



# Toronto Public Health 2020-2029 Capital Budget and Plan Request

**Date:** September 19, 2019  
**To:** Board of Health  
**From:** Medical Officer of Health  
**Wards:** All

## SUMMARY

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This report provides an overview of the Toronto Public Health 2020 Capital Budget and 2021-2029 Plan Request.

Toronto Public Health (TPH) is recommending a 2020-2029 Capital Budget and Plan of \$29.835 million including a 2020 Capital Budget of \$2.676 million with future year commitments of \$5.035 million and future year estimates of \$22.124 million. This 10-Year Capital Budget and Plan Request will provide funding for twenty-two Information Technology projects.

## RECOMMENDATIONS

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The Medical Officer of Health recommends that:

1. The Board of Health request City Council approve the Toronto Public Health 2020 Capital Budget Request with a total project cost increase of \$5.672 million for a 2020 cash flow of \$2.676 million and future year commitments of \$5.035 million.
2. The Board of Health request City Council approve the Toronto Public Health 2020-2029 Capital Plan Request totalling \$22.124 million in project estimates, comprised of \$2.657 million in 2021, \$4.144 million in 2022, \$4.582 million in 2023, \$2.241 million in 2024, \$1.700 million in 2025, \$1.700 million in 2026, \$1.700 million in 2027, \$1.700 million in 2028, and \$1.700 million in 2029.
3. The Board of Health refer this report to the Budget Committee for consideration during the 2020 budget process.

## FINANCIAL IMPACT

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Toronto Public Health is submitting a 2020-2029 Capital Budget and Plan request of \$29.835 million including a 2020 Capital Budget of \$2.676 million with future year commitments of \$5.035 million and future year estimates of \$22.124 million.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

## DECISION HISTORY

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A report on the 2020 Operating Budget and 2020-2029 Capital Budget and Plan and Budget was tabled with the Board of Health Budget Committee at its meeting of September 3, 2019.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.HU3.4>

## COMMENTS

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The demand for public health programs and services continues to grow. Technology is an enabler which allows TPH to maintain and extend its capacity to provide these programs and services, particularly when facing fiscal challenges. The investments in information technology, contained in the 2020-2029 Capital Budget and Plan, will result in improved client experiences; program and service delivery; management decision making; and compliance with the legislation, in particular, the Ontario Public Health Standards and Protocols.

The 2020 Capital Budget process requires City Divisions and its Agencies, Boards and Commissions (ABCs) to submit a 10-Year Capital Budget and Plan.

A summary of the funding requirements for TPH's 2020-2029 Capital Budget and Plan Request is shown in Table 1.

Table 1: 2020-2029 Capital Budget and Plan Request

(\$ Millions)	2020 Budget Request	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Total 2020-2024	2025 Plan	2026 Plan	2027 Plan	2028 Plan	2029 Plan	Total 2020-2029
2020 Budget and Future Year Commitments	2.676	1.027	2.001	2.007		7.711						7.711
2021 - 2029 Plan and Forecast (Estimates)		2.657	4.144	4.582	2.241	13.624	1.700	1.700	1.700	1.700	1.700	22.124
<b>Total</b>	<b>2.676</b>	<b>3.684</b>	<b>6.145</b>	<b>6.589</b>	<b>2.241</b>	<b>21.335</b>	<b>1.700</b>	<b>1.700</b>	<b>1.700</b>	<b>1.700</b>	<b>1.700</b>	<b>29.835</b>

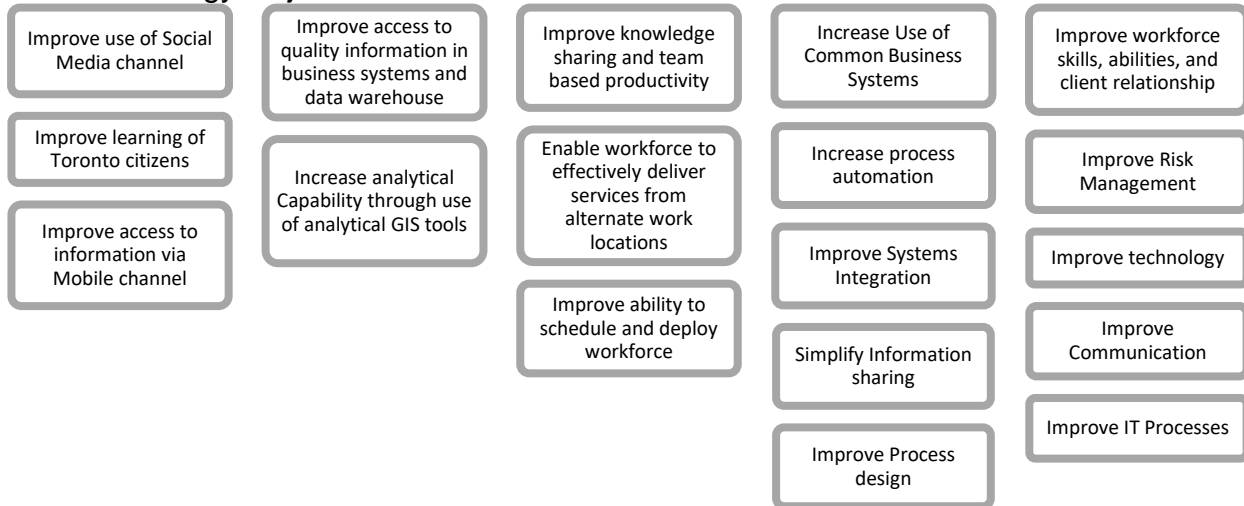
## Projects within Funding Targets

The 2014-19 TPH IT Strategy identifies five information technology strategic goals and 18 supporting objectives.

### TPH IT Strategy Goals



### TPH IT Strategy Objectives



The following chart provides a breakdown of the 2020-2029 Capital Budget and Plan by TPH IT Strategic Goals.

### 2020-2029 Capital Budget-TPH IT Strategic Goals

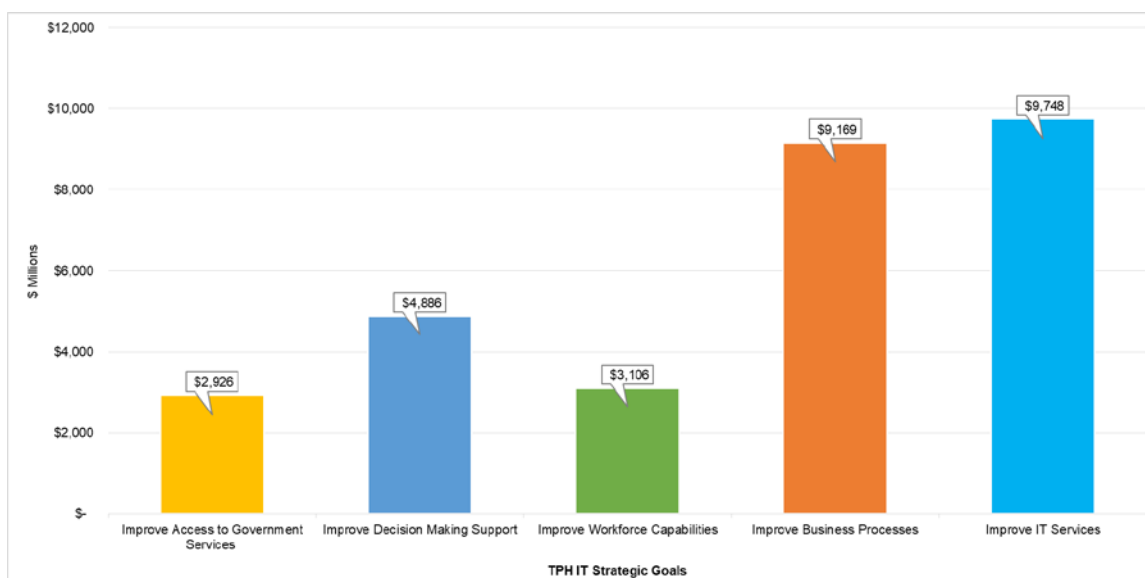


Table 2 outlines the annual cash flow for each project in the 2020-2029 Capital Budget and Plan.

Table 2 – 2020-2029 Capital Budget and Plan

(\$ Millions)	2020 Rec. Budget	2021 Plan	2022 Plan	2023 Plan	2024 Plan	Total 2020-2024	2025 Plan	2026 Plan	2027 Plan	2028 Plan	2029 Plan	Total 2020-2029
<b>Improve Decision Making Support</b>												
DataMart Data Warehouse-Phase 3	0.831					0.831						0.831
Geographic Information Enablement					0.190	0.190	0.265					0.455
Common Geographical Interface (CGI)					0.250	0.250	0.344					0.594
Healthy Smart Cities		0.472	0.395	0.671	0.866	2.404					0.602	3.006
<b>Subtotal</b>	<b>0.831</b>	<b>0.472</b>	<b>0.395</b>	<b>0.671</b>	<b>1.306</b>	<b>3.675</b>	<b>0.609</b>				<b>0.602</b>	<b>4.886</b>
<b>Improve Workforce Capabilities</b>												
Community Collaboration - Seed & Implementation	0.101	0.534	0.599	0.731		1.965						1.965
Mobile Enablement					0.394	0.394	0.378	0.369				1.141
<b>Subtotal</b>	<b>0.101</b>	<b>0.534</b>	<b>0.599</b>	<b>0.731</b>	<b>0.394</b>	<b>2.359</b>	<b>0.378</b>	<b>0.369</b>				<b>3.106</b>
<b>Improve Business Processes</b>												
Electronic Medical Records - Phase 3 & 4	0.273	0.598	1.434	1.826	0.237	4.368						4.368
Correspondence and Communication Tracking – Seed & Implementation	0.028	0.165	0.488			0.681						0.681
Socio-Demographic Data Collection and Reporting							0.348	0.721	0.779			1.848
Call Centre Revitalization									0.414	0.400		0.814
Customer Relationship Case Management									0.507	0.676	0.275	1.458
<b>Subtotal</b>	<b>0.301</b>	<b>0.763</b>	<b>1.922</b>	<b>1.826</b>	<b>0.237</b>	<b>5.049</b>	<b>0.348</b>	<b>0.721</b>	<b>1.700</b>	<b>1.076</b>	<b>0.275</b>	<b>9.169</b>
<b>Improve IT Services</b>												
Inspection Management Phase -Implementation	0.663	0.616	2.001	2.007		5.287						5.287
Early Abilities Information System - Phase 1 & Implementation		0.544	1.088	1.022		2.654						2.654
Community Health Information System	0.780	0.411				1.191						1.191
Reporting Environment Enhancement										0.267	0.349	0.616
<b>Subtotal</b>	<b>1.443</b>	<b>1.571</b>	<b>3.089</b>	<b>3.029</b>		<b>9.132</b>				<b>0.267</b>	<b>0.349</b>	<b>9.748</b>
<b>Improve Access to Government Services</b>												
Public eLearning							0.365	0.610				0.975
Public Notifications and Advisories										0.357	0.474	0.831
Chemical Tracking Information System (ChemTRAC)		0.344	0.140	0.332	0.304	1.120						1.120
<b>Subtotal</b>		<b>0.344</b>	<b>0.140</b>	<b>0.332</b>	<b>0.304</b>	<b>1.120</b>	<b>0.365</b>	<b>0.610</b>		<b>0.357</b>	<b>0.474</b>	<b>2.926</b>
<b>Total</b>	<b>2.676</b>	<b>3.684</b>	<b>6.145</b>	<b>6.589</b>	<b>2.241</b>	<b>21.335</b>	<b>1.700</b>	<b>1.700</b>	<b>1.700</b>	<b>1.700</b>	<b>1.700</b>	<b>29.835</b>

## 2020 Capital Budget

There are six priority projects in 2020, five of which will be delivered as multi phased projects, supporting four of the five strategic goals defined in the City's IT Strategic Plan (eCity).

### 1. Improve Decision-making Support

Information technology has a key role in supporting TPH's objectives of service excellence and accountability. Toronto Public Health plans to accomplish this by improving access to quality information in business systems and data warehouses, and by strengthening analytical capabilities through the use of various analytical tools.

- ❖ *DataMart Data Warehouse - Phase 3 - 2018 to 2020 (\$0.831 million)* - Building on the accomplishments of phase 2, this project supports further improvements in reporting, analytics, performance measurement, and decision making across additional data sources within TPH programs. This project will allow stakeholders to better monitor performance and analyze trends to adjust programs and meet mandatory provincial reporting requirements.

### 2. Improve Workforce Capabilities

In support of TPH's commitment to continuous improvement in organizational performance and service delivery, workforce capabilities will be enhanced through the use of technological tools that improve: knowledge sharing internally and with stakeholders, and TPH's productivity.

- ❖ *Community Collaboration - Seed Phase - 2020 (\$0.101 million)* - This project documents business requirements for community collaboration solutions that provide secure two-way communication with the public, partner agencies, and businesses in order to improve information sharing.

### 3. Improve Business Processes

Toronto Public Health will improve business processes through simplification and redesign of processes and system integration.

- ❖ *The Electronic Medical Records - Phase 3 - 2020 (\$0.273 million)* - This project replaces 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. The project is expected to create efficiencies in business processes and improve client care.
- ❖ *Correspondence and Communication Tracking – Seed Phase - 2020 (\$0.028 million)* – This project implements an automated workflow and document management solution for tracking correspondence and communications received by the Medical Officer of Health. The proposed system is expected to reduce manual processes, and improve timelines to produce reports and respond to queries.

#### 4. Improve IT Services

Information Technology is a strategic enabler; therefore, it is critical that information technology services, systems and applications are maintained and continually improved.

- ❖ *Inspection Management - Implementation - 2020 to 2023 (\$5.287 million)* – This project replaces the current inspection systems by leveraging the corporate customer relationship management systems and common infrastructure components. The project is expected to reduce ongoing technical infrastructure and resource costs; and improve the efficiency and effectiveness of inspection, investigation, and enforcement.
- ❖ *Community Health Information System - 2017 to 2021 (\$1.191 million)* - This project enhances the Toronto Community Health Information System to improve the application's workflows, reduce system errors, and ensure compliance with legislative requirements including Personal Health Information Protection Act.

#### 2021-2029 Capital Forecast

The objective of the seventeen modernization projects included in the 2020-2029 Capital Budget and Plan is to enable and improve service delivery to residents in need in an innovative and integrated manner. These projects are summarized in the following three initiatives in support of TPH IT Strategic Goals:

##### 1. Improve Decision-making Support

- ❖ *Healthy Smart Cities - Data and Predictive Analytics - 2021 to 2024 (\$2.404 million)* - This project will develop a strategy to leverage the City's Smart City Framework, including the potential use of machine learning and artificial intelligence; and the execution of a proof of concept.
- ❖ *Geographic Information Enablement - 2024 to 2025 (\$0.455 million)* - This project will enhance the capacity to display location based information geographically (on maps) including reading ward profiles, health surveillance query information, heat maps, 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 provisioning.
- ❖ *Common Geographical Interface (CGI) - 2024 to 2025 (\$0.594 million)* - This project will develop a scalable system component to facilitate the integration of mapping information from various TPH applications. This system component could be leveraged by other Divisions requiring similar functionality.
- ❖ *Healthy Smart Cities - 2029 (\$0.602 million)* - This project will develop a strategy and multi-year plan to participate in Smart City initiatives and leverage

opportunities made available through mobility, cloud, big data, and the Internet of Things with the initial focus on improving TPH's ability to perform predictive analytics which will ultimately help solve City challenges in improving the health and well-being of the City's population.

## 2. Improve Workforce Capabilities

- ❖ *Community Collaboration* – Implementation Phase - 2021 to 2023 (\$1.864 million) - This project will implement community collaboration solutions that provide secure two-way communication with the public, partner agencies, and businesses in order to improve information sharing.
- ❖ *Mobile Enablement* - 2024 to 2026 (\$1.141 million) - This project will deploy mobile functionality to public health professionals to access and enter client and service data while in the community. The preliminary users are the needle exchange, sexually transmitted infections, and Communicable Disease liaison programs; and the Dental and Oral Health programs. This project will also 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.

## 3. Improve Business Processes

- ❖ *Electronic Medical Records - Phase 4* - 2021 to 2024 (\$4.095 million) - This project will extend the delivery the Electronic Medical Records – Phase 3 client information system to provide a comprehensive electronic record of patients' health-related information to additional programs replacing an aging system, providing critical reports not available via provincial systems, and creating efficiencies in business processes and improved client care.
- ❖ *Correspondence and Communication Tracking* - Implementation Phase - 2021 to 2022 - (\$0.653 million) - This project will implement an automated workflow and document management solution for tracking correspondence and communications received by the Medical Officer of Health. The proposed system will reduce manual processes, and improve timelines to produce reports and respond to queries.
- ❖ *Socio-Demographic Data Collection and Reporting* - 2025 to 2027 (\$1.848 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.
- ❖ *Call Centre Revitalization* - 2027 to 2028 (\$0.814 million) - Currently each centre operates independently with their own set of processes and tools. Most of these call centres offer phone support only, restricting the options available to the

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

- ❖ *Customer Relationship Case Management - 2027 to 2029 (\$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 access to full client records from anywhere and at any-time.

#### 4. Improve IT Services

- ❖ *Early Abilities Information System – Implementation - 2021 to 2023 (\$2.654 million)* - This project will replace the outdated case management system used by the Early Abilities program in order to continue to facilitate the sharing of information with partner agencies and reduce duplication.
- ❖ *Reporting Environment Enhancement - 2028 to 2029 (\$0.616 million)* - This project will replace the obsolete reporting environment and introduce a reporting framework which will rationalize various reporting applications which use varied technologies and tools and require extensive resources to maintain.

#### 5. Improve Access to Government services

- ❖ *Public eLearning - 2025 to 2026 (\$0.975 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.
- ❖ *Public Notifications & Advisories - 2028 to 2029 (\$0.831 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.
- ❖ *Chemical Tracking Information System (ChemTRAC) - 2021 to 2024 (\$1.120 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 industries/business partners to log in securely into the system to submit chemical use and release information.



## **CONTACT**

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Althea Hutchinson, Director, Finance & Administration, Toronto Public Health  
Tel: 416-338-7840, Email: [Althea.Hutchinson@toronto.ca](mailto:Althea.Hutchinson@toronto.ca)

## **SIGNATURE**

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Dr. Eileen de Villa  
Medical Officer of Health