

Provincial Laboratory Medicine Services: Annual Report

FY 2022/23



Introduction

It is my privilege to offer some thoughts as we close out the 2022-23 fiscal year. It was as remarkable a time for PLMS as it was challenging and, after much reflection, I can say this with absolute certainty: our people are our greatest and most precious asset. A key focus this year was to take the time to connect with each other and commit to the journey of building a stronger PLMS culture within PHSA. Our teams work in a variety of settings across the province and the *PHSA Employee Engagement Survey* highlighted opportunities for leaders to meaningfully connect with our teams, to share more about where we've been and where we're going. The survey also identified the importance of helping our people with their development and encouraging their growth as health care professionals.

PLMS operates as part of the health care system in B.C. and we, with the rest of the system, have been called upon to confront cultural safety, colonial biases and racism in all its forms. As part of PHSA we are committed to embracing and living the learnings generously shared by the province's First Nations' Elders. Together we will each embark on our journeys to understand and humbly reflect upon the impacts of colonialism across Canada, in B.C. and within the health care system. We must be open to learning how we can become part of the solution, part of the way forward, and how we can all contribute to the Coast Salish concept and teaching of "good medicine" and make a commitment to reconciliation.

We entered the year still in management and coordination mode for the provincial laboratory system response to the COVID-19 pandemic, however, everyone in PLMS and our partners in the provincial laboratory system set our sights high and accomplished much more than that. Whether it was advancing the capacity and capability of the Newborn Screening Program, addressing the Cervical Cancer Screening Program volume pressures, advancing a modernized screening service delivery model, contributing to the stability of our teams through leadership in the collective bargaining process, engaging in thought leadership to advance laboratory system integration and innovation, strengthening our partnerships with the Ministry of Health and all laboratory providers, or any number of other critical pieces of work, it has been an amazing year. It all comes down to an incredibly strong, capable and focused team who live the philosophy of creating partnerships, finding optimal solutions and building meaningful long-term alliances in the interest of making our health system better for all.

On that note, I want to acknowledge and thank our colleague, Betty Chapelski, who has spent a lifetime making our health care system better. In February 2023, the Vancouver Coastal Health Laboratory team held a celebration in recognition of Betty's tremendously long service in lab operations – 59 years and counting. What an achievement! Betty has worked in medical technology since 1964. Her career started at the Shaughnessy Hospital and she eventually transferred to Vancouver General Hospital in 1993, where she works in the hematology and chemistry departments.

When asked about her role, Betty said, “One of the best things about my job is the camaraderie among my coworkers. We exchange knowledge of interesting medical cases and talk about our experiences and frustrations as we troubleshoot aging instruments. We support each other through the difficult times such as during COVID, knowing that we supply the critical information needed for a patient’s diagnosis and treatment.”

She has made an enormous contribution to laboratory services and has been a longstanding mentor to new lab personnel coming up within B.C.’s laboratory services sector. Her dedication and care for the development of others provides a priceless value to our health care system. On behalf of the entire PLMS family, I extend my best wishes and gratitude to Betty.

Betty Chapelski, Medical Laboratory Technologist, Vancouver General Hospital:



And now I welcome readers to turn the pages of this report to learn more about the incredible work taking place in PLMS.

Regards,

Craig Ivany
Chief Provincial Diagnostics Officer
Provincial Health Services Authority

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Executive Summary

Laboratory medicine is a critical component in the diagnoses of diseases and informs patient treatment plans. For physicians and medical staff, giving patients the best possible outcomes is made possible through the dedicated work of laboratory medicine personnel. Lab medicine saves lives.

The success of Provincial Laboratory Medicine Services (PLMS) is overwhelmingly the result of the dedication of management teams and staff who are making a difference in patient care every day. Whether in the lab or behind the scenes, the exemplary work of all of our people is truly inspiring. The depth of our expertise, our commitment to partnerships and the people of B.C., our courage and resilience, and our excellence in research and innovation is applied to everything PLMS strives for.

The unique demands placed on the health care system over the last few years have demonstrated the benefits of a provincial approach to strategic planning, as well as alignment with broader system priorities as they relate to the provision of high-quality health care. In partnership with provincial, public and private stakeholders, PLMS continues to progress and lead with the aim of achieving one system of clinical laboratory and pathology service delivery that is accessible, equitable and effective.

PLMS has established a strong, transparent partnership with the Ministry of Health that is critical to advancing system-level change across the province. It is a dynamic partnership that provides opportunities to solve increasingly complex challenges, drive innovation and respond proactively to the sweeping changes and profound disruptions occurring within the laboratory medicine ecosystem.

The changes in laboratory service delivery throughout the transformative journey of the COVID-19 pandemic have had a significant and lasting impact. Working across sectors and utilizing interorganizational partnerships resulted in technological, process-based and business innovations during a period of unprecedented challenges and uncertainty. Lab partnerships have enabled the advancement of key strategic priorities and improved patient outcomes through advancing screening programs, treatment plans and monitoring systems.

In addition to monumental COVID-19 testing efforts, physicians and staff held fast as the provincial health care system was pushed to its limits over the course of the last three years. Based on the scope and pace of systemic changes, aging infrastructure, and disparate and unsupported IT systems, the issues and risks continued to mount and laboratory services personnel persevered for months on end in the name of patient care.

PLMS, in partnership with provincial stakeholders, continues to make great strides toward meeting the Ministry of Health's objective to achieve one system of clinical laboratory and pathology service delivery with a commitment to quality care, innovation and adaptability. PLMS will continue onward in FY 2023/24

with the optimization of laboratory medicine services by building the path forward and focusing on our strategic themes.

1.0 Message from the PLMS Leadership Team – Looking Back

In what proved to be another landmark year, PLMS remained steadfastly dedicated to supporting the province’s response to the COVID-19 pandemic as it transitioned to an endemic state. With the aim of creating lab system stability and minimizing service disruptions, we were determined to make great strides with a patient-focused mindset despite the numerous and unpredictable challenges that arose.

Without the unceasing efforts of our lab workforce and partners, it would have been essentially impossible to deliver consistent, high-quality laboratory services. It cannot be overstated that our people are the key to PLMS’ success and are endlessly inspiring and resilient. Once again, the depth of our expertise, our commitment to partnerships and to British Columbians, our ingenuity and our forward thinking were at the core of everything we sought to accomplish.

The PLMS 2022/23 Annual Report showcases our accomplishments and foci as we continued to advance our purpose, our how, our focus areas and our values against the backdrop of our strategic themes.

PLMS 2021-2022 Strategic Planning Themes



STRATEGIC THEME 1

Develop a PLMS business model to deliver laboratory service transformation

Engagement & Enablers



STRATEGIC THEME 2

Advance a provincial ecosystem of laboratory service delivery

Clinical Strategy & Innovation



STRATEGIC THEME 3

Establish provincial laboratory services as a valued health care system partner

Strategic System Partner

2.0 Mandate and Lines of Business

PLMS, as part of the Provincial Health Services Authority (PHSA), operates under the authority of the *Laboratory Services Act (LSA)* with a mandate to pursue a cohesive, interrelated laboratory system in a manner that supports equity and access and ensures patient safety through high-quality, well-coordinated laboratory services. By advancing an effective and appropriate governance model that is reflective of the provincial laboratory ecosystem in partnership with the Ministry of Health (MOH) and regional health authorities, PLMS is advancing the transformative power of lab medicine. PLMS’ mandate also affords the opportunity to mitigate the risks associated with multiple laboratory providers operating as independent systems through heightened awareness and visibility of the value of laboratory medicine in the health system.

The COVID-19 pandemic highlighted the essential nature of laboratory medicine and exposed many gaps and system-wide challenges. As we emerge from the pandemic, PLMS is placing emphasis on the positive transformations we have already made while undertaking fundamentally new ones and determining which paused activities should not resume. In these unprecedented times, our strategy is a continuous process characterized by a willingness to be dynamic and adaptable to emerging priorities within the health care system.

PLMS' core lines of business include:

Executive Operations

- Indigenous Health Action
- Climate Change and Sustainability
- Medical Affairs

Clinical Laboratory Operations

- Laboratory Operations (VCH, FH, PH, PHSA)
- Provincial Blood Coordinating Office
- Quality Management
- Discipline Advisory Committees
- PLMS Analytics

Corporate and Administrative Affairs

- Alliance Management Office
- Clinical Informatics
- Laboratory Services
- Strategy Management and Innovation
- Corporate and Administrative Services

3.0 COVID-19 – The Endemic Phase

Since the World Health Organization declared a global pandemic in March of 2020, labs across the province continued to demonstrate resiliency, excellence and exceptional leadership to support our public health response to COVID-19. Throughout the third year of the pandemic, the lab system maintained 20,000 tests per day testing capacity and ensured effective turnaround time (TAT) with the goal of 90 per cent of results being completed within 36 hours of a sample having been taken.

With COVID-19 testing stabilized, the provincial focus shifted to supporting the transition to the provincial test-to-treat model. This model established the process to enable the rapid turnaround of testing,

ensuring symptomatic patients were able to access therapeutics. Revised testing guidelines were developed with recommendations for the testing of patients when a positive or negative result would inform their care and treatment, with secondary messaging of the availability of Rapid Antigen Tests (RATs) and the use of RAT testing to initiate COVID-19 treatment.

The LifeLabs' Central Accessioning Centre (CAC) at Russ Baker Way was maintained throughout the year, ensuring a streamlined process in the pre-analytic phase of testing and supporting effective COVID-19 testing turnaround time. In March 2023, the CAC was transitioned to LifeLabs' Cam Coady Building, leveraging existing space to provide ongoing support to the province's COVID-19 response.

The unprecedented challenge of responding to the emerging pandemic has continued to demonstrate the value of an interconnected provincial laboratory system and the need to reinforce system sustainability, optimize opportunities to leverage investments, and build on legacies. While self-administered RATs are recommended as the first-line testing method for all individuals living within the community, COVID-19 polymerase chain reaction (PCR) testing is still recommended in acute settings for symptomatic patients. The implementation of the genomics computational cluster at the Public Health Laboratory (PHL) serves as a legacy in support of the post-pandemic emerging threat surveillance necessary for the health security of British Columbians. Through collaboration with regional health authorities and local utilities, COVID-19 wastewater surveillance provided by the Environmental Microbiology team at the PHL has expanded, with data now available from communities in the Lower Mainland, the Interior and Vancouver Island.

4.0 PLMS: Clinical Operations

Provincial Health Services Authority (PHSA)

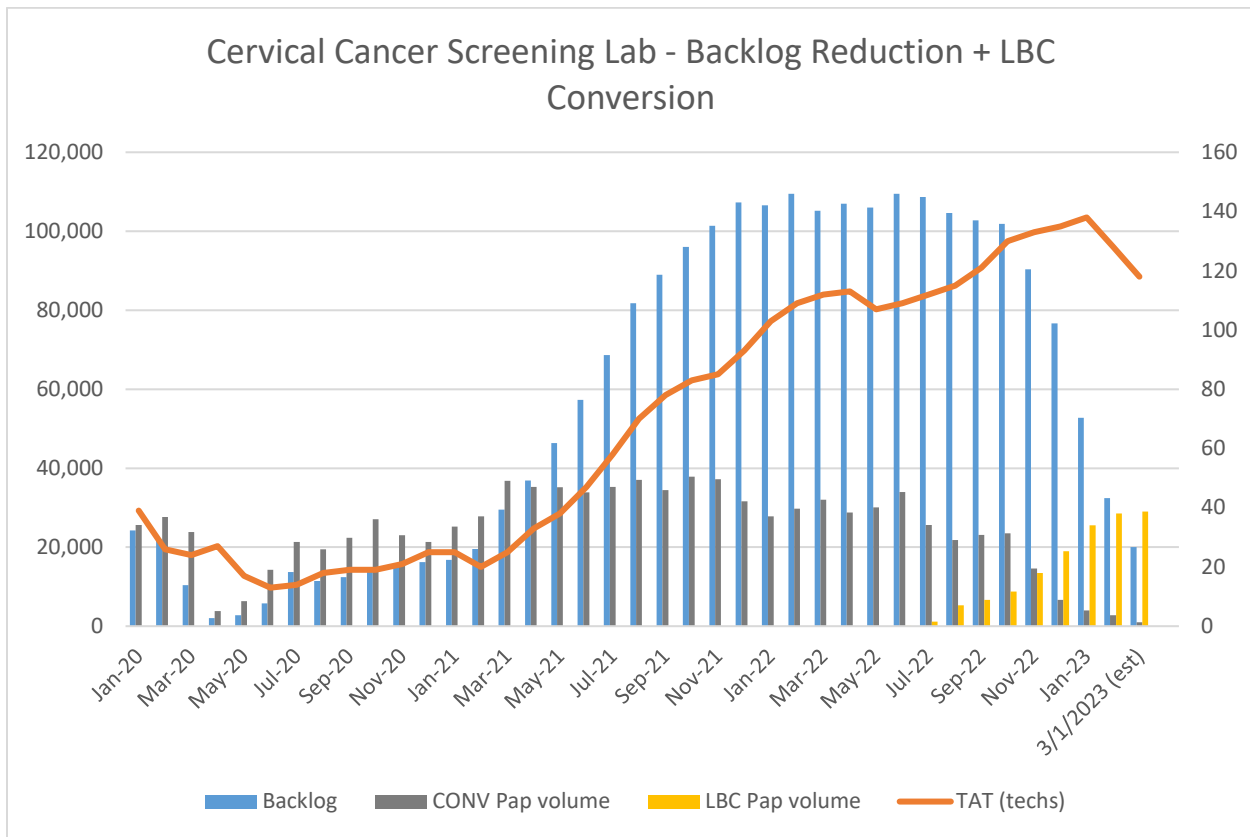
Throughout FY 2022/23, the BC Children's and Women's Hospital (C&W), BC Cancer and the BC Centre for Disease Control (BCCDC) Public Health Laboratories (PHL) stood poised to respond to potential increased COVID-19 testing needs, while pivoting to tackle emerging challenges resulting from the ongoing pandemic. In the midst of preparing for potential infection resurgences, PHSA lab leaders highlighted and embraced workplace culture initiatives designed to eliminate racism, specifically anti-Indigenous racism, in all clinical activities. With culturally safe, inclusive and high-quality patient care at the forefront of daily operational activities, each laboratory continued to battle challenges related to staff recruitment and retention, space constraints, aging infrastructure and IT limitations. Leaders and staff remain steadfast in their commitment to alleviating these issues in order to achieve excellence in health care delivery.

BC Centre for Disease Control (BCCDC) Public Health Laboratories (PHL)

In 2022, the BCCDC PHL entered a new phase of COVID-19 pandemic response readiness while undergoing three major accreditation site visits in close succession and continuing to respond to emerging and recurring pathogens. The pandemic response advanced the application of genomics at PHL, transforming public health lab testing at a rapid rate. Diagnostic testing is now paired with genome sequencing to create a holistic approach that includes pathogen surveillance for monitoring transmission patterns, identifying mutations and detecting novel pathogens. The lessons learned over the course of the past three years have informed a modernized strategy to threat planning and readiness; this was demonstrated during the rapid PHL responses to three high-risk pathogens: monkeypox, highly pathogenic avian influenza and Ebola. Molecular testing formed the response cornerstone, and the continued emergence of viruses that affect both animals and humans demonstrates the importance of a coordinated approach to pathogen responses that interweaves human, animal and environmental health.

BC Cancer

BC Cancer launched a modernizing transformation of cervical cancer screening specimen collection to address and eliminate an immense testing backlog. A province-wide conversion of over 8000 providers to a liquid-based cytology (LBC) collection method was launched. The conversion project fostered a temporary partnership with a diagnostics firm centered on processing LBC samples, while our staff focused on eliminating the conventional pap testing backlog. By December 2022, capacity was created to process LBC samples locally in anticipation of the successful backlog elimination and local LBC processing began in spring 2023. In partnership with the Cervical Cancer Screening Program, BC Cancer also participated in a highly successful pilot project for self-collected samples for human papillomavirus (HPV) testing with over 11,000 samples collected to date. Of note, this methodology allows for increased equity of access for underrepresented populations and provides low-barrier patient participation options for HPV screening.

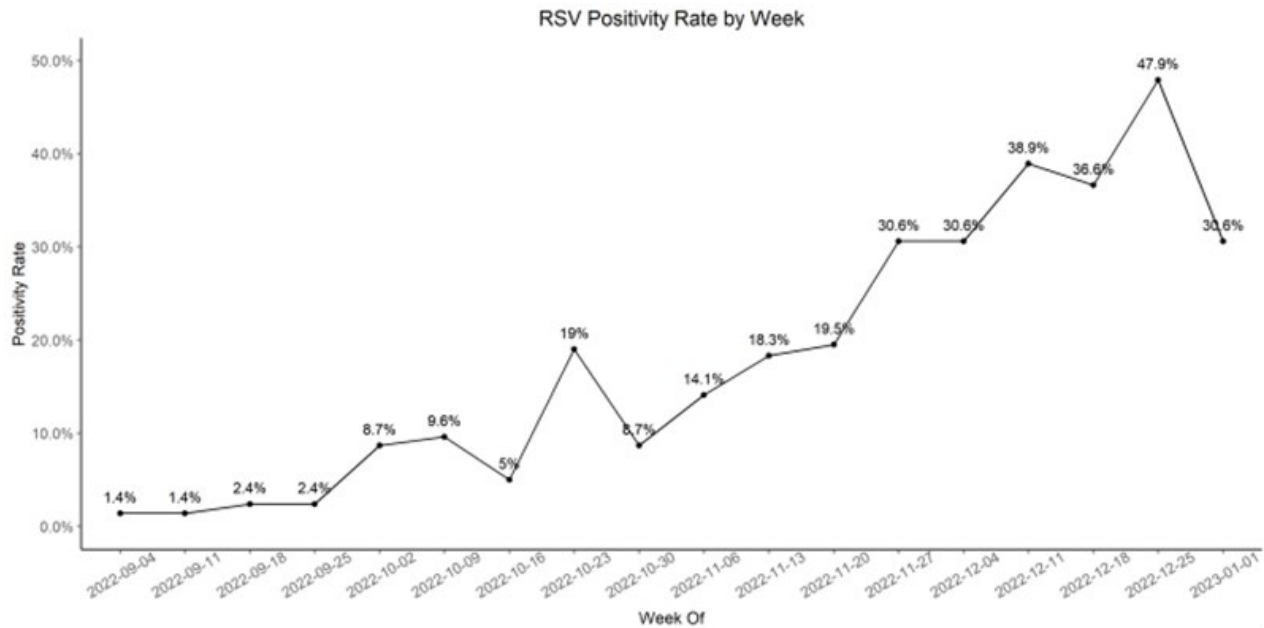


Genomics capacity and capability continued to rise to meet emerging and evolving needs at BC Cancer. Two new assays were implemented in the Cancer Genetics Laboratory: *acute myeloid leukemia minimal residual diseases monitoring* and *DPYD gene testing* for predicted response/adverse reaction to 5-fluorouracil treatment. Improvements were also made in the automation of sequencing analysis to help with the scalability of testing, while the Ministry of Health’s spring 2023 announcement regarding B.C.’s 10-year cancer action plan has further galvanized advances in cancer screening, genomics and treatment.

BC Children’s and Women’s Hospital (C&W)

For BC Children’s and Women’s Hospital (C&W), 2022 was a remarkable year. The C&W laboratory validated and initiated the expansion of gene targets for newborn screening (NBS) to include testing for three additional disorders: severe combined immunodeficiency (SCID), spinal muscular atrophy (SMA) and biotinidase deficiency. This testing is critical, as early detection of these disorders can enable a more timely application of treatment and reduce morbidity and mortality. Additionally, the C&W laboratory strengthened its partnership with site leadership and research teams via renewed conversations regarding supporting the hospital’s robust academic mandate.

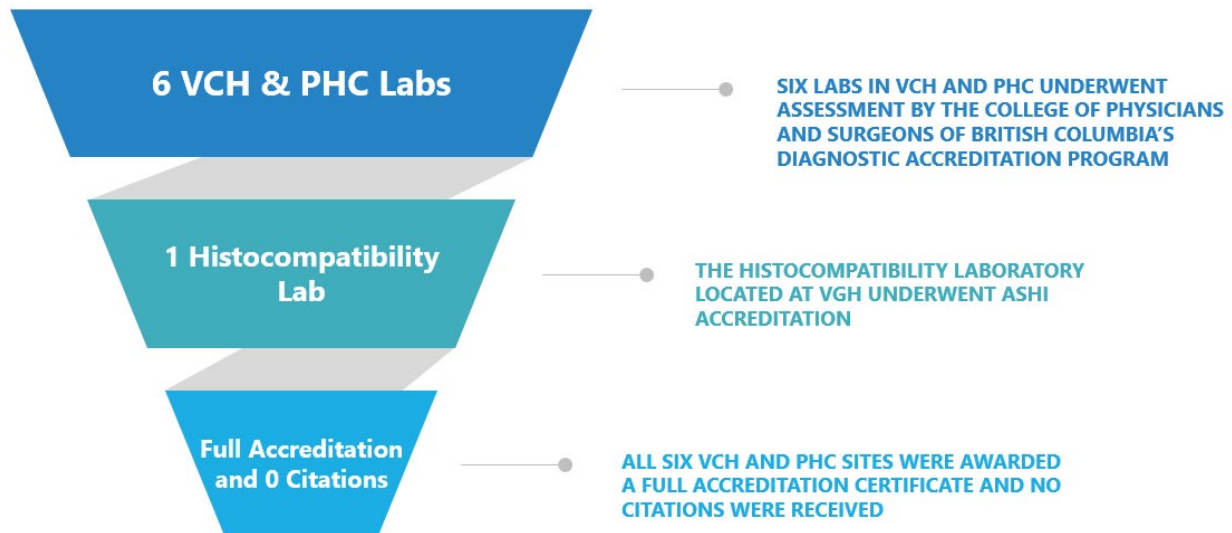
The C&W site stood up an emergency operations centre (EOC) early in the response to the triple threat of COVID-19, influenza and respiratory syncytial virus (RSV). This EOC model was later adopted by the rest of the province and the C&W lab played a key role in the success of the triple threat response by assisting with the creation of the new Sunny Bear Clinic while continuing to meet the strict demands of pediatric respiratory pathogen testing turnaround times. And, as this exceptionally busy year drew to a close, dedicated lab staff continued to put patients and their families first by voluntarily staying overnight during inclement weather events to support care during the December 2022 RSV infection surge.



Vancouver Coastal Health (VCH) & Providence Health Care (PHC)

VCH and PHC laboratories celebrated many accomplishments over the course of FY 22/23. Despite ongoing challenges, the team proudly continued to provide accurate, timely laboratory testing throughout the region. General laboratory testing continued to increase, with noticeable increases seen in VCH community sites, as well as specialized testing areas at Vancouver General Hospital (VGH) including cytogenetics, histocompatibility and flow cytometry.

Six laboratories in VCH and PHC underwent assessment by the College of Physicians and Surgeons of British Columbia’s Diagnostic Accreditation Program this year. A significant amount of preparation from front-line staff was required for these inspections and all six sites were awarded a full accreditation certificate. The Histocompatibility Laboratory located at VGH (the only one of its kind in B.C.) also underwent the American Society for Histocompatibility and Immunogenetics’ (ASHI) accreditation process. The team’s hard work and attention to quality paid off, as no citations were received.



As in previous years, both PHC and VCH implemented new technologies. Both VGH and St. Paul’s Hospital (SPH) moved ahead with a Total Laboratory Automation system for medical microbiology. Along with automating many manual processes to address the medical laboratory technologist (MLT) shortage, this new technology contains artificial intelligence that enables consistent culture capture, helps standardize reporting, improves traceability, creates controlled environments and enhances quality. Simultaneously, other important capital equipment funding projects continued. VGH and SPH will see new chemistry analyzer systems go live in 2023 and a refresh of coagulation instrumentation and immunohematology analyzers is also planned. A significant renovation for the Anatomical Laboratory at VGH began in March 2023 and the Sechelt Laboratory is nearing the end of a year-long refresh and expanded space. The new St. Paul’s Hospital is in the planning and design stage with equipment procurement underway. It is on track to open to the public in 2027.

While new technology and quality improvement initiatives were notable accomplishments in FY 22/23, the VCH/PHC region also welcomed new faces to leadership positions and saw the retirement of many long-serving employees. Health human resources issues are ongoing, and the VCH and PHC laboratories continue to experience a shortage of trained MLTs and medical laboratory assistants (MLAs). As such, maintaining laboratory operations is challenging in the Metro Vancouver area, with issues being even more pronounced in rural and remote laboratories. Difficulty filling vacancies resulted in significant amounts of overtime work for existing personnel and staff burnout remained a concern. The filling of contracted MLT positions helped with the staffing shortage, but was by no means the answer to the issue. The British Columbia Institute of Technology (BCIT) expanded available MLT student seats, which continue to be sorely needed to achieve adequate staffing levels.

Fraser Health (FH)

As Fraser Health laboratory gradually recovered from the COVID-19 surge of early 2022, the lab continued to face formidable health human resources, space and test utilization challenges. Despite these issues, the FH team remained focused on several essential laboratory projects in various disciplines during this period:

- The Hematology team undertook the Sysmex Replacement Project wherein the technical team successfully replaced all six remaining Sysmex analyzers at Fraser Health, which unified all labs under one platform.
- Pre- and post-analytics teams successfully implemented Positive Patient Identification (PPID) across all 13 of our sites.
- Biochemistry began the Chemistry Automation Replacement Project (CARP), which involved replacing four chemistry automation lines and included new front end, instrumentation, back end and middleware components. Despite significant obstacles, the team continues to work towards completing phase one (four automation lines) in late 2023. In phase two, seventeen additional instruments will be replaced across nine sites between 2024 and 2025.
- Despite the ongoing pandemic circumstances, a monkey pox outbreak and a respiratory illness surge, the Microbiology team achieved several significant milestones including implementing meningitis/encephalitis (ME) molecular testing for cerebrospinal fluid (CSF) using FilmArray, completing phase one of the lab expansion at Surrey Memorial Hospital (SMH), and the installation and implementation of new BacT/ALERT-VirtuO analyzers.
- Anatomic Pathology successfully executed several initiatives to enhance the efficiency and efficacy of pathology testing. Notably, the team has validated various immunohistochemistries including OCT3/4, P40, P57, HHV8 and MUM1, which demonstrated reduced turnaround times.
- The Transfusion Medicine Department completed the Biorad Project, which featured the installation of two IH500s at Surrey Memorial Hospital (SMH) and Royal Columbian Hospital (RCH) and the installation of five Saxo instruments that enable the remote resulting of antibodies.
- The Quality team provided support to six UPCC and seven renal clinics in achieving DAP accreditation, making them the first in B.C. to do so. Additionally, OMNI Module 12 document control was launched, which will streamline inspections and audit processes beginning in 2023 with over 2200 links to DAP standards. The team also engaged in leadership development activities and implemented a dashboard to track progress.

Over the course of FY 2022/23, the FH laboratory team faced ongoing challenges including health human resource shortages, space constraints, change management and competing priorities for support

services. Despite this, they remained committed to delivering high-quality patient services and advancing the field of laboratory science.

CARP – Chemistry Analyzer Replacement Project:



CARP – Chemistry Analyzer Replacement Project:



SMH – Phase 1 – Micro – Grand opening of the newly renovated space (including the replacement of all blood culture instruments):



SMH – Phase 1 – Micro – Grand opening of the newly renovated space (including the replacement of all blood culture instruments):



Provincial Blood Coordinating Office (PBCO)

Over the course of FY 2022/23, the BC Provincial Blood Coordinating Office (PBCO) achieved a number of accomplishments and outcomes:

Immune globulin (Ig) utilization management:

- In FY 2021/22, Ig cost the province approximately \$78 million. Bearing this in mind, the PBCO focused efforts on several key initiatives to better understand and improve use. The Blood Product Request Portal (BPRP) is an in-house application used to track Ig requests and approvals. In order to enable better screening practices, the application was modified to capture greater diagnostic information. Specifically, additional detail is now captured in BPRP as well as on additional required documentation for both secondary immune deficiency (SID) and neurology cases. The revisions to the BPRP were deployed in January 2023 to align with the provincial implementation of new recommendations for SID, as well as the expansion of the Provincial Neurology Program.

Recommendations for Ig Use for Secondary Immune Deficiency:

- Last year the PBCO supported a series of province-wide rounds sessions hosted virtually for each B.C. health authority to prepare ordering physicians for the implementation of new provincial recommendations. Early in 2022/23, health authorities began internal implementation of the new ordering templates to support the January 2023 deployment of the upgraded BPRP. The BPRP enhancements included improved condition detail that requires users to provide diagnostic information regarding the patient's underlying conditions and reason for the Ig request.

Expansion of the Provincial Neurology Program:

- In 2012 when the program was initially implemented, only certain peripheral nervous system (PNS) conditions were included in centralized specialist screening. While PNS conditions account for the majority of Ig use in neurology, analysis over the years has shown there is a growing use of Ig for central nervous system (CNS) conditions. In order to address this need, the PBCO supported the formation of a working group made up of neurologists, CNS specialists and transfusion medicine physicians to develop a more robust neurology program. The program included treatment recommendations and centralized specialist screening for IVIg use for CNS conditions in B.C. The new enhanced neurology program officially went live on February 1, 2023.

Transfusion Safety: FY 2022/23 saw the PBCO put considerable effort into redeveloping and updating several key resources:

- In July 2022, the *Safe Transfusion Practice: Second Edition* eLearning course went live on the PHSA Learning Hub. The launch marked the culmination of a significant effort by the PBCO and several subject matter experts from the Nursing Resource Group to redevelop the course. There has been exceptional interest, with over 2400 users across all health authorities completing the course.

- Several resources to support improved transfusion reaction recognition, management and reporting were developed, including:
 - a. A Transfusion Reaction Quick Reference Guide – a one-page visual job aide developed to guide users on initial transfusion reaction management using a symptom based approach;
 - b. Revisions to the TM MPM Section 11 on transfusion reactions that also follows a symptom-based management approach;
 - c. A revised Transfusion Reaction Report Form to help standardize the format and content reported;
 - d. An updated clinical quick reference guide to ensure appropriate steps are taken in the event of a transfusion reaction; and
 - e. The creation of a job aide for physicians when reviewing and concluding transfusion reactions.

The most significant challenges the PBCO faced this fiscal year included:

- Balancing the internal capacity required to maintain existing operational activities while still developing new initiatives;
- Stakeholder availability due to competing health authorities' workloads and priorities; and
- Continuing to deal with staff vacancies, turnover and the loss of institutional knowledge. The PBCO medical director role vacancy required PBCO to operate at 0.25 full-time equivalency (FTE) for half of the year before shifting back to 0.5 FTE.

5.0 Corporate and Administrative Affairs

Laboratory Services

PLMS continued to strengthen our strategic partnership with the Ministry of Health, furthering a thoughtful and collaborative approach to policy development, accountability and transparency.

We collaborated on the following initiatives to improve the effectiveness and efficiency of Ministry-transferred functions and processes under the *Laboratory Services Act (LSA)*:

- Completed key deliverables related to laboratory facility approvals, requisitions and provisional tests to enable the Minister of Health to delegate net new decision-making authority to PHSA.
- Published an updated *Outpatient Laboratory Facilities Manual of Policies (v.3.0)* with additional policies to allow operators to report disruptions.

- Developed and supported extensive data collection, analysis and improved reporting of facility metrics to quantify and track protracted service disruptions at the provincial level.
- Revised and implemented an updated *Moratorium Exemption Policy* and process for laboratory facility approval requests to streamline interactions between PLMS and lab operators.
- Leveraged and strengthened internal PLMS relationships:
 - Forecasted timelines and completion milestones with the Discipline Advisory Committees, while advancing the backlog of new test applications and post-implementation reviews that were on hold during the pandemic.
 - Defined and implemented processes to assist and provide value to the external reviews of the Guidelines and Protocols Committee (GPAC).

Laboratory personnel attrition continued to be a challenge as program portfolios gained momentum after prolonged inactivity during the pandemic. To mitigate future risk, Laboratory Services is transitioning to a team-based approach to program delivery, which will also ensure timely responses to all stakeholders.

Out of Province/Out of Country Program

Over the past year the demand for out-of-province testing continued to increase as advances in clinical research introduced the commercial availability of novel, expensive tests and targeted therapies, shifting standards of care. Despite the increased demand, the OOP/OOC Program managed expenditures to operate within budget by securing competitive pricing for costlier tests and taking advantage of more comprehensive tests offered by vendors at no additional cost.

Program staff have worked with our key stakeholders to streamline processes, which has shortened the window of time between receipt of the application and the generation of a decision letter to an average of less than two business days.

The OOP/OOC Program is partnering with the Ministry of Health on two projects scheduled for completion in FY 2023/24:

- Guidelines and Criteria Project to expand on the *Policies and Guidelines Document* enforced jointly by PLMS and the Ministry.
- Process and Accountability Project to define OOP reporting processes and performance metrics to the Ministry, which will provide transparency around our processes and inspire continued confidence in PLMS as we manage this important program.

The OOP Program is looking toward future projects to improve efficiency and reduce workload for both program staff and end users via enhanced electronic application capability and a portal for applicant access to decision letters.

Similar to other lab-based programs, OOP/OOC continues to experience challenges due to staff turnover and a decreased capacity to manage workflows. The addition of new discipline strategic leads as reviewers of OOP funding requests increased the program's ability to distribute the workload and alleviate stresses encountered during staff absences.

Annual Report to Ministry, Provincial Laboratory Medicine Services, PHSA FY 2022/2023

Executive Director, Corp & Admin Affairs:

Marline Halisheff

Director, Laboratory Services:

Cheryl McCullough

YTD

Apr 1, 2022 to Mar 31, 2023

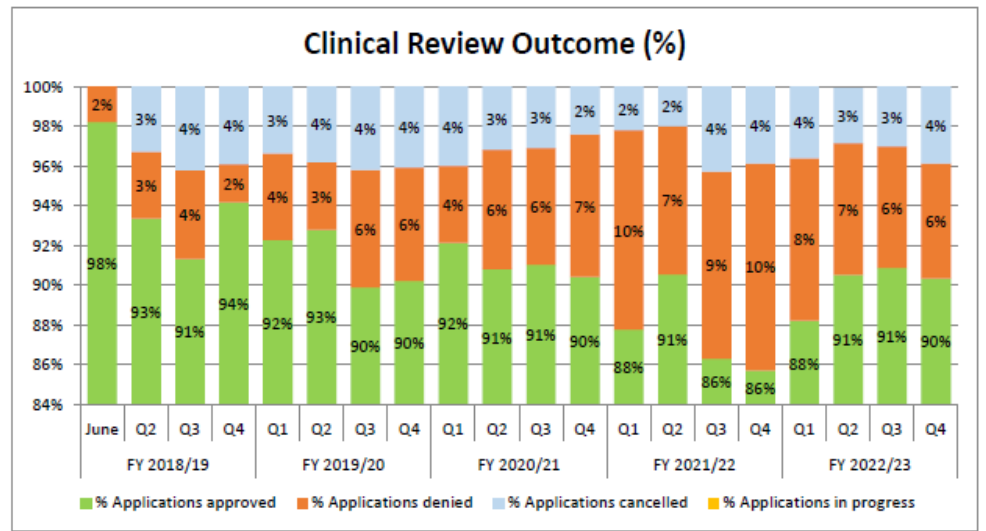
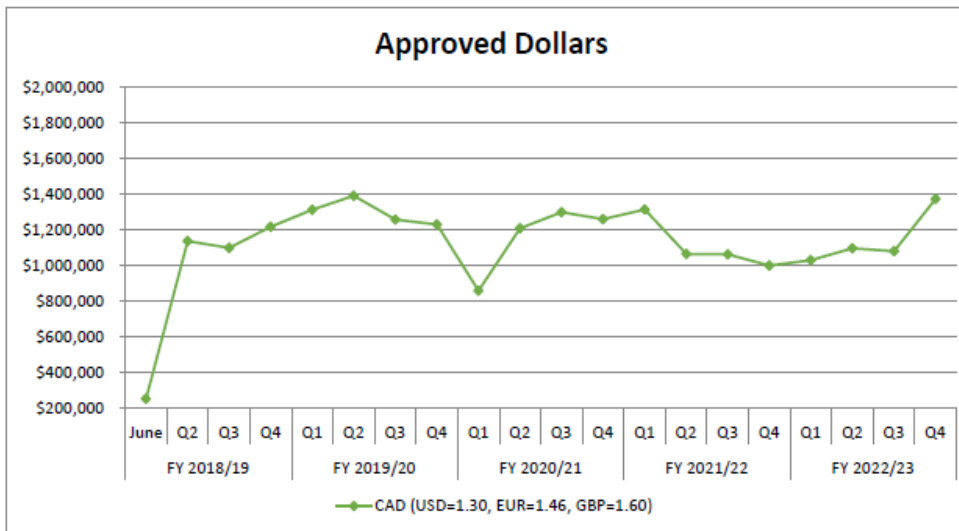
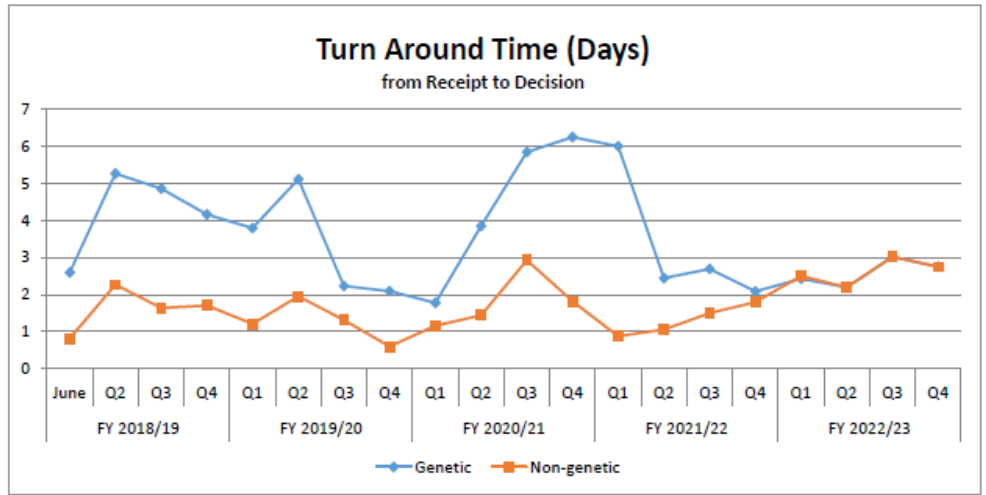
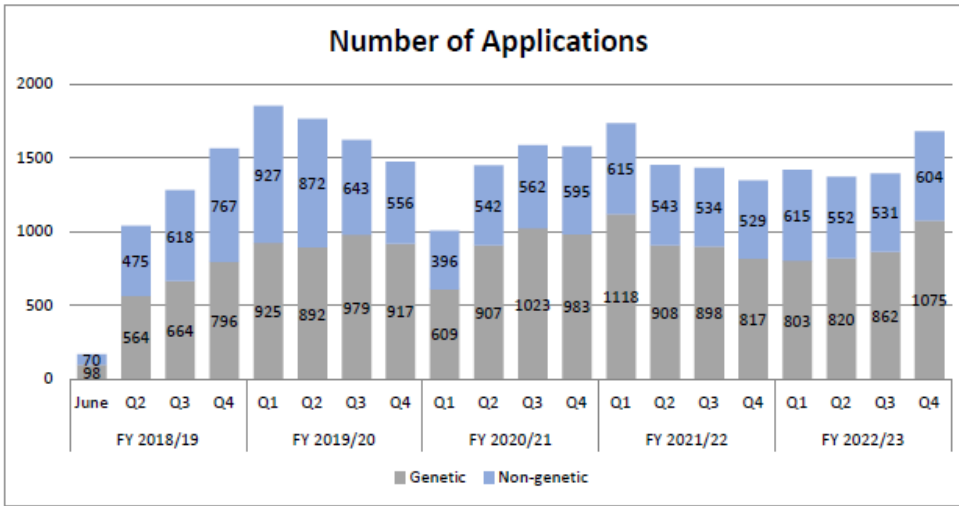
	Metric	YTD
Guidelines/ Protocols	In progress	7
	Waiting to begin	1
	Under consideration for GPAC work plan	4
	Lab representatives in GPAC working groups	16
	Requests for Endorsement submitted	8
	Records Of Decision	8
Requisitions	Total requests to create/revise requisitions	4
	In progress	0
	Denied	0
	Withdrawn	0
	Requests for Endorsement submitted	8
	Records of Decision	9
Referring Practitioners	Total requests received	1
	In progress	1
	Denied	0
	Requests for Endorsement submitted	0
	Ministerial orders received	1
Fee-For-Service	Change requests	19
	In progress	00
	Completed	17
	Issues resolved	9
	Issues in progress	0
	Code As	4

	Metric	YTD
Facilities	Mandatory report changes	146
	Disruption reported	327
	Notifications of change to existing facility	39
	Amendments to an existing approval	2
	Moratorium Exemption Requests	6
	New facility requests	5
	AMO analysis requests	0
	Operator Payment Administration forms	27
	Requests for Endorsement submitted	5
	Records Of Decision	5
Out-of-Province/Out-of-Country Funding	Total Applications for funding	5276
	Funding requests for genetic lab testing	3560
	Funding requests for non-genetic lab testing	2302
	% Funding requests for genetic lab testing	61
	% Funding requests for non- genetic lab testing	39
	Applications approved	5276
	Applications denied	389
	Applications cancelled	197
	TAT genetic funding applications (avg. calendar days from receipt to decision letter)	3
	TAT non-genetic funding application (avg. calendar days from receipt to decision letter)	3
Total approved funding (CAD) (USD =1.30, EUR=1.46, GBP=1.60)	\$4,570,439	

Exec. Director, Corp & Admin Affairs: Marline Halisheff

Director, Laboratory Services: Cheryl McCullough

Interval: Jun 18, 2018 - Mar 31, 2023



Alliance Management Office (AMO)

Over the last year the AMO has continued to focus on establishing and maintaining strategic partnerships and managing important alliances. For the team, alliance management is a mindset as well as a business model. It involves developing and enhancing relationships with alliance partners to achieve mutual goals and maximize the value of the collaboration. The AMO's focus is on navigating and leveraging the complex dynamics between our partners' strengths, cultures and operating systems to create sustainable business relationships.

A key activity for the AMO is the operational oversight of the *Master Laboratory Services Agreement* (MLSA) with LifeLabs. The MLSA defines a robust governance model that enables consistent management of the agreement as well as cohesive processes and defined decision making that enables PLMS, the Ministry of Health and LifeLabs to work together effectively and collaboratively.

During this period the AMO engaged in a number of key initiatives:

- Facilitated fixed period funding discussions with LifeLabs, the Ministry and PHSA to forecast the expected financial costs under the MLSA for the next three-year period;
- Created efficiencies while leveraging the economic value of the MLSA by transitioning contracted mobile laboratory services (MLS) provided to provincial correctional facilities to the MLSA;
- Developed technical playbooks to provide guidance on complex sections of the MLSA to support operational oversight of the agreement and facilitate succession planning;
- Assessed, managed and facilitated governance approval of change requests related to lab operations including increasing mobile lab collections at long term care facilities, increasing support services at urgent and primary care centres, patient service centre (PSC) relocations and closures, and the implementation of new systems designed to improve the safety, quality and consistency of community lab services; and
- Developed a framework and supporting documents to enable Laboratory Service Agreement negotiations and co-led agreement negotiations.

Additionally, the AMO supported the following expansive partnership initiatives:

- Leveraged public/private partnerships to expand patient access to laboratory services in Nelson and the surrounding community, and increased efficiencies by centralizing testing from this site;
- Overseeing the transition of the Central Accessioning Centre from Russ Baker Way to LifeLabs' Cam Coady Building in Surrey. The central accessioning model provides continuity of service for COVID-19 testing and enables system resiliency and business continuity of lab services in B.C. while building for future opportunities;

- Engaging across the provincial lab system to support a number of key initiatives including the Canada-Ukraine Authorization for Emergency Travel Program; and
- Working across the organization to support the development of the PLMS Indigenous Action Plan.

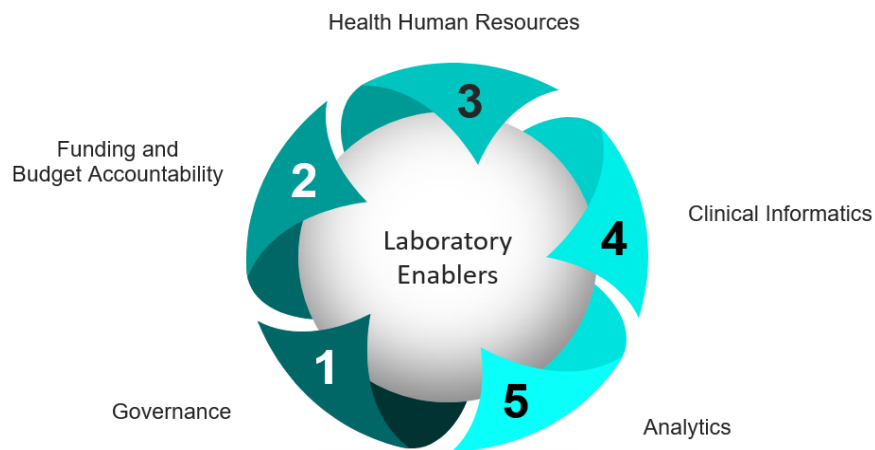
The AMO team faced the following difficulties while meeting PLMS’ alliance management objectives:

- Province-wide health human resource shortages resulted in a number of LifeLabs’ PSC closures primarily impacting patient access across Vancouver Island; and
- Fixed-period funding discussions were challenging and resource intensive. Succession planning presented as an issue as the original team facilitating the processes and decisions was not the team finalizing the work. To address this issue for the future, the AMO team developed a playbook to document all phases of the fixed-period funding discussions to provide clarity and business continuity for future teams involved in these activities.

The AMO continues to champion a more collaborative, partnered approach to solving problems, unlocking potential and seeing new possibilities in B.C.’s lab medicine landscape. By committing to the navigation of a complex governance environment with our allied partners, the AMO remains supportive of and engaged in the development of a wholly interconnected lab system.

6.0 Laboratory Enablers

There are five key enablers that underpin the success of a provincial laboratory model. These enablers are needed to support, advance and sustain the work of the laboratory system as a collective. The enablers are governance, funding and budget accountability, health human resources, clinical informatics and analytics. Prioritizing these key enablers will ensure the success of an integrated provincial laboratory system in addressing strategic themes and objectives across the province.



Governance and Alignment

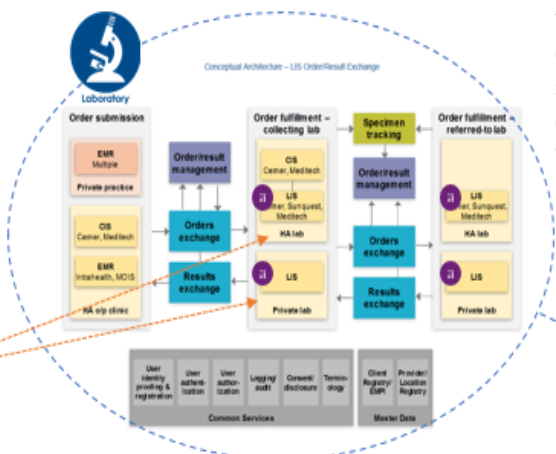
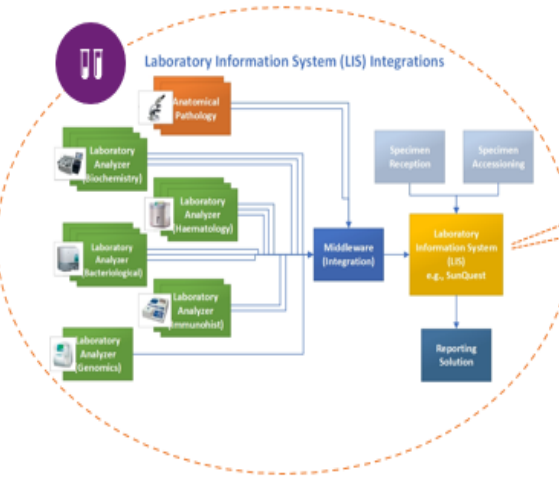
We are experiencing one of the most pressured periods of health care in the history of our publically-funded health system. Now, more than ever, the importance of an effective governance model to facilitate decision-making, manage relationships and stakeholder engagement, and to optimize strategic planning is crucial. It is for this reason that PLMS is taking a deliberately thoughtful approach to developing and evolving an effective governance philosophy and structure.

An effective governance structure design needs to fully consider internal dynamics and external factors related to the health system the laboratory operates within to ensure the laboratory ecosystem continues to deliver on high-quality care and respond effectively to patient safety and quality challenges. The PLMS governance structure must enable the realization of PLMS' mandate as well as the opportunities and fulfillment of our obligations to our partners, including the Ministry of Health. The governance structure must also recognize the complexity and inherent risk of laboratory medicine delivery and the impacts on patient safety (which are often underestimated), as well as the changing environment of the health system. The PLMS governance structure needs to be agile to support the shifting lab environment and must fully support our people to become integrated, collaborative leaders.

Laboratory systems are usually the most sophisticated systems in any health organization.¹

¹ Jones, R. G., Johnson, O. A., & Batstone, G. (2014). Informatics and the Clinical Laboratory. *Clin Biochem Rev*, 35(3), 177-193.
Image Source: BCCSS 2017 Strategic Funding Model Component Plan & PHSA 2020 Public Sector Lab Costing Model (Deetken)

Within each lab, **every benchtop analyzer needs to connect** to a Laboratory Information System (LIS) to provide all testing modalities (hematology, microbiology, etc.).



There are **117 public or private labs** across BC¹, each reliant upon their LIS and local systems to deliver services. **Each regional CI team maintains their own local systems** in partnership with regional IMITS teams.



Each LIS must integrate and share information with requesting provider IT systems (EMR or EHRs) and provincial systems such as EMPI, PLR, and PLIS.



B.C.'s multi-laboratory organization environment exacerbates the complexity of the lab system and increases risk levels due to the interconnection of multiple systems functioning in a safe, effective and viable manner.

As PLMS continues to evolve its target operating model, collaboration with the Ministry to develop a governance structure that enables strategic policies, advice on provincial laboratory issues and operational engagement is in development. Our objective and design principles are based on the development of a model that enables and supports patients, providers and the health system, and is transparent, fair and emulates collaboration and trust. An initial draft has been developed and will be finalized in the next period.

Funding and Budget Accountability

Appropriate laboratory funding and budget accountability that align with provincial lab system goals and objectives are paramount to an effective, transparent governance system. To that end, approximately \$767 million is spent annually in B.C. on the delivery of clinical laboratory services across public and private service providers.

B.C.'s clinical laboratory service delivery system provides high quality services, however, it is not immune to challenges that revolve around equitable and optimal access and appropriate service utilization. Pressures related to funding models, capital funding constraints, disparate clinical infrastructures, increasing demands and velocity of technological advances have eroded efficient, effective and consistent service delivery. Utilizing the current funding models has resulted in excess costs and patient access issues, while competing centres of expertise and specialization impact opportunities for lab optimization.

As the province emerges from the COVID-19 pandemic, issues pertaining to the sustainability and resiliency of the lab system must be addressed. Ongoing human resources pressures, operational silos across the health authorities, and lab system misalignment continue to speak to the growing need to implement system-wide provincial strategies to address these challenges. A fully interconnected provincial lab system and the ability to pursue provincially strategic innovation require funding support and transparent budgetary accountabilities.

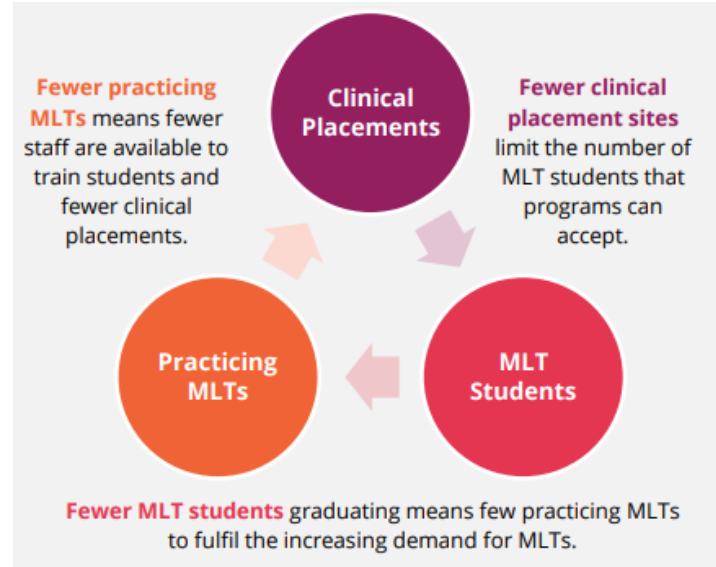
Laboratory Human Resources

Labs across the province continue to be impacted by the global shortage of trained medical laboratory technologists and laboratory assistants. While our lab operations teams and clinical informatics teams continue to explore automation and innovative technologies to mitigate manual processes, difficulty filling vacancies results in significant amounts of staff overtime hours. In conjunction with this, staff burnout continues to place further strain on an exhausted workforce.

PLMS co-leads the Provincial Laboratory Health Human Resources Advisory Committee; its purpose is to provide a forum to discuss strategy, share information and act on provincial priority issues related to the lab workforce. The committee has been engaged in the development of near-, mid- and long-term laboratory health workforce planning solutions in alignment with the broader Provincial Health Human Resource Strategy.

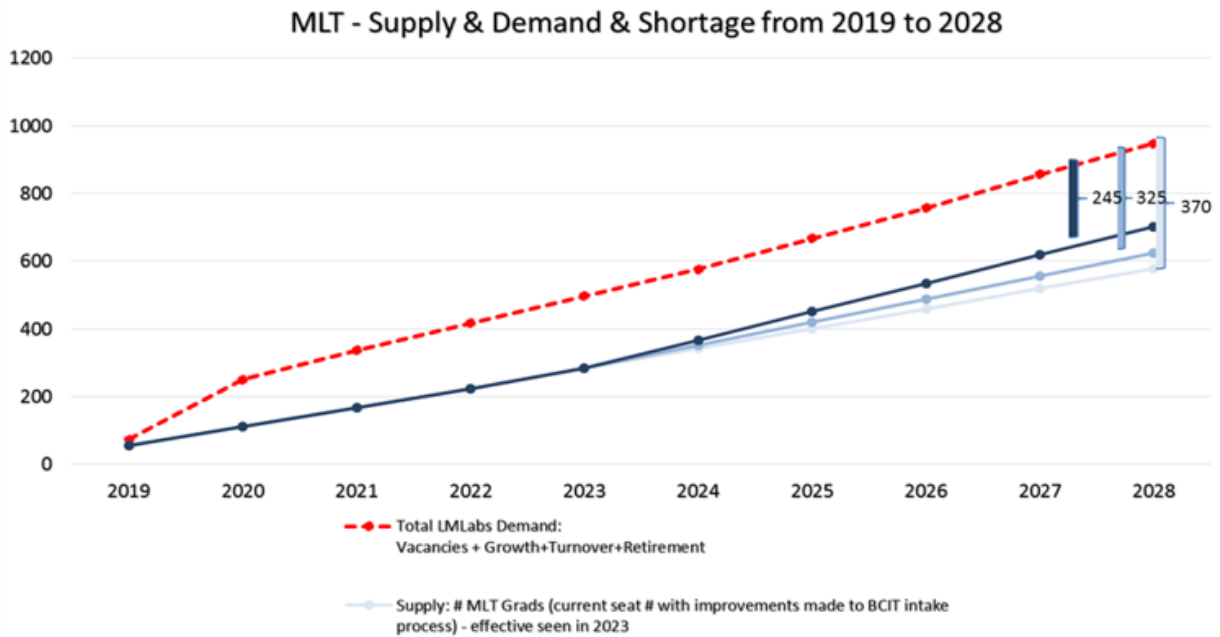
Effectively planning and managing the laboratories' largest and most important asset – our people – will ensure the availability of qualified personnel to meet the current and evolving needs of clinical laboratory medicine and academic services across the province. Seventy per cent of all medical decisions rely on lab results and there is a growing demand for testing due to an increasing and aging population, the expansion of preventative medicine, and an increasing demand for medical information. Lab health human resource shortages mean delays in turnaround time, lengthened hospital stays and duplicate medical appointments.

Image credit: https://www.mlpaoo.org/_files/ugd/2bfe16_07057040d4d64b18af0d8f4f5f521aa3.pdf



The Advisory Committee and associated working groups have been engaged on a number of key initiatives:

- Advancing recommendations to establish a bursary program for internationally educated, high-priority allied health professionals, with MLTs as a targeted occupational group.
- Advancing recommendations to support 36 Facilities Bargaining Association (FBA) members' completion of the MLA training program by providing tuition support and income stipends. The focus is on rural and remote communities and urban centres where MLA vacancies are high.
- Endorsement and support of advancing combined laboratory and X-ray technologist (CLXT) training and clinical practicum coordination for the province.

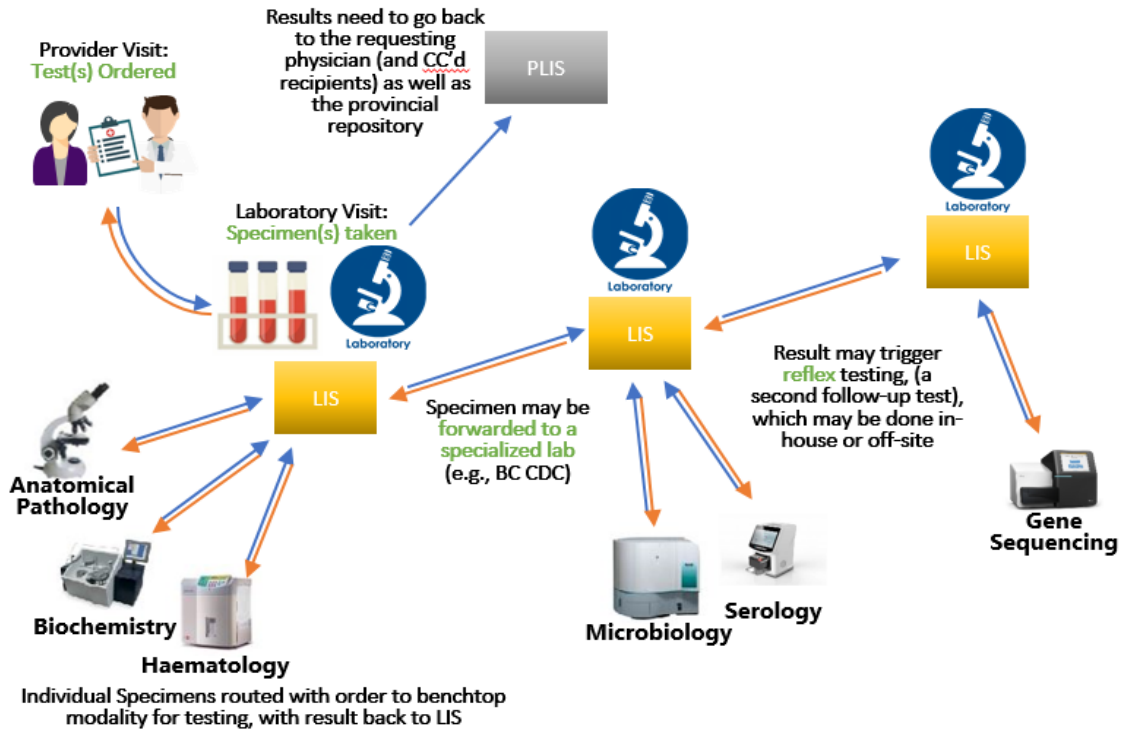


Clinical Informatics

Modern healthcare as we know it simply cannot function without laboratory medicine services. Because the diagnostic process occurs over time and can involve multiple health care professionals across different care settings, the free flow of information is critical. In order for health care professionals to develop a complete picture of a patient's health problem, it is crucial that all relevant health information is available and easily accessible. Successful delivery of laboratory services for patient care across B.C. requires collaboration and coordination of services across any of the autonomous providers.

Laboratory medicine IT systems in B.C. handle massive data volumes and are consistently required to manage complex information flows. Recognizing the importance of escalating the lab clinical informatics imperative, PLMS and Information Management/Information Technology Services (IMITS) submitted a joint partnership request to PHSA to shore up the delivery and support of lab services. The submission included the development of solutions to address recommendations arising from the *PHSA Internal Audit of Laboratory Information Systems* and to support PLMS in its role as integrator for laboratory services delivery, including Ministry of Health priority laboratory initiatives to enable the stability and sustainability of the informatics infrastructure.

Processing a single patient's lab order may require the **sharing of information between many lab systems** and the transport of specimens to **multiple labs across the province**.



In addition, PLMS partnered with KPMG to develop a compelling narrative detailing the complexity of the provincial laboratory clinical informatics environment and the role that PLMS plays in the delivery of lab medicine across our province. This material is being leveraged across PHSA and PLMS to elevate the recognition that high-quality laboratory medicine diagnostic services are essential to safe health care delivery.

The Clinical and Systems Transformation (CST) project continues with activations across VCH, PHC and PHSA (VPP) sites. In November 2022, VGH launched the Cerner platform to enable clinical systems transformation (CST). CST is a multi-year project designed to improve the safety, quality and consistency of patient care access across VCH, PHC and PHSA. The new system acts as a single electronic record of patient care and replaced the previous outdated systems. The CST Cerner activation was a monumental task for the VGH lab. Hours of process review and training undertaken by over 400 staff members paid off and the largest Cerner activation to date was successful. This achievement fulfilled one of the Ministry of Health's strategic priorities requiring all health authorities to standardize clinical information systems.

The Forensic Psychiatric Hospital and the University of British Columbia Hospital (UBCH) are scheduled to go live with CST Cerner in late 2023, with Richmond Hospital following in 2024. The implementation of Cerner paved the way for the use of Sunquest Clinical Collect for VGH inpatients. This quality-based initiative will all but eliminate patient identification errors while addressing Health Canada standards for sample collection.

Over the course of the past year, the PLMS Clinical Informatics team has led and/or contributed to the following initiatives:

- **Bi-Directional Data Interfaces:** developed a roadmap that will interface test orders/results from health authority labs to the BCCDC.
- **Co-Path Expansion to Fraser Health:** initiated a project to onboard Fraser Health to the VPP instance of Co-Path to support a Lower Mainland pathology solution to improve specimen tracking, physician experience and support the future vision for digital pathology.
- In **Fraser Health**, the Lab Information System (LIS) team has supported new projects for all divisions in addition to enhancing the existing LIS platform and building the framework for the upgrade to Meditech Expanse. The upgrade went live at Eagle Ridge Hospital in April 2023, with additional sites to follow in the fall of 2023 and over the next two years.
- **Provincial Middleware Solution:** developed a strategy and roadmap to support health authority implementations of a provincially-procured middleware solution.

On top of ongoing initiatives and large-scale projects in flight, data volumes across the province remain substantial and on any given business day labs process 24,000 requisitions, run 250,000 test batteries and deliver 750,000 test results to support routine clinical decisions and diagnoses.

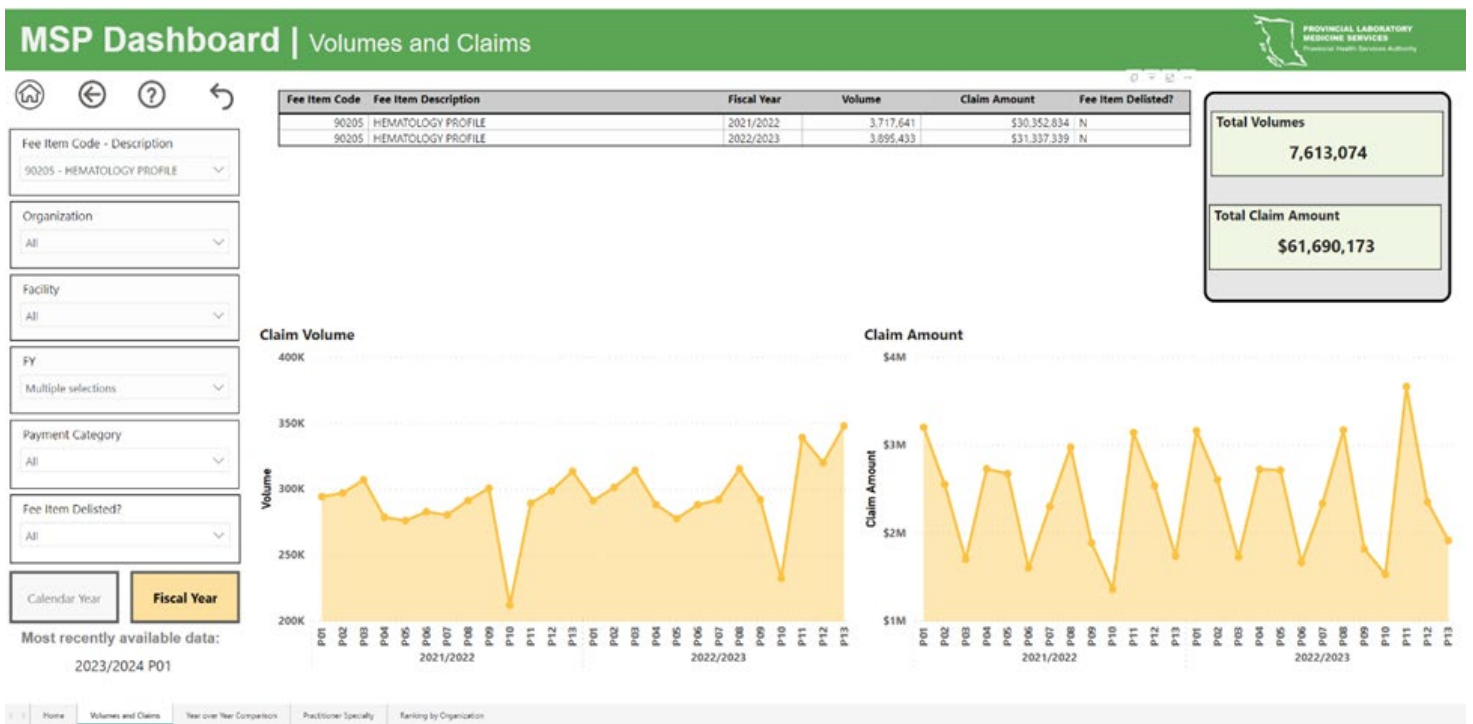
As in years past, the B.C. laboratory system continues to face sweeping informatics deficits in terms of capital investment, staff support and data transmission. Staff recruitment and retention have been ongoing challenges across the LIS and Informatics teams, and the various layers of operational governance across the province continue to increase the complexity of collaborative health authority initiatives.

Analytics

The PLMS Analytics team worked on various projects across a range of business functions this fiscal year. These projects included reporting on infrastructure development, supporting test reviews performed by other PLMS and PBCO teams, data quality review and fulfilling ad hoc requests. Some of the notable projects worked on include:

1. Dashboard Development:

- a. The PLMS team developed the *Medical Service Plan (MSP) Volumes and Claims Dashboard*, which goes live in June 2023 (see image below).
- b. The PLMS team collaborated with the Data, Analytics, Reporting and Evaluation (DARE) Data Infrastructure team to map five years of historical Provincial Laboratory Information System (PLIS) data as part of the development of the *Volume and Turnaround Time Dashboard*.
- c. The PBCO team focused on migrating a number of annual reports from other formats to dashboards. These dashboards will allow end users to review their data on a regular basis instead of waiting for a singular annual report.



2. **Test Mapping across Databases:** Worked on aligning tests across the various databases we regularly rely on, focusing on understanding how tests records differ between PLIS and MSP and between PLIS and Sunset. This was part of expanding subject matter knowledge and developing our fundamental understanding of each dataset and their limitations.
3. **Supporting GPAC and Provincial Discipline Committees:** Provided analysis of various MSP fee items to support ongoing post-implementation reviews. These analyses included topics such as volume and claim trending, identifying co-ordering tests and test ordering patterns based on physician specialty.

4. **BC Cancer LBC Conversion Modelling:** Supported the BC Cancer Lab Operations team and PLMS leadership by forecasting a timeline to convert conventional cytology to liquid-based cytology in B.C.
5. **Viral Respiratory Infection (VRI) Reporting:** With guidance from our partners at the health authorities and the BCCDC, the team validated the viral respiratory test data in PLIS and provided the DARE Data Infrastructure team with test mapping that formed the foundation of a new VRI data set for provincial monitoring. We also leveraged this data to support operations at BCCH as part of the daily “Surge Support Analytics Package”.
6. **Hereditary Angioedema (HAE) Analysis:** Worked with a project team from PHSA’s Expensive Drugs for Rare Diseases (EDRD) to analyze HAE patients treated with C1 Esterase inhibitors and those treated with lanadelumab. The goal for this project was to determine if the lanadelumab treatments had an impact on patient care and to understand if there were potential barriers to access the newer drug.
7. **Daily Inventory Reporting to Canadian Blood Services (CBS):** Worked with multiple stakeholder groups to provide a daily snapshot of the B.C. and Yukon blood inventory to CBS during blood shortage advisories.

The Analytics team continued to grow and evolve as it established new processes for various types of projects. A number of challenges were encountered that continue to be worked on, including:

1. **Data Quality:** The data in PLIS comes from many organizations, many of which have their own standards and conventions, which leads to difficulties when interpreting the data. Additionally, changes in clinical operations (e.g., new test names, new test kits, etc.) over time were not always captured accurately in PLIS.
2. **Acquiring Subject Domain Expertise:** The team identified discrepancies within the PLMS and PBCO datasets. While support from within PLMS was and continues to be tremendous, there were engagement challenges with partners from private organizations or the health authorities with respect to their assistance in understanding the cause of these discrepancies.
3. **Access to Additional Data Sources:** The PLMS team identified a number of strategic data needs as we expanded our offerings. This included access to physician ordering information in PLIS, linkage between PLIS and MSP at a patient level, and access to all microbiology and anatomical pathology data in PLIS.

7.0 Strategy and Innovation

Strategic Direction, Management and Innovation

PLMS continues to examine innovation opportunities as part of the Ministry of Health’s objective of enabling health sector innovation and delivering a sustainable health care system (as outlined in the Ministry’s

2022/23-2024/25 Service Plan). With innovation recognized as a key success factor in creating a sustainable health care system, PLMS received \$1.4 million from the Ministry to explore innovation opportunities for FY 2022/23.

The PLMS Strategy Management and Innovation portfolio is a new team within PLMS Corporate and Administrative Affairs with a responsibility to manage PLMS' strategy and innovation efforts including the administration of innovation funding.

Over the past year, key activities included the recruitment of staff and onboarding and instituting key elements of the portfolio's responsibilities, such as reporting and ongoing monitoring of the advancement of strategic initiatives across PLMS. Planning and process cycles were determined to support full engagement in the reporting effort.

This year marked an increased momentum in strategic planning activities. With the support of external consultants, PLMS engaged with the Ministry to drive the innovation strategy for provincial laboratory services aligned with the Ministry's Service Plans and mandate letters. Following consultations with health authorities in early summer 2022, PLMS identified 11 innovation priorities and 38 strategic initiatives that align with PLMS' strategic themes and support the innovation agenda. A key challenge was fully capturing and acknowledging the breadth of work and effort occurring under the PLMS umbrella with the recognition that not all PLMS activities were captured for monitoring purposes.

The Strategy Management and Innovation team, working with our partners in PHSA Supply Chain and an external consultant, advanced a review of the current lab logistics and courier system as part of the Provincial Laboratory Logistics Modernization initiative. The review analyzed overall spend, contracts, quality and governance, as well as operational elements such as route frequency and tracking mechanisms. The final report showcased a snapshot of the current state of the lab transport network and brought forward recommendations to assist in determining next steps to advance the provincial logistics system.

Strategic Clinical Planning and Policy

In 2015, the Provincial Advisory Discipline Committees were initially setup by B.C.'s Agency for Pathology and Laboratory Medicine. This year, under PLMS, the teams were re-envisioned under the new portfolio of Provincial Strategic Clinical Planning and Policy. This team ensures clinical operations align with provincial strategic goals and objectives, and that all policy decisions support those goals.

To build and enhance the Discipline Advisory Committees, a new team of strategic leads and medical discipline leads now co-chair and lead these groups to provide subject matter expertise on provincial service delivery planning; this includes providing recommendations regarding improving the quality and efficiency of

provincial lab services. The committees also support the development of new and expansion of existing programs, tests and services.

Once the team of strategic leads and medical discipline leads were in place, they began the work to create new Terms of Reference (TOR) and a committee membership that would support the *Communities of Practice* concept. Working collaboratively, the committees drive provincial engagement and discipline-specific quality improvement, innovation and optimization. Each committee is made up of medical, operational and technical leaders from all health authorities and representatives from the First Nations Health Authority, private lab partners and the Ministry of Health.

Gerome Mangubat, Hope Byrne, Brenda Jackson, Catriona Gano, Sandra Chow, Brigette Rabel, Kristin Rosinski & May He:



Early achievements from the Provincial Discipline Advisory Committees:

- Strategic lead training to support Out Of Province/Out Of Country approvals;
- Development of discipline-specific strategic plans aligning with overarching PLMS strategic themes;
- Review of low-volume testing to outline recommendations for delisting or continuation;

- Delivered recommendations for improvement to the current Standard Outpatient Laboratory Patient Requisition (SOLPR);
- Collaborated with the PLMS Lab Services team and the Test Review Committee (TRC) on the development of a new process for the introduction, amendment or deletion of lab tests in B.C.;
- Provincial rollout of a molecular-based Infectious Diarrhea Panel (IDP):
 - Completed IDP GPAC guidelines and obtained Ministry approval for a provisional MSP fee code;
 - Facilitation of provincial cross-validation IDP testing and standardization of informatics, testing protocol and reporting standards;
- Initialization of the development of a B.C. Autoimmune Testing Strategy:
 - Formed a working group and mapped current state to identify potential opportunities;
 - Gathered input from subject matter experts across health authorities – including lab operations, pathologists, biochemists and specialist clinicians;
- Gathered current state information on biomarker ordering patterns for colorectal and endometrial cancers, autopsy practices and the use of pathology assistants, as well as supporting the Provincial Digital Pathology initiative;
- Completion of the post-implementation review of antinuclear antibody (ANA) and extractable nuclear antigens (ENA) testing;
- Collaborate with Prenatal Service BC to include hemoglobinopathy testing educational materials on the PSBC Digital Hub and revise the Standard Outpatient Laboratory Requisition for Maternity Care to incorporate more guidance about hemoglobinopathy testing.

Diversity, Equity, Inclusion and Anti-Racism

PLMS remains committed to robust leadership in reinforcing and enabling PHSA standards and policies that provide guidance on the importance of fostering an inclusive culture of respect and recognition, and celebrating the differences and commonalities that make us unique and bring us together when it comes to the delivery of lab services across the province. We all have a commitment to eradicating racism, especially Indigenous-specific racism, and discrimination to create a culturally safe environment for all patients, families and staff in PHSA settings.

Being anti-racist and choosing to break down of barriers and demonstrate compassion and support for those experiencing racism or discrimination in any form must remain at the forefront of the important work we undertake daily. Acknowledging and addressing systemic racism and discrimination within our programs, services, policies and structures is critical. PLMS will continue to strive to achieve its goals of bringing people

together, overcoming damaging stigmas and biases, and cultivating a culture of respect that sees the value in bringing diverse ideas, perspectives, and experiences to the table, while implementing anti-racism responses and Indigenous cultural safety and humility accountabilities across all of our services and programs.

We must lead change and take concrete action to address the ongoing impacts of colonialism and systemic racism. PHSA's core value of respect serves as a reminder us that we are stronger because of our differences and must continue to work together to create space for anti-racism, diversity, inclusion and equity, so that opportunities for good health and well-being exist for all.

PLMS Action Plan for Indigenous Health

Through the *Truth and Reconciliation Commission of Canada Calls to Action* (2015), *In Plain Sight* (2020), *Missing and Murdered Indigenous Women and Girls* (2019), *Declaration on the Rights of Indigenous Peoples Act (DRIPA) and Action Plan* (2022-2027), PHSA is mandated to take action in making health care safer for Indigenous Peoples. As such, the PHSA Board has committed to eradicating Indigenous-specific racism, improving Indigenous health and wellness, and promoting cultural safety and humility across the organization. To support this important work, the *PHSA Strategy for Indigenous Health* was developed.

The *PHSA Strategy for Indigenous Health* includes program area action plans that will support PHSA's organizational goals of achieving:

- A health care experience free from Indigenous-specific racism for all Indigenous People
- Culturally safe care for all Indigenous People
- A culturally safe workplace free from Indigenous-specific racism for all Indigenous staff

Indicators are being developed to assess PHSA's goal achievement progress, and PLMS is responsible for implementing an action plan and reporting to PHSA Leadership. Our progress will be evaluated using measures identified in the strategy.

In developing the *PLMS Action Plan for Indigenous Health*, PLMS has pledged its support for disrupting the status quo to eradicate Indigenous-specific racism, improve Indigenous Peoples' health and wellness, and engrain Indigenous cultural safety and humility across provincial laboratory medicine services.

In partnership with the PHSA Indigenous Health team, PLMS leadership conducted a readiness assessment and outlined specific actions that PLMS will undertake to achieve the action plan goals and reach key milestones measuring the progress in our journey towards accessible, equitable, culturally safe lab medicine services and improved health outcomes for Indigenous populations.

Sustainability

In keeping with PHSA’s environmental sustainability priorities and the work of its Energy and Environmental Sustainability (EES) team, PLMS recognizes our duty to minimize environmental impacts in the delivery of high-quality lab medicine services. There is a great need to develop an approach to sustainability that balances ecological, societal and economic imperatives, and acknowledges the link between healthy environments and healthy populations. Continuing to work towards environmental sustainability assists us in the provision of exceptional health care and lab services for individuals and communities.

The Coast Salish teachings, gifted to PHSA by Knowledge Keeper, Sulksun, Shane Pointe, guide us as we build a culturally safe, inclusive and sustainable workplace. The teaching of *Nuts a maht* means “we are one” and recognizes that all living things are connected and we need to be thankful for and take care of all things.



Health care is responsible for 4.6 per cent of Canada’s greenhouse gas emissions.



To combat this and shift toward environmental sustainability, PHSA established GreenCare.



GreenCare projects and initiatives contribute to PHSA’s annual Climate Change Accountability Report.



PLMS is steering B.C.’s lab medicine community toward environmental stewardship.



PLMS is partnered and allied with agencies and businesses that integrate sustainability into health care operations.



LifeLabs’ Biohazardous Waste Consolidation Project has eliminated 1482 Stericycle pickups per year.

With the understanding that health care is responsible for 4.6 per cent of Canada’s total greenhouse gas emissions, which contribute to climate change and current human health issues, the PHSA EES team established GreenCare. First and foremost, it is a network founded to unite efforts to shift the B.C. health care system toward environmental sustainability and resilient care for healthy people and places. GreenCare projects and initiatives are aligned with PHSA’s *Environmental Sustainability Policy* and contribute to the network’s *Climate Change Accountability Reports (CCARs)*. The CCAR is an annual report published by all

provincial public sector organizations that publicly disclose their efforts to achieve carbon neutrality and serves as a valuable idea repository for organizations seeking to reduce their energy use and carbon footprint. PHSA's *Environmental Sustainability Policy* focuses on four key areas for improvement across the organization: environment leadership, sustainable operations, sustainable facilities and sustainable partnerships. PLMS is endeavouring to steer B.C.'s lab medicine community toward environmental stewardship with a collaborative approach towards sustainability. That, coupled with the dedicated maintenance of our partnerships and alliances with governmental agencies and businesses that integrate sustainability into health care operations, initiatives and programs, will ensure that PLMS is minimizing lab-related environmental impacts on multiple fronts.

As we continue to strengthen our partnership with LifeLabs, PLMS is proud to highlight their sustainability initiatives, including the Biohazardous Waste Consolidation Project. Between March and October 2022, 43 PSCs and three laboratories in British Columbia participated in LifeLabs' Biohazardous Waste Consolidation Project. As a result, they eliminated 1482 Stericycle pickups per year and reduced the number of kilometers driven by Stericycle trucks to service LifeLabs' sites by approximately 1625. This project notably lowered LifeLabs' carbon footprint and has served as an inspiration to PLMS regarding future climate action work.

Together with PHSA and our partners, PLMS is aiming to collaboratively enable transformational sustainability and minimize our environmental impact through leadership, strategic partnerships and the exploration of low-carbon operations, so we can strategically reduce the impact of the health care system on the environment and work towards improving the health of individuals and our communities today and into the future.

Partnerships and Engagement

PLMS has established a highly collaborative, transparent and proactive relationship with the Ministry of Health that is critical to advancing system-level change across the province. Partnerships are dynamic, complex to manage and require trust between organizations. Partnerships also provide opportunities to solve complex challenges, drive innovation and respond proactively to the sweeping changes and profound disruptions occurring in the health care system.

As PLMS executes on its strategic and operational agendas, partnering to build a transparent, integrated, resilient and agile lab system is our imperative. PLMS will continue to evolve our future-state operating model, leadership team and organizational structure to drive the benefits associated with a more integrated organization that is capable of responding to internal and external change, while building richer and more effective relationships across the complex lab ecosystem.

By leveraging an alliance management mindset, PLMS is well positioned to lead engagement and interprofessional partnerships as we focus on improved patient experience, better health outcomes, the well-being of laboratory services staff, health equity and cost containment.

8.0 Concluding Remarks

On the Horizon

The world is now changing so rapidly that no business plan can anticipate every eventuality. Given the rapid pace of change and the unprecedented pressures on our health care system, the PLMS leadership team believes that developing strategy and business planning is a continuous process – a living, dynamic plan. PLMS is putting in place a new, continuous approach to strategy development and resource allocation that recognizes a pipeline and backlog of strategic issues and opportunities that must be addressed in order to respond to gaps across the lab system.

Our most valuable assets are the dedicated professionals we have the humble privilege of calling our colleagues. The abilities, efficacy and compassion of laboratory services personnel have demonstrated the impressive capabilities of our lab system – but it is taking an extreme toll. We are at the edge of a precipice. We are rapidly approaching the point where increasing demand for laboratory services will exceed our capacity to respond, and harnessing opportunities for digital solutions will require significant investment in technology, tools and training, as well as the full integration of cutting-edge analytics, informatics and equipment and skilled resources. This will require funds and people that we do not have.

Despite this, PLMS' commitment to evolving standardized, province-wide services and policies remains steadfast. We will continue to act as a catalyst for transformational change and innovation in lab medicine with the goal of achieving one system of clinical laboratory and pathology service delivery that is effective, accessible and equitable.

PLMS will advance its objectives in FY 2023/24 by focusing on updated strategic themes and continuing to push the boundaries of lab medicine innovation and sustainability with partners and stakeholders. Innovations that enable transformational change in health care, enhance system agility, and improve patient outcomes will be prioritized.

PLMS 2023-24 Strategic Planning Themes



Theme 1:

Engagement and Enablers

Advance provincial laboratory service delivery and continue the development of the PLMS business model and systems to provide support to partners



Theme 2:

Clinical Strategy and Innovation

Enhance clinical systems to strategically support the innovation and transformation of laboratory service delivery



Theme 3:

Strategic System Partner

Continue efforts to establish provincial laboratory services as recognized and valued health system partner



Theme 4:

Values, Culture and Stewardship

Building an engaged, strong and resilient organization for today and into the future

PLMS remains committed to supporting PHSA's mandate to identify and implement innovative, sustainable solutions for managing lab infrastructure, clinical policy, associated health human resources, outsourced providers and budget. Ensuring that there is continued accountability and capacity to deal with future demands for lab services is ongoing and at the core of all decision-making processes.

By approaching challenges differently and embracing the unpredictability of global health, PLMS is fully expanding into its role as a strategic solutions-based organization that prioritizes partnerships and patient care. In concert with our collaborative allies, PLMS remains dedicated to establishing laboratory services as a valued health care system partner and advocate for quality laboratory services across the province.