9000 POINTS OF CARE:

Improving Access to Affordable Healthcare

Broader Pharmacy’s five creative initiatives to improve healthcare system outcomes, deliver greater value and improve the patient experience.
INTRODUCTION

Healthcare is there for Canadians when they need it. And our approach to healthcare in this country makes Canadians proud. Yet, as our healthcare system has grown, it has started to strain under its own weight – with costs growing well past inflation year, after year.

For years, there has been great debate and analysis on how to improve healthcare and, in particular, patient care in Canada. Yet, despite this ongoing debate, few proposed solutions have made it beyond the theoretical, to the “how to” stage.

Many of Canada’s pharmacists, community pharmacies, drug manufacturers, and pharmaceutical distributors, are acutely aware of how challenges facing the delivery of care affect the quality of life of the people our health system is designed to serve: Canadians.

Building on the growing need for practical and implementable solutions, we as leaders in Canada’s broader pharmacy community have chosen to collaborate – as business leaders, healthcare professionals, and as Canadians – to share our knowledge and experience.

Out of this collaboration has come Broader Pharmacy’s Plan for Improving Access to Affordable Healthcare. It outlines five key initiatives that seek to improve patient outcomes, contain costs, and ensure the sustainability of our healthcare system for the sake of the patients of tomorrow. We believe that working together, Canada’s broader pharmacy community can in three years:

• Prevent up to 600,000 ER visits, 1,500 hospitalizations, and free up to 2.4 million physician hours for focus on more critical care by expanding pharmacists’ scope of practice to include treating minor ailments and administering vaccines;
• Prevent up to 1.3 million ER visits, 500,000 hospitalizations, and free up to 6.3 million hours of physician time by managing chronic conditions more effectively;
• Reduce system costs by $7 to $9 billion through improved access and use of affordable medications;
• Implement state-of-the-art emergency preparedness and pandemic response systems by leveraging pharmaceutical distributors; and
• Avoid up to 300,000 emergency room visits and up to 86,000 hospitalizations resulting from adverse drug reactions by focusing on better electronic infrastructure and resources, connectivity, and information sharing.

The evidence-based, patient-focused solutions being proposed can improve the everyday lives of Canadians, while meaningfully helping to reduce healthcare costs.

This effort is just a first step. We, Canada’s broader pharmacy community, are confident that we can deliver solutions to health system challenges, which will help make a positive difference in the lives of Canadians – both today and in the future.

This is our plan and commitment.
VALIDATION FROM THE CONFERENCE BOARD OF CANADA

Louis Thériault, Director, Health Economics
Forecasting and Analysis Division
The Conference Board of Canada
255 Smyth Road, Ottawa, ON K1H 8M7

April 1, 2013

To: The Steering Committee for Broader Pharmacy’s Plan for Improving Access to Affordable Healthcare

The Conference Board of Canada was commissioned to provide a review of Broader Pharmacy’s Plan for Improving Access to Affordable Healthcare. This review specifically aims to validate (assessing the credibility of) the inputs and assumptions used by A.T. Kearney to assess the patient impact, and develop the associated healthcare cost reduction estimates for, the following activities:

- Treating minor ailments and administering vaccines
- Ensuring affordable access to key medications
- Managing chronic conditions
- Leveraging the pharmaceutical distribution model
- Further preventing adverse drug reactions

For each activity we engaged in a validation process of:
- The inputs and assumptions identified in the preliminary draft presentation;
- The Index of Sources database; and,
- The source documents and references for the data.

The validation process took into consideration the following elements of the preliminary draft presentation:
- The quality of the original data source from which the estimate was extracted;
- The validity of the estimates;
- The appropriateness of the transformation and/or application of the estimates; and,
- The validity of the various assumptions.

During the review, the Conference Board asked for clarification and provided feedback on specific elements of the healthcare cost reduction estimates. A.T. Kearney openly shared documents and provided timely responses to our feedback and questions. We consider the methodology sound and the assumptions and data sources used in the analysis reliable. Multiple avenues could have been taken to develop direct healthcare cost reduction estimates; we believe the approach taken by A.T. Kearney was rigorous and that the results of the analysis are credible.

Best Regards,

Louis Thériault, Director, Health Economics
Forecasting and Analysis Division
EXECUTIVE SUMMARY

CONTEXT

Canada’s healthcare system makes us proud, because it is there for us when we need it. Despite our system’s challenges - Canada’s approach to healthcare is admired the world over for its quality and equity.

Yet the challenges facing our health system are daunting and urgent. Healthcare now accounts for more than 40% of most provincial budgets in Canada, and as study after study has shown the problem is about to get far worse. Canadians aged 65 and over represent only 14% of the population, but account for about 45% of all provincial and territorial government health spending. The number of seniors is expected to nearly double by 2036.1

Canada’s broader pharmacy community appreciates those challenges, and has the knowledge, tools, and resources to contribute to sustainable solutions that will help relieve system costs and make Canadians healthier.

Prescription drugs are a big part of our health system. According to CIHI, 2011 prescription drug expenditures accounted for $27 billion of the $200 billion total health expenditures in Canada. The number of seniors taking multiple medications is on the rise, with almost two thirds of Canadians aged 65 and over taking five or more prescription drugs from different drug classes.

Broader Pharmacy’s Plan for Improving Access to Affordable Healthcare

The broader pharmacy community is proud to be a central part of Canada’s health system, and a significant contributor to our economy – contributing $12.5 billion in economic value to Canada’s healthcare system annually, with over 80% of Canadians accessing primary care through nearly 9,000 community pharmacies across the country every year.

Through this Plan for improving access to affordable healthcare, Canada’s broader pharmacy community has undertaken a comprehensive analysis designed to identify solutions that improve patient care and unlock potential cost savings across our health system. Five strategies have been identified that focus on leveraging resources and infrastructure that are already in place. These five strategies have the potential to save governments $8.5 billion to $11 billion over three years.

1 “Health System Performance: Quality of Care and Outcomes” CIHI 2011
Those results can be achieved by:

- Expanding pharmacists’ scope of practice to include treating minor ailments and administering vaccines that would prevent up to 600,000 ER visits, 1,500 hospitalizations, and free up to 2.4 million physician hours to focus on more critical care;

- Preventing up to 1.3 million ER visits and 500,000 hospitalizations, and freeing up to 6.3 million hours of physician time by managing chronic conditions more effectively;

- Reducing system costs by $7 to $9 billion through improved access and use of affordable medications;

- Create a state-of-the-art emergency preparedness and pandemic response system by leveraging pharmaceutical distributors; and

- Avoiding up to 300,000 emergency room visits and up to 86,000 hospitalizations resulting from adverse drug reactions by focusing on better electronic infrastructure and resources, connectivity, and information sharing.

Collectively, these initiatives will help reduce wait times, and improve patient care and access. It is our hope that this fact-based analysis fosters dialogue and continues a productive relationship between governments, patient advocacy groups, key health system stakeholders, and the broader pharmacy community.

It starts with bringing governments, key health stakeholders and the broader pharmacy community together to make things happen.
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CONTEXT

Canada's healthcare system makes us proud, because it is there for people when they need it. Despite our system's challenges – Canada's approach to healthcare is admired the world over for its quality and equity.

Yet beyond simply being something that makes Canadians proud, Canada's healthcare system is an asset. The scale of our system and the results it produces are world leading.

Facing Canada's Healthcare Challenges Together

The challenges are daunting and urgent. The fiscal pressures facing Canada's health system are not new, but recent economic pressures have forced the issue. Either we find new, innovative ways of delivering high-quality healthcare at lower costs, or government budgets – and the economies that support them – risk collapsing under the weight of the system's unrelenting cost increases. That's a risk for Canadians' pocketbooks, and a source of anxiety for people who need the health system to be there for them.

Canada’s national annual healthcare expenditure of $200 billion per year continues to grow by roughly 6%. Upward pressure on that expenditure and rate of growth has been well documented: an aging population; more expensive diagnostic and treatment equipment; more complex and costly drug therapies; and labour cost pressure to recruit and retain health human resources. While demand for healthcare services is soaring, the public resources to pay for them are finite.

No longer will isolated policy changes drive significant improvements in patient care, reductions to system costs, or contribute towards overall system sustainability. The next generation of thinking and action must consider the healthcare system holistically, engaging all stakeholders in systemic solutions that drive quantum change.

Leveraging the value of our healthcare system means doing things differently. The time has come for governments, members of Canada’s broader pharmacy community, and key health system stakeholders to develop innovative approaches and system-wide solutions that improve patient outcomes and provide value to Canadian taxpayers.
Canada's Pharmacy Community: An Important Part of the Solution

Canada's broader pharmacy community, which includes manufacturers, distributors, and community pharmacies, plays a vital role in ensuring the availability and affordability of drug therapies that Canadians need. According to CIHI, 2011 prescription drug expenditures made up $27 billion of the $200 billion total health expenditures in Canada. Today, the broader pharmacy community delivers an estimated $12.5 billion in economic value to Canada's healthcare system every year. That $12.5 billion in value comes from preventing hospitalizations, offering a strong portfolio of generic medications, and making the most of an efficient distribution system and supply chain. This economic assessment may not tell the full story: U.S. studies have shown that for every $1 spent on pharmaceuticals, $2 to $7 are saved on other healthcare costs2. In 2011 alone, Canadian pharmacists' expertise and knowledge are estimated to have helped prevent two million adverse drug reactions – thereby improving patient safety, reducing costly emergency department and hospital admissions, and improving the lives of Canadians of all ages3.

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Canadians know their pharmacists and trust them. Nearly 80% of Canadians consult with pharmacists as healthcare professionals through nearly 9,000 community pharmacies across Canada5.

Canada’s health system also benefits from the pharmaceutical distribution supply chain which is among the safest in the world. It keeps counterfeit and fraudulent medications – which are a growing problem in other jurisdictions – out of our supply chain. Best practices within our distribution channels help to minimize system disruptions, expedite drug delivery through a highly-efficient distribution network, and get medications to the people who need them when pandemics or public health emergencies strike.

While the broader pharmacy community is contributing substantially to the effectiveness and efficiency of our healthcare system already, more can be done. As the analysis in this document demonstrates, the pharmacy community can work with governments and health providers to save Canada’s health system an additional $8.5 billion to $11.0 billion over the next three years alone. That’s money that can be reinvested in things like prevention programs, new long-term care homes, and shorter wait times for orthopaedic surgery. These recommendations, with system savings in the billions, are meaningful.

THE WAY FORWARD

OVERVIEW

Canada’s broader pharmacy community has undertaken a comprehensive analysis designed to identify solutions that improve patient care and unlock potential cost savings across our health system. Five strategies have been identified that focus on leveraging resources and infrastructure that are already in place. Working with an outside consultancy whose assumptions have been independently verified by the Conference Board of Canada, we have quantified the impact of specific actions that will save money and improve people’s lives across Canada. Along with governments and key health system stakeholders, the broader pharmacy industry can do more to help Canadians by:

1. Treating minor ailments and administering vaccines by continuing to expand pharmacists’ scope of practice;
2. Ensuring affordable access to key medications by creating policies and plan designs that encourage lower-cost alternative therapies;
3. Helping patients manage chronic conditions more effectively to improve quality of life and keep patients out of critical care;
4. Leveraging the pharmaceutical distribution model by building state-of-the-art emergency preparedness and pandemic response systems; and
5. Further preventing adverse drug reactions by focusing on information sharing, user-friendly eHealth systems\(^6\), and connectivity with other healthcare practitioners.

These five strategies are estimated to deliver incremental value of $8.5 billion to $11.0 billion over the next three years alone. This value comes from direct cost savings, operational cost improvements and cost avoidance.

\(^6\) eHealth refers to ePrescribing, integrated prescription information systems, and interconnectivity of pharmacies with physicians, laboratories and other health professionals.
1. Treating minor ailments and administering vaccines

Despite the ever-increasing demands on physicians’ time, 15% of all physician visits are for relatively minor ailments, which include things like cold sores, dermatitis, hay fever, back pain, and minor infections. In addition, most Canadians who receive routine vaccines, like flu shots, have them administered at a doctor’s office. That’s expensive, and it gets in the way of doctors from seeing sicker patients with more complex needs.

These doctor visits cost an estimated $3 billion in physician and occasional emergency department visits over the last three years. The use of physicians’ time to treat minor ailments and administer vaccines also has a significant impact on patient wait times. The average wait time for a family physician for urgent care is 1.35 days, and the average wait time for a non-urgent visit can be over 3 weeks. This can be stressful and result in people getting sicker.

Proposed Solutions & Recommendations

Pharmacists can play a key role in relieving pressure on health professionals in primary care. They are trained and qualified to assess and deliver care for a number of less complex cases presented to physicians and nurse practitioners on a regular basis.

Allowing pharmacists to prescribe for minor ailments like contact dermatitis, and authorizing pharmacists to administer certain vaccines will allow physicians to increase their focus on patients that need them the most, increase vaccination rates, and reduce costs to the system.

Increased Pharmacist Scope of Practice in Scotland

Scotland piloted a minor ailment program in 2001 and rolled it out in 2006. Eligible patients register with a community pharmacy of their choice, with their pharmacist acting as the first point of contact on a walk-in basis. Pharmacists assess, provide counselling, prescribe medication based on a formulary, and follow-up or refer patients to a physician. Physician visits for minor ailments were reduced by 33% to 37% in the pilot regions.

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10 Canadian Institute for Health Information, Understanding Emergency Department Wait Times, Toronto, 2005. Canadian Institute for Health Information.
Specifically, by increasing the role of pharmacists in primary care, we could achieve the following over three years:

- Reduce wait times by shifting 9 million to 17 million physician visits to pharmacists and avoid 300,000 to 600,000 emergency rooms visits;
- Allow an additional 2.4 million to 4.7 million Canadians to receive treatment for their minor ailments and an additional 1.1 million to 2.1 million Canadians to receive flu vaccinations from pharmacists;
- Save between $100 million and $200 million from avoided emergency room and physician visits while still providing effective patient care.

Increased Scope of Practice in Saskatchewan

Saskatchewan has recently shown leadership in expanding pharmacist scope of practice by introducing pharmacist assessments and prescriptions for minor ailments. Pharmacists are permitted to make their own assessments and then prescribe for a specified set of conditions: acne, cold sores, insect bites, allergic rhinitis, diaper dermatitis, oral ulcers, and oral thrush. Nearly 70% of pharmacists in Saskatchewan have completed the training to assess, treat and prescribe for minor ailments.

There is also evidence to suggest that access to vaccination clinics will improve immunization rates. Increasing evening and weekend walk-in availability of flu shot immunization in pharmacies increases access and convenience, which should result in a greater share of the population being vaccinated.

Pharmacy-Based Flu Shots and Higher Vaccination Rates in the U.S.

As of 2009, every state in the United States allows pharmacists to administer flu immunizations. The rate of flu immunization in 2010 was 43%, compared to 30% in Canada that same year. Studies have shown that seniors in the U.S. are most likely to obtain their flu shot from a pharmacy as they visit pharmacies most frequently.

With a more involved role in primary care, pharmacists could educate their patients on the benefits of appropriate immunization and vaccines. This, along with pharmacists’ ability to administer certain vaccines, could result in an increase of 1% to 3% in immunization rates for vaccinations like flu shots.

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12 The Pharmacists Association of Saskatchewan
13 National Flu Survey, Center for Disease Control Dec 5, 2011.
Pharmacy-Based Flu Shots and Higher Vaccination Rates in Canada¹⁴

British Columbia and Alberta have allowed pharmacists to administer immunizations. In 2010, the immunization rates in these provinces were 29% and 30% respectively – which was higher than in Saskatchewan (27%), Ontario (27%) and Quebec (15%). It is estimated that B.C. and Alberta pharmacists administered 70,000 and 130,000 immunizations in 2010 and 2011 respectively.

Overall, pharmacists and pharmacies can drive greater access to primary care in Canada. By addressing and treating minor ailments and immunizing patients, pharmacists can help prevent disease and complications, while physicians focus on more complex care.

Policy Recommendations

1. Expand pharmacist scope of practice (where not already in place) to include assessing and treating minor ailments and administering vaccines.

2. Prioritize pharmacies as the primary site for flu shot immunizations, supported by priority access to vaccines, leveraging the pharmacy distribution network.

Bottom line

Estimated $100 to $200 million in cost savings over three years, net of investment in estimated pharmacist reimbursement, and increased convenience and access to the immunizations and medications Canadians want and need.

¹⁴ Statistics Canada. “Influenza Vaccination Rates 2010.” Ottawa. Statistics Canada. CANSIM Table 105-0501 and Catalogue No. 82-221-X.
2. Helping Canadians Afford the Medications They Need

The use of generic drugs is essential for the sustainability of the government and employer-sponsored drug benefit plans upon which the vast majority of Canadians rely.

Researchers from the University of British Columbia and the University of Toronto found that among survey respondents who said they had been given a prescription, almost 10% had either not filled the prescription for cost reasons, or deliberately skipped doses to save money\(^5\). According to a Statistics Canada study, one in four Canadians without drug plans cannot afford their medications.

Access to generic drugs in Canada has increased significantly over the past number of years and is now estimated at a utilization rate\(^6\) of 63% (IMS Brogan, 12 months ending December 2012). Generic drug manufacturing is a Canadian success story – providing quality jobs, and making more medications available to Canadians. From 2009 to 2011, generic alternatives delivered over $15 billion in cost savings for Canada’s health system. From 2013 to 2015 generic drugs currently on the market are expected to deliver $21 billion in cost savings, while new generic drugs are estimated to deliver an additional $4.7 billion in savings over the same years. These are massive savings to our healthcare system.

Canada’s generic utilization, however, continues to lag behind other developed countries like the United States (75%)\(^7\), Germany (69%), and the United Kingdom (66%)\(^8\).

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\(^6\) In this report, utilization refers to the dispensed generic prescriptions relative to total prescriptions.


\(^8\) Data Monitor, IMS Health, Business Monitor International 2009.
Physicians, patients and payers are not fully aligned with the full potential of affordable medications in Canada. For example:

- **Incentives to encourage prescribing that save the system money can be improved.** Doctors should always have the final say in the medications they prescribe, however, incentives could be provided to encourage doctors to prescribe the most cost-effective option.

- **Patients in Canada are not offered discounts on prescription co-payment fees for generics to the same extent as in other countries.** Patients in Canada generally have the same co-payment regardless of the type of drug they are prescribed. In the United States, co-payment fees are often tiered to encourage the prescribing and dispensing of the most cost-effective drug. The amount a patient pays is more if the cost of the drug is higher - even if a government or insurance is paying for it. As a result of the out-of-pocket price difference, patients in the U.S. are more price sensitive and request generics - which can influence prescribing habits, helping to keep costs lower.

- **Provinces and public plans are not always quick to include generics on the public formulary.** Drug Program formularies list generics when they are launched, but some provinces are much faster than others in adding them to their formularies. British Columbia has been known to list new generics within two days, while other provinces have submissions processes that can take 4 to 6 months. Listing new generic medications more quickly is one of the easiest ways that Provincial Drug Programs can achieve greater savings.

- **In some provinces, legislative barriers prevent pharmacists from automatically switching to approved generic equivalents.** Private drug plan sponsors are generally very quick to list generic products on their formularies. However, in most provinces generics need to be categorized as “interchangeable” by health ministries before a pharmacist can dispense them. In BC, pharmacists' scope of practice includes decisions about interchangeability. BC pharmacists can make the decision to interchange a generic product for a brand product as soon as the generic is available. All provinces should allow pharmacists to interchange without waiting for provincial authority to do so, as part of their scope of practice, based on their expertise.

With important but costly new drug therapies under development and being approved, it will become even more critical to ensure that policy and regulatory frameworks are in place to encourage the use of more cost-effective alternatives for existing drug therapies. Only then will our system have the means to support exciting but highly expensive specialty medications coming to market, such as biologics and oncology therapies.
U.K. Case Study: Encouraging ‘High Quality-Lower Cost’ Healthcare¹⁹

In 1995, the National Health Service (NHS) in the U.K. mandated the establishment of prescribing incentive systems in primary care organizations. They focused on encouraging physicians to meet prescribing budget targets and locally agreed quality criteria. Along with physician education, the NHS improved generic prescribing rates from 51% in 1994 to 83% in 2006 for select therapies. Most Primary Care Trusts (PCTs) in the U.K. are now encouraging providers to consider cost-effective prescribing.

Coventry PCT implemented an incentive for efficient statin prescribing, and saw the generic prescription rate for statins increase from 41% to 61% within 15 months. Those cost savings were shared with the participating practices in the region.

Proposed Solutions & Recommendations

There are relatively easy ways our country can increase affordable access and utilization of medications. First, we can accelerate approvals for generic medications, ensuring they are accessible to the public more quickly. Why shouldn't approval of generic drugs by Health Canada be sufficient for a pharmacist to interchange a generic for a brand product. The current practice employed by provinces to add a generic drug to a provincial drug formulary requires extra steps for approval and incurs additional costs.

In Ontario, for example, pharmacists may not interchange a new generic drug until it is listed in the provincial formulary as either a benefit or an off-formulary interchangeable product. British Columbia, however, allows pharmacists to interchange a new generic drug regardless of whether it is listed as a benefit in the provincial formulary.

The opportunity is for smarter plan designs that support the safe and effective utilization of generics. Plan designs and formularies play an important role in educating healthcare professionals and patients about lower-cost drug alternatives. By focusing plan designs on lower-cost therapies first, all Canadians will benefit. Specifically, plan designs should include co-pay discounts for generics, and step therapy design.

Second, adjusting policies to encourage the prescribing and dispensing of more cost-effective drugs could make a quantum difference on health budgets. If there is flexibility in the prescribing of medications within the same class of drug, the savings to Canadians – and health reinvestments that can be made – are hugely advantageous.

Third, public and private payers could implement policies that prioritize reimbursement for drugs within a therapeutic class that offer the best balance of clinical benefit and cost, encouraging more appropriate prescribing and utilization. Though price is an important cost consideration, it is not the only one, as other criteria include potential impacts on the total cost of care, individual variability of response, other confounding conditions, and humanistic outcomes (e.g., quality of life, patient compliance, etc.).

One mechanism by which this could be accomplished would be the use of step therapy reimbursement policies. Clinical protocols could be established by which only those drugs with the best cost-benefit ratio be reimbursed as the first step in treatment, and reimbursement for other drugs with less favourable cost-benefit ratios would only occur upon failure or intolerance of first-choice ones. Alternatively, payers could establish reference-based pricing policies, in which only the least expensive drug within a therapeutic class could be reimbursed, similar to a program in place in British Columbia.

The Canadian healthcare system stands to gain between $7 billion and $9 billion in cost savings by improving prescribing efficiency. Up to $2 billion can be saved by increasing generic efficiency of each molecule, and up to $7 billion through improving the therapeutic generic efficiency of each therapy class.

Source: Data from IMS Health

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20 For conservatism, this represents 80% of the modeled opportunity for implementation risk.
Policy Recommendations

1. Increase generic substitution leading to affordable access to medications.
   a. New generic products should be added to provincial formularies within days of launching in order for each province to achieve the highest level of savings possible.
   b. Regulations and policies should be changed to allow pharmacists in all provinces to interchange a generic product as soon as it is approved by Health Canada.
   c. Policies should seek to discourage ‘no substitutions’ prescriptions, and transparency with respect to the efficacy and cost effectiveness of generic medications should be offered to health providers.

2. Improve therapeutic efficiency leading to more affordable and clinically appropriate utilization of medication.
   a. Tiered co-pays; and
   b. Utilizing step therapy and reference-based pricing reimbursement policies.

Bottom line
Estimated $7 billion to $9 billion in cost savings by improved prescribing efficiency.

Systems are difficult to change. Canada’s healthcare system, however, originally designed largely around the provision of acute care, is increasingly focused on providing treatment for chronic conditions.

Chronic conditions affect 37% of Canadians, and cause 70% of mortalities\textsuperscript{21}. As Canadians live longer, costs associated with chronic conditions continue to grow. In 2011, the medical costs associated with chronic conditions were estimated at $42 billion, or 21% of total healthcare costs. That number is expected to climb to $53 billion by 2015.\textsuperscript{22}

Exciting opportunities exist to provide better care for patients and simultaneously reduce health system costs by moving the provision of chronic care to more appropriate and cost-effective settings like community pharmacy, homecare and integrated health teams. What is truly exciting about the potential of this kind of systemic change is that it will result in \textbf{better patient outcomes and lower costs}.

Given the complexity of some drug therapies for chronic care, medication non-adherence results in 5% of hospital admissions and 5% of physician visits annually, and contributes $4 billion to healthcare costs each year\textsuperscript{23}.

Research has shown that non-adherence is caused by a number of factors - from simply forgetting to take a dosage or pick up refills, to avoiding the side effects of medication.\textsuperscript{24}

The opportunity is to re-design our healthcare system with the flexibility to provide both critical and chronic care in different and cost-effective ways that benefit patients and improve health outcomes.\textsuperscript{25}

\begin{figure}[h]
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\includegraphics[width=\textwidth]{figure.png}
\caption{International Comparison of Chronic Care (% of primary care physicians)}
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\textsuperscript{24} Harris Interactive, Patient Survey (2002)

Proposed Solutions & Recommendations

There are a number of potential initiatives that pharmacists can implement in order to better manage chronic conditions. These initiatives, which focus primarily on medication adherence, could deliver between $1.4 billion and $1.9 billion in direct cost avoidance over three years, after initial investments in programs.

Pharmacists want their patients to take the medications they have been prescribed. If pharmacists were permitted to use their judgment in adjusting dosages and writing prescription renewals, they could help ensure patients stay on track with their medication regimens.

Prescription Renewals in Canada

Alberta has permitted pharmacist prescription renewal since 2007, with British Columbia following suit in 2009. In those jurisdictions, up to 2% of prescription renewals are performed by pharmacists, helping reduce the number of physician visits. Alberta began reimbursing pharmacists for renewal services effective July 2012.

Pharmacists can send regular reports back to physicians about the patient’s blood pressure, symptoms, concerns, or questions. This allows the physician to be aware of a patient’s file on a more regular basis, increasing the physician’s ability to recommend a different form of chronic disease management in a timely manner.

Patient education and self-management support allow patients to participate more actively in managing their own chronic conditions. This can be done by educating patients with lifestyle management tips, providing symptoms and side-effects management, and one-on-one counselling or support groups for customized care.

Finally, comprehensive disease management would help pharmacists to be more supportive when it comes to helping patients manage their chronic conditions. This hands-on approach would involve annual or semi-annual meetings to establish and track disease management plans. Pharmacists would proactively follow-up with patients to monitor health conditions and provide regular reminders to ensure patients are refilling the medications their physicians have prescribed. The pharmacist would become an accessible resource for patient concerns and would work to offer comprehensive support to each patient.
Chronic Condition Support Studies Demonstrate Significant Results\textsuperscript{26}

The U.K. implemented a pilot program known as New Medicine Service (NMS) in October 2011. Pharmacies are reimbursed to counsel on new-fills for select diseases. Diseases covered include: Asthma & COPD, Type 2 Diabetes, Antiplatelet/Anticoagulant Therapy, and Hypertension. Patients register at their community pharmacy, and receive a 15 minute face-to-face consultation with a pharmacist within 14 days of receiving a newly-prescribed medication. The pharmacist then follows up with the patient in two to three weeks to address any problems. While the program is in its infancy, in the first two months, 70\% of pharmacists are already providing these services.

By better managing the complexities of diseases through increased interaction with healthcare professionals, patients can avoid an estimated 10\% to 20\% of emergency room visits and hospitalizations associated with chronic conditions. The proposed solutions will also result in an estimated 1\% to 2\% net reduction of visits to general practitioners.

In 2005, 135,000 Canadian patients with common chronic conditions were enrolled in the Health Inform program across 2,100 pharmacies. Pharmacies mailed patients brochures every two months over a 12 month period regarding the importance of medication adherence, and information about their diseases. Enrolled patients achieved adherence rates that were 4 to 12 percentage points higher than the control group\textsuperscript{27}.


Policy Recommendations

1. Enable pharmacists, through regulatory or policy changes, to develop and/or manage care plans with appropriate follow-up for specific chronic conditions and with compensation structures where they are not already in place.

2. Allow prescription renewals and adaptations (including dosage changes) where they are not already permitted to improve patient care, health outcomes and system access.

3. Define protocols for pharmacists to electronically communicate patient health information back to physicians.

Bottom line

Estimated $1.4 to $1.9 billion in direct cost avoidance over three years, net of estimated pharmacist time and programming costs - delivering direct and indirect impacts to Canadians who need chronic disease support.
4. Making the Most of Canada’s Pharmaceutical Distribution Model

Given the size and distribution of Canada’s population, the logistics of ensuring that medications are adequately supplied to the people who need them is complex. Fortunately, Canada’s pharmaceutical distributors deliver vital, integral, and often unseen services to the Canadian healthcare system, providing timely access to prescribed and over-the-counter medications and positively contributing to the health of Canadians.

Pharmaceutical distributors are also the system of choice for manufacturers and pharmacies for the safe, secure, and efficient distribution of pharmaceutical products. Pharmaceutical distributors are fully compliant with Health Canada regulations, only purchase medications from official sources, and possess specialized capabilities to preserve the integrity of the drugs they distribute (e.g., cold chain). To date, there has been no example of a counterfeit or altered product going through the pharmaceutical distributor system. Pharmaceutical distributors are one of the key safeguards in the Canadian drug supply.

However, pharmaceutical distributors have yet to play a key role in the safe, secure, and equitable distribution of medications during the rare cases of a pandemic or public health emergency. Distribution of inventory under such circumstances can be particularly challenging across provincial jurisdictions, each with their own systems and processes in place.

Efficiencies could be gained by consolidating the parallel pharmaceutical distributor and government pandemic and emergency supply chains.
**Proposed Solutions & Recommendations**

By getting more from the existing distribution network and wholesaling capability that exists within Canada’s pharmaceutical supply chain today, we can strengthen the existing emergency preparedness structures. Pharmaceutical distributors deliver vital medications to Canada’s pharmacies, hospitals and physician offices every day, and twice a day in some cases. Pharmaceutical distributors drive efficiencies, not only in the distribution of drugs, but also in the operations of their customers, who benefit from receiving “one order, one delivery, one invoice” instead of multiple shipments from multiple suppliers.

Pharmaceutical distributors are well positioned to work with the National Antiviral Stockpile (NAS), National Emergency Stockpile System (NESS), and provincial counterparts to streamline operations and ensure state-of-the-art distribution networks are being used when emergencies occur. That reduces the risk of supplies not getting to the people who need them at times of great anxiety.

Distributors would bring best practices, capabilities, and existing scale to assist with pandemic drug distribution – while ensuring that government control over allocation and distribution decisions is maintained. Distributors and pharmacies can also provide data to government officials, and act as a pan-Canadian surveillance system for identifying the location and reach of outbreaks.

One example of this expertise is the distribution industry’s ability to distribute pandemic emergency immunizations. During the H1N1 outbreak, vaccines were distributed in shipments of 500 dosages – packages far too large for most local clinics to safely store and administer efficiently. The bulk shipments needed to be taken apart and re-packaged for further distribution, creating significant delays in getting vaccines to citizens. In Alberta, breaking down to smaller pack sizes resulted in delays of up to a month.28

A Statistics Canada study reported that an estimated 900,00029 Canadians were not able to obtain the H1N1 vaccine due to access issues and wait times. Applying distributor best practices would ensure timely and efficient delivery of emergency drugs to public health facilities, hospitals, physicians, and community pharmacies, and could prevent future issues from inhibiting access during the most critical times.

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Leveraging the Most Efficient and Effective Method of Vaccine Distribution

The United States uses existing third party pharmaceutical distributors for vaccines, including the H1N1 vaccine. Advantages of this distribution model include:

- Same day and direct shipping to more end users;
- Ease of tracking orders; and
- Creating kits including vaccines with syringes and other medical supplies that are needed.

The Government Accountability Office report on the H1N1 response said: “The Center for Disease Control (CDC) officials stated that because of the success of the central distributor during the H1N1 pandemic, the CDC now views this method as the most efficient and effective method of vaccine distribution.”

The pharmaceutical distributor industry could also improve antiviral and vaccine storage and inventory management. Many provincial antiviral warehouses do not properly monitor and control stockpile storage conditions such as temperature - compromising the safety and efficacy of these critical response drugs. There is also significant waste when stockpiled inventory expires. The distribution industry manages a state-of-the-art cold chain network that would provide more effective storage and handling of these drugs. Supply management tracking systems can help manage drug inventories, and reduce costs. Stockpiled antivirals could also be rotated with regular antivirals to prevent waste upon expiration. At the end of the H1N1 pandemic, agencies were left with millions of dollars of outdated Tamiflu. If the stockpiled Tamiflu inventory had been rotated with Tamiflu to treat seasonal flu, waste due to stockpile expiration could have been avoided - saving money through a more efficient system that works better for Canadians.

In the event of a pandemic, Canada’s pharmaceutical distribution supply chain can distribute drugs quickly and efficiently, helping to reduce the spread of disease. Making better use of the supply chain would ensure more strategic storage of vital inventory across the country - providing Canadians peace of mind and the confidence that their health system is there for them in times of extreme stress.

Governments could also leverage the distribution model's capabilities to help address the problem of critical drug shortages. Distributors could take an active role in maintaining standby inventories of critical drugs to ensure that care for hospital patients is unaffected by supply disruptions. With leadership from governments, critical drug stockpiles could be built within current distributor inventories, providing a buffer against the challenges of supply variations. This investment in inventory would safeguard secure access to critical drugs and hospital procedures that improve or save patient lives.

Policy Recommendations

1. Allow pharmaceutical distributors to warehouse, rotate stock and distribute inventory for National Anti-viral Stockpile (NAS), National Emergency Stockpile System (NESS) and their provincial equivalents.

2. Allow pharmaceutical distributors to take an active role in holding inventory of critical hospital medications.

3. Allow pharmaceutical distributors to coordinate pandemic response across the provinces through efficient distribution and data coordination.
5. Preventing Adverse Drug Reactions

Many severe illnesses - and deaths - are directly a function of people getting the wrong dosage of drug, the wrong combinations of drugs, or drugs that are not appropriate for them. Adverse Drug Reactions (ADRs) also put a tremendous strain on the Canadian healthcare system. Approximately 5% of all emergency room visits and 6% of all hospitalizations are the result of ADRs\(^{32}\) - resulting in reduced availability of scarce hospital beds. ADRs endanger lives and are estimated to have cost our healthcare system $2 billion since 2009.

Research shows 60% of ADRs are preventable\(^{33}\) and are most commonly a result of one or more of the following:

- **A lack of information:** Physicians and/or pharmacists often lack the connectivity between one another and to medical and lab records to access a patient’s full medical history. This information could include a patient’s current and past drug therapies including over-the-counter and non-traditional medications. Pharmacists in most provinces currently rely solely on their own prescription databases to identify patients at risk of ADRs\(^{34}\).

- **Wrong dosage or timing for the drug therapy:** This is often due to a lack of specialized knowledge at the point of prescribing, or simple human error.

- **Insufficient communication:** This lack of effective communication mechanisms between pharmacists and physicians can increase the risk of prescriptions being filled despite concerns or information one party may have.

If proactive steps are not taken, based on current trends, ADRs are expected to result in $2.4 billion in costs over the next three years - on top of the pain, suffering, lost productivity, and other human costs associated with a very preventable problem. eHealth initiatives like ePrescribing, prescription databases, and connectivity between pharmacies, labs and physicians have yet to be fully implemented, but the reality is that patients are not likely to benefit from that full implementation for a number of years.

Currently, Canada lags behind other developed countries in using computerized alerts to prevent ADRs. Only 10% of Canadian physicians receive electronic alerts of ADRs - compared to 93% in the Netherlands and 91% in the United Kingdom\(^{35}\).


\(^{34}\) British Columbia is the exception. PharmaNet is accessible to all pharmacists and contains all prescriptions within British Columbia.

Proposed Solutions & Recommendations

Drug utilization review processes (DURs) enable health professionals to collaborate more easily and have a better understanding of the drug therapies patients may already be on, or how they might react to new or different medications. Other countries have made more progress utilizing technology for DURs.

In Ontario, pharmacists are performing medication reviews through the MedsCheck program. It allows patients to have a one-on-one meeting with the pharmacist to ensure patients are managing their prescription, over-the-counter, and other medication safely and appropriately. While MedsCheck in Ontario and Med Reviews in British Columbia have shown positive results, the rate of uptake is not as high as it could be. The broader pharmacy community is willing and interested in working with governments to help more people who need these programs to make the most of them. More can and should also be done to measure the impact of medication reviews.

Advances in information and technology can improve communication and alignment between pharmacies, labs, physicians, and hospitals. An electronic system to register prescriptions and instantly share that information between health professionals can ensure pharmacists have full access to the patient’s prescription history. These models of ePrescribing could also display optimal dosage and frequency for some medication, perform automatic drug-allergy and drug interaction checks, and provide notifications for lab issues. While countries like Germany and the Netherlands have rates of physician ePrescribing of 59% and 85% respectively, Canada’s rate is only 11%.

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RationalMed: Showing Results in Reducing ADRs

Medco, a U.S. healthcare company providing pharmacy services, has developed a medication review program called RationalMed. The program aggregates a patient’s medical claims, pharmacy claims, lab results, and self-reported patient data. It evaluates the data against evidence-based, best practice health criteria to detect gaps and errors in care that increase the risk of ADRs. It then sends safety alerts to physicians, pharmacists, and patients regarding the potential reaction. RationalMed identifies potential safety issues in 15% of the total patient population, which is estimated to save up to 2% of total pharmacy costs and 3% of total hospitalization costs – let alone the quality of life and productivity benefits achieved by patients who never experienced the adverse reactions in the first place.

While significant investment has already gone into the development of electronic health records and other larger information management systems, there is an opportunity to capitalize on other more short-term solutions between now and when those comprehensive systems are fully implemented. These solutions could include initiatives that bring existing electronic health information onto a common platform that would provide a useful information repository and allow health professionals to better manage medication use and help identify potential ADRs. This would be particularly beneficial in the case of sharing laboratory data with pharmacists for patients who have kidney or liver disease and require dosage adjustments to their therapy. Simply making that lab data available to pharmacists could help ensure mistakes are not made.

Taken together, these initiatives can reduce preventable and predictable ADRs by 15% to 25%. That would result in 170,000 to 290,000 avoided emergency room visits and 51,000 to 86,000 avoided hospitalizations – representing an operational cost avoidance of $150 million to $300 million over the next three years. This does not include the economic and human value of helping people to stay well, be well, and live their lives more fully.

Policy Recommendations

1. Create standards (e.g., authentication and routing) that will permit the accelerated use of ePrescribing.

2. Expand structured medication review programs that facilitate communication among healthcare providers, including pharmacies and physicians.

3. Focus investments on logic based technology solutions that help pharmacists more effectively identify patients at risk of ADRs using existing prescription databases.

4. Design and implement programs to track patient outcomes associated with Medication Review initiatives.

Bottom Line

Estimated $150 million to $300 million in cost savings over three years, net of estimated investment in IT and pharmacist time.
WORKING TOGETHER

THE TIME FOR SYSTEM CHANGE IS NOW

Broader Pharmacy’s Plan for Improving Access to Affordable Healthcare is about specific actions that can be taken now that will have a positive impact on the health of Canadians, and save $8.5 billion to $11 billion over three years. This is over and above the improved productivity of Canadians who stay healthy or get better.

This kind of thinking and coordinated effort leading to action is overdue, when we consider the calls for system reform of the past:

• In 2002, Roy Romanow, Chairman of the Royal Commission on the Future of Healthcare in Canada, wrote in his report: “To be sure, the system needs more money. In the early 1990s, the federal share of funding for the system declined sharply. While recent years have seen a substantial federal reinvestment into healthcare, the federal government contributes less than it previously did, and less than it should.”

• In that same year, Senator Michael Kirby, Chair, The Standing Senate Committee on Social Affairs, Science and Technology, said: “The Committee has concluded that rising costs strongly indicate that Canada’s publicly funded healthcare system, as it is currently organized and operated, is not fiscally sustainable...”

• And in 2012, Don Drummond, Chairman of the Commission on the Reform of Ontario’s Public Services, said: “The status quo growth path of healthcare spending needs to be curbed. At the same time, much of the Ontario healthcare system not only can be improved, but calls out for improvement.”

We simply cannot continue to make relatively minor changes to our system alone. The time has come for discussion of creative solutions between governments and care providers to improve patient outcomes and enhance the overall efficiency of healthcare delivery. However, as this document suggests, there are actions that can be taken immediately that will deliver much-needed savings for our health system.

This document is an invitation for governments, patient advocacy groups, and health system stakeholders from across the country to work with Canada’s broader pharmacy community to mobilize quickly and achieve results above and beyond the $12.5 billion in economic benefits already being achieved.
Better Healthcare at a Lower Cost

As we move forward, the ultimate guiding principle for the next phase of healthcare reform should be: improved patient outcomes on the one hand, with the same or reduced system costs on the other. Canada’s broader pharmacy community seeks to partner with governments across Canada on important initiatives that adhere to that principle, bringing a pan-Canadian perspective to discussions and helping to ensure best practices are shared nation-wide. Discussions with the federal government will help make improvements to national policies and programs such as the Non-Insured Health Benefits program for First Nations and Inuit Canadians.

A holistic approach to overall healthcare system reform can and will work. When decisions regarding the health system are made in isolation to address one specific issue, unintended consequences are often the result. Cost cutting in one area – absent broader thinking and appreciations of those unintended consequences – can backfire through poorer health outcomes or added costs to other parts of the system.

A pan-Canadian approach that makes the most of the experiences of the broader pharmacy community in each province and territory, and that shares information across provinces, would have an immediate impact. Substantial economies of scale and efficiencies can be realized by avoiding duplication of efforts across the broader Canadian healthcare system.
There are regulatory and policy actions that governments can take that will make the system better for people and more sustainable over time. Specifically, we urge governments to do the following:

1. Expand pharmacist scope of practice (where not already in place) to include assessing and treating minor ailments and administering vaccines.

2. Prioritize pharmacies as the primary site for flu shot immunizations, supported by priority access to vaccines, leveraging the pharmacy distribution network.

3. Increase generic efficiency leading to affordable access to medications.
   - New generic products should be added to provincial formularies within days of receiving Health Canada approval in order for each province to achieve the highest level of savings possible.
   - Regulations and policies should be changed to allow pharmacists in all provinces to interchange a generic product as soon as it comes to market in Canada.
   - Policies should seek to discourage ‘no substitution’ prescriptions, and education with respect to the efficacy and cost effectiveness of generic medications should be offered to health providers.

4. Improve therapeutic efficiency leading to more affordable and clinically appropriate utilization of medication.
   - Ensure regulations permit and encourage appropriate use of therapies, including therapeutic efficiency.
   - Implement plan design and changes to formularies that encourage healthcare providers and pharmacists to prescribe and dispense generics such as:
     - Tiered co-pays;
     - Utilizing step therapy and reference-based pricing reimbursement policies.

5. Enable pharmacists to develop and/or manage care plans with appropriate follow-up for specific chronic conditions through regulatory or policy changes and with compensation structures where they are not already in place.

6. Allow prescription renewals and adaptations (including dosage changes) where they are not already permitted to improve patient care, health outcomes and system access.

7. Define protocols for pharmacists to electronically communicate patient health information back to physicians.

8. Allow pharmaceutical distributors to warehouse, rotate stock and distribute inventory for National Anti-viral Stockpile (NAS), National Emergency Stockpile System (NESS) as well as provincial equivalents.
9. To prevent restrictions in access to care during supplier shortages, allow pharmaceutical distributors to take an active role in holding inventory of critical hospital medications.

10. Allow pharmaceutical distributors to coordinate pandemic response across the provinces through efficient distribution and data coordination.

11. Create standards (e.g., authentication and routing) that will permit the accelerated use of ePrescribing.

12. Expand structured medication review programs that facilitate communication among healthcare providers, including pharmacies and physicians.

13. Focus investments on logic based technology solutions that help pharmacists more effectively identify patients at risk of ADRs using existing prescription databases.


Beyond the initiatives outlined in this document, which could save Canada's health system up to $8.5 billion to $11 billion over three years, Canada's broader pharmacy community wants to work with key stakeholders and governments on issues related to drug initiatives, and other issues facing the system as a whole.

Ultimately, building a better health system for Canadians can only be achieved through timely action, creative and innovative thinking, and the challenging of old assumptions. Canada's broader pharmaceutical community can make an even greater contribution to the important conversations and decisions that will need to be made, and welcomes the opportunity to work with governments to do so.
NEXT STEPS

Working together, healthcare stakeholders from across Canada have the opportunity to not only transform our healthcare system, but also create a world-class approach to patient care that will be the envy of the world.

For its part, Canada’s broader pharmacy community will continue to undertake the kinds of initiatives that already deliver $12.5 billion in economic value to Canada’s health system every year. Generic manufacturers will provide thousands of affordable medications. The highly-efficient wholesale distribution network will distribute pharmaceuticals across our vast country. Community pharmacies will offer thousands of easily accessible points of care with almost no wait time. And our pharmacists in communities across Canada remain on the front lines of primary care delivery everyday.

But we know we can do more, because the broader pharmacy community’s infrastructure is an under-utilized asset that can improve patient outcomes and reduce system costs.

For governments, the strategies described in this document provide opportunities for immediate action. We welcome further discussions and action planning sessions to support their implementation, and will work with government on comprehensive business cases – with detailed action plans – for proposed initiatives.

For all key stakeholders within the health system, let there be further collaboration and consultation to generate the best thinking and most effective means to achieve fundamental system transformation. We know that actions can be taken that will keep people healthy, redirect savings to where they can have the greatest impact, and ultimately, save lives.
**TERMINOLOGY**

**Adverse Drug Reactions (ADRs):** Harm associated with the use of a medication at a normal dosage during normal use, and may occur following a single dose or prolonged administration of a medication. ADRs are often caused by the unintended reaction of two or more drugs.

**Drug Utilization Review (DUR):** A proactive audit of the medications a patient is taking to provide counselling, reduce the risk of adverse reactions, or to suggest more appropriate alternatives.

**Generic Efficiency:** The percentage of prescriptions dispensed with a generic where an interchangeable generic is available for the same molecule.

**Generic Substitution:** The dispensing of a lower cost generic drug in place of a bioequivalent brand drug. Bioequivalent drugs have the same active ingredient, dosage strength, dosage form (tablet, capsule, etc.), and route of administration (oral, topical, injectable, etc.).

**Generic Utilization Rate:** In this report, utilization refers to the dispensed generic prescriptions relative to total prescriptions.

**National Antiviral Stockpile (NAS):** Created in 2004 to ensure equitable access across Canada to a secure supply of antivirals for pandemic influenza. The NAS is a provincially/territorially administered supply of antiviral drugs held across the country on a per capita basis.

**National Emergency Stockpile System (NESS):** The Public Health Agency of Canada maintains the stockpile to provide health and social service supplies quickly to provinces and territories when their own resources are not enough during an emergency. NESS supports the response to a variety of emergencies with health impacts, including influenza pandemics, terrorism events, and natural disasters.

**Plan Design & Formularies:** A set of medicines that are approved to be prescribed under a particular contract or by a public health agency. The development of formularies and plan designs is based on evaluations of efficacy, safety, and cost-effectiveness of drugs. Depending on the individual formulary, it may also contain additional clinical information, such as side effects, contra-indications, and doses.

**Therapeutic Efficiency:** The appropriate use of drugs from a clinical and pharmacoeconomic standpoint. Therapeutic efficiency is maximized when a patient with a given medical condition is treated with the most therapeutically appropriate and affordable drug within the relevant therapeutic class to achieve the desired clinical outcomes.