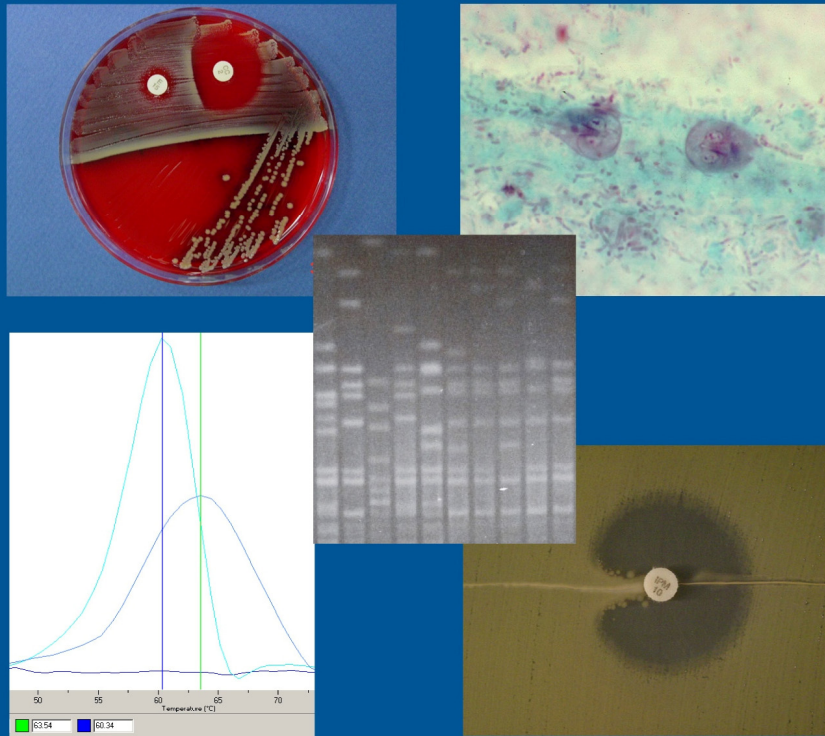


**PUBLIC HEALTH LABORATORY**  
Public Health Branch  
Department of Health and Community Services

**ANNUAL REPORT 2010 - 2011**



## MESSAGE FROM THE DIRECTOR



On behalf of the Public Health Laboratory (PHL), Public Health Branch, I am pleased to submit the 2010-2011 Annual Report to the Minister of the Department of Health and Community Services (DHCS). In keeping with the *Transparency and Accountability Act*, the PHL has been assigned a Category 2 status and is expected to develop business plans and reports. This report focuses on the progress made on the key issues identified in the 2008-2011 Business Plan, as part of our commitment, to ensure best practices and the highest level of integrity of our services. Government's strategic directions have been considered in the development of this report.

As Director, I acknowledge that on behalf of the PHL and the DHCS, I am accountable for the preparation of this report and the actual results or any variances reported in this document.

Sincerely,

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

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Dr. Lourens Robberts, PhD, D (ABMM), FCCM  
Director

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## 1.0 INTRODUCTION

This document has been prepared under government's accountability measures as defined in *The Transparency and Accountability Act* (the *Act*) and is based on the 2008- 2011 Business Plan. The 2010-2011 Annual Report demonstrates the commitment of the Public Health Laboratory (PHL) to ensure the effective realization of its mandate and that all associated efforts reflect the values and principles of the organization while pursuing standards of excellence for all of its operations. This report demonstrates that the PHL's allocation of resources is consistent with government's broader mandate for the efficient and effective use of public resources.

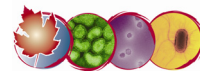
## 2.0 THE PUBLIC HEALTH LABORATORY

### 2.1 Core Functions

The PHL is an integral component of Newfoundland and Labrador's public health system. Critically linked to all sectors of the public health infrastructure (e.g. disease control and prevention, environmental health, epidemiology, emergency preparedness and response), PHL provide early detection of health risks associated with infectious agents, compile data in support of outbreak investigations and identify causes of disease to aid in treatment and prevention. As providers of essential services and leadership in the development of programs and policies, the PHL offer the science and resources needed to promote and protect the Provincial population.

#### Ten Core Functions\* of the PHL

- 1) Communicable disease surveillance, prevention and control
- 2) Integrated communicable disease data management
- 3) Reference testing, specialized screening and diagnostic testing
- 4) Environmental health and food safety
- 5) Laboratory improvement and regulation (quality assurance)
- 6) Public health policy development and evaluation
- 7) Biosafety, containment, and biohazard spill response programs
- 8) Outbreak and emergency response to communicable diseases
- 9) Public health related research and development
- 10) Training and education of health care and public health workers



\*Core Functions of Canadian Public Health Laboratories.  
Canadian Public Health Laboratory Network (CPHLN)<sup>#</sup>, Winnipeg, MB.

<sup>#</sup>CPHLN consists of medical or scientific directors from the public health laboratories in each province. Federal stakeholders are the National Microbiology Laboratory, Centre for Infectious Disease Prevention and Control (CIDPC), Laboratory for Foodborne Zoonoses (LFZ), National HIV and Retrovirology Laboratories, Centre for Emergency Preparedness and Response (CEPR), Defence Research and Development Canada (DRDC), and Canadian Food Inspection Agency (CFIA). Other CPHLN members include Canadian Blood Services (CBS), Héma Québec and Council of Chief Medical Officers of Health (CCMOH). The CPHLN Secretariat reports to the CPHLN chair and is administered by the Scientific Director General of the NML. CPHLN supports the Water and Food Safety Subcommittee, Bioterrorism Response Subcommittee, and Laboratory Standardization Subcommittee.

## 2.2 Services

The PHL is the Provincial reference laboratory for microbiological diagnostic testing and performs public health surveillance testing. Some of the unique specialised state of the art services provided to the Province only by the PHL include:

- Biosafety Level III laboratory for tuberculosis testing and testing of agents of bioterrorism and other highly contagious diseases
- Testing for and growing viruses causing human disease, including pandemic influenza
- Testing of notifiable infectious disease markers such as HIV, syphilis, hepatitis, Rubella, Mumps, Measles
- Serotyping and surveillance of food borne and intestinal pathogens such as Salmonella, *E. coli* O157:H7, Listeria, *Clostridium difficile* etc.
- Reference services to identify unusual pathogens and antimicrobial resistance monitoring
- Municipal and private well water safety testing
- Food safety testing
- Surveillance and outbreak response, surge capacity

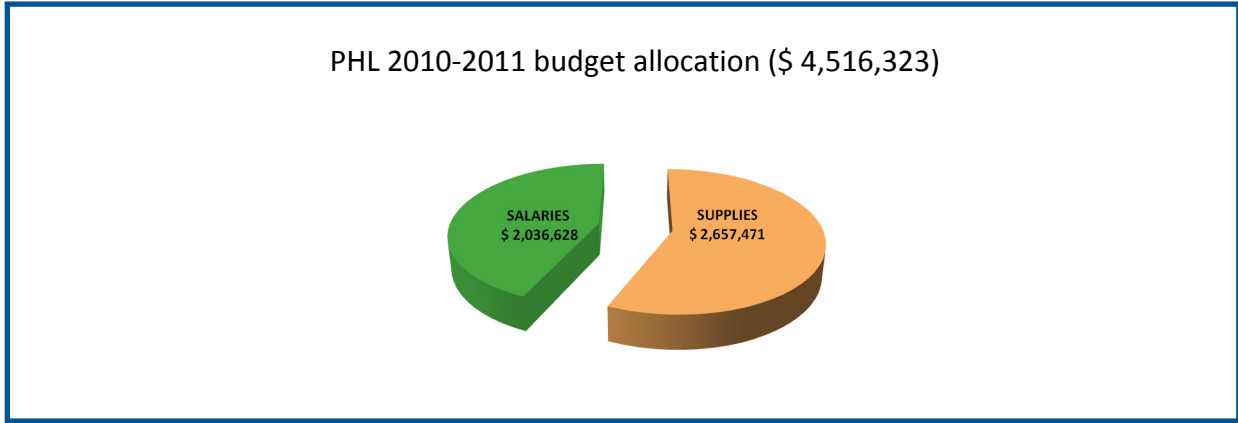


### Contact Information:

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Dr. Leonard A. Miller Centre, Suite 1  
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Telephone # 709-777-6583  
Fax # 709-777-6362

### 2.3 Staff and Budget

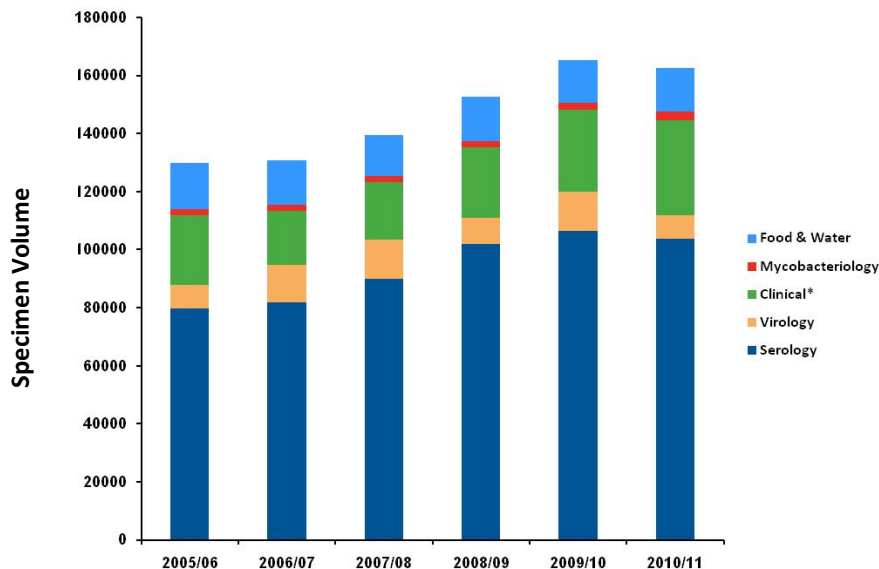
During the 2010-2011 fiscal year, the PHL had a staff complement of 27 and performed 162,435 tests efficiently by utilizing \$4,516,323 as the allocated budget. The PHL does not charge a service fee for its provision of diagnostic and surveillance activities.



### 2.4 Annual Specimen Testing Volume

Laboratory	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Serology	79,666	81,671	90,041	101,898	106,399	103,691
Virology	8,257	12,969	13,504	8,915	13,443	8,210
Clinical*	23,879	18,711	19,796	24,498	28,355	32,773
Mycobacteriology	2,073	2,140	1,921	1,925	2,437	2,792
Food & Water	16,094	15,217	14,141	15,430	14,489	14,969
<b>Total</b>	<b>129,969</b>	<b>130,708</b>	<b>139,403</b>	<b>152,666</b>	<b>165,123</b>	<b>162,435</b>

\*Clinical = parasitology, mycology and reference bacteriology



## 3.0 MANDATE

The PHL operates under the authority of the Department of Health and Community Services (DHCS) with the Director of the PHL reporting to the Chief Medical Officer of Health at the DHCS.

The PHL plays a significant role in supporting the DHCS in delivery of its mandate and therefore the laboratory staff serves a direct public health responsibility. As the Provincial reference microbiology laboratory, it plays an overarching role to the Regional Health Authority Laboratories.

## 4.0 LINES OF BUSINESS

### 4.1 Public health surveillance

- Developing and executing communicable disease surveillance
- Antimicrobial resistance surveillance
- Communicable disease outbreak investigations, including strain typing
- Data analysis for policy development and provincial guidelines

### 4.2 Reference service & support to regional microbiology laboratories

- Centre of expertise in disciplines of bacteriology, virology, parasitology, molecular microbiology, serology, and mycobacteriology.
- Provide specialized testing for low-incidence, high-risk diseases
- Maintain the Biosafety level III laboratory for high-risk pathogen containment (e.g. tuberculosis, avian influenza, SARS, anthrax etc.) and bioterrorism preparedness
- Antimicrobial susceptibility testing reference service

### 4.3 Environmental health monitoring

- Monitoring of municipal, rural, private-well, and recreational water quality
- Investigating and surveillance of environmental microbial contamination events

### 4.4 Food and dairy safety

- Investigate food and food purveyor related disease outbreaks
- Monitoring of dairy product microbial safety

#### 4.5 Federal-Provincial-Territorial representation

- Represents Newfoundland and Labrador at Federal-Provincial-Territorial public health laboratory committees, working- and advisory groups
- Represents Newfoundland and Labrador at public health networking groups involved with human, food, agriculture, veterinary and environmental health
- Acts as conduit for Provincial, National and International public health standards, committees and groups to regional microbiology laboratories; ensuring compliance and best practice in Newfoundland and Labrador

### 5.0 PRIMARY CLIENTS

- All provincial hospitals
- Department of Health and Community Services
- All community health clinics
- All medical clinics/offices
- Doctors and their patients
- Long-term care facilities
- Public Health Inspectors
- Department of Municipal Affairs
- Municipalities
- Department of Environment and Conservation
- Department of Government Services, now known as Service NL
- National and international networks, expert working groups, advisory committees involved with clinical and public health microbiology and epidemiology.

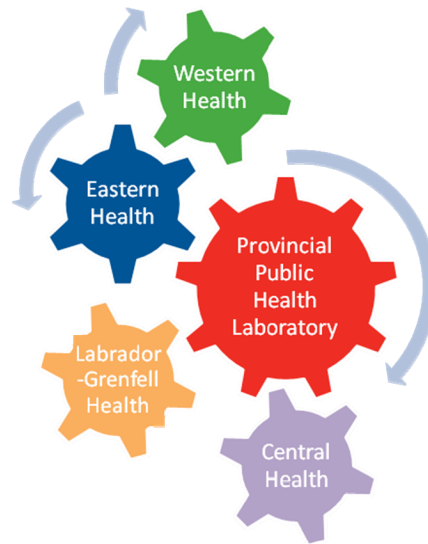
Many of these clients are dependent on the services provided by the PHL. Without these services, they could be compromised in fulfilling their mandate for preserving public health and addressing the health related needs of their clients. Based on current quality and communication protocols, PHL is successfully addressing client needs.



## 6.0 SHARED COMMITMENTS/PARTNERSHIPS

As part of its mandate, the PHL functions closely and in partnership with all microbiology laboratories and provides province-wide surveillance of notifiable diseases and monitoring of infectious diseases that is of public health significance.

“The SARS experience has clearly illustrated the central role that public health laboratories play in both public health and the health care system. Serving sometimes as a first-line testing facility when a novel agent emerges, and at other times as a reference centre or ‘court of last resort’ to standardize and improve testing procedures for unusual pathogens, public health laboratories are a key resource in infectious disease diagnosis, surveillance and epidemic response.” -Ch.6, SARS and Public Health, 2003.

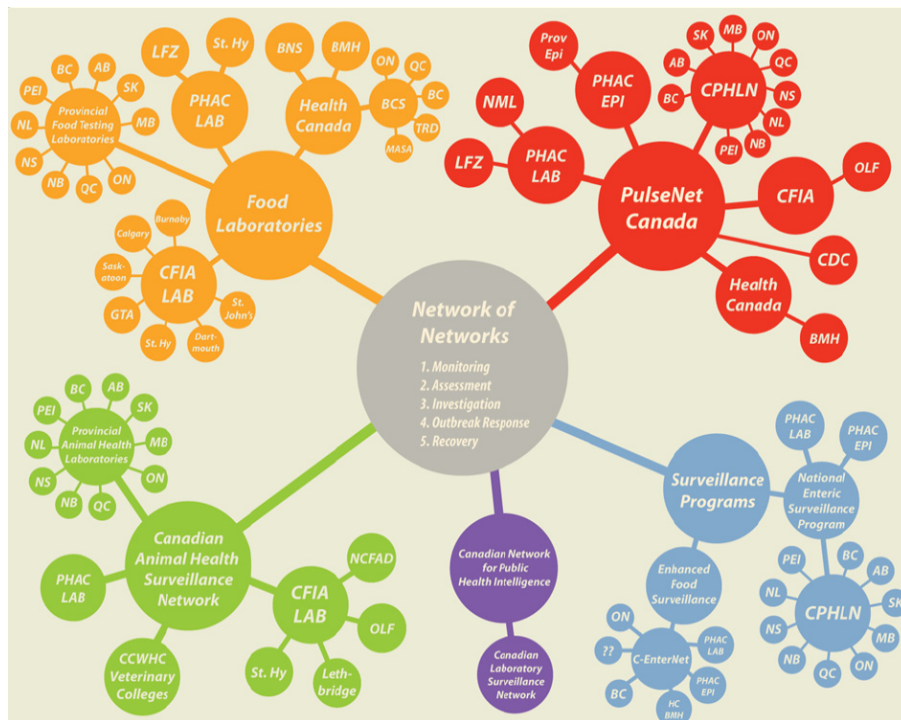


The following items illustrate the shared commitments of the PHL in dealing with various areas identified in its goals, role and functions and the contributions of each towards identified strategic directions.

- ❑ **Provincial Electronic Data Transfer Initiative:** The PHL has been working with all regional health authorities to implement electronic data transfer of laboratory information to microbiology laboratories of the major hospitals in the province. Most regions have been linked electronically; certain laboratories of the Grenfell Medinet section is currently in progress and the Labrador Medinet section will follow after successful completion of the Grenfell section. This project has greatly improved the timely transfer of, and access to health data across the province. This system is designed to enhance the ability of the provincial infectious disease surveillance system to monitor overall public health in a timely manner and to respond quickly to critical and urgent health issues.

- In collaboration with Government Services, Occupational Health and Safety, the PHL employs **Municipal Information Management System (MIMS)** - a provincial electronic database that captures water quality parameters across the province. The PHL reports water quality results directly in the MIMS system. This facilitates a significantly shorter turnaround time for Environmental Health Officers to access the water test results as soon as the procedure is completed at the PHL.
- **National Partnerships:** The PHL participates in several national and international networks, expert working groups and advisory committees that are involved with clinical and public health microbiology, and the prevention, control and surveillance of infectious diseases. In this capacity, the PHL is a partner in public health at the national level and represents the province in facilitating the two-way transfer of information vital to the monitoring and securing the various aspects of the health status of the country.

In accordance with recommendation no. 33 of the Weatherill Report (Report of the independent investigator of the 2008 Listeriosis outbreak, July 2009), a Network of Networks Federal Committee (NNFC) was established. Diagnostic and public health microbiology laboratories in provinces are represented in the national network through their respective provincial public health laboratories; these are coordinated through the Canadian Public Health Laboratory Network (CPHLN).



Presented at the Network of Networks meeting, Toronto, 22-24 March 2011

## The following highlights PHL's existing partnerships at the national level

**Canadian Public Health Laboratory Network (CPHLN)**, established in 2001, is a national association of public health laboratory professionals. The CPHLN acts as a unified voice for federal and provincial member laboratories. The role of CPHLN is to provide a forum for public health laboratory leaders to share knowledge in an atmosphere of trust. The CPHLN leverages its combined strength to champion efforts in order to provide rapid and coordinated nationwide laboratory response to emerging and re-emerging communicable disease threats. Membership includes all PHL Directors across the country and representation from various related agencies.



There are also several committees and working groups under the CPHLN umbrella. The PHL is an active member of the following groups:

- ❑ **Canadian Tuberculosis Laboratories Technical Network** whose mission is to promote excellence, standardization and quality assurance in mycobacteriology services. The latest annual report is available at <http://www.phac-aspc.gc.ca/tbpc-latb/pubs/tbdrc10/pdf/tbdrc2010-eng.pdf>
- ❑ **National Enteric Surveillance Program**, a federal-provincial network of laboratories that tracks the prevalence and incidence of microorganisms causing enteric illnesses. The latest annual report is available at <http://www.nml-lnm.gc.ca/NESP-PNSME/index-eng.htm>
- ❑ **National Water and Food Safety Subcommittee** whose major objective is to ensure best practices in microbiology testing of drinking water for public health purposes.
- ❑ **Laboratory Preparedness and Response Issue Group (LRP)**. The Laboratory Preparedness and Response Issue Group was created in 2001 under the name Bio-Terrorism Response Subcommittee. The group was organized in response to the terrorism events of September 11, 2001, and subsequent anthrax threats. Since its creation, the group has continuously evolved to address a broad spectrum of preparedness and response topics that are important to Canada and its citizens. In 2009, the group formally became known as the Laboratory Preparedness and Response Issue Group (LRP).
- ❑ **Laboratory Standardization Subcommittee**. In 2004 CPHLN initiated work in the area of national laboratory standardization and continuously develop standards and tools to ensuring accurate, comparable and interpretable surveillance data.

- ❑ **Pandemic Influenza Laboratory Preparedness Network (PILPN).** PILPN was formed in 2005 as a proactive step in pandemic planning. PILPN is comprised of federal, provincial, hospital, and regional public health laboratories. PILPN's main charge is to ensure that public health laboratories are able to respond effectively to an Influenza pandemic. PILPN has addressed this charge by providing leadership in laboratory preparations for pandemic Influenza which have been proven effective through the response to pH1N1 (2009).
- ❑ **Canada Health Infoway** - Pan-Canadian Laboratory Standards Group - This national group was formed to contribute, review and validate laboratory information standards to support an interoperable pan-Canadian electronic health record (EHR) as defined by Infoway.
- ❑ **Canadian Association of HIV Clinical Laboratory Specialists (CAHCLS)** is a national network dedicated to the advancement of excellence in HIV laboratory practices and services.

The PHL is active in research, provincial program development, technology evaluation and technology transfer in diagnostic and public health microbiology and infectious disease epidemiology. These projects are undertaken through close partnership with hospitals and agencies both within the province and nationally involving numerous health care professionals.

## 7.0 HIGHLIGHTS AND ACCOMPLISHMENTS

During the three years 2008 -2011 the PHL has been actively involved with enhancing Provincial readiness to detect, manage and monitor infectious threats in Newfoundland and Labrador. Through its Provincial and National network partners it was at the forefront of detecting and monitoring pandemic disease, enhance capacity to manage future risks and made great advances in its commitment to achieving laboratory accreditation.

### ❑ **Pandemic Influenza**

Over the period 2008 – 2011 the PHL has played a key role in protection of the Province, as exemplified by the timely and efficient detection and monitoring of the influenza pandemic in Newfoundland and Labrador. Immediately following the emergence of the H1N1 influenza pandemic in Mexico in late April 2009, the PHL activated its planned pandemic response. Through intense provincial surveillance, the first case of H1N1 in the province was detected during the second week of June 2009. The second wave that commenced in October was far more severe and widespread, as was anticipated.

Throughout the pandemic, the PHL played a critical role in both diagnostic and surveillance services. Testing of hundreds of specimens on a daily basis 24/7, with accurate results and rapid turnaround time became an absolute necessity. The success of the PHL's role and response during the pandemic is attributable to the extensive planning and preparations that went into the PHL public health emergency preparedness planning, especially the pandemic initiative. This preparation commenced in early 2006, with steps taken to upgrade testing technologies to allow for strain-specific identification of the flu virus, and to ensure high throughput and rapid turnaround time. The PHL acquired the necessary specialized equipment, ensured in-house training and expertise, and stockpiled reagents and supplies required to meet the likely unprecedented demand. The PHL also created a network of hospital-based microbiology laboratories a few years ago to ensure rapid response and communication during public health emergencies. This was instrumental to the overall provincial laboratory response and co-ordination during the pandemic.

### ❑ **Emergency Response**

The PHL plays an important role in ensuring that the province can respond effectively to potential bioterrorism threats. The laboratory's level III facility and technical expertise are integral parts of our rapid response system to bioterrorism threats. PHL employees, as well as Environmental Health Officers across the province, have been trained to handle suspicious packages and to deal with biohazard events. The PHL also ensures that it maintains adequate and satisfactory response capacity to biohazard/ bioterrorist threats through an annual re-certification of the response team members.

#### ❑ Accreditation

The PHL has been vigilant in following recommended laboratory procedures and practices. It has traditionally ensured strict quality control protocols and practices and routinely participated in various proficiency testing programs to monitor performance level, accuracy and competency. It has also made every effort to provide a safe working environment for its employees. In 2008-2009, PHL initiated and has made progress towards obtaining International Standard Accreditation with ISO 15189.

## 8.0 REPORT ON PERFORMANCE 2010-2011

### VISION

The 2008-2011 vision of PHL builds on the vision of the DHCS that “individuals, families and communities will have achieved optimal health and well being”. Evolving from this the vision of the PHL is that:

**Newfoundland and Labrador will have state-of-the-art technology in laboratory services that reflects best practice in clinical and public health microbiology, public health safety and protection and contributes to optimal health and well being.**

This 2008-2011 vision reflects the core mandate of the PHL as well as desired outcomes. It also provides the basis for the organization’s core identity, roles and responsibilities. As the science relating to infectious diseases advances, so too should the capabilities and quality of services provided by the PHL. This vision is fundamental to the well-being and health of the provincial population

## MISSION\*

In pursuit of this mission, the PHL has focused on securing and improving Newfoundland and Labrador laboratory testing capacity to respond to any and all infectious diseases threats to the Province. This was exemplified by the PHL's capacity during the pandemic influenza outbreak, emergency preparedness and well as initiating succession planning of expertise. This mission supports the Government's strategic direction of strengthening public health capacity by contributing to surveillance for communicable disease, health emergency planning, and environmental health policy. The PHL mission for the 2008-2011 planning period is:

**By 2011, the PHL will have secured technical, professional and human resource capabilities for the timely detection, surveillance, prevention and control of and protection from infectious diseases in the province.**

**Measure:** Secured technical, professional and human resources capabilities

INDICATORS	PROGRESS 2008-2011
Continued advancement of existing resources	Continued advancement of existing resources was made through implementation of molecular diagnostic techniques leading to improved test accuracy, throughput per day and shortened detection time. Throughput refers to the ability to test a number of specimens in a given time. For example, testing can be completed on 100 specimens in a single day, which otherwise took a few to several days in the past.
Improved capacity in identified areas, i.e., technical, professional and human resources	Improved capacity in technical areas was achieved through molecular diagnostic assays for detection of influenza virus and detection herpes simplex virus from cerebrospinal fluid, decreasing test turnaround time from more than 5 days to less than 24 hours. Improved professional and human resource capacity was assured by recent recruitment of a quality coordinator as well as the recent recruitment of a new director who will continue the succession planning strategy.
Focused response to any and all threats relating to infectious diseases	Implemented earlier detection strategies for epidemic pathogens through improved assays and collaboration with CPHLN partners; improved laboratory information systems data sharing for more rapid reporting and

	communication to promptly respond to infectious disease threats
Increased security in the delivery of laboratory services	Security was increased through improved monitoring of laboratory reagent suppliers, establishment of collaborations with CPHLN and NML for pandemic associated assay reagents and controls. The latter also strengthened security in delivery of continued laboratory services in the face of pandemic events

\* To access a complete version of the PHL 2008-2011 Business Plan or the DHCS 2008-2011 Strategic Plan , please contact the Department of Health and Community Services, Tel: 709-729-4984 or email: [healthinfo@gov.nl.ca](mailto:healthinfo@gov.nl.ca) or visit, <http://www.health.gov.nl.ca/health/>

## Discussion of Results 2008-2011

Qualified and committed employees are necessary for the timely detection, surveillance prevention and control of and protection from infectious diseases. In the past year, PHL was successful in recruiting a new director, who is a board certified (ABMM and FCCM) graduate from the Mayo Clinic Fellowship Program, which is known for excellence in patient care. This has contributed to testing, technical and security improvements being made, including influenza detection systems. Also, the addition of a Quality Coordinator has strengthened the emphasis on quality laboratory services.



## 9.0 GOALS AND ANNUAL OBJECTIVES

PHL is an important and integral part of the provincial and national public health system infrastructure, and must maintain an adequate range of testing services, as well as have response capacity and expertise to respond to public health emergencies. In keeping with Government's objective to protect the health of people in the province, measures were taken to enhance the province's ability to respond to public health emergencies involving infectious agents, especially pandemic influenza.

### STRATEGIC ISSUES

The DHCS has set four strategic directions for the period of 2008-2011. The PHL's Business Plan focuses on the strategic direction of strengthening public health capacity. The core functions of the public health system include population health assessment, health surveillance, prevention, health promotion and health protection.

#### ISSUE 1: Pandemic Flu Response Capacity

The threats of a public health emergency triggered by events like a flu pandemic, food or water borne outbreaks, emergence of exotic diseases or terrorist attacks are within the realm of possibility in North America. With Newfoundland and Labrador's proximity in travel routes and as a point of entry from European countries, the threat of an exotic disease or a virulent pathogen being imported into the province is real. Such an event could have a significant impact on national and interprovincial public health security. As part of its continued improvement initiative, the PHL maintained efforts to review and update all its services and capabilities with a focus on improved access to testing and turnaround time. Work continued in assessing the province's capabilities to respond to emergencies, in particular to the impending pandemic flu and outbreak management. Progress in this strategic issue increased provincial laboratory surveillance capacity and preparedness to deal with issues in a more co-ordinated and informed manner across regions. This supported the strategic direction of strengthened public health capacity.

**Goal: By March 31, 2011, PHL will have enhanced provincial laboratory response capacity to provide the required laboratory testing services for pandemic flu or other severe infectious disease risks to public health.**

**Measure #1:** Enhanced provincial laboratory response capacity

INDICATORS	PROGRESS 2008-2011
Increased throughput and improved turnaround time for identification of pathogens	Completed. Increased throughput (i.e. more testing per day) was achieved by transitioning from culture detection of influenza to polymerase chain reaction (PCR). The turn

	around time was reduced from greater than 5 days to less than 24 hours for identification of pathogens.
Improved access to required pandemic flu laboratory reagents and supplies	Completed. Improved access was achieved through the development of protocols and a network of laboratory partners at the Federal/Provincial/Territorial level, which strengthened communications in responding to pandemic outbreaks. Specifically, the National Microbiology Laboratory (NML) established protocols for emergency response and the Pandemic Influenza Laboratory Preparedness Network (PILPN) was created. This provided a means for increased networking by PHL to increase access.
Integrated databases with health regions	MediNet integration with Eastern, Western and Central Health regions was completed. Labrador-Grenfell is pending resolution of local logistics and is nearly completed.
Signed contract with appropriate suppliers of test kits and reagents	Completed. This ensured an adequate supply of test kits and reagents for influenza testing should need exist to respond to a future pandemic outbreak.
Established realistic reporting times on key tests	Realistic reporting times on key tests were established for influenza testing (24 hours). This established baseline levels and tracked continuous process improvement activities. The establishment of laboratory information systems to monitor reporting times for other testing is in progress.

### Annual Objective 2010-2011

By March 31, 2011, PHL will have pilot tested and evaluated laboratory response protocols in dealing with pandemic flu and other emergency situations dealing with infectious disease outbreaks.

**Measure:** Pilot tested and evaluated laboratory response protocols

INDICATORS	PROGRESS IN 2010-11
Obtained key stakeholder and client input through pilot testing.	The H1N1 pandemic, which started in the 2nd quarter 2009, continued into the 1 <sup>st</sup> quarter 2010. Pilot testing was no longer necessary as real-time testing occurred. Stakeholder involvement was obtained during the pilot and real-time testing and in subsequent follow-up.
Established electronic data transfer to the full Labrador-Grenfell health region.	Electronic data transfer to the full Labrador-Grenfell Health Region is in progress. The need for laboratory response to testing took precedent over electronic data sharing time commitments. Work will continue in the next fiscal year.
Identified strengths and weakness in the response protocol through pilot testing.	The response protocol was tested in the HINI pilot and real time experiences referenced above. On-going review and evaluation identified strengths and weaknesses in the protocol. All microbiology laboratories in the Province participated and protocols and procedures that led to successful PHL/Provincial response resulted.
Identified action items for areas of improvement through pilot testing.	Pilot testing led to the identification of the following action items for areas of improvement: nucleic acid extraction throughput capacity; initial processing and accessioning for surge capacity; and electronic data transfer to Labrador-Grenfell health region.

### Discussion of Results 2010-2011

In 2010-2011, PHL was ready to detect, monitor and respond to pandemic influenza threats. The sudden emergence of the 2009 H1N1 pandemic served as a real-time test of the protocols and pandemic plans established by the Department of Health and Community Services, the PHL and Provincial and National network partners. Because of the plans put in place in anticipation of a pandemic, the PHL was fully ready and processed hundreds of specimens on a daily basis 24/7, with accurate results and rapid turnaround time. There was a sufficient supply of all reagents and specimen collection kits due to previous arrangements with suppliers to secure uninterrupted testing. The success of the PHL's role and response capacity during the pandemic was attributable to the extensive planning, and on-going evaluation that went into the PHL public health emergency preparedness, especially the pandemic initiative. Identified action items will also further strengthened the response capacity to future threats.

## ISSUE 2: Accreditation

The accreditation of laboratories across Canada ensures that all laboratories meet the highest standards, quality and reliability. In 2010 a memorandum of understanding was signed between the Government of Newfoundland and Labrador and the Ontario Laboratory Accreditation (OLA) program. In May 2010, the Government of Newfoundland and Labrador directed that all medical laboratories across the province be accredited by OLA, standards for medical laboratories. OLA requirements are based on ISO 15189 standards, and include other consensus standards and guidelines of Ontario and Canadian law and generally accepted principles of good laboratory practice. In 2010-2011, the PHL continued to be equipped to deliver the highest standards in laboratory services and prioritized accreditation to ensure that the highest standards in quality are met. This was consistent with Government's strategic direction of strengthening public health capacity.

**GOAL:** By March 31, 2011, PHL will have achieved the status of ISO 15189 accreditation in selected areas of its laboratory services.

**Measure:** ISO accreditation status achieved

In progress. Ontario Laboratory Association (OLA) on-site inspection delayed; now scheduled for Spring 2012. Accreditation readiness has not been achieved due to 2009/2010 influenza pandemic response and review of quality assurance gap analysis

INDICATORS	PROGRESS 2008-2011
Confirmation of accreditation award received	The OLA Accreditation Award cannot be granted until the PHL on-site inspection has demonstrated that the required standards are met. Due to competing priorities, and the amount of preparation associated with meeting accreditation standards while maintaining operational requirements, the onsite inspection did not proceed and confirmation of the award was not received.
Accreditation certificate publicly displayed	The accreditation certificate is not granted until the on-site inspection is successfully completed.
Accreditation status acknowledged by DHCS	PHL received acknowledgement from the Department of Health and Community Services of its current status in the accreditation process.
Accreditation symbol included on promotional material	The granting body, OLA, stipulated that accreditation symbol cannot be displayed in advance of meeting the requirements and receiving the award.

**Objective:** By March 31, 2011, PHL will have completed the necessary steps to achieve ISO accreditation.

**Measure:** Completed initial site inspection requirements

INDICATORS	PROGRESS IN 2010-2011
Finalization of all required documents	Documentation was finalized; however, a re-evaluation identified areas requiring enhanced focus so this work is continuing.
Completed site preparations	Site preparation remains in progress. Additional requirements were identified pertaining to laboratory physical infrastructure and work surface material.
Continued partnership with Eastern Health’s Quality Coordinators Team	This partnership was reviewed and due to the different stages of readiness in preparing for accreditation, PHL will proceed more independently with future accreditation preparations.
Completed Quality Manual	This work is in progress. The Quality Manual is under review for enhancements and updates are being implemented as the review is occurring.
Updated Standard Operating Procedures	This work is also in progress. PHL is pursuing document control software solution for management of standard operating procedures, quality control, incident reporting and other document control applications required for accreditation. Further information technology support is required to advance this initiative.
Continued staff education on accreditation standards and requirements	This was completed. Continuing staff education was provided and continues to be provided to all PHL staff through the Association of Public Health Laboratories, American Society of Microbiology and Mayo Clinic educational components.

**Discussion of Results from 2008-11**

In 2010-2011, PHL experienced change in its previously long standing, senior leadership with a new Director, maintained operational standards and staffing and continued with the priority of accreditation. PHL strives to be as prepared as possible for the accreditation site visit and achieve a positive outcome. The PHL delay in achieving the original 2011 goal of accreditation occurred prior to 2010-2011, however, significant progress was made in 2010-2011 by the PHL quality coordinator. A review of physical infrastructure and work environment identified areas of improvement to be addressed in order to meet accreditation standards. All operational policies, quality assurance practices and standard operating procedures were reviewed, and updated as necessary, and improvements are continuously implemented. The OLA award is not expected until 2013, the onsite inspection is anticipated in spring 2012 and this will be a significant milestone for PHL.

## 10.0 OPPORTUNITIES AND CHALLENGES

### ❑ Building Infrastructure

The physical building infrastructure of the PHL has served the operations of public health testing well since 1960. Challenges identified will be addressed to facilitate achievement of laboratory accreditation.

The future of physically housing the PHL in its current environment will require review, promoting visionary delivery of public health testing, surveillance and monitoring of infectious diseases in Newfoundland and Labrador.

### ❑ Electronic Data Transfer/Networking

The long term goal of electronically linking the PHL information system with databases of microbiology laboratories in the major hospital in the province has been realized. Electronic data transfer/networking allows for the controlled access and direct exchange of data from one laboratory information system to another. This has eliminated duplication and considerable paper work with the real-time exchange of laboratory data with high efficiency. There are further opportunities to maximize this system, and towards this end, Medinet implementation has been initiated with the Labrador-Grenfell Health region. The testing of the Grenfell part of Medinet is now in progress; the Labrador part will follow after successful completion of the Grenfell part.

### ❑ Staff Retention and Recruitment

Several senior laboratory and management employees of the PHL with over 35 years of service will be retiring within the next few years. This presents an opportunity to recruit new scientist and technologists at the PHL. The PHL is the only laboratory within the healthcare environment in Newfoundland and Labrador that perform certain highly specialized testing; hence recruitment may be required from outside the currently available human resource pool of expertise. A new director was recruited in January 2011 which addressed a major succession planning goal identified in the 2008-2011 Mission.

### ❑ Accreditation

In addition to daily operations, the accreditation process is a major undertaking. It requires dedicated personnel and considerable knowledge and tenacity to meet or exceed the requirements of ISO 15189 standards. While the original goal was for the PHL to obtain ISO 15189 accreditation by 2011, due to the considerable work that still remains to be done and the change in the objective to obtain OLA accreditation, site inspection is scheduled for Spring 2012.



Gary Simmons, Audrey Martin, Gordon Peet, Loni Allen, Florence Stead, Brenda Lee, Danielle White, Cathy O'Neill, Deborah Fagan, Tony Cumby, Sandra March  
Kevin Janes, Elizabeth Oates, Sandy Tucker, Bernice McGrath, Vivian Moulton, Laura Gilbert, Dave Taylor, Deborah McGrath  
Patrick Keough, Lourens Robberts, Lyvonne Fulford, Patricia Hawco, Debbie Ryan, Robert Cleary, Ella Keough  
*In absentia:* Sandra Pike, Bernadette Noftall, Myrtle Fowler  
(picture includes current employees and recently retired colleagues)

**APPENDIX A: STRATEGIC DIRECTIONS**

**TITLE:** Public Health Capacity

**OUTCOME:** Strengthened public health capacity

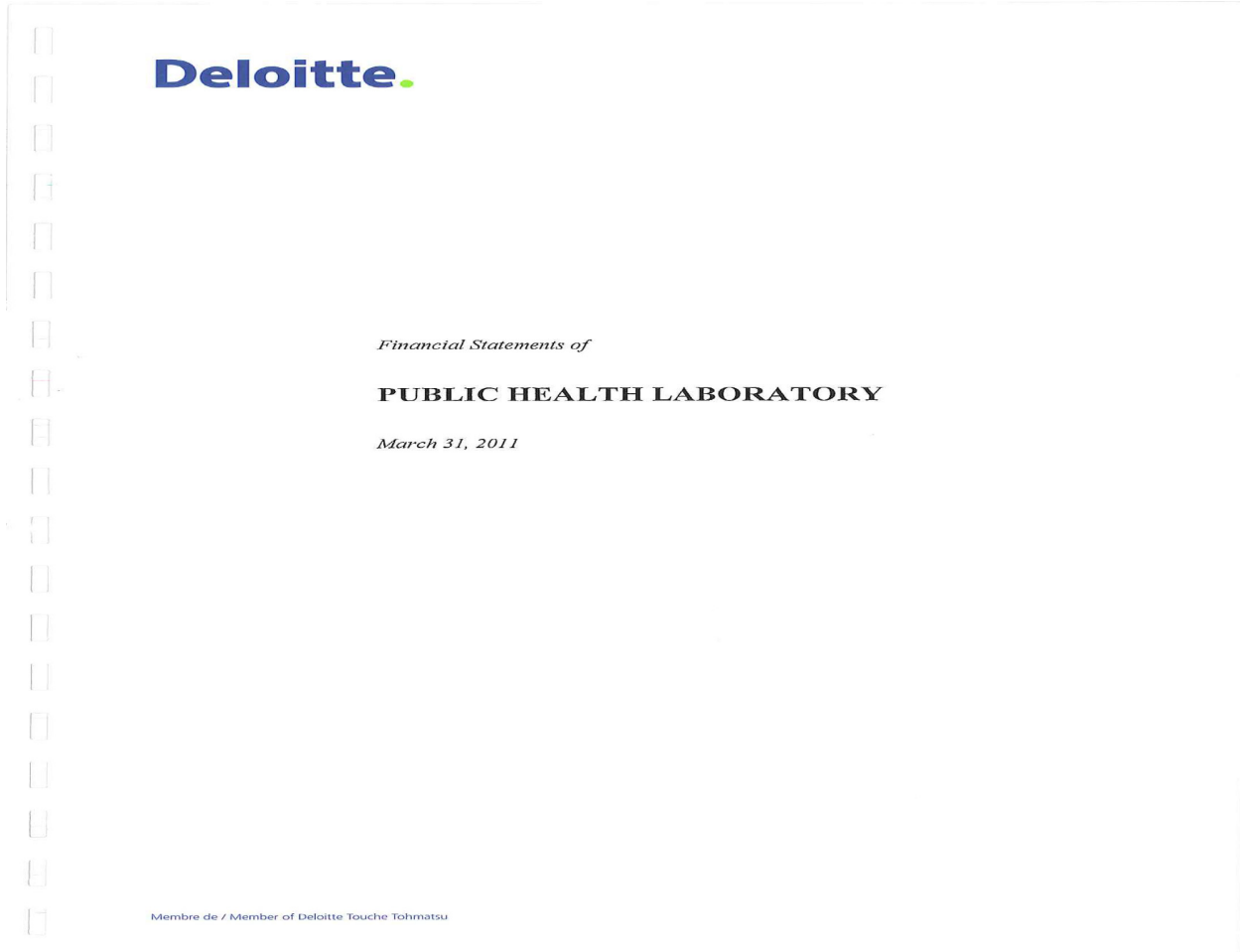
Each strategic direction is comprised of a number of components, or focus areas. These focus areas will be addressed through the various planning processes of the Department and public entities. Government’s strategic direction related to PHL is provided below:

The core functions of the public health system include population health assessment, health surveillance, prevention, health promotion and protection. A large focus on strengthened public health capacity occurred in 2006-2008 planning cycle with an increased human resource capacity. However, surveillance efforts were carried into the 2008-2011 planning cycle through this initiative and other operational activities in the Department.

Strategic Direction	Focus Areas of the Strategic Direction 2008-2011	This Direction is		
		addressed in the		
		Entity’s Business plan	Entity’s operational plan	Entity’s work plan
Strengthened public health capacity	Surveillance for communicable disease	X		
	Health emergency plan for the HCS system	X		
	Environmental health policy	X		



**Appendix B: Audited Financial Statement for the Fiscal year April 1, 2010 to March 31, 2011**





Deloitte & Touche LLP  
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Canada

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www.deloitte.ca

## Independent Auditor's Report

To the Management Committee of  
Public Health Laboratory

We have audited the accompanying financial statements of Public Health Laboratory which comprise the statement of financial position as at March 31, 2011 and the statements of operations and deficit and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian generally accepted accounting principles, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditor's Responsibility*

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### *Opinion*

In our opinion, the financial statements present fairly, in all material respects, the financial position of Public Health Laboratory as at March 31, 2011 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

*Deloitte & Touche LLP*

Chartered Accountants  
August 15, 2011

Membre de / Member of Deloitte Touche Tohmatsu

**PUBLIC HEALTH LABORATORY**  
**Statement of Operations and Deficit**  
Year Ended March 31, 2011

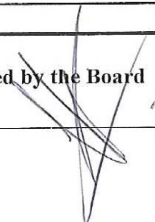
	2011	2010
	\$	\$
<b>Revenue</b>		
Government of Newfoundland and Labrador	4,516,323	4,475,251
Other	36,949	-
	<u>4,553,272</u>	<u>4,475,251</u>
<b>Expenditures</b>		
Wages and benefits	2,126,534	1,997,646
Laboratory supplies	1,699,625	1,741,893
Professional fees	236,396	243,275
Operating supplies	196,474	278,991
Repairs and maintenance	90,058	111,955
Travel	48,205	49,214
Printing, stationery and office	44,884	37,581
Minor equipment	40,268	14,921
Telephone	7,398	6,799
	<u>4,489,842</u>	<u>4,482,275</u>
Excess of revenue over expenditures (expenditures over revenue) before undernoted items	63,430	(7,024)
Amortization of capital assets	(85,068)	(92,040)
Amortization of deferred capital contributions	85,068	111,196
Increase in vacation pay	(56,006)	-
Increase in severance pay accrual	(42,134)	(11,289)
	<u>(98,140)</u>	<u>7,867</u>
Excess of (expenditures over revenue) revenue over expenditures	(34,710)	843
Deficit, beginning of year	(955,725)	(956,568)
<b>Deficit, end of year</b>	<u>(990,435)</u>	<u>(955,725)</u>



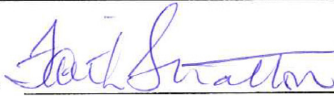
**PUBLIC HEALTH LABORATORY**  
**Statement of Financial Position**  
Year Ended March 31, 2011

	2011	2010
	\$	\$
<b>Assets</b>		
Current assets		
Cash	500	500
Accounts receivable	91,518	39,913
Due from Eastern Regional Health Authority	179,001	70,533
Prepaid expenses	77,942	77,942
	<u>348,961</u>	<u>188,888</u>
Capital assets (Note 4)	318,896	358,427
	<u>667,857</u>	<u>547,315</u>
<b>Liabilities</b>		
Current liabilities		
Accounts payable and accrued liabilities	169,115	135,435
Deferred revenue	75,000	75,000
Deferred revenue - capital	102,695	39,732
Current portion of accrued severance pay	231,703	133,656
Accrued vacation pay	445,678	389,672
	<u>1,024,191</u>	<u>773,495</u>
Accrued severance pay	315,205	371,118
Deferred capital contributions (Note 6)	318,896	358,427
	<u>1,658,292</u>	<u>1,503,040</u>
<b>Deficit</b>		
Deficit	(990,435)	(955,725)
	<u>667,857</u>	<u>547,315</u>

Approved by the Board



Trustee



Trustee

**PUBLIC HEALTH LABORATORY**  
**Statement of Cash Flows**

Year Ended March 31, 2011

	2011	2010
	\$	\$
<b>Operating activities</b>		
Excess of (expenditures over revenue) revenue over expenditures	(34,710)	843
Adjustments for:		
Amortization of capital assets	85,068	92,040
Amortization of deferred capital contributions	(85,068)	(111,196)
Increase in severance pay accrual	42,134	11,289
Change in non-cash operating working capital (Note 5)	(7,424)	7,024
	-	-
<b>Financing activity</b>		
Deferred capital contributions	45,537	125,569
<b>Investing activity</b>		
Purchase of capital assets	(45,537)	(125,569)
Change in cash	-	-
Cash, beginning of year	500	500
<b>Cash, end of year</b>	<b>500</b>	<b>500</b>

**PUBLIC HEALTH LABORATORY**  
**Notes to Financial Statements**  
March 31, 2011

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**1. NATURE OF OPERATIONS**

The purpose of the Public Health Laboratory (the "Laboratory") is to act as the provincial reference laboratory centre for clinical and public health microbiology and infectious disease surveillance and control. The Laboratory offers specialized and reference laboratory services to all physicians, hospitals, clinics and health related agencies in the Province.

The Laboratory is a not-for-profit organization and is exempt from income taxes.

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

The Laboratory has elected to use the exemption provided by the Canadian Institute of Chartered Accountants ("CICA") permitting not-for-profit organizations not to apply Sections 3862 and 3863 of the CICA Handbook which would otherwise have applied to the financial statements of the Laboratory for the year ended March 31, 2011. The Laboratory applies the requirements of Section 3861 of the CICA Handbook.

The financial statements have been prepared in accordance with Canadian generally accepted accounting principles for not-for-profit organizations, the more significant of which are as follows:

*Basis of accounting*

The financial statements include only the assets, liabilities, revenue and expenditures relating to the operations carried on under the name of the Public Health Laboratory.

*Cash*

Cash includes cash on hand and balances with banks.

*Capital assets*

Capital assets are recorded at cost. Rates and bases of amortization applied to write off the cost of capital assets over their estimated lives are as follows:

Equipment	15%, straight line
Computer equipment	20%, straight line

*Impairment of assets*

Long-lived assets are tested for recoverability whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. The amount of any impairment loss is determined as the excess of the carrying value of the asset over its fair value.

**PUBLIC HEALTH LABORATORY**  
**Notes to Financial Statements**  
**March 31, 2011**

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**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

*Capital contributions*

Capital contributions are recorded as deferred capital contributions and amortized to income on the same basis as the related capital assets are amortized. Capital contributions on non-depreciable capital assets are recorded as direct decreases in deficit.

*Accrued severance pay*

Severance pay is accounted for on an accrual basis and is calculated based upon years of service and current salary levels. Severance pay is only recorded in the accounts for employees who have a vested right to receive such a payment. No provision for severance pay is recorded in the accounts for any employee who has less than nine years of service. Severance is payable when the employee ceases employment with the Laboratory.

*Revenue recognition*

Revenue is recognized as earned and when collection is reasonably assured. Revenue received for a future period is deferred until that future period and reflected as deferred revenue.

The Laboratory is dependent on funding from the Government of Newfoundland and Labrador, Department of Health and Community Services.

*Pension costs*

Employees of the Laboratory are members of the Public Service Pension Plan and the Government Money Purchase Plan administered by the Government of Newfoundland and Labrador (the "Government"). Contributions to the plans are required from both the employees and the Laboratory. The annual contributions for pensions are recognized in the accounts on a current basis and amounted to \$118,748 for the year ended March 31, 2011 (2010 - \$103,566).

*Vacation pay and other benefits*

Vacation pay and other benefits are recorded in the accounts of the Laboratory on the accrual basis.

*Financial instruments*

The Laboratory's financial assets and liabilities are generally classified and measured as follows:

<u>Asset/Liability</u>	<u>Classification</u>	<u>Measurement</u>
Cash	Held for trading	Fair value
Accounts receivable	Loans and receivables	Amortized cost
Due from Eastern Regional Health Authority	Loans and receivables	Amortized cost
Accounts payable and accrued liabilities	Other liabilities	Amortized cost

Other balance sheet accounts do not meet the criteria to be considered financial instruments.



**PUBLIC HEALTH LABORATORY**  
**Notes to Financial Statements**  
**March 31, 2011**

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**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

*Financial instruments (continued)*

The Laboratory has determined that it does not have derivatives or embedded derivatives.

*Use of estimates*

In preparing the Laboratory's financial statements in conformity with Canadian generally accepted accounting principles management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and reported amounts of revenue and expenditures during the year. Actual results could differ from these estimates.

**3. FUTURE ACCOUNTING PRONOUNCEMENTS**

The CICA has issued a new accounting framework applicable to Canadian government enterprises. Effective for the fiscal years beginning on or after January 1, 2012, government enterprises are required to adopt accounting principles set forth by the Public Sector Accounting Board ("PSAB"). The Laboratory currently plans to adopt the new accounting standards for government enterprises for its fiscal year beginning April 1, 2012; however, the impact of this transition has not yet been determined.

**4. CAPITAL ASSETS**

	2011			2010	
	Cost	Accumulated Amortization	Net Book Value	Cost	Net Book Value
	\$	\$	\$	\$	\$
Equipment	2,069,612	1,750,716	318,896	2,024,075	358,427
Computer equipment	602,290	602,290	-	602,290	-
	<b>2,671,902</b>	<b>2,353,006</b>	<b>318,896</b>	<b>2,626,365</b>	<b>358,427</b>

**PUBLIC HEALTH LABORATORY**  
**Notes to Financial Statements**  
**March 31, 2011**

**5. SUPPLEMENTAL CASH FLOW INFORMATION**

	2011	2010
	\$	\$
Change in non-cash operating working capital		
Accounts receivable	(51,605)	105,510
Due from Eastern Regional Health Authority	(108,468)	(70,533)
Prepaid expenses	-	(12,632)
Accounts payable and accrued liabilities	33,680	51,795
Due to Eastern Regional Health Authority	-	(204,683)
Accrued vacation pay	56,006	97,835
Deferred revenue - capital	62,963	39,732
	<u>(7,424)</u>	<u>7,024</u>

**6. DEFERRED CAPITAL CONTRIBUTIONS**

Deferred capital contributions represent the unamortized portion of restricted contributions related to capital assets, which will be reported in revenue in future accounting periods. Deferred capital contributions are amortized on a basis equal to the amortization for the related capital asset purchased.

The changes in deferred capital contributions balance for the year are as follows:

	2011	2010
	\$	\$
Balance, beginning of the year	358,427	344,055
Grants received	45,537	125,568
Amortization	(85,068)	(111,196)
Balance, end of year	<u>318,896</u>	<u>358,427</u>

**7. RELATED PARTY TRANSACTIONS**

The Laboratory coordinates with the Eastern Regional Health Authority to provide a reference laboratory centre. Transactions between these related parties are measured at their exchange value.

## **PUBLIC HEALTH LABORATORY**

### **Notes to Financial Statements**

**March 31, 2011**

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#### **8. CAPITAL MANAGEMENT**

The capital structure of the Laboratory consists of its deficit. The Laboratory's objective when managing capital is to ensure it maintains adequate capital to support its continued operations.

The Laboratory is not subject to externally imposed capital requirements.

#### **9. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT**

##### *Financial risk factors*

The Laboratory has exposure to credit risk and liquidity risk. The Laboratory's Management Committee has overall responsibility for the oversight of these risks and reviews the Laboratory's policies on an ongoing basis to ensure that these risks are appropriately managed. The source of risk exposure and how each is managed is outlined below.

##### *Credit risk*

Credit risk is the risk of loss associated with a counterparty's inability to fulfil its payment obligation. The Laboratory's credit risk is primarily attributable to accounts receivable. Management believes that the credit risk with respect to accounts receivable is not material.

##### *Liquidity risk*

Liquidity risk is the risk that the Laboratory will not be able to meet its financial obligations as they become due. As at March 31, 2011 the Laboratory had cash of \$500.

##### *Fair value*

The fair value of the Laboratory's financial instruments, with the exception of the amount due from Eastern Regional Health Authority, approximates their carrying values due to the short-term maturity and normal credit terms of those instruments. The amount due from Eastern Regional Health Authority is non-interest bearing with no set repayment terms.

#### **10. COMPARATIVE FIGURES**

Certain comparative figures have been reclassified to conform to the current year's presentation.

