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IN FOCUS

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CHIEF EXECUTIVE OFFICER

An Inconvenient Truth About Workplace Culture

The most amazing part of my job is having the opportunity to travel across this country and visit labs from coast-to-coast-to-coast. I have enjoyed meeting lab professionals in various parts of the country and getting a sense of what their work life really looks like. I've met professionals working in large urban hospitals and tiny remote sites, where you are the only one on shift. I've heard and seen it all when it comes to life in the medical laboratory.

Despite all the great things I have seen, there is one unavoidable truth about life in the lab which we often gloss over – the cultures of health care organizations can be terrible. Toxic, even. There is something about the health care environment that seems to breed conflict. Yet these very places are supposed to be spaces of healing. This disconnect frightens me. I have met people on short-term and long-term leaves due to stress. I have met fed up retirees who told me they couldn't handle it any more. We cannot continue down this road.

Prevailing research suggests a few contributing factors to these workplace cultures. Hospitals have clearly defined hierarchy and power structures. Physicians sit atop this structure and their behaviour, both good and bad, sets the example for the rest of the health care team. This structure also means that frontline health care workers, like MLTs and MLAs, have limited power over the work they perform. Lack of autonomy can lead to conflict.

Another factor is the prevalence of stress. When individuals are under stress, they often take that stress out on others. Hospitals, and specifically labs, are stressful places. So it isn't surprising to see conflict arise.

Generational differences amongst health care workers can also lead to communication challenges and conflicts between value systems. This is probably the first time in history we have four (soon to be five) different generations of health care workers all trying to co-exist.

Our work environment is complex and there are no easy solutions. However, by not talking about them, we allow these issues to persist. We allow toxic workplaces to become an unwritten norm and this is having serious impacts on the mental health of our members.

I am encouraged to hear more members openly discussing the mental health challenges they and their colleagues are experiencing. This is a good start but to start shifting the culture, we will need to do more and we will need help from our colleagues.

Let's commit this year to making some small improvements that will start us down the road to healthier workplaces. For employers, this could mean investing in soft skill training to help your team better communicate with each other. For a manager, it can be discussing conflict and making it a standing item on your meeting agendas. For an individual, it could mean standing up for a colleague who is experiencing bullying in the workplace or pointing a friend to an Employee Assistance Program (EAP) or the CSMLS Mental Health Toolkit.

They say the journey of a thousand miles begins with a single step. Small actions do make a difference and with enough of them, we can start to shift the culture of our workplaces. We need to make sure our workplaces are healthy spaces.

Despite all the great things I have seen, there is one unavoidable truth about life in the lab which we often gloss over – the cultures of health care organizations can be terrible.

Mary Costantino
2017 CSMLS PRESIDENT

Trust in Times of Change

When I began this tenure of presidency for 2017, I took some time to reflect on the work of my predecessors. In the past, our presidents have emphasized the importance of engagement within the profession, personal and professional accountability, and lifelong learning. While I believe in the importance of all these messages, I also believe the role of president is to continue to build upon the work of those before, to continue growing what they have planted. That doesn't mean to simply repeat the same direction others have already tread, and in 2017 especially, we are forging new paths. The development of the strategic plan is just one example of how the Board, and myself as President, will look to the future to set the organization's goals and overall purpose for this changing profession.

There are many factors we consider when heading into strategic planning. It is challenging to predict the future, but we must use the knowledge and data we have at hand to help guide us as much as possible. The trends we are seeing in the workplace now have a big impact on how we will work in the future. Take for example the growing number of medical laboratory assistant/technician positions that are becoming available. This is an indication of changing times.

When I started at LifeLabs, I was impressed by how seamlessly lab assistants worked alongside the medical laboratory technologists. There is a real synergy to the workflow. It is only because everyone, regardless of title or skill, is held to the highest expectations. Everyone has a role to play in the quality of the test results we release. And that's how it should be.

We know our workplaces are changing, but the reason we entered the medical laboratory field is not. Adopting a culture based on trust will lend itself to a high functioning, results-orientated team; similar to what I have experienced on the Board of Directors.

We should have a cohesive workplace that holds everyone accountable for the work they produce. Regardless of whether that work is in the pre-analytical, analytical or post-analytical areas, every component of work done in the lab plays a vital role in the quality management system and an important part of the final product. We need to respect how these pieces fit together in the overall goal of patient care and safety.

We know our workplaces are changing, but the reason we entered the medical laboratory field is not. Adopting a culture based on trust will lend itself to a high functioning, results-orientated team; similar to what I have experienced on the Board of Directors. Everyone has special skills or experiences they bring to the table. When we trust each other to all be moving toward a common goal, we can accomplish great things.

The Inbox

The Inbox is meant to provide a public forum for us to address questions, concerns or issues that are raised by members. CSMLS receives feedback through written correspondence, email and through our various social media portals. If you have a question or comment you would like to have addressed in an upcoming issue, talk to us on Facebook, Twitter (@csmls) or through email at editor@csmls.org.

"It would be nice if CSMLS used the *Journal (CJMLS)* as a way to earn some continuing education credits."

Reading industry-based articles is considered a professional development activity and can help you meet your regulatory college requirements.

There are two issues a year (Spring and Fall) of the CJMLS that feature scientific-based peer-reviewed articles. An online quiz is created for each article in order to test your comprehension of the material. The quiz can earn you Professional Enhancement Program (PEP) hours and work toward your professional development plan.

See page 19 to read this issue's scientific feature articles, then go online to learn.csmls.org to complete the quiz.

"I feel that in my province, workers are stressed for multiple reasons. Maybe CSMLS could put some thought into having a network (online or phone support) for [organizations] to reach out to get help?"

CSMLS recognizes the need for support for organizations and individuals dealing with mental health issues in the workplace. That's why in 2016, CSMLS created a Mental Health Toolkit, an online resource for individuals, employers and organizations looking for information to help understand and support mental health issues.

The toolkit is free, private, online and accessible 24/7. In it, you will find short quizzes, videos and personal stories, along with supporting information and other resources you can access.

Learn more about mental health and gain the support you or someone you know may need at mentalhealth.csmls.org.

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Competency-Based Item Writing Training

CSMLS now offers Competency-Based Item Writing Training to assist educators with creating application and critical thinking questions for exams.

While collaborating with peers, attendees will create their own exam questions based on the same principles and guidelines currently used by the CSMLS for certification exams.

Learn how to:

- Apply criteria to create quality exams
- Recognize the components of a question
- Apply rules for creation of stems and alternatives
- Categorize questions by cognitive levels (recall, application, critical thinking)
- Review and edit your existing test questions

Options for attending this training include:

- Booking a session at your own facility
- Attending the session before LABCON (May 24-25, 2017) in Banff, AB
- Joining a session offered at the CSMLS office in Hamilton, ON - check the CSMLS website for dates

Cost varies depending on option chosen.

Please contact Lorna Zilic (lornaz@csmls.org) for more information.

csmls.org

Personal Professional Development Plans

HOW TO SET AND ACHIEVE YOUR PROFESSIONAL GOALS

In the CSMLS membership survey, there was overwhelming feedback about increased workload and lack of time for professional development. In our fast-paced world we are all feeling a time crunch. With conflicting priorities, it can be difficult to sort between your current tasks and know what you can push aside. Too often, one thing that gets pushed aside is professional development. Most provincial regulators require medical laboratory technologists (MLTs) to complete a certain amount of mandatory continuing education each year in order to maintain competence. This makes setting and reaching professional development goals a high priority.

Your personal professional development plan should indicate the learning you need to accomplish and improve your practice as a medical laboratory professional as well as any goals you will need to achieve to further your career.

To be successful in any career it's imperative to set goals, make a plan and schedule a timeline to achieve them. This plan should be visual and tangible; one you can see and make changes to regularly. Goal setting will allow you to know if you are succeeding. Did you achieve your goal in the time you intended? If yes, great work! Set some new goals and reach those too. If not, don't panic. Look at your goal and the obstacle(s) standing in the way. Find a way to overcome the obstacle and move on.

Not sure where to start? Here are some rules of goal setting:

1. SET GOALS THAT MOTIVATE YOU

If you're not interested in the goal, it is less likely you will find the time or put in the work required to accomplish it. Write down why it's important to you and remind yourself about it when you start to push it aside. It could be as simple as "I need to finish this course to keep my license." It's amazing how motivating your paycheque can be.

2. SET SMART GOALS

This is likely something you have already heard of. For goals to be valuable they should be designed with the acronym SMART in mind.

- Specific: Clear and well defined. What is it and how will you get there?
- Measurable: A certificate or precise change in behaviour or something that shows you have succeeded.
- Attainable: Not too easy, not too hard. Keep in mind work and other commitments and set a realistic time to get there.
- Relevant: Stick to your focus. Want to move up in the lab? What do you need to get there?
- Time bound: Set a deadline. If there is no particular date set, you will continue to find excuses and put other things ahead of it.

3. WRITE THEM DOWN

Write them somewhere visible that you will see often. Make them tangible; maybe even get creative with a vision board.

4. MAKE AN ACTION PLAN

Now that you have figured out your goals, you will need to figure out the exact steps to get you there. There will likely be a few steps needed to get from start to finish so write them down and do them. Cross them out as you accomplish each one.

5. DON'T GIVE UP!

Revisit your goals and action plan often. Make adjustments to keep yourself on track. Life happens and things change. It's okay to shift your plan as you go, just make sure you're not making adjustments because you just didn't "get around to it". Maybe your plan needs a few more steps than you first realized. Make the necessary adjustments and stick with it.

If you are in a regulated province, make sure you are following the rules and expectations set out by your college when setting your learning goals and plans.

With a little planning, your professional success is within reach. Remember to keep your goals attainable and to revisit your progress regularly.

Learn about professional development across the country at csmls.org in "Resources and Policies" under the Professional Development tab.

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MICHELE PERRY
Manager, Learning Services
CSMLS

PART 4 OF 4

CLIMATE CHANGE

Drivers of higher professional standards in Canada

This article is the fourth in a four-part series examining the possible drivers setting the standards higher for both the current workforce and the students representing our future.

Part 4: Changes in the Workforce

Conceptualizing change at the macro level can be harder to understand when one is consistently trained and engaged in work that literally involves the microscopic level. However, as Canada formulates its next phase in health care and innovation, the relationship between these polar ends contribute to the description of change in the medical laboratory profession (MLP).

It is known that cultural change for a workforce is possible and it can strengthen the group, but such shifts seldom occur in a manner that is isolated or expedited. Generally, the change is driven by leadership over time, through mechanisms such as government legislating new laws and regulations and hospital administrators implementing new policies. As recognized by the Advisory Panel on Healthcare Innovation, many of these efforts fail to impact the population if considered in isolation.[1] Supportive parallel influences need to be in place for culture change activation on a large scale[2], such as the workforce's degree of engagement, the alignment of value-based systems, policy changes and the collective desire for change.

Desire for Change

There is a "volume-to-value transformation" already occurring which stands on the belief that workforce culture is related to organizational performance. It has been described as a "move away from a supply-driven health care system organized around what physicians do and toward a patient-centred system organized around what patients need. We must shift the focus from the volume and profitability of services provided – physician visits, hospitalizations, procedures and tests – to the

patient outcomes achieved."[3] This is driven by experts and health professionals who demand a comprehensive, strategically focused approach to monitoring the quality of health care work environments. For example, employee performance is not entirely emphasized in terms of fiscal gains now.[4] "[The] new approach reverses traditional roles. Instead of asking clinical programs to support the financial foundation of the organization, we ask how finance can support patient care,"[5] according to Meryl Moss, the Chief Operating Officer for Coastal Medical, an accountable care organization (ACO)in Rhode Island, which ranks third in the nation for quality among 333 Medicare Shared Savings ACOs. For Canada, this is a big step beyond workplace health promotion programs, and a signal that the workforce requires change.[6] By creating a culture change that promotes a bi-directional system of benefit, one that empowers its employees while supporting patient needs, a workforce will naturally work to its fullest capabilities.

"[The] new approach reverses traditional roles. Instead of asking clinical programs to support the financial foundation of the organization, we ask how finance can support patient care."

– *Meryl Moss, Chief Operating Officer for Coastal Medical*

Workforce Change Initiatives

Considering Canada has a complex governance system for health care, it means that innovations in care are simultaneously occurring at multiple levels such as provincially, regionally and locally. The embedded challenge is the coordination of how health care decision- and policy-makers can share their innovations and scale up successful approaches far and wide.[7] There are various initiatives that have and continue to prove they can improve our professional standards as a workforce and are in line with our values, both professionally and personally. Quality-based projects are derived from evidence built on research, providing legitimacy to a workforce who respects such informed action.[8] The following examples describe some of these standard expanding initiatives for the medical laboratory profession, in alignment with other health professions.

Example 1: Greater Interconnectivity

Approximately a decade ago, the Health Council of Canada identified improving teamwork as a critical component in accelerating system change[9] and improving human resource management.[10] Research has shown that interprofessional care teams are integral in the creation and sustainment of a strong care system. In turn, this contributes to a well-functioning health system, improved population health, and increased health equity.[11] Interprofessional activities and multidisciplinary teams have become a staple in care models as demonstrated by the creation of interprofessional competencies[12] and integration into academic health science curricula.[13] Teams are increasingly asking for medical laboratory professionals to join the clinical discussions.[14] For instance, at the Mayo Clinic, medical laboratory technicians[15] are a vital component of the electronic sepsis alert multi-response team, which includes physicians, nurses, respiratory therapists and pharmacists as well.[16] Another example where medical laboratory professionals will increase their presence in the future is within multidisciplinary case conferences. The European Partnership for Action Against Cancer released a policy statement on multidisciplinary cancer care that stated, "The confirmation of a cancer diagnosis should prompt the initiation of multidisciplinary team (MDT) monitoring, including all the diagnostic and therapeutic specialties involved in the care process."[17] It can be argued that specialized medical laboratory professions should be included in such a list, given their status as information custodians that support decision making. As precision medicine, preventive screen testing and the sheer number and complexity of diagnostic tests grow, the MLP will have a greater stake in disseminating its knowledge directly and advising on testing requirement to ensure patients receive the best care possible. This current and future culture change creates a supportive environment which nurtures increasing the boundaries of our past professional care standard.[18]

Example 2: Changing Values

The value system within our health workforce is changing, in part, due to increasing multiculturalism extending beyond main urban cores. On July 1, 2016, Canada's population was estimated at 36,286,425, up 437,815 (+1.2%) in the past year (2015/2016). At that time, Statistics Canada recorded that this was the first time in history that the net international migration was highest (+313,925) since initial tracking in 1971.[19] The influx of immigrants over time has brought a vast amount of knowledge and a different view of the health care realm, from both patient and provider perspectives. Many of these individuals come to the country to fill health human resource shortages[20] and have been directly or indirectly sponsored by the launch of the Internationally Trained Workers Initiative started by the Government of Canada in 2005.[21] Many programs have been designed[22] to support the integration of these individuals into the workforce and community as it has been identified as a key factor in workplace success.[23]

With the multicultural transformation of the health workforce, there is also a more culturally diverse patient population. All health professionals, whether frequently client-facing or not, should be accustomed to providing care to patients from different backgrounds. The Canadian Medical Protective Association defines cultural competence as incorporating, "a mix of beliefs and behaviours that define the values of communities and social groups."[24]

Professionals are increasingly aware of the way in which culture can shape the practice of health care and influence health outcomes.

Such conviction is based on evidence that has found that when patients who are treated by health professionals with similar cultural backgrounds, the resulting interactions lead to better understanding and improved outcomes.

"To deliver person- and family-centred care, future health care professionals will require an unprecedented level of competency, understanding and sensitivity to the diverse populations they serve," says Heather Young, associate vice chancellor for nursing and founding dean of the Betty Irene Moore School of Nursing.[25] Not only is there a direct change across time in the diversity of value systems but these types of policies can strengthen a workforce indirectly through emphasizing and instilling values of inclusiveness. It has been found that a leader's level of inclusiveness can predict its employee's feelings of psychological safety. From this, psychological safety can predict engagement in quality improvement work.[26]

Example 3: Proactive Change

Population health strategies focus on a preventive approach to primary care to support the aging population and teach the younger generation to strive for their best health. Our traditional health system model has been reactive, based on the acute care paradigm in which the focus is to address urgent issues and manage chronic illnesses.[27] In 2015, estimates showed that Canada, for the first time, had more people 65 years or older than children between newborn to 14 years old.[28] The increase in baby boomers using the health system has shifted the focus for the health system to be proactive in managing care in order to ensure acute settings will be able to handle the influx of future patients as well as to prolong their good health as long as possible. Due to this, more patients are treated in outpatient and ambulatory settings than ever before as more visits are focusing on screening and preventive care. Alongside of this, there is greater priority placed on training the workforce to provide health promotion and prevention services.[29]

This change in policy can affect workforce standards through its ability to condition a profession to think and act proactively, which can subtly start to transfer beyond initial initiative intent. Proactive behaviour in the work environment involves self-initiated, anticipatory action aimed at change.[30] Research has shown that proactive employees may redefine organization goals to come up with more challenging ones[31] and that they may actively influence socialization processes in order to improve the quality of work life.[32]

Engagement

The proverb, *"You can lead a horse to water, but you can't make it drink,"* has great meaning in regards to workforce engagement. Health professionals such as physicians, nurses[33] and medical laboratory professionals (as shown in this article series) are working at top levels within their scopes of practice to accommodate patient and system demands. It is understood that these and other health professions are at a critical threshold for their ability to provide more and greater care when resources, time and mental stamina is stretched thin. Why, then, are health professionals such as medical laboratory professionals deeply engaged in continuing to do more?

Why do you stay late to finish a diagnostic test instead of handing it over to the next staff member? Why do you remember the names of patients from test tubes, even when you have never met them? Why do you care about the results of a person you draw blood from each month?

There is a collective psychological shift in the health care system as initiatives for a greater patient-centred system remind us why we entered the health field in the first place.[34] The current understanding of this patient focus deals with their experience as well as the quality and security of their health information.[35] This is not to presume that health professionals forgot along the way; rather, it is merely a mechanism to realign our focus to the most important concept as a nation. It is a powerful force to engage health professionals to work toward a common goal. Research has shown that such engagement can lead to improvements such as increased motivation, achievements and personal satisfaction in the workplace.[36]

In a recent Gallup poll, organizations with a high level of engagement reported 22% higher productivity from employees (a meta-analysis of 1.4 million employees). Jim Harter PhD, a chief scientist at Gallup Research explains, "Engaged employees are more attentive and vigilant. They look out for the needs of their coworkers and the overall enterprise, because they personally 'own' the result of their work and that of the organization."[37] It is this personalization that acts as a parallel influencer to the policies being implemented across Canada.

Conclusion

Whether we consider the changes in workforce, the profession, the education system, or the professionals themselves, what is clear is that medical laboratory professionals have sharpened their awareness of the driving change factors and taken hold of embracing these to improve and expand their professional standards.

The MLP is working collectively (even when unintentionally) toward new frontiers, exploring roles in big data, as information agents, overcoming technological advances and working toward a better integrated care setting that fosters a work-life balance. It doesn't matter whether the professional has just completed their certification exam, is minutes away from retirement or is somewhere in between. The profession, as it stands today, holds its head high and demonstrates the large steps it has taken to expand and rejuvenate its scopes of practice at the highest level of achievement to date.

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Researcher, CSMLS

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PERSPECTIVES

The Perspectives section of the *Canadian Journal of Medical Laboratory Science (CJMLS)* seeks to provide thoughts, insights, and opinions from individuals with different points of views. We hope that as this section evolves, it allows us to present a broader array of topics that reflect the varied careers and experiences of our members. If you are interested in contributing to the Perspectives section, email us at editor@csmls.org.

A CAREER PERSPECTIVE

Leaping into Leadership

What is leadership? Leadership is about working toward a vision and bringing together the skills needed to deliver it. An effective leader is someone who creates the vision for the future, motivates others to share that vision, and provides information and methods to effectively achieve the vision.

Renee Giroux, Manager of Histology and Cytology at Grand River Hospital, gave a presentation on leadership at a recent CSMLS Dinner & Dialogue. Based on her presentation, we've gathered some of her thoughts on what to expect if you're thinking about moving into a leadership role.

Giroux's journey began in 2013 when she took the leap into leadership. She took a fearful step out of the union and never looked back as she became a supervisor where she managed five rural hospitals and supported four other rural hospital labs. In July 2016, she began a new position at Grand River Hospital managing the Histology and Cytology department. Her experience of being managed by various types of leaders was a learning experience. She was able to work with leaders who were exceptional and whom she wanted to model her behaviours around. There were others who were less inspirational but she saw as an opportunity to learn from them as well.

"I consider myself to be the type of leader who focuses on facilitating conversations," says Giroux. "I manage by common sense and I believe that I have common sense when it comes to decision-making. If it feels right for the department, then why not? If operationally we can support it then why wouldn't we do it… and that's kind of my style."

Stepping into a leadership role is often one of the most challenging career moves you will make. In her presentation, Giroux addresses three important things to consider if you're thinking about taking that leap into leadership. Ask yourself these questions:

Am I capable of being a leader?

"Not everyone should be a leader," says Giroux. Leadership isn't for everyone, so when you are in the process of making the decision to step into a leadership role, make sure it's right for you. Are you able to handle leading a team or department? Are you ready to take on the responsibility? "Sometimes there are expectations put on individuals that they should 'step up', however it might not be the right fit for them," she adds.

What do I have to do to get there?

Often, doing well in your initial job can pave the path for a successful career in leadership. Sometimes people feel a sense of entitlement and believe that their years of work are what will land them the job. However, seniority does not imply that you are next in line for that promotion. The best way to ensure you get an opportunity to lead is to go above and beyond in your current position.

How will I know what I'm doing?

There is no manual on leadership. Leadership cannot be taught – it comes from within but can always be improved. "When I first accepted my supervisor position, I was coming from a department where we had training documents but when I first became a supervisor I thought, '"Now what?"' says Giroux. "You really learn a lot the hard way; there is no training manual."

Starting out in any new role can be a little scary and you'll likely come across unfamiliar challenges. In order to succeed as a leader, you will need to mentally make the shift. Recognize that you are in a different role and the expectations of you and the results you deliver will differ from your last position. A few of those "not-so-fun" duties you'll come across in leadership are:

Set Clear Expectations

You may be walking into a leadership position in a place where you may have already made longstanding and strong relationships. However, as a new manager, the expectations are different and you need to set boundaries. To ensure you are taken seriously as a leader, it is important to set clear expectations and hold staff accountable to those expectations. Your staff is watching, so set the standards and then follow them yourself as well.

Facilitate Fierce and Honest Conversations

As a leader you will be expected to successfully engage in open and ongoing communication with your team. You'll need to be able to take individuals aside to discuss their performance and have those honest and difficult conversations. "These are kind of the ugly sides in leadership," says Giroux. "Nobody likes to do it, but it has to be done."

Schedule Follow-ups with your Staff

You are now in a role that gives you responsibility to assess the performance of those within your team and give valuable input into their work life. Try to set regular follow-up meetings with your staff and deliver a progress report. Find out what you can do as a leader to help support them in their work life.

Transitioning into a leadership role for the first time, doesn't need to be hard. Just remember, you cannot make 100% of people happy 100% of the time. "I, myself, am a people pleaser," says Giroux. But exceptional communication is key and is an important skill every leader must have.

Recognize your own personal strengths but also, surround yourself with others that are strong where you are weak. "I tend to glom onto someone in a leadership position that I feel I can learn from," says Giroux. "It's good to get that support, mentorship and feedback – whether it's from those who report to you or your own manager."

Believe in yourself and your ability to handle each bump in the road. With each challenge, comes reward.

ASHLEY REGO
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A SAFETY PERSPECTIVE

Housekeeping – Not Just in our Homes

"A place for everything, everything in its place."- Benjamin Franklin

Housekeeping is often under-acknowledged as an activity that is important in our workplaces. There are numerous benefits to housekeeping that include injury prevention, increased productivity and improved morale. While housekeeping can be considered part of our daily routines, providing some structure to the activity leads to greater consistency. Everyone in the organization will benefit from participating in housekeeping activities and this will lead to opportunities for further improvements, over and above those related to safety.

Recognize the value of housekeeping

Our workplaces contain many hazards that we face on a daily basis. In a laboratory setting, we often pay particular attention to the "high hazard" items such as biological and chemical hazards, as well as flammable materials. We must remember to pay attention to other workplace hazards and use a good housekeeping program to help us minimize the number of injuries and illnesses. For example, it is known that slips, trips and falls are the second leading cause of non-fatal, lost-time injuries (United States Bureau of Labor Statistics). That statistic highlights the need for us to maintain a positive culture around the value of housekeeping. We often feel emotional distress when our colleagues become ill or injured during the course of work. There can be other costs including hiring and training temporary workers and the burden this causes on other team members.

When we feel good about our workplaces, we tend to perform better. This boost in happiness leads to benefits for us all, including the organization and the clients we serve. Well-kept workplaces create a sense of well-being, satisfaction and pride for us that should not be underestimated. On the flip side, the sight of overflowing waste containers sends a poor message about our workplace behaviour. If these practices are accepted as normal, then there is a risk of allowing more serious workplace hazards to develop.

Identify target areas in need of housekeeping

There are many areas that are worthy of attention as part of a housekeeping program.

- Laboratories, administrative areas, filing areas, lunch rooms and personal lockers
- Spill spots – prepare for spills at laboratory sinks, ice machines, water stations and washrooms
- Histology areas – increase traction where wax is used and prevent wax accumulation
- Exits and equipment – protect access to stairs, aisles, emergency exits, emergency eyewashes and showers, first aid kits, and fire extinguishers
- Blind spots – prevent collisions by installing mirrors or signage
- Movement issues – use a suitable cart and take elevators instead of stairs
- Storage areas – place heavy items at lower shelves and within easy reach
- Waste areas – provide sufficient waste containers or empty them more frequently
- Step stools – ensure these are available, appropriate and well maintained
- Fire sprinklers – ensure items on higher shelves allow for one metre/three feet clearance
- Electrical use – determine electrical needs, especially when purchasing or moving equipment

Make a simple plan so that housekeeping becomes a daily routine

It's important to ensure housekeeping becomes a daily routine. Housekeeping is best performed during the shift, as well as at the end of the day. Always ensure non-laboratory cleaning staff are not exposed to hazardous materials and never involved in cleaning contaminated surfaces or laboratory spills. A review of a housekeeping program might start with casual conversations and informal idea-gathering. It's always useful to involve coworkers with a keen eye for safety. These steps can be followed up with a request to management for support to formally conduct brainstorming sessions, workplace tours and review of incident trends. It helps to gather as much information from representative workers so that everybody feels involved. We are the best resource to identify greatest opportunities or "problem areas" and come up with practical solutions.

Reflect on the plan so any new housekeeping activities do not introduce new hazards into the workplace. For example, instead of increasing the number of waste containers (and perhaps clutter), consider more frequent removal of the waste. A well-developed housekeeping program will also help identify the most important issues to address in a formal inspection program. This link between the two programs will help reinforce the value of the housekeeping program.

We all want to enjoy the work we do and that requires a commitment – including that from our management – to see housekeeping as a part of daily routines that is worth the time and effort.

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SCIENTIFIC SECTION

Case Report: Impact of Mass Forest Fire Evacuation of Fort McMurray on Quality of Stored Red Blood Cell Concentrates

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ABSTRACT

On May 3, 2016, the City of Fort McMurray, Alberta ordered the evacuation of 80,000 people due to the threats from a large-scale forest fire. During the evacuation of the regional hospital, red cell concentrates (RCCs) were transported with critically ill patients to a remote field hospital site or retained at the evacuated blood bank. As there was concern over the impact of extended shipping times, transport delays and exposure to environmental contaminants present in both facilities, 12 units were put in quarantine pending the non-destructive testing of the products. RCCs were quality tested at day 14 or 28. Two units had hemolysis levels greater than the current Canadian Standards Association standard of <0.8% and an additional five units had hemolysis levels at the time of testing that were greater than historic data. While the cause of elevated levels of hemolysis were not identified, it was clear from this study that temperature excursions were not responsible. During a mass evacuation of a health care facility, where blood products may need to be transported with patients, having a robust system to evaluate the impact that deviations from normal practices may have on the quality of the products needs to be considered.
Keywords: hemolysis, product quality, non-destructive testing

CASE PRESENTATION

On Tuesday, May 3, 2016, the City of Fort McMurray, Alberta, ordered the evacuation of 80,000 people from the community due to the threats from a large-scale forest fire (Figure 1). This massive forest fire consumed 589,552 hectares (1.45 million acres) of forest and was not brought under control until July 5, 2016.[1] Ten units of group O Rh negative RCC units were transferred at 1715h to a field hospital (Figure 2) at the Firebag facility on the Suncor Energy site located 118 km north of the Northern Lights Regional Health Centre (NLRHC, Fort McMurray, AB). These units were transferred by ambulance when the hospital patients were evacuated and were packed in blood shipping containers according to standard operating procedure for packing blood for referral with

FIGURE 1
Massive forest fire forced evacuation of the City of Fort McMurray including the Northern Lights Regional Health Centre.
(Photo credit: CTV Edmonton)

FIGURE 2
The underground remote field hospital where RCCs were sent to help support the evacuated patients from the Northern Lights Regional Health Centre. (Photo credit: David Matear)

critical patients. Although the drive to the Firebag site normally takes one hour, 40 minutes it took more than six hours on this day. Within 36 hours, these units were transferred to a consumer-grade refrigerator with regular four-hour temperature monitoring and examination of the Safe-T-Vue® 10 temperature indicator devices (William Laboratories, Morris Plains, NJ) which had been applied when the units were initially received into the hospital inventory. Due to heavy smoke and an Air Quality Health Index (www.ec.gc.ca/cas-aqhi) of 10+ (extreme), the field hospital was closed on May 7 and the RCCs were subsequently returned to the NLRHC. On May 13, due to the fact that a national shortage of group O RCC had been declared on May 6, a decision was made to redistribute 8 of the 10 units which were still in date, as well as four units of O positive RCC that had remained at the evacuated NLRHC in a blood bank refrigerator. These 12 units were sent to the University of Alberta Hospital in Edmonton. This transport included three boxes packed using a validated configuration for unit redistribution and a standard laboratory courier with a transport time of four hours, 30 minutes. Cold chain was maintained on each of the 12 units as evidenced by data logger temperature devices (TRIX-8, LogTag Recorders, Auckland, New Zealand) and Safe-T-Vue® temperature indicators stuck to each RCC unit. As there was concern over the impact of exposure to the significant environmental contaminants present in both facilities and the extended shipping times, all 12 units received were put in quarantine until quality assurance testing could be completed.

Ten units were sterilely sampled (Figure 3) by University Hospital blood bank staff to remove a representative sample for red cell quality testing at Canadian Blood Services (CBS) Centre for Innovation. The tubing line attached to the product bag was stripped, the unit

FIGURE 3
Non-destructive sampling from the units evacuated from the Fort McMurray forest fire.

TABLE 1
In vitro quality characteristics of red cell concentrates evacuated from hospital

Storage Site	Manufacturing Method	Unit Age at Testing (d)	Unit Volume (mL)
Firebag Field Hospital	Top / Bottom (RCF; n=3)	14 ± 1 (14, 15)	282 ± 16 (267, 299)
	Top / Top (WBF; n=5)	14 ± 1 (14, 15)‡	318 ± 28 (278, 353)
Northern Lights Regional Health Centre	Top / Bottom (RCF; n=2)*	28 ± 0 (28, 28)†	279 ± 11 (271, 287)
	Top / Top (WBF; n=2)*	27 ± 0 (27, 27)	319 ± 23 (303, 335)

was mixed by gentle massage and unit inversion and the line was re-filled with mixed product prior to sterile docking (Terumo TSCD II, Model ME*SC203A, TerumoBCT, Lakewood, CO) to a 150 mL transfer pack (R4R2001, Fenwal Inc., Lake Zurich, IL). The transfer pack was placed on a scale (Scout Pro SP2001, Ohaus Corporation, Pine Brook, NJ) and 11.4-25.6 g (10.8-24.2 mL) of RCC product was transferred before the tubing was clamped, sterilely sealed (Sebra Smart Sealer II, Model 2500, Sartorius Canada Inc., Mississauga, ON) and the transfer pack removed from the red cell product bag. Two additional RCC units (as noted in Table 1) had been sent for testing; however, just prior to sampling one unit was flagged by the Safe-T-Vue®, indicating it had been above 10 °C (Safe-T-Vue®). The second unit had a sterility breach with minimal volume loss during sampling. While both units were immediately discarded, data from both of these units is included (Table 1).

Transfer packs were sampled using sampling site couplers (Fenwal, R4R1401), needles (BD Eclipse Needle, 305766, BD, Franklin Lakes, NJ) and syringes (BD 10 mL syringe, 309604). Units were either 14-15 d or 27-28 d when samples were tested for hemolysis, hematocrit, hemoglobin, extracellular potassium, 2,3 DPG, methemoglobin, deoxyhemoglobin, and red cell indices. p50 analysis was performed on the units when they were 21-22d, or 34-35 d old. All methods used for quality testing have been previously reported.[2,3] Data were compared to historic Canadian Blood Services' Quality Monitoring Program (QMP) data on units manufactured using the same methods and stored for the same duration as the tested units.

The characteristics of the eight O negative units that were evacuated to the Firebag facility and tested at 14-15 d of storage, and the four O positive units that were 27-28 d old and shipped from the evacuated NLRHC facility to Edmonton are shown in Table 1. Of the 12 units tested, two (17%) had hemolysis levels greater than the current Canadian standard[4] of <0.8% and an additional five units (42%) had hemolysis levels at the time of testing that were greater than historic QMP control data medians [0.20% for Top/Bottom units (n=15,118) and 0.30% for Top/Top units (n=13,109) at expiry].[5] Potassium, 2,3-diphosphoglycerate (2,3-DPG) and methemoglobin levels were significantly elevated from historic QMP control data; however as a higher 2,3-DPG level is preferred, this parameter was not negatively affected by the evacuation. Due to a concern over the elevated levels of hemolysis in the products, the units were held in quarantine until expiry in the event that a local shortage required their use and then discarded.

DISCUSSION AND CONCLUSIONS

While the response of blood banks to disasters has been extensively reported,[6,7] there is limited data on the impact of evacuation of blood products from natural disaster areas on the resulting blood product quality. Here we report that although the visual inspection and

	Hematocrit (L/L)	Unit Hemoglobin (g/unit)	Hemolysis (%)	Extracellular K + (mmol/L)	2,3 DPG (µmol / g Hb)	MetHb (%)	DeoxyHb (%)	p50 (mm Hg)
	60 ± 2 (58, 62)	54 ± 6 (48, 60)	**0.19 ± 0.04 (0.15, 0.23)**	27.6 ± 3.4 (24.3, 31.1)	1.34 ± 0.62 (0.76, 2.00)	**1.9 ± 0.5 (1.5, 2.5)**	4.8 ± 1.2 (3.9 - 6.1)	
	62 ± 3 (58, 66)	62 ± 9 (51, 73)	0.55 ± 0.39[§] (0.27, 1.20)	**30.1 ± 2.6 (26.7, 33.3)**	**2.23 ± 1.37 (1.05, 4.21)**	**2.5 ± 1.0 (1.1, 3.5)**	5.0 ± 1.1 (3.9, 6.5)	18.48 ± 2.09[‡,¥] (17.00, 19.95)
	61 ± 3 (59, 63)	54 ±3 (52, 57)	**0.36 ± 0.25 (0.18, 0.54)**	37.1 ± 2.3 (35.4, 38.7)	0.05 ± 0.08 (0.00, 0.11)	2.6 ± 0.7 (2.1, 3.0)	4.7 ± 2.6 (2.9, 6.6)	17.76[€]
	60 ± 3 (58, 62)	62 ± 9 (56, 69)	0.62 ± 0.45[§] (0.30, 0.93)	37.6 ± 1.3 (36.6, 38.5)	0.02 ± 0.03 (0.00, 0.04)	**3.7 ± 0.5 (3.3, 4.0)**	3.2 ± 0.1 (3.1, 3.2)	17.44[€]

Table shows mean values ± standard deviation with minimum and maximum values shown in parentheses. Data that are statistically different than historic Quality Monitoring Program data (p←0.05) are indicated in bold. RCF = red cell leukoreduction filtration; WBF = whole blood leukoreduction filtration.

* Units were transported from Northern Lights Region Health Centre directly to Edmonton; [†]One sample taken from full unit; unit was rejected as temperature deviated out of normal range; [‡]One sample taken from full unit; unit was rejected due to sterility breach during aliquot removal; [§]One unit had hemolysis result greater than the 0.80% standard; [¥]Two samples were tested; testing was done on day 21 or 22 post-collection; [€]A single sample was tested; testing was done on day 34 or 35 post-collection

cold chain, as evidenced by temperature loggers during transport, refrigerator monitors and individual Safe-T-Vue® tags on each unit, was maintained for all of the units, subsequent testing showed that the majority of the units (7/12; 58%) had elevated levels of hemolysis at d 14 or d 28 of testing.

As emphasized in standards and regulations, the maintenance of RCC temperature is considered one of the most critical steps that can be taken to assure blood component quality. However, as evidenced by the results of this study, temperature cannot be the only factor that needs to be considered when evaluating whether products are suitable for transfusion. In this scenario the RCCs were exposed to numerous packing and re-packing events, shipment over long distances using a variety of carriers, and exposure to significant levels of environmental contaminants which warranted a more careful look at product quality. While we cannot definitively conclude what may have caused the elevated levels of hemolysis, it was clear from this study that temperature excursions were not responsible.

In the event that blood products undergo deviations from normal procedures or practices during their manufacturing, storage or distribution, the ability to perform aseptic sampling and testing to evaluate product in vitro quality characteristics may help in the determining whether the products are suitable for transfusion. Having established acceptance criteria for each product characteristic can aid in determining whether the measured product characteristics are within normal ranges or may have been adversely affected by process deviations that can occur during a facility's response to disaster or through the course of normal operations. In this case, our ability to compare the results of the non-destructive testing to an extensive product quality data set available at Canadian Blood Services helped in making an evidence-based decision on the safety of the implicated blood components.

During a mass evacuation of a health care facility, where blood products may need to be transported with patients, having a robust system to evaluate the impact that deviations from normal practices may have on the quality of the products needs to be considered. Non-destructive sampling of RCCs provides a very important tool to provide clinicians with product-specific data on the safety of the product for transfusion.

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Running Head: Fire Evacuation and RCC Quality

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Patient Portals in an Information Demanding Society

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Canada Health Infoway defines the electronic health record (EHR) as a "secure, integrated collection of a person's encounters with the health care system; it provides a comprehensive digital view of a patient's health history."[1] The use of EHR has steadily increased across Canada with coding of information occurring at hospitals, clinics, palliative centres and other health facilities by trained and authorized personnel. Put forth by Infoway, the organization has a mandate to ensure all Canadians' laboratory test results are coded and stored in information repositories and available for health care professionals. As of 2014, an outstanding 81% of Canadians had their laboratory information captured within a laboratory information system (LIS).[2] This has come a long way considering the first commercial LIS was only introduced into North America in the 1980s by clinical analyzer manufacturers.

The rise of LIS integrated EHRs has demonstrated its benefit in various ways, including the ability to decrease informational gaps as patients transfer between medical facilities such as hospitals, family physicians' offices and long-term care. The aggregated system also provides greater monitoring capabilities for history and treatment information in chronic disease cases and timely access to more complete data sets that improve decision making capabilities.[3,4] In a study conducted by the University of Toronto, nine physician-based clinical practices were followed to examine electronic report usage and identify any benefits. It was found that electronic reporting systems had the least number of steps between ordering a lab test to reviewing the final report when compared to paper-based process flows. In fact, when compared to paper, the time to sort, archive and retrieve an electronic lab report was 87% faster and 50% faster for scanned results. Depth of review was also examined and it was found that electronic and scan-based clinical practices reviewed 31% more lab reports than those with only paper reports.[5] These significant numbers help promote change from traditional paper-based practices to the modern online patient record.

One of the greatest impacts LIS integrated EHRs have on lab staff is the ability to reduce resources and costs by identifying patterns in duplication of tests and recognition of unnecessary tests. For example, it is estimated that for every 1,000 lab tests, there are 150 duplicate tests performed. Although some of this is required for emergency care or confirmation testing, duplication also occurs due to lack of accessible information. It has been calculated that if there was a reduction of 2-3% in duplicate tests, this could result in approximately 1.3 million fewer unnecessary tests being completed.[6]

Another important area of impact on laboratories is the extension of EHRs to patient portals. A patient portal is a "controlled and secure computerized pathway between a patient (wherever the patient is located) and the personal health information (PHI) about the patient, which is held by health information custodians, stewards or trustees. The goal is to actively engage patients in awareness and self-management, and to improve care coordination. For patients, a portal has the potential to act as the cornerstone for monitoring and evaluating their health status."[7] As the health care system absorbs EHR as the norm, it naturally builds the infrastructure for patients to access their full or partial medical records. Given that "patient consumerism continues to raise demand for transparency and timely delivery of health care, more self-care options, and alternative service delivery options"[8], patients are adding pressure

directly and indirectly for this movement. As an example of their desire to obtain information independently, one study found that only 11% of patients reported primary care physician was their first line of information seeking, while a noteworthy 49% used the internet.[9]

Canada will continue to move toward greater patient portal adoption in line with the international stage.[10] In early 2014, the US Department of Health and Human Services (HHS) issued patients the ability to have direct access to their laboratory results instead of retrieving the information from the doctor's office.[11] "The right to access personal health information is a cornerstone of the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule… Information like lab results can empower patients to track their health progress, make decisions with their health care professionals, and adhere to important treatment plans"[12] described the HHS Secretary Kathleen Sebelius.

The patient portal movement has been spurred by arguments such as the information savvy patient who represents a well-informed consumer and seeks better medical attention through knowledge and ability to discern quality facilities / professionals. It suggests that, ultimately, this will provide health professionals with the incentive to produce better services in order to maintain a full practice. In addition, supporters also propel forward potential increased compliance of patients for test and treatment completion and/or medication consumption in accordance with instructions.[13] Patient portals are "increasingly being deployed with the underlying belief that they will empower patients and improve health outcomes."[14]

Despite the suggestive evidence supporting the ability of portals to deliver care, improve outcomes and increase patient and clinician satisfaction, contradictory appeals have been made.[15] For example, some patients prefer to seek medical guidance through direct communication from doctors, nurses, and hospital staff rather than the internet.[16] In another study, patients were identified as passive health care consumers of physician services. The authors highlighted the importance of decision support tools in consumer-driven health care systems to support the patient's ability to learn to be active consumers in this respect.[17] Sofaer and Gruman (2003) argued that the conditions under which patients can significantly affect their own health are unlikely to be met.[18] From a different perspective showing caution when using portals, research has demonstrated that physicians with more consumerist patients are substantially less likely to believe that they can deliver high-quality care.

Given that there is an unlimited number of health care delivery models and multiple differences between portal platforms, provider endorsements of portals vary. These inconsistencies can affect the patient's ability to engage in portal usage and/or use the portal as intended and to its full capacity.[19] This variability likely accounts for some of the negative study results arguing for caution in portal usage.

The Canadian Society for Medical Laboratory Science (CSMLS) supports the use of online health information portals for providing laboratory testing results and relevant information to patients and care givers. It is the expectation that a portal should allow users to be engaged and active participants in health care matters, promote health literacy, increase transparency of the medical health record for the individual, as well as support new access to care models.

View and download the full position statement "Patient Portals for Laboratory Based Health Information" at csmls.org under the About Us tab.

Overall, there is little evidence indicating that personal health record access supports improvement of patient empowerment or improves health outcomes according to recent systematic reviews, but researchers have noted possible increases in treatment compliance and patient perception of control with portal use.[20] In Canada, patient portal usage is relatively new and there is even less supporting evidence based material to demonstrate widespread effectiveness and benefit. Nonetheless, positive results have been identified and it is important to recognize the potential for this. In an integrated health care organization, it was demonstrated that a large percentage of patient portal users accessing laboratory results experienced primarily positive feelings when viewing these results online.[21] What the lack of evidence derived to date speaks to, is the required mindfulness needed when contemplating the creation of a portal and the critical eye in developing, implementing, monitoring and sustaining patient portals. As one meta-analysis suggests, the direction of future research on patient portals should focus on identifying specific populations and understanding contextual considerations to target populations that would benefit the most from usage.

There is a common understanding that positive results of patient portals are limited, but important, and here are some examples that are of interest to the laboratory community:

- **Financial Case:** Patient portals have the potential to significantly decrease costs when adopted. For example, a minimum of 63 cents can be saved every time we do not mail a lab result (HealthPartners). It is possible to recoup $17 every time a

billing query is made online rather than by phone and $7 for online scheduled appointments (Northshore University Health System).[22]

- **Health Impact:** Diabetic patients using an online patient portal accessed appropriate education material, laboratory results and a messaging system to communicate with diabetologist and other staff. A higher proportion of users achieved, when compared to non-users, a reduction of A1C by ≤7% at follow up (56% vs. 32%; p=0.031), resulting in improved glycemic control.[23]
- **Abnormal Results:** Health care Professional Stakeholders: Researchers conducted structured telephone interviews with 13 patients and primary caregivers to understand patient experiences accessing abnormal test results of all kinds through a portal system. There was strong favouritism toward having access to abnormal test results but general concern for timely notification and ability to interpret and understand relevance of the result.[24]
- **Portal Usage:** In a group of oncology patients, participants' most common lab-related portal actions were viewing lab test results (37%), viewing and responding to clinic messages (29%) and sending communications for medical advice (6.4%). Although results can vary between studies, the current research found significant association with portal usage for younger adults, Caucasians and patients with specific malignant diseases. Similar results have been found in other studies.[25] Patients used the portal approximately a third of the time to log-in and make medical advice requests outside clinic hours.[26]

As we dive into the next phase of EHR and embrace patient portals, medical laboratory professionals have a blossoming transformative role as informational leaders for patients (and professionals) in the dissemination of diagnostic and treatment testing information and ensuring comprehension. The complexity of patient care; increased demands on the health care system; and the sheer dramatic increase in the number and complexity of tests will pressure the communication of test results to occur within the patient experience rather than through a third-party health care professional. The patient portal is one way that will shift the profession in this regard. As we move forward, let us remember a few important points:

- Patient portals have the potential to create positive and widespread change for patients and health care professionals. The medical laboratory community should be involved in spearheading this movement given the potential professional role that can be played.
- Intuitively positive concepts associated with portal creation and usage must be validated and monitored for true and proven impact. Use and validate portals under the guise of evidence based policies.
- Be critical of technology involving patients and focus accessibility for vulnerable or high-need subpopulations rather than a one-size-fits-all model.
- Publish your findings after reviewing the literature to identify where information gaps exist. Showcase your involvement in the research that will change patient care in the future.

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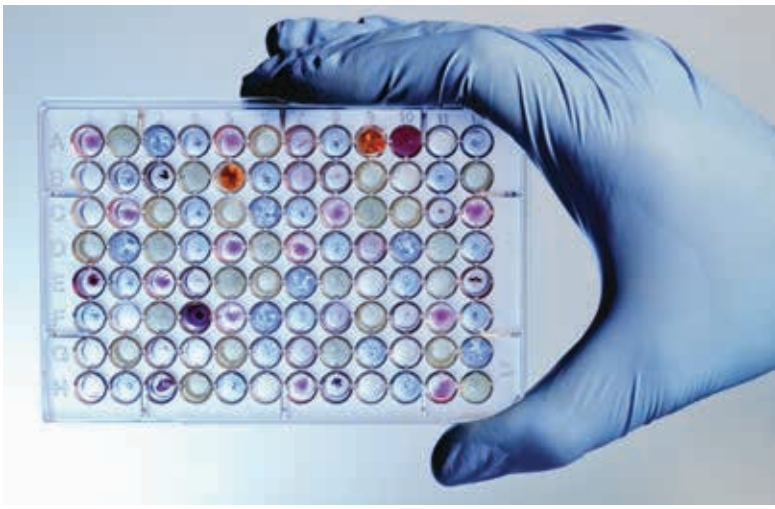


Task Shifting Electrocardiograms (ECGs) to the Medical Laboratory Profession

Task shifting is a process of delegation. Tasks are assigned, where appropriate training and scope is determined, to workers who may be less specialized in the task than another profession.[1]

A flexible model of health care duties within and between professions has occurred in recent years, especially in rural and remote areas as well as developing countries, where human resources are limited. Task shifting is considered a "promising policy option to increase the productive efficiency of the delivery of health care services, increasing the number of services provided at a given quality and cost."[2] The patient-centred movement from "task delegation" to a "team care" environment is a globally recognized trend, fostering role evolution within legal frameworks and scopes of practice.[3]

For medical laboratory professionals (MLPs; includes Medical Laboratory Technologists [MLT] and Medical Laboratory Assistant/Technicians [MLA]), the Canadian Society for Medical Laboratory Science (CSMLS) is aware of current and potential task shifting for MLPs. The role MLTs now play in radiographic imaging procedures is one example.

In a recent CSMLS survey (N=724), MLPs were asked for their perspective of ECG task shifting trends as most provinces and territories lack delegated acts for this procedure. Below are highlights of findings.

How often are ECGs conducted by MLPs?

Forty-four per cent of MLPs indicated they conduct ECGs as part of their duties, with MLA conducting ECGs most often (28% MLTs vs 62% MLAs). Differences were noted in the workplace setting; MLTs often conduct the procedure within the hospital while MLAs practise in private laboratories or clinics. The top four provinces employing ECG enabled MLPs most often are Alberta, British Columbia, Manitoba, and Prince Edward Island.

How often are ECGs conducted?

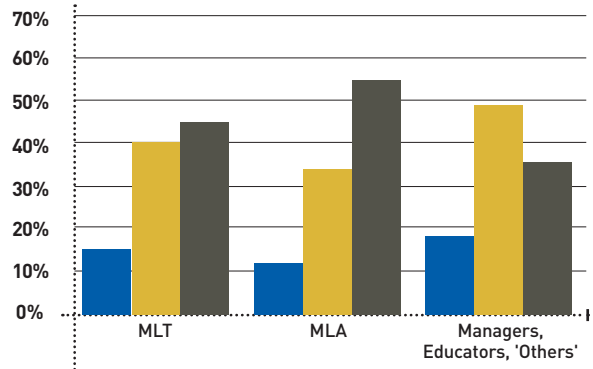
According to respondents, MLPs who perform ECGs do so frequently. For MLAs, the youngest generation was mostly likely to conduct ECGs daily or weekly. MLTs in the youngest and oldest age brackets conducted ECGs most frequently. These findings suggest there may be patterns in hiring and training models associated with education and experience.

What is the ECG task shifting trend?

Overall, it is perceived that there is an increase in ECG task shifting for MLPs, with greatest emphasis for MLAs. However, other stakeholders were less likely to recognize this trend.

New Brunswick and Nova Scotia respondents felt that ECG workload would remain consistent, in line with delegated acts and regional policies. In contrast, the more western provinces and Ontario were amongst the highest believers that the trend was increasing.

ECG TASKING SHIFTING TRENDS AS PERCEIVED BY:



	MLT	MLA	Managers, Educators, 'Others'
Decreasing	15%	11%	18%
Staying the same	40%	34%	49%
Increasing	45%	55%	34%

What type of ECG training should be required for MLPs?

The majority of Canadian MLA programs incorporate ECG curricula (n=19) while MLTs acquire this training on the job. Three-quarters of respondents believed a certificate-based continuing education course should be the minimal requirement to demonstrate competence and that certification was not required. This notion was upheld during a regulator discussion held at LABCON 2016.

As our health care system continues to mobilize human resource efficiency initiatives, the issue of who will do what work is likely to remain at the forefront of policy debates. ECG task shifting is one such conversation that should be monitored by employers and academic programs. Within the debate, emphasis should remain on quality assurance mechanisms and evaluation procedures to assess the strategic value of task shifting over time.

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Thank you TANIA TOFFNER

On behalf of CSMLS, we would like to thank Tania Toffner for her many years of service.

Tania began her journey with CSMLS early on. For two terms, she sat on the CSMLS Board of Directors as Director, Ontario, and successfully ran for President, serving as CSMLS President in 2015. She also worked at the CSMLS head office from 2010 to 2012 as the Director of Certification and Prior Learning Assessment.

During her presidential year, her key message was, "the key to success is accountability" where she challenged the med lab community to remain accountable to the profession and themselves.

We caught up with Tania as she was wrapping up her final commitments as Past President, to reflect on her work done with the CSMLS over the years. Here are some of her highlights.

Serving on the CSMLS Board of Directors is a significant commitment and we are pleased to have had Tania as part of the CSMLS team.

"Some of my best memories were being around the boardroom table with like-minded and passionate peers who were focused on setting the direction for the society. These are memories I'll never forget."

"I would encourage all members to volunteer with their provincial societies and especially with the CSMLS to learn how the organization works and how you can help."

"LABCON in Montreal was an unforgettable conference. To watch so many members interact in both English and French was a true testament of being a Canadian Society."

Newly Certified Members in 2016

CSMLS would like to congratulate and welcome the following new members who successfully passed their certification exam in 2016 on their recent certification.

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Augustos Francis Acena
Kharen Acub
Adeolu Adegoke
Janet Adetutu
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Shawna Alberts
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Khalid Alhag
Abeer Ali
Humair Ali
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Shu Zhang
Yunli Zhang
Jiao Zhang
Yue Zhu
Samantha Ziehl

MLT Clinical Genetics

Amanda Betts
Didem Dikbas
Sarah Egli
Jaylene Fisher
Candace Grant
Ryan Kleefman
Jenna Langill
Han Nah Lee
Colten Linterman
Jean-Paul Nadeau
Alissa Palazzolo
Bruce Racey
Alynn Shanks
Jonathan Shum
Felix Valentino

MLT Diagnostic Cytology

Stephanie Delle Curti
Sagan Haller
Terri Hanke
Nikki Kralka
Ami Luong-Tang
Nabil Nasser

MLA

Christiana Adewale
Akpo Adjedjevbe
Adepeju Alabi
Gloria Albernaz
Harold Alcos
Melissa Alexander-Richard
Sondus Al-Hjowj
Saida Ali
Latisha Allingham
Selina Allingham
Zinah Abdulelah Al-Qaderi
Farah Al-Shami
Mohammad Aman
William Anum
Anna Clariza Aquinde
Nazik Aram
Jhenica Christine Arellano
Stephanie Arsenault
Zareen Aslam
Ibrahim Ayoub
Patrick Bate Ayuk
Ayodele Adeniyi Badejo
Ashley Balgobin
Tamara Bentley
Gillian Berg
Upasana Bhagirath
Amy Billard
Maria Bird
Nicole Blais
Maria Celina Bodger
Robyn Boivin
Dwane Boland
Alana Boland
Katelynn Boudreau
Zvijezdana (Donna) Boulet
Debbie Buell
Tanya Burke
Brittany Buzzi
Di'isha Roxane Cabingan
Manuel Iane Cadulong
Christine Caharian
Courtney Callahan
Yi Cao
Joanne Cartwright
Kiely Casey
Lutgarda Cenidoza
Drasty Chauhan
Wing Hang Chiu
Kally Colyn
Lorena Corpez
Marisa Costa
Jemabell Cotoner
Victoria Coulthard
Malachi Cruz
Dianne Lerose Cuevas
Yu Si Cui
Marie Curtis
April Erika Custodio
Kehinde Dada
Bich (Bic) Dao
Rouba Darwish
Jordan Dash
Carlan Joy Datu
Dipti Dave
Macrina Del Rosario
Anjeannette Dela Cruz
Jessica Deman
Jaclyn Dennison
Mitaben Desai
Angelita Quijano Diaz
Rebekah Doucet
Trista Dube
Katie Duggan
Walworth Duncan
Jenna Durant
Shari Edsall
Stephanie Emmons
Marissa Enns
Mitos Esguerra
Marivic Estabillo
Maria Patricia Esteban
Jessica Farkas
Senaida Fazlic
Zia Ferrer
Sheila Frianeza
Gail Gaal
Vito Galloro
Pryanka Ganesh
Yohannes Geremew
Jamie Gervais
Melissa Gervais
Amanda Glibbery
Molly Gotell
Jennifer Graber
Marianne Graham
Dawn Grandy
Morey Green
Mary Grace Guevarra
Amanda Hanhams
Naglaa Hassanien
Mikayla Hawkes
Kaitlyn Hawkins
Michelle Heath
Lisa Herpal
Melissa Hill
Marion Ho
Ki Chung Debbie Ho
Mirella Holborn
Jan-Shalom IBay

Yuliya Ilkiv
Muhammad Arif Ismail
Raya Jabri
Biljana Janic
Hao Jiang
Rashmi Jose
Francis Julian
Kimberly Julien
Anella Suzanne Jumamoy
Mary Rose Katipunan
Jagdeep Kaur
Antarpreet Kaur
Younsoo Kim
Su (Netalie) Kim
Emily Knapp
Tara Koch
Rie Kogusuri
Meagan Kramer
Esther Kwan
Mary Jane Lactaotao
Zubia Ladhani
Jennifer Lam
Kristina Lavoie
Matthew Lee
Nicole Legere
Meaghan Lewis
Hua Li
Mikki Cybil Lim
Felicia Lim
Teegan Lindsay
Mallory Lo
Florinda Lopez

Marie Ginette Louis Leandre
Savannah MacArthur
Olivia Macatbag
Megan MacAulay
Melissa MacDonald
Amanda MacDonald
Rebecca MacDonald
Kelly MacKenzie
Holly MacLeod
Ranvir Manan
Joanne Manlapaz
Jovelyn Masangkay
Joyce Marie Maybanting
Geraldine Mbah
Alica McNamara
Astrid Mejia
Katrina Mendoza-Bunuan
Jethro Mercado
Preeti Mithra
Nahid Mohammad
Melanie Moroziuk
Joanne Murray
Morgan Myers
Scott Newman
Leanarda Niles
Lindsay Ninivirta
Katie Noseworthy
Kaitlin Nugent
Goodness Chioma Nwadike
Kristen Oakes
Mandi O'Donnell
Fatemeh Okhovat

Oluwatosin Oladogba
Olatunji Olaniyan
Bobbi-Jo Olcsvary
Raji Palaparambil Thankan
Bhavna Patel
Falguni Patel
Bhaveshkumar Patel
Devarshy Patel
Subhadra Patel
Vishal Patel
Christine Patrick
Christel Paulin
Tal Peleg
Maryse Pelletier
Clarice May Pineda
Dawne Pitre
Marian Leah Ponsica
Mariavanessa Prado
Natasha Preston
Shae-Lynn Pugh
Meng Qi
Kimberley Quinn
Sarah-Jane Rafuse
Daisy Rahul
Cedric Ramos
Kendra Rayner
Sarah Rego
Carolyn Reguyal
Zenaida Reintar
Lil Reshmi Thapa
Valerie Richards
Terri-Lee Rideout
Clement Roberts
Thomas Rodger
Lynn Rose
Vicente Rosita
Carmina Rosita
Rifat Rumman
Jeffrey Russell
Camilla Rzadkowski
Agnieszka Rzeszut
Kim Saavedra
Roselyn Salado
Ehab Salem
Leanna Sanchez
Mandeep Sandhu
Ma. April Angeli Sangalang
Natalie Sanson
Ashley Saulter
Carla Schurman
Amanda Scollo

Sarah Scullion
Cynthia Serote
Berhanu Seyum
Saima Shabbir
Amira Shafi
Abdul Shakoor
Mavuniga Shanmugam
Dinesh Sheta
Feng Shi
Celine Singh-Williams
Susan Skinner
Ariana Smith
Hyoseob Song
Brandon Sponagle
Norecia Stapleton
Helena Stephenson
Taylor Stevens
Veronika Stoik
Chantal Stoodley
Samia Sultana
Christifer Tebow
Marissa Ten Broek
Jessievel Teoxon
Laxmi Thapa Khadka
Lisa Thomas
Rajeshkumar Thummar
Tam Tran
Lindsay Trueman
Ma. Delcor Tubiano
Heather-Anne Twordik
Uduak Ugorji
Emily Unrau
Janani Uthayakaran
Najibullah Uzbak
Giverlyn Valdez
Hilda Maria Valero Chicana
Keri-Lee Van Bussel
Patricia Van Hardeveld
Talya Vandenbroek
Eden Vergara
Adora Viado
Nalyn Villamon
Cyndel Villaverde
Shahbano Wajih
Amy Wells
Kai Werry-Evans
Nilanka Wijesinghe
Kaitlyn Williams
Jonathan Wolfe
Sara Yablonsky
Mohamed Zahr

Current verified members as of February 24, 2017.

Nominating an Outstanding Member

Have you thought about nominating an outstanding co-worker or manager for a CSMLS Award, but thought the process was too challenging? If so, we've got great news – we are here to make it easy.

CSMLS offers the following awards to recognize outstanding contribution to the Society, profession or community:

A.R. Shearer Pride of the Profession Award recognizes laboratory professionals who demonstrate professional pride through their leadership and commitment to excellence in the practice of medical laboratory science.

Honorary Awards recognize members or non-members for their outstanding service to CSMLS.

Honorary Fellowship Award recognizes members for their outstanding contribution to CSMLS.

Distinguished Fellowship Award recognizes members who have made significant contributions to the profession and is the highest level of recognition bestowed to a member.

David Ball Award recognizes members who have made notable contributions to their community.

At a first glance, the information required might look overwhelming, but CSMLS staff is happy to answer any questions and guide you through the entire process, including how to write a reference letter, how to complete the application form and what pieces of additional information are required.

Please contact awards@csmls.org for support or with any questions.

Details and application forms are available online at: csmls.org/awards

CHANGE IN EXPRESS COURSE REGISTRATION

We understand your time is valuable. We've heard your feedback and have simplified the registration process for our Express Courses.

Beginning January 1, 2017, we started a "one-step" registration for Express Courses and the corresponding exams. There is no need to register in the course and exam separately. Both the course and exam are accessible for one year after registration and as before, you will receive your Certificate of Completion when you pass the exam.

For more information or to register for courses visit learn.csmls.org.

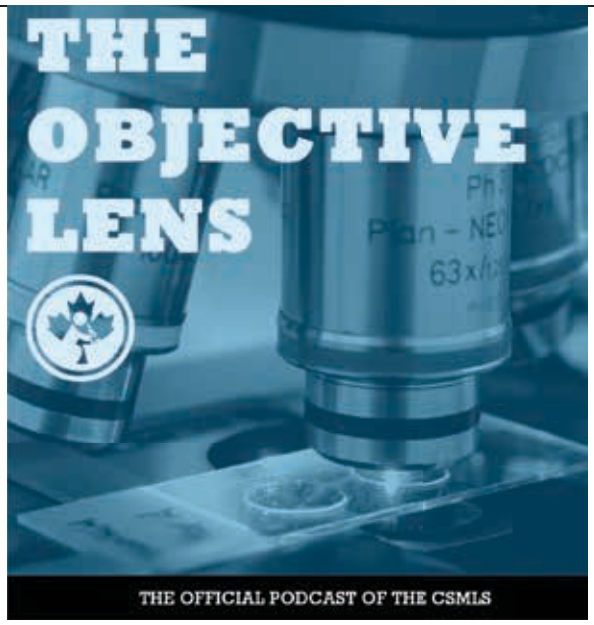
A New Way to Learn: The Objective Lens

CSMLS has launched a new way for medical laboratory professionals to learn – a podcast.

The Objective Lens podcast is about life in the medical laboratory and issues that are important to the people who work there. In each episode we give listeners tips and support for some of the unique challenges of working in the medical laboratory and in health care.

We'll be talking to subject matter experts, such as lawyers, union representatives and physicians, using their expertise to help you. We also interviewed lab professionals, bench techs, managers and educators.

As an added bonus, listening to the podcast can help you get your required professional development hours. There will be a short quiz associated with each episode and by completing the quiz you will get a certificate toward your hours. More information, including current and past episodes, is available on the website: podcast.csmls.org.



Be sure to subscribe to The Objective Lens through iTunes, or Google Play so you don't miss an episode. We have some great content coming your way.

CSMLS SCSLM

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

CSMLS Grants, Scholarships & Awards

CSMLS offers Grants, Scholarships, and Awards to recognize members who have achieved excellence in the profession, help members continue their education and to aid students in their education.

May 1st, 2017 is the deadline to apply for the following:

- Founders' Fund – MLT & MLA
- E.V. Booth Award
- A.R. Shearer Pride of the Profession Award
- World Medical Laboratory Development Fund

Contact **awards@csmls.org** with any questions.
For an extensive list of offerings, please visit the website.

csmls.org/awards

CSMLS Loan Libraries

CSMLS continues to support Internationally Educated Medical Laboratory Technologists (IEMLTs) in their journey to becoming certified.

In 2010, CSMLS established Loan Libraries at nine accessible locations across Canada with funding from Canada's Foreign Credential Recognition (FCR) program.

To provide the most current information and resources, CSMLS updated books at all of the nine Loan Libraries sites this year. CSMLS is committed to examining the collections every three years.

You can learn more about the Loan Libraries and where they are located on csmls.org in Reference Textbooks under the Certification tab.

CSMLS SCSLM

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

Take advantage of FREE COURSES today!

As a CSMLS member, you have access to 10 free courses each year.

Express Courses are concise, help you maintain competence in a specific subject area and you can finish them in as little as a weekend!

Exams now included with all *Express Courses* including FREE courses!

Register today

2017 Free Courses:

- Hepatitis C
- Human Immunodeficiency Virus (HIV)
- Identification and Description of Erythrocyte Morphology
- Introduction To Hemostasis
- Medical Parasitology: Trematodes of the Intestinal and Urogenital Tracts
- Molecular Biology I: Overview of Nucleic Acid Structure and Functions
- *Neisseria & Moraxella*
- Pancreatitis, Amylase, Lipase and More
- Transfusion Related Acute Lung Injury (TRALI)
- Vitamin D

learn.csmls.org

CSMLS Board of Directors Election

In accordance with CSMLS Bylaws, the Nominating Committee presents the slate of nominations for the Election of Officers commencing in 2018. Nominee biographies are available online at **election.csmls.org.**

The nominees for the office of **Director, Manitoba & Saskatchewan**

Ismaila Amusat

Lisa Kendrick

Pat Verbeke

The nominees for the office of **Director, Quebec**

Lucie Alain

Veronica Ferrao

Lyne Nadeau

Voting is now open. All certified CSMLS members in good standing are eligible to vote using a secure online voting system.

1. Go to election.csmls.org
2. Log in to confirm your eligibility to vote
3. Review all of the candidates, read their bios and cast your vote

Voting closes at 11:59pm (EDT) on April 18, 2017.
Voting for your Board of Directors is a privilege of membership. Be sure to cast your vote.

Annual Report

The CSMLS 2016 Annual Report will be available as an online publication through the CSMLS website in April. Visit csmls.org under the About Us tab and click on Publications to view the full 2016 Annual Report, including audited financial statements.

NOTICE TO MEMBERS: Annual General Meeting

This is an invitation to all members to attend the CSMLS Annual General Meeting.

It will be held during LABCON2017, Canada's premier professional development conference for laboratory professionals.

The meeting will take place:

Saturday May 27, 2017
8:30 am – 9:30 am
Room: KC 101
Building: Kinnear Centre for Creativity and Innovation

Banff Centre for Arts and Creativity
Banff, AB

The agenda for the AGM will be available on the CSMLS website in April.

Proxy Voting

Even if you can't join us at the AGM, you can have your vote count by assigning a proxy vote. As an eligible CSMLS member, you are entitled to vote at the Annual General Meeting. A proxy is an eligible voter whom you trust to vote on your behalf. A proxy can represent multiple voting members. Members can assign their vote using our secure online system at proxy.csmls.org.

Simply log into the site using your CSMLS member ID and password. There, you will be able to assign your vote to an eligible member, or to the Chair of the Nominating Committee.

All voting proxies must be appointed before midnight (EDT) on May 15, 2017.

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

80 years / ans

CSMLS Celebrates 80 Years

In 1937, the Canadian Society for Medical Laboratory Science was incorporated. 2017 marks the Society's 80th anniversary. Throughout the year, we will look back on the last 80 years and recognize the society and the profession through memories, photographs and stories.

Here's how you can get involved in the 80th anniversary celebration:

- Share a memory on Facebook or Twitter and use the hashtag #CSMLS80years
- Send your photos to info@csmls.org for us to share

Stay tuned to eNEWS and follow us on Facebook and Twitter for news and announcements that will take place throughout the year.

Advocating for the Profession

As part of the ongoing effort to advocate for the medical laboratory profession, CSMLS headed to Ottawa on November 22 for a second Lobby Day in 2016. A group of CSMLS staff and volunteers headed to Parliament Hill to meet with Members of Parliament (MPs) to address the shortage of medical laboratory professionals in rural and remote areas.

CSMLS staff and volunteer delegates were organized into two meeting groups where they met with key stakeholders from different political parties and senior political staff.

At the ministerial staff level, Policy Advisors at Employment and Social Development Canada (ESDC) and Finance seemed to touch on a number of issues affecting the profession. ESDC appears to be a useful potential partner in the move to address some of the pressing issues CSMLS faces but the agreed method to do so is still very much in the discussion stage.

CSMLS will be heading back to Parliament Hill in April to continue discussions with federal decision-makers.

LABCON2017: What to Expect

LABCON2017 is just around the corner and we are eager to welcome delegates to beautiful Banff, Alberta, for three days of learning, networking and celebrating as we recognize the Society's 80th anniversary.

We're excited about all of the events we have in store this year. Delegates will experience pre-conference workshops, roundtable and panel discussions, industry sessions hosted by exhibitors, plenary and concurrent sessions, as well as thrilling social events. Based on the success of last year's Managers' Intensive Program, we are bringing it back for LABCON2017. The full-day program is designed for people who manage others and provides sessions that will help navigate the challenges in that specific work environment.

LABCON2017 continues to deliver high calibre education to help you discover new technology and innovative procedures that can be used in your everyday work. There is a great lineup of speakers and industry experts to educate delegates on industry trends. We had the chance to chat with a few speakers you can expect to see at LABCON2017 and here's what they had to say.

Visit labcon.csmls.org for more information on all sessions and social events.

Dennis J. Ernst MT (ASCP)
Session Topic: *What's New in Phlebotomy*

Dennis J. Ernst MT(ASCP) is the Director of the Center for Phlebotomy Education, Inc. in Corydon, Indiana. Besides being a highly recruited international lecturer, he has authored more than 50 articles on phlebotomy, two textbooks and three desk references. He chairs the CLSI working groups that write the standards for specimen collection, and edits the Phlebotomy Today family of newsletters, read monthly by more than 14,000 healthcare professionals worldwide.

What is the topic of your LABCON presentation and what made you decide on it?
What's New in Phlebotomy is the title of my presentation. I chose it because I think most people don't think much ever changes with this part of the laboratory process. In fact, there's a great deal of activity going on in the pre-analytic phase of laboratory testing LABCON attendees need to be aware of. Standards, technology, regulation, new clinical studies... there's a lot happening.

Why is this topic relevant to today's medical laboratory professional?
Everyone who draws and tests blood samples needs to be aware of what's changing in the industry and how it could affect the samples we test and those who draw them. There's no such thing as working in a silo when it comes to laboratory testing. Those employed in the analytic phase have to know what's going on in the pre-analytical world. This presentation will provide that perspective.

What do you hope LABCON delegates will learn from your presentation?
They're going to learn what new studies have been published recently that shed light on pre-analytic processes, what forthcoming regulations could affect them, and what new technologies are emerging that may impact how they draw and handle blood samples. They'll also get briefed on the major changes in the newly revised CLSI venipuncture standard that they'll need to consider implementing with their staff.

Dr. Jennifer Primmer
Session Topic*: Mirror Mirror: Creating Balance Through Self-Reflection*

Dr. Jennifer Primmer is a Cognition and Emotion Specialist at Involution Inc. She has 14 years of experience in issues surrounding emotions, consciousness and human behavior. Primmer has a private practice where she provides mental wellness coaching and clinical hypnotherapy to members of the community with PTSD and emotional trauma. She is the co-founder of the LZ – a peer support group to assist veterans, first responders and their families to overcome the difficulties that their occupations bring to family life.

What is the topic of your LABCON presentation and what made you decide on it?
The topic of my LABCON presentation is reframing how we understand "work-life balance" and learning how to effectively manage stress. When our work life is not in balance with the other components that help to shape our identities, we begin to create dis-ease and dis-stress. Part of this exploration will take us into learning the science behind emotions and the tools of body language recognition. I chose this topic because finding balance is integral to every individual's mental well-being.

Why is this topic relevant now for today's medical laboratory professional?
Creating balance in one's life is integral to individuals in any profession. One's work not only forms an integral part of the life one chooses to live, but also forms a part of one's identity.

What do you hope LABCON delegates will learn from your presentation?
Through my presentation I hope that LABCON delegates will learn how to effectively manage stress and find the balance they require in their lives to be happy and productive both inside and outside of the workplace.

National Report Card

The CSMLS provides, collects and reports data on the examination performance for Canadian Medical Association (CMA) accredited medical laboratory programs in Canada. The report specifies how many candidates from each education program challenged the CSMLS certification examination and the pass rate (the percentage of candidates that passed the exam) for each individual program.

The purpose in releasing this data is two-fold:

1. To strengthen CSMLS's accountability to the membership and to other key stakeholders for the certification programs.

2. To provide a tool for education programs to monitor and analyze the impact of program change when compared to their peer group, as well as a resource when working with administration and government to address future program change.

In compliance with federal privacy laws, the information is provided in aggregate form and does not include any identifying information of individual examination candidates. Only programs with more than five candidates in the exam session were reported. Each program receives a copy of the report prior to publication in the CJMLS and on the CSMLS website.

In order to provide valid comparisons of graduates from accredited training programs, the report only includes performance data of first-time examination candidates. It does not include any supplemental exam candidates' results, or data from other exam candidates, such as bridging programs or prior learning assessment eligibility.

This report contains exam performance data from the last three sessions.

Medical Laboratory Technologist

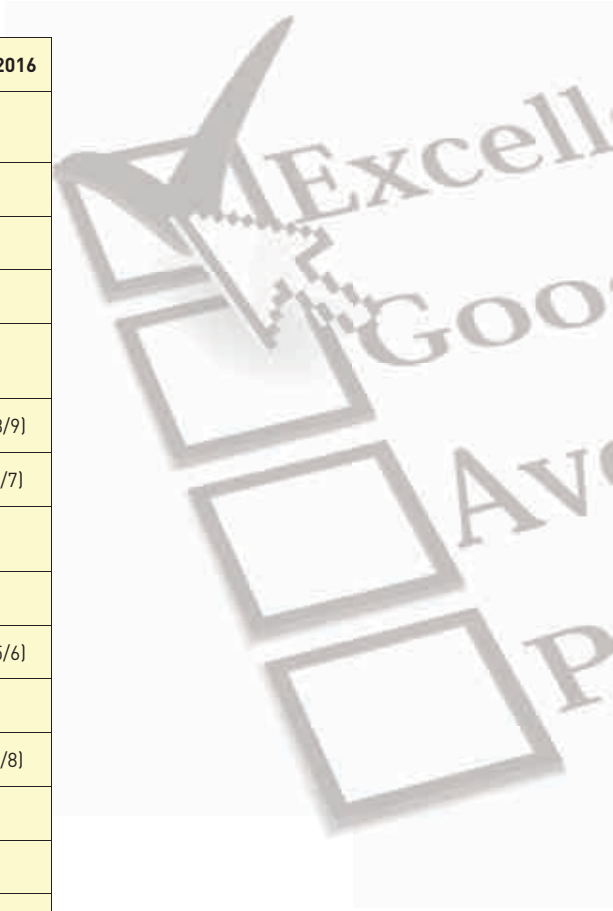
	February 2016	June 2016	October 2016
[11] College of the North Atlantic (CNA)	*NR*	100% (21/21)	*NR*
[12] Nova Scotia Community College (NSCC)	*NR*	94.7% (18/19)	*NR*
[13] New Brunswick Community College (NBCC)	88.9% (16/18)	*NR*	*NR*
[15] Collège Communautaire du Nouveau-Brunswick(CCNB), Campus de Dieppe / Université de Moncton	*NR*	100% (7/7)	*NR*
[20] Dawson College	*NR*	100% (22/22)	*NR*
[21] Cégep de Chicoutimi	*NR*	*NR*	*NR*
[22] Cégep de Rimouski	*NR*	*NR*	*NR*
[30] Cégep de l`Outaouais	*NR*	*NR*	*NR*
[32] Cambrian College	*NR*	100% (25/25)	*NR*
[43] St. Clair College	*NR*	100% (22/22)	*NR*
[44] St. Lawrence College	100% (10/10)	100% (17/17)	*NR*
[45] The Michener Institute of Education at UHN	93.3% (56/60)	*NR*	*NR*
[46] University of Ontario Institute of Technology	*NR*	100% (32/32)	100% (5/5)
[51] Red River College of Applied Arts, Science and Technology	*NR*	93.3% (28/30)	*NR*
[61] Saskatchewan Polytechnic	*NR*	*NR*	*NR*
[71] Northern Alberta Institute of Technology (NAIT)	*NR*	*NR*	100% (28/28)
[72] Southern Alberta Institute of Technology (SAIT)	*NR*	98.0% (50/51)	*NR*
[73] University of Alberta	*NR*	91.3% (21/23)	*NR*
[81] British Columbia Institute of Technology (BCIT)	*NR*	95.9% (70/73)	*NR*
[85] College of New Caledonia (CNC)	*NR*	83.3% (15/18)	*NR*
Nationwide	**93.2% (82/88)**	**96.4% (319/331)**	**100% (32/32)**

Clinical Genetics

	February 2016	June 2016	October 2016
[45] The Michener Institute of Education at UHN	100% (11/11)	*NR*	*NR*
[81] British Columbia Institute of Technology (BCIT)	*NR*	*NR*	100% (9/9)
Nationwide	**100% (11/11)**	*NR*	**100% (9/9)**

Medical Laboratory Assistant

	February 2016	June 2016	October 2016
[11-01] College of the North Atlantic, Grand Falls-Windsor Campus	*NR*	92.9% (13/14)	*NR*
[12] Nova Scotia Community College (NSCC)	*NR*	100% (9/9)	*NR*
[13] New Brunswick Community College (NBCC)	*NR*	100% (5/5)	*NR*
[14] Oulton College	*NR*	96.4% (27/28)	*NR*
[17] Collège Communautaire du Nouveau-Brunswick (CCNB), Le Campus d'Edmunston	*NR*	*NR*	*NR*
[43] St. Clair College	*NR*	100% (13/13)	88.9% (8/9)
[44] St. Lawrence College	*NR*	100% (23/23)	100% (7/7)
[45] Mohawk College of Applied Arts and Technology/ The Michener Institute of Education at UHN	*NR*	*NR*	*NR*
[47] Confederation College	*NR*	75% (21/28)	*NR*
[53] Herzing College, Winnipeg Campus	57.1% (4/7)	*NR*	83.3% (5/6)
[61] Saskatchewan Polytechnic	*NR*	85.7% (6/7)	*NR*
[71] Northern Alberta Institute of Technology (NAIT)	80.5% (25/25)	95.8% (23/24)	100% (8/8)
[72] Southern Alberta Institute of Technology (SAIT)	91.3% (21/23)	92.3% (24/26)	*NR*
[74] Red Deer Community College	*NR*	78.9% (15/19)	*NR*
[82] MTI Community College, Surrey Campus	*NR*	85.7% (6/7)	*NR*
[84] Thompson Rivers University (TRU)	*NR*	*NR*	*NR*
Nationwide	**90.1% (50/55)**	**91.1% (185/203)**	**93.3% (28/30)**



Diagnostic Cytology

	February 2016	June 2016	October 2016
[45] The Michener Institute of Education at UHN	*NR*	*NR*	*NR*
[61] Saskatchewan Polytechnic	*NR*	*NR*	*NR*
[71] Northern Alberta Institute of Technology (NAIT)	*NR*	*NR*	*NR*
Nationwide	***NR***	***NR***	***NR***

Legend:
[Institution Number] Institution
Pass Rate (Passes / Attempts)
NR = Not Reportable: Training programs with less than five (5) exam candidates attending an exam session will not be reported; the data is not statistically significant.

The National Report Card is now available online.
For more information about the National Report Card including the score required to pass (Angoff) visit csmls.org under the Certification Tab.

National Medical Laboratory Week 2017

April 16 – 22, 2017

medlabprofessionals.ca

Every year, one week is dedicated to shine a spotlight on Medical Laboratory Professionals and this year's national awareness campaign focuses on educating the public on how "the medical laboratory is here for you from head to toe".

To help mark this special week, CSMLS provides tools to help you celebrate while advocating and educating the public about the important work done by you – medical laboratory professionals!

Celebrating is one of the best parts of Lab Week and it's never too early to begin planning.

Here are a few ideas to help you get started:
- Plan a lunch with your colleagues
- Organize a Lab Week-themed game or contest with prizes
- Arrange an evening out with fellow med lab professionals
- Celebrate with cake using the customized Lab Week cake decal

National Medical Laboratory Week is an opportunity to build awareness for the medical laboratory profession. Take advantage of this week to educate the public by:
- Sharing the website, medlabprofessionals.ca, on Facebook and Twitter
- Creating an informational display using posters, brochures and stat cards
- Organizing a lunch and learn to educate others about the lab
- Sharing the online Lab Week quiz with others to test their knowledge about the lab
- Host a lab tour and show your community what happens behind the lab doors

To download free items from the toolkit, visit **labweek.csmls.org**. Be sure to follow CSMLS on Facebook and Twitter (@csmls) to keep up-to-date and use the hashtag #LabWeek to share your photos and events with the entire lab community.

@csmls #LabWeek

CSMLS – THE NATIONAL VOICE OF CANADA'S MEDICAL LABORATORY PROFESSION

As the national voice of Canada's medical laboratory profession, CSMLS represents the needs and concerns of medical laboratory professionals when working with laboratory and health care-related organizations. CSMLS Board of Directors, staff and volunteers attend meetings, conferences and events on behalf of CSMLS members and the entire medical laboratory profession. Here is where your voice was heard recently:

JANUARY

Government of Canada – Post-licensure employment outcomes for internationally educated MLTs
TELECONFERENCE

University of Alberta Hospital & DynaLife Diagnostics: Crystal Ball Presentation
EDMONTON, AB

Canadian Society of Association Executives (CSAE) Annual Winter Summit
HAMILTON, ON

Mohawk Advisory Committee, Bridging Program
HAMILTON, ON

FEBRUARY

Conference Board of Canada – Hosted webinar on Alternate Careers
WEBINAR

Faculty Development Talk: Using Knowledge of Generational Differences to Improve Communications, Michener Institute of Education at UHN
TORONTO, ON

Generations in the Workplace – Peterborough Regional Health Centre
PETERBOROUGH, ON

Accreditation Working Group
TELECONFERENCE

Inter Professional Event (IPE), St. Lawrence College
KINGSTON, ON

Career Paths in Canada, Mohawk College
HAMILTON, ON

Touchstone Institute: Subject Matter Expert Working Group: Communication Competency
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