Central East Priority Project Summary

Project Name: Timely Discharge Information System Pilot Project

Purpose of Board Review	☐ For Information Only ☐ For Approval ☒ For Endorsement to Proceed with Further Planning/Refinement/Review
Project Charter Sponsor(s)	Primary Care Working Group
Project Type	☐ Service Enhancement ☐ New Service / Program ☐ Integration Activity ☒ Demonstration Project ☐ Single Phase Project ☒ Multi-Phase Project
Funding Required	$ 384,500 [**2007-08**:$209,250] [**2008-09**: $175,250]
Funding Source	LHIN Priority Funding Funding Year (s): 2007-08 and 2008-09 Funding Type: 1yr Demonstration
Anticipated Project Owner (Accountability)	☐ CE LHIN ☐ CE LHIN Health Service Provider ☒ Assigned CE LHIN Project Team
Project Deliverables / Goals	• Pilot project for Timely Discharge Information System to support timely delivery of patient admission/discharge information from The Scarborough Hospital (General and Grace Campuses) and Rouge Valley Health System (Ajax and Centenary Sites) to their primary care practitioner. This will be achieved by reviewing and redesigning the workflow process and systems to facilitate the exchange of information. • Learnings from the pilot will inform next steps and roll-out to other LHIN communities.
Project Timelines	Start: December 2007 Completion: November 2008 (12 month pilot)
Project Reviewed By:	**Networks:** No **Collaboratives:** No **Task Groups:** Primary Care Working Group **CE LHIN:** CE LHIN Ehealth Lead Consulted in Charter Development

Strategic Directions

- ☒ The LHIN Board will lead the transformation of the health care system into a culture of interdependence.
- ☐ Healthcare will be person-centred in safe environments of quality care.
- ☒ Create an integrated system of care that is easily accessed, sustainable and achieves good outcomes.
- ☐ Resource investments in the Central East LHIN will be fiscally responsible and prudent.

Priorities for Change

- ☒ Seamless Care for Seniors
- ☒ Mental Health and Addictions
- ☒ CDPM
- ☐ Wait Times and Critical Care

Enablers

- ☒ Primary Care
- ☒ E-health
- ☐ Health Services Planning
- ☐ Health Human Resources
- ☐ Diversity
- ☐ Back Office Transformation
- ☐ Moving People Through The System

System Outcomes

- ☐ Accessible
- ☐ Effective
- ☒ Efficient
- ☐ Safe
- ☐ People Centred
- ☒ Integrated
- ☐ Appropriately Resourced
- ☐ Equitable
- ☐ Focused on Population Health

Project name: **Timely Discharge Information System Pilot Project**		Project Acronym or No.: **TDIS**	
Project Sponsor **Primary Care Working Group, Central East LHIN**	Project Coordinators: **Lewis Hooper, CIO, CE LHIN** **Jeanne Thomas, Sr. Integration Consultant, CE LHIN**	Target Project Completion Date: **2008/12/31**	
Project Lead/Project Manager: **PCWG Steering Committee:** **Paul Caulford, Chris Jyu, Howard Petroff**		Version No.: **1.1**	Version Date: **2007/10/01**

Project Background

Efficient exchange of clinical information within the health delivery sector is now a central priority as healthcare in Ontario is restructured into a teamwork framework. This efficient exchange of clinical information is a cornerstone element in improving quality and access to care through integration. This is particularly true for patients treated in hospital and returned to the community for ongoing comprehensive and continuous follow up care across a variety of providers.

As pressures on acute care institutions grow and lengths of stay go down patients treated in a variety of hospital settings must receive timely, community based primary care to ensure appropriate follow-up, and prevent unnecessary readmissions, ( ). Efficient exchange of clinical information between secondary and primary care "is vital to ensure a smooth transition of care for ill patients when they leave hospital, to break down barriers to care, and improve the patient's journey of care" ( ). It is also essential to reduce readmissions and costly medical errors ( ).

Our literature review reveals that wide variability within heath systems persists when it comes to both the timeliness and appropriateness of hospital communications to follow up providers. The resulting negative outcomes and health disparities are troubling, and suggest there is much room for improvement:

- comparison of hospital discharge notes reveals wide variability in their content ( ), and in the number of days after discharge to reach the patients follow up provider ( )
- a survey of Family Physicians in Scarborough (2002) revealed a high level of dissatisfaction with slow to arrive discharge information
- discharge information does not often reach physicians prior to treating patients in follow up at Ontario Hospitals( )
- a review in Britain revealed that higher than necessary readmission rates among seniors is attributable in significant part to lack of timely information from hospitals in 47% of cases ( )
- studies suggest that appropriate and timely discharge summaries reduce readmission rates in general ( ), and particularly among the elderly in 50% of cases ( )
- Efforts to improve the content and timeliness of medical communications between hospital and community providers has shown success ( ), and specific strategies for improvement have been examined ( )
- There is a high degree of consensus among clinicians on the appropriate content of communications between consultants (hospitals) and family physicians ( )

In summary, this review clearly identifies that efficient exchange of clinical information between hospitals and their community primary care providers often remains problematic. Where this occurs it leads to otherwise avoidable medical error and re-hospitalization, particularly among seniors ( ). Efforts to improve information flow have shown success where tried ( ), and patient outcomes have improved ( ). These results support undertaking a pilot project in the CE LHIN aimed at designing, implementing and evaluating an improved system for the exchange of clinical information between hospitals and community based follow up care providers.

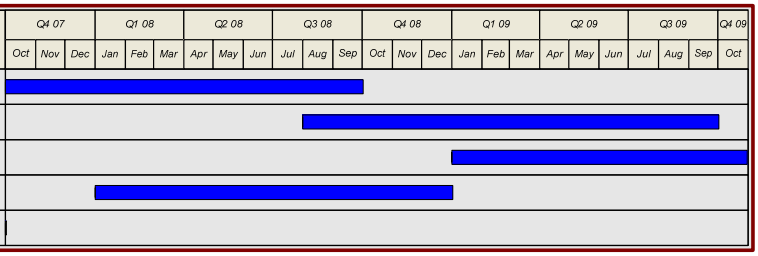
Specifically, currently admission notification and discharge summary from in-patient facilities are delayed in reaching the primary healthcare providers of CE LHIN. This delay in information dissemination saves no cost and yet creates many problems in the continuity of patient care. CELHIN PCWG has initiated TDIS pilot project that includes 2 hospital corporations in Scarborough. The initial goal is to provide primary care physicians with notification of admission or

Project Background

discharge in 24 hours and discharge summaries delivery to community physician providers within 24 hours of the transcription of dictations that commence within 48 hours after discharge. The project will be divided into three distinct phases of which phase 1 and phase III will run concurrently. This is summarized in the table below.

- Phase I, Implementation of systems for Scarborough and surrounding areas focused on community physician providers as initial limited channels for distribution. Duration is 12 months
- Phase II a: Expansion to the remainder of Hospitals and Primary care providers in CE LHIN Duration is 14 months.
- Phase II b: Inclusion of other Organizations without in-patient facilities. Duration is 19 months (total duration phase II 24 months).
- Phase III: Development of consistent by-laws in each organization requiring discharge dictations to be completed in each organization within a 48 hour period post discharge. Duration is12 months in parallel with phase I and II

ID	Task Name	Start	Finish	Duration
1	Phase I (pilot in Scarborough)	10/1/2007	10/1/2008	263d
2	Phase II A (Rest of Hospitals and physicians in CE LHIN)	8/1/2008	10/1/2009	305d
3	Phase II B (Non Hospital Agencies)	1/1/2009	10/30/2009	217d
4	Phase III (by-law Changes)	1/1/2008	1/1/2009	263d
5	Task 5	10/1/2007	10/1/2007	1d



Project Scope

The purpose of the CE LHIN Timely Discharge Information System Pilot Project is to ensure the timely delivery of patient admission/discharge information from The Scarborough Hospital (General and Grace Campuses) and Rouge Valley Health System (Ajax and Centenary Sites), subsequently to the rest of the LHIN to the primary care providers in the LHIN. This will be achieved by reviewing and redesigning the workflow process and systems to facilitate the exchange of information. This will be coordinated by the role of Timely Discharge Information System (TDIS) Manager at CE LHIN to oversee the project and coordinate the development of a consistent approach to medical staff by-laws.

One of the foundation statements in the eHealth strategy of the CE LHIN is to “facilitate the seamless flow patient information while protecting patient confidentiality” This is an essential component to support the existing initiatives (Seamless Care for Seniors, Chronic Disease Management and Prevention and Mental Health and Addictions Priorities). Reduction in repeat visits to ED is consistent with the goals of Provincial Wait Time Strategy and the CE LHIN’s Emergency Department Task Group. Reduced health care information errors will significantly improve patient safety, satisfaction, and system efficiency. Finally, the theme of this project, enhanced patient care information flow, is also consistent with the strategic focus of eHealth Council of MOHLTC, OMA and OntarioMD.

1. This project would be rolled out in 3 phases in CE LHIN: 12 months for phase 1, 24 months for phase 2, and 12 months for phase 3 which will run in parallel with phase 1 and 2
2. A TDIS Project Manager will be recruited: for a total of 36 months with the final goal of integrating into current IT team of CE LHIN, a knowledge retention strategy will aid the initiation of eHealth initiative in the rest of the CE LHIN
3. The processes involved in the current delivery system will be reviewed, bottlenecks identified and streamlined: identifying deficiencies, and enhancing team workflow inside as well amongst institutions. Cost savings will be identified and a positive collaborative outcome will be maintained throughout the life span of this project. This work will be done by experts in process flow but will be managed by the TDIS manager and team.
4. Providers information will be updated from the best single source information that can be identified (e.g, Telehealth, OHIP, SSHA Provider registry etc.) to minimize errors, improve confidentiality and improve

efficiencies.

5. Improved information flow will help the CE LHIN to reduce unnecessary admissions and re-admission, reduced congestion and wait times at ED, reduce medication and healthcare information errors, reduced provider liability, and improved patient outcome, safety, and satisfaction
6. Accountability with institutions regarding information flow to the enrolled providers will be transparent and measurable
7. Through linkages with Telehealth, eHealth Council, OntarioMD, this project will propel CE LHIN into an IT leadership at the provincial landscape
8. Privacy and security standards leveraging existing work in the TEN pacs DI project (privacy impact assessments etc.) will be implemented
9. Iimproved information exchange will strengthen the deteriorating (Ontario College of Family Physicians documents) relationship between community based family physicians and their community hospital, an essential step in reversing the disjointed care for patients now occurring after entering hospital.

Goals, Objectives & Performance Measures

Goals	Objectives/Deliverables	Performance Measures
1. Project Initiation	A. Determine the Project Management Strategy human resources required, role and responsibility of Project Manager, Directors of Medical Records, Directors of IT, Chiefs of Staff, etc. B. Form a TDIS Steering Committee C. Appoint a TDIS Implementation Team, reporting to Steering Committee and CEO's, consists of all Directors of IT, Directors of Medical Records and Chiefs of Staff, to identify and streamline the delivery process. D. Participate, as a pilot, in using LiveMeeting Technology	
2. Recruitment	A. Identify TDSI Project manager B. Identify expertise in process flow and process redesign.	
3. Liaise with and prepare participating organizations and enrolled health care providers	A. Examine existing IT infrastructure for auto-faxing, secure email, and electronic interfaces and existing costs wrt. transmittal of information B. Examine and align existing Medical by-laws; model by-laws development C. Examine existing dictation procedures, policy and capability, and cost structure D. Determine best practice workflow for the efficient exchange of information E. Examine existing database for primary care providers and cost structure F. Liaise with Telehealth (enrolled providers), OHIP, (non-enrolled	

Goals	Objectives/Deliverables	Performance Measures
	providers) and SSHA for data transfer regarding a provider registry. G. Pre and post-project survey and focus group of specialist and primary care providers H. Collecting data on the turn around time in releasing discharge summary from patient discharge, dictation, transcription and autofaxing to community providers, in days, pre and post TDIS Project	
4. Implementing TDIS model at each participating hospital	A. Examine Existing work flow B. Determine costs of existing workflow C. Determine how to modify work flow to fit with best practice D. Implement change management practices to support change of work flow and required by-law changes	
5. Demonstrate Stakeholder satisfaction	A. Analyses of pre and post project provider survey data	
6. Implementation of TDIS Project within allocated budget	A. Assign budget responsibility to TDIS manager B. Assign Budget oversight responsibility to Steering committee C. Monthly meetings to review progress and variation from budget.	
7. Evaluate service improvement outcomes	A. Comparison of pre and post TDIS Project service improvement in days B. Correlate these measurements in service improvement with post-project provider survey, changes in repeat ED visits from NHs, changes in medication mistakes C. Assess impact on patient outcomes (readmissions, medical error, patient satisfaction) through feedback from community based family physicians and other primary Alternative Halthcare Providers (AHPs)	

Goals	Objectives/Deliverables	Performance Measures
8. Initiate Phase 2 to include the rest of in-patients institutions at CE LHIN	A. Examine Existing work flow B. Determine costs of existing workflow C. Determine how to modify work flow to fit with best practice D. Implement change management practices to support change of work flow and required by-law changes	
9. inclusion of other organizations without in-patient facilities	A. Create Generic model of information exchange for 1. Fax 2. Secure email 3. Electronic Data Exchange using MOHLTC/SSHA HIAL B. Request each organization to identify appropriate model(s) C. Provide each organization with the change management tools created in Phase 1 and 2 implementations.	

Project "IN" & "OUT" of Scope Items

"IN" Scope	"OUT" of Scope
• One Project Manager will be recruited • TDIS phase one will be coordinated and deployed across the 2 hospital corporations with 4 sites • Processes for existing methods of patient discharge information delivery system will be reviewed and streamlined • Mailing comments and feedback from community providers will be sought before and after the phase I to establish both Baseline and post rollout effectiveness • Rollout of phase II a may begin before phase 1 has completed, if and when the Steering Committee makes such recommendation and been accepted by PCWG, the e-health steering committee, and the CE LHIN. • Phase II b will begin before phase II has completed, if and when the Steering Committee makes such recommendation and been accepted by PCWG, the e-health steering committee, and the CE LHIN. • Project Manager will be absorbed into CE LHIN after successful implantation of Phase 2, as a part of IT knowledgebase retention strategy	• Provide IT review, recommendation and services throughout host organization • This is a program implementation and evaluation initiative, not a research project • Institutions without in-patient facilities will not be part of this project until phase II b • This project is a standalone one, not linked to any CMS/EMS

Project Timelines

High-Level Milestones	Target Completion Dates
• Steering Committee Formed	• September 15, 2007
• Project Charter completed	• October 15, 2007
• Funding approved	• December 1, 2007
• Project Manager hired	• January 1, 2008
• TDIS Implementation Group appointed; hospital by-laws alignment	• January 15, 2008
• Enrolled Providers pre-project survey initiated; focus groups initiated	• February 1, 2008
• Delivery system reviewed and bottleneck identified	• March 1, 2008
• Delivery system revamped; survey completed	• April 1, 2008
• Telehealth, OHIP and, or, SSHA information uploaded	• April 1, 2008
• Interim Report to Steering Committee/Coordinators	• May 1, 2008
• Solutions implemented	• May 15, 2008
• Feedback and review-continuously for 3 months	• August 31, 2008
• Phase III completed, model by-laws in place in host organizations	• August 31, 2008
• Interim written progress report to Steering Committee and PCWG/ CE LHIN	• September 1, 2008
• Post- project survey and review of initiating phase II	• October 1, 2008

Project Costs

Category	Fiscal Year 1	Fiscal Year 2	Fiscal Year 3	TOTAL
Salaries and Wages	75000	75000	80000	230000
Benefits (22% of S&W)	16500	16500	16500	49500
ODOE (5% of S&W)	3750	3750	3750	11250
Materials/Equipment	5000	1000	1000	7000
*Office Space/Facilities**	12000	12000	12000	36000
Training/Development	2000	2000	2000	6000
Consultants $600/ 1/2 day	60000	30000	30000	120000
Other outside specialists/focus group	15000	15000	15000	45000
Mailings	20000	20,000	20,000	60000
TOTALS	**209,250**	**175,250**	**180,250**	**564,700**

Funding Source

Funding Source

CELHIN and eHealth Council will be the sponsors for the 3 year integration period of this project. Afterward, this project should be viewed as an on-going concern and as part of eHealth initiative of CE LHIN. The future cost for this admission and discharge information delivery to community providers has traditionally been accounted for inside the institutional budget and therefore is part of CE LHIN/institutions accountability issue.

Any cost savings identified from the process redesign could be applied to project expense.
* in kind expense of a host organization

Project Team

Team Member, Organization	Role on the Project	Required Involvement	
		Estimated Duration	Level of Effort
• Primary Care Working Group, CE LHIN	Oversight and steering; report to CE LHIN Board	• Phase1 : 12 months • Phase 2: 24 months	• As needed
• Steering Committee: Chris Jyu, Paul Caulford, Howard Petroff	Strategic review of the project and report to PCWG		• 1.5 days/month
• Project Coordinators: Jeanne Thomas, Lewis Hooper	CE LHIN Liaison; report to CE LHIN CEO		• 1.5 days/month
• Project Manager: TBA	Collaboration with various departments of all institutions of CE LHIN; report to the Steering Committee		• Full time project manager
• TDIS Implementation Team: Directors of Medical Records, IT of the institutions, Chiefs of Staff (Barb Stevens, Keith Roberts, Naresh Mohan of RVHS; Norma Mill, Joseph Hagos, Steve Jackson of TSH)	Enabling the flow of information at IT, Medical Records, Dictation, MAC, by-laws and all other necessary activities as needed by Project Manager; report to CEOs and Steering Committee		• ½ day per week or 2.5 day /month All members contribute as equally as possible. It is expected that meeting will occur every 2-4 weeks and that work will be required in between meetings. Additional expertise will be sought when/if it is required.
• CEOs	Responsible for deployment and re-alignment of resources; report to CE LHIN CEO		

Project Partners

Partners	Common Interests & Priorities	Roles & Responsibilities
• Phase 1 partners: • The Rouge Valley Health System • The Scarborough Hospital • Participating Community Primary Care Providers • Phase 2 a & b partners: • Other acute in-patient institutions of CE LHIN, Nursing Homes, and organizations without in-patient facilities (CCAC, CHC, others) • Phase 3: specialists	• Timely admit/discharge information to enrolled primary healthcare providers • Enhanced confidentiality • Re-align existing infrastructure to achieve core objectives(s) • Primary care provider evaluation and feedback • Patient outcome, safety and satisfaction • Savings from reduced hospital re-admission, ED visits, health information mistakes, repeated diagnostic tests, improved discharge/transfer/placement from EDs • Reduced liability on specialists/community providers/institutions • Documenting work performed specialists in accordance with OHIP guidelines and hence potentially reduced the risks for medical audits	• TBA

Project Stakeholders

Stakeholders	Interests & Needs	Management Strategies
• CE LHIN • Hospitals (departments) • Community primary care providers (including NHs) • Patients and community • Consultants • Allied Healthcare Providers (AHPs)	• Accountability, integration and enhanced service delivery • Reduced pressure for otherwise avoidable hospital care • improved quality/quantity of community based care, reduced pressure on hospital (eg., re-admissions, reduced ED visits, diagnostic tests) • reduced medical error • reduced wait times	• focus groups/feedback sessions • communications with all stakeholders • cost savings to hospital/system • patient satisfaction improvements • strengthened hospital – community-primary care provider relationship • image, funding, donations, • safety

Other Related Projects & Initiatives

Project/Initiative	Interdependency & Impact
• CMS/EMR • CCMs/FHGs • FHNs/FHTs/FHOs • CCAC • CHC • Seamless care for seniors, including GEM • OntarioMD • eHealth Council	• Improve sharing of patient records, add value to CMS/EMR, enhance primary care providers efficiencies and productivity, reduce medication and medical error • Enhance quality of care • Enhance patient satisfaction • Enhance patient safety • Enhance communication with allied healthcare providers • Improved information flow and navigation of patients, especially seniors, through the system • Experiences learned and teamwork built would be the platform to lunch eHealth initiative of CE LHIN • Build collaboration between LHIN funded institutions with non-LHIN funded healthcare providers

People & Organization Change Impacts

Description of Impact	Impact Management Strategies
• There will be no change of existing reporting structure, human resources and staffing level, IT infrastructure inside the institutions • Re-alignment of pertinent institutional procedures and policies would streamline the processes for delivering otherwise non-focus, non-accountable patient information system from institutions to interested parties outside the institutions • Enhance communication would strengthen the bonds between providers inside and outside of the institutions • Increased awareness that efficient communication will enhance the care and patient safety in the community • Improved documentation and communication would reduce liability to all providers and made the referral processes more accountable to OHIP guidelines	• Ensure no direct cost to the institutions • Probable medium to long term saving from unnecessary re-admission, health information mistakes, medication mistakes, repeated ED visits, repeated diagnostic tests • The seed for eHealth initiative in CE LHIN • Learning and knowledgebase from collaboration can be retained and extended to future LHIN wide projects • Reduced liability and improved patient safety will have an immediate and direct impact on the malpractice insurance of all providers

Project Communications

Audience	Information Needs	Format & Timing	Responsible
• Primary healthcare providers • Allied Healthcare providers (AHPs) • Chronic care institutions (i.e. Nursing Homes)	• Admission notification, discharge summary including day surgery, visits to out patient clinics, diagnostic tests, pertinent laboratory tests, ED visits with discharge diagnosis and test results	• Auto-faxing • 1 day for admission and discharge notification • 2 days for dictation and 1 day for autofaxing discharge summary • eliminate all mailing unless not doable with auto-faxing	• Telehealth and OHIP will provide the fax data for enrolled and non-enrolled healthcare providers • SSHA data • CE LHIN will provide fax data for other chronic care institutions

Project Risks

Risk	Likelihood	Impact	Risk Response
• Inaccurate database from OHIP and Telehealth	• Low	• High	• CE LHIN intervention
• Change Management	• Moderate	• High	• CEO's support
• Expectation cannot be met	• Low	• High	•
• Alignment of necessary by-laws	• Low	• High	• CEOs, Chiefs of Staff and MACs, Medical Staff Societies

Critical Success Factors

- No significant increase in current cost structure to the hospitals
- No new assignment or role creation
- Adoption of best practice across CE LHIN
- Realignment of existing infrastructures
- Demands for timely access of admission/discharge information from primary care providers
- Delivery by commonly available fax system
- Accurate and up to date existing database from Telehealth on enrolled healthcare providers and from OHIP on non-enrolled healthcare providers
- Reduction in liability to all providers

Assumptions & Constraints

Assumptions	Constraints
• Funding is available to support program start-up • Host organization will agree to participate in re-alignment of existing deficient communication system with community providers • Recruiting project manager • Successful alignment of necessary by-laws	• should not be a problem considering the gains in improved communication that forms the strategic focus for integration, quality of care, safety, and reduction in wait times and liability •

Sign-Off

Workstream Lead/Project Sponsor		
Name & Organization	Signature	Date
Central East Local Health Integration Network		

Project Lead/Project Manager		
Name & Organization	Signature	Date
Central East Local Health Integration Network or PCWG		

Project Partners		
Name(s) & Organization(s)	Signature(s)	Date(s)
Rouge Valley Health System		

Project Partners		
Name(s) & Organization(s)	Signature(s)	Date(s)
The Scarborough Hospital		

Project Team Members		
Name(s) & Organization(s)	Signature(s)	Date(s)

Project Team Members		
Name(s) & Organization(s)	Signature(s)	Date(s)

Project Team Members		
Name(s) & Organization(s)	Signature(s)	Date(s)

Project Team Members		
Name(s) & Organization(s)	Signature(s)	Date(s)

Project Team Members		
Name(s) & Organization(s)	Signature(s)	Date(s)

Project Team Members		
Name(s) & Organization(s)	Signature(s)	Date(s)

Charter Revision History

Version Numbering:
- 0.x - internal draft - under development *(Working copy for Project Coordinators)*
- 1.x - document under review / internal draft *(Begin 1.0 numbering when sent to Workstream Lead for comment)*
- 2.x - document submitted for approval *(Begin 2.0 numbering when sent to Oversight for approval)*
- 3.x - document approved *(Renumber to 3.0 after Oversight Approval)*

Revision No.	Description	Modified By	Date
0.1	Development of first draft		