

ATTACHMENT 1



Toronto Public Health Capital Budget and Plan Request 2018-2027

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EXECUTIVE SUMMARY

This report provides an overview of the Toronto Public Health (TPH) 2018 Capital Budget and 2019-2027 Capital Plan and Forecast.

TPH is submitting a 2018-2027 Capital Budget and Plan request of \$25.651 million, including a 2018 Capital Budget of \$4.378 million and future year commitments of \$2.786 million and a 2019-2027 Capital Plan and Forecast of \$18.487 million. The Debt Affordability Target provided by the City for TPH is \$4.233 million in 2018, \$3.373 million in 2019, \$3.400 million in 2020, \$3.000 million in 2021, \$2.500 million in 2022 and, \$9.000 million for 2023 to 2027 for a total of \$25.506 million.

The 10-Year Capital Budget and Plan request will provide funding for twenty two Information and Technology (IT) projects that support improvement of service delivery with the development and enhancement of systems.

Table 1: 2018-2027 Capital Budget and Plan Request

(\$000s)	2018 Budget Request	Commitments/Plan				Total 2017 - 2022	2023-2027 Forecast					Total 2018 - 2027
		2019	2020	2021	2022		2023	2024	2025	2026	2027	
2018 Budget & Future Year Commitments	4,378	2,727	59			7,164						7,164
2018 - 2027 Plan and Forecast (Estimates)		646	3,341	3,000	2,500	9,487	2,200	1,700	1,700	1,700	1,700	18,487
Total Plan and Forecast	4,378	3,373	3,400	3,000	2,500	16,651	2,200	1,700	1,700	1,700	1,700	25,651
Provincial Funding (100%)	145					145						145
Debt Affordability Target*	4,233	3,373	3,400	3,000	2,500	16,506	2,200	1,700	1,700	1,700	1,700	25,506
Over/(under) Debt Target	-	-	-	-	-	-	-	-	-	-	-	-

Information Technology Projects

Demand for public health services and the business support for those services continues to grow. Technology is required to extend TPH's capacity to provide service in a timely way while fiscal constraints require human resources to be maintained or reduced.

Service metrics and reporting with real time quality data are an increasing expectation. Professionals require tools that allow them to provide effective services and enable them to access information to report on services, costs, and performance metrics. Doing so enables staff to ensure standards are being met.

When programs are directed to do more with the same or fewer resources, it is critical that the organization provide the IT tools required to increase efficiency.

Toronto Public Health uses a number of information systems and technology to assist in delivering services. In certain cases, TPH is required to use specific types of technology and certain systems to collect and share information with other jurisdictions through provincially developed systems. Toronto Public Health, as with all health units in Ontario, is also required by law to collect and report critical information related to communicable and reportable diseases within mandated timelines and formats prescribed.

The Ontario Public Health Organizational Standards includes the requirement to develop and implement an IT strategy for each public health unit. An IT Strategy for TPH was completed in 2014 which defines the strategic IT priorities from 2014 to 2018. The Capital Program is integral to the achievement of the TPH business driven IT Strategic goals and objectives contained in the TPH IT Strategy (2014-2018) through the funding of various initiatives and projects.

The Capital Budget and Plan presented below outlines a series of projects designed to improve TPH's ability to share required information and improve accountability through effective and timely information collection as well as assisting in more efficient delivery of programs and services on behalf of the residents of Toronto.

RECOMMENDATIONS

The Medical Officer of Health recommends that:

1. Board of Health request City Council approve a 2018 Recommended Capital Budget for Toronto Public Health with a total project cost increase of \$3.584 million and a 2018 cash flow of \$4.378 million and future year commitments of \$2.786 million. The 2018 Capital Budget is comprised of the following:
 - a) New cash flow funding for:
 - i) Six new sub-project and two change in scope sub-projects with a 2018 total project cost increase of \$3.584 million that requires cash flow of \$1.707 million in 2018 and future year commitments of \$1.818 million in 2019; and \$0.059 million in 2020 and
 - ii) Three previously approved sub-projects with a 2018 cash flow of \$2.671 million and future year commitments of \$0.909 million in 2019.
2. Board of Health request City Council approve the 2019-2027 Capital Plan for Toronto Public Health totalling \$18.487 million in project estimates, comprised of \$0.646 million in 2019, \$3.341 million in 2020, \$3.000 million in 2021, \$2.500 million in 2022, \$2.200 million in 2023; \$1.700 million in 2024, \$1.700 million in 2025, and \$1.700 million in 2026; and \$1.700 million in 2027.
3. Board of Health request City Council approve additional debt funding of \$4.308 million to implement four additional IT projects to improve service delivery and enhance systems while complying with mandatory provincial requirements.
4. The Board of Health forward this report to the City's Budget Committee for its consideration during the 2018 budget process.

The figures forming the basis of the Recommendations are shown in the table below.

Table 2: 2018-2027 Capital Budget and Plan Request

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total 2018-2022	Total 2023-2027
(\$000s)												
2018 FY Commitments	2,671	909									3,580	
New/Change in Scope & Future Year Commitments	1,707	1,818	59								3,584	
Total Budget and Forecast	4,378	2,727	59								7,164	2,786
Projected Carry Forward to 2018												
Total 2018 Cash Flow	4,378											
2018-2026 Capital Plan And Forecast (Estimates)		646	3,341	3,000	2,500	2,200	1,700	1,700	1,700	1,700		18,487

IMPACT OF THE TPH IT STRATEGY ON THE CAPITAL PROGRAM

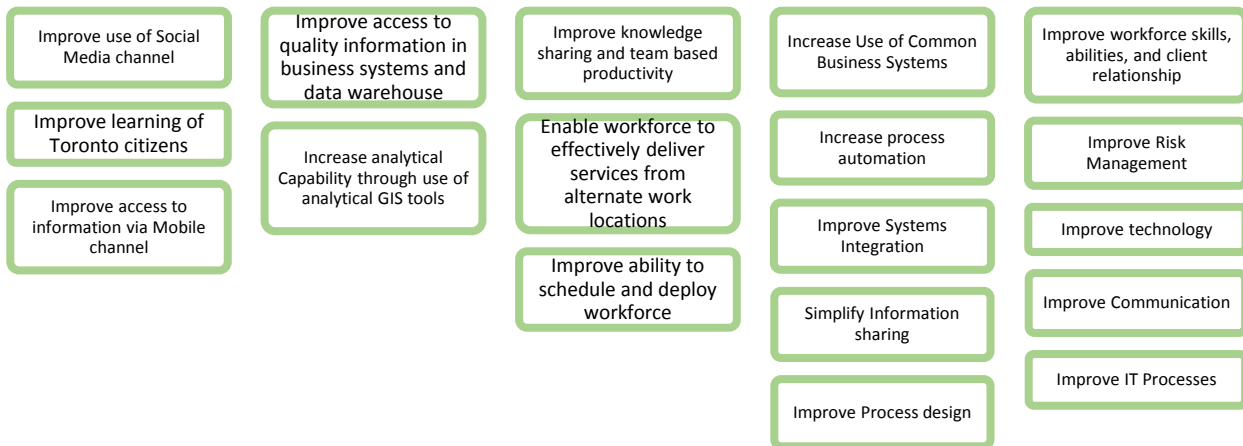
The Capital Program is integral to the achievement of the following TPH business driven IT Strategic goals and objectives contained in the TPH IT Strategy (2014-2018) through the funding of various initiatives and projects identified in the IT Strategy:

Chart 1: TPH IT Strategy Goals, Objectives, and Initiatives/projects

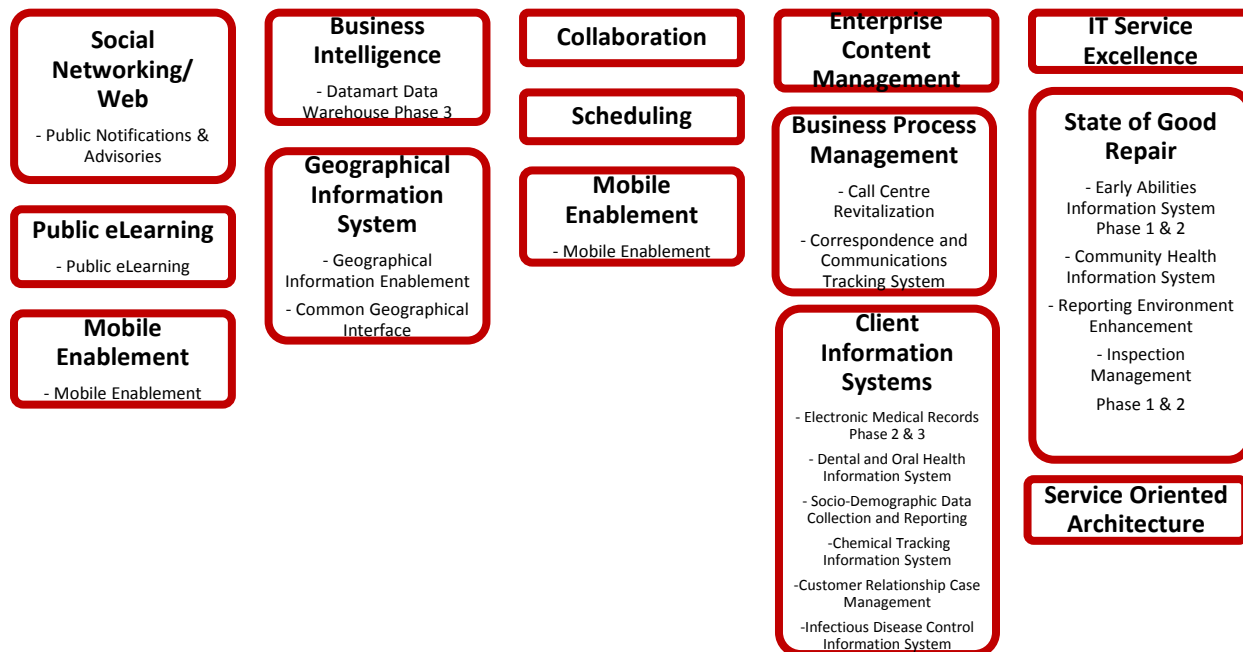
TPH IT Strategy Goals



TPH IT Strategy Objectives



TPH IT Strategy Initiatives – Projects



OVERVIEW CAPITAL BUDGET AND PLAN

2018-2027 Capital Budget and Plan

The 2018 Capital Budget process requires City Divisions and its Agencies, Boards and Commissions (ABCs) to submit a 10-Year Capital Budget and Plan within the debt affordability and capital targets established for each of the 10 years. City Divisions and ABCs must develop their 10-Year Capital Budget and Plan based on these debt targets.

As shown in Chart 1, the TPH IT Strategy (2014-2018) identifies five IT Strategy goals and 18 supporting objectives to be achieved. The TPH IT Strategy also identifies 14 initiatives to realize these strategy goals and objectives.

As described below, various projects support the achievement of each of the five TPH IT Strategy Goals and associated objectives.

1. *Improve Access to Government Services*

Information Technology plays an important role in meeting the public’s demand for access to TPH information and services. To satisfy this need, TPH plans to: improve the use of Social Media and mobile channels; and provide additional distance learning opportunities.

- The **Public Notifications & Advisories** project will enhance DineSafe, SwimSafe and BodySafe websites so that they can be accessed via mobile devices and enable the public to automatically receive information alerts e.g. Beaches Water Quality, Heat and Cold Alerts.
- The **Public eLearning** project will implement a system to enhance the ability to create, deliver and manage public health eLearning for Toronto residents.
- The **Mobile Enablement** project will, in part, provide mobile applications for use by the public to provide information pertaining to pre and post-natal support, health alerts, and agencies providing public health services.

2. *Improve Decision-making Support*

Information Technology has a key role in supporting the achievement of TPH’s objectives of service excellence and accountability by: improving access to quality

information in business systems and data warehouses; and strengthening analytical capabilities through use of various analytical and GIS tools.

- ☑ Phase 3 of the **Datamart Data Warehouse** project will expand the use of City wide business intelligence and GIS tools for query, reporting and analysis to better monitor performance and analyze trends and adjust programs and meet mandatory Ministry of Health and Long-Term Care reporting requirements in a timely manner
- ☑ The **Geographic Information Enablement** project will enhance the capacity to display location based information geographically (on maps) including reading ward profiles, health surveillance query information, and heat maps and create a secure Geographic Information System (GIS) for managing and protecting data with sensitive Personal Health Information.
- ☑ The **Common Geographical Interface** project will develop a reusable system that will facilitate the integration of mapping information from various providers within applications.

3. *Improve Workforce Capabilities*

In support of TPH's commitment to excellence by ensuring continuous improvement in organizational performance, TPH strives to provide tools and systems that staff need to enhance performance and provide high quality service to clients. Workforce capabilities will be enhanced by: improving knowledge sharing and team based productivity; improving staff's ability to schedule and deploy resources; and enabling staff to effectively deliver services from alternate work locations.

- ☑ The **Mobile Enablement** project will, in part, deploy mobile functionality to Public Health professionals to access and enter client and service data while in the community for: 1) the needle exchange, sexually transmitted infections, and Communicable Disease Liaison programs; and 2) the Dental and Oral Health programs while also providing dental screening and services.

4. *Improve Business Processes*

To improve business processes, TPH needs to capitalize on opportunities to automate work through increasing the use of common business systems and through process automation, redesign and system integration.

- The **Electronic Medical Records** project will deliver a client information system to provide a comprehensive electronic record of patients' health-related information for those seen in sexual health and needle exchange clinics creating efficiencies in business processes and improved client care.
- Dental and Oral Health Information System** project will implement an integrated Dental and Oral Health Information System to improve the operational efficiency and effectiveness of providing Dental and Oral Health Services delivered by TPH to eligible clients of the City of Toronto in all 24 City and Provincial dental clinics including one mobile dental clinic. The information system will provide access to meaningful, real time dental and oral health practice management information including: 1) shared appointment scheduling, 2) patient charting, 3) digital x-ray management and, 4) electronic integration with the provincial billing system.
- The **Socio-Demographic Data Collection and Reporting** project will implement an automated mechanism to collect socio-demographic data across TPH programs and integrate with service data residing in various systems in order to better understand client needs and improve decision making around service delivery.

5. *Improve IT Services*

Being a strategic enabler in the delivery of TPH services, it is critical that information technology services are continually improved. This will be accomplished by improving: workforce skills, abilities, client relationship management; stakeholder communication; the management of risk; IT processes and service delivery; and information technology for continued optimal use.

- The **Early Abilities Information System** project will replace an outdated system (provided by Danic Technology Inc.) utilized by the Early Abilities program (formerly known as Pre-school and Speech and Language) in order to continue to facilitate the sharing of information with partner agencies and reduction of duplication.
- The **Community Health Information System** project will enhance the Toronto Community Health Information System (TCHIS) to improve system reliability, comply with legal requirements (including AODA and PHIPA) and industry standards, and enhance the capabilities of the application to improve workflows and reduce errors so that program staff can continue to efficiently deliver public health service to a growing public health client base.
- The **Reporting Environment Enhancement** project will replace the obsolete reporting environment with a new standard technical framework for creating operational reports, redesign & enhance reporting application utilized by the Communicable Disease Control and Healthy Environments programs

CAPITAL PROJECT SUMMARIES

The TPH 2018-2027 Capital Budget and Plan is summarized in the table below:

Table 3: Summary of Capital Initiatives

	2018 Rec. Budget (\$000s)	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	2026 Plan	2027 Plan	2018-2027 Total
2018 Budget and Future Year Commitments											
Ongoing Projects											
Dental and Oral Health Information System	258	154									412
Community Health Information System	1,199	755									1,954
New Projects Beginning 2018											
Infectious Disease Control Information System	145										145
Inspection Management - Phase 1	413										413
Early Abilities Information System - Phase 1	510										510
Documents and Records Management System - Phase 1	468										468
Datamart Data Warehouse - Phase 3	958	957									1,915
Electronic Medical Records - Phase 3	427	861	59								1,347
Subtotal	4,378	2,727	59								7,164
Chemical Tracking Information System		303	604								907
Correspondence and Communication Tracking System		343	343								686
Common Geographical Interface			700	300							1,000
Early Abilities Information System - Phase 2			715	941							1,656
Documents and Records Management System - Phase 2			518	635	584						1,737
Inspection Management - Phase 2			461	733	825	152					2,171
Mobile Enablement				391	378	527	550	46			1,892
Public eLearning					365	610	106				1,081
Socio-Demographic Data Collection and Reporting					348	721	779	811			2,659
Geographic Information Enablement						190	265	286			741
Public Notifications and Advisories								557	474		1,031
Reporting Environment Enhancement									267	349	616
Call Centre Revitalization									452	400	852
Customer Relationship Case Management									507	951	1,458
Subtotal		646	3,341	3,000	2,500	2,200	1,700	1,700	1,700	1,700	18,487
Grand Total	4,378	3,373	3,400	3,000	2,500	2,200	1,700	1,700	1,700	1,700	25,651

PROJECT SUMMARIES

Ongoing Projects

- 1. Dental and Oral Health Information System - 2017 to 2019 (\$0.412 million)**

The goal of this project is to improve the operational efficiency and effectiveness of providing Dental and Oral Health Services by TPH to eligible clients of the City of Toronto in all 24 City and Provincial dental clinics including one mobile dental clinic. This initiative will implement an integrated Oral Health Information System to support the service delivery process of public dental clinics. This system will provide access to meaningful, real time dental and oral health practice management information, including: 1) shared appointment scheduling, 2) patient charting, 3) digital x-ray management, and 4) electronic integration with the provincial systems for school dental screening and claims processing.
- 2. Community Health Information System - 2017 to 2019 (\$1.954 million)**

This project will enhance the Toronto Community Health Information System (TCHIS) to improve system reliability, comply with legal requirements (including AODA and PHIPA) and industry standards, and enhance the capabilities of the application to improve workflows and reduce errors so that program staff can continue to efficiently deliver public health service to a growing public health client base.

New Projects Beginning in 2018

- 1. Infectious Disease Control Information System - 2018 (\$0.145 million)**

This 100% provincially funded project uses TPH expertise and diverse requirements to assist in the on-going development and implementation of the pan-Canadian Panorama System for infectious disease control. As one of six Builder health units in the province, TPH's share of the cost is funded by the Ministry of Health and Long Term Care. This phase of the project includes enhancements to: 1) Panorama functionality; 2) the Mobile Immunization Management System (m-IMMS) that provides access to immunization records while in the field; and 3) the Public Health Immunization Exchange (PHIX) and Immunization Connection Ontario (ICON) systems that enable electronic import of immunization and demographic information into the immunization management system (Panorama).
- 2. Inspection Management - Phase 1 - 2018 (\$0.413 million)**

This project will perform the required analysis and business case documentation to request approval to proceed with the next phase (Phase 2) of the project to replace the current Healthy Environments and Communicable Disease Control inspection CSDC AMANDA system with a new case management solution. The goal of this project is to find a system that is flexible, allows modifications to the existing program workflows and business rules, enables the addition of new programs with minimal customization

of both mobile and web versions. The system will have enhanced technical capabilities including integrity of data, complete history and audit trail for all records, compliance with Personal Health Information Legislation (e-PHIPA), and integration with City (e.g. business licensing) and provincial systems (e.g. Panorama).

3. Early Abilities Information System - Phase 1 - 2018 (\$0.510 million)

This project will perform required analysis and business case documentation prior to receiving approval to implement a new solution to replace the DANIC system that is currently being used by Early Abilities program to support case management as part of the next phase of the project (Phase 2).

4. Documents and Records Management System - Phase 1 - 2018 (\$0.468 million)

This project will review and assess TPH's document management and records management needs against the City Clerk's OpenText Enterprise Document and Records Management Solution (ERDMS) to ensure TPH's information systems and data assets are suitable and ready for ERDMS integration and in compliance with TPH's unique PHIPA privacy requirements.

5. Datamart Data Warehouse - Phase 3 - 2018 to 2019 (\$1.915 million)

Building on the accomplishments of phase 2, this project will support further improvements in reporting, performance measurement and decision making across ten (10) additional data sources within TPH programs. Implementing this project will enhance TPH operations by allowing staff to better monitor performance and analyze trends to adjust programs and meet mandatory Ministry of Health and Long-Term Care reporting requirements in a timely manner. TPH plans to migrate TPH Data Warehouse Oracle BI solution to corporate SAP BI solution and will follow SAP change management processes.

6. Electronic Medical Records - Phase 3 - 2018 to 2020 (\$1.347 million)

This project will replace a system that has reached its end of life with a new client information system to provide a comprehensive electronic record of patients' health-related information for those seen in sexual health and needle exchange clinics creating efficiencies in business processes and improved client care.

Future Projects

1. Chemical Tracking Information System - 2019 to 2020 (\$0.907 million)

This project will upgrade technology and technical frameworks to corporate standards utilized by five ChemTRAC integrated applications and implement functionality to provide the ability for the industries/business partners to log in securely into the system for submitting chemical use and release information to reduce processing time and improve customer satisfaction.

2. Correspondence and Communication Tracking System - 2019 to 2020 (\$0.686 million)

This SharePoint workflow solution will automate the current manual process of tracking correspondence and communications items received by the Medical Officer of Health (MOH), leveraging the "Workflow Automation and Tracking for the City Manager's Office" project.

3. Common Geographical Interface - 2020 to 2021 (\$1.000 million)

This project will develop a reusable system that will facilitate the integration of mapping information from various providers within applications. Although this system is being developed for use by TPH, it can be used across the City wherever there is a similar need.

4. Early Abilities Information System - Phase 2 - 2020 to 2021 (\$1.656 million)

This project will replace an outdated system (i.e. DANIC system) utilized by the Early Abilities program in order to continue to facilitate the sharing of information with partner agencies and reduction of duplication.

5. Documents and Records Management System - Phase 2 - 2020 to 2022 (\$1.737 million)

This project will extend the use of the Enterprise Document Management System to Public Health users to organize and efficiently search, share, revise, and store electronic information contained in documents. The solution will enable TPH to streamline operational processes by enabling programs to electronically handle all incoming inquiries/requests and subsequent outgoing responses. It will introduce electronic workflow process management, which will enable staff and management to automate selected work processes, improve document version control, document tracking and approval along with enhanced systems integration.

6. Inspection Management – Phase 2 - 2020 to 2023 (\$2.171 million)

This project will replace the existing Healthy Environments and Communicable Disease Control inspection applications with a single application that provides enhanced inspection management functionality. It will utilize current technology, such as cloud computing; and leverage future corporate case management capabilities and common infrastructure components.

- 7. Mobile Enablement - 2021 to 2025 (\$1.892 million)**
This project will deploy mobile functionality to Public Health professionals to access and enter client and service data while in the community for: 1) the needle exchange, sexually transmitted infections, and Communicable Disease liaison programs; and 2) the Dental and Oral Health programs while also providing dental screening and services in the mobile dental clinic. This project will provide mobile applications for use by the public to provide information pertaining to pre and post natal support, health alerts, and agencies providing public health services. Mobile technology will be used to improve business processes and service to clients.
- 8. Public eLearning - 2022 to 2024 (\$1.081 million)**
Leveraging corporate and proven available solutions, this project will implement a system to enhance the ability to create, deliver and manage public health eLearning for Toronto citizens. System components will include registration, content design and development, payment handling and reporting. e-Learning modules include online training for: 1) community agency staff to administer nutrition screening; 2) public education on breast feeding and infant feeding; and 3) agency resources on immunization clinic protocols.
- 9. Socio-Demographic Data Collection and Reporting - 2022 to 2025 (\$2.659 million)**
This project will implement an automated mechanism to collect socio-demographic data across TPH programs and integrate with service data residing in various systems in order to better understand client needs and improve decision making around service delivery.
- 10. Geographic Information Enablement - 2023 to 2025 (\$0.741 million)**
This project will enhance the capacity to display location based information geographically (on maps) including reading ward profiles, health surveillance query information, and heat maps (e.g. identifying who is vaccinated in an area) and create a secure Geographic Information System (GIS) for managing and protecting data with sensitive Personal Health Information. Enhanced GIS capability within TPH, including health statistics related to wards and neighbourhoods, will provide valuable inputs into decision making for service provision.
- 11. Public Notifications & Advisories - 2025 to 2026 (\$1.031 million)**
Using a current standard technical framework for web based information systems, this project will enhance DineSafe, SwimSafe and BodySafe websites so that they can be accessed via mobile devices and enable the public to automatically receive information alerts e.g. Beaches Water Quality, Heat and Cold Alerts.
- 12. Reporting Environment Enhancement - 2026 to 2027 (\$0.616 million)**
This project will replace the obsolete reporting environment with a new standard technical framework for creating operational reports, redesign & enhance reporting application utilized by the Communicable Disease Control and Healthy Environments programs.

13. Call Centre Revitalization - 2026 to 2027 (\$0.852 million)

This project will improve the overall customer service experience by implementing standard tools commonly used by call centres including call recording, e-chat and knowledge base.

14. Customer Relationship Case Management - 2026 to 2027 (\$1.458 million)

This project will implement an integrated client relationship solution to manage client information and interactions across all TPH programs from a central location. The solution will provide authorized staff with anywhere, anytime access to full client records leading to improved service levels and an enhanced customer experience.

OPERATING BUDGET IMPACT OF 10 YEAR CAPITAL PLAN

The operating costs of new systems and the required maintenance and support included in the 2018-2027 Recommended Capital Budget and Plan will be fully absorbed within the existing TPH Operating Budget using program efficiency and service realignment realized through the implementation of the following IT capital projects. There will not be any net operating impacts on the operating budget resulting from the implementation of these capital projects.

- **The Dental and Oral Health Information System** project estimated ongoing annual cloud solution licensing and x-ray related costs will be \$0.087 million gross and \$0.022 million net beginning 2020. These costs will increase by \$0.003 million gross annually effective 2024. This project is forecasted to provide financial and operational efficiencies of \$0.126 million gross and \$0.032 million net effective 2021.
- **Community Health Information System** project will be completed in 2019 and is forecasted to provide operational efficiencies of \$0.160 million gross and \$0.040 million net effective 2023. There will not be any future impact on the operating budget.
- **Inspection Management - Phase 1** project will be completed in 2018 and will not impact future years' Operating Budgets.
- **Early Abilities Information System - Phase 1** project will be completed in 2018 and there will not be any future year impact on the Operating Budget.
- **Documents and Records Management System - Phase 1** project will be completed in 2018 and will not impact future years' Operating Budgets.
- Phase 3 of the **Datamart Data Warehouse - Phase 3** project will be completed in 2019. The estimated ongoing sustainment costs of \$0.058 million gross and \$0.015 million net beginning 2021. The financial and operational efficiencies for this project will be \$0.232 million gross and \$0.058 million net effective 2021.
- **Electronic Medical Records - Phase 3** project will end in 2020. It is estimated that the ongoing annual cloud solution licensing cost will be \$0.140 million gross and \$0.035 million net beginning the same year. The forecasted operational efficiencies will be \$0.180 million gross and \$0.045 million net effective 2021.

SUMMARY OF POSITIONS FUNDED THROUGH THE CAPITAL BUDGET

TPH requires staff to work temporarily on capital projects. Salary and benefit costs of \$2.514 million gross and \$0.0 net and 20.4 FTEs are included in the 2018 Operating Budget to reflect the payroll cost that is funded from the 2018 Capital Budget. Details of the positions funded from the 2018 Capital Budget are provided in the table below.

Table 4: Summary of Positions Funded through Capital (excludes Carry Forward Funding)

	2018 Budget Request (\$000s)	2018 Salaries and Benefits Exp (\$000s)	2018 FTE	2019 FTE	2020 FTE	2021 FTE	2022 FTE	2023 FTE	2024 FTE	2025 FTE	2026 FTE	2027 FTE	Total
2018 Budget and Future Year Commitments													
Ongoing Projects													
Dental and Oral Health Information System	258	113.0	1.0	0.5									1.5
Community Health Information System	1,199	831.0	7.0	6.0									13.0
New Projects Beginning 2018													
Infectious Disease Control Information System	145	145.0	1.5										0.0
Inspection Management - Phase 1	413	265.0	1.7										1.7
Early Abilities Information System - Phase 1	510	265.0	1.7										1.7
Documents and Records Management System - Phase 1	468	223.0	1.7										1.7
Datamart Data Warehouse - Phase 3	958	305.0	3.0	3.0									6.0
Electronic Medical Records - Phase 3	427	367.0	2.9	5.5	0.5								8.9
Subtotal	4,378	2,514	20.4	15.0	0.5								34.4
Future Projects													
Chemical Tracking Information System				0.9	3.0								3.9
Correspondence and Communication Tracking System													0.0
Common Geographical Interface					1.0	1.0							2.0
Early Abilities Information System - Phase 2					3.0	4.0							7.0
Documents and Records Management System - Phase 2					1.5	3.0	3.0						7.5
Inspection Management - Phase 2					3.0	5.3	5.5	0.8					14.6
Mobile Enablement						2.5	3.0	4.0	4.0				13.5
Public eLearning							2.3	4.5	0.8				7.5
Socio-Demographic Data Collection and Reporting							2.0	5.5	6.0	6.0			19.5
Geographic Information Enablement								0.4	1.5	1.5			3.4
Public Notifications and Advisories										1.0	1.0		2.0
Reporting Environment Enhancement											1.7	2.3	4.0
Call Centre Revitalization											2.1	2.3	4.3
Customer Relationship Case Management											2.0	3.0	5.0
Subtotal				0.9	11.5	15.8	15.8	15.1	12.3	8.5	6.8	7.6	94.3
Grand Total				15.9	12.0	15.8	15.8	15.1	12.3	8.5	6.8	7.6	128.7

KEY CHANGES TO THE 2018-2027 CAPITAL BUDGET AND PLAN

Annual updates to the 10-Year Capital Plan provides TPH the opportunity to refine its IT projects based on changing conditions and better information. Significant changes to the 10-Year Capital Plan are detailed in the table below:

Table 5: Key Changes to the 2018-2027 Capital Budget and Plan

	Total Project Cost 2017 (\$000s)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2018 - 2026	2027	Revised Total Project Cost
Previously Approved Budget & Plan													
Electronic Medical Record - Phase 2	1,724	(1,306)									(1,306)		418
Dental and Oral Health Information System	404	92									92		496
Community Health Information System	2,854												2,854
Early Abilities Information System - Phase 1	1,103	510							(329)	(774)	(593)		510
Datamart Data Warehouse - Phase 3	1,611	47	257								304		1,915
Chemical Tracking Information System	907	(303)	(301)	604									907
Correspondence and Communication Tracking System	765		(96)	17							(79)		686
Common Geographical Interface	1,000												1,000
Inspection Management - Phase 2	4,837			(1,134)	(765)	(665)	(102)				(2,666)		2,171
Mobile Enablement	2,374								(482)		(482)		1,892
Public eLearning	1,592							(511)			(511)		1,081
Socio-Demographic Data Collection and Reporting	2,659	(348)	(721)	(779)	(811)	348	721	779	811				2,659
Geographic Information Enablement	741												741
Public Notifications and Advisories	1,031												1,031
Reporting Environment Enhancement	616					(267)	(349)			267	(349)	349	616
Call Centre Revitalization	452											400	852
Multilingual Website	538						(270)	(268)			(538)		
Total Previously Approved Budget and Plan	25,208	(1,308)	(861)	(1,292)	(1,576)	(584)				(507)	(6,128)	749	19,829
New Projects													
Infectious Disease Control Information System		145									145		145
Inspection Management - Phase 1		413									413		413
Documents and Records Management System - Phase 1		468									468		468
Electronic Medical Records - Phase 3		427	861	59							1,347		1,347
Early Abilities Information System - Phase 2			715	941							1,656		1,656
Documents and Records Management System - Phase 2				518	635	584					1,737		1,737
Customer Relationship Case Management										507	507	951	1,458
Total New		1,453	1,576	1,518	635	584				507	6,273	951	7,224
Total Changes	25,208	145	715	226	(941)						145	1,700	27,053

The requested changes to the 2018-2027 approved capital plan include:

A. Re-prioritization of Capital Projects:

- 1) TPH reviewed the project scope of IT projects previously included in the 2017-2026 plan and revised project costs based on updated information. These projects were prioritized to ensure that TPH's 2018-2027 Capital Budget and Plan meets the debt target guidelines every year of the 10-Year Plan. These projects are:
 - i) **Electronic Medical Records** project was split in two phases after reviewing project scope and resource requirements and the net costs were increased by \$0.041 million.
 - ii) **Dental and Oral Health Information System** project cost increased by \$0.092 million to include the cost to purchase digital x-ray sensor software.
 - iii) **Early Abilities Information System** project will be implemented in two phases; phase 1 will perform the required analysis prior to implementation of solution to replace the DANIC system used by Early Abilities program to support case management in phase 2. The overall project cost has increased by \$1.063 million.
 - iv) **Datamart Data Warehouse Phase 3** project cost increased by \$0.047 million in 2018 and \$0.257 million in 2019 due to revised scope to migrate TPH Datawarehouse Oracle BI solution to corporate SAP BI solution.
 - v) **Chemical Tracking Information System** project start date has been deferred from 2018 to 2020 with the project costs remaining unchanged.
 - vi) **Correspondence and Communication Tracking** project cost decreased by \$0.079 million in total.
 - vii) **Inspection Management –Phase 2** project cost decreased by \$2.253 million in total as TPH will be able to leverage the corporate case management solution.
 - viii) **Mobile Enablement** project cost decreased by \$0.482 million in 2025 due to revised resource assumptions.
 - ix) **Public eLearning** the scope of the work was reviewed and project costs have been decreased by \$0.511 million in 2024.
 - x) **Socio-Demographic Data Collection and Reporting** project start date has been deferred to 2022 from 2018 to allow completion of feasibility/options analysis utilizing operating resources. Total project costs remain unchanged.
 - xi) **Reporting Environment Enhancement** project start date deferred to 2026 from 2022 to accommodate other priority projects. The overall project cost has not changed.

2) The following project which was previously included in the 2017-2026 Capital Budget and Plan and has been deleted from the 2018-2027 Capital Budget and Plan:

i) **Multilingual Website**

Project removed since functionality is no longer a requirement.

B. New Projects:

1) The following new projects have been added to the 2018-2027 Capital Budget and Plan:

i) **Document and Records Management System-Phase 1 (2018), and 2 (2020 to 2022).** The goal of these projects is to enhance and implement Enterprise Document Records Management system and migrate MS documents to solutions and integrate with key business applications.

ii) **Customer Relationship Case Management (2026-2027).** This project will enhance external customer experience by implementing solution to track customer information and interactions in one place and have access associated with case information.

iii) **Infectious Disease Control Information System (2018)** This 100% funded project by the Ministry of Health and Long Term Care is to assist in the on-going development and implementation of the pan-Canadian Panorama System for infectious disease control.

2) The follow new projects require additional funding beyond what is provided in the debt affordability target:

i) **Community Collaboration Strategy**

ii) **Community Collaboration**

iii) **Collaboration**

iv) **Venue and Agency Scheduling**

Details on these projects are presented in the following section.

ADDITIONAL FUNDING REQUIREMENTS

TPH requires additional debt funding of \$4.308 million for the period 2018-2022 to implement four projects that will improve service delivery and enhance systems while complying with mandatory provincial requirements. Details are summarized in the following table and briefly described below.

Table 6: Additional Funding Requirements

	2018 Rec. Budget (\$000s)	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	2026 Plan	2027 Plan	Total
2018-2027 Plan And Forecast (Estimates)											
Collaboration (Internal Tools)		345	805								1,150
Community Collaboration (Implementation)			485	477	610						1,572
Community Collaboration Strategy	413										413
Venue and Agency Scheduling			330	843							1,173
Total	413	345	1,620	1,320	610						4,308

1. Collaboration (Internal Tools) - 2019 to 2020 (\$1.150 million)

This project will implement Sharepoint within TPH to facilitate knowledge sharing and team based productivity through collaborating around documents and ideas, and enabling real time employee interactions from any City location. I&T Division is piloting and planning its future implementation throughout the City of Toronto. The rollout strategy has not been confirmed.

2. Community Collaboration - 2020 to 2022 (\$1.572 million)

This project will deliver an enhanced information sharing portal that provides secure two-way communication with the public, partner agencies and businesses in order to improve information sharing of data sharing with service delivery partners and general interaction with the public. This project depends on the completion of the Community Collaboration Strategy.

3. Community Collaboration Strategy - 2018 (\$0.413 million)

This project will document the business requirements, investigate possible options, develop a strategy and define the scope for implementing community collaboration solutions at TPH, in conjunction with other interested Divisions. The community collaboration solution will address communication channels, virtual community hubs, and service exchanges which will provide the capability to interact with the public, partner agencies and businesses for various purposes such as mandatory data collection to support the ChemTRAC program.

4. Venue and Agency Scheduling - 2020 to 2021 (\$1.173 million)

This project will deliver a scheduling solution that will allow for sharing of data with the corporate Time and Attendance and Payroll solutions (i.e CATS/TASS). This

solution will facilitate efficient and effective use of the program's work force by managing fee for service agency resource allocation more appropriately and scheduling venues more efficiently. It will engender organizational excellence by enabling the program staff to better respond to: changes in school clinic schedules; staffing outbreaks; emergency situations; and scheduling for community influenza clinics.

These projects continue to be a high priority as indicated in the TPH IT Strategy (2014-18).

PROJECTS EXPECTED TO BE COMPLETED IN 2017

The following projects are expected to be completed in 2017:

Table 7: Capital projects to be Completed in 2017

(\$000s)	2017 Plan	Projected Actuals at YE	Balance
HF/HL Point of Care	53	53	0
CDC Wireless Rollout	25	25	0
Healthy Environment Inspection System (Mobile)	271	271	0
TPH Datamart Data Warehouse - Phase 2	868	868	0
Supervised Injection Service	465	465	0
Total	1,682	1,682	0

HF/HL Point of Care project. The purpose of this project was to implement wireless devices which communicate securely with the Toronto Community Health Information System (TCHIS) and synchronize data between the mobile units and the TCHIS database. This project increased quality of care by providing professional staff access to materials, documents, health promotion literature and related policies and procedures on-site during a home visit; improved accuracy of documentation by reducing the time gap between client interaction and documentation of these interactions; improved compliance with documentation guidelines, standards and policies; provided increased accountability with information contained within the customer record; enhanced the infrastructure of the TCHIS system to improve reliability and reduce risk of inoperability reducing software maintenance operating budget cost by \$0.129 million beginning 2017; and enabled programs to provide a modified level of service with fewer resources (8.08FTE - \$0.824 million) beginning 2017.

Communicable Disease Control (CDC) Wireless Rollout. This project enabled staff in the Vaccine Preventable Disease (VPD), TB and Personal Service Settings (PSS) components of the Control of Infectious Disease /Infection Control (CID/IC) program to enter and access data directly from health information management systems while in the field. Wireless technology was used to improve Communicable Disease Control (CDC) business processes and service to clients. A Support Assistant position was permanently deleted (1.0 FTE - \$0.068 million).

Healthy Environment Inspection System (Mobile). This project implemented a mobile application for Food Safety and Health Hazard (Pools & Spas and Rabies), Bed Bugs, Special Events and Mobile Premises inspectors/ investigators, leveraging the corporate Remote Computing System (RCS) solution. Deleted Support Assistant positions (2.5 FTE - \$0.236 million).

TPH Datamart Data Warehouse - Phase 2. This project enabled stakeholders to better monitor performance and analyze trends to adjust programs and meet mandatory Ministry of Health and Long-Term Care reporting requirements in a timely manner.

Supervised Injection Service (SIS)

In 2017, TPH will complete renovations to the existing space at 277 Victoria St. to include 5 booths for supervised injection, an assessment room and a after injection room. Nine new staff have been hired and trained and policies and procedures have been developed to ensure the safe and effective operation of this service. The benefits of this program are the reduction in: fatal overdose, discarded drug use supplies, and public injection in the community.

CAPITAL BUDGET CURRENT STATUS

Table 8: 2017 Budget to Actuals Comparison (Capital Variance Report Q2)

	2017	Actuals as of June		Projected Actuals at		Balance
	Approved	30		Year End		Unspent
(S000s)	\$	\$	Spent %	\$	Spent %	\$
Infectious Disease Control Information System	337	337	100.0	337	100.0	-
HF/HL Point of Care	53	42	80.6	53	100.0	-
CDC Wireless Rollout	25	24	98.1	24	100.0	-
Healthy Environment Inspection System (Mobile)	271	214	78.8	271	100.0	-
TPH Datamart Data Warehouse - Phase 2	868	335	38.6	868	100.0	-
Electronic Medical Records - Phase 1	14	-	-	14	100.0	-
Dental & Oral Health Information Systems	84	26	30.6	84	100.0	-
Community Health Information System	900	331	36.8	900	100.0	-
Electronic Medical Records - Phase 2	418	101	24.1	418	100.0	-
Relocation and Expansion Scarborough Dental Clinic	1,067	0	-	694	65.0	373
Supervised Injection Service	465	0	-	465	100.0	-
Total Capital	4,501	1,410	31.3	4,127	91.7	373

As at June 30, 2017, TPH spent \$1.410 million or 31.3% of the 2017 approved cash flow of \$4.501 million. The year-end capital expenditure is projected to be \$4.127 million or 91.7% of the approved cash flow. The projected under spending of \$0.373 million by year-end is mainly attributable to the following project:

Relocation and Expansion Scarborough Dental Clinic

Relocation and Expansion Scarborough Dental Clinic project is forecasted to spend \$0.694 million or 65.0% of its 2017 cash flow of \$1.067 million. This project's timelines have been impacted by the delays with awarding a contract through the RFQ process.