



CANADIAN
PHARMACISTS
ASSOCIATION

ASSOCIATION DES
PHARMACIENS
DU CANADA

**Report to the House of Commons
Standing Committee on Health**

**Examination into Chronic Diseases in Canada's Aging
Population and the Role of the Pharmacist**

Submitted by Canadian Pharmacists Association

October 31, 2011

Introduction

The Canadian Pharmacists Association (CPhA) is the national association for Canadian pharmacists in all areas of practice. Through its leadership, CPhA is helping to achieve the vision of pharmacy as a profession providing optimal drug therapy outcomes for Canadian through patient-centred care. CPhA is also Canada's largest publisher of drug and therapeutic information for health care professionals, to support evidence-based decision making to improve patient outcomes.

By 2021, the population of Canadian seniors is expected to reach 6.7 million¹. Because seniors tend to require health care services more intensively, this growth is likely to pose significant strain on health care resources and spending. Currently, 74%² of Canadians aged 65 or older are taking at least one medication², with some taking 15 or more³. Also, in 2008, over 75% reported having at least one of 11 chronic diseases which included cancer, chronic pain, diabetes, heart disease and depression⁴. Additionally, according to the Canadian Institute of Health Information (CIHI), in 2010, Canada's drug expenditure was \$31.1 billion, or \$863 per person⁴. This is second only to the United States when compared to 24 other countries in the Organization for Economic Co-operation and Development (OECD)³.

In addition to high drug expenditures, evidence also indicates that elderly people are more likely to experience drug-related problems and adverse drug events³. This is the result of taking more medications due to a number of chronic diseases³, inappropriate prescribing⁵, the reduced ability of the body to correctly process medications⁶, and increased sensitivity to certain drugs as we age⁷. Furthermore, chronic diseases pose challenges with respect to continuation and adherence to drug therapy. These realities are indicative of a need for a change in the way in which Canadians are managing health care, particularly within the context of the aging population.

1. Expanding Role of Pharmacists

Pharmacists are the medication experts of the health care system. In Canada, pharmacists have traditionally been seen as dispensers of medication. However, unprecedented change has occurred within the profession of pharmacy over the past five years. Most jurisdictions have taken great strides towards expanding the scope of practice of pharmacists, through legislative or regulatory changes. This is shifting pharmacists away from a dispensary role into a medication management role, which is more patient-centred and focused on optimal drug therapy outcomes.

Depending on the province, pharmacists can now provide independent renewals of prescriptions, conduct medication reviews, administer medications by injection, and initiate or prescribe drug therapy, as well as other expanded services⁸ (see attached summary). As Electronic Health Records are implemented across the country, in particular Drug Information Systems and e-prescribing, pharmacists will be enabled to more effectively monitor drug therapy, in collaboration with other providers, for safety and effectiveness. This will include the authority to order and interpret laboratory tests.

Given such change, pharmacists, as both medication experts and the most accessible health care professionals, are ideally positioned to assist in delivering services to the aging population.

In addition to advancing patient outcomes, the expanded scope of pharmacists' practice will ensure reduced stress on Canadian health care expenditures. For example, in 2009, the Ontario Pharmacists Association (OPA) reported one basket of potential expanded scope services would allow for \$72.4 million in health care savings in Ontario alone¹. The potential for pharmacists to benefit the health care system can occur through a variety of means, including chronic disease management, collaborative care, and disease prevention.

2. Pharmacists' Role in Chronic Disease Management (CDM)

Chronic disease management (CDM), by definition, occurs when a pharmacist proactively addresses chronic conditions in their early stages to prevent further disease progression and to reduce potential complications⁹. Pharmacists can play a significant role in CDM for Canada's aging population by conducting the following process of comprehensive medication management:

- patient assessment
- assessing the patient's entire medication regimen for appropriateness, effectiveness, safety and convenience
- identifying any problems with drug therapy
- creating and implementing a care plan with the patient
- collaborating and communicating with other health professionals
- evaluating, documenting and following up with the patient.

This process is outlined in the Canadian Pharmacy Services Framework¹⁰, a guiding document developed by the Canadian Pharmacists Association in collaboration with the Canadian Association of Chain Drug Stores and provincial pharmacy associations, which can be obtained on the CPhA website.

Current pharmacist services utilize this framework to manage chronic diseases across Canada. In many jurisdictions, provincial governments are funding community pharmacists to provide non-dispensing, medication management services. In Ontario, pharmacists are reimbursed for helping patients to quit smoking¹¹, and for optimizing drug therapy through the MedsCheck program for those on multiple medications and for individuals with diabetes¹². Pharmacists also review patients' entire drug regimens for all disease indications in Quebec's Therapeutic Evaluation¹³, Saskatchewan's Medication Assessment¹⁴ and Nova Scotia's Medication Review Service – an insured service under the province's Seniors' Pharmacare Program¹⁵. Currently, British Columbia is funding a pilot of medication management services.

Additionally, to meet the demands of the aging baby boomer population, jurisdictions are concentrating some of their resources for CDM specifically towards the elderly. This is evident in the increasing number of pharmacists who are practicing in home care and long-term care settings. Ontario is a prominent example; the Ministry of Health has established "MedsCheck at Home" for patients taking at

least 3 chronic medications but are unable to physically attend their pharmacy for a review, and “MedsCheck for Long-Term Home Residents” for residents of licensed long term care homes.

CPhA recommends that the federal government explore funding of pharmacists’ medication management services as part of federal employee health care programs and for clients of the Federal Healthcare Partnership and First Nations and Inuit Health Branch.

Research has demonstrated that such pharmacist roles improve both the economic and humanistic outcomes of the health care system. In a large U.S. study published last year, pharmacist-led medication therapy management services over a 10-year period resulted in a total administrative cost of about \$2.3 million but an estimated savings to the health system of almost \$3 million. The return on investment was estimated at \$1.29 per \$1.00 spent. Furthermore, an overwhelming majority (>95%) of surveyed patients agreed or strongly agreed that their overall health and well-being had improved as a result of these services¹⁶.

Numerous other studies done both within and outside of Canada have demonstrated that pharmacist provision of these comprehensive medication management services can improve medication use, reduce health service utilization and costs, and improve clinical outcomes in both ambulatory and hospitalized patients¹⁷⁻²¹.

The federal government already has a number of programs and investments in place to address chronic disease and aging, such as the Federal Tobacco Control Strategy and the Canadian Diabetes Strategy. CPhA has worked closely with the government to provide professional development programs and patient care resources on smoking cessation and diabetes management, as a means to improve patient outcomes. **CPhA would encourage the government to continue and strengthen its support for those programs. In addition, as part of the ongoing evolution of chronic disease programs, the federal government should look at ways in which pharmacists can be used more effectively in the delivery of these programs.**

3. Pharmacists’ Role in Collaborative Care

One way in which pharmacists assist in benefitting aging patients is through interprofessional collaboration in primary health care settings. Primary health care refers to an approach to health and a spectrum of services beyond the traditional health care system²². The provision of primary health care services can occur through a team of health care professionals including, but not limited to, physicians, pharmacists, nurses, dietitians and social workers – also known as family health teams. Several jurisdictions fund pharmacists as members of these teams. Members of these teams work together to explore patients’ health issues, while keeping the best possible health outcomes for the patient in mind.

For pharmacists participating in interprofessional care, this means providing thorough medication reviews, recommendations on changes to medication regimens, education on medication usage, and information to other health care professionals on current guidelines regarding medication²³. These services are especially important for senior patients and those with chronic disease, whose often

complicated medication regimens call for thorough assessments. Enhanced involvement of pharmacists within an inter-professional environment thus enables continuity of care by decreasing the duplication of efforts among professionals, providing standardized means of communication through recommendations and documentation, and allows multiple health care professionals to remain up-to-date on decisions regarding their patients.

Currently, there is ample evidence supporting the presence of a pharmacist on an interprofessional health team. Several studies have shown that pharmacists can play a key role in disease management models for anticoagulation treatment, hypertension, cholesterol management, asthma, and other chronic conditions. These improvements have occurred through identification of adverse events and reducing hospitalizations, leading to improved patient safety, disease and drug therapy management, adherence and quality of life for their patients²⁴. Additionally, improving patient medication usage through collaboration leads to less emergency room and physician visits and thus allows for potential health care savings^{25,26}. Therefore, a pharmacist presence in interprofessional health care settings is a necessary component for care in our aging population.

In June 2010, the Standing Committee on Health, in its report dealing with health human resources (HHR), offered several recommendations aimed at enhancing interprofessional collaborative care, including the pursuit of greater collaborative care for federally served populations, and offering investments to provinces and territories to experiment with more integrated collaborative care teams. **CPhA supports these recommendations, and would urge HESA to repeat those HHR recommendations in its final report.**

4. Pharmacists' Role in Early Disease Detection and Prevention

As the most accessible health care professionals in the community, pharmacists play a significant role in both the early detection and prevention of diseases in Canada's aging population. The Canadian Pharmacy Services Framework¹⁰ further defines this role as one that involves provision of immunizations, smoking cessation services, disease screening, and promoting wellness and healthy lifestyles. This aligns with the International Pharmaceutical Federation's urge for pharmacists to continuously improve the quality of their practices in the following areas²⁷:

- Recognizing the chronic diseases that are common in the community, or in a particular group in the community
- Providing health screenings for such chronic diseases such as high cholesterol, diabetes and high blood pressure
- Advocating lifestyle changes that can prevent chronic disease
- Actively seeking to motivate and engage patients to accept the responsibility for their own health

Recognizing the need for pharmacists to fulfill these roles at greater capacity, trained pharmacists in British Columbia, Alberta and New Brunswick are now authorized to administer vaccinations. Pharmacists in Manitoba, Ontario and Nova Scotia should be able to do so once regulations are

finalized²⁸. This allows Canada to better respond to public health challenges, especially future pandemics that can be better controlled with an adequate immunization rate. The provincial governments in Ontario and Saskatchewan also fund pharmacists to provide comprehensive smoking cessation services.

Community pharmacists across Canada are also running clinics involving health promotion and disease screening. Examples are nutrition and weight management, blood pressure monitoring, bone density screening for osteoporosis and blood sugar testing for diabetes as part of the “Get Checked Now” national campaign created by the Canadian Diabetes Association²⁹.

Research has demonstrated that pharmacist-led screening programs reduce hospital admissions. As an example, a large Canadian study published this year showed that pharmacist-led blood pressure screening programs in 39 communities in Ontario resulted in a 9% reduction in hospital admissions for heart attack and heart failure in patients 65 and older, compared to the previous year when this service was absent. Researchers conclude that widespread implementation of screening programs can be successful and has a positive impact on morbidity among aged populations³⁰.

Clearly, the pharmacists’ role in disease prevention and health promotion can result in a healthy aging population in Canada that not only enjoys an improved quality of life but also uses fewer health care resources, ultimately relieving some of the financial burden off of our currently strained health care system.

The federal government will soon begin negotiations with provinces, territories, and the health community on a new Health Accord set to take effect in 2014. **CPhA would urge governments to make health promotion and disease prevention a cornerstone of the new Accord in 2014, particularly as a means to reflect the needs of the aging population. In order to maximize the benefits of disease prevention and health promotion, jurisdictions must ensure that pharmacists are used to the full extent of their practice abilities.** CPhA hopes that the Standing Committee on Health will have a greater opportunity to explore the potential for health promotion and disease prevention in upcoming hearings scheduled for late in 2011.

5. Clinical Decision Support for Chronic Disease Management

CPhA is Canada’s leading publisher of current, unbiased drug and therapeutic information. Physicians, pharmacists, nurses, other prescribers and health care professionals are very familiar with our drug product and therapeutic content, and refer to it daily in their practices. e-Therapeutics+ is CPhA’s premier medication management resource and integrates content in a comprehensive, centralized resource for informed decision making at the point-of-care. Development was supported by a significant grant from Health Canada’s Primary Health Care Transition Fund.

e-Therapeutics+ combines evidence-based therapeutic information from our successful publication *Therapeutic Choices* (TC), with the extensive drug content of e-CPS, the electronic version of the *Compendium of Pharmaceuticals and Specialties* (CPS). The content, written and reviewed by Canadian expert physicians and pharmacists and managed by our clinical pharmacist editors, is based on the best

available evidence and is subject to a rigorous peer review process. Content is continually monitored and updated as required (for example, a new drug, new safety information, new clinical practice guidelines, landmark trials or systematic reviews). A substantial portion of this decision-support content is on the therapeutic management of chronic diseases, including lifestyle and non-pharmacological approaches. The e-Therapeutics+ portal is enhanced by the inclusion of Health Canada warnings and advisories; links to provincial formulary information. Relative drug cost information supports cost-effective prescribing. Content is also available as mobile applications.

e-Therapeutics+ provides practitioners with a centralized medication management resource and supports them in working with their patients to develop comprehensive therapeutic approaches to treatment and managing chronic disease. **CPhA would like to work with Health Canada and Canada Health Infoway to increase point-of-care access to this resource, through integration in electronic health record applications, including e-prescribing.**

Conclusion

Pharmacists have a key role to play in managing and minimizing the impact of chronic diseases on Canada's elderly. By working to help strengthen that role, either unilaterally, in partnership with the provinces and territories, or with pharmacists themselves, the federal government can play a lead role in helping Canadian seniors access the quality care they rightfully deserve. CPhA looks forward to working with the federal government to advance that role and to provide practitioners with evidence-based, decision support information to improve chronic disease management.

References:

1. Ontario Pharmacists' Association. "An Analysis of Economic Value & Health System Benefits for Pharmacy Professional Services." 01 09 2009. Accessed on 24 Oct 2011 at: [http://www.opatoday.com/members/documents/FULL REPORT_OPA Value of Pharmacy_Sep09_pdf.pdf](http://www.opatoday.com/members/documents/FULL_REPORT_OPA_Value_of_Pharmacy_Sep09_pdf.pdf).
2. Ramage-Morin, Pamela. "Medication Use Among Senior Canadians." *Component of Statistics Canada Catalogue no. 82-003-X*. Statistics Canada, 03 2009. Accessed on 24 Oct 2011 at: <http://www.statcan.gc.ca/pub/82-003-x/2009001/article/10801-eng.pdf>.
3. Farrell B, Szeto W, Shamji S. Drug-Related Problems in the Frail Elderly. *Canadian Family Physician*. 2011;(57)2:168-169.
4. Canadian Institute for Health Information. Drug Expenditure in Canada, 1985 to 2010. *Canadian Institute for Health Information*. 04 2011. Accessed on 24 Oct 2011 at: http://secure.cihi.ca/cihiweb/products/drug_expenditure_2010_en.pdf.
5. Hanlon J, Artz M, Pieper C, Lindblad C, Sloane R, Ruby C. Inappropriate medication use among frail elderly inpatients. *The Annals of Pharmacotherapy*. 2004;38:9-14.
6. Barry P.J, O'Keefe N, O'Connor K.A., O'Mahony D. Inappropriate prescribing in the elderly: a comparison of the Beers criteria and the improved prescribing in the elderly tool (IPET) in acutely ill elderly hospitalized patients. *Journal of Clinical Pharmacy and Therapeutics*. (2006);31:617-626.
7. Rochon P, Schmader K, Sokol N. Drug prescribing for older adults. UpToDate. Accessed on October 31st, 2011 at: http://www.uptodate.com/contents/drug-prescribing-for-older-adults?source=search_result&search=drug+prescribing+for+older+adults&selectedTitle=1~150.
8. Mah E, Rosenthal M and Tsuyuki RT. Study on Understanding Pharmacists' Perspectives On Remuneration and Transition toward Chronic Disease Management: (SUPPORT-CDM). *Canadian Pharmacists Journal* 2009;142(3):136-143.
9. Canadian Pharmacists Association and Canadian Association of Chain Drug Stores. Canadian Pharmacy Services Framework. October 2011. Accessed on October 24, 2011 at: http://www.pharmacists.ca/content/hcp/resource_centre/practice_resources/pdf/CPSFFrameworkDeckCPhA-CACDS_OCT-2011.pdf
10. Ontario Ministry of Health and Long-Term Care. Pharmacy smoking cessation program. Last modified August 30, 2011. Accessed on October 24, 2011 at: <http://www.health.gov.on.ca/en/pro/programs/drugs/smoking/>
11. Ontario Ministry of Health and Long-Term Care. MedsCheck. Last modified August 30, 2011. Accessed on October 24, 2011 at: <http://www.health.gov.on.ca/en/pro/programs/drugs/medscheck/>
12. L'association québécoise des pharmaciens propriétaires. Services pharmaceutiques. 2009. Accessed on October 24, 2011 at: <http://www.monpharmacien.ca/fr/pour-vous/services-pharmaceutiques.php>
13. Canadian Institute for Health Information. National Prescription Drug Utilization Information System Plan Information Document. July 2010. Accessed on October 24, 2011 at: http://secure.cihi.ca/cihiweb/products/PlanInformation_1007_e1.pdf
14. Nova Scotia Department of Health. Pharmacare Programs - Pharmacists' Guide. June 2010. Accessed on October 24, 2011 at: http://www.gov.ns.ca/health/pharmacare/pubs/Pharmacists_Guide.pdf
15. Ramalho de Oliveira D, Brummel AR, Miller DB. Medication therapy management: 10 years of experience in a large integrated health care system. *J Manag Care Pharm*. 2010;16(3):185-95.
16. Roughead E, Semple S, Vitry A. Pharmaceutical care services: a systematic review of published studies, 1990-2003, examining effectiveness in improving patient outcomes. *Int J Pharm Pract* 2005;13:53-70.
17. Beney J, Bero LA, Bond C. Expanding the roles of outpatient pharmacists: effects on health services utilization, costs and patient outcomes. *Cochrane Database Syst Rev* 2000;(3):CD000336.
18. Morrison A, Wertheimer AI. Evaluation of studies investigating the effectiveness of pharmacists' clinical services. *Am J Health Syst Pharm*2001;58(7):569-77.
19. Kaboli PJ, Hoth AB, McClimon BJ, Schnipper JL. Clinical pharmacists and inpatient medical care: a systematic review. *Arch Intern Med* 2006;166(9):955-64.
20. Urbis Keys Young. *Evaluation of the home medicines review program — pharmacy component*. Prepared for the Pharmacy Guild of Australia. June 2005. Accessed March 20, 2009 at www.guild.org.au/mmr/content.asp?id=406

21. International Pharmaceutical Federation. FIP statement of policy – the role of the pharmacist in the prevention and treatment of chronic disease. August 2006. Last accessed on October 24, 2011 at http://www.fip.org/www/uploads/database_file.php?id=274&table_id=
22. Canadian Pharmacists Association. Practice resources: influenza immunization. 2011. Accessed on October 24, 2011 at: http://www.pharmacists.ca/content/hcp/resource_centre/practice_resources/influenza_immunization.cfm
23. Canadian Diabetes Association. Get Checked Now. Accessed on October 24, 2011 at: <http://www.getcheckednow.ca/>
24. Kaczorowski J, Chambers LW, Dolovich L et al. Improving cardiovascular health at population level: 39 community cluster randomized trial of Cardiovascular Health Awareness Program (CHAP). *BMJ*. 2011; 342:d442 doi: 10.1136/bmj.d442.

25. Canadian Pharmacists Association. Pharmacists' Medication Management Services: Environmental Scan of Canadian and International Services. Canadian Pharmacists Association, 10 2011. Accessed on 24 Oct 2011 at: [http://blueprintforpharmacy.ca/docs/pdfs/2011/10/20/Environmental Scan of Pharmacy Services_CPhA_Oct19-2011.pdf?Status=Master](http://blueprintforpharmacy.ca/docs/pdfs/2011/10/20/Environmental_Scan_of_Pharmacy_Services_CPhA_Oct19-2011.pdf?Status=Master).
26. Health Canada, .About Primary Health Care. 21 06 2006. Accessed on 24 Oct 2011 at: <http://www.hc-sc.gc.ca/hcs-sss/prim/about-apos-eng.php>.
27. Ontario Pharmacists' Association. OPA Family Health Team Resource Kit. Accessed on 24 Oct 2011 at: http://www.impactteam.info/documents/fht_toolkit.pdf.
28. Canadian Pharmacists Association. The Role of the Pharmacist in Home Care. 2001. Accessed on 24 Oct 2011 at: http://www.pharmacists.ca/content/hcp/resource_centre/practice_resources/pdf/Role_Pharmacist_discussion.pdf.
29. Health Council of Canada. Teams in Action: Primary Health Care Teams for Canadians. 04 2009. Accessed on 24 Oct 2011 at: <http://www.healthcouncilcanada.ca/teamsinaction.pdf>.

APPENDIX I - Summary of Pharmacists' Expanded Scope of Practice

 CANADIAN PHARMACISTS ASSOCIATION / ASSOCIATION DES PHARMACIENS DU CANADA		Summary of Pharmacists' Expanded Scope of Practice Activities across Canada														
		Province/Territory														
Pharmacist Scope of Practice	 Implemented in Jurisdiction	 Pending Legislation or Regulation or Policy	 Not Implemented	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NL	NWT	YT	NU
	Provide emergency prescription refills															
Renew/extend prescriptions																
Change drug dosage/ formulation																
Make therapeutic substitution																
Prescribe prescription drugs as part of a minor ailments scheme																
Initiate prescription drug therapy																
Order and interpret lab tests																
Administer a drug by Injection																

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)