



Medical Laboratory Professionals' Association of Ontario  
L'Association des professionnels des laboratoires médicaux de l'Ontario

## **Pre-Budget Submission: *MLT Shortage Crisis in Ontario Laboratories***

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### **Context**

Ontario's Medical Laboratory Technologists (MLTs) serve a crucial role in healthcare. Without their analysis of blood, tissue, and fluids, physicians would be unable to diagnose and monitor infection, cancer, pregnancy, heart attacks, and much more. Through their work, we understand if prescribed medicine is working, what type of blood a patient requires, or if a virus is present.

MLTs conduct approximately **244.8 million lab tests annually**<sup>1</sup> for Ontario's growing population of 14.75 million. COVID-19 has added to this workload, with an additional **10 million PCR tests** completed to date. This incredible testing demand is shouldered by Ontario's cohort of **6356 practicing MLTs**.<sup>2</sup>

MLTs are regulated health professionals who serve in hospital, private, public health, and blood transfusion labs in both urban and rural centers. To become an MLT, students must study full-time in an accredited, post-secondary Medical Laboratory Science program for 3 years. After graduating, candidates must pass a certification exam with the Canadian Society of Medical Laboratory Science (CSMLS) and register with the College of Medical Laboratory Technologists of Ontario (CMLTO).

The MLT workforce has been declining for decades and 70% of labs entered COVID-19 short-staffed.<sup>3</sup>

- ✓ **43% of practicing MLTs are eligible to retire in the next 4-8 years.**<sup>4</sup>
- ✓ 86% of laboratory professionals are experiencing burnout after a year of testing 24/7.
- ✓ 37% contemplating early retirement/leaving the profession, or stress/sick leave (44%).<sup>5</sup>

This health human resource issue will have a rippling effect throughout our healthcare system, one that could undo much of the streamlining and progress the Ministry of Health is looking to accomplish. The absence of this workforce has the potential to cost the province millions in lengthening hospital stays and increasing wait times while adding an additional barrier in accessing vital services.

### **Road Block 1: Training**

One of the main contributing factors for the decline in the MLT workforce was the closure of 7 MLT programs in the 1990s. These programs were shut down by the then-NDP government under the assumption that instrumentation upgrades in the laboratories of the future would reduce the need for MLTs. While new technology has created more efficient laboratory processes, test results must be interpreted. Equipment requires ongoing maintenance and validation, work which should be done by a regulated MLT.

Only 5 Medical Laboratory Science programs remain: Cambrian College (Sudbury), St. Lawrence College (Kingston), St. Clair College (Windsor), and Ontario Tech University (Oshawa); funded by the Ministry of Training Colleges and Universities (MTCU), and the Michener Institute (Toronto); funded by the Ministry of Health

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<sup>1</sup> [Laboratory Services Expert Panel, November 12, 2015.](#)

<sup>2</sup> [CMLTO Annual Report 2019.](#)

<sup>3</sup> Based on a survey of lab leaders and professionals in May 2020.

<sup>4</sup> [CMLTO Annual Report 2019](#), assuming retirement eligibility at 55.

<sup>5</sup> Based on a survey of medical laboratory professionals December 2020.



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(MOH). These 5 programs are currently unable to provide enough professionals and the immediate demand is close to double the supply:

- 286 open MLT positions in preliminary data from 68 laboratory workplaces (out of 214 IQMH-accredited medical laboratories).<sup>6</sup>
- 157 new MLTs entering the Ontario workforce in 2020.<sup>7</sup>

Our outreach to these institutions has indicated that although they would like to increase program capacity, they lack the capital development funding required to expand school laboratory facilities.

### Road Block 2: Clinical Placements

Clinical placements, the portion of MLT programs where students finalize their training in a professional laboratory environment, have also been identified as a primary bottleneck. Employers find it difficult to commit resources to training when laboratories are already understaffed.

## TRAINING ROAD BLOCKS



**STUDENTS:**  
High School  
University



**ROAD BLOCK 1:  
TRAINING**  
Only **5 Colleges** able to  
offer training for MLTs  
(Funded by MTCU + MOH)



**ROAD BLOCK 2:  
CLINICAL PLACEMENTS**  
Not enough  
training positions at  
hospitals + labs

### CURRENT MLT TRAINING PROGRAMS

- ◆ Cambrian College  
Sudbury, 64 seats  
Approx. 300 applicants
- ◆ St. Clair College  
Windsor, 56 seats  
Approx. 250-330 applicants
- ◆ Michener Institute  
Toronto, 75 seats  
770 applicants
- ◆ St. Lawrence College  
Kingston, 60 seats  
300-400 applicants
- ◆ Ontario Tech University  
Oshawa, 40 seats  
Waitlist for program

### SEVEN PROGRAMS CLOSED IN THE 1990s

- ◆ Algonquin College  
Ottawa, 25-35 seats closed
- ◆ La Cite Collegial  
Ottawa, 20 seats closed
- ◆ Canadore College  
North Bay, 32 seats closed
- ◆ Fanshawe College  
London, 30 seats closed
- ◆ Lambton College  
Sarnia, 30 seats closed
- ◆ Mohawk College  
Hamilton, 60-90 seats closed
- ◆ O'Brien Institute of Medical  
Technology, Thunder Bay  
12 seats closed



<sup>6</sup> Based on data submitted by medical laboratory employers and HR departments in Fall 2020.

<sup>7</sup> [Of the 166 who challenged the exam - comparable to previous years – 2019 \(162\) 2018 \(166\) 2017 \(151\), CSMLS.](#)



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### **Underserved Area: Rural and Remote**

Rural and remote communities particularly impacted by the shortage in this workforce. 45% of postings for MLTs are in rural and remote labs,<sup>8</sup> despite rural populations representing just 13.8% of the total population of Ontario.<sup>9</sup> This rate is particularly stark given small staff sizes of labs in these areas. Recruitment is difficult and labs lack the required incentives to convince qualified MLTs to leave family and connections in urban Ontario.

Clinical placements are also impacted in these areas. Students often stay to work in the lab they trained in after graduating. However, many rural labs are unable to provide the required training in all five disciplines.<sup>10</sup> Completing a placement across multiple rural laboratories becomes too costly, so rural and remote labs often lose students to larger urban hospitals.

### **Underserved Area: Greater Golden Horseshoe**

With the closure of programs in Hamilton, London, and Sarnia, there is currently no MLT training institution between downtown Toronto and Windsor. Designated as the Greater Golden Horseshoe by the Government of Ontario, it is one of the fastest-growing regions in North America and targeted under the Places to Grow Act to increase population density through immigration, infrastructure development, and more.<sup>11</sup> Labs in this area represent 32% of the current need for MLTs.<sup>12</sup>

### **Issues**

Given that our population is growing and aging, Ontario must address our long-neglected MLT Shortage with comprehensive training solutions to meet the overwhelming need for medical laboratory services. Under the current framework, training institutions and employers are unable to increase capacity and get enough professionals into the medical laboratory field. Government involvement is required to address this long-standing issue. The MLPAO is eager to work with provincial leaders to find cost-efficient, high-ROI solutions to this health human resource issue before it hits a crisis point. These solutions would support the government's current initiative to streamline the Ontario Health System and improve front-line patient care for Ontarians.

### **Recommendations:**

1. Fund **150 additional seats in MLT programs** across Ontario: Cambrian College (Sudbury), St. Lawrence College (Kingston), St. Clair College (Windsor), OTU (Oshawa), Michener (Toronto).<sup>13</sup>
2. Provide **capital funding to increase training laboratory capacity** in educational institutions.
3. Funding for **10 clinical placement preceptors** to facilitate practical training in major hospitals at a rate of \$70,000 each for 3 years.<sup>14</sup>
4. **New Grad Incentive Program** – funding for students completing placements in rural and remote communities at a rate of \$4000 per student.<sup>15</sup>

<sup>8</sup> Based on a survey of lab leaders and professionals in Fall 2019.

<sup>9</sup> [Ontario 360, "Measuring Ontario's Urban-Rural Divide," November 2019.](#)

<sup>10</sup> "Report to the MLPAO: MLT Human Resource Crisis," AiCon Inc, 2019.

<sup>11</sup> [Government of Ontario, "A Place to Grow: Growth Plan for the Greater Golden Horseshoe," August 2020.](#)

<sup>12</sup> Based on data submitted by medical laboratory employers and HR departments in Fall 2020.

<sup>13</sup> Representing 30 additional seats in each program, reflective of the gap between demand (289+) and supply (157).

<sup>14</sup> Starting wage for full-time MLTs is approx. \$52,000/year, and average salary for an experienced MLT is \$84,000/year.

<sup>15</sup> \$4000-\$6000 is the current rate per student for clinical placements, based on data from Ontario training institutions.