

# Investing in Laboratory Health Human Resources

The Medical Laboratory Professionals' Association of Ontario (MLPAO) is a non-profit health professional organization founded in 1963 with members across the province, advocating on behalf of Medical Laboratory Technologists (MLTs) and Medical Laboratory Assistant/Technicians (MLA/Ts). **Combined, Ontario medical laboratory professionals process and interpret 280+ million lab tests annually and are the fourth largest healthcare profession after doctors, nurses, and pharmacists.**

**MLPAO has five main recommendations for the Ontario government to include in the 2024 Budget to invest in the province's medical labs.**

## Our Recommendations:

### 1. **\$6.95M (over three years) for a Laboratory Externship Program (Clinical Placements) and Preceptors**

Estimated funding will be used to support clinical placements for students - **three years at \$6,000 - \$10,000 / student for a total of 245 students each year (\$5M to educate 735 students)**. Employers will use \$1.95M to hire additional staff to support students in a preceptor role, (similar to other health professionals, to provide hands-on training opportunities).

### 2. **Provide funding for a scaffolding program to upskill MLA/Ts to MLTs and/or General MLTs to Genetic MLTs**

The government is encouraged to provide **funding for a scaffolding program** so stakeholders can develop strategies and training initiatives to allow MLA/Ts to upskill their credentials to MLTs and/or allow General MLTs to move into the speciality of Genetic MLTs. This will enable publicly funded academic institutions and hospital systems to partner with each other to develop strategies and training initiatives to address their communities' unique needs.

### 3. **Expand the Learn and Stay Grant to More MLT Programs**

The Learn and Stay Grant was a welcome investment in Budget 2023 and will help with MLT retention in Eastern and Northern Ontario. The government is encouraged to **expand the Learn and Stay Grant** to include MLT programs at Conestoga College, St. Lawrence College, and Ontario Tech University as these programs train MLTs who work in Eastern, Northern and Southwestern Ontario to further aid with retention in these parts of the province.

### 4. **Enhance Recruitment and Retention Strategies for Medical Lab Professionals**

The government should consider **targeted recruitment and retention strategies** that have worked for other health professions and extend these initiatives to medical lab professionals. This includes improving access to mental health and addictions supports to provide this workforce with the necessary tools and resources to foster mental wellness.

### 5. **Funding for an Ontario Simulation Laboratory**

Simulation-based learning will allow students to **complete some disciplines (technical skills) by simulation which will reduce the time needed in the clinical placement and in turn** increase the number of labs able to take students for placements.

## The Impact of MLT Shortages

The MLPAO conducted a survey in spring 2023 to assess the staffing challenges facing Ontario labs and the results show **further action is required to address the HHR shortages that labs face**. Rural and remote communities are particularly impacted by the shortage in this workforce as 24% of all MLT openings are in rural and remote areas despite rural populations representing just 13.8% of the total population of Ontario.<sup>i</sup> The other 76% were reported in large urban centres (152) and mid-sized urban centres (83). While recruitment efforts of MLTs from outside of Ontario will help in the short term, it is anticipating **staffing shortages will continue for at least the next seven years**.

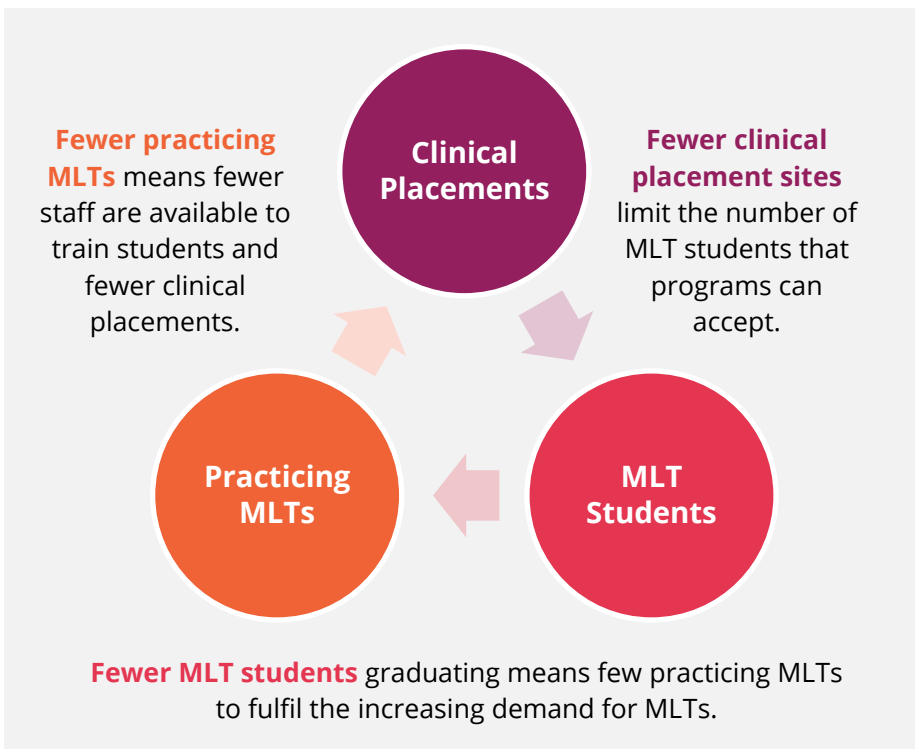
*The spring 2023 survey shows:*

- 74% of job openings are unfilled for longer than three months (76% in rural and remote labs).
- 58% of respondents stated shortages are affecting testing turnaround times and they rely on staff working more hours or use overtime to make their testing times.
- The current shortage of MLTs means that 13.6M lab tests are not being performed each year.

**70% of all medical decisions rely on lab results** and there is a significant testing demand due to an aging population, expansion of preventive medicine, and new pathogens. Upon completion of the didactic phase of their education, MLT students are required in most cases to invest the last two semesters of their program in a clinical setting paid for at their own expense. After the successful completion of this internship/placement and exams, they are then approved to complete the national certification exam and register with the College of Medical Laboratory Technologists of Ontario (CMLTO).

CMLTO's data shows that in 2022, 204 MLTs retired and an additional 702 MLTs are over the age of 60 and are eligible for retirement. Overall, the data shows **38% of MLTs will be in the eligible to retire category in the next 2-4 years** at the age of 55 and will be eligible for the Healthcare of Ontario Pension Plan.<sup>ii</sup>

Health human resource shortages mean delays in turnaround time, lengthened hospital stays, and duplicate appointments with family doctors. Without intervention, **ongoing MLT shortages could cost taxpayers over \$1.6 billion dollars annually and negatively impact patient health**.





### MLT Intake

Ontario Tech University  
Michener Institute  
Cambrian College  
St. Clair College  
St. Lawrence College  
Anderson College  
Conestoga College

**400 to 500** potential students are on a waitlist



### Placement

70% of labs are short staffed and can't effectively train students during their five-to-eight-month placement

**Understaffed** labs need to focus on testing — not students



### Entering Workforce

250 to 300 new professionals ready to be licenced per year

Current shortage of **300-400** MLTs



### Intake vs. Demand

MLTs are leaving the workforce  
2019 = 6,356  
2020 = 6,258  
2021 = 6,174  
2022 = 6,091

Not enough MLTs **entering the workforce**

**Recommendation 1:** Laboratory Externship Program (clinical placements) - \$6.95M (over three years)  
Prospective workplaces **do not have the required human resources to train students**, as MLTs are focused on interpreting tests and providing results and are unable to commit personnel to train clinical placement students while they are understaffed. These employers have expressed a desire to train new MLTs but are currently unable to do so which limits placement sites, restricting seats in MLT programs, which in turn reduces the number of practicing MLTs, intensifying the staffing shortage.

Estimated funding will be used to support clinical placements for students - **three years at \$6,000 - \$10,000 / student for a total of 245 students each year (\$5M to educate 735 students)**. This will enable publicly funded academic institutions and hospital systems to partner with each other to develop strategies and training initiatives to address their communities' unique needs. **Employers will use \$1.95M to hire 50 preceptors, which could include part-time or recently retired MLTs, to support students.** Their role will focus on supervising MLT students during their clinical rotations and ensure supports are provided to students while they bridge the gap between theoretical and clinical practice.

**Funding for a Laboratory Externship Program (clinical placements) can be an additional solution to complement the Learn and Stay Grant** to help MLT recruitment and retention in the East, North and Southwest Regions of Ontario. This will allow the province to increase the number of placements in under-served, rural, and remote areas where placements may have been discontinued due to the lack of resources and staff. This will help to bolster the province's MLT workforce where they are needed.

*The funding would be allocated as follows:*

**Urban areas:** This would include cities with populations over 100,000 and would include Toronto, Hamilton, Kingston, Ottawa, Thunder Bay and Sudbury. Clinical placements are anticipated to cost \$6,000 for each student.

**Rural areas:** This would include cities with populations under 100,000 and would include Timmins, North Bay, Sault Ste. Marie, Mattawa, Stratford, Napanee, Owen Sound. Clinical placements are anticipated to cost \$8,000 for each student.

**Remote areas:** This would include regions such as Moosonee, Sioux Lookout, Kenora, and Manitouwadge. Clinical placements are anticipated to cost \$10,000 for each student.

**Recommendation 2: Provide funding for a scaffolding program to upskill MLA/Ts to MLTs and/or General MLTs to Genetic MLTs**

The government is encouraged to provide funding for a scaffolding program to upskill MLA/Ts to MLTs and/or General MLTs to Genetic MLTs. This will **enable publicly funded academic institutions and hospital systems to partner with each other to develop strategies and training initiatives** to address their communities' unique needs. In the specialty field of genetics, there are only two programs in Canada: Michener Institute and British Columbia Institute of Technology. In order to address this shortage, Hamilton Health Sciences, in collaboration with Mohawk College, are working together to support the development and delivery of an accelerated, accredited, Genetic MLT training program.

The proposed accelerated training program will **address the current labour shortage of Clinical Genetics MLTs**. This will improve the turnaround time and reduce the backlog of genetic testing by building out the workforce to support better patient outcomes by providing timely access to testing and results. This influx of qualified Clinical Genetics MLTs will also support the ability to respond to the increased demand for expanded test menus from both internal/organizational and external stakeholders. This is one example of how hospital systems and publicly funded academic institutes can partner to create innovative solutions to upskill MLA/Ts into MLT roles and/or provide training to upskill MLTs into specialized roles.

**Recommendation 3: Expand the Learn and Stay grant to more MLT programs**

The Learn and Stay Grant was a welcome investment in Budget 2023 and will help with MLT retention in Eastern and Northern Ontario. The government is encouraged to **expand the Learn and Stay Grant** to include MLT programs at Conestoga College, St. Lawrence College and Ontario Tech University as these programs train MLTs who work in Eastern, Northern and Southwestern Ontario.

These programs train MLTs who work in these parts of the province, and this will **support healthcare in rural and remote communities**. This will complement the funding that MLT students at Cambrian College and St. Clair College are eligible to apply for through the Ontario Learn and Stay Grant and will provide a more comprehensive recruitment and retention strategy.

**Recommendation 4: Enhance Recruitment and Retention Strategies for Medical Lab Professionals**

The Ontario government should consider targeted recruitment and retention strategies that have worked for other health professions and **extend these initiatives to medical laboratory professionals**. This includes improving access to mental health and addictions supports to provide this workforce with the necessary tools and resources required to foster mental wellness.

The report, [\*Factors Associated with Job Satisfaction in Medical Laboratory Professionals during the COVID-19 Pandemic: An Exploratory Study in Ontario, Canada\*](#), discusses challenges the medical lab profession experienced during the height of the COVID-19 pandemic and the contributing demographic and psychosocial factors. The significant shortage of MLTs in Ontario and the increased workload has led to increased work exhaustion, burnout, and increased turnover rates. Participants reported higher job dissatisfaction compared to before the COVID-19 pandemic.

Expanding and enhancing mental health and addictions supports for medical lab professionals will ensure they have access to the services and supports they require and will complement existing retention strategies used to help with retention of the workforce. The government should also **consider other actions to increase Ontario's MLT workforce** including removing financial barriers that may prevent MLTs from becoming certified, increase MLT seats, and help internationally educated professionals avoid costly and lengthy re-education programs.

### **Recommendation 5: Provide funding for an Ontario simulation laboratory**

There is a need for more simulation-based learning in the Ontario labs sector. **Many labs do not have the five specialty areas of lab medicine that students are required to complete during clinical placement** and are thereby limited or excluded from taking students for clinical placement. This is especially true in mid-sized urban, rural, and remote labs. **Simulation-based learning will allow students to complete some disciplines by simulation and the remainder of their clinical placement in a lab which will increase the number of employers able to take students for placements.**

The report, [\*Hidden and Understaffed: Exploring Canadian MLTs' Pandemic Stressors and Lessons Learned\*](#), discusses challenges the medical lab profession experienced during the height of the COVID-19 pandemic and solutions to mitigate these issues in the future. The pandemic placed significant burden on MLTs who reported increased rates of laboratory errors due to the high influx of testing and newer and less-experienced staff who replaced senior MLTs who retired during the pandemic. This increased the burden on the remaining staff members, as they had the added responsibility of training the new MLTs in addition to their existing workload, further straining an already-stretched workforce. **A simulation lab will ensure MLTs have the proper knowledge, skills and competency for all types of scenarios, including pandemics, which will help to reduce the need for recollection, retesting, and reanalysis of samples.**

This will help to **enhance student learning while decreasing the need for lengthy apprenticeships.** British Columbia's Ministry of Advanced Education and Skills Training provided one-time funding to Thompson Rivers University to support expansion of their Respiratory Therapy Program to enable the school to purchase skills-training equipment including a new ventilator to support student learning.<sup>iii</sup> Likewise, the University of British Columbia is adding "high-fidelity" simulation labs as part of their redevelopment of the school's health sciences facilities. This will enable nursing students to learn the required skills and competencies for their professional nursing practice before gaining experience in a clinical practice.<sup>iv</sup>

### **For more information, please contact:**

Michelle Hoad  
Chief Executive Officer  
mhoad@mlpao.org  
416-485-6768 x 225

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<sup>i</sup> [Supplemental Report: MLP in Crisis – Post Omicron](#)

<sup>ii</sup> [2022 CMLTO Annual Report](#)

<sup>iii</sup> [New Fast-Track Seats for BC Respiratory Therapists](#)

<sup>iv</sup> [UBC Clinical Skills and Simulation Lab](#)