



**Toronto Public Health
Capital Budget and Plan Request**
2017-2026



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Executive Summary

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EXECUTIVE SUMMARY

This report provides an overview of the Toronto Public Health (TPH) 2017 Capital Budget and 2018-2026 Capital Plan and Forecast.

TPH is submitting a 2017-2026 Capital Budget and Plan request of \$26.988 million, including a 2017 Capital Budget of \$3.182 million and future year commitments of \$3.580 million and a 2018-2026 Capital Plan and Forecast of \$20.226 million. The Debt Affordability Target provided by the City for TPH is \$2.217 million in 2017, \$4.233 million in 2018, \$3.373 million in 2019, \$3.400 million in 2020, \$3.000 million in 2021 and, \$9.800 million for 2022 to 2026 for a total of \$26.023 million. There will be no additional net operating impact associated the 19 projects included in this request.

The 10-Year Capital Budget and Plan request will provide funding for 18 IT projects that support improvement of service delivery with the development and enhancement of systems; and one facility project for the Relocation and Expansion of Dental Clinic at Scarborough Civic Centre.

Table 1: 2017-2026 Capital Budget and Plan Request

Toronto Public Health 2017 - 2026 Capital Budget and Plan Request (\$000s)												
	2017 Budget Request	Commitments/Plan				Total 2017 - 2021	2022-2026 Forecast					Total 2017 - 2026
		2018	2019	2020	2021		2022	2023	2024	2025	2026	
2017 Budget & Future Year Commitments I&T Projects	2,217	2,671	909			5,797						5,797
2017 Budget & Future Year Commitments-Facility Project	965					965						965
2017 Budget & Future Year Commitments -Total	3,182	2,671	909			6,762						6,762
2018 - 2026 Plan and Forecast (Estimates) I&T		1,562	2,464	3,400	3,000	10,426	2,500	2,200	1,700	1,700	1,700	20,226
Total Plan and Forecast	3,182	4,233	3,373	3,400	3,000	17,188	2,500	2,200	1,700	1,700	1,700	26,988
Development Charges (XR2123)*	568					568						568
TPH Efficiency Reserve Fund (XR1108)*	397					397						397
Debt Affordability Target**	2,217	4,233	3,373	3,400	3,000	16,223	2,500	2,200	1,700	1,700	1,700	26,023
Over/(under) Debt Target	-	-	-	-	-	-	-	-	-	-	-	-

* Solely for Relocation and Expansion of the Scarborough Dental Clinic

** As Per City of Toronto 2017 - 2026 Capital Budget and Submission Guidelines

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 expect to use tools that allow them to provide more services most effectively and enable them to access information, upload data and report on services, costs, and performance metrics to monitor various information and metrics to ensure provincial legislated standards are being met as per Accountability Agreements and requirements.

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.

When programs are directed to do more with the same or fewer resources, it is critical that the organization provide the IT tools to increase efficiency. Audit requirements, performance metrics and the need to demonstrate effective management of resources requires a planned realistic approach in providing tools that enable timely and efficient reporting.

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

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 to and on behalf of the residents of Toronto.

Facility Project

The TPH Dental Clinic located at the Scarborough Civic centre is one of the busiest clinics in the City. The demand for services at this clinic (currently located at 160 Borough Drive) exceeds the current capacity and there is a wait list of 2 years. Design and layout of the current clinic does not allow for on-site expansion.

Toronto Public Health requested an in-year adjustment to its 2016-2025 Capital Budget and Plan to relocate and expand the Dental Clinic at Scarborough Civic Centre (SCC).

The 2017- 2026 Capital Budget and Plan request is based on the assumption that City Council will approve the in-year adjustment to the TPH 2016-2025 Capital Budget and Plan to fund the new Dental Clinic at Scarborough Civic Centre recommended in the report, "Toronto Public Health 2016-2025 Capital Budget and Plan In Year Adjustment for the Relocation and Expansion of Dental Clinic at Scarborough Civic Centre" submitted to the BOH at the meeting of September 30, 2016.

The relocation and expansion of Dental Clinic at Scarborough Civic Centre will allow TPH to meet the increasing demand for TPH emergency dental services and respond to the growing demand for necessary dental care and preventive services to improve the health of Scarborough's residents. The new facility will be compliant with Accessibility for Ontarians with Disabilities Act (AODA) and address the health and safety concerns created from overcrowding at the current location. This clinic will also increase access to dental services for adults on social assistance (OW), adults with disabilities (ODSP), and Refugees (IFHP) and decrease wait times as a result of improved service delivery. Toronto Public Health will be able to expand its current partnerships with University of Toronto's Faculty of Dentistry to provide specialist services; and with George Brown School of Dental Hygiene to expand preventative services.

RECOMMENDATIONS

The Acting Medical Officer of Health recommends that the:

1. Board of Health request City Council approve the 2017 Recommended Capital Budget for Toronto Public Health with a total project cost of \$4.915 million and a 2017 cash flow of \$3.182 million and future year commitments of \$3.580 million. The 2017 Capital Budget is comprised of the following:
 - a) New cash flow funding for:
 - i) Three new sub-projects and one change in scope sub-projects with a 2017 total project cost of \$4.915 million that requires cash flow of \$1.335 million in 2017 and future year commitments of \$2.671 million in 2018; and \$0.909 million in 2019 and
 - ii) Two previously approved sub-projects with a 2017 cash flow of \$1.847 million.
 - b) 2016 approved cash flow for one previously approved sub-project with carry forward funding from 2016 to 2017 totalling \$0.263 million;
2. Board of Health request City Council approve the 2018-2026 Capital Plan for Toronto Public Health totalling \$20.266 million in project estimates, comprised of \$1.562 million in 2018; \$2.464 million in 2019; \$3.400 million

in 2020; \$3.000 million in 2021; \$2.500 million in 2022; \$2.200 million in 2023; \$1.700 million in 2024; and \$1.700 million in 2025; \$1.700 million in 2026; and

3. Board of Health request City Council approve additional debt funding of \$6.498 million to implement five additional IT projects to improve service delivery and enhance systems.
4. The Board of Health forward this report to the City's Budget Committee for its consideration during the 2017 budget process.

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

Table 2: 2017-2026 Capital Budget and Plan Request

Toronto Public Health 2017 - 2026 Capital Budget and Plan Request (\$000s)												
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017-2021	Total 2018-2026
Gross Expenditures												
Commitments approved by Council	882										882	
In Year adjustment for SCC Dental Clinic	965										965	
2017 FY Commitments	1,847										1,847	
New/Change in Scope & Future Year Commitments	1,335	2,671	909								4,915	
Total Budget and Forecast	3,182	2,671	909								6,762	3,580
Projected Carry Forward to 2017	263											
Total 2017 Cash Flow	3,445											
2018-2026 Capital Plan And Forecast (Estimates)		1,562	2,464	3,400	3,000	2,500	2,200	1,700	1,700	1,700		20,226

IMPACT OF THE TPH IT STRATEGY ON THE CAPITAL PROGRAM

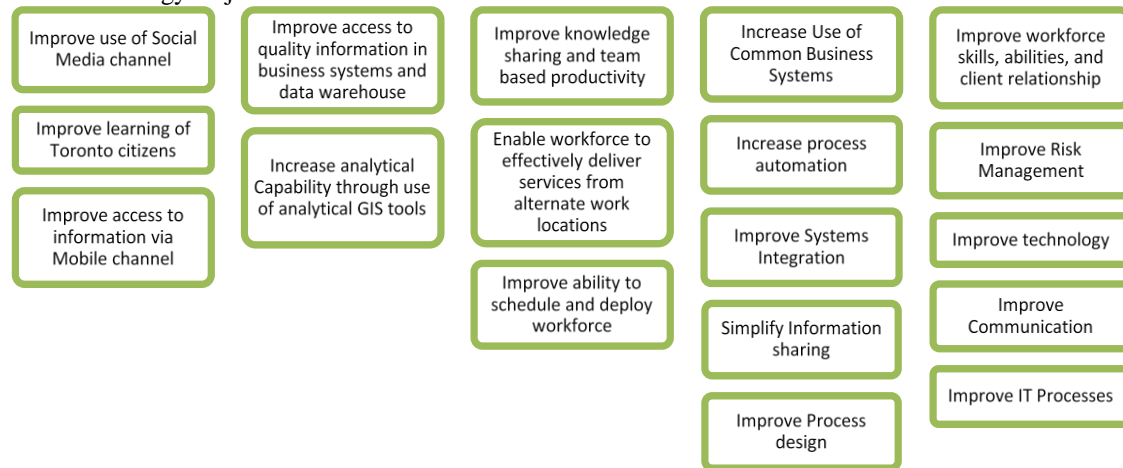
The Capital Program is integral to the achievement of the following TPH business driven IT Strategic goals and objectives contained in the TPH IT Strategy (2014-2018) through the funding of various initiatives and projects identified in the IT Strategy:

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

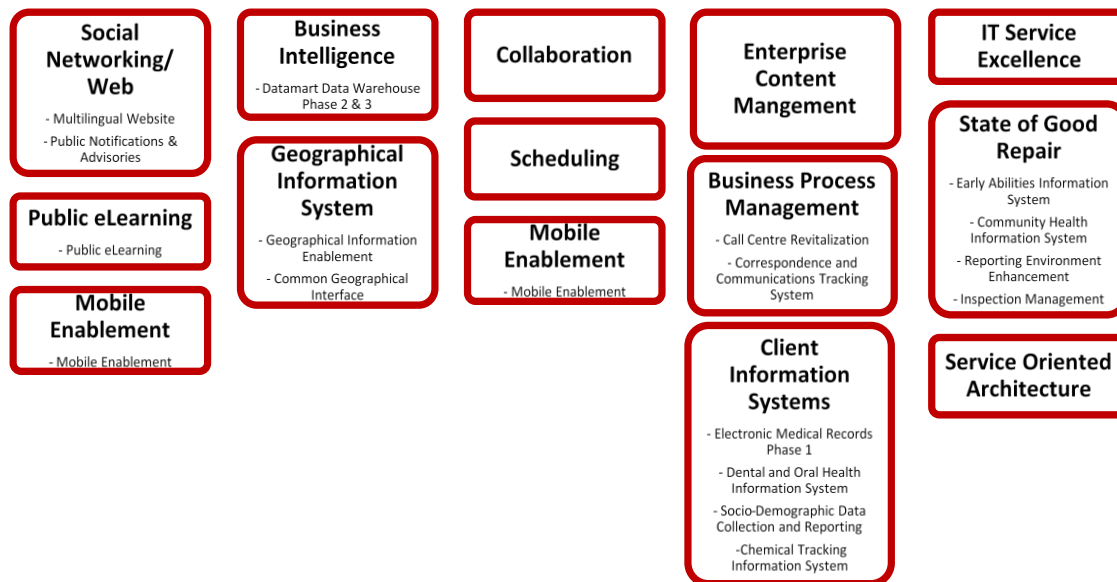
TPH IT Strategy Goals



TPH IT Strategy Objectives



TPH IT Strategy Initiatives – Projects



OVERVIEW CAPITAL BUDGET AND PLAN

2017-2026 Capital Budget and Plan

The 2017 Capital Budget process requires City Divisions and Agencies, Boards and Commissions (ABCs) to submit a 10-Year Capital Budget and Plan request within the debt affordability and capital targets established for each of the 10 years. City Divisions and ABCs must develop a 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 **Multilingual Web Site** project will create a translated website of public health related information that is accessible in languages targeted to specific audiences to improve sharing of information.
- ☑ 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 2 and 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 (MOHLTC) 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 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 **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 **Electronic Medical Records Phase 2** 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 methadone clinics creating efficiencies in business processes and improved client care.

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 **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.
- ☑ The **Community Health Information System** project will enhance and modernize the Toronto Community Health Information System (TCHIS) to improve system reliability by aligning its technical infrastructure and framework with current industry standards. These changes will address the increasing instability of the TCHIS application caused by its outdated and failing technical infrastructure and frameworks. This project will also ensure that TCHIS complies with legal requirements (including AODA and PHIPA), and enhance the capabilities of the application to improve workflows and reduce errors and allow program staff to work efficiently in delivering public health services to a growing client base.

CAPITAL PROJECT SUMMARIES

The TPH 2017-2026 Capital Budget and Plan is summarized in the table below:

Table 3: Summary of Capital Initiatives

	2017 Rec. Budget	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	2026 Plan	2017-2026 Total
2017 Budget and Future Year Commitments											
Ongoing Projects											
Datamart Data Warehouse Phase 2	815										815
Relocation and Expansion of Scarborough Dental Clinic	965										965
New Projects Beginning 2017											
Electronic Medical Record Phase 2	418	1,306									1,724
Dental and Oral Health Information System	84	166	154								404
Community Health Information System	900	1,199	755								2,854
Subtotal	3,182	2,671	909								6,762
2018-2026 Plan And Forecast (Estimates)											
Future Projects											
Chemical Tracking Information System		303	604								907
Datamart Data Warehouse Phase 3		911	700								1,611
Socio-Demographic Data Collection and Reporting		348	721	779	811						2,659
Correspondence and Communications Tracking System			439	326							765
Common Geographical Interface				700	300						1,000
Inspection Management				1,595	1,498	1,490	254				4,837
Mobile Enablement					391	378	527	550	528		2,374
Reporting Environment Enhancement						267	349				616
Public eLearning						365	610	617			1,592
Multilingual Website							270	268			538
Geographical Information Enablement							190	265	286		741
Public Notifications & Advisories									557	474	1,031
Early Abilities Information System									329	774	1,103
Call Centre Revitalization										452	452
Subtotal		1,562	2,464	3,400	3,000	2,500	2,200	1,700	1,700	1,700	20,226
Grand Total	3,182	4,233	3,373	3,400	3,000	2,500	2,200	1,700	1,700	1,700	26,988

PROJECT SUMMARIES

Ongoing Projects

Facility Project

1. **Expansion of Scarborough Dental Clinic - 2016 to 2017 (\$0.965 million)**

This project will allow TPH to meet the increasing demand for TPH emergency dental services and respond to the growing demand for necessary dental care and preventive services to improve the health of Scarborough's residents. The new facility will be compliant with Accessibility for Ontarians with Disabilities Act (AODA) and address the health and safety concerns created from overcrowding at the current location. This clinic will also increase access to dental services for adults on social assistance (OW), adults with disabilities (ODSP), and Refugees (IFHP) and decrease wait times as a result of improved service delivery. Toronto Public Health will be able to expand its current partnerships with University of Toronto's Faculty of Dentistry to provide specialist services and with George Brown School of Dental Hygiene to expand preventative services. Of the \$0.965 million funding requirement, \$0.397 million will be funded from the TPH Efficiency Reserve Fund (XR1108); and \$0.568 million will be funded from Development Charges (XR2123).

Information Technology Projects

2. **Datamart Data Warehouse Phase 2 - 2015 to 2017 (\$0.815 million)**

Building on the accomplishments of phase 1, this project will support further improvements in reporting, performance measurement and decision making across twenty-three (23) additional data sources within TPH programs. Implementing this project will enhance TPH operations by allowing stakeholders to better monitor performance and analyze trends to adjust programs and meet mandatory MOHLTC reporting requirements in a timely manner.

New Projects Beginning in 2017

1. **Electronic Medical Records - 2016 to 2018 (\$1.724 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 methadone clinics creating efficiencies in business processes and improved client care. An Electronic Medical Records (EMR) solution will encompass functionality that allows for management of: Patient Information; Medical History and Observations; Medications; Immunizations; Labs and Diagnostic Tests and Results; Referrals; Cumulative Patient Profiles; Schedules; Billing; Workflow; and Reporting.

2. **Dental and Oral Health Information System - 2017 to 2019 (\$0.404 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 Dental and 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 billing system.

3. Community Health Information System - 2017 to 2019 (\$2.854 million)

This project will enhance and modernize the Toronto Community Health Information System (TCHIS) to improve system reliability by aligning its technical infrastructure and framework with current industry standards. These changes will address the increasing instability of the TCHIS application caused by its outdated and failing technical infrastructure and frameworks. This project will also ensure that TCHIS complies with legal requirements (including AODA and PHIPA), and enhance the capabilities of the application to improve workflows and reduce errors and allow program staff to work efficiently in delivering public health services to a growing client base.

Future Projects

1. Chemical Tracking Information System - 2018 to 2019 (\$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 login securely into the system for submitting chemical use and release information resulting in a reduction in processing time and improved customer satisfaction.

2. Datamart Data Warehouse Phase 3 - 2018 to 2019 (\$1.611 million)

Building on the accomplishments of phase 2, this project will support further improvements in reporting, performance measurement and decision making across eleven (11) additional data sources within TPH programs. Implementing this project will enhance TPH operations by allowing stakeholders to better monitor performance and analyze trends to adjust programs and meet mandatory MOHLTC reporting requirements in a timely manner.

3. Socio-Demographic Data Collection and Reporting - 2018 to 2021 (\$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.

4. Correspondence and Communication Tracking System - 2019 to 2020 (\$0.765 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.

5. 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 where there is a similar need.

6. Inspection Management - 2020 to 2023 (\$4.837 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 (\$2.374 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. 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. Reporting Environment Enhancement - 2022 to 2023 (\$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.

9. Public eLearning - 2022 to 2024 (\$1.592 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) the public education on breast feeding and infant feeding; and 3) agency resources on immunization clinic protocols.

10. Multilingual Website - 2023 to 2024 (\$0.538 million)

This project will create a translated website of public health related information that is accessible in languages targeted to specific audiences to improve sharing of information.

11. Geographic Information Enablement - 2023-2025 (\$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.

12. Public Health 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.

13. Early Abilities Information System - 2025 to 2026 (\$1.103 million)

This project will replace an outdated system provided by Danic Technology Inc. and 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.

14. Call Centre Revitalization - 2026 (\$0.452 million)

This project will improve the overall customer service experience at Public Health call centres and inquiry lines by assessing and implementing future industry and service standard tools.

OPERATING BUDGET IMPACT OF 10 YEAR CAPITAL PLAN

Approval of the 2017-2026 Recommended Capital Plan request will not impact future year Operating Budgets. The cost of new systems and the required maintenance and support 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.

- Phase 2 of the **Datamart Data Warehouse** project will be completed in 2017 and there will not be any future year impact on the Operating Budget.
- **Electronic Medical Record Phase 2** project provides funding for definition, concept and planning activities prior to project implementation. It is estimated that the ongoing annual cloud solution licensing cost will be \$0.141 million beginning 2019. These costs and source of funding for these costs will be confirmed as part of the 2018 capital budget submission process.
- **The Dental and Oral Health Information System** project estimated ongoing annual cloud solution licensing cost will be \$0.065 million beginning 2020 and increase to \$0.070 million in 2021. These costs will be funded through financial efficiencies in the dental operations program.
- **Community Health Information System** project will be completed in 2019 and will not impact future years' Operating Budgets.
- The **Relocation and Expansion of Scarborough Dental Clinic** will have no net operating impact as current resources will be used to staff and supply the expanded clinic.

IN YEAR CHANGES TO THE APPROVED CAPITAL BUDGET

Toronto Public Health has requested an in-year adjustment to the TPH 2016-2025 Capital Budget and Plan request to relocate and expand the Dental Clinic at Scarborough Civic Centre (SCC).

1. TPH is requesting an increase to 2016 - 2025 Approved Capital Budget and Plan for a total project cost of \$1.067 million and cash flow requirements of \$0.102 million in 2016 and future commitments of \$0.965 million in 2017.
2. To accommodate this project within existing funding target, TPH is requesting funding from: Development Charges for \$0.568 million; and repurposing of TPH Efficiency Reserve fund of \$0.499 million.

There will be no net increase in ongoing operating costs resulting from this project; the one time operating funding requirement of \$0.065 million in 2017 will be absorbed by the program efficiencies in the 2017 approved budget. There is no net operating impact to the City arising from the approval of this project as current resources will be more efficiently used to staff the expanded clinic.

Table 4: In Year Adjustments

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2016-2025
(\$000s)											
Expansion of the Toronto Public Health Dental Clinic at the Scarborough Civic Centre	102	965									1,067
Funding Source:											
Development Charges		568									568
TPH Efficiency Reserve Fund	102	397									499
Debt	-	-									-
Total Funding	102	965									1,067

This in-year adjustment is recommended in the report, "Toronto Public Health 2016-2025 Capital Budget and Plan In Year Adjustment for the Relocation and Expansion of Dental Clinic at Scarborough Civic Centre" submitted to the BOH meeting of September 30, 2016.

2016 ESTIMATED CARRY FORWARD IMPACT ON 2017 CAPITAL BUDGET

Toronto Public Health is forecasting that capital project expenditures for the Healthy Environment Inspection System (Mobile) project 2016 will be under budget by \$0.263 million. Based on the review of sequencing of future rollouts it has been determined that some planned enhancements and the acquisition of required contracted developer resources will be deferred to 2017. This necessitates the carryover of \$0.263 million in cash flow into 2017 to complete planned deliverables.

Table 5: Summary of Capital Initiatives (includes Carry Forward Funding)

(\$000s)	2017 Rec. Budget	2016 Carry Forward	2017 Budget Request	2018 Plan	2019 Plan	2017- 2026 Total
2017 Budget and Future Year Commitments						
Ongoing Projects						
Healthy Environment Inspection System (Mobile)	-	263	263			263
Datamart Data Warehouse Phase 2	815		815			815
Relocation and Expansion of Scarborough Dental Clinic	965		965			965
New Projects Beginning 2017						
Electronic Medical Record Phase 2	418		418	1,306		1,724
Dental and Oral Health Information System	84		84	166	154	404
Community Health Information System	900		900	1,199	755	2,854
Grand Total	3,182	263	3,445	2,671	909	7,025

SUMMARY OF POSITIONS FUNDED THROUGH THE CAPITAL BUDGET

Toronto Public Health requires staff to work temporarily on capital projects. Salary and benefit costs of \$1.476 million gross and \$0.0 net are included in the 2017 Operating Budget to reflect the payroll cost that is funded from the 2017 Capital Budget. The number of capital FTEs in the 2017 Operating Budget is 13.5 as detailed in the table below.

Table 6: Summary of Positions Funded through Capital (excludes Carry Forward Funding)

	2017 Budget Request (\$000s)	2017 Salaries Exp (\$000s)	2017 FTE	2018 FTE	2019 FTE	2020 FTE	2021 FTE	2022 FTE	2023 FTE	2024 FTE	2025 FTE	2026 FTE	Total
2017 Budget and Future Year Commitments													
Ongoing Projects													
Datamart Data Warehouse Phase 2	815	261	2.8										2.8
Relocation and Expansion of Scarborough Dental Clinic	965	0.0	0.0										0.0
New Projects Beginning 2017													
Electronic Medical Record Phase 2	418	318	3.0	5.0									8.0
Dental and Oral Health Information System	84	84	0.8	1.0	0.5								2.3
Community Health Information System	900	813	7.0	7.0	6.0								20.0
Subtotal	3,182	1,476	13.5	13.0	6.5								33.0
2018-2026 Plan And Forecast (Estimates)													
Future Projects													
Chemical Tracking Information System				2.0	3.0								5.0
Datamart Data Warehouse Phase 3				3.0	3.0								6.0
Socio-Demographic Data Collection and Reporting				2.0	5.5	6.0	6.0						19.5
Correspondence and Communications Tracking System													0.0
Common Geographical Interface						1.0	1.0						2.0
Inspection Management						6.0	8.0	8.0	1.0				23.0
Mobile Enablement							2.5	3.0	4.0	4.0	4.0		17.5
Reporting Environment Enhancement								1.7	2.3				4.0
Public eLearning								2.5	4.5	4.0			11.0
Multilingual Website									2.2	2.1			4.3
Geographical Information Enablement									0.4	1.5	1.5		3.4
Public Notifications & Advisories											1.0	1.0	2.0
Early Abilities Information System											1.5	4.0	5.5
Call Centre Revitalization												2.3	2.3
Subtotal				7.0	11.5	13.0	17.5	15.2	14.4	11.6	8.0	7.3	105.5
Grand Total				20.0	18.0	13.0	17.5	15.2	14.4	11.6	8.0	7.3	138.5

KEY CHANGES TO THE 2017-2026 CAPITAL BUDGET AND PLAN REQUEST

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 7: Key Changes to the 2017-2026 Capital Budget and Plan Request

	Total Project Cost 2016 (\$000s)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2017 - 2025	2026	Revised Total Project Cost
Previously Approved Budget & Plan													
Previously Approved Budget													
Relocation and Expansion of Scarborough Dental Clinic	1,067												1,067
Datamart Data Warehouse Phase 2	2,099	(67)									(67)		2,032
Total Previously Approved Budget	3,166	(67)									(67)		3,099
Previously Approved Plan and Forecast (Estimates)													
Electronic Medical Record Phase 2	2,072	(315)	(33)								(348)		1,724
Datamart Data Warehouse Phase 3	1,381		84	146							230		1,611
Socio-Demographic Data Collection and Reporting	1,839	(287)	(224)	87	433	811					820		2,659
Common Geographical Interface	1,073			(1,073)	700	300					(73)		1,000
Inspection Management	5,386				(4)	(6)	(6)	(533)			(549)		4,837
Mobile Enablement	2,422					(5)	(8)	(11)	(12)	(12)	(48)		2,374
Reporting Environment Enhancement	618						(351)	349			(2)		616
Public eLearning	1,341			(312)	(729)	(300)	365	610	617		251		1,592
Multilingual Website	507	(255)	(252)					270	268		31		538
Geographical Information Enablement	753							(1)	(5)	(6)	(12)		741
Document and Records Management System	2,420							(684)	(868)	(868)	(2,420)		
Library Management System	1,303	(60)	(1,243)								(1,303)		
Public Health Service Delivery Tracking	2,326			(800)	(726)	(800)					(2,326)		
Total Previously Approved Plan and Forecast (Estimates)	23,441	(917)	(1,668)	(1,952)	(326)					(886)	(3,629)		17,692
Total Previously Approved Budget and Plan	26,607	(984)	(1,668)	(1,952)	(326)					(886)	(5,883)		20,791
New													
Dental and Oral Health Information System		84	166	154							404		404
Community Health Information System		900	1,199	755							2,854		2,854
Chemical Tracking Information System			303	604							907		907
Correspondence and Communications Tracking System				439	326						765		765
Public Notifications & Advisories										557	557	474	1,031
Early Abilities Information System										329	329	774	1,103
Call Centre Revitalization												452	452
Total New		984	1,668	1,952	326					886	5,816	1,700	7,516
Total Changes											(67)	1,700	28,307

The requested changes to the 2017 – 2026 approved capital plan include:

A. Re-prioritization of Capital Projects:

- 1) TPH reviewed the project scope of IT projects previously included in the 2016-2025 plan and revised project costs based on updated information. These projects were prioritized to ensure that TPH's 2017-2026 Capital Budget and Plan meets the debt target guidelines every year of the 10-Year Plan. These projects are:
 - i) Project cost decreased by \$0.348 million for **Electronic Medical Records Phase 2** project after reviewing project scope and resource requirements.
 - ii) **Datamart Data Warehouse Phase 3** project cost increased by \$0.230 million in 2018 and 2019 due to increased requirement for data analyst project resources in 2018 and 2019.
 - iii) **Socio-Demographic Data Collection and Reporting** project deferred by one year to start in 2018, project cost increased by \$0.820 million. Capital funded project start date was deferred to 2018 due to the priority need to complete a feasibility/options analysis in 2016 utilizing operating resources. The scope of the work was reviewed and determined that project duration and resources should be extended by 6 months and a full time project manager is required to manage the project.
 - iv) **Common Geographical Interface** project start date deferred by one year. The project cost decreased by \$0.073 million and funding is spread over two years (2020-2021) after reviewing project scope and resources.
 - v) **Inspection Management** project cost decreased by \$0.549 million due to a 10 month decrease in the duration of the project.
 - vi) **Mobile Enablement** project cost decreased by \$0.048 million due to revised resource assumptions.
 - vii) **Reporting Environment Enhancement** project remains a 12 month project but is scheduled to begin in Q3 2022 instead of Q1 2022 which results in a small budget reduction of \$0.002 million
 - viii) **Public eLearning project** start date deferred to 2022 (from 2019) and the project cost increased by \$0.251 million. The scope of the work was reviewed and determined that project duration and resources should be extended by 6 months.
 - ix) **Multilingual Website** start date deferred to 2023 (from 2017) due to other priorities and the requirement to perform additional preparation including coordination with corporate web initiatives. The project cost increased by \$0.031 million due to different salary assumption for project resources.
 - x) **Geographical Information Enablement** project cost decreased by \$0.012 million due to a review of project resources.
- 2) The following project were previously included in the 2016-2025 Capital Budget and Plan and have been subsequently deleted from the 2017-2026 Capital Budget and Plan:

- i) **Document and Records Management System** project was removed from the current TPH debt funded project list due to uncertainty about the corporate initiative.
- ii) **Library Management System** project was removed due to a change in strategy concerning the solution and funding. Project cost has been significantly reduced with this change in strategy to utilize a cloud solution rather than purchase and implement a solution that is hosted within the City's technical infrastructure. This has made it possible for TPH to utilize existing operating resources to implement the solution.
- iii) **Public Health Service Delivery Tracking** project was removed as systems included within scope will be replaced with in-house developed APEX applications; replaced with enhanced versions of existing systems; or decommissioned due to program re-engineering.

B. New Projects:

- 1) The following new projects have been added to the 2017-2026 Capital Budget and Plan:
 - i) **Dental and Oral Health Information System**
 - ii) **Community Health Information System**
 - iii) **Chemical Tracking Information System**
 - iv) **Correspondence and Communications Tracking System**
 - v) **Public Notifications & Advisories**
 - vi) **Early Abilities Information System**
 - vii) **Call Centre Revitalization**

With the exception of the Correspondence and Communications Tracking System and Call Centre Revitalization projects, these project were included in last year's capital submission but were not within TPH's funding target.

- 2) The follow new projects require additional funding beyond what is provided in the debt affordability target:
 - i) **Community Collaboration Strategy**
 - ii) **Community Collaboration (Implementation)**
 - iii) **Collaboration (Tools)**
 - iv) **Venue and Agency Scheduling**
 - v) **Documents and Records System**

These five projects are presented in the following section.

ADDITIONAL FUNDING REQUIREMENTS

Toronto Public Health requires additional debt funding of \$6.498 million (for the period 2017-2025) to implement five projects to improve service delivery and enhance. Details are summarized in the following table and briefly described below.

Table 8: Additional Funding Requirements

Toronto Public Health 2017 - 2026 Capital Budget and Plan Request Additional Funding Requirements (\$000s)											
	2017 Rec. Budget	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	2026 Plan	Total
2017-2025 Plan And Forecast (Estimates)											
Community Collaboration Strategy	255										255
Community Collaboration (Implementation)		485	476	610							1,571
Collaboration (Tools)		345	805								1,150
Venue and Agency Scheduling		330	843								1,173
Documents and Records System							673	841	835		2,349
Total	255	1,160	2,124	610			673	841	835		6,498

1. Community Collaboration Strategy - 2017 (\$0.255 million)

This project involves the development of a strategy document in support of implementing an enhanced information sharing portal that provides secure two-way communication with the public, partner agencies and businesses, during future phases of this project. The scope of this project will include requirements definition; market research for applications and tools that may meet the business requirements; identification and review of City solutions and associated benefits, risks and costs.

2. Community Collaboration (Implementation) - 2018 to 2020 (\$1.571 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. Collaboration (Tools) - 2018 to 2019 (\$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.

4. **Venue and Agency Scheduling - 2018 to 2019 (\$1.1730 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.

5. **Documents and Records Management System - 2023 to 2025 (\$2.349 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.

PROJECTS EXPECTED TO BE COMPLETED IN 2016

The following projects are expected to be completed in 2016:

Table 9: Capital projects to be Completed in 2016

(\$000s)	2016 Plan	Projected Actuals at YE	Balance
Infectious Disease Control Information System	461	461	0
HF/HL Point of Care	847	847	0
CDC Wireless Rollout	1,136	1,136	0
Total	2,444	2,444	0

Infectious Disease Control Information System project. This 100% provincially funded project utilized TPH expertise and diverse requirements to assist with 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 involvement was funded by the Ministry of Health and Long Term Care and included developing the implementation approach, product evaluation, configuration, data migration, and reporting to ensure that the solution meets our requirements and alignment with our business processes. A reduction in resources (2.5 FTE - \$0.166 million).

This system replaced existing obsolete systems and provided Ontario's public health professionals – provincially and locally with: 1) a common immunization registry, improving the understanding of immunization coverage vaccine rates and strengthening immunization programs; and 2) a shared view of vaccine inventory, increasing the efficiency of vaccine delivery and the redistribution of vaccines during an outbreak – supporting timely and rapid response to a vaccine shortage in one area or another in the province.

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 - \$0.676 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 C position in VPD will be permanently deleted, effective June 1, 2017 (0.58 FTE - \$0.041 million).

CAPITAL BUDGET CURRENT STATUS

Table 10: 2016 Budget to Actuals Comparison (Capital Variance Report Q2)

	2016	Actuals as of June		Projected Actuals at		Balance
	Approved	30		Year End		Unspent
(\$000s)	\$	\$	Spent %	\$	Spent %	\$
Infectious Disease Control Information System	461	293	63.6	461	100.0	0
HF/HL Point of Care	847	437	51.6	847	100.0	0
CDC Wireless Rollout	1,136	431	38.0	1,136	100.0	0
Healthy Environment Inspection System (Mobile)	942	366	38.9	679	72.0	263
TPH Datamart Data Warehouse - Phase 2	807	437	54.1	807	100.0	0
Electronic Medical Record - Phase 1	232	72	30.8	232	100.0	0
Total Capital	4,425	2,036	46.0	4,162	94.0	263

As at June 30, 2016, TPH spent \$2.036 million or 46.0% of the 2016 Approved Capital Budget of \$4.425 million. The year-end capital expenditure is projected to be \$4.161 million or 94.0% of the approved cash flow. The projected under spending of \$0.263 million by year-end is mainly attributable to the following project:

Healthy Environments Inspections System

The Healthy Environment Inspection System (Mobile) project is forecasted to spend \$0.679 million or 72.0% of its 2016 cash flow of \$0.942 million. Based on the review of sequencing of future rollouts it has been determined that some planned enhancements and extension of project resources, the acquisition of required contracted developer resources will be deferred to 2017. This necessitates the carryover of \$0.263 million into 2017 to complete planned deliverables.