The Value of Expanded Pharmacy Services in Canada

Recommendations for Optimized Practice

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Context

• Scope of practice changes for pharmacists have been occurring in Canada since 2007.

• These changes have not been uniform across Canada, but rather heterogeneous, based on jurisdictional factors.

• The objective is to adapt pharmacy practice and programs for better health and value for payers, pharmacists, other health care providers, and all Canadians.
A Review of Pharmacy Services in Canada and the Health and Economic Evidence

February 2016
Evidence to Support Role Expansion

Pharmacy practice research exists that shows pharmacist interventions can result in positive patient outcomes, especially in the following areas:

- Smoking cessation;
- Influenza vaccination;
- Dyslipidemia;
- Diabetes;
- Hypertension;
- Respiratory conditions (e.g. COPD, asthma).
Modelling The Impact of Expanded Services

**Objective:** To demonstrate the population health and economic impact of increasing access to the following community pharmacy services:

- Smoking cessation;
- Advanced medication review and management for cardiovascular diseases; and
- Pneumococcal vaccination.

The impact is modeled from a health care system and societal perspective, currently and into the future (out to 2035).
Modelling The Impact of Expanded Services

1) Two Conference Board of Canada models are used to estimate the potential health and economic impact of expanded community pharmacy services:

- Cardiovascular Disease and Respiratory Disease Model (CVD-RD)
- Model 2 – Burden of Pneumonia Model (BOP)

Two scenarios:

- “Base case”: status quo or no expansion of pharmacy services to decrease risk factors.
- “Alternative scenario”: implementation of expanded pharmacy services aimed at decreasing risk factors; different uptake rates.

2) Return on investment calculated for the three pharmacy services based on different reimbursement scenarios.
General Modeling Approach

Conceptual Framework

1. Identify populations that can benefit most from intervention and their impact on health outcomes (efficacy)
2. Assess the gaps in access to treatment in the population (define and measure unmet need)
3. Assess potential health improvements due to increased access to interventions
4. Estimate potential reduction in disease complications and premature mortality, as well as the increase in labour force productivity
5. Estimate potential cost savings or economic gains to health care system, society, the economy
Results: Economic Impact

Cumulative cost savings are expected in the first 5, 10, and 20 years following implementation of the services, reaching up to $25.7 billion by 2035.

Incremental Cumulative Economic Benefit of Expanded Pharmacy Services, 100% Participation Scenario

- Direct Health Care Costs
- Indirect Costs (Productivity Gains)

- $2.8 billion
- $8.5 billion
- $25.7 billion

2020 2025 2035
Results: Economic Impact

Cumulative cost savings by service (between low and high participation scenarios):

- Advanced Medication Review and Management: $1.9 billion to $19.3 billion
- Smoking Cessation: $563 million to $5.6 billion
- Pneumococcal Vaccination: $206 million to $761 million
Results: Economic Impact

Greatest cost savings are for Cerebrovascular disease and Ischaemic heart disease.

Incremental Economic Benefit, by Condition, 2035 and Cumulative

<table>
<thead>
<tr>
<th>Condition</th>
<th>2035</th>
<th>Cumulative (2016-2035)</th>
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<tbody>
<tr>
<td>Hospitalized Pneumonia</td>
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<tr>
<td>Chronic Obstructive Pulmonary Disease</td>
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<td>0</td>
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<tr>
<td>Stroke</td>
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<td>Lung Cancer</td>
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<tr>
<td>Ischaemic Heart Disease</td>
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<td>8000</td>
</tr>
<tr>
<td>Cerebrovascular Disease</td>
<td>8000</td>
<td>8000</td>
</tr>
</tbody>
</table>
Results: Return on Investment

In 2035, the direct cost returns of the advanced medication review and management for CVD service are estimated to yield $1.90-$2.30 for every dollar invested.

![Cumulative Direct Cost ROI and Indirect Cost Savings From Advanced Medication Review and Management for CVD, by Pricing Scenario, 2016–35](image)

(C$ millions)

Notes: Advanced medication review and management for CVD intervention is defined as an initial visit and two follow-up visits. Average low-pricing scenario is $154; average high-pricing scenario is $190.

Source: The Conference Board of Canada.
In 2035, the direct cost returns of the smoking cessation service are estimated to yield $5.60-$9.10 for every dollar invested.
In 2035, the direct cost returns of the pneumococcal vaccination service are estimated to yield $27-$72 for every dollar invested.

Cumulative Direct Cost ROI From Pneumococcal Vaccination, by Pricing Scenario, 2016–35
(C$ millions)

Note: Average low-pricing scenario is $7.50/vaccination; average medium-pricing scenario, $15/vaccination; average high-pricing scenario, $20/vaccination.
Source: The Conference Board of Canada.
Key Opportunities and Challenges

Environmental

• Location and operating environment impact how scope can be implemented and optimized

Evidence of Value and Impact

• A current shortfall exists: Canadian evidence of value (re: outcomes, patient experience, and system impacts)

The Pharmacy Profession

• Culture change requires a learning curve
• Advanced specialization a promising area
Key Opportunities and Challenges

Legislation and Regulation

• Considerable variation in expanded scope legislation and expansion attempts in P/T jurisdictions

• P/T governments need better understanding of value before investing in additional services

Reimbursement/Remuneration Models

• P/T variations in scope and payment (e.g., comprehensive and selective or comprehensive scope and limited/no payment)

• Three primary payment models: public payer, insurer coverage, and out-of-pocket
Key Opportunities and Challenges

**Pharmacy in Practice**

- Time/resources required for new consultation and assessment services

- New models being explored - pharmacy technicians can help free up pharmacists to provide these services

**Public Perceptions**

- Large public appetite for affordable and easily accessible health care services - community pharmacies well-positioned

- Public awareness and willingness to pay for some services varies, but a strong sense of entitlement
Areas of Focus to Move Forward

• Enhancing the current body of research and evidence of impact beyond traditional services;

• Addressing the perceived barriers associated with legislation and regulation of the pharmacy profession;

• Creating supportive operating environments;

• Identifying and implementing appropriate funding models to support expanded service;

• Support monitoring and evaluation of pharmacy practice quality standards.
Getting the Most Out of Community Pharmacy: Guiding Principles

- Provide population needs-based services at the right time and in the most cost-effective way;
- Facilitate increased coverage of the population currently without access, as well as improve the timeliness of care to optimize effectiveness;
- Provide supports for pharmacists, pharmacy owners, and administrators to facilitate expansion of practice if desired or where community needs are present;
- Adopt a funding (payment) structure that ensures equitable, accessible, patient-centered, high-quality, and cost-effective services;
- Optimize the use of communications technology, physical space, and other infrastructure and environmental supports to facilitate services’ delivery and improve collaboration with other primary care providers;
- Adopt and implement a quality standards framework or approach to ensure measurable and accountable quality care.