

# IT Project Full Business Case Report

Division: Public Health

Cluster: A

Print Date: 09-Jun-2014

Project Information			
Name of Project :	TPH Electronic Medical Records		
Sub-Project Title:			
Project Manager:	Eva Eisler	Project Sponsor:	Barbara Yaffe
Project Start Date:	06-Jun-2016	Project Completion Date:	29-Jun-2018
Business Case Phase:	Design Phase	Business Case Phase Year:	prior to year one
Project ID:	A-TPH-0388		

Business Capabilities			
Champion Group:	Blank		
Primary Business Domain:	SERVICE DELIVERY MANAGEMENT		
Business Capability Group 1:	CASE MANAGEMENT	Business Capability Group 2:	INTEGRATED SERVICE DELIVERY

Project Alignment	
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Primary Objective: Improve business processes - Increase process integration

Describe how this initiative helps the City of Toronto achieve these goals and objectives?

Minimized reliance on paper records supports a paperless office with improved compliance and chart audit processes as well as improved reporting and trends tracking. This project would allow efficiencies in work flow through reduced chart pulls and refilling, better management of tests and results, enhanced billing practices and efficiencies in documentation and order entry. Ultimately, increased process integration will improve collaboration between staff from different service directorates for the purposes of improved quality of care and result in enhanced response to client needs as well as improved support for decision making.

Total Budget Summary:
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CAPTOR Number:

CAPTOR Category: 4-Service improvement & Enhancement

CAPTOR Status: S5: New-Ongoing

Total Project Budget	\$2,042					
	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019-2023
Table A) Cash Flow	0	0	556	1109	376	0
Table B) Operational Requirement	0	0	0	0	0	0
Table C) Annual Operating Impact	0	0	0	0	0	0

## Describe the Business Problem (max 400 char)

CDC currently lacks a robust information system for managing patients seen in their sexual health and methadone clinics. EMR will provide a comprehensive electronic record of a patient's health-related information that can be securely created, shared and managed by authorized staff via a secure network.

## Project Short Description (max 400 char)

This project will deliver a client-focused Electronic Medical Record (EMR) / information system that improves client care and creates efficiencies in business processes in TPH Sexual Health and Methadone Clinics. EMR will provide a comprehensive electronic record of a patient's health-related information that can be securely created, shared and managed by authorized staff via a secure network.

## Project Description (max 1400 char)

This project will deliver a client-focused Electronic Medical Record (EMR) / information system that improves client care and creates efficiencies in business processes in TPH Sexual Health and Methadone Clinics. EMR will provide a comprehensive electronic record of a patient's health-related information that can be securely created, shared and managed by authorized staff via a secure network. EMRs include patient demographics, nursing notes, lab testing/results, medical assessments, immunization information, prescription/treatment information, OHIP billing information, etc. Currently open source and vendor-based EMRs are being rolled out in physician offices via Ontario MD. A number of Ontario PHUs have also adopted EMRs in their clinical settings and some are also utilizing them for other public health client tracking purposes (e.g. travel health, reproductive health, mental

health, and administrative purposes (e.g. OHIP Billing).

#### Business Purpose/Justification (Max 1400 Char)

TPH will initially benefit from the implementation of this information system in our clinical settings (such as Sexual Health Clinics and Methadone Clinic). Ultimately, through integration projects, TPH could realize a goal of a centralized TPH public health client record and extend use of EMR to other directorates. When implemented properly, EMRs are part of a continuous quality improvement framework. This project will deliver a client-focused Electronic Medical Record (EMR) / information system that improves client care and creates efficiencies in business processes in TPH Sexual Health and Methadone Clinics.

#### Supplementary Information for CAPTOR (Max 1400 Char)

An electronic medical record (EMR) is a digital version of a paper chart that contains all of a patient's medical history from one practice. EMRs include patient demographics, nursing notes, lab testing/results, medical assessments, immunization information, prescription/treatment information, OHIP billing information, etc. This project will deliver a client-focused Electronic Medical Record (EMR) / information system that improves client care and creates efficiencies in business processes in TPH Sexual Health and Methadone Clinics. EMR will provide a comprehensive electronic record of a patient's health-related information that can be securely created, shared and managed by authorized staff via a secure network.

#### Describe High-Level Expected Benefits (Max 1400 Char)

- Improved overall client care, privacy of client records, documentation of client interactions, continuity of care, quality of services, organizational efficiency and collection and collation of data.
- Replace legacy systems including Sexual Health Clinics Information System and spreadsheets with a more robust functionally integrated application
- Minimized reliance on paper records – supports paperless office.
- Improved compliance and chart audit process.
- Improved reporting and trends tracking.
- Computerized prescriptions, orders for tests (labs, MRI, Blood Work etc.) and test results.
- Integrated OHIP billing and codes.
- Improved communication between team members
- Efficiencies in work flow (reduced chart pulls and refilling)
- Decreased number of adverse drug events (electronic prescribing, flagging allergies, and increased ability to manage drug recalls).
- Integrated evidence-based screening recommendations (i.e. cervical screening)
- Improved collaboration between staff from different service directorates for the purposes of improved quality of care.
- Enhanced response to client needs.
- Enhanced ability to minimize duplication across TPH.
- Improved support for decision making.

#### Assumptions and Constraints:

##### What are the key business and IT related assumptions for this project and project constraints (business and technical)?

- Required project budget is approved and available.
- Availability of business and IT resources.
- CDC will lead their role out in Sexual Health and Methadone Clinics and other TPH directorates will provide relevant business information in support of this project.
- EMR will leverage any of available foundational initiatives from 2014-2018 TPH Strategy.
- EMR can be integrated with the other existing systems (TPH, the City, Province) if required.
- This project will fully align with I&T Division project management methodologies and enterprise architecture, and will leverage any foundational technology introduced through 2014-2018 TPH IT Strategy execution.

#### Describe Magnitude Scope or Complexity:

##### Identify potential dependencies and impact

- e-Print Project, specifically deployment of Multi-function devices (MFDs)
- Enterprise Content Management (Document and Records Management) initiative
- 2014-2018 TPH IT Strategy foundational initiatives such as Business Process Management, Service Oriented Architecture, Business Intelligence.

##### Is It Divisional, Cross Divisions or Enterprise?

TPH could initially benefit from the implementation of these information systems in our clinical settings (such as Sexual Health Clinics and Methadone Clinic). Ultimately, through integration projects, TPH could realize a goal of a centralized TPH public health client record and extend use of EMR to other directorates (such as Dental Clinics).

##### Is it internal City Use or Public Facing?

This solution will be used by nurses, doctors, and client workers through our Sexual Health Clinics and Methadone Clinics.

#### Proposed Solution (Optional)

Identified Solution: No

##### Describe how the proposed solution will be implemented if known

EMR will provide a comprehensive electronic record of a patient's health-related information that can be securely created, shared and managed by

authorized staff via a secure network. CDC currently lacks a robust information system for managing patients seen in their sexual health and methadone clinics.

An RFI will be issued to identify options on existing EMR systems currently in use in other similar settings to the CDC clinics. A solution will be selected and implemented.

#### **Privacy Impact Assessment Required? Yes**

##### **Please describe if personal information or personal health information is collected**

An electronic medical record (EMR) is a digital version of a paper chart that contains all of a patient's medical history from one practice. EMRs include patient demographics, nursing notes, lab testing/results, medical assessments, immunization information, prescription/treatment information, OHIP billing information, etc.

## Project Budget Cost

**TABLE A) CAPITAL PROJECT COSTS-Full Costs (\$000's)**

	Project Total	2016 - 2020						2021 - 2025						Comments
		2016	2017	2018	2019	2020	Total	2021	2022	2023	2024	2025	Total	
<b>Expenditures:</b>														
Salaries & Benefits	1484	367	741	376	0	0	1484	0	0	0	0	0	0	
CAPTOR Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other Expenses*	557	189	368	0	0	0	557	0	0	0	0	0	0	
<b>Total Expenditures:</b>	<b>2041</b>	<b>556</b>	<b>1109</b>	<b>376</b>	<b>0</b>	<b>0</b>	<b>2041</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Financed by</b>														
Debt	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reserve / Reserve Funds	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other - Carry Forward	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other - please specify	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total Financed by</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

### \* Details for Other Expenses

<b>Other Expenses*</b>														
Hardware [3410]	153	153	0	0	0	0	153	0	0	0	0	0	0	
Hardware Maintenance [4472]	0	0	0	0	0	0	0	0	0	0	0	0	0	
Software [3420]	355	0	355	0	0	0	355	0	0	0	0	0	0	
Software Maintenance [4474]	0	0	0	0	0	0	0	0	0	0	0	0	0	
Project Management Fees [5020]	30	30	0	0	0	0	30	0	0	0	0	0	0	
IT Contracted Services [4038]	7	7	0	0	0	0	7	0	0	0	0	0	0	
Training [4310]	0	0	0	0	0	0	0	0	0	0	0	0	0	
Legal Cost [4199]	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other - Testing [4995]	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other - Vulnerability Assessment [4038]	7	0	7	0	0	0	7	0	0	0	0	0	0	
Other Threat Risk Assessment [4038]	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other - Privacy Impact Assessment [5020]	7	0	7	0	0	0	7	0	0	0	0	0	0	
Other-1 [4995]	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other-2 [4995]	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other-3 [4995]	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other-4 [4995]	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total Other Expenses:</b>	<b>559</b>	<b>190</b>	<b>369</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>559</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

**Table B) Construction/Development OPERATING impacts**

	Project Total	2016 - 2020						2021 - 2025						Comments
		2016	2017	2018	2019	2020	Total	2021	2022	2023	2024	2025	Total	
<b>Expenditures</b>														
Salaries & Benefits	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other 1	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other 2	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other 3	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total Expenditures</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Revenues</b>														
Grants from others	0	0	0	0	0	0	0	0	0	0	0	0	0	
Inter-divisional Recoveries	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total Revenues</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Net Expenditures:</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	

\* Net Expenditures = Total Expenditures - Total Revenue

**Table C) Annual Operating Impact (On-Going)**

	Project Total	2016 - 2020						2021 - 2025						Comments
		2016	2017	2018	2019	2020	Total	2021	2022	2023	2024	2025	Total	
<b>Expenditures</b>														
Salaries & Benefits	0	0	0	0	0	0	0	0	0	0	0	0	0	
Materials and Supplies	0	0	0	0	0	0	0	0	0	0	0	0	0	
Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	
Services and Rents	0	0	0	0	0	0	0	0	0	0	0	0	0	
Contribution and Transfers	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other Expenditures	0	0	0	0	0	0	0	0	0	0	0	0	0	
Unallocated adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total Expenditures</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Revenues</b>														
Grants from others	0	0	0	0	0	0	0	0	0	0	0	0	0	
Inter-divisional Recoveries	0	0	0	0	0	0	0	0	0	0	0	0	0	
User Fees	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other 1	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other 2	0	0	0	0	0	0	0	0	0	0	0	0	0	
Unallocated adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total Revenues</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Net Expenditures:</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	

\* Net Expenditures = Total Expenditures - Total Revenue

**\* Details for Other Expenditures:**

<b>Other Expenditures</b>														
Hardware Maintenance [4472]	0	0	0	0	0	0	0	0	0	0	0	0	0	
Software Maintenance [4474]	0	0	0	0	0	0	0	0	0	0	0	0	0	
Training [4310]	0	0	0	0	0	0	0	0	0	0	0	0	0	
Others [4995]	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total Other Expenses:</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	

**Cost Comments:**

2016: 3410 Comp HW server infrastructure - \$152; 4038 Professional Services Threat Risk Assessment - \$6; 5020 IDC Corporate Resources - \$30

2017: 3420 Compt SW application - \$356; 4038 Professional Services Vulnerability Assessment - \$6; 4038 Professional Services PIA - \$6

## Project Plans (Resource, Schedule & Benefits)

### Resource Plan Summary

Resource Name	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Comments
Other Position (Use Comments Field)			3	6	3						2016: Senior System Integrator 0.5FTE ; Systems Integrator 1 (senior BA 0.5 FTE; Application and Technical Supp Specialist 0.5 FTE; Manager Health Informatics 0.5 FTE; Public Health Nurse (subject matter experts) 1.0 FTE 2017: Senior System Integrator 1.0 FTE; Systems Integrator 1 (senior BA 1.0 FTE; Application and Technical Supp Specialist 1.0 FTE; Manager Health Informatics 1.0 FTE; Public Health Nurse (subject matter experts) 2.0 FTE 2018: Senior System Integrator 0.5 FTE ; Systems Integrator 1 (senior BA 0.5 FTE; Application and Technical Supp Specialist 0.5 FTE; Manager Health Informatics 0.5 FTE; Public Health Nurse (subject matter experts) 1.0 FTE
Temporary Resource			3	6	3						
Resource Plan Total			3	6	3						

### Resource Sustainment (Operating Impact)

No resource Sustainment

### Project Schedule / Key Deliverables

Lifecycle - Stage	Start Date	End Date
01 Definition	2016-06-06	2016-08-31
02 Planning - Requirement	2016-09-05	2016-10-10
04 Implementation - Procure	2016-11-07	2017-04-10
07 Implementation - Deploy	2017-04-17	2017-12-28
06 Implementation - Test	2018-01-08	2018-05-07
08 Close-out	2018-05-21	2018-06-29

### Project Dependencies

Deliverable	Project Name	Deliverable
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### Benefit Estimate

<b>Benefit:</b> Improve internal controls & accountability			
<b>Benefit Type</b>	Value	<b>eCity Objective</b>	Improve information quality
<b>Benefit Measure:</b>			
<b>Beneficiary</b>	Internal Divisions	<b>Business Change</b>	Implement service improvements
<b>Measurement/Benefit Year</b>			
2014		2015	
2016		2017	
2018		2019	
2020		2021	
2022			