NACDS NATIONAL ASSOCIATION OF CHAIN DRUG STORES

To achieve better health across the nation, the transformational reform should transcend the entire healthcare continuum. As the federal government and states have achieved scope of practice reform for nurse practitioners[1] (NPs) and physician assistants (PAs),[2] the time is now to assess and modernize pharmacy care policies at the federal and state levels to secure more value, drive innovation and accomplish cost-effectiveness in healthcare delivery to improve the health and well-being of all Americans.

Touch Points/Accessibility. Pharmacists are the most accessible and most frequently visited member of the healthcare team with 90 percent of Americans living within 5 miles of a community pharmacy.[3] For instance, 75% of all adults reported having visited a pharmacy in the past year and a study of high-risk Medicaid beneficiaries found that they *visited pharmacies 35 times per* year, compared to seeing their primary care doctors 4 times per year, and specialists 9 times per year.[4] The accessibility of pharmacies, coupled with consumers reporting high trust[5] in the clinical expertise of pharmacists, creates vast opportunity for pharmacies to elevate not only quality of care, but also program integrity especially in Medicare, Medicaid, value-based and alternative payment models.

Healthcare's Transformation & Pharmacy Care. As the healthcare industry transitions toward the delivery of value-based care, an assessment of the current pharmacy care landscape and identification of areas of opportunity seems overdue. Compelling evidence demonstrates that pharmacy care is a fundamental component to the vitality and sustainability of providing accessible quality care to Americans.[6,7,8,9]

Primary and preventive care services have traditionally been provided by primary care physicians, NPs, and PAs. However, the role of community pharmacists has blossomed in the last ten years to encompass immunizations, screenings, health and wellness care, transitions of care, treatment for minor illnesses, medication optimization and chronic care management programs among many others. Many of these care services are tethered to a physician first diagnosing a patient and pharmacists providing medication management services, including adjusting therapy, ordering labs, et al. Other pharmacy programs are designed to provide patients convenient access to affordable, quality preventative and acute care, including minor ailment treatment subject to protocols or standing orders, especially to the uninsured, underinsured, and medically underserved. Improved care coordination and chronic care management are the cornerstones of the value-based models, and medication management is central to both objectives. Any effort to improve quality and reduce costs over the long term will be difficult to achieve if patients do not take their medications appropriately and/or their adherence is poor.[10]

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[1] Virginia General Assembly HB 793: Nurse practitioners; practice agreements. 2018 https://lis.virginia.gov/cgi-bin/legp604.exe?181+sum+HB793

[2] PAs in Virginia Attain Collaboration. American Academy of PAs. March 2019. https://www.aapa.org/news-central/2019/03/pas-virginia-attain-collaboration/

[3] Manolakis PG, Skelton JB. (2010). Pharmacists' Contributions to Primary Care in the United States Collaborating to Address Unmet Patient Care Needs: The Emerging Role for Pharmacists to Address the Shortage of Primary Care Provider. Am J Pharm Educ. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3058447/

[4] Moose J, Branham A. (2014). Pharmacists as Influencers of Patient Adherence. *Pharmacy Times.*

[5] An NACDS survey found that 76% of voters reported that a pharmacist is very or somewhat important when deciding to buy a medication for the first time.[5]

[6] Dalton K, Byrne S. Role of the pharmacist in reducing healthcare costs: current insights. Integr Pharm Res Pract. 2017;6:37–46. Published 2017 Jan 25. doi:10.2147/IPRP.S108047. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5774321/

[7] Newman TV, Hernandez I, et al. Optimizing the Role of Community Pharmacists in Managing the Health of Populations: Barriers, Facilitators, and Policy Recommendations. J Manag Care Spec Pharm. 2019 Sep;25(9):995-1000. doi: 10.18553/jmcp.2019.25.9.995. https://www.ncbi.nlm.nih.gov/pubmed/31456493

[8] Armistead LT, Ferreri SP. Improving Value Through Community Pharmacy Partnerships. Population Health Management. 2018. https://www.liebertpub.com/doi/abs/10.1089/pop.2018.0040?journalCode=pop

[9] Milosavlijevic A, et al. Community pharmacist-led interventions and their impact on patients' medication adherence and other health outcomes: a systematic review. International Journal of Pharmacy Practice. June 2018. https://onlinelibrary.wiley.com/doi/full/10.1111/ijpp.12462

[10] Zhong, W., Maradit-Kremers, H., Sauver, J. et al. 2013. "Age and Sex Patters of Drug Prescribing in a Defined American Population". *Mayo Clinic Proceedings,* 88, 696-707. New England Health Institute. "Improving Patient Medication Adherence: A $290 billion opportunity." Accessed June 23, 2014. http://www.nehi.net/bendthecurve/sup/documents/Medication_Adherence_Brief.pdf

Pharmacists are increasingly part of team-based care delivery models with payers where they have an important role in improving the quality and safety of care, offering patients more comprehensive care, and reducing medical errors.[11,12] Each community pharmacy touchpoint with beneficiaries offers an opportunity to not only provide recommended and evidence-based care but to also act as "checks" in the healthcare system to ensure that beneficiaries participating in **value-based payment (VBP) arrangements** are getting the evidence-based, quality care they need. Successful outcomes for a value-based models and other coordinated care programs will be dependent on making sure that all providers across the care continuum are included. Yet, to date, pharmacy care has been needlessly excluded.

Research demonstrates that pharmacy-based services, including medication optimization, preventive care (e.g. immunizations and vaccinations), point of care testing, and chronic disease management, among other pharmacy programs, can improve care, outcomes, and reduce costs.[13] Community pharmacy provision of such services can also ensure that beneficiaries are receiving recommended and evidence-based care in accessible settings. However, community pharmacies have largely been excluded from directly participating in VBP programs to date. Pharmacists have been long excluded from opportunities to be reimbursed for the clinical care they provide, depriving patients, especially seniors and those in rural and underserved areas, from necessary transformation in community healthcare delivery.

Community pharmacists are accordingly poised to improve program integrity not only through support of healthcare quality goals and metrics, but also through mitigation of unnecessary healthcare utilization and waste. For example, it was recently estimated that up to $21.9 billion could be saved within the US healthcare system by optimizing medication use[14] and an estimated $29 billion in avoidable costs is attributable to medication non-adherence in the Medicare Part D program for four chronic conditions.[15] Further, the annual cost of healthcare spending waste is up to $935 billion.[6] Clearly, innovation and immediate action to improve the efficiency and value of our healthcare system is warranted – and community pharmacists stand ready to tackle these issues across the country, in coordination with the entire continuum of care.

Unlike physicians, nurse practitioners, physician assistants, clinical nurse specialists, physical therapists, clinical psychologists, speech-language pathologists, audiologists, and nutrition professionals, doctor of pharmacy clinicians have been totally restricted in their ability to sustain clinical patient care services and participate in value-based or alternative payment models, despite robust evidence that pharmacists improve quality of care, health outcomes, patient experience, and reduce downstream healthcare costs.[16] For example, in the 2016 Medicare Part B Final Rule for Merit-Based Incentive Payment System (MIPS), "eligible clinician" includes the following:

Table 1. MIPS Eligible Clinicians: 2016 Medicare Part B Final Rule

MIPS Program Eligible Clinicians	
• Doctor of medicine	• **Registered nutrition professionals**
• Doctor of osteopathy	• Nurse practitioners
• Doctor of dental surgery	• Physician assistants

[11] Dalton K, Byrne S. (2017). Role of the pharmacist in reducing healthcare costs: current insights. Integr Pharm Res Pract. 2017; 6:37–46. doi:10.2147/IPRP.S108047.
[12] De Oliveira Jr, G. S., Castro-Alves, L. J., Kendall, M. C., & McCarthy, R. J. (2017). Effectiveness of Pharmacist Intervention to Reduce Medication Errors and Health-Care Resources Utilization After Transitions of Care: A Meta-analysis of Randomized Controlled Trials. Journal of Patient Safety. https://doi.org/10.1097/PTS.0000000000000283
[13] Pringle JL, et al. (2013). The Pennsylvania Project: Pharmacist Intervention Improved Medication Adherence and Reduced Health Care Costs. *Health Affairs*, 33(8), 1444-1452. Isenor, J., Edwards, N., Alia, T. (2016). Impact of pharmacists as immunizers on vaccination rates: A systematic review and meta-analysis. *Vaccine*, 34(47) 5708–5723. Carmichael J, et al. (2016). Healthcare metrics: Where do pharmacists add value? Am J Health-Syst Pharm. 2016; 73: 1537-47. Greer N, Bolduc J, Geurkink E, et al. (2016). Pharmacist-led chronic disease management: a systematic review of effectiveness and harms compared with usual care. *Ann Intern Med.* O'Reilly, C et al. (2015). A feasibility study of community pharmacists performing depression screening services. *Research in Social and Administrative Pharmacy*; 11(3), 364-381.
[14] Shrank WH, Rogstad TL, Parekh N. Waste in the US Health Care System: Estimated Costs and Potential for Savings. JAMA. Published online October 07, 2019322(15):1501–1509. doi:10.1001/jama.2019.13978
[15] Lloyd J, et al. (March 2019). How Much Does Medication Nonadherence Cost the Medicare Fee-for-Service Program? Medical Care. 57(3):218–224.
[16] Krumme A. Glynn, R., Schneeweiss, S. et al. (2018). Medication Synchronization Programs Improve Adherence to Cardiovascular Medications and Health Care Use. *Health Affairs* 37(1)125-133.
Government Accountability Office. (July 2019). Limited Information Exists on the Effects of Synchronizing Medication Refills.
Pringle JL, et al. (2013). The Pennsylvania Project: Pharmacist Intervention Improved Medication Adherence and Reduced Health Care Costs. *Health Affairs*, 33(8), 1444-1452.
Vegter S, et al; "Improving Adherence to Lipid-Lowering Therapy in a Community Pharmacy Intervention Program: A Cost-Effectiveness Analysis;" Journal of Managed Care & Specialty Pharmacy; July 2014. https://www.jmcp.org/doi/10.18553/jmcp.2014.20.7.722
Spence MM, et al; "Evaluation of an Outpatient Pharmacy Clinical Services Program on Adherence and Clinical Outcomes Among Patients with Diabetes and/or Coronary Artery Disease;" Journal of Managed Care & Specialty Pharmacy; October 2014. https://www.jmcp.org/doi/10.18553/jmcp.2014.20.10.1036

• Doctor of podiatric medicine • Doctor of dental medicine • Doctor of podiatric medicine • Chiropractors • Occupational therapists • Registered dietitians	• Clinical nurse specialists • Physical therapists • Clinical psychologists • Qualified speech-language pathologists • Qualified audiologists • Certified registered nurse anesthetists

➢ WHAT's MISSING – Doctor of Pharmacy & registered pharmacists.

Restricting community pharmacists' ability to meaningfully care for patients, especially Medicaid and Medicare beneficiaries, predates the vast expansion of coordinated care transformation, interprofessional care and the execution of value-based delivery models.

NACDS urges HHS to modernize programs to improve quality, value, competition and patient choice by recognizing registered pharmacists as providers of care within CMS VBP programs. To date, unlike registered dieticians, nurse practitioners, clinical psychologists and others who also provide care in community healthcare settings and who are included in federal VBP models, Doctor of Pharmacy clinicians and registered pharmacists are visibly absent from federal VBP programs, limiting the opportunities to deploy their clinical expertise to advance value and program integrity.

Federal Provider Status. On a separate, but related matter, limited opportunities exist for pharmacies to be reimbursed for services within Medicare Programs. The Social Security Act contains an extensive listing of the types of services and practitioners eligible under Medicare.[35] Eligible providers range from clinical social workers to physical therapists, to NPs and registered dieticians. However, this list does not designate pharmacists – medication, public health, wellness, and preventative care professionals – as providers. As a result, the lack of "provider status" for pharmacists under the Social Security Act precludes community pharmacists from being paid for clinical care services rendered to Medicare and Medicaid beneficiaries. It also impedes the business viability and sustainability of offering clinical services they are well-trained to render.[36]

Medicare Part B currently pays for health and wellness screenings, immunizations, disease state management, and smoking cessation programs, among others – all are services that community pharmacists can currently provide in accordance with the vast majority of state laws. The arbitrary omission of pharmacists as providers within the Medicare program serves to limit consumer access and choice for services that pharmacists readily provide to other patient populations. The impact of this unwarranted and arbitrary policy is seen most in medically underserved populations.

For example, CLIA-waived tests are used by physicians, nurse practitioners and others to assist with the early detection and monitoring the progression of disease.[37] Despite wide authorization to provide free health screenings to Medicare beneficiaries, rates remain extremely low for many common conditions, particularly in rural and minority populations.[38,39,40] Yet, the Medicare Part B Program provides many of these tests at no out-of-pocket cost to the beneficiaries, and pays the healthcare providers listed above to render these services. Many states permit pharmacists to order and interpret tests related to a patient's medication regimen, and an increasing proportion of community pharmacists provide these services for their non-Medicare population. However, the lack of Medicare "provider" status prevents community pharmacists from billing for such tests and, thus, drastically limits consumer choice.

NACDS strongly advocates for the federal government (and states) to undertake modernization initiatives as a critical means to ensuring the health, safety and welfare of Americans. Such efforts include pharmacists as being recognized as providers and compensated for their services under the Social Security Act.

State Policy Reforms Is Critical. Many pharmacy care laws and policies have yet to be updated to reflect current practice modifications across the United States and in federal health program. Many of these antiquated state policies predate the vast expansion of health care transformation, interprofessional care and the execution of value-based delivery models. With the ability to enhance healthcare quality and influence quality metrics, more must be done to expand the implementation of pharmacy care delivery by revising laws and regulations at the federal and state levels. Moreover,

other well-intentioned state laws seem to include burdensome and unwarranted restrictions, dampening the capacity of community pharmacists to practice to the full extent of their education, training and abilities. And, as in most cases, these laws were enacted or revised in a piecemeal fashion to address a specific public health problem, such as vaccinations and naloxone distribution, leading to layers of incremental reform rather than a comprehensive, cohesive approach to achieve the overarching goals of a state, population health, and preparedness and resiliency. Rightfully lifting the rigid and unwarranted restrictions on scope of practice for pharmacists will better position community pharmacists to have greater impact on the health of patients and improve the health of the communities they serve.[17]

Program/Plan Pharmacy Care Metric Standardization. Vital to the success of modernization reforms will be the development and establishment of a standard set of pharmacy care performance metrics that will drive better health outcomes and reduce the total cost of care. Unfortunately, pharmacies are faced with disparate performance metrics and payment arrangements from hundreds of plans, resulting in tremendous performance and administrative burdens. They also face grave uncertainty over drug reimbursement. All of which is exacerbated by the lack of standardization and transparency of pharmacy performance metrics. In fact, many plans use different, vague, and unachievable metrics and performance benchmarks with inconsistent weighting, accrual calendars, and methods for fee collection. Applying uneven and varying metrics and methodologies that do not appropriately or accurately measure pharmacy performance make the system unnecessarily complex, and extremely difficult or near impossible for pharmacies to predict how much they will be reimbursed for dispensing prescribed medications to their patients. This heavy burden diverts important resources away from implementing first-rate quality of care initiatives and shifts the burden towards investing heavily in pharmacy accounting, management and operational systems to monitor complex and varying DIR fees.[18]

Instead, the federal government and states should focus on a standardized set of pharmacy quality measure as a first step in establishing a pharmacy quality incentive program would significantly reduce the needless, overwhelming administrative burden on community pharmacies. Implementing a transparent and accountable pharmacy quality incentive program with measures that are consistent, achievable, and proven to make meaningful impacts on quality and value are most essential to reduce system inefficiencies and improve care of Medicare beneficiaries.[19] NACDS is strongly committed to working with CMS and others to develop and execute a pharmacy quality incentive program that best serves patients, improves healthcare quality and total cost of care while at the same time reducing the excessive administrative burden on community pharmacies.

Developing standardized pharmacy performance metrics would reduce the total cost of care by aligning incentives for pharmacies, plans, and PBMs to further improve medication adherence. Medication adherence is one of the most cited areas where community pharmacies can play a role in improving health outcomes and reducing costs. Community pharmacists routinely collaborate with other healthcare providers, health systems, and caregivers to positively address patient outcomes and mitigate rising healthcare costs. Initiating and implementing a successful medication adherence program depends on the realignment of perverse program incentives.

Medication non-adherence—that is, patients not taking their medications as prescribed by their healthcare provider—contributes to $100-290 billion in unnecessary healthcare expenditures every year as a result of increased hospitalizations and other avoidable, expensive medical services.[20-22] A systematic literature review of 79 studies conducted in 2018 revealed the adjusted total cost of non-adherence across multiple disease groups ranged from $949 to $52,341.[23] A 2017

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[17] CDC. How Pharmacists Can Improve Our Nation's Health. 2014. https://www.cdc.gov/grand-rounds/pp/2014/20141021-pharmacist-role.html

[18] "The Core Quality Measures Collaborative;" *American Academy of Family Physicians*; Last Accessed December 28, 2018. https://www.aafp.org/practice-management/improvement/measures/core-quality-measures-collaborative.html

[19] The administration should ensure that delivery system reform models, which aim to hold providers accountable to a set of population-health metrics and total spending, foster collaboration across the systems… The administration should seek to develop measures that are meaningful to providers and patients and help them assess quality and value. "Reforming America's Healthcare System through Choice & Competition Report;" *U.S. Department of Health and Human Services, U.S. Department of the Treasury, U.S. Department of Labor;* 2018; page 112. https://www.hhs.gov/sites/default/files/Reforming-Americas-Healthcare-System-Through-Choice-and-Competition.pdf

[20] Rosenbaum L, Shrank WH; "Taking Our Medicine - Improving Adherence in the Accountability Era;" *New England Journal of Medicine*; Aug. 22, 2013

[21] Network for Excellence in Health Innovation; "Bend the Curve: A Health Care Leader's Guide to High Value Health Care;" 2011. https://www.nehi.net/writable/publication_files/file/health_care_leaders_guide_final.pdf

[22] The NCPIE Coalition; "Enhancing Prescription Medicine Adherence: A National Action Plan;" 2007. http://www.bemedwise.org/docs/enhancingprescriptionmedicineadherence.pdf

[23] Cutler RL, et al; "Economic Impact of Medication Non-Adherence by Disease Groups: A Systematic Review;" *BMJ Open* 2018;8:e016982. doi:10.1136/ bmjopen-2017-016982 https://bmjopen.bmj.com/content/bmjopen/8/1/e016982.full.pdf

white paper found that the direct medical costs and consequences related to not taking medication as prescribed is estimated to be 7 to 13 percent of national health spending annually – approximately $250 billion to $460 billion in 2017, translated to a potential cost to taxpayers of $6 trillion over 10 years.[24] And a 2016 cost-benefit analysis concluded that between one and two thirds of medicine-related hospitalizations are caused by poor adherence. Improving adherence could result in annual per-person savings ranging from $1,000 to $7,000, depending on the disease state.[25] Multiple, credible sources have drawn the same conclusion: medication non-adherence is a costly, preventable problem that dramatically affects total cost of care.

Studies also demonstrate that the total cost of healthcare decreases significantly when patients take their medications as prescribed. For example, patients who are adherent to their medications have more favorable health outcomes such as reduced mortality and use fewer healthcare services, especially hospital readmissions and ER visits, leading to reduced healthcare costs.[26]Similarly, a 2014 study funded by the National Institutes for Health examined data from a large, diverse sample of Medicare beneficiaries, and concluded that obtaining prescription drug insurance through Part D was associated with an 8 percent decrease in the number of hospital admissions, a 7 percent decrease in Medicare expenditures, and a 12 percent decrease in total resource use.[27] Additional studies of patients being treated for specific disease states such as diabetes[28] high cholesterol[29] and Parkinson's Disease[30] offer additional support for the connection between improved adherence and lower healthcare costs.

The Pennsylvania Project serves as one recent example of a large-scale community pharmacy demonstration study that evaluated the impact of medication adherence on five chronic medication classes.[31] The Project involved 283 pharmacists who screened 29,042 patients for poor adherence risk and provided brief interventions to patients with increased risks. The intervention group experienced statistically significant improvements in adherence across all medication classes. Further, the study demonstrated a significant reduction in per patient annual healthcare spending for patients taking statins ($241) and oral diabetes medications ($341). Based on these findings, the study concluded that such pharmacy adherence programs would reduce costs for a plan with 10,000 members by $1.4 million each year and could also be expected to increase the plan's star rating. While the Pennsylvania Project is a prime example of how pharmacy patient care programs improve adherence and reduce costs, no standardized quality program to improve adherence currently exists. Instead, plans develop and apply inconsistent and varying performance metrics, especially related to adherence, leading to arbitrary and incompatible demands on pharmacies across plans and preventing the full benefit of these initiatives for patients.

A standard set of metrics would apply consistent performance metrics to pharmacy adherence programs, ensuring that a pharmacy can implement medication adherence programs across plans that consistently improve medication adherence and reduce overall Medicare costs. CMS and state programs should develop a set of standard quality metrics for

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[24] "A Treatable Problem: Addressing Medication Nonadherence by Reforming Government Barriers to Care Coordination;" *Prescriptions for a Healthy America*; October 2017. https://static1.squarespace.com/static/589912df1b10e39bd04eb3ab/t/59f0e439edaed84e6822d9bd/1508959306380/P4HA+WhitePaper+E-DigitalFinal+1017.pdf

[25] Patterson JA, et al; "Cost-Benefit of Appointment-based Medication Synchronization in Community Pharmacies;" *American Journal of Managed Care;* 2016. https://www.ajmc.com/journals/issue/2016/2016-vol22-n9/cost-benefit-of-appointment-based-medication-synchronization-in-community-pharmacies

[26] Braithwaite S, et al; "The Role of Medication Adherence in the U.S. Healthcare System;" *Avalere Health*; June 2013. http://www.avalerehealth.net/research/docs/20130612_NACDS_Medication_Adherence.pdf

[27] Kaestner R, et al; "Effects of Prescription Drug Insurance on Hospitalization and Mortality: Evidence from Medicare Part D;" *National Bureau of Economic Research Working Paper Series*; 2014. https://www.nber.org/papers/w19948.pdf

[16] The Pennsylvania Project evaluated a pharmacy-based medication adherence initiative across 283 pharmacies. The intervention, which included pharmacist-led screening for medication non-adherence and counseling for those at an increased risk, led to statistically significant improvement in medication adherence for all medication classes that were studied, and an annual per patient cost savings of $241 for improved adherence to oral diabetes medications and $341 related to improved adherence to statin medications. Pringle JL, et al.; "The Pennsylvania Project: Pharmacist Intervention Improved Medication Adherence and Reduced Health Care Costs;" *Health Affair*s; August 2014. https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2013.1398

[29] One study found significant savings due to improved adherence to diabetes medications – or per beneficiary savings of approximately $5,000 in medical spending. The potential for population-wide savings from improved medication adherence for patients with diabetes is illustrated by the fact that only approximately half of Part D reported good medication adherence. Stuart, BC, Dai, M, Xu, J, Loh, FH, Dougherty, SJ; "Does Good Medication Adherence Really Save Payers Money?;"*Medical Care*; 2015;53(6):517-523.

[30] Research has also demonstrated that medication adherence reduces the use of acute and post-acute care services. For example, a study of beneficiaries being treated for symptoms of Parkinson's Disease found that medication adherence was associated with a 14% lower risk of hospitalization, a 33% lower risk of skilled nursing facility episodes, 17% lower risk of home health episodes, and an estimated $2,200 in reduced health care costs over 19 months. Wei, YJ, Palumbo, FB, Simoni-Wastila, L, et al. Antiparkinson Drug Adherence and Its Association with Health Care Utilization and Economic Outcomes in a Medicare Part D Population. *Value in Health*. 2014;17(2):196-204.

[31] Pringle JL, et al., "The Pennsylvania Project: Pharmacist Intervention Improved Medication Adherence and Reduced Health Care Costs," *Health Affair*s (Aug. 2014), *available at* https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2013.1398

medication adherence and other pharmacy programs to align quality standards that reflect evidence-based strategies to best improve beneficiary health and reduce overall Medicare costs. To advance health outcomes further, CMS should establish a pharmacy quality incentive program that encourages plans to implement consistent pharmacy quality programs designed to drive better medication optimization and health outcomes.

Instructive to U.S. healthcare policy makers, is the fact that Canada is struggling with similar healthcare challenges, including an increase in healthcare spend largely driven by an increase in prevalence of chronic disease.[15] The Canadian government is intent on improving access to primary care while reducing use of higher cost healthcare resources. One solution being implemented across Canada is the expansion of the pharmacy scope of practice so that Canadian pharmacists can play a larger role in the healthcare system.

Community pharmacists in Canada have the exact education and training requirements as pharmacists in the U.S. Under the expanded scope of practice, pharmacists across Canada "deliver a range of innovative services, including medication reviews, chronic disease management, immunization services and wellness programs;" supported by the authority to prescribe for minor ailments and conditions, order and interpret lab tests, renew and extend prescriptions, among other actions. Provincial governments are now in the process of aggressively implementing the expanded scope of pharmacy practice to provide enhanced, coordinated, innovative patient care and collaborative medication management.[16]

Given the recent creation of the 2011 Canada-United States Regulatory Cooperation Council (RCC), designed to better align the regulatory environment between the two countries, the scope of practice and the role of Canada's community pharmacists in advancing patient care seems noteworthy.[17]

SUMMARY OF PHARMACISTS' EXPANDED SCOPE OF PRACTICE ACROSS CANADA

IMPLEMENTATION PROGRESS. SEE APPENDIX C: FOR CODES

Y Implemented in jurisdiction P Pending legislation or regulation or policy ✕ Not implemented		Province/Territory												
		BC	AB	SK	MB	ON	QC	NB	NS	PEI	NL	NWT	YT	NU
Pharmacist Scope of Practice	Initiate prescription drug therapy	✕	Y	Y	Y	Y	P[6]	Y	Y	✕	✕	✕	✕	✕
	Prescribe for minor ailments and conditions	✕	Y	Y	Y[3]	Y	P	Y	Y	Y	✕	✕	✕	✕
	Order and interpret lab test	✕	Y	✕	Y	Y	P[6]	Y	Y	Y	✕	✕	✕	✕
	Make therapeutic substitutions	Y	Y	Y	✕	✕	P[6]	Y	Y	Y	Y[10]	✕	✕	✕
	Renew and extend prescriptions	Y	Y	Y	Y		P[6]	P	Y	✕	Y	Y	✕	✕
	Change dose and formulation and provide emergency prescription refills	Y	Y	Y[2]	Y	Y[4]	[6,7]	Y[9]	Y[2]	✕	Y	✕	✕	✕
	Administer a drug by injections	Y	Y	✕	Y	P	P[6]	Y	Y	✕	✕	✕	✕	✕
	Provide emergency prescription refills	Y	Y	Y	Y	Y[5]	P[6]	Y	Y	P	P	Y	✕	✕

[14] https://www.aamc.org/newsroom/reporter/april11/184178/addressing_the_physician_shortage_under_reform.html

[15] Canadian Institute for Health Information "Seniors and the Health Care System: What is the Impact of Multiple Chronic Conditions?" Updated January 2011. https://secure.cihi.ca/free_products/air-chronic_disease_aib_en.pdf

[16] Canadian Pharmacists Association. "Pharmacists in Canada." http://www.pharmacists.ca/index.cfm/pharmacy-in-canada/pharmacists-in-canada/

On February 4, 2011, Prime Minister Stephen Harper and President Barack Obama announced the creation of the Canada-United States Regulatory Cooperation Council (RCC) to increase regulatory transparency and coordination between the two

countries. The RCC will undertake efforts to better align the regulatory environment between Canada and the United States through a variety of tools such as

Education & Training. Community pharmacists have extensive education and training, which is similar to the amount of education and training required of other non-physician practitioners (e.g., NPs and PAs). Entry-level pharmacists receive a minimum of six (6) years of advanced education as part of the Doctor of Pharmacy degree (PharmD). Pharmacists also must pass a national, comprehensive and standardized board exam (North American Pharmacist Licensure Examination (NAPLEX)), and are subject to state licensure requirements. The training of pharmacists emphasizes patient-centered care as a medication expert, which involves interpreting evidence, formulating patient assessments and recommendations, implementing, monitoring and adjusting patient care plans, and documenting activities. [1]

	Entry-Level Degree	Licensing/Certification	Scope of Practice (varies by state)
Pharmacists	Doctor of Pharmacy degree (minimum of 6 years) Doctorate degree accounts for 4 years of the six year training. Advanced pharmacy practice experiences are not less than 1440 hours during the last academic year; 300 hours of basic pharmacy practice.	Pharmacists must pass the North American Pharmacist Licensure Examination.	- Manage Medications - Provide Screenings, Immunizations, - Patient Assessment & Diagnose Simple Ailments - Disease Prevention
Nurse Practitioners[2]	Bachelor's degree in nursing followed by graduate level degree (Master's or Doctorate in Nursing Practice)	NPs are certified by the American Nurses Credentialing Center and the American Academy of Nurse Practitioners.	- Patient Assessment - Diagnose Medical Conditions - Prescribe Medications - Disease Prevention
Physician Assistants[3]	Bachelor's degree followed by Master's degree in physician assistant studies, health or medical science. Clinical experience includes not less than 2,000 hours of clinical rotations with an emphasis in primary care.	PAs are certified by the National Commission on Certification of Physician Assistants (NCCPA).	- Patient Assessment - Diagnose Medical Conditions - Prescribe Medications - Disease Prevention

[1] http://www.aacp.org/resources/education/cape/Open%20Access%20Documents/CAPEoutcomes2013.pdf