was driven largely from the RVHS and TSH corporations. Of the total of 15,497 Central East LHIN resident separations, 14% were admitted to the Central LHIN and 10% to Toronto Central LHIN.

Paediatrics:
There was a total of 6,368 inpatient paediatric separations attributed to Central East LHIN hospitals, with the RVHS-Centenary, LHC-Oshawa and PRHC collectively admitting the vast majority of these cases. However, the data revealed a total of 8,701 admissions originated from Central East LHIN patients. The analysis showed 35% of these Central East LHIN cases were cared for outside the LHIN (outflow). In addition, 694 separations that were attributed to Central East LHIN sites originated from other LHINs, with 56% of these external residents coming from Central LHIN (inflow).

Although market share per hospital differed within each program during FY2006-07, a collective set of core issues defined the foundation for the group to build upon.

Key Issues:

The Advisory Group collectively identified key areas of concerns experienced by Central East LHIN hospitals:

- Access to subspecialty consultation
- Paediatric mental health services
- Complex case management
- Developmental paediatrics

Inherent in each of these broad categories is the magnitude of the safety and quality issues that arise within these areas. From these identified concerns, the Advisory Group articulated what is required in the future to best serve their population.

2.2.2 Future State Needs

The group concluded which elements must be interwoven into an integrated, sustainable MCY service delivery model:

- Equitable access for emergent and complex patients
- Coordinated, non-competitive partnership between service providers
- Flexible service delivery model
- Appropriate Level 2 Neonatal Intensive Care Unit (NICU) capacity
- Effective communication channels
- Effective funding models
- Reduce service duplication
- LHIN-wide planning and overarching leadership

Although the Provincial Council for Children's Health is currently defining the classification of neonatal-perinatal care in Ontario, the definitions from the Canadian Paediatric Society provide the context of the varying service levels offered within the province:

1. Level 1 – Healthy, normal newborn care
2. Level 2 – High dependency care for infants with less acute neonatal issues
3. Level 3 – Intensive care for severely ill infants

With the key future state characteristics in mind, it was possible for the MCY Advisory Group to formulate clinical program principles that will define an evolved model. (Please note that these principles relate primarily to paediatrics as this was the main area of focus of the Advisory Group as they got underway.)

2.2.3 Clinical Program Principles

The proposed MCY service model must abide by the subsequent principles to effectively mitigate the gaps between the current model and projected future needs.

1. There should be a LHIN-wide view to assume collective responsibility for paediatric services in order to ensure care is provided locally if possible, LHIN-wide if necessary or take responsibility to ensure a pathway is available to tertiary centres outside the LHIN
2. All local centres develop the ability to provide primary care emergency paediatric services via EDs, short-stay units, or inpatient beds
3. Each local centre should be partnered with a District centre that would ensure standardization of therapy, provide selected outpatient clinics that support primary or secondary elective paediatrics, and an emergency support network to accommodate or expedite emergent transfer of emergent paediatric needs. Timing of the elective clinics will be coordinated with elective obstetrical services in the local centre
4. Each District centre provides 24/7 paediatric coverage, however, if a site experiences challenges in fulfilling this role, another centre will provide this coverage. Paediatricians support clinics at the local centres in their cluster and will be available as a support resource via teleconference. The LHIN-wide centre houses specialty clinics that will be staffed by sub-specialty paediatricians
5. Each hospital will be part of the LHIN-wide Paediatric leadership structure to explore LHIN-wide issues such as HHR, planning for specialty clinics, including outpatient rehabilitation services, and establishing networks with tertiary centres.

2.2.4 Service Model Options Discussed

Equipped with a summary of the key issues and clinical program principles, the MCY group reviewed three potential models that could apply to the dynamics of the Central East LHIN:

Option A: LHIN-wide Centre	Option B: Sub-regions	Option C: Programs of Excellence
• Concentration of specialty services located at one site • District sites may have subspecialty inpatient programs relevant to surrounding communities	• Model divides the LHIN into sub-regions for planning and clinical care purposes • Several sites provide maternal newborn care that is separate from paediatric services. • Specific sites are designated as paediatric centres and may co-exist with maternal newborn program	• Collectively all Central East LHIN hospitals accept obligation to care for own residents and commit to less dependence upon other LHINs • District sites provide own quality subspecialty programs unique amongst all sites

Summary of Model Option Evaluation:

The LHIN's geography and transportation challenges impede the ability to provide centralized specialty services at one LHIN-wide Centre. Conversely, the concept of sub-regions does not promote collaboration among all sites nor does it build upon the strengths of existing expertise. Programs of Excellence are viewed to have the opportunity to build upon the current clinical strengths throughout the LHIN. Moreover, the Programs of Excellence model will allow for subspeciality programs to be distributed among several sites, which will facilitate access and equity across the LHIN.

2.2.5 Recommended Future State Model

The service clusters and the description of the maternal-child-youth service delivery model are depicted below:

Recommendation	Source	Timelines
1. Maternal Child and Youth services across the LHIN should be organized to reflect the three clusters – North East, Durham and Scarborough	Advisory Group	Short-term
2. Establish a centre for Advanced Level 2 in-patient Neonatal care to be sited in the Scarborough cluster. The centre will act as a LHIN wide resource and be accountable for coordinating sub-specialty programs to meet the needs of each cluster.	Advisory Group	Short-term

3. Consider a centre for Advanced in-patient Paediatric care* co-located with the advanced Level 2 in-patient Neonatal centre. (*a centre that provides care higher than a community level hospital but lower than a tertiary centre)	Steering Committee	Short-term
4. As the three hospital sites in the Scarborough cluster will be establishing an Advanced Level 2 NICU and considering a co-located centre for Advanced in-patient Paediatric care, they should also explore further integration opportunities within their Maternal Child and Youth programs.	Steering Committee	Medium-term
5. Each cluster will contain, at a minimum, a district centre that will include a Level 2 NICU.	Advisory Group	Short-term
6. LHC-Port Perry, NHH and RMH will regularly assess their obstetrical programs in relation to professional sustainability, program education support, timely access to c-section capabilities and the establishment of a formal relationship with the District centre in their cluster.	Steering Committee	Medium-term
7. HHHS will discontinue elective obstetrical services as the lack of sufficient critical mass results in challenges to sustain adequate physician coverage, the ability of trained staff to deliver specialized care and appropriate equipment and infrastructure to support provincial standards. HHHS will ensure that their patients will have appropriate emergency room care while awaiting transfer.	Advisory Group	Short-term
8. Undertake immediate planning for services in Paediatric and Adolescent Mental Health and Addiction that aligns to the recommended cluster models of care by the Mental Health and Addiction Advisory Group. The development of this plan should be coordinated by the Maternal Child and Youth and Mental Health and Addiction Leadership structures, and with the Whitby Mental Health Centre	Advisory Group	Short-term
9. Undertake, in the near future, a review of Paediatric Surgical services delivered within the CE LHIN; with specific focus on the level of paediatric expertise (surgical, medical and anesthetic) available within the centres to support delivery of this care within clinical best practice standards	Steering Committee	Medium-term
10. RMH and NHH develop paediatric Short Stay Units to better meet the needs of patients and their families and develop a formal relationship with PRHC to provide care for more acute paediatric patients	Steering Committee	Short-term

Evidence or Rationale

1. The CELHIN population distribution and total inpatient volumes result in the need to deliver services through three clusters, which will enhance shared expertise, 24/7/365 coverage, care "close to home" as appropriately possible, and a philosophy of "no refusal of patients".
2. An Advanced Level 2 inpatient neonatal centre may enable the Central East LHIN to repatriate a portion of patients who do not require tertiary services in other LHINs, however, that require clinical management in a highly acute setting.
3. Advanced Paediatric services also require specialized resources, which will enable the Central East LHIN to repatriate highly acute paediatric cases from tertiary centres in a coordinated, seamless process. The clinical expertise operating these high-acuity units will ensure quality of care is sustained with these specialized cases.
4. Scarborough sites will continue to examine the clinical services they offer to residents within their cluster to ensure community needs are addressed.
5. Total neonatal inpatient volumes within each cluster are best served by the siting of multiple Level 2 NICUs. However, this recommendation may be subject to emerging definitions by the Provincial Council for Children's Health (PCCH), expected to be available in mid 2009.
6. To maximize the potential for sustainability of viable programs that have capacity to provide 24/7/365 skilled resources, program education support to maintain physician and nursing knowledge and practice, access to qualified c-section capabilities within 30 minutes, and financial stability.
7. The lack of critical mass results in ongoing challenges to sustain adequate physician coverage, the ability of trained staff to deliver specialized care and appropriate equipment and infrastructure to support standards.
8. The issues involving the adolescent/paediatric mental health population are complex. The MCY and MHA Advisory Groups collectively agree that service delivery needs should be further explored in future planning.
9. Quality practice guidelines have been established by regulatory bodies, such as the Manitoba College of Physicians and Surgeons. Support systems; infrastructure, skilled paediatric personnel, equipment, etc. for paediatric surgical programs need to be established and maintained in all centres providing this service.
10. The co-location of an appropriately resourced paediatric Short Stay Unit (SSU) and Emergency Department support the "close to home as appropriately possible" principle. An Australian study published by Hopper et. al in 2008 demonstrated quality service delivery and high satisfaction rates were achieved in a co-located paediatric SSU within an ED. Findings determined the SSU was a viable alternative for paediatric services to be delivered in a suburban setting. Clinical criteria for patients requiring immediate transfer to a larger unit and those requiring treatment advice and/or vigilant observation by a paediatrician must be established in a partnership with a District centre.

2.2.6 Benefits to be Realized

The evolved MCY service model will result in a number of critical gains relative to current service delivery.

Program Benefits
✓ Enhanced, coordinated, equitable access to subspecialty programs
✓ Integrated network of hospitals committed to support all Central East LHIN residents
✓ Sustainable MCY service delivery driven by standardized quality and safety standards
✓ Appropriate allocation of resources, including HHR and specialized programs, that best serve the LHIN overall

2.2.7 Intended Outcomes and Key Considerations

Going forward, the model should also consider additional considerations when moving into the next phase of implementation for the MCY service model.

Opportunity Name	Programs of Excellence model comprised of 3 clusters sited in the areas of North East, Durham, and Scarborough
Integration Type	• Clinical Integration
Intended Outcomes	• Programs of excellence model results in rapid access to consultations • Improves access to ambulatory subspecialties, particularly development of mobile, outreach services • Reduced service duplication • Promotion of quality standards and evaluation metrics consistently applied across sites • Ensures leading practice is sustained • Builds on current clinical expertise and enables interdisciplinary staff to further develop skills, as clinical programs will be adequately resourced • Enhances support between Local and District centres without previously established relationships – promotes a non-competitive network
Key Integration Enablers	• Standardized criteria-based access to programs • Improved communication channels, such as: o Effective call centre infrastructure that facilitates patient transfers which fall outside Criticall criteria; or o Access to a LHIN website that enables providers to visualize LHIN capacity for inpatient programs • Commitment from hospitals to provide inpatient capacity to LHIN residents at all times • Updated Service Inventory Map • Formal hospital and provider accountability agreements that will outline policies, such as physician responsibilities in accepting care for patients, transfer protocols, repatriations, etc. • Outreach services include subspecialty clinics and general paediatrics, as required • Standardized scope of practice for multi-disciplinary clinicians • LHIN-wide Physician Credentialing • Appropriate funding and resourcing for sites according to their designation • Data that accurately reflects projected needs to determine specific capacity in the future • Solutions to manage transportation issues
Barriers to Integration	• Continued competition between sites would be detrimental • Unwillingness of District hospitals to accept patients from Local sites outside their cluster • Resistance from service providers in providing outreach services at other sites – impact of travel schedules
Implementation Considerations	• District centres are *not equal* and have different expertise in subspecialties, therefore, LHIN must assess and build on existing strengths for each site • LHIN needs to further explore the programs where there is potential service duplication, such as neonatal ambulatory follow-up clinics • Cross links between institutions in multiple LHINs could still be forthcoming given the potential for action of the Provincial Council for Children's Health (PCCH)

2.2.8 Implementation Plan and Change Management

The Steering Committee acknowledges that the recommended MCY service model will require significant time before each of the elements are fully realized. Acknowledging this fact, the high-level plan outlined below illustrates the initial steps that must be taken to successfully launch the early stages of this model.

Action Plan

Key Activities:

1. Identification of a LHIN-wide program lead
2. Formation of a LHIN-wide leadership structure to provide clinical leadership across sites
3. Development of project team charter, terms of reference and high-level project plan, which should include policies on access and moving patients between facilities in each cluster
4. Development of high-level project plan with appropriate community engagement, which will include development of formal access/repatriation agreements between Local sites and their designated District site, development of referral policies (single point of entry at each site) and integrating infrastructure and capacity required at LHIN-wide centres
5. Presentation of implementation plan to Hospital Boards and LHIN Board for approval
6. Implementation of approved project plan

Leadership:

- Program Lead
- Newly formed MCY leadership structure

Stakeholder Involvement, including:

- Obstetricians
- Neonatologists
- Paediatricians and Paediatric subspecialists
- Chief Nursing Executives
- Program Directors
- Children's Health Network
- Provincial Council for Children's Health
- Multi-disciplinary support, such as mid-wives, Doulas
- Communities
- Staff

Implementation Consideration

Key enablers:

- Commitment of hospital boards
- Accurate Service Inventory Map
- HHR Planning Model to ensure 24/7 coverage of all Levels of Neonatal Care
- On-call Scheduling Framework

Key practice and operational implications that must be considered:

- Recommendations from PCCH regarding NICUs

Key risks to mitigate or manage:

- Community reactions to service delivery models require ongoing education on professional sustainability, program education support, timely access to c-sections and formal relationship factors

2.3 Mental Health and Addiction Services

Although the Mental Health and Addiction program is the largest clinical service in the CSP, definition of clinical scope is relatively straight-forward and comprised of obvious CMGs or under Major Clinical Category (MCC) 19. The service differs from the other clinical areas, as data capture depends on where the patient was admitted: schedule 1 designated beds (mental health units) or undesignated beds (inpatient beds on general medicine/surgery units). The program's related admissions include CMGs such as depression, bipolar mood disorders, schizophrenia, and psychoactive substance abuse.

2.3.1 Current State

Based on FY 2006-07 data, it is clear that all Central East LHIN hospitals played significant roles in the management of mental health patients. Collectively, all hospitals managed 1,101 admissions to their *undesignated* beds, with PRHC and LHC-Oshawa admitting the highest proportion of total cases, at 19% and 14% respectively. A total of 5,080 separations were distributed relatively evenly across the *designated* mental health beds in the LHIN. RVHS-Centenary provided inpatient services to the greatest number of admissions (19%), followed by TSH-General (17%).

The LHIN admitted a significant share of its own residents, with only 106 separations attributed to the *undesignated* beds at external hospitals. Conversely, there were a total of 1,001 admissions to *designated* beds outside the LHIN.

Complementing the general Schedule 1 mental health beds associated with the various community hospitals in the LHIN, the Central East LHIN also has the unique benefit of having a specialized resource in the Whitby Mental Health Centre to support the LHIN and its residents. This presents a unique opportunity relative to some LHINs where such a resource may not be available. That said, the challenge in harnessing the full local benefits associated with the Whitby Mental Health Centre lies in the fact that this organization also acts as a provincial resource for specialty services such as Forensic Psychiatry.

With the data findings leveraged as one lens to viewing the mental health service model, the group discussed the root cause of the issues and challenges experienced by providers and their clients across the LHIN.

Key Issues:

The Advisory Group identified six priorities that the current service model should address:

- Management of mental health emergencies
- Paediatric and Adolescent mental health and addiction challenges
- Geriatric psychiatry
- Management of addictions and concurrent disorders in the hospital setting
- Role of WMHC as the LHIN-wide centre and a provincial resource
- Access to expertise within the LHIN

Several of these high level issues are inherently complex and require a multi-disciplinary approach to fully explore service needs. Therefore, the Advisory Group acknowledged that Paediatric/Adolescent-related challenges, geriatric psychiatry, and addictions and concurrent disorders require further discussions with other stakeholders to identify effective solutions to managing this patient population. For example, the Steering Committee acknowledged that paediatric and adolescent mental health issues requires further exploration and will be addressed in the near future by a joint committee comprised of Mental Health and Paediatric stakeholders.

2.3.2 Future State Needs

The Central East LHIN has previously established Local, District and LHIN-wide sites with regards to this clinical area; regardless, the model must evolve to address the identified issues and effectively manage future population needs. Moreover, the model must also consider how it interacts with and integrates with community based services. The following key features are required to advance effective mental health service delivery:

- Integrated approach to create non-competitive environment and equitable access
  - Standardized approach for access to service
  - Standardized care protocols and assessments
  - 24/7 on-call coverage - no refusal of patients
- Consistent internal medicine support to address overall patient needs upon admission
- Repatriation of patients to home communities with the right resources

2.3.3 Clinical Program Principles

Based on these future state needs, the following clinical program principles will guide the development of a future state model that provides equitable access to quality services for all LHIN residents.

1. There will be a LHIN-wide view to collectively assume responsibility for patients who require mental health services.
2. Hospitals will ensure care is provided locally, if possible, and LHIN-wide, if necessary, to ensure a pathway is available to tertiary sites or unique programs outside the LHIN.

2.3.4 Service Model Options Discussed

As stated above in the report, the reality is that the need to care for those with mental health and addiction challenges is a LHIN-wide issue. This fact, coupled with the presence of an established tertiary facility in the LHIN's mental health and addiction service model presented both opportunities and challenges in exploring various potential service delivery models. The following options were critically evaluated by the Advisory Group:

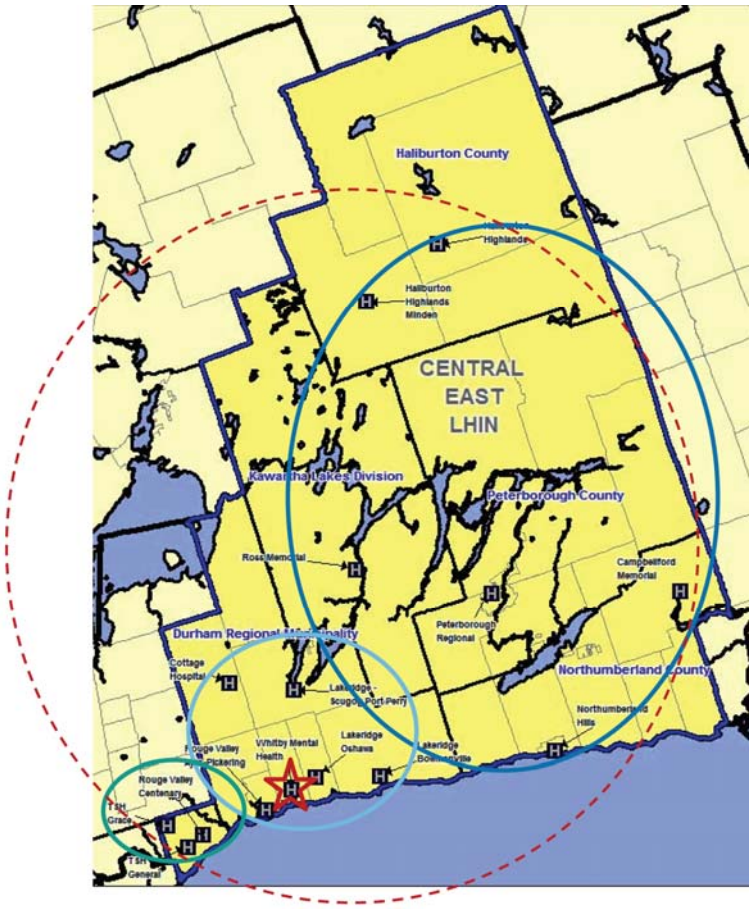
Option A: Centralized Triage	Option B: Enhanced Current Model	Option C: LHIN Clusters
• While inpatient capacity will be maintained at the various sites, WMHC will conduct all assessment services, through such means as Telemedicine and LHIN-wide on-call services • WMHC will be aware of the availability of beds at all sites in the region and can triage patients accordingly	• Option B is similar to the LHIN's current model, but this model improves upon its coordination through integration of a LHIN-wide leadership structure • Strengthens Central East LHIN network	• Coordinated services are to be delivered in North-East, Durham and Scarborough clusters • Each of these clusters provide inpatient care to their cluster • WMHC still provides the highly specialized services of a tertiary LHIN-wide centre • Integrates an overarching leadership group to promote integration and coordination

Summary of Model Option Evaluation:

The group agreed that LHIN clusters would best enable services to be delivered in high service utilization regions and promote equitable access for LHIN residents. A cluster model will serve to 'formalize' the current natural service delivery patterns and provider relationships. In addition, the concept of introducing a LHIN-wide leadership structure is viewed to be critical to truly enabling the transformation to a more integrated Mental Health and Addiction service delivery model. The concept of the centralized triage model was considered, however the group indicated that the dispersed nature of patient volume in this service area made it impractical to efficiently and effectively manage triage in a centralized manner.

2.3.5 Recommended Future State Model

The service clusters and the description of the mental health and addiction service delivery model are depicted below:



Recommendation	Source	Timelines
1. Clusters will revolve around the hospitals providing Mental Health inpatient services, with capabilities to admit patients to Schedule 1 beds, in three regions: North East, Durham and Scarborough clusters.	Advisory Group	Short-term
2. WMHC will continue to provide the specialized tertiary services and support to the entire LHIN.	Advisory Group	Short-term
3. Clusters will provide 24/7 access to clinical expertise to support all hospitals, which will be facilitated through a centralized bed registry.	Advisory Group	Short-term
4. MHA leadership structure will partner with LHIN-wide MCY leadership structure, which is responsible for planning for inpatient services for paediatric mental health cases, developed in consultation with WMHC.	Advisory Group	Short-term
5. Each cluster will also pursue the integration of hospital services with outpatient and community services.	Advisory Group	Short-term

Evidence or Rationale
1. Recommendation expands upon the clinical expertise within these clusters. Therefore, sites with Schedule 1 beds will support the delivery of services to their Local partner facilities. 2. Due to the established specialized HHR, unique ambulatory programs and network patterns, WMHC will maintain its tertiary and provincial mandates to all service providers and residents. 3. Hospitals that are unable to manage patients requiring emergent admission can follow a formal, standardized process to access specialized resources. 4. The issues involving the adolescent/paediatric mental health population are complex. The MCY and MHA Advisory Groups collectively agree that service delivery needs should be further explored in future planning. 5. Although the CSP is focused on inpatient services, the Mental Health program is largely dependent on ambulatory and outpatient programs to effectively serve the needs of this respective population.

A LHIN-wide accountable leadership structure will provide the overarching clinical leadership to hospitals across the LHIN, which includes supporting integration through central registry, standardization of practices, innovation in service delivery and coordination of specialized care between cluster providers and tertiary services. This unified leadership structure would be accountable for ensuring equitable access and assessing the services required within the LHIN to minimize overall service duplication. Local facilities, if required, will provide the required standardized approaches necessary to assess and stabilize acute patients prior to transfer to the District hospitals.

2.3.6 Benefits to be Realized

Once the recommended Mental Health and Addiction model is in operation, the LHIN may gain several positive outcomes in providing services to the LHIN population.

Program Benefits
✓ Improved overall care quality, access, and system sustainability ✓ Enhanced integration between facilities within clusters, as well as between clusters ✓ Standardized approach and effective communication to enable equitable access for all patients ✓ Enhanced capacity and efficiency in managing appropriate inpatient admission stay ✓ Strategic decision-making to minimize service duplication and effectively plan for program expansion

2.3.7 Intended Outcomes and Key Considerations

The following table highlights critical enablers, barriers and considerations that result with integrating the proposed model in the Central East LHIN.

Opportunity Name	Three service delivery clusters will continue to be supported by one highly specialized LHIN-wide Centre and led by a LHIN-wide accountable leadership structure
Integration Type	• Clinical Integration
Intended Outcomes	• Allows appropriate services to be provided to residents as close to home as possible • Enhanced access to schedule 1 inpatient services through a centrally managed process • Overarching LHIN-wide accountable structure will assume leadership in planning standardization of practices, innovation in service delivery and coordination of specialized care between cluster providers and tertiary services
Key Integration Enablers	• Coordinated on-call structure within each cluster, where hospitals rotate within call schedule • Centralized communication channel to access MHA expertise • LHIN-wide Physician Credentialing and On-Call Frameworks • Incorporation of the necessary infrastructure, such as e-Health record • Development of standardized assessments, protocols, order sets and terminology consistently applied throughout the LHIN • Integration of MH Clinical Decision or Short Stay Units to better manage site transfers of patients who benefit from extended observation rather than admission • Ensure effective medical management support provided to MHA patients at each site • Effective relationships between adult and paediatric psychiatrists to manage paediatric and adolescent population • Accountability agreements between sites regarding acceptance/transfer of patients and repatriation • Adequate resources in home community to manage repatriations in a timely manner • “Virtual ED Project” for children requiring psychiatric assessment will provide appropriate adolescent consultation support across the LHIN to enable psychiatrists to effectively manage this population
Barriers to Integration	• Recruitment issues related to limited MHA resources, especially Paediatric-Adolescent Psychiatrists • Inability to develop effective business cases related to expansion has prevented hospitals from integrating appropriate services required by patients
Implementation Considerations	• Service model only applicable to adult population, as further work needs to be conducted for the Paediatric and Adolescent population • Due to the community resources’ positive impact in providing MHA services outside the hospital, hospitals now care for patients of higher acuity with the same staffing model • In areas with limited psychiatry availability in the community, hospital psychiatrists tend to see community patients as well as hospital inpatients • LHIN-wide leadership structure should address increasing violence issues as a priority for this LHIN, i.e. violent behaviour of patients that place other patients and providers at risk • Consider utilizing Psychiatric Emergency Triage and assessment beds, separate from ED • Recent OMA agreement will provide additional funding for non-Schedule 1 sites, which will enable these hospitals to admit voluntary MHA patients and collaborate with the community to provide urgent and emergent responses

2.3.8 Implementation Plan and Change Management

The action plan below articulates activities to be taken in the short-term to launch the changes to the mental health and addiction service delivery model.

Action Plan

Key Activities:

1. Identification of a LHIN-wide program lead
2. Formation of a LHIN-wide leadership structure to provide clinical leadership across sites
3. Development of project team charter, terms of reference and high-level project plan, which should include policies on access and moving patients between facilities in each cluster
4. Development of high-level project plan with appropriate community engagement, which will include development of referral policies (single point of entry at each site) and integrating infrastructure and capacity required at centres
5. Presentation of implementation plan to Hospital Boards and LHIN Board for approval
6. Implementation of approved project plan
7. Monitor progress and assess feasibility for the further evolution of the service model to include greater inpatient bed consolidation

Leadership:

- Program Lead
- Newly formed Mental Health and Addiction leadership structure
- Whitby Mental Health Centre offer to sponsor leadership structure

Stakeholder Involvement, including:

- Psychiatrists
- Chief Nursing Executives
- Program Directors
- Staff
- Community Support Service Providers
- Emergency Services, including police
- Communities

Implementation Consideration

Key enablers:

- Commitment of hospital boards
- Central bed registry

Key practice and operational implications that must be considered:

- Access to service within each cluster:
  - Coordinated access for emergent mental health services
  - Standardized approach to assessment
  - Referral point(s) of entry for elective services including community services within each cluster
- Schedule 1 beds:
  - Prioritization process for improved utilization of beds (including acute access and repatriation)
  - Standardized approach for transfers of Schedule 1 patients
  - Standardized assessments for facilities without Schedule 1 beds
- LHIN-wide leadership structure: develop responses to unaddressed issues
  - Adolescent Psychiatry
  - HHR planning
  - Geriatric psychiatry, including ALC issues

Key risks to mitigate or manage:

- Developing standardized approaches with HHR variations among sites within LHIN