

## BRIEF: Laboratory Health Human Resource Shortage – Spring 2021

MLTs conduct approximately **244.8 million lab tests annually**<sup>1</sup> for Ontario's growing population of 14.57 million. COVID-19 has added to this workload, with an additional **16 million PCR tests** completed to date. This incredible testing demand is shouldered by Ontario's cohort of **6203 practicing MLTs**.<sup>2</sup>

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>
- ✓ 87% of laboratory professionals are **experiencing burnout** after a year of testing 24/7.
- ✓ 42% **contemplating early retirement/leaving the profession, or stress/sick leave** (42%).<sup>5</sup>
  - For 19% of respondents this was not an option at their workplace.
- ✓ 66% of laboratories reported positions remaining **unfilled for more than 3 months**.
- ✓ 52% indicated **turnaround times affected** or somewhat affected by HHR shortages.

	Spring 2021	Fall 2020
<b>Response:</b>	120 laboratory workplaces (214 IQMH-accredited medical laboratories - 56%)	68 laboratory workplaces (214 IQMH-accredited medical laboratories - 32%)
<b>Workplace:</b>	87% Hospital, 6% Private, 5% Public Health	84% Hospital, 10% Private, 4% Public Health
<b>Location:</b>	21% Large Urban, 23% Mid-Size Urban, 48% Rural, 8% Remote	25% Large urban, 33% Mid-Size Urban, 38% Rural, 5% Remote
<b>Shortage:</b>	<b>466 MLT (219 MLA/T)</b>	<b>286 MLT (201 MLA/T)</b>

## MLT Training Program Regions

One of the main factors in the MLT workforce shortage was the closure of 7 MLT programs in the 1990s under the assumption that future instrumentation upgrades would reduce the need for MLTs. While new technology has created more efficient laboratory processes, test results must be interpreted and equipment requires ongoing maintenance/validation, work which should be done by a regulated MLT. Our survey asked workplaces which of the 5 remaining MLT schools they draw on for new staff members. The below chart compares this data against staffing shortage numbers.

	Spring 2021	Fall 2021
<b>Oshawa (Ontario Tech)</b>	12 workplaces: 42 MLT (23 MLA/T)	12 workplaces: 49 MLT (28 MLA/T)
<b>Toronto (Michener)</b>	34 workplaces: 175 MLT (91 MLA/T)	14 workplaces: 104 MLT (78 MLA/T)
<b>Sudbury (Cambrian)</b>	32 workplaces: 85 MLT (26 MLA/T)	22 workplaces: 58 MLT (28 MLA/T)
<b>Windsor (St. Clair)</b>	18 workplaces: 63 MLT (28 MLA/T)	12 workplaces: 25 MLT (21 MLA/T)
<b>Kingston (St. Lawrence)</b>	24 workplaces: 101 MLT (51 MLA/T)	8 workplaces: 50 MLT (46 MLA/T)

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

<sup>2</sup> [CMLTO, "Medical Laboratory Technologists: 2020 Health Human Resource Report," Registration Statistics Report, March 2021, page 7.](#)

<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 in April 2021.

## Shortages in Ontario's Rural and Remote Areas

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66 of the 120 laboratory workplaces self-identified as being in rural and remote communities, which are particularly impacted by the shortage in this workforce. 24% of postings for all MLTs across Ontario are in rural and remote labs,<sup>6</sup> despite rural populations representing just 13.8% of the total population of Ontario.<sup>7</sup>

Those that did not identify as being in a rural and remote community might still serve a mostly rural catchment area, such as laboratories in Northern Ontario (Thunder Bay, Sault Ste. Marie, Sudbury) and those cities in Southern Ontario that are surrounded by farmlands (Guelph, London, Niagara, Chatham, and others). This indicates the impact to rural and remote areas could be even higher.

This rate is particularly stark given small staff sizes of labs in these areas:

- ✓ Average staff size of **16 team members** in a Rural and Remote lab (including Lab Management)
  - Compare to **140 team members** in Mid-Size and Large Urban Centers.
- ✓ Median is even lower at **11 team members**.
- ✓ Labs hiring for 22% of total MLT staff on average in these areas.

With just 2-3 laboratory professionals covering services for their entire hospital, the smallest labs have very few MLTs to shoulder the testing burden in case of shortages. For example, a small rural lab is hiring 1 Full-Time MLT. Their entire lab team is 1 Manager, 2 MLT and 1 MLA/T, so they are hiring 50% of their MLT staff.

Recruitment is also more difficult, and labs lack the required incentives to convince qualified MLTs to leave family and connections in urban Ontario. Clinical placements, the portion of MLT programs where students finalize training in a professional laboratory environment, are a main source of recruitment for many laboratories. 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>8</sup> Completing a placement across multiple rural laboratories becomes too costly, so rural and remote labs often lose students to larger urban hospitals.

## MLT Shortage Conclusion

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Our Spring 2021 Laboratory HHR Survey reveals an urgent need for MLTs with demand far exceeding the supply:

- 466 open MLT positions in Spring 2021.<sup>9</sup>
- 291 new applicants to the CMLTO in 2020 (constitutes MLTs who completed the exam this year, in previous years, and labour mobility applicants).<sup>10</sup>

This health human resource issue will have a rippling effect throughout our healthcare system. 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, particularly as we begin to work through the backlog of surgeries and other scheduled procedures postponed during the COVID-19 pandemic.

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<sup>6</sup> Based on a survey of lab leaders and professionals in Spring 2021.

<sup>7</sup> [Ontario 360, "Measuring Ontario's Urban-Rural Divide," November 2019.](#)

<sup>8</sup> "Report to the MLPAO: MLT Human Resource Crisis," AiCon Inc, 2019.

<sup>9</sup> Based on data submitted by medical laboratory employers and HR departments in Spring 2021.

<sup>10</sup> Number indicated by the CMLTO by email February 12, 2021.