



# The Future of British Columbia's Diagnostic Laboratory System

Submission  
to  
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*BCSLS - BC's professional association of medical laboratory technologists and medical laboratory assistants*

## I: BCSLS & Medical Laboratory Science

BCSLS is a provincial professional association with over 2,000 members. Our members work in medical laboratories as technologists (2/3) and assistants (1/3). **Medical Laboratory Technologists (MLTs)** perform interpretive testing after completing a 3-4 year training program; **Medical Laboratory Assistants (MLAs)** collect and process samples and do some non-interpretative testing after completing a 5 month community college diploma. The total BC laboratory workforce of MLTs and MLAs is 5,000.

BCSLS's mission is to provide leadership and opportunities that meet the needs of members for Education, Representation, and Fellowship. Our members work in the private and public sectors and we recognize the different strengths of both delivery systems. Both systems have experienced significant re-organization and operational re-structuring in recent years. In the mid-90's there was an oversupply of laboratory personnel and now there is an emerging scarcity. BCSLS has several projects that support foreign trained technologists in their quest to become BC medical laboratory technologists and an upgrading course for those re-entering the laboratory after several years.

BCSLS's primary interest is the practice of the profession and we focus on enabling our members to:

- ❖ practice professionally
- ❖ work productively with other members of the health care team
- ❖ fulfill a positive role in patient care.

Our profession is continually changing due to advances in technology. Advances in instrumentation more often than not create demands for a more skilled workforce as new tests are introduced into the laboratory. Some tests are now part of the patient's self care routine but abnormal results are still verified by the laboratory.

US studies indicate 70% of the data in a patient's chart is provided by the laboratory yet the laboratory only accounts for 4 – 8% of health care costs. When a laboratory test is used as a basis for patient diagnosis, the diagnosis rests upon the dependability of the test:

- ❖ specimen procurement and storage
- ❖ specimen processing and identification
- ❖ test reliability (quality control: preparation/use of reagents, maintenance of instruments and manipulation of specimen).

The integrity of the laboratory system is essential for effective health care delivery. Medical Laboratory Technologists (MLTs) and Medical Laboratory Assistants (MLAs) are an integral part of the health care team, providing the basis for the production of reliable medical laboratory tests.

## **II: Patient Centred Care:** **Goal of the medical laboratory**

The goal of the medical laboratory is to contribute to effective patient-centred care and support other members of the health care team. In order to do this, the laboratory should

- be easily accessed by patients, and
- produce valid and reliable test results with
- minimize turn-around time for test results

The medical laboratory system has four essential functions:

- service
- research
- teaching
- administration

Like all health care services, medical laboratory services should be:

- guided by responsible utilization management policies
- used to support evidence-based health care approaches
- conducted in accredited facilities by regulated professional

## **III: Available Research Reports**

Researchers have produced many studies looking at the delivery of medical laboratory services in British Columbia. Some studies looked at the whole health care system on a provincial or regional basis and some examined individual health care services (i.e. Black, Kilshaw, Dubas, Seaton and Boyd reports: regional reports – Chi and HMRG)

The Health Professions Council of BC is an independent body set up by the provincial government to protect and promote the Public Interest in health care. The Council has produced recent reports on laboratory services and use of diagnostic tests.

- Recommendations on the Designation of Medical Laboratory Technology (May'99)
- Post-Hearing Update of Preliminary Report: Pharmacists (March 2001)
- Preliminary Report: Pharmacists (2000)

The website [www.hlth.gov.bc.ca/leg/hpc](http://www.hlth.gov.bc.ca/leg/hpc) contains these reports.

Laboratory services have been re-structured and re-organized in Alberta, Saskatchewan and Ontario. Each experience has produced valuable lessons – please let us use these experiences to contribute to BC's future laboratory service structure.

The laboratory, more than most health care services, needs a long term view of proposed changes. For instance, laboratory information systems (LIS=computer based) are extremely complex and costly but are also very cost effective when developed properly.

#### **IV: Issues of concern to the Profession**

1. Communication during the change process should be consistent, ongoing and inclusive with participation of the professional, technical and support staff.
2. Human Resource Plan is needed to provide appropriate staffing levels for laboratories throughout the province and provide resources for training students.
3. Qualified staff must first meet entry level competencies and then maintain professional registration on an annual basis.
4. Licensing and Accreditation of facilities and personnel is important to the reliability and validity of laboratory test results.
  - a. BC's Diagnostic Accreditation Program covers facilities
  - b. Physicians are governed by the College of Physicians and Surgeons
  - c. BC's Health Professions Council has recommended the formation of a College of Medical Laboratory Technologists – in the best interests of the public.
5. Management of the System should be designed to provide clear direction, establish criteria to measure performance and review laboratory testing as an integral part of an efficient/effective health care system. Information required for diagnosis may be obtained in several ways (i.e. amniocentesis or maternal blood sample) and each alternative should receive equal consideration.
6. Good management demands an evaluation process. We need criteria to measure short and long term benefits of a re-designed laboratory system. Measures such as customer satisfaction, turn-around times, performance to established standards and accreditation results should be used as a basis for evaluation.

The management of change in the medical laboratory service is complicated by several factors. This is a high volume service with tests which provide the basis for a significant number of other health care services. The reliability of tests depends upon adherence to routines, standard operating procedures, protocols, maintenance and backup.

Finally, BCSLS urges the following factors be given high priority in the planning of future laboratory services:

- broad human resource plan (appropriate staffing levels of qualified personnel)
- new structure be oriented to serve the public rather than meet the needs of the professionals managing the system
- the system needs provision of essential support services (courier, instrumentation, information system)
- British Columbia is a province with many rural communities whose access to centralized health care services in the Vancouver/Victoria area is already limited by

distance, isolation by weather systems and travel costs. We feel it important to support a reasonable level of accessible health care in our rural communities.