REPORT FOR ACTION

Current and Emerging Uses of Artificial Intelligence by Toronto Public Health

Date: August 29, 2025
To: Board of Health
From: Acting Medical Officer of Health
Wards: All

SUMMARY

In July 2025, the City of Toronto took its first steps to embrace and adopt artificial intelligence (AI) by releasing the *Guidance for the Responsible Use of Generative Artificial Intelligence* (Generative AI Guidance) to City staff. In response to the Board of Health's June 2025 request to review the guidelines, TPH has reviewed and confirmed that the Generative AI Guidance is aligned with best practices from the Association of Local Public Health Agencies (alPHa), Province of Ontario, and the Government of Canada.

The City has adopted and enabled Microsoft (MS) Chat, the first generative AI tool officially endorsed for City-wide use. TPH staff are engaged in training on City policies, legislative requirements (e.g. PHIPA) and industry best practices including specific privacy and personal health information policies and legislation.

This report also explores the broader opportunities for the use of AI at Toronto Public Health while maintaining high standards of privacy, security, and ethics. With proper risk mitigation, AI tools could help TPH optimize resources and better meet its mandate.

In addition to issuing the Generative AI Guidance, the City of Toronto has a governance framework in place that considers privacy, security, and ethics. The framework guides adoption of AI tools in accordance with City policies, legislative requirements and industry best practices.

TPH is investigating three pilot projects that use AI tools, outside of MS Chat, that could support the work of TPH. TPH will form an internal AI working group in fall 2025 and work closely with Technology Services Division (TSD) and the Chief Information Security Officer (CISO) to continue to address risk while advancing innovative opportunities for service delivery. TSD and CISO were consulted in the preparation of this report.

RECOMMENDATIONS

The Acting Medical Officer of Health recommends that:

1. The Board of Health request the Medical Officer of Health to explore options for uses of artificial intelligence tools at Toronto Public Health, that is in accordance with City policies, legislative requirements and industry best practices, and report back to the Board of Health in the first quarter of 2027 with an update on this work.

FINANCIAL IMPACT

There are no financial impacts associated with the adoption of the recommendation in this report.

DECISION HISTORY

On June 2, 2025, the Board of Health adopted item 2025.HL25.4 Establishing the City of Toronto Mayor's Awards for Artificial Intelligence Innovation within City Divisions, Agencies, and Boards and directed the Medical Officer of Health to report to the Board of Health on AI guidelines relevant to Toronto Public Health.
https://secure.toronto.ca/council/agenda-item.do?item=2025.HL25.4

COMMENTS

Introducing Artificial Intelligence (AI) Tools at TPH

In July 2025, the City of Toronto released staff guidance on the use of generative artificial intelligence to support responsible AI adoption across the organization. The Generative AI Guidelines officially endorsed Microsoft (MS) Chat for City-wide use. MS Chat is an internet-based generative AI tool capable of performing tasks such as learning, problem-solving, and creating new content using patterns learned from internet sources. The enablement of MS Chat as an enterprise-endorsed tool ensures a secure environment, safeguarding City data and staff inputs from being utilized to train or influence large language models (LLM). Alongside the Generative AI Guidelines, the City developed a comprehensive governance framework, which provides a structured assessment process to evaluate AI technologies, so that that any tools adopted are rigorously reviewed before deployment. Grounded in a set of core AI principles, the framework facilitates the City’s evolving use of AI to be ethical, transparent, accountable, compliant with all applicable laws and policies, and aligned with public service values.

The Generative AI Guidance contains principles for the use of generative AI that are aligned with the Government of Ontario's Directive for the Responsible Use of Artificial Intelligence and the Government of Canada's Guide on the use of generative artificial

intelligence. The City's Guidance stresses that generative AI tools are to be used to support work done by humans at the City, not replace them, and instructs City staff to:

- Only use specifically approved generative AI tools (currently only MS Chat)
- Ensure any questions or files entered in MS Chat do not contain personal information (PI) or personal health information (PHI).
- Only use generative AI on approved projects with approved datasets that have been de-identified or anonymized, and do not pose a risk of being re-identified.
- Always ensure anything generated by AI is free of bias, is correct, not used to make decisions without confirmation of accuracy and bias and is kept in accordance with record management procedures.

The City's Generative AI Guidance is sufficient to govern TPH's enablement of MS Chat. Toronto Public Health will continue to work with TSD and the CISO to review additional AI technologies that can benefit TPH while ensuring accordance with City policies, legislative requirements and industry best practices.

Current Use of Generative AI Tools (MS Chat) by TPH

TPH staff are being offered trained on the use of MS Chat and the Generative AI Guidance by TSD and TPH IT. On an individual basis, TPH staff have engaged with MS Chat for efficiencies in low-risk day-to-day work, such as:

- Text generation: Meeting transcription, email drafting
- Idea generation: Brainstorming ideas for reports (e.g., titles) and graphic designs
- Information processing: Formula building in Microsoft Excel and comparing lists
- Content refinement: Summarizing reports and documents

Transforming Public Health Practice: Current and Future Uses of Other AI Tools

TPH Engagement in Pilot Projects Using AI Tools

Although these daily, low-risk uses of MS Chat are beneficial to staff productivity, TPH is collaborating with other organizations on three pilot projects involving other AI tools for their potential to significantly impact public health practice. This work will be supported by TPH's internal AI working group.

1. AI Scribe Evaluation in Communicable Disease Case Management - Public Health Ontario Locally Driven Collaborative Project:
TPH is consulting as a knowledge advisor for Simcoe Muskoka District Health Unit (SMDHU), Wellington Dufferin Guelph Public Health (WDGPH), the University of Waterloo, and Public Health Ontario (PHO) on a pilot studying the use of the Tali AI Scribe in investigations of Diseases of Public Health Significance (DoPHS). The goal of this pilot is to reduce documentation burden on staff workloads, maintain accuracy in telephone-based client encounters, and increase outbreak response capacity.

2. AI for Public Health University of Toronto Internship
TPH is working with AI for Public Health (AI4PH), a group at the University of Toronto's Dalla Lana School of Public Health, to use natural language processing and web scraping on social media platforms and traditional data sources for early detection of public health events surrounding the 2026 FIFA World Cup. The AI tool in use for this project has been validated for this purpose and can work to detect infectious disease threats, injuries, heat-related illness, and drug and alcohol related harms.

3. AI on the Menu: Predicting Risk, Protecting Health
TPH's Food Safety team is preparing a proposal to launch a pilot using predictive AI modeling that will use more than 20 years of DineSafe's open data, business information, 311 metrics, environmental variables, and available wastewater surveillance data to forecast the likelihood of future food safety infractions and optimize team resources. This project aligns with TPH's Food Safety team's proactive approach to food safety as food premises, special events, and street vendors increase. A health equity review will be conducted as a safeguard to prevent reflections of historical biases and engage with community stakeholders to ensure transparency.

Potential Future Uses of AI at TPH

There are additional types of AI tools that have significant potential to transform TPH's capabilities and service delivery. Other types of AI tools include:

- *Generative AI* tools besides chatbots (like MS chat) that create new content based on existing datasets and user prompts.
- *Predictive AI* uses historical data to forecast behaviours or events. These tools are slowly being explored in health care to optimize equipment and resource use, predict patient outcomes, and optimize treatment plans, but have not been widely adopted.
- *Edge AI* refers to generative and predictive AI tools deployed on devices that collect data directly, like a sensor or a database, for real-time data analysis of data.

TPH will continue to work with TSD and CISO to evaluate these AI use cases to ensure mitigation of risks on a case-by-case basis according to City AI frameworks.

Next steps

TPH will continue to implement the City's Generative AI Guidance for MS Chat to reduce associated risks and build staff competence with MS Chat. In addition, TPH's internal AI working group will work with TSD and CISO to ensure the appropriate AI governance structures are in place and develop staff training and approval pathways for using new tools beyond MS Chat. New ideas for uses of AI tools will continue to be explored and evaluated for feasibility. Governance frameworks will be developed using Canada Health Info-way's (CHI's) guidance on developing AI governance frameworks in health settings. CHI's resources, along with expectations for health care providers published by the College of Nurses of Ontario and the College of Physicians and Surgeons of Ontario, will help TPH and the City develop processes for future AI projects according to TPH's unique needs. TPH will report back in Q1 2027 on the progress of the AI working group, identified risks and mitigations for AI implementation, and strategic opportunities to leverage AI to improve TPH services and operations.

Toronto Public Health Strategic Impact

The use of AI tools by TPH supports the priorities outlined in TPH's Strategic Plan 2024-2028, specifically:

- #5 Nurture a positive workplace
  - (a) Foster a culture of innovation, continuous improvement and learning

CONTACT

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SIGNATURE

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ATTACHMENTS

Attachment 1: The City of Toronto Guidance for the Responsible Use of Generative Artificial Intelligence