

Health Reform Observer - Observatoire des Réformes de Santé

VOLUME 5

| ISSUE 2 |

ARTICLE 3

Expanding Pharmacists' Scope of Practice to Include Immunization in Nova Scotia

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6 July 2017

A Provincial/Territorial Health Reform Analysis

RECOMMENDED CITATION: O'Reilly B, Isenor J, Bowles S. 2017. Expanding Pharmacists' Scope of Practice to Include Immunization in Nova Scotia. *Health Reform Observer - Observatoire des Réformes de Santé* 5 (2): Article 3. DOI: <https://doi.org/10.13162/hro-ors.v5i2.3008>

Abstract

On 10 December 2010 *An Act to Amend Chapter 36 of the Acts of 2001, the Pharmacy Act* (Bill 7) received Royal Assent in Nova Scotia, including an amendment that enabled an expanded scope of pharmacy practice. Expanding pharmacists' scope of practice came about from recommendations by various federal and provincial government bodies as an attempt to improve accessibility to health care and decrease costs. In 2013, pharmacists in Nova Scotia began administering the influenza vaccine as part of the publicly funded program in attempts to improve vaccine coverage rates. Preliminary evaluation in Nova Scotia has shown an increase in influenza vaccination coverage. Although pharmacist administration of influenza vaccination may improve vaccination coverage and reduce demand on physician time, there may be tension created among the professions, which needs to be addressed and managed.

La modification des lois qui concernent les professions de santé réglementées, An Act to Amend Chapter 36 of the Acts of 2001, the Pharmacy Act (Loi 7), a été sanctionnée en Nouvelle-Écosse le 10 Décembre, 2010. Un de ces changements législatif avait pu renforcer l'élargissement du pratique des pharmaciens en Nouvelle-Écosse. Grâce a la conseil de plusieurs groupes gouvernementale, Fédérale et Provinciale, cette élargissement de pratique essaient a diminuer le coût et améliorer l'accessibilité du système de santé. En 2013, les pharmaciens en Nouvelle-Écosse ont commencé d'administrer le vaccin antigrip-pal gratuitement au public, pour augmenter le taux d'immunisation contre la grippe dans le province. Une évaluation préliminaire a démontré l'augmentation des taux d'immunisation en Nouvelle-Ecosse. Bien que l'administration du vaccin contre la grippe pourrait améliorer la couverture vaccinale et reduire le temps des médecins, il pourrait aussi crée des tensions entre les professions medicaux, qui doit être adresser et gérer.

Key Messages

- Expanding the scope of pharmacy practice has the potential to improve the utilization of health care resources.
- Success of the policy changes was related to collaborative efforts between a variety of stakeholders, following the example of the Pharmacists and Immunization Working Group (PIWG) from British Columbia.
- The impact that pharmacists as immunizers is having in Nova Scotia is under evaluation.

Messages-clé

- *L'élargissement de la pratique des pharmaciens pourrait améliorer l'utilisation des ressources médicales.*
- *Le succès des changements de politique était grâce aux efforts de plusieurs parties, qui suivaient l'exemple du Pharmacists and Immunization Working Group (PIWG) de la Colombie Britannique.*
- *L'impact des pharmaciens qui administrent les vaccins antigrippal dans la Nouvelle-Écosse est en cours d'évaluation.*

1 BRIEF DESCRIPTION OF THE HEALTH POLICY REFORM

An Act to Amend Chapter 36 of the Acts of 2001, the Pharmacy Act, or Bill 7, was introduced in March 2010 by the Nova Scotia government and received Royal Assent in December of that same year. This laid the framework for the *Pharmacist Extended Practice Regulations* made under Section 83 of the *Pharmacy Act* in 2011, enabling an expanded scope of pharmacy practice. This included prescribing for minor ailments, therapeutic adaptations and administering vaccinations. Following legislative changes, standards of practice were developed by the Nova Scotia College of Pharmacists. Following approval of the Standards in 2013, pharmacists were permitted to immunize (NSCP 2015). Pharmacists were included in the universally funded influenza vaccination program in the 2013-14 influenza season for the first time and could be financially compensated for this process

2 HISTORY AND CONTEXT

In 2002, the Commission on the Future of Health Care in Canada identified that while the current Canadian health care system was meeting the needs of Canadians, there was room for improvement, particularly around meeting the needs of an aging population and improving access to care (Romanow 2002). Pharmacists were identified as an underutilized health care provider under “Medication Management and Primary Health Care,” where it was recommended that pharmacists play a larger role in the primary health care team. However, this would require significant changes in legislation and policy to expand the scope of practice for pharmacists.

The Nova Scotia Department of Health and Wellness (DHW) aims to provide an innovative and sustainable health care system to Nova Scotia residents. Realizing the need to adapt to these changes, in 2003 a report by the Advisory Committee on Primary Health Care Renewal recommended that the DHW enhance the role of the pharmacist, among other health care professionals, as part of an interdisciplinary team (Advisory Committee on Primary Health Care Renewal 2003). Given that pharmacists have specialized expertise in medications and their management, an expanded scope of practice may alleviate some strain on the health care system.

In 2008, the Canadian Pharmacists Association (CPhA) released a plan of action titled the “Blueprint for Pharmacy.” Within this document, the CPhA recognized that the role of the pharmacist needed to strengthen to better assist patients and their desire for self-care (CPhA 2008). One such proposal in this action plan was to initiate the regulatory framework to authorize pharmacists to administer drugs and vaccines by injection.

Implementation of pharmacist vaccinations services has been successful in several jurisdictions. The United States was the first country to implement pharmacists as immunizers, beginning in the state of Washington in the mid-1990s, a practice now extended to all

50 states (Hogue *et al.* 2006; Traynor 2006). Pharmacists in the United Kingdom have been authorized to administer certain vaccinations since 2002, with a high degree of patient satisfaction (98%) reported (Hind *et al.* 2004). Pharmacist immunization has also been implemented in Portugal, with 25% of influenza vaccines in the 2008-09 influenza season administered by pharmacists and high rates of patient satisfaction reported (CEFAR 2009). More recently, Australia (2013) broadened the scope of pharmacy practice to include immunization, with 12% to 17% of the target population receiving their influenza vaccine in a pharmacy and a higher uptake in rural areas (Hattingh *et al.* 2016). In Canada, the province of Alberta was the first to develop regulations and standards permitting pharmacists to provide vaccinations in 2007, with British Columbia, New Brunswick and Ontario following between 2009 and 2012.

Given the success of pharmacists as immunizers in other jurisdictions and the shift towards expanded scope of practice for pharmacists, the province of Nova Scotia developed similar legislative changes and regulations. On 10 December 2010 *An Act to Amend Chapter 36 of the Acts of 2001, the Pharmacy Act* (Bill 7) received Royal Assent to the Nova Scotia Legislative Council. These amendments would authorize pharmacists in Nova Scotia to directly administer vaccinations to patients, among other duties.

Despite the legislation permitting pharmacists to provide immunizations, the Nova Scotia College of Pharmacists did not move forward with the practice regulations and standards of practice until all stakeholders' views were taken into consideration. This followed the British Columbia model, where their Pharmacists and Immunization Working Group (PIWG) collaborated with multiple stakeholders before authorizing pharmacists to vaccinate. For their work in facilitating the authorization of pharmacists to administer vaccinations, the PIWG was awarded the BC Quality Award in 2011 (BCPSQC 2011). To mimic BC's success, the Standards of Practice Committee from the Nova Scotia College of Pharmacists involved pharmacists as well as external reviewers and contributors, such as the College of Physicians and Surgeons of Nova Scotia, the College of Registered Nurses of Nova Scotia, the Nova Scotia Department of Health and Wellness, and Doctors Nova Scotia, the advocacy group for provincial physicians. The standards were to reflect collaboration between various individuals and organizations prior to Nova Scotia pharmacists providing immunizations to patients. Stakeholder engagement took time and delayed the passing of the standards, compared to jurisdictions that did not have the same degree of stakeholder involvement (NSCP 2015).

In 2013, the *Pharmacist Extended Practice Regulations* were made under Section 83 of the *Pharmacy Act*. This piece of legislation permitted pharmacists to begin administering vaccinations in that same year. Furthermore, pharmacists were permitted to bill the province of Nova Scotia for providing the influenza vaccine to individuals five years of age and older under the publicly funded campaign to increase influenza immunization rates. Although we do not know why there was a delay between the passing of Bill 7 and the implementation of the practice regulations, we can hypothesize it was a combination of factors, including the wish to follow the British Columbia initiative, allowing sufficient

stakeholder feedback and the desire to ensure sustainable funding.

3 GOALS OF THE REFORM

One objective of the proposed amendment to the *Pharmacy Act* described (Bill 7), as outlined by the Nova Scotia College of Pharmacists (NSCP) was to give Nova Scotia pharmacists the authority to administer drugs by injection. The Nova Scotia government approved this bill after various national and provincial recommendations as a means to improve inter-professional collaboration surrounding a patient's circle of care, to improve coverage rates against vaccine-preventable disease and to provide better accessibility to immunizations in the interest of the health and well-being of their patients (NSCP 2010).

4 FACTORS INFLUENCING TIMING AND CONTENT OF PHARMACISTS PROVIDING INFLUENZA VACCINATIONS

4.1 Ideas

Millions of Canadians are infected with influenza each year, and although most will recover, it is estimated that approximately 12,000 hospitalizations and 3,500 deaths are related to influenza each year (Gionet 2015). The influenza vaccine is considered to be the most effective method at preventing influenza (Gionet 2015). Although influenza vaccination rates generally increased between 2003-04 and 2013-14, Canadians are well below the recommended vaccination rate of 80% (Gionet 2015). In 2013-14, Nova Scotia's influenza vaccination rate was approximately 41.6%, which was the highest provincial influenza vaccination rate, but still needed to improve to meet the target rate (Isenor *et al.* 2016a).

4.2 Institutions

All Canadian territories and seven provinces have a universal influenza vaccination program (Government of Canada 2016). For those provinces without a universal program, vaccinations are provided to certain individuals meeting particular criteria (for example, health care workers or persons 65 years and older). Following pandemic H1N1 in the 2009-10 influenza season, the Nova Scotia government implemented the universal influenza vaccine program.

The administration of injections and the influenza vaccine had already been implemented in a variety of jurisdictions prior to the legislation passing in Nova Scotia. The American Pharmacists Association developed a vaccine education and administration program in 1996, and by October 2009, all fifty states allowed pharmacists to administer vaccinations (Terrie 2010). Alberta was the first Canadian province to provide authority

to pharmacists to administer vaccinations in 2007. By July 2016, nine provinces allowed pharmacists to administer influenza vaccinations (CPhA 2016).

4.3 Interests

Pharmacists providing influenza vaccinations was supported by pharmacy regulatory and advocacy bodies, such as the Nova Scotia College of Pharmacists and the Pharmacy Association of Nova Scotia. A pre-implementation survey of Canadian pharmacists found that 68% of respondents felt that pharmacy practice should expand to include immunizations (Edwards *et al.* 2015). However, respondents also noted barriers, such as the availability of pharmacy space and staff, current training, and time, as potential hindrances to vaccine administration.

The College of Physicians and Surgeons of Nova Scotia, the College of Registered Nurses of Nova Scotia and the Nova Scotia Department of Health and Wellness supported the efforts through their participation in the development of the Standards of Practice. However, the policy changes have been met with some reluctance and reproach by individuals rather than groups. Statements regarding pharmacists' expanded scope of practice (*CBC News* 2015), specifically elaborating on fears that pharmacists providing vaccinations are not adequately trained to assess a patient and to treat them in the event of an emergency (Fayerman 2012). Individual physicians in Canada have also described a loss of revenue as a result of pharmacists administering the influenza vaccine (Coote 2015). In Nova Scotia, decreased physician revenue is likely attributable to physician administration of the influenza vaccine costing the province approximately 33% more than pharmacist administration (Borden 2013). Despite any individual physician's hesitation with the expanded scope of a pharmacist's practice, the Canadian Medical Association's code of ethics encourages physicians to collaborate with pharmacists in the best interest of the patient (CMA 2004).

4.4 All the factors converged

Patient safety and respecting the role of the family physician were major factors involved with the development of the *Pharmacist Extended Practice Regulations*, made under Section 83 of the *Pharmacy Act*. These regulations state that pharmacists in Nova Scotia must have a valid permit to administer injections, must monitor the patient post-administration to observe for any injection-type reactions, and they must communicate a record of the injection to the patient's primary care provider (*Pharmacy Act* 2011).

5 IMPLEMENTATION AND EVALUATION

According to the Standards of Practice, a pharmacist must meet specified requirements in order to initially obtain an injection permit and to annually renew their permit (NSCP 2015). An approved immunization and injection education and training program, such

as the Dalhousie Immunization and Injection Administration Training Program (IIATP) must be completed in order to obtain a permit. Pharmacists and nurses provided the training program, however, in the beginning, only nurses certified pharmacist injectors. A total of 626 Nova Scotia pharmacists (approximately 59%) had completed the Dalhousie IIATP training prior to the passing of the Standards of Practice in April 2013. Once enough pharmacists were experienced with immunizing, the training program allowed a combination of nurses and pharmacists to assess injectors for certification. Additionally, a pharmacist must have current First Aid and CPR certification and maintain their competencies to have a valid permit.

There is limited data evaluating the impact that pharmacists providing immunizations has had after the first three influenza seasons during which pharmacists provided the vaccine. However, there have been some positive outcomes identified relating to vaccine coverage rates in Nova Scotia. In the first season that pharmacists were providing influenza vaccinations (2013-14), 41.6% of the total population aged 5 years and older were vaccinated, an increase from 38%, 35.4% and 35.7% seen in the previous three seasons without pharmacists administering the vaccination (Isenor *et al.* 2016a). More research is required to investigate the impact that pharmacists as immunizers are having on influenza vaccine coverage rates in Nova Scotia. This evaluation also needs to include patient satisfaction with pharmacists as immunizers, and any relationship that a change in coverage rates is having with disease prevalence.

Early evaluation of the impact of pharmacists as immunizers in Nova Scotia has shown an increase in influenza vaccine coverage. This is in line with the positive impact of pharmacists in immunization activities observed in a 2016 systematic review and meta-analysis (Isenor *et al.* 2016b). All 36 studies included in the review demonstrated an increase in vaccinations provided, regardless of whether the pharmacist was the administrator, facilitator or educator. One economic analysis from Ontario estimates pharmacists participating in influenza immunization resulted in \$763,000 in direct health care savings and \$3.4 million saved from reduced absenteeism due to influenza illness (Houle 2016).

6 STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS

Table 1 summarizes strengths, weaknesses, opportunities and threats associated with pharmacists providing the influenza vaccine in Nova Scotia from a pharmacist's perspective.

Table 1: SWOT Analysis

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> ● Improve influenza vaccination rates to help reduce morbidity and mortality associated with the disease ● Allow pharmacists to play a more active role in disease prevention ● Reduced demand on physician time 	<ul style="list-style-type: none"> ● Physician offices will spend more time filing faxes and records from pharmacies ● Concerns by physicians regarding potential loss of revenue from decreased influenza vaccination administration ● Concerns regarding a pharmacist's ability to react in the event of an injection-related emergency
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> ● Cost effectiveness due to reduced physician visits and decreased administration fee in pharmacy versus physician office ● Greater accessibility to patients due to extended community pharmacy hours ● Improved utilization of a pharmacists' scope of knowledge as the medication experts 	<ul style="list-style-type: none"> ● May create tension with other immunizers (physicians, nurses, public health) ● Increased resource strain on community pharmacies

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