Health Protection Act
Annual Report 2011/2012

A report to the House of Assembly

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1.0 Introduction

This report fulfills the requirement outlined in Section 6(1) (h) of the *Health Protection Act* (HPA), which states the Minister shall provide a report to the House of Assembly on an annual basis outlining the progress of the Department of Health and Wellness (DHW) with respect to the surveillance of and response to health hazards, notifiable diseases or conditions and communicable diseases.

Work in these areas is integrated across the Environmental Health, Communicable Disease Prevention and Control, and Population Health Assessment and Surveillance Responsibility Centres/Branches in the Department of Health and Wellness.

This report covers the time period April 1, 2011 to March 31, 2012 and is divided into the following three sections:

- Health hazards
- Notifiable diseases and conditions
- Communicable diseases

2.0 Health Hazards

2.1 Environmental Health Responsibility Centre

Focused on all aspects of built and natural environments, Environmental Health is the branch of public health that looks at the chemical, biological and physical factors that impact health. This responsibility centre leads responses to health hazards under the *HPA*; by identifying, assessing and controlling these hazards to **protect** health, **prevent** disease and create health-supportive environments.

Health protection is one of public health's core functions and the *HPA* provides ample authority for DHW to regulate, respond and conduct activities to fulfill this function. The department relies on public health professionals who possess a high degree of technical competence, adjust easily to significant technological and scientific changes, and who are comfortable with significant community and stakeholder engagement.

The responsibility centre coordinates the activities of public health inspectors designated under the *HPA* who are employed by the Department of Health and Wellness, the Department of Environment and the Department of Agriculture. The distribution of human resources and specific professionals needed for response to health hazards requires careful coordination and collaboration to ensure efficient use of these resources for a health hazard response.

Many of the responsibility centre's activities are designed to enable and enhance health hazard responses by DHW. The responsibility centre also provides direct support to regional medical officers of health and district health authority program staff for local environmental health issues.

2.2 Key Projects, Accomplishments & Outcomes

2.2.1 Regulations Respecting Recreational Camps

In 2011, the Environmental Health responsibility centre established new regulations for recreational camps operating in the province. The regulations establish minimum requirements for the safe and sanitary operation of recreational camps with the purpose of preventing disease and injury.

In partnership with the Department of Agriculture a proactive inspection program was developed for camps. As part of the regulation process, letters are also issued to camps that must be posted as notice to parents that the camp is in compliance.

2.2.2 Safe Body Art Act and Standards Respecting Body Art

In the fall of 2011 DHW introduced the *Safe Body Art Act* with the purpose of regulating the body art industry, establishing minimum standards to prevent disease and injury, and to protect the health of those seeking body art services. Although this Act establishes a separate legislative authority for this industry, the standards developed to support the Act are also relevant to a wide variety of personal service establishments, including esthetic services, which occasionally require actions under the HPA.

The standards, developed throughout 2012, will be shared with other industry stakeholders and are expected to have a positive impact on disease and injury prevention efforts. These standards will be useful in the response to health hazards in personal service settings where the authority of the HPA must be used to mitigate hazards.

2.2.3 Initiation of Environmental Health Information Technology Solution

Early in 2012, the responsibility centre began to develop business requirements for an information technology solution for environmental health activities under the *HPA*. The business requirements, once completed, will provide a foundation for the development of an IT solution to support environmental health work, build connections to other public health program areas and increase capacity for environmental health surveillance, improved resource allocation and decision making.

2.2.4 Development of Guidelines Respecting Public Swimming Pools

In 2011, the Environmental Health Responsibility Centre conducted a review of Nova Scotia's Swimming Pool Guidelines, introduced by the Department of Health in 1987. As a result, the 1987 Guidelines were found to be scientifically out of date and were retracted. Throughout 2012, the responsibility centre worked with swimming pool industry stakeholders to better understand the issues, develop new reference material and is expected to implement new public swimming pool guidelines in 2013.

2.2.5 Environmental Health Consultant Support for Health Hazard Response

In late 2011 the Environmental Health Responsibility Centre added a third environmental health consultant to its team, increasing capacity for health hazard response under the HPA. The addition of staff for this responsibility centre has been identified as a priority since 2009 and continues as a challenge as articulated in section 2.3.

Throughout the 2011-2012 reporting period the Environmental Health Consultants continued to provide direct response to identified or potential health hazards in public settings and communities to protect public health. These team

members play a key role in health protection efforts across a broad spectrum of environmental public health issues, providing support for the public, regional medical officers of health and district public health teams for complex environmental health issues requiring specific scientific and professional expertise.

For the reporting period, some examples include investigation of communicable diseases associated with personal service settings and swimming pools, investigation of housing complaints, air quality investigations and chemical or toxic substance exposures.

2.3 Key Challenges

2.3.1 Human Resources Capacity

The Environmental Health Responsibility Centre is responsible for the enforcement of six pieces of legislation, including the *HPA*. It has three environmental health consultants who provide program support to nine district health authorities. Providing support to complex environmental health issues often requires knowledge of the geographic area, local authorities and stakeholders. The large geographic coverage areas prevent staff from developing a local understanding and knowledge outside of their own geographic locations (Sydney, Truro and Halifax).

DHW currently has no certified public health inspector capacity for front line health hazard response and relies on other departments for this function. The department continues to work with the departments of Agriculture and Environment to improve capacity in this area.

3.0 Notifiable Diseases and Conditions

3.1 Population Health Assessment &Surveillance Responsibility Centre

The Population Health Assessment and Surveillance (PHAS) Responsibility Centre is responsible for the planning, implementation, and reporting of ongoing surveillance of notifiable diseases and conditions in Nova Scotia.

In Canada, surveillance of communicable diseases is supported by provincial legislation that mandates the reporting or notifying of diseases by many individuals and groups within the public health system. The list of notifiable diseases differs by province/territory but the Public Health Agency of Canada provides specific case definitions for those diseases under national surveillance to facilitate comparability across jurisdictions.

Reporting of notifiable diseases and conditions in Nova Scotia is governed by the *HPA*. As per the Act, the following persons are required to report cases of notifiable diseases and conditions to the Medical Officer of Health in the district health authority in which they work:

- physicians
- registered nurses
- medical laboratory technologists
- principal of a public school or operator of a private school
- administrator of an institution (including day care facilities, universities and community colleges)
- employees of Canadian Blood Services

Public health officials within the district health authorities are responsible for receiving reports, investigating and managing notifiable diseases and conditions, and outbreaks within the province. These are reported to DHW. Epidemiologists from DHW work with district health authority staff and staff from the Communicable Disease Prevention and Control responsibility centre to collect, analyze, and interpret the data. Reports are created, reviewed, and disseminated monthly (Notifiable Conditions Monthly Report), annually, or on an ad hoc basis to public health stakeholders.

District public health officials utilize both manual and electronic tools for data collection of notifiable disease cases. The Application for Notifiable Disease Surveillance (ANDS) is used by district health authority staff and epidemiologists at DHW for the surveillance of notifiable diseases and conditions.

The annual notifiable disease surveillance report provides a summary of notifiable diseases and conditions reported in Nova Scotia for each calendar year. It includes highlights of notifiable disease data and examines important trends. The 2011 Notifiable Diseases Surveillance Report can be found at: http://www.gov.ns.ca/hpp/publications/2011_Notifiable_Diseases_in_Nova_Scotia_Surveillance_Report_v1.0.pdf

3.2 Key Projects, Accomplishments & Outcomes

3.2.1 Changes to the Regulations of the HPA

In 2009, the Public Health Agency of Canada (PHAC) published an updated list of diseases under national surveillance[1]. In response to this update, DHW in collaboration with partners undertook a review of the Notifiable Diseases and Conditions for Nova Scotia (as defined in the *HPA*). They identified possible changes and documented the rationale for these changes.

This documentation was circulated to various experts, individuals, and groups for review and feedback, including DHW CDPC and PHAS, the Infectious Disease Expert Group (IDEG), Medical Officers of Health (MOHs), and the Chief Public Health Officer (CPHO). Feedback was reviewed, and based on the feasibility of implementing the recommended changes, a decision was made to implement changes to the following diseases as of April 2012:

- Addition of “Rift Valley hemorrhagic fever" and "Clostridium difficile"
- Replacing "Human granulocytic ehrlichiosis (HGE)" with “Human granulocytic anaplasmosis (HGA)"
- Replacing "Vaccine associated adverse events (VAAE)" with "Adverse events following immunization (AEFI)".

These changes to notifiable diseases as defined in the *HPA* will enhance our surveillance reporting and will bring us more in line with national surveillance terminology.

3.2.2 Launch of the on-line Surveillance Guidelines for Notifiable Diseases and Conditions

In September 2012, the *Nova Scotia Surveillance Guidelines for Notifiable Diseases and Conditions* was released. The purpose of the document is to provide detailed guidance to public health staff in Nova Scotia involved in prevention, control and surveillance of notifiable diseases and conditions (as

[1] Public Health Agency of Canada. Diseases Under National Surveillance (as of January 2009). Available online: http://www.phac-aspc.gc.ca/bid-bmi/dsd-dsm/duns-eng.php (Accessed November 8, 2011).

defined in the *HPA*) and the handling of related information collected as part of communicable disease follow-up.

This includes Public Health Service staff in the District Health Authorities (DHAs) as well as at DHW. The document provides a high-level overview of surveillance in the province, outlining the manner in which notifiable disease data flow to and from frontline service providers to DHAs, DHW, and the Public Health Agency of Canada (PHAC).

The case definitions contained in the document are surveillance case definitions, which are used for identifying and classifying cases for provincial and national reporting purposes.

The Surveillance Guidelines are an "evergreen" document, i.e. modifications will be on-going. This will ensure that dissemination of new information is efficient and timely, and enhance the reporting and surveillance functions related to notifiable diseases and conditions.

3.3 Key Challenges

Recruitment and retention of epidemiologists continued to be a challenge for our surveillance team in 2011/12. However, working with the Public Service Commission, we were able to establish a new classification series (Epidemiologist), with a new job classification and pay grade which should assist with recruitment and retention. The first of these new positions (Senior Epidemiologist) was posted in March 2012, and it is anticipated that all four positions will be filled within the fiscal year 2012/13.

An additional challenge, as noted in the Communicable Disease Prevention and Control section of this report, is our need for a comprehensive public health information system. The existing Application for Notifiable Disease Surveillance (ANDS) was developed as an interim solution and is only used for surveillance purposes and lacks an immunization registry. The lack of a comprehensive public health application that combines notifiable disease surveillance, an immunization registry and case management functionality is a critical gap in public health capacity in Nova Scotia.

Communicable Diseases

4.1 Communicable Disease Prevention and Control

Communicable Disease Prevention and Control (CDPC) has been the cornerstone of Public Health. The Communicable Disease Prevention and Control Responsibility Centre (CDPC RC) provides leadership in program development as it relates to the prevention and control of communicable diseases. It also provides direction and evidence-informed advice to a variety of Public Health practitioners, internal and external partners, stakeholders and organizations on issues pertaining to communicable disease prevention and control.

Inherent as well within the CDPC RC is the response to new and re-emerging infectious diseases, and the management of outbreaks related to communicable diseases; and the management of the publicly funded immunization program.

As one of public health's five core functions, health protection within the CDPC RC is guided by and accountable to the legislature under the *HPA*. There are a number of key program areas that are directly linked to legislation:

- Direct Contact and Respiratory Diseases, including tuberculosis and influenza
- Enteric Food and Water Borne Diseases
- Outbreak Management and Response
- Pandemic Preparedness (Public Heath Component specifically – Vaccine Strategy, Public Health Measures)
- Publicly Funded Immunization – Childhood Immunization, School Based Immunization, Adult and High Risk Immunization, Universal Influenza Immunization Program
- Sexually Transmitted and Blood Borne Infections (STBBI)
- Vaccine/Biological Management
- Vaccine-Preventable Diseases
- Vectorborne Diseases and other Zoonotic Diseases – West Nile Virus, Tick Borne Disease, Rabies

4.2 Key Accomplishments & Outcomes

4.2.1 Public Health Standards

The development of the standards forpublic health relating to the CDPC Area of Focus has been a significant accomplishment. Currently in the development of the CDPC protocols as a subset of the standards is underway. These documents will provide a framework to define and support public health practice in this field. They will be key in contributing to an accountability framework for the CDPC program.

4.2.2 Immunization Program Public Awareness Campaigns

Three public awareness campaigns were developed. Two of the campaigns were linked to government's Better Care Sooner platform -- the influenza vaccine campaign and the vaccine campaign targeting adults and caregivers/decisions makers in families. These campaigns were fully supported by Communications Nova Scotia and delivered through television ads.

The third public campaign was related to increasing awareness of the pertussis vaccine to health care providers, families and caregivers of newborns. This campaign was the result of stakeholder collaboration throughout the health system and relied on print media for delivery.

4.2.3 Additions/changes to the Publicly Funded Program

Nova Scotia reviews and takes into consideration recommendations from the National Advisory Committee on Immunization in deciding what vaccines are added to the publicly funded program. Consideration must also be given to the occurrence of the disease in the population, as well as the financial considerations. As a result the following changes were implemented as of April 1. 2012:

Changes to the Childhood Immunization Program:

- An increase to 2 doses of varicella vaccine at 12 months and 4-6 years of age
- Use of a combined MMR and varicella vaccine- MMRV (Priorix-Tetra, GSK)
- Reduction to 3 doses of pneumococcal conjugate vaccine (Prevnar) for healthy children, to be given at 2 months, 4 months and 12 months of age

Change to Adult Immunization Program:

- Everyone born in 1970 or later is now eligible for two doses of MMR vaccine.

4.2.4 Atlantic Collaboration

In the spirit of collaboration, sharing of best practices and the pursuit of scientific evidence of vaccines in the research pipeline, the DHW hosted a series of day long meetings with public health colleagues involved in immunization program planning. This included public health within the four Atlantic Provinces and Nunavut, along with vaccinologists from the Canadian Centre of Vaccinology. The appetite for such meetings to continue remains strong as small jurisdictions recognize the benefit of collaboration in times when resource allocation is limited.

4.2.5 Immunization Competency Development

Public Health Nurses in the District Health Authorities now have an opportunity to access the Public Health Immunization Competencies by accessing the Learning Management System (LMS). The utilization of this electronic tool allows the public health nurse to direct her/his own learning needs related to immunization competencies and benefit from the efficiencies of an electronic application versus paper based method. This initiative was launched with the assistance of HITS-NS.

4.3 Key Challenges

4.3.1 Immunization Program

Currently DHW receives funding to purchase vaccines for the publicly funded immunization program. Many of the components of the publicly funded immunization program are health system related and will require a system approach to advance the program in the 21st century.

The 2007 Auditor General's Report and the Lessons Learned from H1N1 have shown that attention needs to be paid to support other aspects of an immunization program. This includes:

(a) Vaccine Registry (AG Report 2007 – recommendation # 4.5, 4.6)
(b) Models of Delivery (H1N1 lessons Learned)

4.3.2 Comprehensive Electronic Information System

The lack of a comprehensive electronic information system for Public Health continues to impede the work of public health practitioners in the communicable disease program as they continue to work with 20th century tools in the 21st century.

The need for a Comprehensive Public Health Information System is supported by the following:

- Ministers of Health in 2006 provided clear direction when they said: **"***Complete a pan-Canadian public health information system and an agreement on the timely sharing of information in preparing for and responding to a public health emergency."*

- Auditor General's February 2008 Report pointed out the need for an immunization registry

- H1N1 experience highlighted the need for such a system