The Pharmacist Option: Leveraging NL Pharmacists for More Effective Health Care Delivery
An Economic Footprint of the Community Pharmacy Sector in NL*

- Community Pharmacy is a unique sector, providing health care in a retail setting

- It contributes to the province in multiple ways, including:
  - Access to health services
  - Job creation

- Significant direct contribution to the economy plus spillover effects

- Ratio of direct GDP high compared with other sectors

*Pending Report from the Conference Board of Canada, numbers estimated
An Economic Footprint of the Community Pharmacy Sector in NL*

- Direct Impacts
  - $137.6M in GDP (6.9% of provincial health sector GDP)
  - Employs approximately 3000 residents
  - Generates $111.5M in labour income

- With Indirect and Induced Impacts Added
  - Total economic contribution $254M
  - An additional 1310 jobs in province and rest of country

- In addition, the pharmacy sector in NL generated $25.2M in fiscal benefits to all levels of government in 2016, with about 79% of that amount occurring in our province

*Pending Report from the Conference Board of Canada, numbers estimated
The Evolving Role of the Pharmacist

• The scope of practice for a professional includes the activities he or she is educated and authorized to perform.

Benefits of Expanded Scope:
• Health system savings by reducing costs associated with unnecessary doctor and emergency room visits.
• Improving health outcomes for patients.

Pharmacy ≠ Dispensing Only
Scope of Practice 2012

<table>
<thead>
<tr>
<th>Pharmacy Scope of Practice</th>
<th>BC</th>
<th>AB</th>
<th>SK</th>
<th>MB</th>
<th>ON</th>
<th>QC</th>
<th>NB</th>
<th>NS</th>
<th>PEI</th>
<th>NL</th>
<th>NWT</th>
<th>YT</th>
<th>NU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide emergency prescription refills</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>P</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Renew/extend prescriptions</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Change drug dosage/formulation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Make therapeutic substitution</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Minor ailments prescribing</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>P</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Initiate prescription drug therapy</td>
<td>X</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Order and interpret lab tests</td>
<td>X</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
<td>P</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Administer a drug by injection</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>P</td>
<td>✓</td>
<td>✓</td>
<td>P</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

1. QC: not specifically identified in Pharmacy Act; these scope of practice activities are enabled by means of “administrative agreements” between pharmacist & physician regulatory authorities and QC government.
2. MB: as per Continued Care Prescriptions policy.
3. QC: when authorized by a physician by means of a “collective prescription” (i.e., collaborative agreement).
4. QC: as enabled by passage of Bill 11 by the Quebec Ordre of Pharmacists on December 8, 2011. Regulations have not yet been modified to reflect these scope of practice activities.
5. QC: for demonstration purposes only.
6. NL: administration of influenza vaccination to patients five years of age and older (effective October 2012). Administration of all other injections and inhalations for demonstration and educational purposes.
7. SK: only as part of minor ailments prescribing.
8. NB: prescribing constitutes as adopting, emergency prescribing or within a collaborative practice, independent prescribing or as part of minor ailments prescribing is impending.
9. NL: prescription of drug products for the purpose of smoking cessation (effective October 2012).

© Canadian Pharmacists Association
October 2012
## Pharmacists’ Scope of Practice in Canada

<table>
<thead>
<tr>
<th>Scope of Practice</th>
<th>BC</th>
<th>AB</th>
<th>SK</th>
<th>MB</th>
<th>ON</th>
<th>QC</th>
<th>NB</th>
<th>NS</th>
<th>PEI</th>
<th>NL</th>
<th>NWT</th>
<th>YT</th>
<th>NU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescriptive Authority (Schedule 1 Drugs) ¹</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Initiate ²</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>For minor ailments/conditions</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>For smoking/tobacco cessation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>In an emergency</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Adapt ³/Manage</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Independently, for any Schedule 1 drug ⁴</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Independently, in a collaborative practice ⁴</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Make therapeutic substitution</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Change drug dosage, formulation, regimen, etc.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Renew/extend prescription for continuity of care</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Injection Authority (SC or IM) ⁵</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Any drug or vaccine</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vaccines ⁶</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Travel vaccines ⁶</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Influenza vaccine</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Labs</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Order and interpret lab tests</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Techs</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Footnotes

1. Scope of activities, regulations, training requirements and/or limitations differ between jurisdictions. Please refer to the pharmacy regulatory authorities for details.
2. Initiate new prescription drug therapy, not including drugs covered under the Controlled Drugs and Substances Act.
3. Any other prescriber’s original/existing/current prescription for drug therapy.
4. Pharmacists independently manage Schedule 1 drug therapy under their own authority, unrestricted by existing/initiation prescription(s), drug type, condition, etc.
5. Applies only to pharmacists with additional training, certification and/or authorization through their regulatory authority.
6. Authority to inject may not be inclusive of all vaccines in this category. Please refer to the jurisdictional regulations.
7. For education or demonstration purposes only.
8. Ordering by community pharmacists pending health system regulations for pharmacist radiation to labs.
9. Authority is limited to ordering lab tests.
10. Pharmacy technician registration available through the regulatory authority (no official licensing).
POLYPHARMACY IN CANADA

- How many Canadians (≥65 yrs) consume:

  - ≥5 medications?

  - ≥10 medications?

(CIHI 2014)*
Costs of Medication Non-Adherence

- $14 BILLION estimated annual cost of medication non-adherence to the Canadian healthcare system

- These costs include such things as additional physician visits, extra laboratory tests, additional drug therapy, hospital ER visits, hospital admissions

- Ways to Increase Compliance

Compliance Packaging

From this…
Compliance Packaging

... to this.
Treatment of Minor Ailments

Treatment of Minor Ailments

- Studies have shown that minor ailments comprise up to 40% of GP office visits
- Increased demands on family physicians, which could be alleviated if other qualified health professionals took on responsibility for less complex issues with patients

Br J Gen Pract. 2013 Jul; 63(612): e472–e481. Published online 2013 Jul 1. doi: 10.3399/bjgp13X669194
Treatment of Minor Ailments

Conditions which can be treated by pharmacists

- Dyspepsia (indigestion)
- GERD (acid reflux)
- Nausea
- Non-infectious Diarrhea
- Hemorrhoids
- Allergic Rhinitis
- Cough
- Nasal Congestion
- Sore Throat
- Mild Headache
- Minor Muscle Pain
- Minor Joint Pain
- Minor Sleep Disorders
- Dysmenorrhea
- Emergency Contraception
- Xerophthalmia (dry eyes)
- Oral Ulcers
- Oral Fungal Infection (thrush)
- Fungal Infections of the Skin
- Vaginal Candidiasis (yeast infection)
- Threadworms and Pinworms
- Herpes Simplex (cold sores)
- Contact Allergic Dermatitis
- Mild Acne
- Mild to Moderate Eczema
- Mild Urticaria
- Impetigo
- Dandruff
- Calluses and Corns
- Warts (excluding facial and genital)
- Smoking Cessation

Improving Health and Lowering Costs
Benefits of Pharmacist Care in Hypertension in NL

- Groundbreaking 2017 study shows significant health care dollars saved with pharmacists providing full scope of care for NL patients with hypertension.

- Study shows:
  - $335,000,000 saved over 30 years
  - 2851 fewer strokes
  - 5645 fewer heart attacks
  - 1630 fewer cases of angina
  - 1494 fewer instance of heart failure
  - 39 fewer instances kidney failure
  - An additional 20,000 years lived

Cost-effectiveness of pharmacist care for managing hypertension in Canada, appears in the Canadian Pharmacists Journal and was authored by Carlo Marra, PharmD, PhD; Karissa Johnston, MSc, PhD; Valerie Santschi, PharmD, PhD; and Ross T. Tsuyuki, BSc(Pharm), PharmD, MSc, FCSHP, FACC.
The Value of Expanded Pharmacy Services in Canada

• Expanding three community pharmacy services (smoking cessation, advanced medication review and management for cardiovascular disease, and pneumococcal vaccination) could lead to cumulative savings between $2.5 billion and $25.7 billion over the next 20 years.

• Scaling up advanced medication review and management for cardiovascular disease could generate cost savings between $1.9 billion to $19.3 billion.

• Population health benefits of expanding these services include avoiding cases of chronic disease and premature deaths.

Prescribing in Collaborative Practice

• Better care, increased efficiency
• Regulations drafted to prescribe in collaborative practice
Summary Points

• Pharmacists can and want to play a bigger role in healthcare delivery

• Leveraging the skills and expertise of all health professionals is vital for meaningful change

• To create a healthcare system that is responsive, efficient and effective in improving the health of the people of NL requires innovation and the willingness to do things differently
"Innovation comes about through combining disparate ideas and disciplines in ways that seem weird at first. Get comfortable with weird if you want real innovation to emerge"

Ben Weinlick
Think Jar Collective founder