



Canadian Society for Medical Laboratory Science
Société canadienne de science de laboratoire médical

**Written Submission for the Pre-Budget Consultations in Advance of
the 2021 Budget**

By: The Canadian Society for Medical Laboratory Science

- **Recommendation 1:** That the government increase the supply of new laboratory professionals to Canada's facilities to offset testing demand and retirement drain through adhering to 4 key commitments:
 - A) Encouraging amendment of provincial RHP legislation
 - B) Providing \$20M for foreign MLT onboarding
 - C) Dedicating funding to increase enrollment in education programs by 10%
 - D) Funding a national Simulation-based Curricula for future requirements
- **Recommendation 2:** That the government work with lab stakeholders to ensure critical equipment and supplies are readily available to provincial health authorities and hospital laboratories.
- **Recommendation 3:** That the government work with medical laboratory regulators and CSMLS on what options make the most sense to address new demands on testing highlighted from COVID-19.

Overview:

The Canadian Society for Medical Laboratory Science (CSMLS) is the national certifying body and professional association for medical laboratory technologists and medical laboratory assistants. CSMLS is a national not-for-profit association that is funded entirely by membership dues and revenues from goods and services.

Incorporated in 1937, the CSMLS has a long history of leading the medical laboratory profession by setting the standards of practice in the industry. We have continued to grow and develop in order to represent the professional interests to over 14,000 of our members in Canada.

About Medical Laboratory Professionals in Canada

Medical laboratory professionals have been working tirelessly on the Covid-19 pandemic and play a vital role in Canada's health care system, generating over 440 million results each year. With technical expertise, they provide the analysis of accurate, life-saving laboratory results that guide the diagnosis and treatment of patients. represents the front-line laboratory professionals across Canada.

Lab professionals practice in hospital laboratories, private medical laboratories, public health laboratories, government laboratories, research and educational institutions. Our members are proud and passionate about their valuable contributions to patient care, serving over 35 million Canadians.

Laboratory professionals can generally be classified into two main categories: Medical Laboratory Technologists (MLTs) and Medical Laboratory Assistants (MLAs). In the majority of provinces, MLTs are a self-regulated health profession governed by a provincial regulatory college. MLAs are not regulated anywhere in Canada, leaving responsibility for the entry-to-practice standards and scope of practice up to employers.

Focus on laboratory capability

The COVID-19 pandemic has highlighted existing concerns about laboratory capabilities in Canada. Due to the increasing number and complexity of laboratory tests, facilities across Canada faced challenges delivering results even before the pandemic. Ontario had projected a 1.8% per year increase in lab tests between 2005 and 2010. However, an actual increase of almost 4% per year was experienced.

Advances in testing capabilities and precision medicine will continue to increase orderable tests in the future. For example, the number of genetic tests available has doubled over the past two years. This situation will be further compounded by Canada's aging population.

Canada has also been facing a serious shortage of medical laboratory technologists. Roughly half of all MLTs will be eligible to retire in the next ten years. These shortages are already being felt in our rural and remote communities and the impending retirements will exacerbate this issue. This is significant as approximately 30 percent of Canada's total population live in rural and remote areas, according to the Centre for Rural and Northern Health Research.

Canada's laboratory's need federal support to ensure they are prepared for future demands during and beyond the COVID-19 pandemic.

1. Increase the supply of new laboratory professionals to Canada's facilities to offset testing demand and retirement drain.

The demand for testing is rising. Simultaneously, so is the shortage in laboratory professionals. The effects of this shortage could be felt throughout the medical system as delayed diagnosis means delayed treatment.

Without qualified professionals to produce lab results, quality patient care is impossible. Canada needs to ensure an adequate supply of qualified laboratory professionals to support the high standard of health care all Canadians deserve. A recent 5 year comparison showed a growing gap between the number of new graduates and those retiring in the field.

As such, Canada must increase the capacity of medical laboratory training programs nationally, while maintaining the same high level of graduate competency to protect patient safety.

The Federal government can increase the supply of new laboratory professionals through:

- A) Urging provinces to amend their regulated health professions (RHP) legislation to regulate the many thousands of MLAs in Canada to inject a labour boost on labs in the country. It is of vital importance that tests are conducted by qualified laboratory professionals.**

Laboratory capacity can be increased through greater use of Medical Laboratory Assistants (MLAs). By moving to regulate MLAs under the provincial legislation such as the Regulated Health Professions Act, 1991, in Ontario, provinces could fairly quickly provide a framework that enables labs to safely expand the use of this professional group of over 5,000 practitioners in Ontario alone. This is the case for provinces across Canada. Use of MLAs to full scope will allow for a redistribution of labour within the labs to better support the pandemic response as well as more common testing required to support patient care. It would also provide the public with the necessary assurance that these individuals meet a minimum standard of professional competence and ethics, have requirements for ongoing competence, and are subject to the same public protection mechanisms that apply to all other regulated health professionals.

- B) Fund bridging programs to onboard foreign-trained MLTs in Canada to join the lab workforce using the robust existing curriculums and evaluations offered from our educational institutions. A \$20 million investment for this would go towards making a difference now.**

In the past, Canada has been home to educational bridging programs to offer easy paths to licensure for foreign-trained MLTs. Canada is home to many foreign-trained MLTs that are currently unable to practice. The major barrier to entry is the roughly \$14,000 program cost for the bridging program, including the need for clinical placements. Institutions like the Michener Institute of Education at UHN in Ontario have the curriculum and evaluations for these bridging programs, leading to a short implementation period.

- C) Dedicate funding to increase enrollment by a minimum of 10% at Canada's medical laboratory science programs.**

Canada has a robust system of training programs in the province, which rank as some of the finest educational programs around the world. Unfortunately, these programs are facing ongoing capacity constraints around enrollments. There is an insufficient new crop of graduates to meet future demand and replace those retiring.

D) Contribute to meeting the demand of the medical laboratory community in the future by providing funding to a national Simulation-based Curricula.

THE NATIONAL MEDICAL LABORATORY SIMULATION STUDY

Research in nursing and physician education has demonstrated that simulations could reduce the duration of clinical placements required to achieve competency. This, in turn, lowers the cost per trainee, while maximizing trained human capital.

Although a large body of research exists, publications are almost non-existent for the medical laboratory community.

The purpose of the study is to develop and validate simulation-based curricula that will:

1. Support student competency achievement
2. Expedite student's entry into the workforce
3. Increase the graduate output capacity

The study will aim to achieve the following:

- Determine whether simulation can be substituted for clinical hours;
- Construct evidence on the efficiency and effectiveness of varying amounts and types of simulation-based curricula (comparative effectiveness research);
- Determine the educational outcomes of medical laboratory students when enhanced and/or new simulation is integrated into curricula;
- Create a national database of simulation curricula available to all medical laboratory programs for adoption.

The National Medical Laboratory Simulation Study is part of a long term, multi-phase research project. The CSMLS has invested over \$150,000 to develop the foundation upon which the study will continue to build. Activities to date include:

- Environmental scan of academic program models
- Literature review on the use of simulation-based education
- Creation of a simulation knowledge exchange, meeting monthly
- Educators Forum on simulation and clinical education
- Creation of a national teleconference series

A formal grant application has been developed and will be submitted to the Social Sciences and Humanities Research Council (SSHRC). The grant is with the aim of creating, testing, and implementing simulation curricula with new models of clinical placements.

2. Work with laboratory stakeholders to ensure critical equipment and supplies are readily available to provincial health authorities and hospital laboratories

Public health authorities and hospital laboratories are suffering from the lack of purchasing power and financial resources to make critical purchases for laboratory equipment that will increase testing capacity without a material increase in human resource need. Releasing new funding to the province's

health authorities to purchase new equipment like PCR machines will allow for a rapid scale up in testing ability. Assisting in the bulk purchase of laboratory supplies would also ensure Canada's labs are ready for the next public health crisis.

Health Canada also has a leading role to play in ensuring the expedited approval of new testing methods and devices are occurring. Further, the bulk purchasing of lab equipment for the country would ensure we are better prepared in all labs across Canada to meet these demands. Through continuing to expedite approvals of medical devices, the federal government can alleviate some of the testing requirement challenges facing Canada's laboratory professionals.

3. Work with medical laboratory regulators and CSMLS on what options make the most sense to address new demands on testing highlighted from COVID-19.

CSMLS, as the association representing Canada's MLT's and MLA's, as well as being the national certifying body, is well placed to offer concrete suggestions on what needs to be done to address capacity concerns now and in the future.

Recent media reports such as the 'deputization of research labs' carry serious concerns and must be assessed versus other more suitable options before making such a decision. Testing for COVID is very manual and requires precise work done by highly trained medical laboratory technologists. It also needs to be conducted in controlled medical laboratory settings. Looking to research labs and using research students to assist with COVID testing should be an emergency measure only considered after several others have been implemented, including: return of retired MLTs, expanded use of MLAs, use of student MLTs, etc.

Conclusion:

Increasing the productivity of medical laboratory technologists and the capability of Canada's medical laboratory facilities will strongly contribute to building a stronger Canadian economy. Canada must prioritize maintaining the strength of its medical laboratory sector for its citizens and the next public health crisis.